

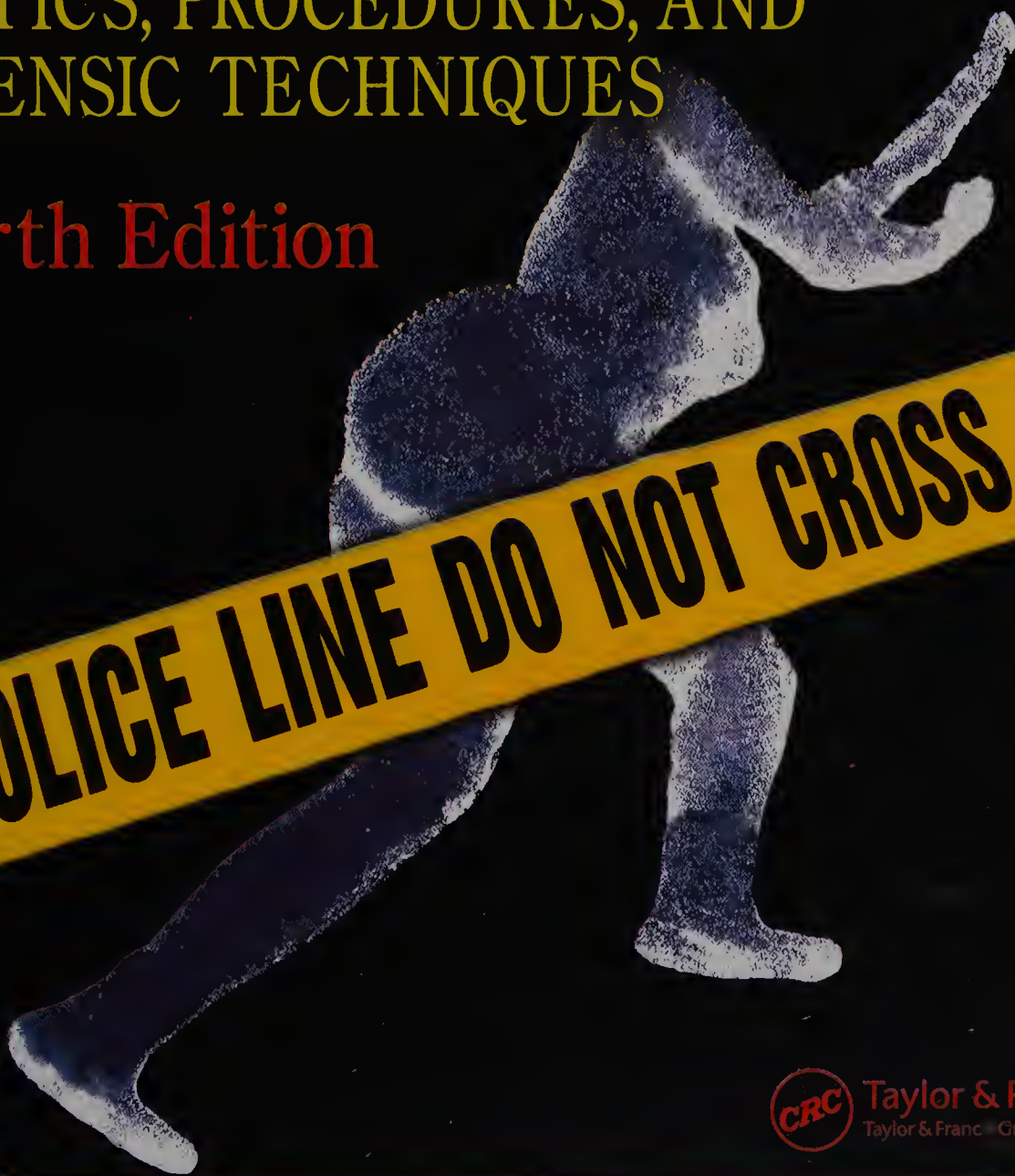
VERNON J. GEBERTH

# PRACTICAL HOMICIDE INVESTIGATION

TACTICS, PROCEDURES, AND  
FORENSIC TECHNIQUES

Fourth Edition

**POLICE LINE DO NOT CROSS**



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Practical Aspects of Criminal and Forensic Investigations Series





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# PRACTICAL HOMICIDE INVESTIGATION

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TACTICS, PROCEDURES, AND  
FORENSIC TECHNIQUES

Fourth Edition

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## Dedication

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This book is dedicated to  
the men and women entrusted with the profound duty  
and responsibility of investigating sudden and violent death

In memory of those *innocent* victims of homicide  
and their surviving families, who must find the  
strength to go on without their loved ones.

*May justice prevail*

The Lord God said. . .

# Thou Shalt Not Kill

THE FIFTH COMMANDMENT

Book of Exodus, 20 of THE HOLY BIBLE

## **THE OATH OF PRACTICAL HOMICIDE INVESTIGATION**

HOMICIDE INVESTIGATION IS A PROFOUND DUTY. AS AN OFFICER ENTRUSTED WITH SUCH A DUTY, IT IS INCUMBENT UPON YOU TO DEVELOP AN UNDERSTANDING OF THE DYNAMICS AND PRINCIPLES OF PROFESSIONAL HOMICIDE INVESTIGATION.

PRACTICAL HOMICIDE INVESTIGATION SUGGESTS THAT "THINGS BE DONE RIGHT THE FIRST TIME", AND "KNOWLEDGE IS POWER". KNOWLEDGE WHICH HAS BEEN ENHANCED WITH EXPERIENCE, FLEXIBILITY AND COMMON SENSE.

PRACTITIONERS MUST BE PREPARED TO USE TACTICS, PROCEDURES, AND FORENSIC TECHNIQUES IN THEIR PURSUIT OF THE TRUTH: AND THEN FOLLOW THE COURSE OF EVENTS AND THE FACTS AS THEY ARE DEVELOPED TO THEIR ULTIMATE CONCLUSION.

DEATH INVESTIGATION CONSTITUTES A HEAVY RESPONSIBILITY, AND AS SUCH, LET NO PERSON DETER YOU FROM THE TRUTH AND YOUR OWN PERSONAL COMMITMENT TO SEE THAT JUSTICE IS DONE. NOT ONLY FOR THE DECEASED, BUT FOR THE SURVIVING FAMILY AS WELL.

AND REMEMBER; *We work for God®*



*Vernon J. Geberth*  
Lt. Cmdr. (Ret.) VERNON J. GEBERTH  
NEW YORK CITY POLICE DEPARTMENT  
FORMER COMMANDING OFFICER  
BRONX HOMICIDE TASK FORCE



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## Editor's Note

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This textbook is part of a series entitled “Practical Aspects of Criminal and Forensic Investigation.” This series was created by Vernon J. Geberth, a retired New York City Police Department lieutenant commander who is an author, educator, and consultant on homicide and forensic investigations.

This series has been designed to provide contemporary, comprehensive, and pragmatic information to the practitioner involved in criminal and forensic investigations by authors who are nationally recognized experts in their respective fields.



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# Preface

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The fourth edition of *Practical Homicide Investigation: Tactics, Procedures, and Forensic Techniques* has been totally revised to address the revolutionary forensic techniques as well as the modern investigative procedures and considerations of the new millennium. *Practical Homicide Investigation* is the benchmark and “best practice” model and therefore continues to be the “Bible” of homicide investigation and the recognized protocol for professional death investigation. This text provides the most practical and conventional information available to detectives responsible for conducting intelligent investigations of violent and sudden death.

This revision is based on my 40 years of law enforcement experience. Formerly a New York City detective, detective supervisor, and homicide commander, and now a nationwide consultant, I have integrated this considerable knowledge along with my associations with experts in the sphere of forensic science and criminal investigation. I include personal interviews from other homicide authorities and present an extensive search of forensic literature offering as many actual case histories and illustrations as possible. *My mission is to provide a comprehensive and practical resource text that will serve as an investigation guide for the homicide professional.*

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## Professional Homicide Investigation: A Personal Perspective

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Homicide investigation is a profound duty with awesome responsibilities. It requires the professional homicide detective to develop an understanding of the dynamics of human behavior as well as the essential details of professional investigation.

The world of the homicide detective is permeated with human tragedies comprising a variety of sudden and violent death scenarios. Many of these events, needless to say, are seemingly beyond the comprehension of the average person and reveal motivations and patterns of repetition, which are recognized by the experienced homicide detective. Professional homicide investigators become keenly aware of the reality of death and the impact it has on our society and the surviving family. In fact, we in homicide have a *mission*. Our mission is to bring justice to the deceased and their surviving families. We do this by conducting a professional and intelligent investigation resulting in the identification and apprehension of the killer and the successful prosecution of the case.

In order to conduct an efficient and effective investigation, the detective first concentrates on the mechanical aspects of the death — i.e., motives and methods; wound structures; crime scene reconstruction; bloodstain pattern analysis; the

cause, manner, and time of death; and other factors that provide clues to the dynamics of the event. The detective then accesses various sources, which can be applied to his or her investigation.

My rationale in developing the “Practical Aspect of Criminal and Forensic Investigations” series was to provide investigators with specific resources, written by expert practitioners, which would promote and facilitate investigations, with *Practical Homicide Investigation* as the flagship book in this series of professional texts. I have had the honor and privilege to edit a number of books within my forensic series, which directly relate to the various aspects of practical homicide investigation.

The books are listed on the series page at the front of this text. The subjects are forensic pathology; gunshot wounds; bloodstain pattern analysis; footwear and imprint evidence; crime scene processing; forensic photography; interview and interrogation; rape and sex crimes investigation; officer-involved shootings; arson, narcotics, and drug investigations; Munchausen syndrome by proxy cases; DNA technology as it applies to managing mass disasters; and cold-case homicide investigation. The counterterrorism handbook has been updated to undertake the challenge of terrorism, and I have commissioned a practical bomb scene investigation textbook to address the mounting threats of foreign and domestic bombings. These are just some of the excellent forensic textbooks in this series.

Throughout this textbook, I will reference these texts as they apply to homicide investigation. The reader will be provided with additional resource information as well as case examples of the application of various tactics, procedures, and forensic techniques along with full-color illustrations.

The professional homicide investigator must learn to deal with death in a clinical manner. Detectives should develop an emotional insulation and not project a personality into the body. *Personally speaking, if you begin to look upon that body as your wife or husband, daughter, son, mother, or father, you are going to lose that professional objectivity that is so necessary in the murder inquiry.* My way of dealing with the reality of sudden and violent death is a strong belief in God and a belief in a higher order of things in our existence. My theology informs me that there is an afterlife and I believe that the soul of the murder victim has left the body. To function effectively, it is imperative that detectives have strong ego defense mechanisms, allowing them to engage in isolation of affect through intellectualization. This is not meant to suggest that homicide practitioners can avoid personal feelings about the tragedy. Rather, it allows a professional investigator to focus and concentrate on the dynamics of the event and not become emotionally involved in the crime.

### **Teamwork and Communication**

Another component in homicide investigations is the human behavior factors, which present themselves during the course of the inquiry. The interpersonal relationships among and between professionals involved in death investigations are varied. The professional homicide detective must be willing to work as a team player



and engender cooperation by his or her conduct and behavior. The ability to communicate with different personality types and effectively interview and interrogate murder suspects is paramount to professional homicide investigation.

A professional homicide investigator, in my opinion, is someone who is a “truth seeker,” someone who is not opinionated, tainted with prejudice, or prone to pre-judgment. There is a need for patience and flexibility in homicide investigation. Part of the inquiry is directed toward the elimination of suspects, as well as the inclusion. In fact, many times an investigation focuses initially on one or more specific suspects. Subsequently, those very same “suspects” are then eliminated though the analysis of evidence and the professional investigative process ultimately revealing the *truth*. A professional homicide practitioner *cannot* be an individual with a “lock-and-load” mentality. The true professional must possess a flexible type of personality open to new suggestions, ideas, and concepts that arise in these fluid types of investigations. The detective looks for consistencies as well as inconsistencies and must be prepared to change the focus of the investigation as new information is developed.

The bottom line is that homicide investigators are an *information-seeking* body. Physical evidence such as hairs, fibers, bloodstains, and other materials that are gathered are useless without having established a base population of suspects with which to compare it.

We have entered the 21st century with advanced forensic and technological improvements. However, as we experience these advances within the law enforcement community, we should be cognizant of an important prerequisite. In my professional opinion, *the investigation of homicide and the initial actions taken by the police at the homicide crime scene will or may eventually determine whether or not the crime is ever solved or the guilty person brought to justice.*

Computerized law enforcement data-based systems, which include N.C.I.C., VICAP, R.I.S.S., HITS, A.F.I.S., and other intelligence networks, have provided state-of-the-art electronic technology to the criminal investigator.

The scientific community has developed forensic techniques which put criminal investigation on the cutting edge of science. Over the last decade, we have witnessed the potential of DNA technology, which is the future of forensic law enforcement operations. It should be noted, however, that these advanced technologies will never replace the homicide detective.

The basic criminal investigative techniques stressed in the fourth edition of *Practical Homicide Investigation: Tactics, Procedures, and Forensic Techniques* are essential for effective inquiry into sudden and violent death.

In order to be successful, the homicide detective must have an eye for details and the ability to recognize and evaluate evidence. He or she must have an above average intelligence in order to absorb the many details that arise. Most importantly, he or she must be able to effectively interview and interrogate the many different persons with whom he or she will come into contact.

In my opinion, the ingredients of an effective homicide investigation are *flexibility* and *common sense*.

The investigation of murder necessitates a certain tenacity and perseverance that transcend the ordinary investigative pursuit. *Homicides are usually solved because the detective cares.* The homicide detective becomes the advocate for the victim and the surviving family. That explains how a case 3, 5, or 15 years old is eventually solved. *All real murder cops are cold case detectives because we never forget our victims and their families.*

The investigative techniques required in a cold case homicide investigation are essentially different from those applied to an active inquiry. Therefore, I have commissioned a cold case homicide textbook to be included within my series to address this subject.

Homicides, especially those without witnesses, are extremely difficult to solve because the main witness, the deceased, is dead. One must develop the ability to “absorb” the crime scene and be able to read the uncollectible nuances of the event. This would include the psychodynamics, which are the underlying motivations and human emotions, as well as indications of the deliberate staging of the scene in order to mislead or redirect the investigation.

Homicide investigation is an aggressive business. Not everyone is qualified for the mission-oriented commitment of death investigation. *Your* homicide case is *yours* forever. It may stay with you throughout your career and sometimes your life. I know this because I have been there.

You must be prepared to use tactics and strategies for any given situation. Skilled interrogation is paramount to the successful investigation of murder. “Good-guy” and “bad-guy” scenarios never grow old. Any number of tactics might be employed in seeking the truth, and the limit is set only by your imagination, your initiative, and the boundaries of the law.

A homicide investigator is street smart and book wise. The knowledge that he or she develops must then be further enhanced with experience, flexibility, and common sense.

Many factors complicate effective investigation, such as interpersonal conflicts, politics, or the classic scenario of bureaucracy, hypocrisy, arrogance, and incompetence which permeates the public sector. Additionally, it could be the apathy and indifference of society or the ludicrous overconcern regarding the defendant’s rights by the courts. In any event, the homicide detective must be able to overcome these obstacles, concentrate on what results he or she can obtain from the scene, and pursue the case with dedication and perseverance.

This text begins with a comprehensive discussion of the homicide crime scene and evolves chronologically from the initial notification to police that a homicide has occurred, to how the police should react to this notification, and to the procedural steps necessary in order to conduct an intelligent homicide investigation.

The early chapters act as an instructional guide to the patrol officer, including a “Patrol Officer’s Checklist”. The text then proceeds into the details of criminal investigation at the scene. I have added a revised *Investigator’s Homicide Checklist* that helps an officer to review his actions at the scene and refreshes respective memories.



The book then delves into the more technical aspects of homicide investigation, augmented by many additional pictures and full-color illustrations with pertinent case histories, which graphically portray exactly what to look for and what to do at the crime scene. I am proud that many “P.H.I. disciples” in various disciplines were able to assist in this venture through their contributions, which furnished the most up-to-date information available.

I have added two new chapters to this fourth edition. One of the new chapters addresses the current application of DNA technology to the investigative process with contributions from Dr. Robert Shaler and Dr. Pasquale Buffolino. Dr. Buffolino, who worked in the New York City Medical Examiner’s Office under the supervision of Dr. Shaler from 1992 to 2001, is the director of the Nassau County Medical Examiner’s Office in East Meadow, New York. He updated and prepared this DNA chapter at my request to assure the accuracy of the contents presented there.

Another new chapter addresses the issue of equivocal death investigations, which refers to investigations involving staged crime scenes or cases where there is no clear-cut determination of homicide or suicide. I use a case history format to illustrate these unique cases.

Throughout the textbook, I have made major revisions to each chapter from the third edition and added additional references and new information to address current issues. An example would be the “CSI effect.” In my opinion, a number of crime series on television, such as *CSI*, *Law and Order*, *New Detectives*, *Forensic Files*, *A&E*, may have created a smarter criminal. The *CSI* effect basically refers to criminals who have implemented some of the insider tips from the country’s most popular crime series. These “CSI criminals” attempt to avoid leaving evidence at crime scenes. Some examples of this are killers who hide or destroy their victims’ bodies, rapists who wear condoms so as not leave any sperm or semen, offenders who wear gloves to prevent leaving fingerprints, and other criminals who may even attempt to remove or collect trace evidence from their crime scenes.

I have added additional wound structure and injury photographs to aid the practitioner in properly assessing the mode of death, and there are a number of new photographs and case histories to assist the investigator in understanding the dynamics of homicide investigation.

Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York, acted as a mentor to me throughout the years and was instrumental in the formulation of the chapter on the medicolegal autopsy from the first edition of my text through this current book. Dr. Lukash graciously provided me with a number of forensic pathology slides for inclusion in this new edition.

The late Dr. Dominick J. DiMaio, former chief medical examiner, New York City Medical Examiner’s Office, was also my mentor while I was in the New York City Police Department. His book is within my series. Dr. DiMaio had contributed some unique forensic photographs, which are also included in this text.

Chicago Homicide Detective Mark Czworaniak provided many exquisite crime scene photographs as well as CSI photographs to illustrate documentation and collection procedures. I have strategically placed these illustrations throughout the textbook to show the reader exactly what to look for and how to document these very important observations.

I updated the chapter dealing with death notifications and the surviving families of homicide victims. In fact, it should be noted that the homicide detective, in addition to pursuing the case, becomes the advocate for the deceased as well as the surviving family throughout the entire process.

I have updated and expanded the entire chapter on suicide investigation. This was revised because of the dynamics of suicide and the many additional considerations that these types of cases entail. In addition, I have updated and included revised chapters on narcotics-related homicides and homosexual homicide investigations in this edition.

The sex-related homicide investigation chapter and the chapter on investigative assessment through criminal profiling have been significantly revised and expanded based on my textbook, *Sex-Related Homicide and Death Investigation: Practical and Clinical Perspectives*, to enable the investigator to recognize the different classifications of sex-related death and enable the detective to make an early assessment of possible suspects based on the psychodynamics of the event.

These chapters examine murderers who violated their victims sexually, as reported within the journalistic, academic, and law enforcement literature. They are based on my experience and case studies in which I have been involved as well as my clinical study as reported in the *Journal of Forensic Sciences*. My intention and goal is to suggest that the dual diagnosis of *psychopathic sexual sadism* best describes offenders who obtain intense sexual arousal while violating their victims and engaging in sexually sadistic activities including torture, mutilation, and/or killing to achieve sexual gratification. In my opinion, *psychopathy coupled with sexual sadism and evidence of deviant sexual arousal clearly indicates danger and the potential for recidivism*.

## **A Psychology of Evil**

I believe in the concept of a “psychology of evil.” In this preface, I would like to reaffirm that there is “good and evil” in the world. There are many manifestations of evil in our world, such as politics, religious extremism, education, and corrupt business practices.

I believe that the homicidal attack on the World Trade Center in New York City on September 11, 2001, was an evil act of genocide perpetrated by religious fanatics. That evil caused the deaths of 2749 innocent persons and resulted in the largest crime scene in the history of the city of New York. I believe that the terrorist attacks and suicide bombings across the world are heinous attacks on all of humankind and are also examples of evil.



Sexual psychopaths and serial murderers who kill because they like to kill are evil. Murderers who target young children for sexual assault are evil. Family annihilators are evil. Killers who murder their victims to prevent being identified are examples of evil.

These killers have cognizant and detailed plans to murder. They certainly know right from wrong — they just don't give a damn. Their fundamental mechanism of conscience, responsibility, and feeling for fellow human beings is totally lacking. Their will to do evil takes precedence over humanity. Evil people take and destroy lives without the least bit of hesitation or remorse because they are evil. Many of the cases within this text are representative of that evil.

There is a developmental process involved in evil. In my opinion, people are not born evil. We do have free will and can choose to do good or bad. An evil person exercises his free will and chooses to do evil and characteristically is hedonistic and feels superior to other human beings.

## **Management**

The chapter on management has been restructured to provide guidance to police administrators on the make-up and mission of the investigative unit that handles homicide investigation, including a section on formulating an apprehension team to effect the arrest of homicide fugitives. There is a "Supervisor's Homicide Checklist" to help field supervisors to coordinate and direct activities properly at the crime scene.

I also include a complete section on police-related shooting and OIS cases along with a checklist that provides the police manager with recommendations on effective documentation of crucial information that may later be used in departmental review. The procedure defined in this checklist is absolutely essential in the event of any subsequent civil action against the agency.

A new and expanded glossary of terms has been added to aid the reader with the medical, anatomical, scientific, technical, and psychological terminology within the text, along with street terms and subcultural references as they relate to behavior.

This totally revised fourth edition stresses the basics, indicates the practicalities of certain investigative techniques, and provides the reader with patterns upon which to build a solid foundation for a prosecutable case. There is deliberate repetition throughout the text: I have strategically placed these cues throughout because certain investigative principles can never be stressed enough.

In life, you get only one chance at the homicide crime scene and a limited opportunity to question the suspect. Therefore, I recommend that the reader follow the *investigative checklists and basic principles* in this text. Remember: *Things are not always as they appear to be and do it right the first time; you only get one chance.*

Death investigation constitutes a heavy responsibility, and no person, system, or circumstance should deter you from the truth and your personal commitment to see that justice is done — not only for the deceased, but for the surviving family as well. That is why my personal philosophy as a murder cop is “Remember, we work for God.”

**Vernon J. Geberth, M.S., M.P.S.**  
*Lieutenant Commander (retired) NYPD*  
*Homicide and Forensic Consultant*

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# Foreword to the Third Edition\*

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Investigating a homicide is an art and a science, a blend of the practical and the scientific. Without that realization and that blend which includes a coordinated effort by a team of specialists, the chance of a successful case solution is greatly diminished.

I remember having a discussion with a group of homicide detectives in England about the difference between a detective and an investigator. It went something like this: all detectives might be called investigators, but not all investigators can be called detectives. Investigators need a trail of investigative factors, which might eventually lead to a successful conclusion of their inquiry. If there are no investigative factors to pursue then they are finished. That is where the detective comes in — a person who can paint a landscape he or she has never seen from inside a darkened room, which is actually the crime scene. That's the difference between the craft and the art.

Vernon J. Geberth, a former New York City homicide commander and a personal friend of mine for many years, is not only an experienced and knowledgeable violent crimes investigator, but also a very talented writer and lecturer on the subject. The first edition of this book, *Practical Homicide Investigation: Tactics, Procedures, and Forensic Techniques*, was proclaimed the “Bible” of homicide investigations, and his many articles on the investigation of violent crime and criminal behavior continue to be read by police officers throughout the country.

This edition has been expanded to the level of an encyclopedia of death investigation and should be considered as an integral text for anyone involved in the criminal justice system. The text not only is essential to the criminal justice student and the police academy trainee, but should also be on the reading list

\* Author's note: As a token of my respect and appreciation, I have retained the foreword written for the third edition by my friend and colleague, Pierce R. Brooks, who has since departed. Pierce was the first “homicide man” to take pen to paper in an effort to educate and share his experiences with others in law enforcement. Many younger officers do not remember the name Pierce Brooks. However, when I ask them if they remember reading “... officer down, code three,” while they attended their police academies anywhere in the United States, their eyes light up. Suddenly they remember this very compelling book about the reality of police work and the need to stay focused and take their responsibilities very seriously. To do otherwise could cost them their lives.

for uniformed officers who are invariably first to arrive on scene, as well as all newly assigned detectives.

Experienced homicide investigators will find this textbook to be an indispensable and valuable resource as well as a reminder that regardless of how many crime scenes we process, we never stop learning.

I am also quite sure that members of the court and bar will have occasion to use the book as a reference and to judge the quality and integrity of procedures and techniques used by the police in a major case investigation.

The text is exceptionally well organized. Chapter 1 through Chapter 8 chronologically define all aspects of the initial investigation on scene. Chapter 9 through Chapter [24] focus on special procedures and techniques that must always be considered in a major crime investigation. Vernon has added additional new chapters on suicide investigation, which has been greatly expanded, as well as narcotics-related homicides, and homosexual homicide investigation. I congratulate him on his chapter regarding death notifications. Vernon and I both share a deep commitment to the surviving family, who are the secondary victims of homicide. This very important function is often glanced over and/or neglected in police texts. The death notification protocol in this book should be followed by any officer charged with the responsibility of making notifications to surviving families.

The revised chapters on the homicide crime scene, which focus on staged crime scenes, sex related homicides, investigative assessment, and identification of suspects are highly informative and will alert even the most experienced investigator of the mind-set pitfalls that can occur in the investigation of equivocal deaths.

Good crime scene photos are the next best to being on scene. Many photographs used in this edition are presented for the first time. Perhaps not for the faint hearted, each photo presents one or more lessons in the importance of detail observation while processing a crime scene. Comments made in the chapter on management and supervision of a criminal investigation are long overdue. Vernon identifies traditional problems and suggests practical solutions. Additionally, information to consider in establishing written policy and procedures is included.

Vernon, whose experience with DNA cases fully qualifies him to present information related to this particular process of identification from the viewpoint of the police homicide investigator, has revised and updated the DNA section. His case study examples of genetic fingerprint comparison and his "Preservation Sample and Minimum Amounts" checklist provide important information for those involved in the investigation of violent crime.

This book leaves no question that now, more than ever, a homicide investigation must be based on a mix of the practical and the scientific. In fact, the new chapters and revised materials, along with the descriptive photos in this text and combined with the procedures and techniques outlined in Vernon's [fourth] edition, will place



this edition in the category of a police text classic, an authoritative standard on the subject, and make this book the most complete homicide textbook available on the market today.

**Pierce R. Brooks [deceased]**





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# Special Acknowledgment

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*To my wife and family,  
I wish to extend a very special acknowledgment*

*To my children,  
Vernon Anthony, B.A., Detective in the Joint Terrorist Task Force in  
The New York City Police Department  
Robert Joseph, B.A., M.P.A., Trooper-Investigator, with the New York State Police  
Christopher James, a C.P.A., Vice President Finance and Company Comptroller  
And to Laura Marie, B.S.W., my very special daughter, who is an author*

*And, of course, to my wife Laura, M.S.W., C.S.W. and Chief Operating Officer  
of a Social Services organization, who always assists me with her support and  
encouragement as my life partner*



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# The Author

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Vernon J. Geberth, M.S., M.P.A., is a retired lieutenant commander of the New York City Police Department with over 40 years of law enforcement experience. He retired as the commanding officer of the Bronx Homicide Task Force, which handled over 400 murder investigations a year. During his career, he was a detective, precinct detective squad commander, temporary commander of the 7th Homicide Zone in the South Bronx, and commander of Bronx Homicide. He has investigated, supervised, assessed, researched, and consulted on over 8000 death investigations. In addition, Commander Geberth has been the recipient of more than 60 awards for bravery and exceptional police work and is a member of the Honor Legion of the City of New York Police Department.

Commander Geberth has a master's degree in professional studies (M.P.S.) from C.W. Post College, Long Island University, and a master of science degree in psychology (M.S.) from California Coast University, Santa Ana, California. He earned his bachelor of business administration (B.B.A.) at Iona College in New Rochelle, New York, and is also a graduate of the FBI National Academy in Quantico, Virginia, 119th Session (1979). Commander Geberth is a member of the American Academy of Forensic Sciences (AAFS).

Commander Geberth is a charter member of the International Homicide Investigator's Association and serves as a Homicide Certification Board member for the a number of professional organizations. Commander Geberth has served on the New York State Governor's Commission on Domestic Violence Fatalities and is a charter member of the Pennsylvania Homicide Investigator's Association, a charter member of the Washington Violent Crimes Investigator's Association, and a life member of the Indiana Homicide and Violent Crime Investigator's Association.

He has served as an adjunct professor of Criminal Justice at Mercy College, Dobbs Ferry, New York, and John Jay College of Criminal Justice in New York City. He was affiliated with the University of Delaware's Continuing Education Program as an associate professor and was a member of the faculty of Northwestern University Traffic Institute as a homicide instructor. Commander Geberth continues to serve as a homicide instructor for the New York City Police Department's homicide investigator's course, which is sponsored through the Chief of Detective's Office.

Commander Geberth has provided consultation and homicide instruction to many major police departments across the United States including the Texas Rangers; Las Vegas Metropolitan Police Department, Nevada; Miami, Miami Beach, and Escambia County, Florida; Chicago Homicide Division; Westchester County,

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Commander Geberth serves as an instructor for the Missouri Highway Patrol National Homicide Seminar. He has instructed at the New Jersey State Police Homicide School, the New York State Police Colonel Henry F. William's Homicide Seminar, and the Delaware State Police Homicide Conference. He has also been an instructor for the Arizona DPS; the Illinois, Maine, Massachusetts, New Hampshire, Connecticut, New Mexico, Illinois, Indiana, Maryland, West Virginia, Kentucky, Mississippi, Alabama, and Pennsylvania State Police; and the Police Training Division of the New York office of the FBI.

In addition, Commander Geberth has appeared in numerous television productions on the subject of homicide and death investigation and has been referenced as a media consultant on a myriad of national major cases across the United States.

Commander Geberth is the author of *Practical Homicide Investigation: Tactics, Procedures, and Forensic Techniques*, which is now in its fourth edition and is recognized in the law enforcement field as the "Bible" of homicide investigation. He has also authored *Practical Homicide Investigation Checklist and Field Guide*, which is considered by professionals as an essential prerequisite in conducting proficient death inquiries. Commander Geberth is also the author of *Sex-Related Homicide and Death Investigation: Practical and Clinical Perspective*, which is considered the framework textbook on sex-related murder.

Commander Geberth has published extensively on topics relating to criminal investigation and forensic techniques and applied criminal psychology. He was a contributing author for the *Encyclopedia of Law Enforcement*, the *Criminal and Civil Investigations Handbook*, and the *Encyclopedia of Police Science*. He has been and continues to be a contributing author for *Law and Order Magazine*. His comprehensive study of serial killers in the United States, which he coauthored with a forensic psychiatrist, was published in the *Journal of Forensic Sciences* in January 1997, and his published works are cited in numerous professional publications throughout the United States, Canada, and Europe. In addition, he created the "Practical Aspects of Criminal and Forensic Investigations" series and serves as its editor. He has proposed and edited over 45 publications within this series.

Commander Geberth is president of P.H.I. Investigative Consultants, Inc., a New York-based corporation providing state-of-the-art instruction as well as consultation in homicide and forensic case investigations for a number of law enforcement agencies throughout the United States and Canada. Over 50,000 members from over 7000 law enforcement agencies have attended Geberth's Practical Homicide Investigation® seminars, which marked its 25th anniversary in 2005.

Geberth is a nationally renowned lecturer, author, educator, consultant, and expert witness on the subject of death investigations.

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# Introduction

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Remember: Do it right the first time. You only get one chance.

Vernon J. Geberth, 1980

Today, these words are as true as and perhaps more telling than they were over a quarter of a century ago when Commander Geberth published that famous caveat in a *Law and Order Magazine* article penned to address the crucial reality of crime scene and death investigation. In fact, that statement is a paramount principle of *Practical Homicide Investigation*. Clearly, anyone involved in death investigations can readily understand that the initial actions taken by the police at the homicide scene will eventually determine not only whether the crime is ever solved or the guilty person(s) incarcerated, but just as importantly, whether other victims will become the perpetrator's prey.

I first learned of Vernon Geberth back in the early 1980s when I, as a young FBI agent, was assigned to JTF-1 (the forerunner of today's federal–local task forces) in New York City and reported to an FBI supervisor and an NYPD lieutenant. Working with veteran city detectives and agents who were highly capable as well as discerning, I learned of their respect for the Homicide commander in the Bronx known not only for his expertise but also for his candid forthrightness.

The first time I met Vern was during my installation into the prestigious NYPD Honor Legion, an event to this day that has flattered as well as humbled me. Vern had been a respected member for some time.

During my assignment to the Behavioral Science Unit at the FBI Academy at Quantico, Virginia, I continued to be aware of Vernon's outstanding work. Through a coworker, the late and revered Chief Pierce Brooks, I became aware of Commander Geberth's textbook. Through Chief Brook's leadership, the FBI created the Violent Criminal Apprehension Program (VICAP) and made certain that every profiler, field agent, and analyst who worked violent crime cases, nationally as well as internationally, had access to Vernon's book. It was during an early VICAP conference that the International Homicide Investigators Association (IHIA) was born. The IHIA presently comprises over 1600 members and institutionally endorses Commander Geberth's books as an instructional staple or the "Bible for homicide investigation."

As a supervisory special agent, I had the privilege of managing the FBI's VICAP, National Center for the Analysis of Violent Crime (NCAVC), Criminal Profiling, and Child Abduction and Serial Murder programs before I retired. Presently, I



manage two U.S. Department of Justice grants, one focusing on the crisis of missing and unidentified dead persons and the other dealing with the setting of national standards of training for homicide investigators. I am a member of the National Amber Alert Working Group and also sit on the advisory board at the National Center for Missing and Exploited Children and consult on national and international child abduction cases. Throughout any training program or curriculum, I routinely include the strongest recommendation to use Vernon's textbooks.

In today's world, law enforcement confronts a much more sophisticated, cunning, and transient killer, who most likely has been "schooled" through the many crime shows, including "the CSI effect" and the Internet. This offender is able to create complex crime scenes and manage to compromise crucial microscopic evidence.

The present situation is daunting; however, the homicide cop on the street will persevere. Leadership from a concerned federal government is necessary in the form of support for providing standardized training for homicide investigators and a text on which to base a curriculum. Vernon has given us that book.

It is the benchmark for such texts and the recognized protocol for professional death investigation. Commander Geberth's *Practical Homicide Investigation* textbook has expanded into second and third editions. Now he has offered us the fourth edition, which provides the most practical, conventional, and current information available to detectives responsible for conducting logical and intelligent investigations of violent and sudden death.

For the discerning detective, this book should not be an option, but rather a necessity.

**William Hagmaier**  
*Supervisory Special Agent (retired), FBI*  
*Executive Director, IHIA*

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# The Homicide Crime Scene

# 1



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The homicide crime scene is, without a doubt, the most important crime scene to which a police officer or investigator will be called upon to respond. Because of the nature of the crime (death by violence or unnatural causes), the answer to “What has occurred?” can be determined only after a careful and intelligent examination of the crime scene and after the professional and medical evaluation of the various bits and pieces of evidence gathered by the criminal investigator. These bits and pieces may be in the form of trace evidence found at the scene, statements taken from suspects, direct eyewitness accounts, or autopsy results.

Homicide investigation is a highly professional and specialized undertaking which requires years of practical experience coupled with a process of continual education and training. However, homicide investigation is not the exclusive purview of the investigator, and all homicides are not solved because detectives are “smarter” than patrol officers. In fact, successful homicide investigation often depends on the initial actions taken by patrol officers responding to any given scene. Technically speaking, all police officers have a responsibility to actively and skillfully contribute to the crime-solving process.

Whether it be the dispatcher, who initially takes the call and obtains a crucial piece of information, or the officer in a patrol car, who responds to a “homicide run” and detains a key witness or suspect, the fact is that practical homicide investigation is based on the cooperation of patrol officers and detectives working together toward the common goal of solving the homicide.

The three basic principles involved in the initiation of an effective homicide investigation are as follows:

1. Rapid response to the homicide crime scene by patrol officers. This is imperative in order to protect evidentiary materials before they are destroyed, altered, or lost.
2. Anything and everything should be considered as evidence. Whether this evidence is physical or testimonial, it must be preserved, noted, and brought to the attention of the investigators. The *only* evidence collected at this point

of the investigation is eyewitness accounts or spontaneous statements of a suspect at the scene.

3. After the scene is secured, immediate and appropriate notification must be made to the homicide investigators.

## **The Five Components of Practical Homicide Investigation®**

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1. **Teamwork**
2. **Documentation**
3. **Preservation**
4. **Common sense**
5. **Flexibility**

In my opinion, *teamwork* is paramount to success. The investigation of sudden and violent death is NOT a one-person mission. The professional homicide detective must be willing to work as a team player who engenders cooperation by his or her conduct and behavior. *Documentation* is the hallmark of professionalism. “The facts and just the facts” are the basis of the official reports. *Preservation* of the crime scene and the integrity of the evidence cannot be overemphasized. The forensic aspects of the investigation and the ability to link the evidence to the suspect depend on effective preservation. *Common sense* and *flexibility* are necessary to adapt, improvise, and accomplish each of the previous objectives as you encounter the unexpected coupled with the dynamics of human behavior.

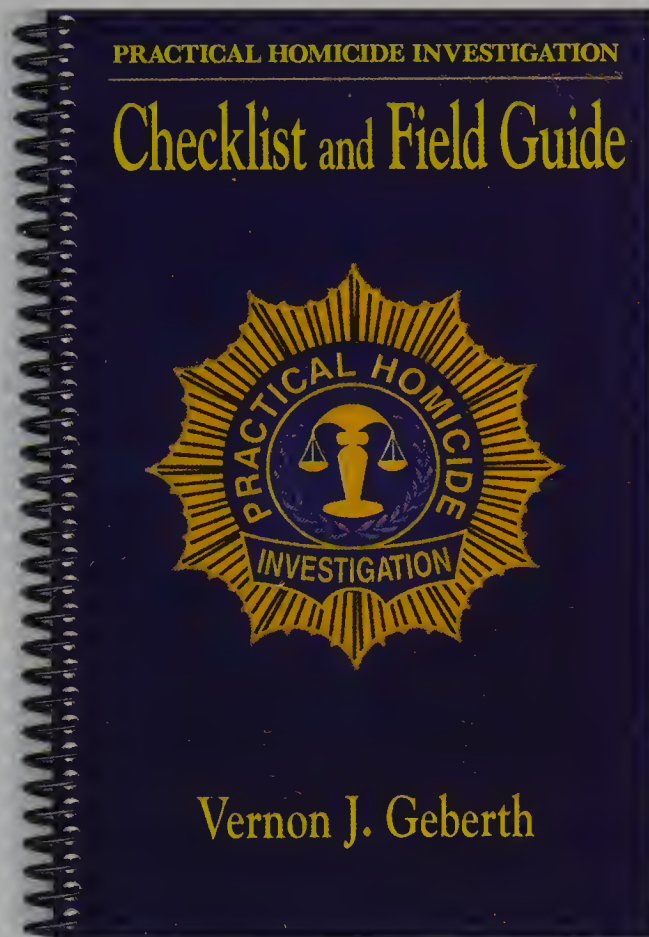
The importance of preserving the homicide crime scene and conducting an intelligent examination at the scene cannot be overemphasized. If a murder case ends in failure or an officer is embarrassed in court, the primary reason may very well be an inadequate examination of the homicide scene or a failure to implement good basic crime scene procedures as outlined in this text and the protocols as specified in the *Practical Homicide Investigation Checklist and Field Guide* (see Selected Reading at the end of this chapter). Many major police departments with which I have consulted have implemented the checklist and field guide into their patrol and detective operations. Each patrol supervisor’s unit as well as every detective responder has a copy. This puts everyone “on the same page” at the crime scene and assures that a proper and complete investigation is undertaken.

## **The Crime Scene**

---

The investigation of homicide usually starts at the point where the body is originally found. This location is referred to as the *primary crime scene*. This term characterizes the significance of this location and is the immediate concern of responding police officials to this forensically critical area in death investigations.





**Figure 1.1** *Practical Homicide Investigation Checklist and Field Guide.*

The term *primary crime scene* is sometimes mistakenly used to describe where the original event may have occurred based on the dictionary definition of *primary* as having occurred first in the development and/or time of an event. For instance, if the person was not killed at the location where the body was found, the location might be *erroneously* referred to as the secondary crime scene. Such an analytical interpretation might very well be appropriate for some speculative concept in the clinical sense. However, a more practical strategy is to focus your investigative resources on the location where the body was found. This is where most of the evidence will be retrieved.

In practical homicide investigation, we understand that there may be one or more crime scenes in addition to the location where the body is found. These additional crime scenes may include:

- Where the body was moved from
- Where the actual assault leading to death took place
- Where any physical or trace evidence connected with the crime is discovered (this may include parts of the body)
- A vehicle used to transport the body to where it is eventually found

Still other areas related to the *primary crime scene* include the point of forced entry, the route of escape, the suspect (clothing, hands, and body), and the suspect's

residence. It is important that responding police officers be aware of this multiple crime scene possibility. Therefore, during the initial receipt of information by the police concerning a possible homicide, the officer should attempt to ascertain the exact location of the situation requiring police investigation and possible additional locations that may need coverage.

### At the Crime Scene

Any item *can* and *may* constitute physical evidence; therefore, it is imperative that nothing be touched or moved at the scene before the arrival of the investigators. If the need arises that something at the scene be immediately secured or removed before it is destroyed or lost, the officer handling the evidence must document its location, appearance, condition, and any other feature that might affect the investigation. The officer must be sure to inform the homicide detective of the item's original position so that it does not lose its evidentiary value.

The crime scene, especially in homicide cases, is proof that a crime has been committed. It often contains many or all of the elements of the *corpus delicti* and provides an abundance of physical evidence that may connect a suspect or suspects to the crime.

**Remember: Once an item of evidence has been moved or altered, it is impossible to restore it to its original position or condition.**

Therefore, I stress the importance of protecting and preserving the crime scene.

### The Homicide Investigation Starts at the Crime Scene

The reasons the homicide investigation starts at the *primary crime scene* are twofold:

1. The police are usually called to this location by the person who discovers the body, a witness to the crime, or in some instances, the victim.
2. In homicide cases, the location where the body is discovered yields an abundance of physical evidence and serves as a base of inquiry.

From an investigative point of view, the body and its surroundings (including associative evidence and other factors unique to any specific crime) provide the professional homicide detective with significant information on which to base an investigation. For example, an intelligent examination of the scene may reveal the identity of the victim, the approximate time of death, and important evidence and/or clues to the circumstances of the death.

There is a principle that in homicide investigation refers to a theoretical exchange between two objects that have been in contact with one another. This theory of *transfer* or *exchange* is based on the following facts:



**Figure 1.2 CRIME SCENE — BASIC DEATH INVESTIGATION.** Observe the partially clad body of a female. It is important to note that, in the early stages of a death investigation, you cannot be sure of anything. (From the author's files.)

1. The perpetrator will take away traces of the victim and the scene.
2. The victim will retain traces of the perpetrator and may leave traces of himself on the perpetrator.
3. The perpetrator will leave traces of himself at the scene.

It is important to repeat that anything and everything may eventually become evidence. The list of items that may constitute physical and/or testimonial evidence is as extensive as the number, type, and causes of homicide. Whether it be the *res gestae* utterances of the suspect murderer at the scene or an important piece of trace evidence, the fact remains that where the body was found — the *primary crime scene* — is the logical and proper point to start the murder investigation.

### **Determining the Dimensions of the Homicide Crime Scene**

The cardinal rule in homicide cases is to *protect* and *preserve* the crime scene. However, before a crime scene can be protected, it must be identified as such. In order for the officer to make an intelligent evaluation of the crime scene, he must have an idea of what constitutes physical evidence and where the boundaries of the





**Figure 1.3 CRIME SCENE — BASIC DEATH INVESTIGATION.** This apparent case of a sex slaying is actually a natural death due to a ruptured aneurysm. The deceased had been in bed with her married boyfriend when she suddenly passed out. He had placed her on the floor and tried to resuscitate her before attempting to dress her. He called 911 before quickly leaving the apartment. (From the author's files.)

scene should be established in order to protect the evidence. Some examples of physical evidence that may be found at the crime scene are listed next. Although the list does not include all types of evidence, these are the three types most frequently found at the homicide crime scene.

Objects	Body Materials	Impressions
Weapons	Blood	Fingerprints
Tools	Semen	Tire tracks
Firearms	Hair	Footprints
Displaced furniture	Tissue	Palm prints
Notes, letters, or papers	Spittle	Tool marks
Bullets	Urine	Bullet holes
Vehicles	Feces	Newly damaged areas
Cigarette/cigar butts	Vomit	Dents and breaks

The patrol officer, who has the duty of responding to the scene as quickly as possible, begins the investigation by securing the immediate area. Upon confirming that the victim is dead, an assessment is then made by this officer to determine boundaries.





**Figure 1.4** FIRE SCENE. Observe a victim who has died in a fire. Apparently, the victim was lying in his bed when he was overcome. Notice the deep charring and splitting of the skin. Although this is a typical fire death scene, the cause of death should not be assumed until the pathologist has made a careful examination of the deceased. In fact, this was a typical fire death case. Many times arson is used to cover up a homicide; therefore, the immediate concern of the investigator at such cases should be the scene examination. (From the author's files.)



(A)



(B)

**Figure 1.5 STAGED CRIME SCENE — FIRE USED TO COVER UP MURDER.** The offender killed the woman by multiple stab wounds and then doused the body with flammable liquid to cover up the murder. (A) The charred skin hid the wounds. (B) Autopsy photograph shows the location of the stab wounds through the chest plate. (Courtesy of Dr. Leslie I. Lukash, former Chief Medical Examiner, Nassau County, New York.)



Technically speaking, the homicide crime scene begins at the point where the suspect changed intent into action. It continues through the escape route and includes any location where physical or trace evidence may be located. *However, according to Practical Homicide Investigation, the primary crime scene is always the location where the body is discovered.* Practically speaking, at this stage of the investigation, it is next to impossible to know the exact boundaries of the scene or where the original event occurred. The best course of action for the officer is as follows:

1. Clear the largest area possible. The scene can always be narrowed later.
2. Make a quick and objective evaluation of the scene based on
  - a. Location of the body
  - b. Presence of any physical evidence
  - c. Eyewitness statements
  - d. Presence of natural boundaries (a room, a house, a hallway, an enclosed park, etc.)
3. Keep in mind the possibility of multiple crime scenes.

If the crime scene is indoors, the job of making this determination and securing the area is relatively easy to accomplish. If the scene is outdoors, the determination will need to be based on the type of location, pedestrian and vehicular traffic, crowds, paths of entry and exit, weather conditions, and many other factors peculiar to that specific location.

In any event, the first officer should not examine the contents of the scene. He should, however, stabilize the scene by isolating the body and immediate area, including any visible evidence, from all other persons.

### **Protecting the Crime Scene**

The homicide crime scene must be protected from entry by unnecessary or unauthorized persons so that physical evidence will not be altered, moved, destroyed, lost, or contaminated. Other police officers, including supervisory personnel, who do not have a specific or valid reason for being at the crime scene should be regarded as *unauthorized persons*.

Probably no other aspect of homicide investigation is more open to error than the preservation and protection of the crime scene. The first official acts taken at the scene will help to bring the investigation to a successful conclusion or will negatively affect the entire investigation and the eventual prosecution of the case. Therefore, it is incumbent upon the first officer arriving at the scene to perform this first and necessary aspect of the investigation: *safeguard the location as quickly and as effectively as possible.* (See Chapter 2 section, “First Officer’s Duties on Arrival at the Scene.”)

The first police official to arrive at the crime scene is usually the patrol officer, the agency’s primary crime-fighting tool, who is expected to respond immediately to any incident where there is a report of a crime or an opportunity to apprehend



**Figure 1.6 CRIME SCENE.** The victim was stabbed and beaten. There is evidence of a struggle: the apartment is in disarray with various broken objects strewn about the room, and blood has been splattered around the room. (Courtesy of Detective Morris Hill, Warren, Ohio, Police Department.)

a criminal. The patrol officer is also the department's representative, responsible for conducting the preliminary investigation, which begins when the officer arrives at the scene. In homicide cases, the responding officer's duties in the preliminary investigation may simply be to arrive at the scene, observe enough to know that assistance from investigators is required, and protect the scene so that evidence is not destroyed or changed.



**Figure 1.7 CRIME SCENE BARRIER TAPE.** Crime scene barrier tape is the most effective manner to quickly secure a crime scene area, which is restricted to authorized personnel only. (Compliments of Sirchie® Fingerprint Laboratory, Inc. [www.sirchie.com](http://www.sirchie.com).)





**Figure 1.8 BARRIER TAPE ILLUSTRATION.** (Compliments of Sirchie Fingerprint Laboratory, Inc. [www.sirchie.com](http://www.sirchie.com).)

Scene protection may be as simple as closing a door to the room where the body is discovered or as complex as roping off an area of several blocks. There is no definite method or rule for establishing the boundaries of all crime scenes at first glance. As information becomes available at the scene, various other locations may also need to be secured in order to retrieve important physical and trace evidence.

Many times I have been at the scene of a homicide in one location and (as a result of information developed from witnesses or evidence located at the primary scene) had to immediately secure a second and third location, a vehicle, and even a building's fire escape and alleyway used as an escape route by the perpetrator. Obviously, the best places for obtaining physical evidence are nearest to where the critical act occurred, such as in the immediate vicinity of the victim. That is why I stress the significance of the *primary crime scene*. However, other areas related to this primary crime scene should not be overlooked — for example:

- The point of forced entry
- The route of escape
- The suspect (i.e., clothing, hands, body, etc.)
- The location of the weapon or other physical evidence
- A vehicle used in the crime
- The suspect's residence
- The location where the assault leading to death took place
- The location from which the body was moved

The list of locations that may need protection from contamination is as extensive as the crime is complex.

The scene should be secured by the use of *ropes, barricades, autos, additional officers*, and even *volunteers from the crowd* if necessary. The use of *crime scene cards* and *reflective crime scene ribbon* can be effective scene indicators. However, the



**Figure 1.9 HOMICIDE CRIME SCENE — GUNSHOT VICTIM.** This victim was gunned down by robbers and died instantly at the scene. Notice the profuse bleeding from the head wound. (From the author's files.)

presence of a uniformed officer is essential in order to reinforce scene protection during this phase of the investigation.

Once all injured persons and the deceased have been attended to and all emergency conditions cleared up (such as extinguishing fires, removing hostages in barricade situations, clearing any crowds, taking the suspect into custody), the officers who have secured the scene should review their actions and make adjustments to provide for the safeguarding of any additional evidence that may have been overlooked during those first critical moments.

The police officer or criminal investigator endeavoring to *protect* and *preserve* the homicide crime scene will find that he or she faces a number of obstacles. It is impossible to list all the conceivable events that may occur at any given scene. However, five basic factors or “scene contaminators” seem to crop up at almost every crime scene. By themselves or in combination with other events, these factors can create problems and do irreparable damage to the scene:

*Weather.* This factor, especially if the scene is outdoors, can create serious problems in that much of the physical evidence — for example, the body, blood, other body fluids, and residues — is subject to change and/or erasure by rain, snow, wind, direct sunlight, and extreme temperature.





**Figure 1.10A BASIC DEATH INVESTIGATION — OUTDOOR SCENE.** Investigators must be cautious each time they are presented with a death investigation. No one can be sure at the start whether the deceased is the victim of a homicide or the death is due to other causes. In some instances, preliminary examination of the body and scene will indicate conclusive evidence of murder. However, in a case like the one shown, all you know for sure is that you have a dead body in the woods. (From the author's files.)

*Relatives and friends of the victim.* They may be so sickened by the sight of the scene that they begin to clean up and put things back where they “belong.” They are also capable of destroying and secreting any notes or evidence of suicide in order to “protect” the family name.

*Suspects or associates.* They may attempt to destroy or remove incriminating evidence. It is important to note that if a suspect is taken into custody a short distance away from the scene, he should *not* be returned to the actual crime scene. He may contaminate the scene by adding something to it or, more importantly, negate the value of any trace evidence originally imparted by him or to him from the scene.

*Curious onlookers, souvenir collectors, ordinary thieves.* This group encompasses those at the scene out of curiosity or a desire to steal or to take something as a souvenir. They can introduce confusing fingerprints, alter the condition of the scene, add to crowd control problems, and in many instances, steal pieces of evidence. (During my homicide assignment in the South Bronx, we often used to joke



**Figure 1.10B OUTDOOR SCENE — NATURAL DEATH.** In this case, the homeless woman fell asleep in the woods after drinking. The weather suddenly changed to severe cold and she died a natural death due to exposure (hypothermia). The deceased, an outpatient from a mental institution, had apparently been drinking in the woods and fallen asleep. The elements eventually took effect and she died. (From the author's files.)



**Figure 1.10C OUTDOOR SCENE — NATURAL DEATH.** An empty whiskey bottle was found underneath the body, and there was no evidence of assault. After autopsy this death was determined to be of natural causes. However, the scene examination is vitally important to the pathologist so that the findings can be compared with evidence found at the scene. (From the author's files.)





**Figure 1.11 OUTDOOR SCENE.** Here you see the body of a female who has been dumped in the woods. A preliminary examination of the victim indicated that she had been shot in the head and body. At first this was thought to be a domestic violence case until her identification indicated that she was a drug mule. (From the author's files.)



Figure 1.12



of how a murder weapon could never be heard to hit the ground in the Bronx because so many would-be felons were on hand to catch it.)

*Other members of police agencies and high-ranking officials.* They usually are not assigned to the case, but come along to “help.” In my opinion, this is the biggest problem encountered in protection of the crime scene because

1. They usually contaminate or destroy valuable trace evidence because they do not know what they are doing or because they get in the way.
2. Police officers are naturally curious. However, this curiosity can prove very disadvantageous at the homicide crime scene. Sometimes, for no other reason than “to get a better look at the body,” inquisitive officers will unnecessarily walk into the secured area to render their “unofficial diagnoses of death.” From my point of view, there is no reason for 10 or 15 additional *police* medical opinions. Many times, items of trace evidence thought to be valuable physical evidence turn out to be something left by police officers who were present at the scene and were smoking, running water, etc.
3. The mere presence of additional police officers just standing around or leaning against some vehicle or doorway may grind valuable trace evidence into the ground or carpet or may smear a print.
4. Last, but certainly not least in the “hit parade” of scene contaminators, is the high-ranking police official. It is important to note that *rank does not preclude scene contamination*. Even though some of these misguided officials think they are able to “walk on water,” the fact is that they are just as capable of messing up the scene as the lowest ranking police officer who unintentionally walks through. Many times, especially if the case is sensational or noteworthy, high-ranking officials such as the mayor, chief of police, fire chiefs, judges, and even the chief prosecutor may appear on the scene. They

**Figure 1.12 (See facing page.) BASIC DEATH INVESTIGATION — CRIME SCENE.** Here you can see the body of a male whose pants are apparently pulled down to the knees and who has bruises on the face and arms. The body is in a position suggesting that it was dumped at the location. Ironically, this is not a homicide; in fact, the deceased is actually the “bad guy” in the scenario. Investigation revealed that the deceased, accompanied by another, was a rip-off artist; they worked the local lovers’ lane, which was under a major suspension bridge. Their particular M.O. was as follows. After couples parked their cars, these two characters would suddenly appear on each side of the car and, at gunpoint, order the occupants out and rob them. The night before the body was found, they had robbed at least two couples. On their last rip-off, they selected a foursome. Not satisfied with just robbing them, they decided to bully the two males. However, the two would-be victims wrested the guns from the bad guys and gave chase in the darkened park. The deceased and his partner made it to the bridge and began running against traffic to the other side. About midway, the decedent decided to jump onto what he believed was a walkway. Instead of a walkway, he found air and fell about 200 feet down to where the body was discovered. The two couples who were robbed, unaware of this event, reported the robbery attempt to the police and submitted the guns they had taken. Later, police questioned the dead man’s partner, who showed up at a local hospital with a bullet wound he had received during the abortive robbery, and all the pieces began to fall together. (From the author’s files.)

are usually there to “assist” in operations, but their “assistance” and overall contribution to scene preservation are usually less than helpful. If you are lucky, you may be able to divert them to an area outside the crime scene or to the command post, or you may gain their cooperation by asking, in the interests of protecting the scene, that they keep everyone out. In any event, tact will definitely be required in these situations.

I remember one particularly obnoxious chief who epitomized the “Peter principle” of bureaucracy, hypocrisy, and incompetence. He had never been a detective and did not have any experience in murder investigations. However, he actually believed that his position and rank in the organization provided him with knowledge and intelligence far superior to any of his subordinates. In order to demonstrate his proficiency and unrivaled detective skills, he would race the detectives to the crime scene in order to be there first. He traipsed through crime scenes like a large blue elephant, contaminating and destroying any evidence in his path. In fact, whenever any good latent print evidence was found at the scene, it usually belonged to the chief. Detectives found his footprints in blood, which indicated that he had walked through the blood before the scene could be safeguarded; his palm print at a rape murder; and his fingerprints on guns at two separate incidents, one involving the murder of a police officer. We were finally able to “get a leash” on him by convincing the district attorney to threaten him with a subpoena. The threat of a subpoena and having to testify to his incompetence coupled with the homicide crime scene *sign-in* sheet proved to be an effective tactic in securing the preservation of the crime scene. (See the following section on the crime scene sign-in sheet.)

The primary objective in this phase of the investigation is to preserve the body and immediate surrounding area exactly as they were when the body was discovered.

**Remember: Although the protection of the crime scene is the responsibility of the first officer, all officers responding to and arriving at the scene have an equal responsibility in this duty.**

Realistically speaking, various units and additional personnel respond to homicide crime scenes. The toughest job confronting the *first officers* is the effective safeguarding of the crime scene from these additional police officers, emergency services people, and other officials. Obviously, certain personnel must enter the crime scene in connection with their official duties.

### The Crime Scene Sign-In Sheet

The Crime Scene Sign-In Sheet (see Figure 1.13) has proven to be an effective tactic in securing the preservation of the crime scene. The fundamental objective in this phase of the investigation is to preserve the body and immediate surrounding area, or the *primary crime scene*, exactly as they were when the body was discovered.





official and his or her brother and/or sister feel the need to show their presence at the scene.

My solution to this often impossible situation is quite simple: I suggest that the officers establish *two* crime scenes.

1. The *first* or *primary crime scene* is the location where the body was found or where the actual event occurred or the area where you expect to recover physical evidence. *This is the real crime scene.*
2. The *second* or *secure area* crime scene is an area set aside from the general public. This allows all those special dignitaries and high-ranking guests who arrive an opportunity to violate at least one police line in order to establish their importance. It will also serve to keep them within an area where they will be out of the way of actual crime scene operations and precludes any further contamination by official presence. *This can be called a "security zone."*

## The Preliminary Investigation at the Primary Crime Scene

When the investigator arrives at the primary scene, the first responsibility is to verify the condition of the victim and then assure that the *primary crime scene* is intact. Basically, this action is to reinforce the first officer's duty to assure crime scene protection. This is usually accomplished during the preliminary "walk-through" as the first officer provides all of the information ascertained since his or her arrival and during the crime scene protection phase, as discussed earlier.

This preliminary walk-through is critical because it furnishes the investigator with a sense of the event. Prior to the walk-through, the investigator should stop and observe the area as a whole, noting everything possible before entering the actual crime scene for detailed examination. The purpose of this procedure is to establish an overview of the surrounding area and allow for recall of similar conditions and/or circumstances that the investigator has previously encountered. It is during this preliminary phase that the investigator is able to evaluate the scene and surrounding area to establish

- Consistencies and inconsistencies crucial to the direction of the investigation
- Additional areas which may require protection
- The presence of any fragile evidence which may require immediate collection
- Chain of custody of any evidence retrieved during the scene protection phase

Probably, the most important aspect of the *primary crime scene* is that of the *presentation*. The condition, location, and position of the body in relation to the actual crime scene usually provide the experienced homicide detective with crucial information about the event, which allows for early investigative hypotheses and assists in validating consistency or confirming inconsistency. *Was the person killed here or was the body dumped here?* This is especially important in *equivocal death*

*investigations* and *staged crime scenes* or where the death is suspicious or questionable based upon what is presented to the authorities.

## Victimology

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One of the most significant factors to consider in death investigation is victimology. Throughout this textbook, I will reference this term as it pertains to suicide and homicide investigations and its significance in ascertaining motives, suspects, and risk factors. Risk factors are generally regarded as high, moderate, or low and are based on the lifestyle, neighborhood, occupation, or any specific circumstance that may occur in a person's life.

Victimology is the collection and assessment of all significant information as it relates to the victim and his or her lifestyle. Personality, employment, education, friends, habits, hobbies, marital status, relationships, dating history, sexuality, reputation, criminal record, history of alcohol or drugs, physical condition, and neighborhood of residence are all pieces of the mosaic that comprises victimology. The bottom line is "*Who was the victim and what was going on in his or her life at the time of the event?*" The best sources of information will be friends, family, associates, and neighbors, and that will be the initial focus of the investigation as you attempt to identify these sources of information.

Victimology assessment begins at the crime scene as the detective observes and records information about the victim and the circumstances surrounding the event. Personal records, which include telephone and e-mail address books, telephone answering machines, cell phones, cell phone contact lists, PDAs, diaries, letters, and correspondence, are generally available in the residence or home of the victim. If the victim had a computer, further information from the hard drive will reveal additional files, e-mails, Web site selections, phone records, and calendars.

The residence or home will provide additional information about the victim's lifestyle. I have been to a number of crime scenes in my career and I continue to be amazed at how much you can learn about a person and his lifestyle as you catalog the scene and review personal belongings, photographs, and private collections of various materials. Books, games, clothing and outfits, sex toys, videotapes, pornographic magazines, and sexual paraphernalia are just some of the items that might be encountered.

At a homicide scene, the first persons who will be interviewed during the canvass will be the neighbors of the victim. A *canvass* is a door-to-door, roadblock inquiry or brief interview with persons on the street by which detectives attempt to gain information about a specific incident. It is an important investigative tool and a vital part of the preliminary investigation at the homicide crime scene. Neighbors are an excellent source of information about the neighborhood and the habits of the victim. Most people do not realize how much their neighbors know about them and the excellent information they can provide about a victim and neighborhood.



Family, friends, and associates can provide personal information about the victim and will assist the investigator with piecing together the scene information with the behaviors of the victim. Was the victim having any problems? Had the victim recently expressed any fears? Had the victim made any complaints about persons, personal situations, or fellow workers? Did the victim express any concerns about his or her security? Was the victim in a relationship?

“What took place?” “Why did it occur?” and “Who could have done it?” are three general questions that homicide cops consider in an investigation. Ascertaining the victimology is the key to any successful death investigation. I have often said, “The homicide cop learns more about the victim than the victim knew about himself or herself.” In order to conduct a professional inquiry and provide a comprehensive investigative analysis, a thorough victimology is paramount to the investigation.

## **Equivocal Death Investigations**

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Equivocal death investigations are inquiries that are open to interpretation. There may be two or more meanings and the case may present as a homicide or a suicide depending upon the circumstances. The facts are purposefully vague or misleading as in the case of a *staged crime scene*, or the death is suspicious or questionable based upon what is presented to the authorities. These deaths may resemble homicides or suicides, accidents or naturals. They are open to interpretation pending further information of the facts, the victimology, and the circumstances of the event.

### **The Staged Crime Scene**

#### ***Introduction***

The purpose of this section is to alert investigators to the phenomenon of the staged crime scene. “Staging” a scene occurs when the perpetrator purposely alters the crime scene to mislead the authorities and/or redirect the investigation. *Staging is a conscious criminal action on the part of an offender to thwart an investigation.* The term *staging* should not be used to describe the actions of surviving family members who cover or dress a loved one who is found nude or has died in an embarrassing situation. These activities are certainly understandable considering the shock experienced by a relative who encounters the sudden and violent death of a loved one.

In my experience investigating suspicious deaths, I have often had a “gut” feeling that something was amiss. Practically speaking, if you have a “gut” feeling that something is wrong, then, guess what? Something is wrong. Actually, that “gut” feeling is your subconscious reaction to the presentation, which should alert you to the possibility that things are not always what they appear to be. This position is consistent with equivocal death investigations.



**Remember: Things are not always what they appear to be.**

In staged crime scenes, however, the presentation of the homicide victim and the manipulation of the crime scene by a clever offender could make the death appear to be a suicide. I have investigated many such cases and the truth is that initially, the cases *did* look like suicides.

***Types of Crime Scene Staging***

1. The most common type of staging occurs when the perpetrator changes elements of the scene to make the death appear to be a suicide or accident in order to cover up a murder (Case History Number 1; also, see Chapter 22, “Equivocal Death Investigation”).
2. The second most common type of staging is when the perpetrator attempts to redirect the investigation by making the crime appear to be a sex-related homicide (Case History Numbers 2 and 3).
3. Arson represents another type of staging. The offender purposely torches the crime scene to destroy evidence or make the death appear to be the result of an accidental fire.

**Example of Homicide Made to Appear an Accident**

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**Case History Number 1**

Police were summoned to a home of a woman who reported that there had been a shooting. The victim, a 26-year-old white male, was a friend of the woman. He had been watching the woman’s children while she went out drinking with a couple of other males. When the police arrived, they observed the victim sitting on the living room couch, with a gun cradled in his right hand. The victim’s right thumb was inside the trigger guard. He had suffered a bullet wound to the left side of his nose and the exit wound was in the upper part of the back of the head. The magazine for the gun had been removed and the ejected shell casing was approximately 6 feet away from where the victim sat. An examination of the wound structure indicated no stippling or soot on the wound; there was no evidence of blowback in the barrel of the gun.

The police were informed by the two males that the deceased had been “playing” with the gun, which belonged to one of the reporting males, and had accidentally shot himself in the face. A uniform lieutenant in charge of the scene decided that there was not any need for detective response. His decision was based on an administrative policy which discouraged overtime. Rather than authorize overtime response for investigators, he had the case classified as an accidental shooting.

The next day, the homicide detectives reviewed the case and examined the crime scene photographs. Their opinion was that the circumstances as described by the reporting officer and witnesses were not consistent with the elements of the crime scene. They initiated an investigation and tested the suspected weapon, which revealed that the gun



**Figure 1.14 STAGED CRIME SCENE — MURDER MADE TO APPEAR AN ACCIDENTAL SHOOTING.** (A) Victim's original position when police arrived. (B) Close-up of victim's face showing entrance wound. (C) Close-up of victim's hands with gun in right hand. (Courtesy of retired Detective Michael J. O'Malley, Homicide Unit, Cleveland Police Department.)

must have been fired at least 42 inches away from the deceased's face. The discharged rounds did not eject, but had to be manually removed from the breech. Removing the magazine required both hands. Gunshot residue testing (GSR) of the deceased's hands proved negative.

The investigators reinterviewed the woman and the reporting witnesses. The males were confronted with the facts of the case as well as their inconsistent statements. It was learned that all of the parties had been drinking. A gun was pulled out by one of the males, who stated that the gun had accidentally discharged hitting the victim in the face. They had panicked and decided to make it appear that the deceased had shot himself.



**Figure 1.14** *Continued.*

After they “staged” the scene, they called the police and the ambulance. Both subjects were charged with murder. They were indicted for involuntary manslaughter. The male who had done the shooting pled guilty to manslaughter and weapon possession.

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## **Examples of a Homicide Made to Appear Sex Related**

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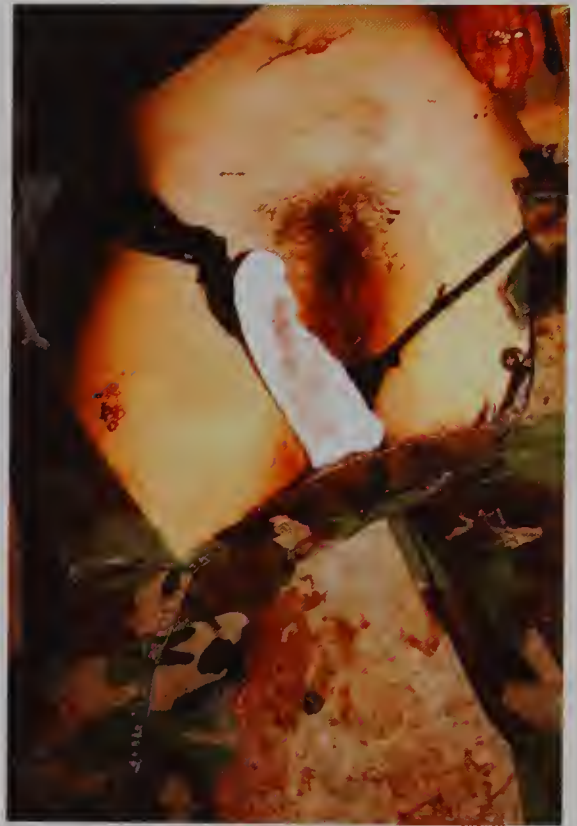
### **Case History Number 2**

Police were summoned to a home by a frantic male who reported that he had been attacked by a man with a knife, who had killed his wife. When police arrived, they were led into the house by the man, who showed them his wife’s body in the basement. He





(A)



(B)

(C)



**Figure 1.15 STAGED CRIME SCENE — MURDER MADE TO APPEAR AS A BURGLARY AND SEX-RELATED HOMICIDE COMMITTED BY A STRANGER.** (A) Shows objects thrown onto floor supposedly indicating a burglary. The victim was been stabbed and slashed multiple times with a number of stab wounds into the chest. The body has been moved and positioned to suggest a sexual assault. (B) The subject had torn the victim's pants and had exposed her pubic area to make the crime appear to be a sexual assault. In addition, he had placed an unused condom between her legs to mislead police into believing that the attack was sex related. (C) An incised injury to the right finger of the suspect, who cut himself during the vicious attack on his wife. In fact, he deposited his blood on the victim's right leg while he was staging the scene. (Courtesy of retired Investigator Jack Henander, Larimer County, Colorado, Sheriff's Department.)



indicated that he had also been injured and showed the officers some superficial cuts and puncture wounds on his body. The man was transferred to the emergency room of the local hospital for treatment. The crime scene extended from outside the house to the basement. The female victim, who had received multiple stab wounds, was found lying on her back. Her pants had been ripped open and her panties had been pulled down to reveal her pubic area. Her sanitary napkin was pulled away and between her legs the crime scene officers retrieved an unused condom. The male had stated that he had surprised the intruder when he had come home from jogging. The male showed the officers evidence of a “burglary.” The burglary consisted of items being tossed on the floor and perfume bottles being turned over on the dresser in the master bedroom. However, nothing was missing.

Although the presentation of the female body in the crime scene suggested a sexual attack, the circumstances of the event as well as the inconsistent statements of the husband indicated this murder to be based on an interpersonal-oriented dispute and assault scenario.

The blood evidence at the scene indicated the attack had been initiated outside and continued into the house. The deceased had apparently been taken by surprise as she was working outside. She received stab wounds to the top of her head and face. The blood evidence also indicated that she had attempted to flee into the house to escape.

Detectives used Luminol throughout the crime scene and located a number of areas which indicated that blood had been present or someone had “cleaned up” blood. Blood evidence was collected from the bathroom, office, master bedroom, stairwell, and basement. The majority of blood found in upstairs area belonged to the husband. The majority of blood found in the basement belonged to the victim. The husband had attempted to make the crime appear to be a sexual assault by ripping open her pants and placing a condom between her legs. However, when he ripped her panties, he left a drop of his own blood from his cut pinky finger on her leg.

The husband was charged with his wife’s murder based on the police investigation as well as the blood evidence and DNA testing. This case is presented in detail in my textbook, *Sex-Related Homicide and Death Investigation: Practical and Clinical Perspectives*.

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### Case History Number 3

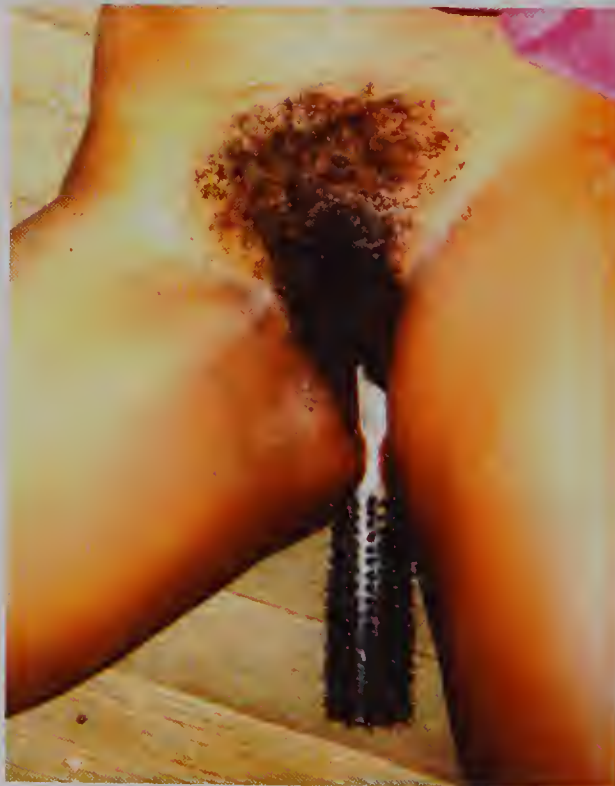
The police were summoned to an apartment when friends of the deceased recounted that she had failed to report for work. Police entered the apartment and discovered the nude body of the 27-year-old victim lying on the bedroom floor. Her pants and panties had been pulled down and her blouse was in disarray. A hairbrush had been inserted into her vagina. She had been beaten and strangled to death with a ligature, which was not present in the scene. A review of the crime scene indicated that someone had gone through the dresser drawers and closets, suggesting a burglary. The victim’s clothes were found scattered across the floor and the contents of the drawers were spilled out on the bed. There had been no forced entry, suggesting the victim had allowed the person into her apartment.

A check into the victimology indicated that the young woman was a divorcee who had left an abusive marriage. She had enrolled in a nursing program and had recently received her nurse certification. She had been dating since her divorce but did not have a steady boyfriend. The police investigation indicated that the crime scene had been staged to suggest a burglary. However, nothing of value was missing. There had been no sexual

(A)



(B)



**Figure 1.16 STAGED CRIME SCENE — SEX-RELATED HOMICIDE—INTERPERSONAL VIOLENCE.** (A) At first impression, the hairbrush might be considered an item to sexually abuse the victim or a form of penis substitution. In fact, the hairbrush had been jammed into the vagina after the victim was strangled to death. (B) The case was actually an interpersonal dispute between the victim and her former husband, who jammed the hairbrush into his ex-wife's vagina in a fit of rage. He then staged the crime scene to make it appear a burglary and sex-related murder. (From the author's files.)

assault. However, the insertion of the hairbrush into her vagina certainly indicated an anger and rage consistent with an interpersonal-oriented dispute and assault.

The former husband emerged as the most promising suspect after the detectives were able to break his alibi. He had convinced his current girlfriend to provide him with an alibi. He had gone to his former wife's apartment in an attempt to reconcile with her. When she refused his entreaty, he killed her in anger. He left the apartment and returned 24 hours later. At that time, he placed the hairbrush into her vagina and staged the crime scene to make it appear that a burglar had entered the location, sexually attacked the young woman, and then ransacked the apartment.

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## Conclusion

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The responding patrol officer and the detective investigator are faced with a crime of the utmost gravity. Homicides entail many possible motives and methods as well as a variety of types of physical evidence. The time-proven principles of practical homicide investigation, which have been presented within this chapter, illustrate the importance of the proper and professional handling of the *homicide crime scene* by the police authorities.

**Remember: Do it right the first time. You only get one chance.**

Furthermore, the death investigator needs to be cognizant of the possibility that a crime scene may in fact be “staged” to mislead the authorities and/or redirect the investigation. In my experience and travels as a homicide and forensic consultant, I have encountered a number of these incidents in various jurisdictions across the United States. These events seem to be on the increase as people learn more about the process of death investigation through the media, true crime books, television mystery shows, and movies.

## Investigative Strategies

Take each factor to its ultimate conclusion:

1. Assess the victimology of the deceased.
2. Evaluate the types of injuries and wounds of the victim in connection with the type of weapon employed.
3. Conduct the necessary forensic examinations to establish and ascertain the facts of the case.
4. Conduct an examination of the weapon(s) for latent evidence, as well as ballistics and testing of firearms.
5. Evaluate the behavior of the victim and suspects.
6. Establish a profile of the victim through interviews of friends and relatives.
7. Reconstruct and evaluate the event.

8. Compare investigative findings with the medicolegal autopsy and confer with the medical examiner.
9. Corroborate statements with evidential facts.
10. Conduct and process all death investigations as if they were homicide cases.

### **Selected Reading**

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Geberth, V.J. *Practical Homicide Investigation Checklist and Field Guide*. Boca Raton, FL: CRC Press, 1996.

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# First Officer's Duties: General

# 2



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This chapter will concentrate on the following events, which initiate a homicide investigation:

1. The actions that should be taken by police officers and police personnel who first receive a report of a possible homicide
2. The actions that should be taken by a police officer when a witness or passerby reports a possible homicide in person
3. The actions that should be taken by first officers on arrival at the homicide crime scene
4. The preliminary investigation that should be initiated by the first officer

## **Notification of a Possible Homicide: The Official Notification to the Police**

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The first notification to the police department of an actual or suspected homicide or an incident that may develop into one is usually received by telephone. This first call may simply be a request for assistance for an injured person, a call stating that shots were fired, or a report of a screaming man or woman. This first call to the police does not always provide sufficient data to enable the officer to assess the true nature and extent of the incident. Under circumstances where the information received suggests the possibility of a homicide, the person receiving the information should do the following:

1. Obtain and record the following information:
  - a. The exact time the call was received.
  - b. The exact location of occurrence.
  - c. Whether the perpetrators, suspicious persons, or vehicles are still at the scene. Try to get any descriptive information and direction of flight for the immediate transmission of alarms and/or notification to other patrol units.

- d. Where the person calling the police is located and whether that person will remain. If not, where he or she can be contacted.
- e. The *name*, *address*, and *phone number* of the person reporting the incident.
2. Request the caller's assistance, when it is practical. If the person making the report seems of suitable age and discretion (calm, etc.), request his or her assistance in safeguarding the location of occurrence. This request should be put into specific terms — for example, (1) that no one be admitted other than law enforcement personnel or medical people and (2) that nothing be disturbed.
3. When dispatching officers and units to the scene:
  - a. The dispatcher should be aware of the multitude of first officer duties that may be required and should dispatch sufficient personnel and equipment to handle the situation based on the data obtained from the first notification.
  - b. Make appropriate notifications to supervisors and to the homicide/detective unit.
4. 911 operators and communications personnel receiving emergency calls to police should be aware that, in many cases, the person making the call to the police is actually the perpetrator, who may not identify himself or herself as such.
  - a. If the caller indicates that he or she has just killed someone, the necessary information should be obtained in an ordinary and *detached* manner, the radio cars should be dispatched, and the operator should attempt to keep the caller on the line in the expectation that the call will still be in progress when the dispatched officers arrive. These officers can then verify that call with the switchboard operator, thereby preparing the basis for a later courtroom presentation.
  - b. Even if the operator cannot keep the caller on the line until the arrival of the responding police, the operator should be alert to any identifying characteristics of the caller for later voice identification.

The first officer or person receiving notification should, as soon as possible, put in writing the word-for-word content of the call or conversation.

**Remember: The individual who first reported the incident may later become a suspect and the exact words he or she used become critical to the case.**

Most departments today, especially in major cities, have caller ID and record all incoming calls as a matter of official procedure. Departments that cannot afford this type of operation or do not wish to record all calls still have the option to invest in an inexpensive tape recorder with a telephone pick-up. This equipment can then be activated manually by the 911 operator or dispatcher to record any

calls of importance, with specific instructions to record incoming calls relating to homicide or any other serious crime.

Recording of the initial call, especially if the call is made by the perpetrator, can be of invaluable importance later in the investigation.

I recall one case in particular where the common-law husband of the deceased called the police and reported that he had found his wife wandering around the neighborhood in a dazed and beaten condition. This call, which was received through our central 911 system, was automatically taped before the job was given to the unit concerned. The patrol unit was given the assignment, responded to the address, and found the woman DOA. They interviewed the complainant, who had mistakenly changed his original story. The complainant did not realize his original call to the police had been recorded. The officers, realizing the discrepancy, notified the homicide division and went along with the husband's story.

Upon our arrival, we examined the body, listened to the husband's account of what had happened, and interviewed the first officers, who clued us in to the discrepancies they had observed. It was soon obvious that the common-law husband of the deceased was our suspect. His original call about finding his wife wandering around in a dazed and beaten condition was apparently forgotten as he became thoroughly enmeshed in a much more involved fairy tale. He was now claiming that his wife had been a victim of rape and burglary because he had found her in a nude and beaten condition when he arrived home. He was promptly advised of his constitutional rights, and we allowed him to give a full statement relative to the supposed rape and burglary. He steadfastly denied that he had beaten his wife and continued to embellish his story in an attempt to explain the inconsistencies that we inquired about.

However, when I requested the Communications Division to rerun the original taped call, there was our suspect telling a completely different story on tape. Needless to say, upon being confronted with this verbal piece of evidence and hearing his original fairy tale from his own mouth, he changed his mind and gave us a complete confession. His story was that she had returned to the apartment after being out drinking with her friends. He had been home drinking and brooding about her "running around." When she returned, they had an argument, and he proceeded to beat her. In his drunken rage, he killed her. He could not get rid of the body because people were still on the front stoop of his building and in the streets. Therefore, he undressed her, attempted to clean up some of the blood (he did not do a very good job), waited for a while, and then called the police to say that he had found her outside. While he was waiting for the police, he came up with the rape and burglary idea.

It is therefore very important that the first officer responding to the homicide crime scene *note the time of the call* and/or any initial information, especially if informed of the crime by a passerby or witness. The initial *time* and the officer's *observations* are crucial to the investigation of homicide. Even while responding to





**Figure 2.1** 911 JOB — STAGED CRIME SCENE. Was this a vicious assault, rape, and burglary or a cover-up for murder? This woman was brutally beaten to death by her common-law husband, who then tried to cover up his deed by stripping the clothes off the body and placing it in this position to indicate a rape. (From the author's files.)

the scene and departing from the patrol vehicle, the officer should remain observant and alert to any unusual activity or actions by persons at the scene.

### **First Notification of Homicide Received in Person by Patrol Officer**

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If the first notification is received in person by an officer on patrol, he or she should immediately note the time and the exact information. The person reporting it should be requested to accompany the officer, and this person should be returned to the vicinity of the crime scene and detained for the investigators. It is important to note that valuable information is often irrevocably lost because the person who reported the homicide to the police officer is allowed to wander off in the confusion at the scene or is not detained for the homicide detective. If for some reason the officer cannot detain this person, he should at least obtain sufficient identification and other personal information so that the follow-up investigator can interview this important witness at a later date.



**Remember: When returning this reporting person to the possible homicide location, never allow him or her to enter the actual crime scene. You may contaminate this scene by adding something to it or by negating the value of trace evidence, which will be found later and may point to the possible perpetrator.**

It is always possible that the person reporting the crime is actually the killer. I remember one incident when my partner and I were on investigative patrol in Harlem in an unmarked detective auto. I should point out that these unmarked autos are about as nondescript as a fire engine to the knowing eyes of a criminal. In any event, we had just entered West 117th Street off Lenox Avenue when we observed a male running out of an alley. At about the same time, this male spotted us. He came running up to us and excitedly stated, "There's a man getting killed in the alley." At first impulse, we were about to go charging into the alley; however, being street-wise and suspicious of this sudden show of good citizenship, we grabbed him by the arm and brought him along with us into the alley.

There had been a homicide all right. Apparently, our "good citizen" had killed a fellow addict over a bag of "junk." Two addicts who were making a futile attempt to revive the deceased quickly identified our "guest" as the killer. He still had the bloody knife in his pocket and there was blood on his shirt and pants. Maybe if we had not been in a high-crime area or suspicious of our "good citizen's" intentions, we might have gone charging into the alley, only to discover that we had allowed the perpetrator to walk away. This would not have been the first time a suspect had pulled this off. Keep in mind that the next person who comes running up to you yelling murder may be the killer.

**Remember: Do not run off without detaining this reporting witness or at least obtaining sufficient identity for follow-up investigators.**

## **First Officer's Duties on Arrival at the Scene**

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In almost all instances, the first officer to arrive at any homicide crime scene is the uniformed patrol officer. Rarely is the patrol officer a witness to the actual homicide. He usually arrives a short time after in response to a radio transmission or emergency call made by some citizen who has witnessed the crime or stumbled upon the homicide scene. There is no doubt in my mind that the initial actions taken by the first officer may determine whether there will be a successful homicide investigation.

On arrival at the homicide crime scene, the first officer is confronted with a situation that can fall anywhere between these two extremes:

1. He might be met by one individual, calm and composed, who directs him to a body which manifests obvious, conclusive signs of death in an easily secured and/or safeguarded location.



**Figure 2.2 CRIME SCENE PROTECTION.** Uniform officers who have arrived at a homicide scene secure the area pending the arrival of the detectives. Note the use of crime scene tape around the perimeter of the scene to prevent any unauthorized entry. (Courtesy of Detective John Brunetti, West Haven, Connecticut, Police Department.)

2. The scene might be filled with people milling about, shouting, and/or weeping, the perpetrator may still be at the scene or just escaping, the victim may still be alive and in need of immediate medical assistance, and the scene may be a public or quasipublic place difficult to safeguard.

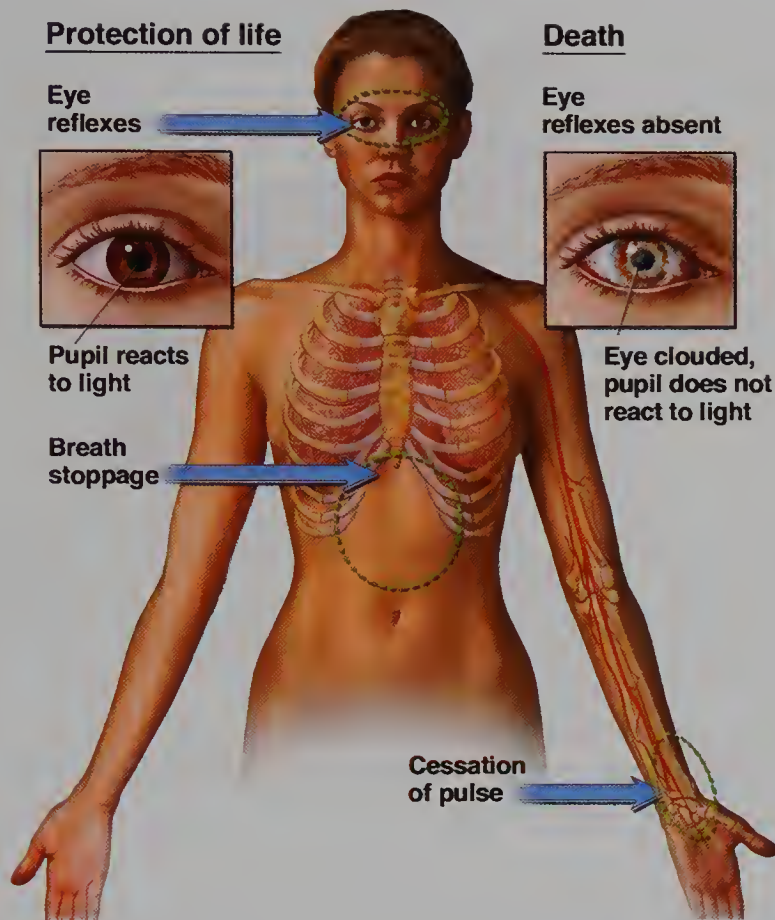
Whatever the situation at the scene, the first officer has three primary duties:

1. Determining whether the victim is alive or dead and the necessary actions to be taken
2. Apprehending the perpetrator, if he is still present, or giving the appropriate notifications if he is escaping or has escaped
3. Safeguarding the scene and detaining witnesses or suspects

### Protection of Life

Each case, of course, will require a different pattern of responses, but the major principle which should guide the first officer is the *protection of life*. This includes not only the life of the victim when there is a possibility of saving him but also lives of others on the scene, including the suspect and the officer. Situations such as barricaded felons exchanging fire with responding police units as a victim lies in the line of fire, possible hostages, and the ever increasing instances of terrorist acts obviously will require additional police responses, including requests for specialized units.

However, under ordinary circumstances, whenever there is any doubt as to death, the officer should presume that there is life and proceed accordingly. First officers should therefore be aware of the signs of death.



**Figure 2.3 BREATH STOPPAGE.** The cessation of breathing is best determined by observation of the abdomen just below the point where the lowest rib meets the breast bone. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

*Breath stoppage.* This is best determined by observation of the upper part of the abdomen, just below the point where the lowest rib meets the breastbone. Any *up* and *down* motion here, however slight, is indicative of breath and life. When there is no motion, breathing may have stopped or be too shallow to be observed. However, death must not be presumed from the cessation of breathing alone.

*Cessation of pulse.* In most cases, the heart continues to beat after the cessation of breathing for a short period of time — from a few seconds to a few minutes. Pulse can be detected by placing the tips of the fingers on the undersurface of the radial bone (at the base of the thumb) and firmly pressing inward. The absence of *pulse*, coupled with the cessation of breathing, generates a high probability of death.

*Eye reflexes.* During life, the pupils of the eyes are round and equal in size, and the eyeball is extremely sensitive. At death, the muscles that control the pupils relax, causing them to lose their symmetrical appearance; they may differ in size. The eyelids become flabby in death, and if they are opened by someone, they will remain open. Finally, in life, touching the eyeball will cause some reactive movement of the eyeball or eyelid, but no such reaction occurs in death. The absence of eye reflexes, coupled with the cessation of pulse and breath, is a conclusive sign of death.

Of course, other conclusive signs of death, such as *rigor mortis*, *lividity*, and *putrefaction*, are somewhat obvious and require little or no examination. These will be





**Figure 2.4 PULSE.** A pulse can be detected by placing the tips of one's fingers on the under-surface of the radial bone. In addition, the pulse can also be detected by placing one's fingertips on the temple or flat portion of the side of the victim's forehead. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doereport.com.)

discussed in greater detail in Chapter 9. It should be noted, however, that the officer is not expected to perform the functions of a physician. If there is the slightest doubt whether the victim is dead, it should be resolved in favor of the presumption of life.

### **Safeguarding the Scene and Detaining Witnesses or Suspects**

The first officer at the scene of a homicide is immediately confronted with a multitude of problems, which he must quickly analyze so as to take the necessary steps. Quickness, however, does not imply haste. The first officer's actions must be deliberate and controlled. When the assignment information communicated to him by radio, passerby, or telephone suggests an incident which is or may become a homicide, the officer must become *scene conscious* as he approaches the given location. He must be alert to important details which are transient in nature and may be subject to chemical change. Changes may occur by dissipation or simply by persons on or arriving at the scene moving things. These may include, but are not limited to

1. The condition of doors and windows, whether closed or ajar, locked or unlocked, whether shades are drawn or open, the position of shutters or blinds, etc.
2. Odors, such as perfume, after-shave lotion, gas, marijuana, cigar or cigarette smoke, gunpowder, chemicals, putrefaction
3. Evidence which may be obliterated or damaged on the approach to the central scene, such as tire marks on the roadway or stains such as blood or other body fluids, fibers and shell casings on the floor or in high grass or soil, discarded cigarettes or cigars, matchsticks, a weapon, fingerprints, and even personal property that the perpetrator left behind in his haste to get away
4. Whether lights and light switches are on or off; condition of electrical appliances — on or off, warm or cold



5. Original position of furniture or articles which may have been moved in order to get to the victim to render first aid, to make a determination of death, etc. (If ambulance personnel arrived before patrol units, the patrol officer should get their identification and determine what, if anything, was moved or touched.)

In most instances, the first officer will face an emergency condition at the homicide crime scene. However, he must maintain a professional image, which will enable him to perform effectively during this preliminary response stage. The first officer should direct his attention to isolating the body and immediate surroundings from all other persons. This procedure alone will usually call for a great deal of tact in dealing with members of the family who may be present, sympathetic neighbors, and the curious (strangers or other police officers who have responded).

In this phase of preservation of the scene and removal of unauthorized persons, the first officer in his diligence to remove unnecessary persons should be careful not to chase off possible witnesses or others who have important information. Do not overlook the possibility that one of the people you might chase off could be the perpetrator. I remember spending an entire nightwatch tour trying to locate a suspect who had literally been chased from the area by uniform officers while they were attempting to secure a homicide crime scene at a street location. The suspect, who was intoxicated and generally abusive, claimed to be a friend of the victim and had been pushing his way to the front of the crowd to get a better look and "see if the man was really dead." He had been admonished several times to remain behind police lines; however, he did not comply. One of the officers, probably out of sheer frustration, grabbed him by his coat collar and the back of his belt and literally tossed him out onto the street. The officer followed this up with an appropriate description of what he would do to the suspect if the suspect returned.

Needless to say, the suspect took the officer's friendly advice and "got into the wind" — he disappeared. When the investigators arrived, they began questioning persons in the area and soon learned that the suspect and the deceased had been seen together earlier in the evening drinking and quarreling over a debt the deceased refused to pay. A witness to the murder was located, as were various pieces of evidence that linked the suspect to the crime. Only one problem remained: the suspect could not be found because the officers had scared him away.

The first officer may even need to guard against his overzealousness or desire to impress superiors by being the first to discover some piece of evidence and thus inadvertently destroying its value by picking it up. He may also need to overcome sheer curiosity or walking onto the scene "just to get a better look."

In addition, it is important to keep in mind that all personal habits of the officers at the scene must be carefully controlled. These include, but are not limited to, cigarette or cigar smoking, use of the toilet in the crime scene, discarding any foreign substance at the scene, and using the telephone.

**Remember:** At this stage of the investigation, the only evidence that should be collected by the patrol officer is that of eyewitnesses or that which is testimonial in nature, such as *res gestae* or spontaneous utterances of a suspect.

## The First Officer Initiates the Homicide Investigation

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The first officer who is confronted by the homicide crime scene has a very involved responsibility. Although the formal investigation will be conducted by detectives or the criminal investigator, it is the *first officer* who has the responsibility of initiating the investigation. I have provided ten practical rules of procedure, which may be used as a guide in initiating a professional homicide investigation.

1. Arrest the perpetrator if you can determine by direct inquiry or observation that he or she is the suspect. (As a general rule, do not question him or her at this stage.)
2. Detain all persons present at the scene.
3. Attempt to assess and determine the entire area of the *crime scene* including paths of entry and exit and any areas that may include evidence.
4. Isolate the area and *protect the scene*. (Use crime scene tape; see Figure 1.6 in the preceding chapter.) Seek assistance if necessary. Notifications must be made to superiors, investigators, and specialized units.
5. Refrain from entering the scene and/or disturbing, touching, or using any item found there. *Never use the crime scene as a command post or the telephone as a communications center*. In communicating with the station house or headquarters, the first officer should *not*, unless absolutely necessary, use a telephone instrument at the scene. This necessity *should* be determined by common sense and priorities. The first officers should instead establish a temporary command post outside the central crime scene, preferably where there are at least two phones available, one for incoming and one for outgoing calls. In the early stages of the investigation, there is a definite need for rapid communication between the various centers of investigation.
6. Identify and, if possible, retain for questioning the person who first notified the police.
7. Separate the witnesses so as to obtain independent statements.
8. Prevent all unauthorized persons from entering the crime scene until the arrival of the investigators. This, of course, includes police officers not directly involved in the crime scene investigation. The detective supervisor and the investigator assigned are, of course, allowed entry into the scene for evaluation purposes. Other unavoidable exceptions may include the medical examiner or a doctor or clergymen. In any event, establish a pathway in and out so as to avoid unnecessary disturbance.

9. Keep a *chronological log* containing the name, shield number, command, and title of any police official who enters; the name, serial number, and hospital of any medical personnel, ambulance driver, or technician; and the names and addresses of any civilians entering the crime scene.
10. Take notes.

Although this list may seem very simple and basic, I can assure you from experience that in the confusion that permeates the homicide crime scene, it is inevitable that such a fundamental principle as not touching or using the phone is invariably forgotten as the need for communications overwhelms good technique. Many times I have responded to a homicide in an apartment, only to find that the telephone was being used as a communications line and one of the rooms as an office or command post. Needless to say, valuable trace evidence is irrevocably lost because of these careless actions.

**Remember: Never use the crime scene as a command post or the telephone as a communications center.**

## Dealing with Emergencies at the Scene

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It should be noted that rules and procedures are only a guide to assist the first officer in performing his or her functions at the homicide crime scene. The true test, however, in any given crisis is *common sense*. Often the officer does not have the luxury of clinical textbook conditions to direct his or her performance. Practically speaking, it is usually the street-wise officer who manages to come up with the appropriate solution in an emergency that occurs in an otherwise routine job because he or she possesses flexibility and common sense — the two ingredients necessary in an emergency.

Sometimes the first officer is faced with hysterical or violent persons, who may include the perpetrator and/or his hostile family and friends or the family and friends of the deceased bent on revenge or so overcome with grief that they become irrational. In addition, especially within inner-city enclaves, hostility may result from a general distrust of the police or any number of factors ranging from misunderstanding of the police function to the real or imagined grievances of the citizens involved, none of which is amenable to correction by the first officers responding to the crime scene.

In situations such as these, the first officer would be foolhardy *not* to pick up any weapons connected with the crime scene, in order to preclude their use by those present against the officer or another person. Protection of life would, in that case, take precedence over the general rule of not picking up or disturbing any evidence at the scene. However, the officer should continue to remain scene conscious, disturbing only that which is necessary and being careful to note the location, position, and condition of each item before it is moved or changed.





**Figure 2.5 ESTABLISHING THE CRIME SCENE.** The first officer should direct his attention to isolating the body and the immediate surroundings. In this case, a man's body had become impaled on a wrought-iron fence. At this stage of the investigation, the case could be a homicide, suicide, or accident. The first officer must establish a crime scene for the responding detectives and isolate the body from the onlookers. (Courtesy of retired Detective John DeGuilio, Crime Scene Unit, New York City Police Department.)

I remember one crime scene in a South Bronx social club that resembled *The Shoot-Out at the O.K. Corral*. Two bodies were lying on the floor and a number of guns were strewn about; a large, angry group of combatants had been temporarily “neutralized” by the responding police. The first officers had instinctively retrieved the guns to prevent further bloodshed. Common sense would dictate removing the weapons before you have an increased body count or you lose the evidence to the local gun collectors.

In extreme cases, it may even be necessary to move the body and abandon the scene. However, *this is a last resort*, only undertaken when police officials at the scene cannot maintain police lines or are forced by conditions that indicate there will be a further loss of life to innocent bystanders or injury to police officers at





**Figure 2.6 CHALK LINES AROUND THE BODY AT A CRIME SCENE.** You are *not* to draw lines around the body at a crime scene unless the body is to be removed. This photo shows evidence that the crime scene had been visited by a “chalk fairy” — a term used to describe mysterious police officers who feel the need to draw lines around the body and then disappear when investigators attempt to find out who contaminated the scene. (From the author's files.)

the scene. Such a situation could occur when a militant or radical group has just lost its leader through an assassination or because of any incident which may trigger a large-scale civil disturbance. In these cases, if the officers have access to the body, they should, consistent with their own safety, attempt to remove the body from the crowd. While doing so, they should attempt to note the original position, any new blood flow, any rigor or lividity if present, and any other information which may later assist in the investigation by the pathologist and detectives.

In such situations, there will usually be a number of news media representatives, including still and movie photographers. Police officials at the scene should enlist the assistance of these cameramen and photographers in getting as many photos as possible, with an accent on the persons present at the scene. In addition, there is usually ample time to arrange for police photographers to be present to take intelligence films. If conditions allow, it may even be possible to have these police photographers take the necessary crime scene shots before you move the body,



**Figure 2.7 TELEPHONE IN CRIME SCENE.** In these two close-up photos of a cell phone, it is obvious that the phone had been handled by someone who had been bleeding. (This may include the perpetrator as well as the victim.) It is imperative that this valuable evidence not be touched or disturbed before a forensic examination is made. Telephone instruments often contain latent prints. The first officer should be aware of the existence of trace evidence on the telephone instruments and not use any telephone in the scene to communicate with the police station or other police units until it has been processed for evidence. Although this particular telephone obviously contains trace evidence, it should be noted that any object at the scene may contain latent prints or other evidence and should be treated accordingly. (Courtesy of Detective Mark Czworaniak, Chicago Police Department.)

taking special note of the crowd. These photos and news films can later be reviewed for evidence and information.

I recall one such episode, which occurred in New York City during a “Unity Day” rally in the early 1970s. A major member of organized crime, who had arranged for a rally against alleged police and FBI harassment, was about to address a large assemblage when, suddenly, he was shot. Although uniformed police officers were only a few feet away, they were completely helpless in the chaos that followed. In addition to this attempted “hit,” literally dozens of guns were drawn by the personal bodyguards of the victim and by members of the opposite faction. The bewildered police officers also drew their guns, but because they could not tell the “good guys” from the “bad guys,” they withheld their fire. However, several shots were fired. A



supposed suspect was killed (no one knew by whom), guns were strewn all over the place, and several ongoing struggles were occurring within the crowd. The police were at a complete disadvantage in maintaining any type of original crime scene. However, a later review of the film coverage taken by the major networks and the intelligence photos taken by police and FBI photographers was invaluable in recreating the original scene and identifying possible perpetrators as well as suspected members of organized crime who were present during the shooting.

## Conclusion

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In conclusion, the police officer responding to or confronted by the homicide crime scene should prepare to take *five basic steps* upon arrival. If he executes them carefully, he will have initiated a proper professional investigation. The homicide crime scene is not an everyday occurrence for most officers. Usual police activities are emergencies, requiring automatic reaction, or routine handling of called-for services. The officer who confronts the homicide crime scene, however, finds himself somewhere between these two extremes. He must, therefore, adapt to the situation. I offer the acronym ADAPT as a basic, five-step approach:

- A — Arrest the perpetrator, if possible.
- D — Detain and identify witnesses and/or suspects for follow-up investigators.
- A — Assess the crime scene.
- P — Protect the crime scene.
- T — Take notes.

It should be noted that the arrest in the first “A” is actually an apprehension by the responding police officer. However, because any seizure of a person is legally an arrest, I have used that term. I recommend that the actual arrest for homicide should be made by the detective or investigator assigned to the case. The police officer should get full credit for the apprehension, but the formal arrest is a function of the investigative division of the police agency. I make this point because the formal arrest is based on the original probable cause resulting in the apprehension of the suspect coupled with all of the investigative information developed during the subsequent inquiry by the detective.

The arrest is only the beginning of a long legal process. There will be additional interviews of witnesses, preliminary hearings, possible grand jury appearance in certain jurisdictions, and a number of court appearances leading up to trial. For the purposes of effective prosecution, it is imperative that the police representative be the arresting officer as well as the case officer. This is an important legal strategy to prepare for any subsequent defense tactic to challenge the initial arrest.

The apprehending officer will only testify to his or her observations and initial probable cause. The detective will carry the weight of the prosecution's case by providing the investigative details and evidence supporting the charge of homicide.



**Remember: Do it right the first time. You only get one chance.**

### **Selected Reading**

Geberth, V.J. *Practical Homicide Investigation: Tactics, Procedures, and Forensic Techniques*. 3rd ed. Boca Raton, FL: CRC Press, 1996.

Geberth, V.J. *Practical Homicide Investigation Checklist and Field Guide*. Boca Raton, FL: CRC Press, 1996.

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# First Officer's Duties: Specific

# 3



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Chapter 2 concerned the general responsibilities of the first officer who confronts the homicide crime scene. This chapter will treat related situations that call for a specific response on the part of the first officer. These specific duties concern the following:

- The suspect in custody
- Transporting the suspect
- Examination of the suspect for evidence
- The dying declaration
- The victim removed to the hospital
- The victim pronounced dead at the hospital
- The officer's duties at the hospital
- The victim's confirmed dead at the scene
- Handling witnesses at the scene
- Additional officers at the scene
- Handling news media personnel at the scene
- The documentation of events by the first officer

In addition, I have included in this chapter a patrol officer's checklist, which the officer at the scene can use to refresh his memory about what vital information must be obtained and what duties must be accomplished in the initial investigation of homicide. Some of the information in this chapter may seem repetitive. It is meant to be. Based on my experience, some elements of investigative procedure need to be reinforced by repetition.

**Remember: Do it right the first time. You only get one chance.**

## The Suspect in Custody

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If the first officer takes a suspect into custody based on the officer's observations, information, or probable cause developed at the scene, the officer should *not*



**Figure 3.1 SUSPECT IN CUSTODY — DECEASED CONFIRMED DEAD AT SCENE.** The deceased, a 16-year-old female, was accidentally shot by her boyfriend while he was practicing his quick-draw with a shotgun, which he wore in a sling under his arm. The boyfriend, a suspect in some local armed robberies (with a shotgun), had been showing off when the gun discharged. Hearing the blast and screams, neighbors called the police. Three patrol units arrived within minutes of the “shots fired” call. They disarmed the boyfriend at gunpoint, detained the group involved, and notified the detectives. In such situations, the perpetrator is obvious. The patrol officers should take the suspect into immediate custody, based on their observations at the scene. It is better, however, if the suspect is questioned later by the investigators and not interrogated by the patrol officers. If the suspect is talkative and wants to make a statement to the patrol officers, then by all means the statement should be taken. Make sure, however, that the suspect has been properly advised of his or her Miranda rights. (From the author’s files.)

as a general rule interrogate the suspect. The interrogation should be conducted later by the investigator.

Practically speaking, however, certain types of homicide cases readily indicate the culpability of the suspect. In addition, in some instances, the suspect is quite talkative and insists on confessing or telling his “side of the story” to the officer. Under these circumstances, the officer should immediately advise the suspect of his constitutional rights under the Miranda ruling, make sure the suspect under-



**MIRANDA WARNING**

1. You have the right to remain silent.
2. Anything you say can and will be used against you in a court of law.
3. You have the right to talk to a lawyer and have him present with you while you are being questioned.
4. If you cannot afford to hire a lawyer, one will be appointed to represent you before any questioning, if you wish one.

**WAIVER**

After the warning and in order to secure a waiver, the following questions should be asked and an affirmative reply secured to each question.

1. Do you understand each of these rights I have explained to you?
2. Having these rights in mind, do you wish to talk to us now?

**Figure 3.2** MIRANDA WARNINGS CARD.

stands these rights, obtain an intelligent waiver from the suspect, and then allow him or her to make a statement.

I recommend that the officer advise the suspect of his rights using an official form, or a “Miranda warnings” card, issued by most departments to their officers. This will ensure that the rights have been given in a proper manner, and the card can later be presented in court upon the challenge of the defense attorney that his client was not properly advised by the officer. Under the Miranda ruling, the suspect must be told the following:

1. You have the right to remain silent and refuse to answer any questions. Do you understand?
2. Anything you say can and will be used against you in a court of law. Do you understand?
3. You have the right to consult an attorney before speaking and to have an attorney present during any questioning. Do you understand?
4. If you cannot afford an attorney, one will be provided for you without cost. Do you understand?
5. Now that I have advised you of your rights, are you willing to answer questions without an attorney present?

If the defendant understands his rights and answers in the affirmative to each of these questions, an intelligent waiver has been obtained. It should be noted that there are specific rules for non-English-speaking suspects and juveniles.

## **Transporting the Suspect**

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Sometimes a patrol officer will be requested to transport a suspect to the station house while investigators remain at the scene. If the suspect is to be transported to

the police station by patrol officers, these officers should be instructed *not* to interrogate him or her. If the suspect insists on volunteering information or talking about the case, the officers should listen, remember, and later make notes of any statements made. It is important to note that an interrogation by officers who are not familiar with the facts of the homicide investigation may do more harm than good and perhaps completely damage the case.

I remember an embarrassing case that took place with NYC Manhattan detectives when they requested uniform officers to transport their “talking” suspect to the station house. The detectives wanted to get this guy away from the crime scene so the suspect would not overhear the investigators. The suspect, who had beheaded his girlfriend, had already given preliminary statements to the detectives after he had been properly advised of his rights. The detectives planned on continuing their questioning at the station house. The problem arose when the two rookie police officers, who were *not* specifically instructed as to what the detectives wanted them to do, drove off with the suspect and decided that because the man was in handcuffs, he should be advised of his rights. Apparently, it sounded better to the suspect when the patrol officer advised him of his Miranda rights. The suspect decided that he “wanted one of those free lawyers” the officers mentioned he could have.

The uniform officers never told the detectives about this little verbal encounter they had with the suspect. Needless to say, this turned out to be a disaster. When the detectives returned from the scene, they interrogated their suspect, who never mentioned the uniform officers. He also did not tell the detectives he had invoked counsel under Miranda. The detectives properly took a full statement of confession from their suspect, who was then reinterviewed on videotape by an assistant district attorney. The two rookie uniform officers who had given the suspect his Miranda rights on the way to the police station were subpoenaed by the defense and the suspect’s confession was ruled inadmissible. Only the preliminary statements made to the detectives at the scene were admitted into evidence.

**Remember: When utilizing uniform officers to transport a suspect, provide them with specific instructions. Do not assume that the uniform officers will know what they are supposed to do in every situation.**

From a practical point of view, it is usually better if the suspect is interrogated by the investigator assigned to the case. The homicide investigators are in the best position to question the suspect based on their firsthand knowledge of the investigation, which includes examination of the crime scene, interviews with the first officers, and questioning of witnesses or any others who may have information relative to the case. Obviously, the investigator will be able to determine whether the suspect’s statements are consistent with the facts of the homicide investigation.

## **Examination of the Suspect for Evidence**

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The investigator or homicide detective assigned to the case or another investigator familiar with the investigation should examine the suspect for evidence. However, in the event that the patrol officer has effected the arrest or has taken the suspect into custody, he or she should be aware that physical or trace evidence may be on the suspect or on his or her clothing and/or shoes. My advice is that the officer examine the suspect for any evidence and preserve the clothes and shoes, which can be vouchered as evidence in connection with the investigation. (See Chapter 8.)

## **The Dying Declaration**

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If the victim is alive, the officer must be alert to the possibility of obtaining a *dying declaration*. This can be performed while waiting for the ambulance or en route to the hospital. Officers should be knowledgeable in the requirements of a valid dying declaration. I would recommend that the department issue a checklist or card to patrol officers, which will assist them in obtaining a legally admissible statement that may later prove invaluable in firmly establishing whether a crime has occurred and in investigating the circumstances surrounding that crime. However, it may be used in a criminal trial only upon the death of the declarant. (See Chapter 5 section, "Obtaining a Dying Declaration.")

The statement can be oral or written. In any event, the officer should reduce the statement to writing and have the declarant sign it or make his mark. It is recommended that a witness be present. However, neither the absence of a witness nor the inability of the declarant to write this statement affects its admissibility.

## **The Victim Removed to the Hospital**

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Upon arrival of the ambulance, the officer should guide the intern and/or ambulance attendants to and through the central crime scene via a preselected route so that any physical or trace evidence is not destroyed or unnecessarily damaged. Whatever they touch or move must be observed by the officers on the scene and reported to the investigators when they arrive. An officer should ride in the rear of the ambulance with the victim and remain with him at the hospital, making sure not to interfere in any way with required medical treatment. If the prognosis is that the victim is likely to die, the officer's presence is necessary if the victim makes some statement or recalls some important fact not previously disclosed.

The officer at the hospital should attempt to have the victim's clothing removed intact. If cutting is necessary, however, it should not be done through any holes, cuts, or tears caused by bullets, knives, or other weapons or instruments. To facilitate this procedure, it is recommended that hospital emergency room personnel be contacted in advance to secure their future cooperation when or if such a situation arises. I would suggest that the investigative supervisor contact the hospital



administrator and discuss matters of mutual concern. This liaison between homicide commanders and representatives of the hospital can be advantageous to both parties in getting the job done.

### **The Victim Pronounced DOA at the Hospital**

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If the victim is pronounced DOA (dead on arrival) or dies at the hospital, the officer should obtain the necessary information consisting of name of attending physician, cause of death, time of death, and any other factors which may pertain to the investigation. The officer should then immediately communicate with the detective or detective supervisor at the scene, relay this information, and then be guided by any further instructions he may receive.

### **The Officer's Duties at the Hospital**

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At the first opportunity, the officer at the hospital should communicate with the investigators at the crime scene in order to keep them advised of any developments at the hospital. In turn, the officer will receive such information as is necessary in order to talk intelligently to the victim if he or she regains consciousness or if the opportunity to obtain a dying declaration arises.

### **The Victim Confirmed DOA at the Scene**

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If the first officer arriving at the scene finds a body showing conclusive signs of death, the body should not be disturbed. Sometimes, inexperienced officers feel a need to "do something," particularly in the presence of family or friends of the deceased. They may feel compelled to cut down a body suspended in a hanging or otherwise disturb it, even when there are such obvious signs of death as rigor, lividity, and incipient putrefaction. In some instances, officers feel that they should immediately search the decedent so as to identify him or her quickly or obtain all the information for the desk officer when they call in their report. Once again, I emphatically state that the body should not be searched or disturbed until all other investigative processes have been completed and the medical examiner has completed his or her on-the-scene examination.

I would strongly suggest, based on past experience, that the search and inventory of the deceased be conducted in the presence of a supervising officer and, if possible, a member of the family or other civilian, in order to minimize a later charge of theft from the body, which unfortunately arises from time to time in dead-body cases. If the officer does cut down a hanging body because there are no conclusive signs of death, he must be careful first to observe the position of the knot when the body is suspended and then to leave the knot intact.



(A)



(B)

**Figure 3.3 VICTIM REMOVED TO HOSPITAL.** These photos show a crime scene established by first officers after the body was removed from the scene. (A) Overview of the scene with crime scene tape and evidence markers placed by the first responders. (B) Close-up photo of the bloody clothing and evidence markers. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)



## Handling Witnesses at the Scene

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All witnesses present at the scene upon the officer's arrival must be detained for the investigators. The officer should also be alert to the possibility that one of the witnesses who "discovered" the body may in fact be the perpetrator. If the suspect is taken into custody at the scene, he or she should ordinarily be detained for the investigators or removed as soon as additional assistance arrives to protect the scene. Keep in mind scene contamination.

Keep witnesses and/or suspects separate from one another or, when circumstances make this situation impossible, at least attempt to prevent discussion of the incident in the hearing of or between these persons. At the same time, officers should be alert to any declarations which may be admissible under the *res gestae* rule. As soon as the circumstances and number of officers present permit, the witnesses should be moved outside the crime scene area or, at the very least, away from the central crime scene. Witnesses should not ordinarily be moved to the station house until the investigators arrive, to permit them to obtain the details basic to the investigation and crime scene search. The first officer should report all conversations with the witnesses to the investigators when they arrive and, at the first opportunity, make careful written notes of such conversations.

At times, the person who discovers the body, the witnesses, or perhaps members of the immediate family may be so distraught that some well-meaning person or physician may suggest that they be given a sedative. Officers present should attempt to delay this medication until the arrival of the investigators. Persons who are sedated are often unable to be spoken to for several hours or even until the next day. This could become particularly critical when the sedated individual emerges as a possible suspect or perpetrator of the crime. As always, this situation will require tact and discretion.

## Additional Officers at the Scene

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As other officers arrive, care must be taken that they conduct themselves in an appropriate manner. Too often, officers who have not seen each other for a while meet at crime scenes and drift into irrelevant conversation during the lulls that occur while waiting for the investigators, crime scene technicians, morgue wagon, and so on. At times, this banter produces snickers or outright laughter, which can be heard by members of the family or friends of the victim. The image of the officers, the department, and police in general may thus be downgraded or even ruined in the eyes of that family, the neighborhood, or even the entire community. This is one of the reasons that I recommend that officers, especially additional reinforcements, arriving at homicides be directed to report to the command post, which should be away from the central crime scene area. There they can await assignments and be supervised without their conversations being overheard.



## Handling News Media Personnel at the Scene

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If newspaper or television people arrive on the scene, they should *not* be permitted access and *no* information should be given to them at this time. In addition, if any witnesses or suspects are being detained, it is imperative that they be kept away from the media. The first officers can best accomplish this task by firmly insisting that *no unauthorized persons* are allowed to interview or ask questions of anyone present in the interests of justice.

First officers should tactfully explain that all information about the case will come from the chief investigator or the detective supervisor in charge at the scene. It can be explained that it would be unfair to make some information available, piecemeal, to some members of the press, which would not be equally available to all others, and that such information will be made uniformly available as soon as possible. This approach must be taken by all members of the department, whether at the scene, at the hospital, at the morgue, at the station house, or still on patrol.

Such an *interests of justice* or *cooperation* appeal will usually be sufficient to handle preliminary inquiries by the press. Most press personalities and news reporters who have dealt with the police before can appreciate the emergency nature of this phase of the investigation and know that any information must come from a ranking official or detective supervisor. However, the first officers may encounter an overzealous or pushy character who insists that the police have no right interfering with the freedom of the press. In these instances, merely exercise good police procedure and courteously remove him or her from the crime scene, just as you would remove any other unauthorized or unnecessary person. (See Chapter 19, "The News Media in Homicide Investigations.")

## The Documentation of Events by the First Officer

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The first officer (and indeed all officers taking part in the investigation) must be *time conscious*. He or she must, as soon as circumstances permit, record the time dispatched, the time of arrival on the scene, the time assistance was requested, and so on. Time may become an important factor in terms of the suspect's alibi. Accurate recording of time also makes for a more precise investigation and contributes to a more professional report. In addition, accuracy as to time will create a more favorable impression in court.

The first officer, as well as other officers who arrive on the scene prior to investigators, should realize that he or she will need to enumerate all his or her activities at the scene to the investigators when they arrive. The officers should be mindful that they too may be subpoenaed to court later and their notes may be subject to review.

The investigators must be informed of *everything* that was touched, moved, or altered in any way by the officers or by others who were at the scene when the officers arrived. Officers must not smoke, flush toilets, run tap water, or use the bathroom facilities or anything else at or near the crime scene *unless absolutely necessary*.



**Figure 3.4 EVIDENCE IN SITU.** The fleeing offender dropped the bent, bloodied knife on the staircase at the scene. The first officers properly secured the evidence in its original location. (Courtesy of Detective Mark Czwarniak, Chicago Police Department.)

As soon as the first officers have performed their immediate duties, they should take advantage of any lulls or waiting time to record times, details, conversations they have had, names and addresses of witnesses or persons known to have been on the scene, and any other information pertinent to the investigation.

When the investigators arrive, the officers should immediately inform them — out of the hearing of the family, witnesses, suspects, and any others present — on all that has transpired up to that point. The investigators will now assume responsibility, at whatever point that they cut into the investigation, for the conduct of the investigation from that point on.

### **The Changing Sequence of Command**

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All officers should be aware of the changing sequence of command at homicide crime scenes. The first officer on the scene is in command until a uniformed officer of higher rank or an investigator arrives on the scene. The ranking uniformed officer will be in charge until the arrival of his or her superiors or an investigator. As soon as the investigator arrives, he or she will assume command from that point forward. He or she, in turn, will be superseded by an investigator of superior rank. Department regulations should provide for such shifts of command in these situations so as to avoid conflict and maintain a professional investigation.

### **Patrol Officer's Checklist**

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As a practical matter, the first officer's responsibilities in the preliminary investigation of homicide are divided into three specific duties:



**Figure 3.5 PRELIMINARY DEATH INVESTIGATION — PATROL.** This photo illustrates decomposition, skin slippage, lividity, and marbling. The first officers' responsibility here is simply to document the scene upon their arrival and ascertain whether anything was touched, moved, or altered in any way. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)

1. Preserve life
2. Arrest the suspect
3. Protect the scene

The officer should record all homicide information in his or her memo book or notebook as soon as possible, preferably as it is obtained. This book should be retained for later court purposes and shown to the investigator when he or she arrives at the scene. All dead-body calls should be handled as homicides in this preliminary stage.

I have provided the following checklist of first-officer duties in order to assist the officer at the scene in refreshing his or her memory as to what vital information he or she should secure.



### Initial Call/Receipt of Information

- Record exact time and type of call patrol unit received. (In systems using modern computerized and recorded radio transmissions, the unit can check with Communications.)
- If first notification is received in person, detain this person for investigators. If you are unable to detain for some reason, obtain sufficient identification and information for follow-up investigator.

### Arrival at the Homicide Crime Scene

- Record the exact time of your arrival and/or notify Communications that you are on the scene.
- Enter the immediate crime scene area to view victim. (Only one officer should enter the scene unless the call is an emergency call and the offender may still be on the scene.) Use only one path of entry and exit.
- Determine whether the victim is alive or dead.
- If there is a possibility of life, summon an ambulance and apply appropriate first-aid procedures.
- If circumstances indicate the victim is near death or dying, attempt to obtain a dying declaration.
- If the ambulance crew is present before your arrival, determine whether the crew or anyone else moved the body or any items within the crime scene. If there were any items moved, record the following:
  - What alterations were made
  - When the alterations were made
  - Purpose of the movement
  - Person who made the alteration
- Record the names, serial numbers, and hospital of ambulance crew present at the scene.
- If the victim is dead, record the official time of pronouncement by the ambulance attendant.
- Arrest the perpetrator if he or she is present.
- If the suspect has just fled the scene, initiate a wanted alarm.
- Record any alterations to the crime scene that were made as a matter of investigative necessity — for example:
  - Lights turned on or off
  - Door opened, closed, locked, or unlocked
  - Body moved or cut down
  - Windows opened, closed, locked, or unlocked
  - Furniture moved; anything touched
  - Gas turned off, appliances turned off, motor of vehicle on or off

## Protection of the Crime Scene

- Attempt to assess the entire crime scene, including paths of entry and exit and any areas that may include evidence. (*Remember the possibility of a multiple crime scene.*)
- Establish a perimeter; secure and protect the scene by isolation and physical barriers such as ropes, cones, and other equipment as necessary.
- Record names, addresses, dates of birth, telephone numbers, etc. of all persons present at the crime scene.
- Remove all persons from the immediate area. (*Be careful not to chase off witnesses or the perpetrator, who may still be present.*)
- If the victim is removed from scene by ambulance, an officer should accompany him or her to the hospital, riding in the rear of the vehicle with the victim (for possible dying declaration).
- An officer should remain at the scene in order to provide for its security.
- If the victim's clothes are removed at the hospital, an officer should maintain control (the victim's clothes are evidence).
- Request additional units as needed to protect the scene.
- If it is necessary that a clergyman or doctor enter the scene, have an officer accompany him or her through the designated path of entry and caution this person about contamination and/or alteration.

## Notifications

- Make notifications by telephone if possible (police radios are often monitored by the press).
- Never*, unless absolutely necessary, use a telephone inside the crime scene. Such necessity would involve a life-or-death situation, the need for immediate transmission of alarms, etc.
- Notify the investigators or homicide division.
- Record the time of notification and who was notified.
- Establish a temporary headquarters out of the central crime scene (preferably a location with two phones, one for incoming and one for outgoing. In addition, you can use cell phones for communications between and among investigators and headquarters).
- Broadcast any alarms for suspects or descriptions of perpetrators from command post to guarantee uniformity and possibility of verification.
- Notify Communications of the telephone numbers of the command post as well as the cell phone numbers of members at the scene to facilitate communications among the various units.

## Preliminary Investigation

- Initiate and maintain a chronological log recording the names, shield numbers, and commands of any police officers entering the crime scene. In

addition, record the names, addresses, etc. of any civilians who may need to enter as well as names, titles, and serial numbers of any ambulance personnel. This log should reflect the entry and exit of any person who enters the crime scene.

- Isolate and separate witnesses or suspects. Do *not* permit any conversations relative to the crime. Hold witnesses and suspects for the investigators.
- Establish a path of entry and exit based on observation of the scene.
- For any civilian at the scene, record identifying information and knowledge of the crime.
- Do not touch, move, or alter anything in the scene. If you do, record it.
- Do *not* smoke in the crime scene.
- Do not flush toilets or run tap water in sinks or bathtubs. If this has been done, record it.
- Refer all newspaper and media inquiries to the investigators.
- Stand by for investigators and assist them as required.
- Advise and inform investigators of all that has transpired since arrival of first officer.

### Suspect in Custody

- Determine whether the suspect is armed (search for weapons). If a weapon is recovered, record its description and location. Maintain custody pending arrival of investigators who will instruct as to vouchering and disposition.
- Handcuff the suspect and isolate him or her from any witnesses and/or associates. (Use the rear handcuff method.)
- If a suspect is arrested outside crime scene, *do not return him or her to the scene.*
- If a suspect is arrested inside the crime scene, *remove him or her immediately. (Remember scene contamination.)*
- Note and preserve any evidence found on a suspect and advise investigators.
- Do *not* permit the suspect to wash hands or use the toilet (you may lose evidence).
- Do not permit any conversation between a suspect and any other parties.
- Do not initiate any interrogation (wait for the investigators). However, in certain types of homicides, the first officer will take statements. *Make sure, however, that the suspect has been warned of his rights before taking any statement. As a general rule, conduct no interrogation.*
- Carefully record all spontaneous statements (*res gestae* rule).
- Observe and record the behavior of a suspect (e.g., nervous, erratic, emotional, unemotional, drunk, under influence of drugs, any unusual behavior).



## Suicide and Accidental Death

- If a death appears to be suicidal or accidental, handle it as a homicide, pending arrival of investigators.
- Secure the immediate scene and detain witnesses.
- Preserve all evidence, e.g., notes, weapons, pills, vials, drugs, in their original position.
- Notify investigators.
- If vehicles are involved, do not allow removal until photos have been taken by crime-scene technicians or CSI personnel.
- If suicide is by hanging and death is evident, *do not cut the body down*.
- If the body is cut down because death is not evident, *make the cut above the knot*.
- If relatives are present, get any background information, which may assist investigators.



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# The Preliminary Investigation at the Scene: The Detectives

# 4



The purpose of this chapter is to provide the homicide investigator/detective with flexible guidelines to follow in the preliminary investigation of death. The principles set forth in this section are intended to help the detective and chief investigator at the homicide crime scene to systematically check and review all the facts applicable to the investigation.

Many times over the years I have heard the expression how “luck and chance” played a significant role in the successful conclusion of a case. However, I believe that luck and chance are the residue of design and established protocol. The tactics, procedures, and forensic techniques within this text are designed to elucidate the elements of good fortune.

I believe that the professional investigator creates his or her “luck and chance” through the systematic application of basic time-proven and traditional investigative methodologies utilized by law enforcement agencies throughout the years, coupled with an appreciation for and an understanding of the advances in forensic science as well as its application to the investigative process.

This chapter will cover the sequence of events, starting with the initial notification to the detectives that a homicide has occurred, and then proceed chronologically through the investigative duties and direction of activities at the scene, including direction of uniformed personnel, interview of first officers, interview of ambulance personnel, handling curious onlookers and witnesses at the scene, the canvass, and the preliminary medical examination. Subsequent chapters will address the specific investigative methods employed at the scene. However, this preliminary phase of homicide investigation is the most critical and deserves special attention because it sets the tone for the entire investigation.

In *Practical Homicide Investigation*<sup>®</sup>, I describe the duties of homicide investigators as follows:

**Observe**  
**Describe**



**Record** (note taking, photography, video tape, sketch, Polaroid or digital camera shots, tape record, describe for the record, and obtain any interviews or statements)

**Collect**

## **Initial Receipt of Information**

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Homicide investigation is probably the most exacting task confronting the criminal investigator. It begins with the initial notification that a homicide has occurred.

Investigators are rarely the first officers at the scene of a homicide. The body is usually discovered by friends, relatives, or citizens, who in turn notify the police or call for an ambulance. The notification to detectives or investigators is usually made through department channels.

The response of the homicide investigator and detective supervisor must be methodical. In order not to overlook the obvious, the most basic details should be recorded. I recommend that the investigator start a separate steno pad or notebook for use in each homicide investigation. The first entry should be the receipt of information that a homicide has occurred, including

Date and time of notification

Method of transmission, e.g., telephone, radio, or in person

Name, rank, shield number, and other data identifying the person reporting the information to detectives

Complete details of the information and event

Many times, from a false sense of urgency and/or a desire to take immediate action, investigators will get caught up in the excitement or confusion that often permeates the homicide crime scene. Subsequently, they may lose the “cool, calm, and detached” projection necessary to assume control and initiate the investigation. A good thing to keep in mind is that the deceased is not going anywhere and, more important, that the patrol officers are already at the scene taking preliminary action.

Prior to leaving for the scene, the investigator should instruct the person notifying him or her that patrol officers at the scene should

Preserve the crime scene

Hold all witnesses and/or suspects

Avoid using telephones located within the crime scene

Initiate a *personnel log* accounting for all activities at the scene, including identification of all persons who have had access to the scene

Record the license numbers and vehicle information of all autos in the area of the crime scene (if applicable)



**Figure 4.1 CRIME SCENE UPON ARRIVAL OF DETECTIVES: VICTIM DEAD.** This photo was taken immediately upon the arrival of detectives at the scene. This crime scene was in a heavily populated inner city location, which is not conducive to establishing a large perimeter. However, uniform officers had cordoned off an area around the body to preserve the scene. Emergency medical personnel covered the body with a sterile sheet from the ambulance after pronouncing the victim dead. It is also a good procedure to obtain pictures of the people in the crowd. Often witnesses to the event, including possible suspects, will be watching the police activities at the scene. Usually upon arrival of the investigators, who may recognize some former “clients,” these folks disappear. If their pictures have been taken, you may be able to identify or locate persons of interest. (From the author’s files.)

## Arrival at the Scene

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When the investigator arrives at the scene, he should note the following:

- Time of arrival

- The exact address of the scene

- Persons present (officers, ambulance or medical people, relatives, friends, etc.)

- The condition and position of the body (personally verify death; see Chapter 2 section, “First Officer’s Duties on Arrival at the Scene”)

- Information concerning death

- Weather conditions (The simplest and best way to obtain certified weather records is from the National Climatic Data Center, located in Asheville, North Carolina, 828-271-4800 or [www.ncdc.noaa.gov/oa/ncdc.html](http://www.ncdc.noaa.gov/oa/ncdc.html).)

- Outside lighting conditions in nighttime situations

Points of observation (locations where prospective witnesses or persons such as the local busybody could have observed what happened)

Possible video surveillance locations such as banks, ATM machines, supermarkets or malls, parking lots, and other locations, which now routinely employ video surveillance for security or public safety.

### **Preliminary Steps to Be Taken by Detectives upon Arrival — Checklist**

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- Upon arrival, ascertain boundaries. *Do not* move blindly into an area. (Confer before acting.)
- Decide how to approach the scene. Consider paths of entry and exit. (Confer with first officer or detective.)
- Conduct the initial survey. (Remember to have the first officer escort you.) Use this opportunity to develop a mental image and “absorb the crime scene.”
- Ascertain whether fragile evidence is present. (Assure collection of these items.)
- Prior to any crime scene process, take “work photos” to limit scene intrusion. Digital or Polaroid cameras can be used.
- Record ambient temperature.

In addition, the investigator should stop and observe the area as a whole, noting everything possible before entering the actual crime scene for the detailed examination. Only the investigator and detective supervisor should enter the homicide crime scene — of course, with the exception of the first officers and even then only to confirm death and observe scene conditions.

Homicide investigators must be certain to record the time and place of events and any measurable evidence. It takes only a few moments of the investigator’s time to record this information, which may prove vital to the investigation. Basically, there are three reasons for this emphasis on preliminary note taking:

1. The question of *time* is frequently the first subject covered in a cross-examination. If the investigator cannot be sure of the time of events, he or she may lose credibility on the rest of the testimony.
2. The subject of *time* may very well be the basis of an alibi.
3. Note taking forces the investigator to slow down. It thereby sets a calmer tone for subsequent events at the scene and also causes the investigator to pay attention to details in order to record them in the notebook.

A procedure I have found effective is to photograph the crime scene upon arrival to record the conditions as I arrived. This can be done with a digital or Polaroid camera, available at the homicide office and maintained for crime scene use, or with an Instamatic camera, which can be carried in your pocket for ready use at any time. I find the digital camera with built-in flash device the most effective





**Figure 4.2 PROPERLY PREPARED CRIME SCENE.** This photo depicts a crime scene which has been properly prepared by the responding patrol officers. The victim had been killed in a field off a major highway in the Bronx. The patrol officers cordoned off the entire field surrounding the body, which resulted in the retrieval of crucial evidence in and around the body, including a suspect's shoeprints. (From the author's files.)

because of its convenience, its simplicity, and the ability to view your pictures immediately at the scene. A photo taken at this point is a priceless record of how the crime scene appeared when the first detectives arrived.

The Crime Scene Unit or police forensic photographer will take any number of photographs of the homicide crime scene, which will be submitted into evidence for the prosecution. However, those first pictures taken before the arrival of additional personnel and supervisors usually prove to be quite valuable.

## **Describing the Scene**

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A complete description of the dead body and the surrounding area, covering the following items, should be entered in the notebook of the investigator upon arrival. (Although some of the points I have listed may seem quite obvious, I can assure

you from my experience that the obvious is sometimes overlooked, especially during this initial phase, as you attempt to cover all the bases.)

1. Record sex, appearance, age, build, color of hair of the deceased and a description of the deceased's clothing.
2. List evidence of injury and apparent cause of death.
3. Are the bloodstains wet or dry?
4. What is the condition of the body (lividity, rigor, etc.)?
5. Describe the color of the blood (bright red or brown).
6. Note any tears in clothing and evidence of gunshot or stab wounds.
7. Carefully examine the hands. Are there any wounds or a weapon?
8. Note whether there is any jewelry (rings, watches, gold chains, etc.). If there is no jewelry, make a negative notation. Defense attorneys have been known to resort to dirty tactics during trials. If they can make you look like a thief to discredit your testimony, *they will do it*.
9. Describe the immediate surroundings. (See Chapter 7.)
  - a. Note position of body in relation to articles in the room.
  - b. Note doors, windows, furniture, etc.
10. If a weapon is nearby, take detailed notes. Do not handle.
11. Look for bullet holes or fired shells. Note: do not collect at this stage of the investigation. (See Chapter 8.)
12. In poison and drug-overdose cases, note presence of drugs, bottles, or glasses.

## Implementing Crime Scene Procedures

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The first thing the investigator should do after confirming death is to take charge of the crime scene. In the absence of the detective supervisor, the homicide detective is responsible for the professional investigation, of which the preliminary investigation at the crime scene is the most important and sensitive aspect. When I instruct my classes, I always remind the detectives in attendance to practice what I call "crime scene etiquette." Basically, as a detective, you are there to reinforce the first officer's duties and assure crime scene protection. Yet, at the same time, you want to take charge in a manner that encourages cooperation and teamwork.

A simple expression such as, "Hi, I'm detective so and so and I assume you are the first officer. Could you please give me a quick briefing and then show me what we have and assure that I don't disturb anything?" Who could get mad or be put out with that introduction? You have already acknowledged that the first officer is in charge. You are about to assume responsibility for the investigation. You have deferred to the first officer's official position and acknowledged that he or she has the most current information on the event and have indicated by stating, "show me what we have" that everyone present is working on the case.

At this point, you are present to evaluate the entire crime scene and surrounding area.



- You may decide to expand the perimeter.
- You may decide to add additional scenes.
- You may cause the immediate collection of evidence.

Therefore, extreme care must be exercised to preserve and protect the scene because even the smallest detail can suddenly assume vital importance in the case. Failure to implement proper crime scene techniques may irreparably damage the investigation. I have found that the best course of action is to treat each dead-body call as a criminal homicide until the facts prove differently.

If the crime scene is outdoors, a wide area surrounding the body should be cordoned off for later systematic examination. The patrol officers should be directed to isolate the body and secure the immediate surroundings from all persons.

If the crime scene is indoors, the job of securing the location is relatively easy to accomplish. It may be as simple as closing the door. The biggest problem is removing unauthorized persons from the scene. The investigation should begin with the walkway and front entrance to the structure. These areas and the location where the body lies should be considered part of the scene and appropriately secured.

The homicide detective should determine what areas are to be included or excluded from the crime scene and decide whether the homicide involves multiple scenes. (See Chapter 1 and Chapter 2.)

I remember responding to a particularly vicious incident in which the victim, a young newspaper delivery girl, was repeatedly stabbed and assaulted during a sex attack on a roof landing. Upon arrival, I was informed by the patrol supervisor that the crime had taken place on the roof landing and that an officer had been assigned to safeguard the scene. Having been a newspaper delivery person as a young boy, I realized that kids who deliver papers in an apartment building take short cuts over roofs as well as follow a particular routine, such as taking the elevator to the top and working down. I conducted a preliminary survey of the scene and surroundings and discovered at least five additional locations involved in this original crime scene. These included the roof, an adjoining roof landing, an elevator, and two interior staircases, none of which had been secured and all of which contained various bits of trace evidence. Additional personnel were requested and these areas were cordoned off for the later crime scene search and process (multiple crime scene theory).

## **Direction of Uniformed Personnel at the Scene**

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The detective supervisor and homicide detective assigned to the case are in complete command at the scene of the homicide. They have the authority to exclude everyone — including other police officers, the news media, and any other unauthorized persons — except the medical examiner or coroner. Often, follow-up investigations of crime scenes have disclosed that valuable evidence was destroyed by the mere presence of police personnel.



Actions such as standing or walking in the scene or leaning against doorways or walls may alter or destroy valuable trace evidence such as latent prints or blood, hair, or skin specimens. If the crime scene can be adequately controlled, the chances of contamination will be minimized. The homicide people should explain these facts to the patrol supervisor and uniformed officers and request their cooperation in keeping *all* unauthorized and unnecessary personnel away from the crime scene.

Sometimes, high-ranking police personnel may inadvertently destroy valuable evidence. Although rank does not preclude scene contamination, I would not advise an officer to tell some high-ranking officer that he has just “screwed up” the crime scene. Instead, the homicide supervisor should be apprised, who then might be able to gain some cooperation from the ranking official by requesting assistance in preserving the scene and keeping everyone out. Tact will be required in this type of situation.

Sometimes a patrol officer will have taken evidence into custody before the arrival of the investigators. In many situations, officers will be forced to retrieve evidence or secure firearms because of safety or the possibility of destruction. They should be directed to safeguard this evidence properly, because they now are involved in the “chain of custody,” and to make proper notations in their official reports so that these materials can later be submitted into evidence. (See Chapter 17.) Likewise, if an officer effects an arrest at the scene based on his observations, the detective supervisor should place the officer under the supervision of the homicide investigator. This procedure will assure that the officer is properly guided during the subsequent homicide investigation. In some instances, it may be necessary to “detail” a patrol officer to the Homicide Division during the investigation.

Uniformed personnel at the scene should remain at their posts until relieved by the investigator although they may be used to transport witnesses or suspects for the investigators at the scene. (See Chapter 3.)

**Remember:** When utilizing uniform officers to transport a suspect, provide them with specific instructions. *Do not assume* that the uniform officers will know what they are supposed to do in every situation.

## The Teamwork Approach

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The detective supervisor and homicide investigator are faced with a crime of the utmost gravity — one fraught with a complexity of possible motives and methods and a variety of physical evidence. Therefore, *teamwork* is required for a successful homicide investigation, and the detective supervisor and homicide investigators must set the tone for this teamwork approach as they coordinate the different people involved in the responsibility of the inquiry into death, for example:

- The patrol service or uniform division
- The detective division and other homicide detectives
- The medical examiner or coroner

The crime scene technicians or fingerprint experts  
The district attorney  
Medical and ambulance personnel  
Other agencies, such as the FBI if the homicide involves a federal employee

## **Directing the Investigation at the Scene**

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Homicide investigators should attempt to obtain all pertinent information from the first officer out of the hearing of any witnesses, the press, or the public before taking charge of the investigation. As mentioned earlier, the detective should confirm the fact of death for himself. The investigator must also see that the duties of the first officer have been accomplished.

## **Duties of the Detective Supervisor on Arrival at the Scene**

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The detective supervisor or chief investigator, upon arrival, will assume the responsibility for conducting the homicide investigation and will replace the initial investigator as the ranking officer in charge of the case. It is extremely important that the detective supervisor and the homicide investigator not fall into a fixed routine. Previous experience is invaluable but can become a hindrance when allowance is **not** made for new possibilities.

**Remember: Each homicide case is distinct and unique and may require a fresh approach or perspective. Keep an open mind.**

Practically speaking, no one at this stage of the investigation has all the answers, and no one can know for sure exactly what direction the case will take. However, the detective supervisor should be guided by certain basic procedures at the scene.

1. Ascertain that an investigator is at the scene and that the crime scene is amply protected. Confer with the investigator and be brought up to date on the status of the investigation. Solicit any opinions or theories and objectively evaluate these with your independent observations. Determine any investigative needs and make assignments as necessary.
2. Confer with the ranking uniformed officer at the scene, and interview the first officer so that proper instructions can be given to responding investigators.
3. Give priority to the removal of the suspect and/or witnesses to the police station. Each witness should be transported separately. However, before they are transported, the witnesses should be briefly interviewed by the investigators at the scene so that they may have the advantage of the witnesses' observations to guide their investigation there. Written statements can be

obtained later at the police station and the information transmitted back to the detective supervisor at the scene.

4. Use an assignment sheet to indicate assignments as given. This sheet should contain the identification of officers assigned, the location of the assignment, the duties assigned, and the time the assignment was given. Later it can be used as a control device to assure that official reports are obtained from the investigators assigned. In addition to fixing responsibility for certain investigative duties, the assignment sheet will eliminate duplication of effort as additional assignments are made and added to the sheet.
5. If a suitable communications center or command post has not been established by the patrol officers, the investigator or supervisor should take immediate steps to arrange for one. The station house, Communications Division, and the detective command personnel should be apprised of the telephone numbers of the command post to facilitate rapid communication to and from the scene.
6. Designate an officer to keep a running timetable of events, including arrivals and departures at the scene. When the scene is released, the timetable should be turned over to the detective supervisor.
7. If the victim has been removed to the hospital, ensure that proper action is being taken at the hospital regarding any dying declarations, clothing, evidence, etc. (See Chapter 3.) It is advisable to have a detective contact the hospital and confer with the patrol officer and/or doctor. It may even be necessary to assign a detective to assist the officer in these procedures.
8. If the suspect has fled the scene, the investigator and detective supervisor must ascertain exactly what alarms have been transmitted, if any, and the exact information contained therein. Upon verification and the development of any new information, these alarms should be retransmitted.
9. Provide for the dissemination of information to all units involved in the homicide investigation. Ideally, all investigators should be aware of all aspects of the case. It is up to the detective supervisor to coordinate and disseminate this information to the “troops.” Properly informed officers can better perform their assigned functions and contribute more intelligently to the overall effort. This is especially true for officers assigned to conduct canvasses. (See “The Canvass” in this chapter.) Uniformed officers assisting at the scene must also be made to feel that they are part of the team.
10. On occasion, too many officers respond to the homicide crime scene. The detective supervisor should not hesitate to direct these officers to return to their original assignments if they are not needed.

### **Preliminary Interview of the First Officer**

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The detective must ascertain that the scene is *intact* — that nothing has been added or removed since the arrival of the responding police. To determine this, he goes



directly to the first officer. A preliminary interview with the first officer can provide an up-to-date appraisal of the crime scene as well as an assessment of what has transpired since the discovery of the body.

The homicide investigators should obtain a detailed account of what the officer or officers have seen and done. Usually, the officers will offer an opinion as to cause, manner, and circumstances of death. Investigators should receive these opinions objectively and graciously. However, they should not allow themselves to be influenced prior to making their own observations. Often the first officers' opinions provide a valuable lead in the investigation. *In keeping with the teamwork principle, give credit where credit is due.* If a patrol officer's performance at the scene is outstanding or proves instrumental in solving the investigation, I recommend that an official report be forwarded to the officer's commander. This report should be initiated by the detective supervisor at the scene and sent through channels so that this officer will receive proper recognition.

**Remember: In order to effect a successful homicide investigation, everyone involved must work together; homicide investigation is a team effort and not a one-man show.**

When interviewing first officers, emphasis should be placed on their activities in the immediate area of the crime scene — for example, how they gained entry into the scene, the position of the body upon arrival, things they may have touched or moved, condition of the doors and windows, odors, whether the lights were on or off. (See Chapter 2 and Chapter 3.) It may prove valuable to have first officers document their activities and observations on official reports. In addition, I recommend that the investigator assigned to interview the first officers prepare an official report for review by the patrol officer, to assure that it is correct, and then have the officer sign the investigator's report, which will become part of the homicide investigation.

I have found that it is a good idea to keep the first officers at the scene to answer any questions about the appearance of certain objects when they arrived. In addition, they can report any observations of persons who were in the area when they arrived or who expressed some interest in the activities of the police.

I recall one case in which the police had been called to the scene by the fire department after firemen discovered a body on fire in a basement of a South Bronx tenement. Two patrol officers in the vicinity responded immediately and arrived as firemen were still extinguishing the fire. The fire officer in charge advised the two police officers that an individual at the scene had been quite helpful and had directed firemen through the unlit basement to the source of the fire. These two police officers, taking note of the fact that inhabitants of the area were often less than civic minded, detained this "good citizen" pending my arrival and that of other detectives from the 7th Homicide Zone. They advised us of his actions and detained him as a witness. Needless to say, it was not long before we were able to reconstruct what had occurred.

Our “witness” had been staying with the deceased in a rear room of the basement. They were both from Jamaica and belonged to the Rastafarians sect (a Jamaican subculture that often deals in marijuana and other illegal activities) and apparently had a falling out over business, resulting in a shooting that left the deceased with a bullet in his head. Why our good citizen just did not take off, I will never know, but he stayed with the cadaver all night. The next day, he bought kerosene at the corner hardware store, dragged the body to the front of the basement, poured the liquid over it, and lit it up. However, he did not expect the initial burst of flame and smoke. His immediate problem was keeping the flames down. The people on the first floor, spotting the smoke emanating from the basement, called the fire department. A fire company returning to its station was still in the area from a previous alarm; it responded and arrived in less than a minute. Finding himself trapped between the body and the firemen, the suspect decided to play the part of a good citizen. The two street-wise police officers, however, did not buy his act, and he was detained. After gathering some trace evidence and interrogating our “witness,” an arrest was made and our good citizen was charged with murder.

The interesting thing to note in this particular case is the actions of the first officers. They took the initiative and detained this person based on their initial observations and “gut feelings.” As a result, homicide detectives were provided with a suspect and were able to conclude the investigation successfully.

## **Interview of Ambulance Personnel**

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Frequently an ambulance crew is the first official agency to arrive at the scene of a homicide. Sometimes these ambulance attendants can render invaluable assistance to the investigator. Because their obligation is to view the body and give medical assistance if the victim is alive, one or more members of the crew have probably been on the scene and close to the body. Often the perpetrator will still be on the scene and may even engage the ambulance crew in conversation or make an admission. In addition, the deceased may utter a name or description of the assailant. Furthermore, many people who were present when the assault took place will not leave when the ambulance arrives, but instead will stand around to “watch the show.” When the police units begin to arrive, these persons suddenly make themselves scarce.

It is up to the homicide investigators to find out exactly what took place before the arrival of police. The investigators must interview each member of the ambulance crew who was present at the scene. Ambulance crew members are not trained criminal investigators and may inadvertently have altered the crime scene in some small but highly significant way. Obtain their names, serial numbers, unit numbers, hospital affiliation, and times of arrival and pronouncement of death. Every detail of their actions should be known — for example, how they gained entry if the scene was indoors, the path of entry if it was outdoors, things they may have touched

or moved in order to get to the body, movement of the body, areas in which they were present, and their observations. They should answer such questions as: Who was present? Did the deceased say anything? Were they smoking? If so, did they discard their cigarettes and where did they discard them?

## Handling Curious Onlookers

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Using courtesy and a calm professionalism in dealing with civilian crowds can be to your advantage. You may be able, for example, to gain the crowd's cooperation in maintaining police lines pending arrival of additional personnel or to persuade an onlooker to come forward with some valuable information. This is especially important in areas known for their distrust of and hostility to the police. In some areas, especially in inner cities, the mood of the crowd may turn ugly depending on how the police maintain lines and direct the crowds.

Do not engage in any verbal rhetoric with the "village idiot." You may rest assured that in every crowd there is the drunk, the clown, the self-elected spokesman of the day, the troublemaker, the junkie, or the fool. Your refusal to get involved with such a character may very well be the key to getting the crowd on your side; through nothing more than plain old-fashioned peer pressure, this person will be neutralized. Furthermore, when the crowd begins to empathize with your function, additional information may be provided by witnesses who were at first reluctant to come forward.

As an investigator, you can usually assume a different role than that of the uniformed patrol officer. Persons who have been directed by patrol officers to stand back will instinctively resent the authority, yet may still have a desire to give information to the police. My advice is to take advantage of this and actively solicit their cooperation. People will usually tell a homicide detective things they would not disclose to a uniformed officer.

Furthermore, when dealing with curious onlookers in a crowd, you never know who has information and who will come forward with it. I recommend that you get some of your people, who do not look like detectives, into the crowd. I remember an incident in the South Bronx to which the 7th Homicide Zone had responded. It was a street scene, and the deceased was lying on the sidewalk surrounded by a large crowd of onlookers, most of whom were conversing in Spanish. One of the homicide detectives, who was Puerto Rican, began to mingle with the crowd and ask questions in Spanish. A man with whom he was speaking suddenly turned to another person in the crowd and said in Spanish, "Hey, look over there! That guy has some nerve. First, he kills the dude and then he comes back with all these cops standing around just to look at the body." Needless to say, the detective in the crowd alerted his counterparts but remained in the group to watch and listen. When the other detectives suddenly broke into the crowd and grabbed the suspect, the persons who had been discussing the incident were overheard to say, "Wow, those detectives are really smart. How did they know he killed that man?"



The detective who had infiltrated the crowd not only identified the suspect but came up with two additional witnesses who were brought in to headquarters for formal statements.

## Handling Witnesses at the Scene

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Although the homicide crime scene offers an abundance of informational and evidentiary material, the identity of the perpetrator will usually be uncovered through the intelligent interviewing of witnesses.

The homicide detective should determine the identity of all witnesses who have been at the scene. Valid identification, including names, dates of birth, residence and business addresses (with zip codes and telephone numbers), should be obtained in the event that later contact is necessary. It is imperative that the witnesses be separated, and each one should be interviewed individually as soon as possible after the event. The best procedure is to assign homicide detectives to take an informal statement immediately upon arrival while the case officer (the investigator assigned to the case) goes over the crime scene and establishes some basic information about the crime. This procedure assures that a candid statement is obtained before any deterioration of memory takes place because of a time lapse or a desire “not to get involved.”

Usually, a person who tells a detective one story will not suddenly change it later when a formal statement is taken. These initial interview results should immediately be made known to the homicide supervisor and the case officer to assure sensible direction of activities at the scene. The location for the subsequent formal interview of witnesses should be an office or other place where there is privacy and the necessary recording equipment is available. I recommend that witnesses be transported to the station house for formal statements immediately after the initial information has been obtained at the scene. If patrol officers provide the transportation, they should be reminded to keep parties separated en route and at the police station.

The formal statement should be taken and each witness evaluated by the homicide detectives assigned to the investigation. Needless to say, the homicide supervisor and the investigator who originally took the preliminary statement should confer in this evaluation. This phase becomes crucial when dealing with persons who do not speak English and require an interpreter. The interviewing officer should make sure that the interpreter is phrasing the question properly so that there is no misunderstanding of the meaning of the question and that the exact response — and not the interpreter’s assumption of what the interviewee meant — is recorded. If possible, have an officer who speaks the language conduct the interview with the case officer. Together, they can formulate the questions and evaluate the responses.

Obviously, the eyewitness to the fatal act is the most valuable. However, other witnesses may have important information, which places the suspect at the homicide crime scene or supplies the motive for the crime, or they may be able to provide personal information about the suspect.

**Remember: It is important to keep the witnesses separated from one another.**

Witnesses who have conferred with each other may change their stories, not from a desire to mislead the police, but from a very basic factor in human behavior called group dynamics. One or more persons in a group may force their dominant personalities on the group; the other witnesses will compromise their stories so as not to disagree with or offend the stronger personalities or to seem “stupid” by having seen something no one else saw.

However, in other instances — especially when dealing with criminals or persons sympathetic to criminal enterprise — a conscious effort may be made to mislead and thwart police inquiry into the crime.

The detective should realize these possibilities when questioning prospective witnesses and must be thorough and patient. He must get the witnesses to relax and talk about themselves. He should encourage them to tell the story in their own words. Of course, when dealing with the criminal sympathizer or “bad-guy” type, questioning will need to be more along the lines of authority, and you will look for any weaknesses or fears you can perceive. Usually, these types are not too anxious to have the police probing into their lifestyle and may be willing to cooperate for a price or just to “get the cops off their backs.” Sometimes you may be lucky enough to have something on them, such as a lesser crime, which can be traded off for information on the homicide. In reality, as I look back on my career, especially in some of the areas where we conducted drug-related homicide investigations, *many* of our witnesses were in handcuffs when they were brought in. Often the only good thing you could say about the most recently deceased was that he was *dead*; today’s deceased was usually yesterday’s perpetrator.

Dealing with these criminal types is always frustrating and dangerous. You never know for sure which side of the fence they are on, and you cannot be sure of their motivation or when they will turn on you. Your best defense, of course, is the proper documentation of their activities. Make sure that you confer with your supervisors or commanders. In certain instances, the Office of the District Attorney must be consulted, especially if part of the “deal” concerns court consideration or lack of prosecution in return for testimony against a suspect in the homicide.

Effective interviewing is an art that requires constant improvement. It is a very time-consuming procedure, but often invaluable for the discovery of information. In this interviewing phase, team effort is especially important. An enormous workload is generated in a very short time at a homicide crime scene. This workload is further compounded by the element of time. One or two homicide investigators do not have enough time to perform all the necessary duties and conduct careful interviews. The detective supervisor should assign enough investigators to conduct these preliminary interviews and be kept up to date with the results. This information should be made available to the other investigators involved so that they can proceed intelligently with their duties.



## The Canvass

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A *canvass* is a door-to-door, roadblock inquiry or brief interview with persons on the street by which detectives attempt to gain information about a specific incident. It is an important investigative tool and a vital part of the preliminary investigation at the homicide crime scene.

The detective supervisor should assign investigators to conduct a preliminary canvass of the surrounding area, including the approach and escape routes from the crime scene, while the case officer performs his functions at the scene. As the detectives conduct the canvass, their primary purpose should not be to conduct in-depth interviews, but to locate possible witnesses or persons who may have information about the crime. Canvassers should obtain the name and address of each person to whom they have spoken, whether the person provides information or not. When no one is at home or additional residents should be interviewed, this should be noted so that the parties can be reached during a recanvass. Likewise, locations that are negative should be recorded for the follow-up investigation. Because of the vast amount of information generated in a short period of time at the homicide crime scene, I recommend that everyone involved in the investigation possess a notebook. Each apartment, place, or person canvassed should be recorded in the investigator's notes for later official reports or a recanvass, as the case may warrant.

At times it may be necessary to recanvass or extend the canvass to include additional areas. The thoroughness of the procedure is the determining factor of success. On the recanvass, a witness who was reluctant to talk the first time or someone who was inadvertently missed may be located. Also consider the physical location of the crime scene in relation to the area canvassed; that is, do not miss the back of the building. I remember one case where an extensive canvass was conducted in a number of buildings that faced the front of a location where a vicious burglary–homicide had taken place. The canvass proved negative until someone realized that no one had canvassed the buildings that faced the rear. These buildings were on another street around the corner from the murder site. This particular canvass resulted in locating a witness who had observed two persons climbing up a fire escape toward the victim's apartment. This witness was able to make a positive identification of the suspects in the case. The ironic part of the story is that the witness had not made any connection between this event and the murder and would never have come forward if not located and interviewed by the investigators on the subsequent canvass.

Also consider whether an immediate canvass is necessary. The type of crime or the hour of day or night may determine this. For instance, in an organized crime hit in an area frequented by persons friendly to criminal enterprise, it will probably be necessary to come back at a later time and talk to people out of the hearing or observation of criminal sympathizers and neighbors. A common mistake is to attempt a canvass in the middle of the night. You will make a lot more enemies



WITNESSES

Name \_\_\_\_\_ Address \_\_\_\_\_

M \_\_\_ F \_\_\_ Race \_\_\_\_\_ D.O.B. \_\_\_\_\_ Age \_\_\_\_\_ Tele. # \_\_\_\_\_

Height \_\_\_\_\_ Weight \_\_\_\_\_ Build \_\_\_\_\_ Complexion \_\_\_\_\_

Welfare # \_\_\_\_\_ Social Security # \_\_\_\_\_

Drivers License # \_\_\_\_\_ Auto Driven and Reg. # \_\_\_\_\_

Wife or Husbands Name \_\_\_\_\_ Address \_\_\_\_\_

Welfare # \_\_\_\_\_ Social Security # \_\_\_\_\_ Tele. # \_\_\_\_\_

D.O.B. \_\_\_\_\_ Age \_\_\_\_\_ Social Status \_\_\_\_\_

Girlfriend or Boyfriends Name \_\_\_\_\_ Tele. # \_\_\_\_\_

Last Known Address \_\_\_\_\_ D.O.B. \_\_\_\_\_ Age \_\_\_\_\_

Welfare # \_\_\_\_\_ Social Security # \_\_\_\_\_

Number of Children \_\_\_\_\_ Names and Ages \_\_\_\_\_

School Attending \_\_\_\_\_

Address \_\_\_\_\_

Mother's Maiden Name (or Family Name) \_\_\_\_\_

Address \_\_\_\_\_ Tele. # \_\_\_\_\_

Business Address \_\_\_\_\_ Tele. # \_\_\_\_\_

Photo

Area Frequents \_\_\_\_\_ Place of Birth \_\_\_\_\_

Miscellaneous Information \_\_\_\_\_

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Witness Knows Perpetrator Personally? \_\_\_\_\_ (Yes/No) How? \_\_\_\_\_

Did Witness I.D. Perpetrator \_\_\_\_\_ (Yes/No) How? \_\_\_\_\_

Case # \_\_\_\_\_ Officer Assigned \_\_\_\_\_ Homicide # \_\_\_\_\_

Date of Interview \_\_\_\_\_ Interviewing Officer \_\_\_\_\_

**Figure 4.3 WITNESS FORM.** This form can be employed to assure that investigators obtain as much information as possible after contact. In certain cases, it may be advisable to obtain a photograph (Polaroid or digital) of your witness. (From the author's files.)



CANVASS QUESTIONNAIRE

Street, Avenue, Road, etc. \_\_\_\_\_

Number (or name if no number) \_\_\_\_\_

If Apartment or Office Building (name) \_\_\_\_\_

Occupants (full name and age)	Questionnaire Completed
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1. _____	Yes – No
----------	----------

2. _____	Yes – No
----------	----------

3. _____	Yes – No
----------	----------

4. _____	Yes – No
----------	----------

5. _____	Yes – No
----------	----------

6. _____	Yes – No
----------	----------

Officer Recording \_\_\_\_\_

Time \_\_\_\_\_ Date \_\_\_\_\_

**Figure 4.5 CANVASS QUESTIONNAIRE #2.**

than friends if you start ringing doorbells at 3:00 A.M. Wait until a reasonable hour and then do the canvass.

Many homicides have been solved because a good canvass performed by a determined group of canvassers uncovered some vital information, including a motive or even an eyewitness. These canvassers were detectives who did not just go through the motions, but took the time to elicit information effectively from the people canvassed. It is extremely important to keep in mind when instituting a canvass not to assign officers arbitrarily just because you are supposed to do a canvass. Usually, numerous personnel will be at the homicide crime scene — sometimes more than can be effectively utilized. A common error committed by some supervisors is to assign these people indiscriminately to do a canvass, a practice that can do more harm than good. This is not to say that the supervisor should not “shotgun” a number of investigators into an initial canvass, but the personnel selected should be good at this investigative technique or have an interest in the particular investigation. The extra personnel can then be used for some of the other jobs that become necessary during the course of events at the scene.





**Figure 4.6 THE CANVASS.** When doing a canvass, it is imperative that the investigators consider the buildings and locations that overlook the rear of the crime scene as well as the front of the location. In this particular case, the canvass of the apartments which overlooked the rear of this building and the building's fire escapes provided police with the description and eventually the identity of the murderer. (From the author's files.)

The assigned detective or member of the team conducting the homicide investigation should conduct formal interviews with anyone located by the canvassers. Likewise, the detective supervisor should be kept up to date with any information uncovered by the canvassers. In this way, the supervisor and the team will be aware of all developments in the case and be better able to put this information into proper perspective.

The correctly done canvass is an invaluable investigative technique that can provide

An actual eyewitness to the crime

Information about the circumstances of the crime

An approximate time of occurrence and/or an estimate of time of death

Information about the deceased — identity, habits, friends, etc.

A motive for the crime

## The Preliminary Medical Examination at the Scene

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In homicide cases, a medical examiner or coroner is responsible for performing an investigation to determine the cause mechanism and manner of death. (See Chapter 18.) The medical examiner's or coroner's office is responsible for conducting an autopsy later on. Ideally, the investigation at the scene should be carried out by the pathologist who will later perform the autopsy. However, in jurisdictions that lack a medical examiner system or that have a large number of homicides, this is not always possible. In most cases, the medical examiner or coroner must rely on the information provided by the medical examiner or medical investigator who is at the scene, and from the detectives investigating the homicide.

The physical aspects of the scene and the cadaver can never be replaced in quite the same manner after a body has been moved; thus, under ordinary circumstances, the body should not be moved before an examination by the medical examiner or coroner.

The preliminary medical examination should not, however, be undertaken until the crime scene has been photographed and sketched in its original condition. (See Chapter 6 and Chapter 7.) If the medical examiner arrives before the crime scene technicians or police photographer, he or she should be requested to delay the examination until after the scene documentation has been accomplished.

The medical examiner should be brought up to date on all aspects of the case as soon as he or she arrives. This includes any determinations or observations made by the investigators at the scene or in the course of the preliminary investigation.

**Remember: The teamwork aspect can never be overemphasized, especially in this preliminary medical examination at the scene.**





(A)



(B)

**Figure 4.7 THE PRELIMINARY MEDICAL EXAMINATION AT THE SCENE.** (A) This photo depicts a body dumped at the scene. The death appears to be a sex-related homicide. (B) This photo shows the medical examiner making a preliminary examination at the scene, which verified manual strangulation. [Courtesy of Detective Mark Czworniak, Chicago Police Department.]



The scene investigation by the medical examiner or coroner includes identification of the deceased, examination of the body, evaluation of the circumstances of death, and removal of evidence from the body. Therefore, it is important that these medical experts obtain as much information as possible about the facts surrounding death so that later autopsy findings can be properly evaluated. For example, an ambulance may have responded and the attendants attempted resuscitation. This information could become important in evaluating rib fractures, facial trauma, or other internal injuries that could have been caused during the resuscitation attempts.

The medical investigation at the scene may indicate the following:

1. The apparent cause of death, by correlating the injuries with the manner in which they occurred. In homicide deaths which are the result of stabbing or shooting, the determination of cause of death may be made at the scene. In some suspicious deaths, the medical examiner may observe *petechial hemorrhages* in the lining of the eyes and eyelids, alerting the police to asphyxial death.
2. Whether injuries are antemortem or postmortem.
3. Whether the deceased, after the initial injury, fell or struck other objects at the scene, thereby causing further injury.
4. Whether the body came to rest upon an object which, due to pressure, produced a postmortem injury (*artifact*) which could be erroneously interpreted as contributory or responsible for death.
5. The approximate time of death (indicated by such signs as loss of body heat, rigor mortis, lividity). (See Chapter 9.)

### Special Procedure to Follow in Specific Cases

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I recommend that, in certain cases, the medical examiner/coroner be requested to allow the body to remain at the scene during the crime scene process in order to recover crucial microscopic evidence that would have been lost in the removal or transport of the body. In fact, as part of the Practical Homicide Investigation® seminar series, I have illustrated this procedure to alert investigators to the possibility of using this course of action in specific cases.

These specific types of cases are usually sex-related homicides — homicides in which the offender stabs, cuts, pierces, or mutilates the sexual regions or organs of the victim's body. These cases involve evisceration, piquerism, displacement of the genitalia in males and females, and the removal of the breasts in a female victim, and include the posing or propping of the victim's body, insertion of objects into body cavities, and sexual mutilation.

These events are predicated on the obsessive fantasies of the offender. It is not enough for these types of killers to kill; they have a compulsive need to act out their fantasies with their victims and their victims' bodies. Thus, their personal

interactions with the body many times result in the transference of microscopic evidence. If the body is moved or transported, valuable evidence can easily be lost, contaminated, or destroyed in the process.

### Case Examples

I consulted on a lust murder case involving the brutal and savage murders of a mother and her 14-year-old daughter, who were sexually mutilated and then propped and posed by the killer for psychosexual gratification. The chief investigator in this particular case had taken my Practical Homicide Investigation (PHI) course. He utilized a number of suggestions in the recovery of evidence in these types of cases. Chief Criminal Deputy Wagg had requested the Washington State Crime Scene Response Team to respond and assist Douglas County and had the medical examiner conduct a preliminary testing of core body temperature. Chief Wagg then requested the medical examiner to consider implementing the evidence recovery procedures recommended by me and asked for his cooperation in leaving the bodies in place within the crime scene.

In this case, a decision was made to turn off the heat in the residence and conduct all crime scene processes within the house. The heat was turned off so the house would remain cold and keep the body from decomposing from the heat. This area of the country stays extremely cold in April and it provided the authorities with the option of keeping the bodies intact at the scene. The crime scene team processed the scene and the bodies over the next 2 1/2 days recovering hairs and fibers, which were eventually matched to the suspect. These microscopic traces may have been lost had the bodies been transported. The entire prosecution was based upon the hair and fiber evidence.

Interestingly, detectives in Pennsylvania, who had attended all of the Practical Homicide Investigation seminars, found themselves in a similar situation involving the rape and lust murder of a young woman discovered bound to her bed with duct tape and sexually mutilated. They had seen the illustration of this technique in class and requested their local coroner to cooperate with the investigation by leaving the body at the scene during the crime scene process. The evidence that was recovered in this case also would have been lost if the body had been transported. These cases are covered in depth in my *Sex-Related Homicide and Death Investigation: Practical and Clinical Perspectives* textbook.<sup>1</sup>

### Conclusion

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The best advice I can give to homicide detectives at the scene is to take the medical examiner or coroner into your confidence, tell him about your theories, and ask questions. If you do not understand some obscure terminology, get clarification (in other words, ask the medical examiner to translate it into layman's terms). These medical practitioners can give advice concerning medical aspects of the case and later provide information derived from the postmortem examination and the

results of any toxicological analysis. The detective supervisor and homicide investigator should seek their advice. Such conferences and exchanges of information often result in a modification of an investigator's approach to a case or a particular aspect of it.

Historically, medical examiners and coroners have enjoyed a good working relationship with homicide investigators, based on expertise and professional cooperation, which tends to complement the investigation. I have been at many homicide crime scenes where the medical examiner has been more than helpful to the investigator by answering the many questions that arise during this preliminary inquiry.

Doctors who specialize in forensic medicine usually have an ardent interest in homicide cases. Often they can be helpful in reconstructing the scene and formulating the sequence of events. Because their inquiry is directed toward the circumstances that led to death, the manner in which death occurred, and whether the condition of the body is consistent with the cause of death, what they determine is essential to the investigation. Each professional is aware of the other's duty and capability, and by working together and exchanging information, they can usually arrive at a final determination of what actually occurred.

**Remember: do it right the first time. You only get one chance.**

## Reference

1. Geberth, V.J. *Sex-Related Homicide and Death Investigation: Practical and Clinical Perspectives*. Boca Raton, FL: CRC Press, 2003.





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# Specific Investigative Duties at the Scene

# 5



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The purpose of this chapter is to provide practical information and guidelines for the homicide investigator to follow when confronted with additional responsibilities and specific duties at the scene. A section on handling buried-body cases has been included, which may prove useful as a general guide for the investigation of this unique type of scene. The following subjects will be dealt with in this chapter:

- The suspect in custody
- Interview and interrogation of the suspect at the scene
- Examination of a suspect for evidence
- Evaluation of the suspect's demeanor and mental capacity
- Obtaining a dying declaration
- Handling buried-body cases

The chapter concludes with an investigative checklist, which can be used by the homicide investigator and detective supervisor to check and review their actions at the scene systematically. Actually, I recommend that the investigator use the *Practical Homicide Investigation Checklist and Field Guide*,<sup>1</sup> which is a laminated set of checklists from the *Practical Homicide Investigation* textbook designed to provide direction and protocol during the various stages of the initial investigation. It also contains an appendix instructing the detective about exactly how to retrieve and handle evidence in the field as well as maintain chain of custody.

## The Suspect in Custody

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When the suspect has been taken into custody by patrol officers, the immediate responsibility of the detectives or homicide investigators should be the following:

1. Ensure that the suspect has been removed from, or is not allowed to enter, the primary crime scene. The isolation of the suspect is necessary in order to prevent scene contamination or destruction of evidence.

2. Interview the arresting officers, out of the hearing of the suspect, in order to determine the scope of their initial investigation, the location of any physical evidence, and the probable cause for the arrest of the suspect, including any statements made by the suspect or witnesses.
3. Instruct these officers, upon completion of this preliminary interview, to document in writing their observations and activities at the scene, including any overheard comments or statements made by the suspect, as well as any information provided by witnesses or informants.
4. Ascertain whether the suspect has been given his or her Miranda warnings by the patrol officers, to assure the admissibility of any culpable statements made to these officers.

### **Interview and Interrogation of the Suspect in Custody**

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Upon their arrival, the investigators take charge of the investigation and are responsible for the interrogation of the suspect. Prior to any interview or interrogation, the detective must again advise the suspect of the constitutional rights as specified under the Miranda ruling. The detective should make note of having given this Miranda warning to the suspect in his or her notebook, indicating the time, date, location, and presence of any witnesses including counsel.

It may be advantageous to conduct a preliminary interrogation of the suspect while he or she is still at the scene. This questioning is usually directed toward the recovery of any weapons or other evidence and is used to gauge the scope of the search. The actual formal interrogation, however, should take place later at the police station, where conditions are more favorable. Furthermore, the investigator will have been able by then to complete the preliminary investigation and will have the advantage of information and observations from the scene.

In some instances, the suspect may insist on confessing or telling his or her story immediately. If the suspect is quite talkative or wishes to make a statement to investigators at the scene, do not delay the interview.

Practically speaking, any statement from a suspect is crucial to the investigation. Although the initial statement may be self-serving, a little less than truthful, or even a complete falsehood, this declaration by the suspect is a valuable piece of evidence, which may later be presented in court. If the investigator delays or postpones taking an official statement until “all the facts” have been gathered, the suspect may change his or her mind about making a statement or request an attorney, and this valuable evidence will be lost forever.

Under circumstances where the suspect wishes to make a statement, the investigator should

Immediately advise the suspect of his or her constitutional rights under the Miranda ruling, utilizing a “rights card” or Miranda form.

Make sure that the suspect understands these rights by requesting a response.



Obtain an intelligent waiver of these rights from the suspect (preferably the suspect's signature on the Miranda form).

Allow the suspect to make a complete statement.

*Take notes*, reduce the statement to writing, and have the suspect sign it.

The importance of documentation, especially in custodial interrogation situations, cannot be overemphasized. This is the reason I strongly recommend that the Miranda warnings be given from a rights card and that the particular card used be preserved as evidence. In addition, persons who are given Miranda warnings should be requested to sign a Miranda form in order to assure the admissibility of any statements in court.

A favorite trick of defense counsel is to distort any custodial interrogation by innuendo, suggesting that there was some impropriety on the part of the police in obtaining statements from a defendant. If the investigator has taken proper notes of the procedures used in obtaining any statements, along with notes of the responses of the suspect to these warnings, he or she will have eliminated a possible source of embarrassment in future court proceedings.

When dealing with minors, the Miranda warnings must be given to the parent as well as the underage suspect. The parent and the minor must intelligently waive their rights before an interrogation can proceed.

## **Examination of a Suspect for Evidence**

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The examination of the suspect for evidence should be performed by the investigator assigned to the case or an experienced detective assigned to the investigation. Recognizing and recovering trace evidence from a suspect or his or her clothing are prerequisites to successful search of suspects. During this preliminary phase of the homicide investigation, especially when the suspect is still at the scene, it is not practical to conduct an extensive examination for trace evidence. However, officers should be aware of the possible evidentiary value of the clothing and shoes worn by the suspect as well as any bruises, cuts, or injuries on the hands, face, or other parts of the suspect's body. When the suspect is brought to the police station, a more thorough examination can be undertaken. (See Chapter 8 section, "Physical Examination of a Suspect in Custody.")

When the suspect is transported to the police station by patrol officers for further examination, the officers transporting the suspect should be advised to preserve the clothing and shoes for evidence of trace materials and cautioned not to allow the suspect to wash his or her hands or to engage in any activity that may alter or destroy any trace evidence. These instructions should be communicated to all personnel who will be responsible for the custody of the suspect prior to an extensive examination and search by the investigators. I remember a case involving a police matron who had been assigned to guard a female murder suspect. The matron allowed the suspect to wash the victim's blood off her blouse while she was



**Figure 5.1 EXAMINATION OF SUSPECT FOR EVIDENCE.** The suspect's underwear reveals bloodstains and other evidence from a rape–homicide. The suspect, who raped and killed a homeless woman staying in an abandoned building, was apprehended shortly after the crime. This photograph should also be accompanied by a “stand-up” photo identifying the suspect by face as well as additional photos of the individual evidence. (From the author's files.)

in police custody. During the trial, the matron was asked by the prosecutor why she had allowed the suspect to wash off the blood. The matron claimed she was not advised by the detectives to preserve the clothing of the suspect and that the detectives “hadn't told me anything.” Needless to say, her ignorance of the forensic value of the victim's blood on the blouse was compounded by the failure of the investigators to instruct and advise her properly.

### **Evaluation of the Suspect's Demeanor and Mental Capacity**

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When a suspect has been taken into custody, the investigator should evaluate the suspect's demeanor and mental capacity based on observations from the time of his or her arrest to the subsequent arraignment. This observation and documentation is necessary to prepare against a possible diminished-capacity defense, which is usually based on the contention that at the time the offense was committed, the defendant was not able to determine right from wrong because of his or her mental state. The defendant may attempt to claim insanity based on mental incapacity. The defense of diminished capacity is a popular one because the police often fail to take proper precautions during the initial investigation.

The following are some important observations that should be recorded in the investigator's notebook:

1. Does the suspect speak rationally or irrationally?
2. Does he or she answer in a straightforward or evasive manner?
3. Is the response to questioning intelligent or confused?
4. Does the suspect have control over his or her actions?
5. What is the suspect's emotional condition?
6. Is there any evidence of intoxication or does the suspect appear to be under the influence of any drugs?
7. Does the suspect give any reasons for his or her actions?

When investigators interview witnesses, they should attempt to obtain as much information as possible regarding the actions of the suspect prior to the crime, during the crime, and immediately after the crime. Any indications of the suspect's demeanor and mental capacity should be recorded. The witnesses should be asked the following questions:

1. What was the suspect's appearance at the time of the crime?
2. How did the suspect act?
3. Could the witness determine the suspect's demeanor or mental state?
4. Did the suspect act rationally or irrationally?
5. Was the act a cold-blooded or unemotional thing?
6. Did the suspect scream or yell?
7. How did the suspect commit the act?
8. Was the suspect under the influence of alcohol or drugs?
9. Did the suspect say or do anything during or after the crime?
10. Did the suspect attempt to flee or cover up the crime?

Often investigators neglect to obtain witnesses' opinions of the suspect during the initial inquiry because they have been trained to gather only "facts." However, independent observations of and opinions about a person's behavior can be vitally important in establishing the existence or nonexistence of diminished capacity in court. From an investigative point of view, the detective should document these witnesses' observations and opinions in preparation for the later prosecution.

## **Obtaining a Dying Declaration**

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If the victim is still alive when investigators arrive at the scene, they should attempt to obtain a statement. Likewise, if a victim has been removed to the hospital, detectives should immediately be dispatched so they may interview him or her. In cases where the victim is seriously injured and death will undoubtedly occur, investigators must be alert to the possibility of obtaining a dying declaration. This



can be obtained while waiting for the ambulance, en route to the hospital, or while the victim is in the hospital. As long as investigators do not interfere with life-sustaining measures or hinder medical personnel by their presence, there should be no problems.

The dying declaration may prove invaluable in firmly establishing whether a crime has occurred and, more importantly, who was responsible. In order to obtain a legally admissible declaration, however, certain conditions must exist.

1. The victim must believe that he or she is going to die.
2. The victim must have no hope of recovery.
3. The declaration or statement must refer to
  - a. The manner and circumstances which brought about the victim's condition and ultimate death.
  - b. The identity of the person responsible.
4. The declarant must die.
5. The declarant must have been otherwise competent and rational.

The dying declaration can be used in a criminal trial only after the death of the declarant. If the victim survives, he or she must testify later in court.

### **Questions to Be Asked in a Dying Declaration**

There are no set guidelines for the exact sequence of questions you should ask when attempting to obtain a dying declaration. Basically, you will want to establish through your questions that the witness is competent and lucid, and does believe that he or she is about to die. Here are some questions that the investigator may find helpful:

1. What is your name?
2. Where do you live?
3. Do you now believe that you are about to die?
4. Have you any hope of recovery?
5. Are you willing to make a true statement of how and why you were injured?

### **Documentation of the Dying Declaration**

The statement can be oral or, if feasible, written by the declarant. Ideally, the investigator will have a cassette recorder available during this event. In any case, the officer should reduce the statement to writing and have the declarant sign it or make his or her mark. It is recommended that there be a civilian witness present; however, the fact that no witness was available or that the declarant was unable to write or sign the statement does not affect the admissibility of the declaration in court.

**Remember: Do it right the first time. You only get one chance.**

## Handling Buried-Body Cases

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Bodies that have been buried or exposed to the elements for a significant time present the investigator with additional considerations, such as animal feeding, insect activity, and dispersal of evidence and body parts, as well as other postmortem artifacts. Handling an outdoor scene can be extremely frustrating as you attempt to locate evidence. Items may have been dispersed due to environment and animal activity.

In addition, because you cannot possibly know what is or is not evidence, you end up collecting many miscellaneous items as well as trash. Handling a buried-body case outdoors compounds this problem as you deal with an outdoor environment subject to change and weather conditions as well as burial conditions. If a body is buried in a shallow grave with loose earth, the decomposition may be more rapid and most of the soft tissue will be gone in 1 to 3 years. The skeleton remains much longer. However, time figures will vary greatly depending on the type of soil, amount of water, drainage, and other factors. (See Chapter 9, "Estimating Time of Death.")

Conducting crime scene searches involving the discovery and excavation of buried bodies requires special techniques and planning. Certain procedures, which must be followed in order to locate and recover pieces of physical evidence, involve the need for assistance and cooperation between law enforcement and forensic science. The necessary equipment should be available, as should the forensic experts in case their services are needed.

I recommend *A Bibliography Related to Crime Scene Interpretation with Emphasis in Forensic Geotaphonomic and Forensic Archeological Field Techniques*, 11th edition, compiled by Special Agent Michael Hochrein, FBI. This information is also contained in a Web site: [www.mai.mercyhurst.edu/academics\F1\\_program\\_forensic.htm](http://www.mai.mercyhurst.edu/academics\F1_program_forensic.htm). Contact information:

Federal Bureau of Investigation  
Laurel Highlands Resident Agency  
P.O. Box 615  
Elton, PA 15934  
(814) 262-9290

Examples of some of the experts who can assist the investigator in this procedure are the medical examiner or forensic pathologist, the forensic archeologist, the forensic odontologist, the forensic entomologist, and the botanist. I recommend that the homicide investigator contact these experts prior to the actual need of one at the scene of a buried-body case. I have found that these experts are more than happy to cooperate as long as they are acting as part of a team. If provided with an undisturbed crime scene, they can contribute to the overall success of an investigation.

## The Discovery of the Buried Body

Buried-body cases usually come to the attention of law enforcement when someone stumbles upon a shallow grave. For example, in the following case history, I present

a case in which a woman was walking down the beach and saw a hand extending from the sand. In other circumstances, bodies have been unearthed during severe rainstorms. Sometimes the police may have intelligence regarding the location of a buried body provided by an informant or a confession by an offender who offers to show the authorities the location of the burial site. Accidental finds may be made by a passerby, a hunter, or a construction worker involved in some type of excavation, who then notifies the police. The police respond to the site to verify the discovery and then notify the investigators. As with any crime scene, the basic principles of scene protection and isolation should immediately be instituted. (See “First Officer’s Duties on Arrival at the Scene” in Chapter 2.)

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### Case History

A woman walking down the beach in the early morning hours saw what she believed to be a human hand sticking out of the sand. She called 911. Police responded and verified that the hand was human and the victim was apparently dead. Detectives responded and noticed that a second hand with pink-colored nail polish was also partially exposed; they observed what appeared to be reddish colored clothing around the elbow. Directly west of the exposed hand was a woman’s Novella wristwatch, with a wide blue material with three snaps on it to secure to the wrist. The watch had been stopped at 11:58. It was apparent that the body had been buried in a shallow grave on the beach sometime during the night.

Police secured the entire beach area as a crime scene and asked for the reporting witness’s shoes to compare with any other shoe prints that were located in the area. The crime scene



**Figure 5.2 BODY BURIED ON BEACH.** A passerby, walking down the beach saw what she believed to be human hands extending out of the sand. Police responded and verified that a woman had been buried on the beach. (Courtesy of Detective Corporal Arthur Clark, East Providence, Rhode Island, Police Department.)





**Figure 5.3 BODY EXCAVATION.** This female victim had been raped and murdered by her assailant, who then buried her body on the beach. (Courtesy of Detective Corporal Arthur Clark, East Providence, Rhode Island, Police Department.)

was photographed and the medical examiner was requested to respond before any attempt at excavation.

There were fresh tire impressions in the sand near where the body had been buried. Apparently someone had recently driven onto the beach in the vicinity of the grave. There were also footwear impressions around the gravesite, which the detectives collected after casting.

The authorities decided to conduct an exhumation by removing the loose sand from around the grave and then to sift that sand for any items that may have been in the grave. As they began to remove the sand, they saw the outline of the woman's head surrounded by blood soaked sand. A pink-colored fingernail was found in the grave above the victim's left arm and another was located under the right arm. The investigators sifted through the sand and located another pink-colored fingernail in the victim's hair. All during this 3-hour excavation, crime scene photographs were taken to document the event as well as the retrieval of evidence.

Investigators removed the body of a white female, with brown hair and a thin build, dressed in a reddish satin dress, white stockings, and black high-heel shoes. The victim appeared to be about 30 years old. She appeared to have been beaten about the face, head, and arms. The grave was approximately 2 ft deep. After the body was removed, the investigators dug below where the body was to ascertain whether any additional evidence was in the grave.

The medical examiner determined that the decedent sustained multiple wounds and abrasions to the face, head, arms, and hands caused by a hatchet, shovel, spade, or ax-type instrument. There were also six chopping wounds. The medical examiner listed the cause of death as brain injuries due to sharp force trauma to the head. There was also vaginal trauma and the rape kit was positive. Stomach contents indicated that the victim was killed within 3 hours of her last meal, sometime around midnight. The victim was apparently still alive when buried.

The medical examiner found sand in the victim's mouth and throat. The victim's panty hose were ripped in the crotch area and her bra was not hooked properly in the

back. Pink-colored false fingernails, similar to those found in the sand, were on the victim's fingers.

Her husband, who had reported her missing, identified the victim. At first the police were looking into the husband as a suspect due to the strange relationship he and his wife shared: the victim would advertise in the local papers for "dates." Another male who was interviewed by detectives told the police that he was her boyfriend and that the husband had no problem with their relationship.

After an intensive investigation, the actual killer was identified and arrested by detectives. He confessed to the rape and murder and led the authorities to where he had disposed of the shovel used to kill the victim. The suspect's DNA was matched to the victim. In addition, hair and fiber evidence was recovered from the suspect's car and clothing; the footprints and tire marks in the sand were also matched to the suspect.

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### Initial Response

The investigators should not allow themselves to be rushed into an immediate excavation of the remains. Instead, if the body has not already been removed from the burial site, they should request the services of an archeologist when they notify crime scene technicians and the medical examiner.

From an investigative point of view, there is generally no need to excavate the body immediately at this stage of the investigation. I recommend the following procedures (all of which will be discussed fully in Chapter 6, Chapter 7, and Chapter 8):

1. Photographs should be taken of the entire area including the site and any item of evidentiary value (tire tracks, weapons, tools, articles of clothing, etc.).
2. Photographs should be taken in black-and-white and color; photographs of any items located in the scene should be taken with and without markers.
3. The area should be mapped out and a crime scene sketch prepared.

The preceding procedures are paramount to the subsequent search and excavation in order to document the original condition of the scene and surface around the burial site.

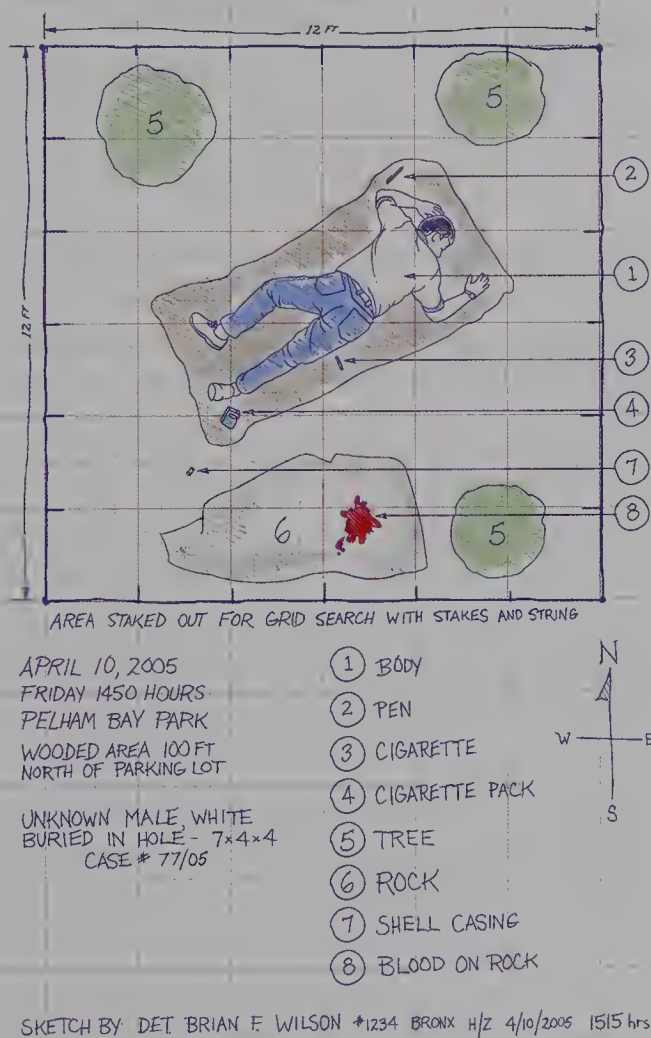
4. The path used by the person discovering the body should be marked off and all investigators and personnel at the scene should follow this route.
5. A systematic search of the surrounding area should be instituted using metal detectors and any other aids that might be applicable. If any evidence is discovered, it should be photographed separately and included on the crime scene sketch.
6. All natural loose debris should be removed to expose the burial mound.
7. Screens are used to sift material for debris, litter, plants, or soils removed from site.
8. If daylight hours are limited, the search and excavation should be postponed until morning.
9. If the weather poses a problem, wait for proper conditions. The area of the grave can usually be protected by the erection of a tent over the site.



### The Excavation

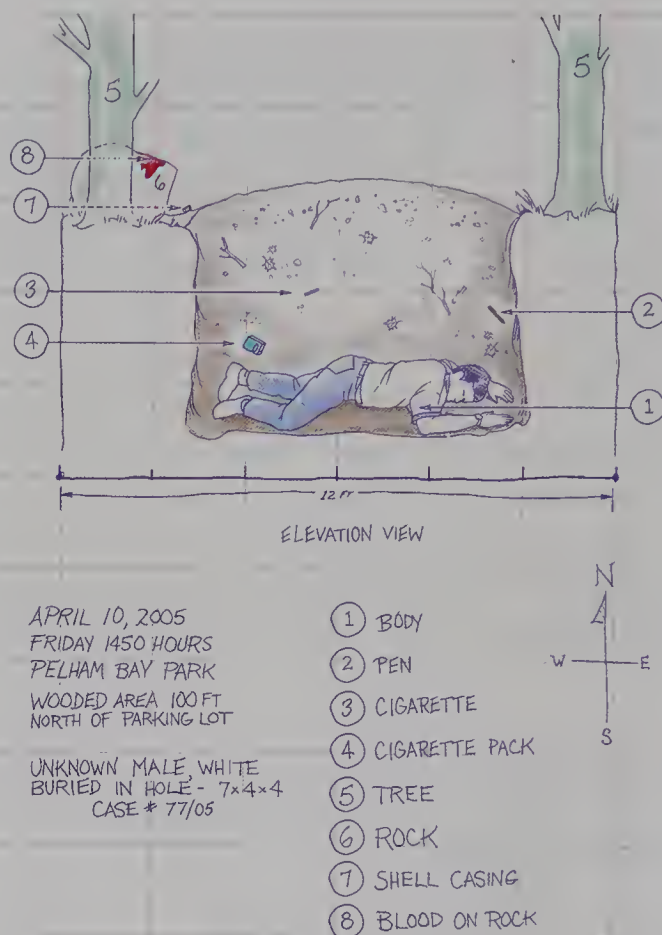
The term *site* refers to the entire area of excavation or disturbance and includes not only the grave, but also the immediate area contiguous to the grave. The excavation should be conducted under the direction of a forensic archeologist and should begin with the clearing of the ground around the actual burial site. This is done to locate the dimensions of the hole. At this point, measurements should be taken and the site rephotographed. In addition, two sketches should be drawn to show plan and elevation views of the grave.

When a grave is dug, excavated soil is placed on the surface. As a result, the surface vegetation is usually compressed or broken off. When the grave is refilled, some of this surface vegetation is probably placed in the hole. Furthermore, if the body has been buried for some time, roots of trees or bushes may grow through the remains. This is where the botanist comes into play. The botanist can provide estimations of how long the vegetation has been damaged or the length of time necessary for the root structures in the remains to have reached their present stage



**Figure 5.4 EXCAVATION OF BURIED BODY, PLANE VIEW SKETCH.** (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doereport.com.)





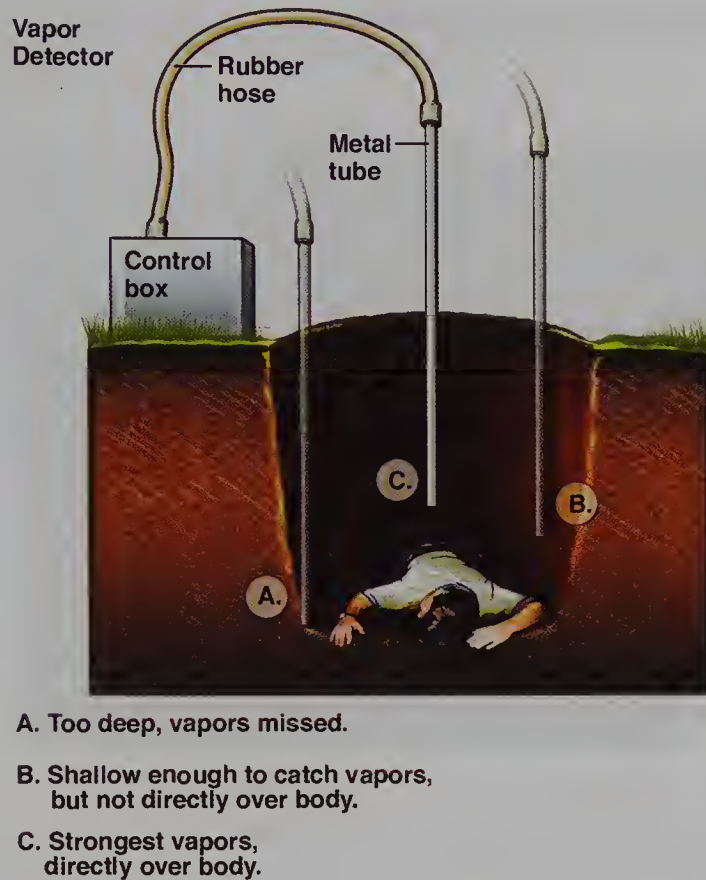
**Figure 5.5 EXCAVATION OF BURIED BODY, ELEVATION VIEW SKETCH.** (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doereport.com.)

of development. If any dead insects, insect larvae, or maggots are located at the site, they should be collected for examination by a forensic entomologist. (See Chapter 9.) This is why the excavation must proceed at an orderly and systematic pace.

The first step is to conduct an initial site assessment. Establish a grid matrix with grading stakes on the outside perimeter of the burial site. The recommended starting size is a 3 ft by 6 ft grid aligned with magnetic north. Twine is used to align stakes or set the grid over the burial site. The soil should be removed in somewhat even layers, about 2 to 4 in. deep, and sifted through screens. As items are located and recovered, they should be photographed and plotted on the elevation and plan view drawings to indicate their actual locations. In addition, samples of the soil should be taken as each item is recovered.

## The Body

When the body is uncovered, it should immediately be photographed in the condition of discovery before any disturbance. If the medical examiner is there and the body has soft tissue present, the pathologist should undertake a preliminary



**Figure 5.6 VAPOR DETECTOR.** (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

scene examination. The body should then be placed on a clean sheet to preserve any additional evidence that may not be readily observable at the scene. The body and sheet should then be removed to a morgue for further examination and autopsy.

After the body has been removed, the grave should again be photographed and the area which was under the body carefully searched and excavated several more inches. The use of a metal detector at this stage may prove valuable, especially if bullets were fired into the body as it lay in the grave.

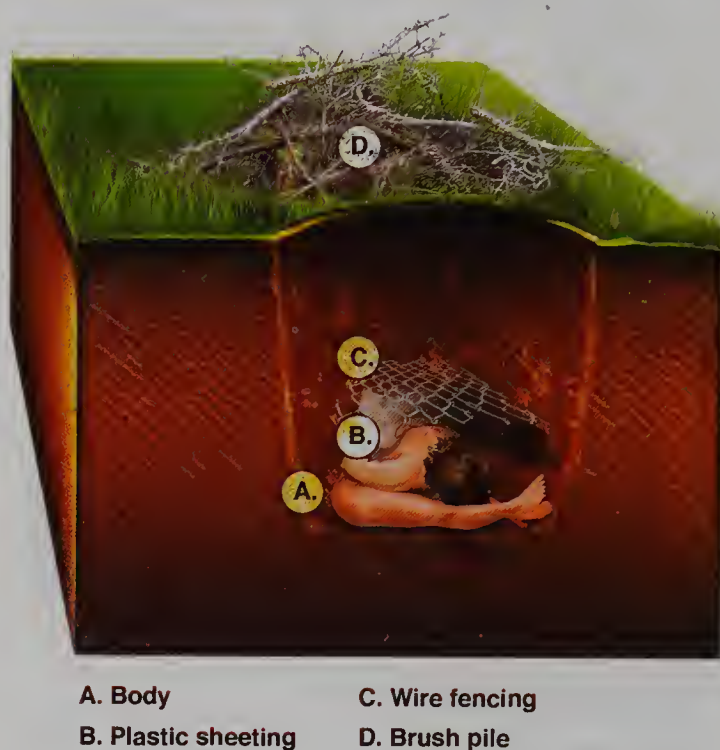
The identification of the remains, especially in cases where the body is badly decomposed, will call for the expertise of the forensic anthropologist and the forensic odontologist working along with the medical examiner or coroner. The various methods and techniques are presented in Chapter 10.

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## Case History

In the Rex Krebs serial murder case, which is discussed in *Sex-Related Homicide and Death Investigation: Practical and Clinical Perspectives*,<sup>2</sup> the suspect had buried the bodies of his victims in a very rural area. He brought the first victim's body deep into the woods, where he had dug a 4-ft hole. He put his victim's body in the ground and then covered her with hog wire so the animals would not unearth her body. The offender then buried his second victim in another 4-ft grave only 25 ft behind his house. Assistant Chief Investigator Larry Hobson,<sup>3</sup> who had conducted several hours of interviews over a period of weeks with Krebs, eventually, established a dialogue and a rapport. When Hobson confronted Krebs

Grave site prior to the excavation



**Figure 5.7 GRAVE SITE PRIOR TO THE EXCAVATION.** This illustration depicts the gravesite before the excavation and indicates the original position of the body before excavation, as well as the items that the investigators uncovered during their excavation. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

with the DNA evidence that had been recovered at his house, Krebs confessed to the murders and offered to show the authorities where he had buried the bodies.

The excavations were conducted by the Federal Bureau of Investigation Evidence Response Team, which followed the recommended techniques in this text, along with the San Luis Obispo Police Department, the San Luis Obispo Sheriff/Coroner's Department, and the San Luis Obispo District Attorney's Office.

### First Excavation

The first excavation was the Krebs case's Newhouse gravesite. The site, which was covered with brush, was first photographed and then the brush was removed. An initial site assessment was conducted. A 3 ft by 6 ft grid matrix aligned with magnetic north was established over the dig site. A controlled manual excavation was begun by shovel scraping. The excavated soil was placed in buckets and screened through 1/4-in. mesh. A sketch map was prepared showing the limits of the grid matrix and photographs were taken as needed during the excavation. All items of evidence recovered were received, logged, and maintained by the San Luis Obispo Police Department. Human remains and all the evidence immediately associated with the body were received by the San Luis Obispo County Sheriff/Coroner's Department.

The original 3 ft by 6 ft grid was excavated to a depth of approximately 25 in. below surface, at which time a piece of wire fencing was exposed. The grid matrix was expanded 3 ft, making the total matrix 6 ft by 6 ft. The wire fencing was removed and further soil was excavated by hand trowel. Approximately 1 in. below the fencing was plastic sheeting. Once the plastic sheeting was exposed, the authorities discovered the first portion of the



Photographs are taken, the brush pile is removed and a grid established over the grave site



E. Grid matrix

**Figure 5.8 MEDICAL LEGAL ART DEPICTING GRID.** This illustration depicts the grave-site after brush is removed and grid established. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)



**Figure 5.9 EXCAVATION PROCESS.** The soil should be removed in somewhat even layers, about 2 to 4 in. deep. The excavated soil was placed in buckets and screened through 1/4-in. mesh. (Courtesy of Assistant Chief Investigator Larry Hobson, Office of the District Attorney, San Luis Obispo, California.)



**Figure 5.10 EXPANDING THE GRID.** The original 3 ft by 6 ft grid was excavated to a depth of approximately 25 in. below surface, at which time a piece of wire fencing was exposed. The grid matrix was expanded 3 ft, making the total matrix 6 ft by 6 ft. (Courtesy of Assistant Chief Investigator Larry Hobson, Office of the District Attorney, San Luis Obispo, California.)



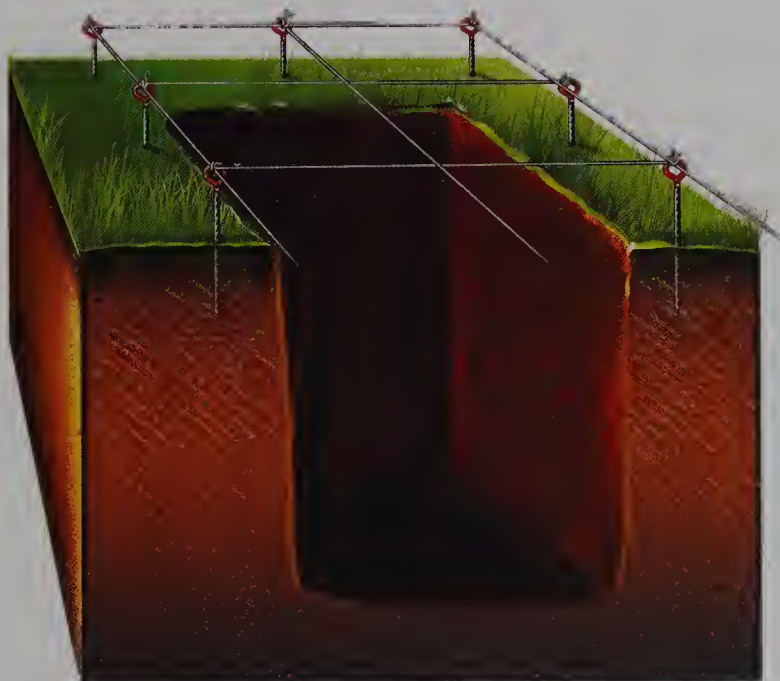
**Figure 5.11 BODY EXCAVATION.** The body is exposed by excavation with a trowel and brush. All soil was removed from around the body and from underneath the perimeter of the body so that the body rested on a soil pedestal. (Courtesy of Assistant Chief Investigator Larry Hobson, Office of the District Attorney, San Luis Obispo, California.)





**Figure 5.12 BODY RECOVERED.** This photo depicts the body at the morgue after it was recovered from the gravesite. (Courtesy of Assistant Chief Investigator Larry Hobson, Office of the District Attorney, San Luis Obispo, California.)

**The body is removed and the soil excavated from the pedestal below the body to determine whether additional evidence is present**



**Figure 5.13 MEDICAL ART DEPICTING EMPTY GRAVE.** After the body was removed, additional soil was excavated from the area below the body to determine whether any additional physical evidence was present. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)



body. The body was then exposed by excavation with a trowel and brush. All soil was removed from around the body and underneath the perimeter of the body so that the body rested on a soil pedestal. The body was then lifted out of the excavation pit and placed in a body bag for transport to the coroner's office. The lowest portion of the victim's body was at a depth of 48 in. below the surface.

After the body was removed, additional soil was excavated from the area below the body to determine whether any additional physical evidence was present.

### **Second Excavation**

The second excavation was the Crawford gravesite (see Rex Krebs serial murder case burial site in mountainous area). Once again an initial site assessment was conducted and photographs were taken of the dig site. A 3 ft by 6 ft grid matrix aligned with magnetic north was established. A controlled manual excavation was begun and conducted by shovel scraping. The excavated soil was placed in buckets and screened through 1/4-in. mesh. A sketch map was drawn showing the limits of the grid matrix and the major items recovered. The same procedures as previously discussed were followed.

The area of the original grid was excavated to a depth of approximately 24 in., at which time human hair was observed. Excavation with a hand trowel revealed the top of a human head. An additional grid was established, creating a 6 ft by 6 ft matrix. This new grid was excavated to a depth of approximately 22 in. at which depth the right knee of the victim was exposed. The entire body was then exposed through the use of hand trowel and brush. The victim's body was fully clothed. After the body was exposed, additional soil was removed below the perimeter of the body so that it rested on a soil pedestal. The body was lifted out of the excavation pit and placed in a body bag.

After the body was removed, additional soil was excavated from the area below the body to determine whether any additional physical evidence was present.

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### **Search for a Buried Body**

In cases where an informant or confession reveals the existence of a buried body, the immediate problem facing the investigator is locating the site. Unless the exact location is given, the information may be so vague that it involves an area of several acres. Good planning will be necessary to locate and isolate the scene. Practically speaking, the more that is known about the circumstances of the crime, the better your chances are of locating the site. For example, where was the victim killed? If the victim was killed elsewhere, the location of the site may be close to a road or path. If the killing took place at the site, then the victim may have been forced to walk some distance.

The element of time will have a bearing on the condition of any vegetation and of the grave. The grave may have sunk or surplus dirt may still be on the mound. The following methods may be used to locate the burial site:

1. Search by aircraft. Prior to a foot search, this method can be used to cover a wide area and locate visually a sign of soil or vegetation disturbance. Aerial photographs should be taken of the suspected area before and, if the search is successful, after.
2. Thermal infrared thermography can be used to detect the difference in the heat signature of the surrounding soil and that present at the gravesite. Initial

theories involving infrared thermography proposed that the grave would produce a higher heat signature than the surrounding ground due to decomposition. Further studies, however, indicated that the opposite is true. The grave creates a dead space that produces a lower heat signature than the surrounding ground.

3. Ground-penetrating radar (GPR) is another technique which can be used to locate buried bodies. The GPR sends low-frequency signals into the ground, which are returned in different ways upon encountering different conditions.
4. Trained cadaver dogs can be used.
5. Search by foot. Mechanical aids are a must in this type of search. (See Chapter 8 section, “Methods of Crime Scene Search.”)
6. Probing. This is the most practical method of ground search. It is done with a steel rod which is about 4 to 5 ft long with a “T” handle on one end and a sharp point at the other. The probe is inserted into the suspected area. If the ground is soft, it is left in place, all probing is halted, and a vapor detector is brought into play. The probing should follow a systematic pattern so as not to miss any locations.
7. The vapor detector. This instrument can detect the presence of body gases formed as a result of decomposition. It can be used to locate a cadaver prior to any excavation. Its value is quite evident when several suspected areas must be checked. It can also be used under concrete (roadways, patios, floors) after a small hole is bored through the concrete. (See Figure 5.4 through Figure 5.6.)

## The Investigative Checklist

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The homicide detective faces a monumental task at the crime scene. A multitude of duties must be performed, and each event needs to be documented according to a routine procedure. This procedure is necessary so that valuable information or observations are not overlooked. Although each homicide is distinctive and unique, certain basic steps need to be pursued at all crime scenes. This investigative checklist is designed to be used by detectives involved in the investigation of sudden and violent death. Although extensive, it is not all inclusive. The investigator is advised simply to utilize this checklist as a guide to refresh the memory.

**Remember: The fundamental rule in homicide investigation is the documentation of events in the investigator’s notebook.**

### Documentation of the Initial Report

#### *Initial Receipt of Information*

- Record date and time of initial report.
- Record method of transmission — report received by.

- Record reporting party — officer, dispatcher, etc.
- Record complete details.

### ***Arrival at the Homicide — Death Scene***

- Record exact time of arrival.
- Record the exact address of the crime scene.
- Record outside weather/temperature conditions.
- Record outside lighting conditions.
- Interview the first officer and other police personnel at the scene to determine the sequence of events since their arrival.
- Note crime discovered by — date and time of initial call. Complete details of initial police report.
- Determine the scope of the patrol officer's initial investigation at the scene:
  - Protection of the crime scene
  - Notifications — alarms — teletypes
  - Preliminary investigative results
- Record persons present at the scene:
  - Police officers and law enforcement personnel
  - Ambulance and/or emergency personnel
  - Family and/or relatives and friends of victim
  - Witnesses — including persons detained by patrol
    - Keep witnesses separated.
    - Provide for witness security and availability.

### ***Preliminary Inspection of the Body at the Crime Scene***

- Record victim pedigree — name and address if known (includes sex, race, and age).
- Record location of the victim: description of body and scene.
  - Have the patrol officer escort you through the scene to the body using same path used by responding police.
- Personally determine and verify death.
- Note condition of the body.
- Ascertain whether any suspects are in custody. (See “The Suspect in Custody” procedure.)
- Are there any additional victims?
  - Is this a multiple murder? (If “yes,” establish separate case numbers and provide for additional documentation.)
- Officially assign investigator to case.
- If identity of victim is known, get a background check.



### ***Implementing Crime Scene Control Procedures***

- Determine the scope of the general crime scene — assessment.
- Make determination of police legal status in crime scene.
- Take preliminary photographs with an Instamatic, Polaroid, or digital camera to “freeze” the crime scene and provide for review by additional investigators as they arrive at the scene. (Polaroid or digital photos are preferred for immediate viewing.)
- Stabilize the scene by identifying and establishing perimeters.
  - If crime scene was not established by patrol, secure and protect the scene by isolation —ropes, barriers, etc.
  - Establish outside and inside perimeters — only authorized personnel allowed within respective perimeters.
  - Remember, the two-crime-scene theory — the *general area* for police and other official personnel at the scene and the *forensic area* where the body as well as any other evidence may be located.
- Assign patrol officers as needed to safeguard scene effectively.
- Update and expand crime scene protection as necessary.
- Is this a *multiple scene*? Are there additional areas to protect?
- Establish a single path of entry and exit to the crime scene.
- Implement procedures to safeguard all evidence found at scene.

### ***Initiating a Crime Scene Log***

- Assign an officer to obtain the names of all police and emergency personnel who responded to the original call.
- Assign an officer to record the names of all personnel and civilians involved in the investigation at the crime scene.
- Allow no entry to the crime scene except by authorized personnel involved in the official investigation.
- Record arrival/departure times of all officials. This includes the ME or coroner, state’s attorney, crime scene technicians, etc.
- This crime scene log should be delivered to detectives upon release of the crime scene.

### ***Establishing a Policy for Crime Scene Integrity***

- Make a determination relative to obtaining a search warrant prior to any processing of the crime scene.
- Coordinate activities at the scene and direct investigators by fixing responsibility for the performance of certain duties.
- Do not touch, move, or alter anything at the scene until full documentation has been completed (observe, describe, record).

- Record any alterations to the crime scene that were made as a matter of investigative necessity or emergency police response.
  - Lights turned on or off?
  - Doors opened, closed, locked, or unlocked?
  - Body moved or body cut down?
  - Windows opened, closed, locked, or unlocked?
  - Names of all parties who moved the body prior to and during the police presence at the scene.
  - Any furniture moved or anything touched?
  - Gas turned on or off? Appliances turned on or off?
  - If vehicle is involved, is engine on or off? Is the motor cold, cool, warm, or hot?
- Do not use any telephones located inside the crime scene.
  - Does the telephone have an answer machine or message capability? *Check messages.* Check the last number redial/listen to messages. Make recording/seal original tape.
  - Does the deceased have a beeper? *Check messages.* Check the last number redial/listen to messages. Make recording/seal any original recordings.
  - Does the deceased have voice mail? *Check messages.* Check the last number and listen to any messages or check the answering service. Take recordings/seal original tapes and document.
- Is there a computer at the crime scene? Check system — last date of use, documents, disks, hard drive. Consider forensic computer analysis.
  - Check computer for answering machine–message modem. *Check messages, e-mail, etc.*
- Is there a camera at the crime scene? Process and check film and/or diskettes. Search for photographs — deceased, friends, activities, etc.
- Is there a VCR? Check all tapes. Check tape in machine. Note rentals, personal tapes, etc. — secure for review.
- Implement procedures to protect the evidence from damage by weather or exposure, as well as the presence of police personnel.
- Do not allow smoking by anyone in the crime scene.
- Do not turn water on or off, do not flush toilets, do not use any facility in the scene.
- Record condition of lights, lamps, and electric appliances such as televisions, radios, and clocks.

### ***Establishing a Command Post or Temporary Headquarters***

- Select a location out of the central crime scene, preferably a location with two phones, one for outgoing and one for incoming telephone calls. Utilize cell phones for general communications. Use the land lines for security.
- Notify communications and/or the station house of the telephone numbers of the command post as well as those of personnel at the scene to facilitate communications among the various units concerned.

- Make notifications as necessary from this location to
  - Crime scene technicians
  - Medical examiner/coroner or representatives
  - Additional investigators or police personnel
  - Prosecutor/district attorney/solicitor's office

### ***Emergency Medical Service (EMS) and Ambulance Personnel***

- If ambulance or EMS personnel were present in scene before the investigator's arrival, determine whether the crew or anyone else moved the body or any other items within the crime scene. If yes, record the following:
  - When the alterations were made
  - Purpose of the movement
  - Persons who made the alterations
  - The time of death as pronounced by the ambulance or paramedic crew
    - Consider taking fingerprints of the crew members if they touched or handled items in the crime scene.
  - Interview the EMS or ambulance crew for details of any action taken as well as their observations.

### ***Initiating a Canvass***

- Initiate a canvass of the immediate area by assigning sufficient personnel to locate any witnesses or persons who may have information about the homicide or death.
- Assign a supervisor or coordinator to organize the canvass.
- Use canvass control sheets.
- Assure that canvassers are provided with all information from the investigation and scene so they may properly solicit information from prospective witnesses. (This includes photos of the deceased taken in life, if available.)
- Have investigators check and record registration numbers of vehicles in the immediate area.
- Require official reports from canvassers indicating:
  - Negative locations (locations with no results).
  - Locations that have been canvassed, indicating the number of persons residing there to include possible visitors as well as residents.
  - Positive locations for possible follow-up and reinterview.
  - Information relating to the event being canvassed.
- Utilize the canvass questionnaire forms.
- Note:* Attempt to conduct further canvasses on the same day of the week as the incident, at approximately the same time of the incident, in order to cover the behavioral patterns of persons to be canvassed.



## ***Weapons***

If a weapon is discovered, do the following:

- Do not attempt to unload firearms.
- Record where the weapon is located.
- Safeguard the weapon for forensic examination (this includes not only ballistics, but also operability).
- Have the weapon photographed before further examination.
- If weapon is a firearm, consider an examination of the suspect's hands for residue analysis (GSR) testing.
- Determine the origin of the weapon. (Does it come from the premises? Does it belong to the deceased, etc.?)
- Determine whether any blood or any other trace evidence is on the weapon.

## ***The Suspect in Custody***

- Remember that the suspect is part of the crime scene — “theory of transfer and exchange.”
- If the suspect is arrested and present at the scene, make sure that he or she is immediately removed from the crime scene and not returned to the scene unless the clothing of the suspect is secured. This procedure is necessary to prevent crime scene contamination.
- Safeguard all evidence found on the suspect, including blood, weapons, debris, soil, proceeds of crime, etc.
- Ensure that the suspect does not wash his or her hands or engage in any conduct which may alter or destroy evidence.
- Note any injuries to the suspect and record them with black-and-white film with rule of measure included as well as color film indicating these injuries or marks with appropriate anatomical reference photographs.
- Record any spontaneous statements made by the suspect.
- Do not permit any conversation between the suspect and any parties present.
- Guard your investigative conversations in the presence of the suspect.

## ***Suspect in Custody: Interrogation at the Scene***

If the suspect is in custody at the scene and circumstances indicate that immediate interrogation of the subject would be beneficial to the investigation, the following steps should be taken:

- Advise the suspect of his or her rights under the Miranda ruling prior to any custodial interrogation. (This should be done from a Miranda rights card or Miranda form.)
- Determine whether the suspect fully understands his or her rights.
- Obtain an intelligent waiver of these rights from the suspect prior to any questioning.

- Document this procedure in the investigative notebook.
- Allow the suspect to make a full statement.
- Reduce this statement to writing and have the suspect sign it.
- Keep the suspect isolated at all times from other suspects, witnesses, prisoners, and any personnel not connected with the investigation.
- Advise any officers transporting the suspect not to engage the suspect in any conversation or questioning. However, if the suspect makes any statement during transport, the officers should document this information.
- If the suspect is brought to the police station, he or she should be placed in a separate holding cell.
- Alibi statements should be documented and recorded in the investigator's notebook.
- Any self-serving statements should also be recorded and documented, in the event the suspect later changes his or her story.

#### ***A.D.A.P.T.***

- Before beginning process, make an assessment regarding search warrant requirements.
- The crime scene search should not be undertaken until all photographs, sketches, measurements, dusting for prints, and written documentation have been completed except for emergency situations.

#### ***Documentation of Crime Scene Photographs***

- Date and time photos are taken
- Exact location of photographs
- Description of item photographed
- Compass direction (north, south, east, or west)
- Focus distance
- Type of film and camera used
- Lights and weather conditions
- Number of exposures
- Identification of photographer
- Eliminate extraneous objects, including any police equipment.
- Show the relationship of the scene to its surroundings.
  - Outdoor scenes — fixed objects as they relate to the scene from eye level
  - Indoor scenes — objects in the room such as doors or windows to “fix” the body to the crime scene

#### ***Recommended Crime Scene Photographs***

- The entire location where the homicide took place
- Contiguous areas and sites

- The crowd or any bystanders — surreptitiously
- Suspect and/or witnesses, if applicable
  - Suspect's clothing and shoes
  - Any injuries (body, face, hands, etc.)
- Do not add any chalk marks or markers prior to taking the original crime scene photographs. Markers can be added later for close-up shots.
- Take photos from the general to the specific.
- Front entrance of building
- Entrance to the room or apartment where the deceased is found
- Two full-body views
- A general view of the body and crime scene
- A close-up shot of the body
- Any visible wounds
- If the body has been removed, the body's original location
- Possible entrance or escape routes used
- Areas where any force was used for entry or exit
- Area and close-up views of any physical evidence such as bloodstains, weapons, shell casings, hairs, fibers
- Fingerprints (plastic, bloodstained, and latents) — as well as any "lifts"
- After the body has been moved, additional photos should be taken of
  - Areas beneath the body
  - Any additional evidence found beneath the body

### ***The Crime Scene Sketch***

- Make a simple line drawing of the crime scene in the investigative notebook or on a separate sheet of paper. The following information should be included:
  - Measurements and distance
  - A legend to identify any object or articles in scene
  - A scale to depict measurements used
  - A title block consisting of
    - Name and title of sketcher
    - Date and time the sketch was made
    - Classification of crime
    - Identification of victim
    - Agency's case number
    - Names of any persons assisting in taking measurements
    - Precise address of the location sketched and compass north

### ***The Crime Scene Search***

- Establish the perimeters of the crime scene and document this location by crime scene photographs and sketches, including written documentation.
- Reconstruct aspects of the crime in formulating the search.



- Ascertain the legal basis for the search prior to any seizure of evidence.
- Visibly locate any physical evidence and determine which evidence should be gathered before any destruction or alteration takes place.
- Establish the method of search based on your investigative theory, size of the area to be searched, and any other factors that arise while conducting this phase of the inquiry.
- Areas that should be processed include
  - The point of entry
  - The escape route
  - The suspect and his or her clothing, making note of injuries
  - The location of any physical evidence or weapons
  - A vehicle used in the crime
  - The suspect's residence
  - The location where the actual assault leading to death took place
  - The location from which the body was moved.

### ***Dusting for Fingerprints***

- The following areas should be processed for latent prints:
  - Areas of entry and exit
  - Weapons or objects which were apparently handled
  - Door handles
  - Telephone instruments
  - Windows
  - Glasses
  - Light switches
  - Newly damaged areas
  - Objects that may have caused death
    - Objects missing from their original location
- Note that some areas to be processed may require the use of chemical reagents such as fluorescein, luminol, ninhydrin, amido black, tetramethylbenzidine, phenolphthalin, cyanoacrylate in order to obtain latent print evidence. Consider these options before dusting.

### ***Description of the Deceased***

- A complete description of the body should be documented in the investigator's notes, including the following information:
  - The position of the body
    - Sex
    - Race
    - Appearance
    - Age
    - Build

- Color of hair
- Description of clothing
- Presence or absence of any jewelry
- Evidence of any injuries (bruises, bite marks, wounds, etc.)
- Condition of the body:
  - Livor mortis
  - Rigor mortis
  - Decomposition (describe in detail)
  - Blood, wet or dry
  - Insect activity
  - Putrefaction
- Is the condition of the body consistent with known facts?
- Note and record the condition of the victim's hands for signs of evidence (defense marks, hairs, fibers, etc.).
- Note and record any creases and folds on victim's clothing.
- What is the condition of the victim's pockets?
- Examine the immediate area surrounding the body for evidence.
- Record the direction and size of any bloodstains.
- Check the clothing and shoes for any trace evidence.

### ***Preliminary Medical Examination at the Scene***

- Record the time of arrival of the coroner/medical examiner.
  - Obtain a preliminary estimate on the time of death.
  - Document the apparent cause of death after conferring with the medical examiner/coroner.
  - Are injuries consistent with the suspected weapon involved?
  - Release of the body:
    - Use a new or laundered sheet to wrap body before removal.
    - Bag the hands of the victim with paper bags (not plastic) to preserve any trace evidence under fingernails.

### ***Victim — Hospital Information***

- If victim was removed to hospital, dispatch investigators, if available, or patrol unit to obtain the following information:
  - Name, address, and phone number of the hospital
  - Name, address, and phone of attending doctor
  - Name of officer interviewing doctor
  - Doctor's diagnosis
  - If pronounced dead, get time and date.
  - If admitted at hospital, get time and date.
  - Was the victim interviewed — yes or no?
    - Name of officer conducting interview

- Dying declaration?
  - Obtain witnesses, preferably doctor or nurse.
- Names, addresses, phone numbers of all emergency room and hospital personnel involved in treatment.
- Names, addresses, phone numbers of all ambulance or paramedic personnel involved in emergency and transport.
- Names, addresses, phone numbers of anyone who accompanied victim to hospital.
- For evidence obtained and/or impounded at hospital:
  - Establish chain of custody — identity of person at hospital who impounded any evidence.
  - Obtain for forensic examination any clothing worn by the deceased.
- Names of all police personnel at hospital.

### ***Evidence Process and Control Procedures***

- Ensure that all evidence is properly marked and packaged.
- Establish a chain of custody.
- Designate a “searching officer” to take charge of all evidence.
- Record the name and unit designation of all persons participating in the homicide crime scene search.
- Photograph all evidence in its original position (*in situ*).
- Record the position and location of all evidence on the crime scene sketch and the investigative notebook.
- Record the name of any officer or person discovering any physical evidence and the location where it was recovered.
- Measure the location of any evidence found from two separate fixed points of reference.
- Note regarding weapons:
  - Are any shell casings present?
  - Are any bullet holes or spent rounds present?
  - Determine how many shots were fired.
  - What is the position of bullets in the revolver (record by diagram)?
  - Is the safety on or off?
  - Is the firearm loaded or unloaded? Are any bullets in the chamber?
- Are wounds consistent with the weapon suspected?
- Is any trace evidence on the weapon?

### ***Release of the Homicide Crime Scene***

This is a critical decision: authorities should hold onto the crime scene as long as possible in the event that further processing, investigation, or review becomes necessary as additional information becomes available.



- Do not release the scene prior to the completion of the canvass and any interviews of witnesses or interrogation of suspects.
- Have the deceased's mailbox searched and note the date of any mail found there. Check with post office for undelivered mail and record all information.
- Note the telephone numbers of any phones at the scene.
- If the scene is to be abandoned temporarily during certain investigative procedures, provide for continued crime scene protection during the absence of investigators. The assignment of patrol officers to assist detectives at the crime scene is highly recommended.
- Before leaving the crime scene, look over the entire area from the perspective of the defense counsel to make sure you have covered all the bases.
- Gather all materials used in the crime scene processing, such as film packs, film containers, Polaroid negatives, notes, tape, evidence containers
  - Cause these materials to be removed from the scene for destruction and disposal at another location.
  - Use large plastic garbage bags at the crime scene for disposal of materials generated during the search and dispose of at another location.

It is important to note that the extent of the crime scene search can be ascertained by examination of these types of materials if they are left behind at the crime scene by the authorities.

### **Suicide Investigation — Investigative Considerations**

*Important note:* Most suicides occur as a result of depression. Therefore, the investigator should concentrate part of the inquiry into the clinical component of the event. However, keep in mind that some suicides are conscious decisions on the part of the victim and the particular motive for the event may never be ascertained.

#### ***Evaluation of the Wounds***

- Could the deceased have caused the injuries and death?
- Was the person physically able to accomplish the act?
- Are the wounds within reach of the deceased?
- Are the wounds grouped together?
- Is there more than one cause of death?
- Describe the nature and position of the injuries.
- Are there any hesitation marks?

#### ***Psychological State of the Victim***

- Obtain background of the victim from family and friends, including medical as well as social information.
- Were there any warning signs indicated by the victim? (Psychological autopsy is a collaborative procedure involving law enforcement and mental health

experts who attempt to determine the state of mind of a person prior to the fatal act. By examining the victim's lifestyle and interviewing the victim's friends and relatives, they determine whether the death was accidental or involved suicide.) (See listing of these under "Psychological Autopsy" in Chapter 13.)

- Were there any recent deaths in the family?
- Is there any indication of a recent upset or stress?
- Did the victim leave any notes?
  - Request a sample of the victim's handwriting for a comparison analysis with any note found at scene.
  - Request a sample of the victim's handwriting for an analysis in case a note is later discovered.
- Did the deceased have any close personal relationships, any close friends, etc.?
  - Interview these persons as soon as possible.
- Conduct an immediate search of deceased's home and/or place of business for investigative data.

### ***Any Prior Mental Disease or Defect***

- Has the deceased been under any professional treatment?
- Had the deceased attempted suicide in the past?
- Has anyone in the family committed suicide?
- Was the deceased a heavy drinker?
- Was the deceased on any medication?
- Was there a history of drug abuse?

### ***Recognized Warning Signs in Suicides***

- A change in sleeping habits — sleeping more than usual or staying up much later — followed by sadness
- A change in eating habits — weight loss or lack of appetite
- A lack of interest in sex — a loss of the sex drive
- A sudden drop in grades or school attendance — young people
- A loss of interest in work — adults
- Loss of interest in favorite activities, hobbies, or sports
- Loss of interest in friends, family, etc. — isolation
- A preoccupation with death or an unusual interest in art or music dealing with death: teenagers — "heavy metal," rock, etc.; adults — preoccupation with death and afterlife
- Loss of interest in personal hygiene and appearance
- Involvement with drugs, including an abuse of alcohol

### ***Extreme Danger Signs in Suicides***

- Suddenly becoming cheerful or calm after a depression. A sudden euphoria or burst of activity. This could mean that the person has resolved the inner conflict by deciding to take his or her life. The decision has been made.
- Giving away prized possessions
- Speaking of life in the past tense — for example, saying, “I’ve loved you” or “You’ve been a good mother”

### **Autoerotic Fatalities (Accidental Asphyxia)**

These are deaths that result during solo sex-related activities.

### ***Investigative Considerations***

- Is the victim nude or sexually exposed?
- If the victim is a male, is he dressed in feminine attire?
- Is there evidence of masturbatory activity?
- Are sexually stimulating paraphernalia present (vibrators, dildos, other sexual fantasy aids, pornography, etc.)?
- Is bondage present (ropes, chains, blindfolds, gags, etc.)?
- Are the restraints interconnected?
- Is there protective padding between the ligature and neck?
- Is there evidence of infibulation?
- Is there evidence of fantasy (erotic literature, diaries, fantasy drawings, etc.) or fetishism?
- Are any mirrors or other reflective devices present?
- Is the suspension point within the reach of the victim?
- Is there evidence of prior such activities (abrasions or rope burns on the suspension point, photographs, etc.)?
- Is there a positioned camera?
- Does the victim possess literature dealing with bondage, escapology, or knots?
- Is there any indication of suicidal intent?

### **Investigating Fatal Fires**

#### ***The Investigative Considerations***

Many times arson is used to conceal a homicide, disguise a crime scene, or destroy evidence.

- Was the fire intentional or accidental?
- Was the victim alive or dead before the fire?



***The Fire Incident***

- Identify the fire officer in charge of fire operations.
  - Obtain the name, rank, assignment, and unit responsibility of all fire personnel involved in the operation.
- Obtain copy of chief's report describing the firematic operations taken to extinguish the fire. This includes
  - Determine origin/cause — suspicious or other.
  - Was the fire incendiary? What accelerant was used?

***Suspicious Designation: General Determination Factors***

- Rate of burning was not consistent with types of combustibles present in the location at the time of fire.
- A person died as a result of the fire.
- Origin of the fire is questionable or has multiple points.
- Firefighters noticed odor of gasoline or other accelerant.
- Cause was not readily determined.

***Maintenance of the Fire Crime Scene***

- Determine the condition of the scene based upon firematic operations (body moved, debris removed, building collapsed, etc.).

***Investigation at the Scene***

- Interview survivors as soon as possible.
- Interview people with an interest in the fire, who may still be present at the scene while firefighters are working.
- Interview firefighters who have first-hand knowledge of the conditions within the building.
- Obtain information on all injured, evacuated, and relocated persons for interview.
- Interview any ambulance, paramedic, or other emergency crews, including Red Cross personnel who assisted with operations.
- Initiate an investigative canvass (see canvass technique, Chapter 4, Figure 4.4 and Figure 4.5).
- Assign a fire investigator or arson expert to begin an origin/cause investigation at the scene to make an official determination of the fire incident.
- Record the crime scene — conduct the crime scene search.
- Examine the body.
  - Investigative considerations in arson cases:
    - Determine identity of the victim.
    - Was victim dead or alive?

- Is victim face up or face down (usually when someone collapses, he falls face forward)?
- Does the body evince “pugilistic attitude” (a boxing pose or fetal position caused by the effect of heat upon the muscles)?
- Examine postmortem lividity (should be pink to cherry red due to the inhalation of carbon monoxide if the person was alive and breathing during fire).
- Examine blistering (blisters surrounded by pink ring can be considered as having occurred before death). However, the medical examiner makes final call.

### ***Determination of Arson***

- The determination of arson must be based upon expert opinion. This opinion is established after a careful review of the facts as well as being based upon the ability of the expert to “read the fire,” which provides the investigator with the necessary legal basis for an arson determination and subsequent prosecution.

### **Sudden Infant Death Syndrome (SIDS)**

*Note:* Investigators should be aware that some deaths which appear to be SIDS deaths may in fact turn out to be homicides. These homicides may be due to smothering or MSBP cases. In other cases, the injuries may be internal, so an external examination of the child may fail to reveal any trauma.

### ***Investigative Checklist***

- Infant’s pedigree:
  - Age, date of birth, sex, race, birth weight
- Date and time that the death was discovered
  - Who was the last person to see the child alive? Date and time?
  - Who discovered the dead infant? Date and time?
- What was the place of death?
  - Child’s crib, bed, parent’s bed, other location. Describe.
- Position of the infant or child when found dead?
  - Was this original position changed? By whom? Why?
- Was resuscitation attempted?
  - Name of person who attempted resuscitation
  - Method of resuscitation
- Had the infant or child been sick lately?
  - Cold or sniffles?
  - Other minor or major illnesses?
- Any medical treatment? What treatment prescribed?
  - Seeing a doctor? Treating physician’s name?

- Any medication? What type? Name and dosage?
- Was the infant or child breast fed or bottle fed?
  - When was the time of last feeding?
  - What was fed to the infant/child?
- Have the parents noticed any difference in the infant or child's appearance or behavior in the last few days?
- When was the baby last examined by a physician? Why and by whom?
- Was the baby exposed to any illnesses recently?
- Had there been illness in the family recently?
- Have there been any other SIDS deaths in the family?
  - If yes, take a complete history.
- Was someone other than parent caring for infant or child?
  - Identification name and address, etc.
  - Ascertain whether any other infants or children have died under this person's care.

*Note:* The investigator should approach the parents in a sensitive and nonaccusatory manner and conduct the interview to obtain this information. If the death does appear to be a SIDS death, convey to the parents that they are not to blame and that there was nothing they could have done to prevent the death.

### **Munchausen Syndrome by Proxy (MSBP) Warning Signs**

- The illness is unexplained, prolonged, and so extraordinary that experienced doctors state that they have never seen anything like it before.
- Repeat hospitalizations and extensive medical tests do not achieve a diagnosis.
- Symptoms and signs do not make medical sense.
- Victim persistently fails to respond to therapy.
- Signs and symptoms dissipate when the victim is removed from the suspected offender.
- Mother does not seem worried about the child's illnesses and is constantly at the child's side while in the hospital.
- Mother has an unusually close relationship with the medical staff.
- Family has other children labeled as SIDS children.
- Mother has previous medical or nursing experience that often involves a history of the same type of illness as the child.
- Parent welcomes medical test of the child, even if painful.
- Parent attempts to convince the staff that the child is still ill, when advised that the child will be released from the hospital.
- A "model family" that normally would be above suspicion.
- Caretaker has a previous history of Munchausen syndrome.
- Caretaker adamantly refuses to accept the suggestion that the diagnosis is nonmedical.



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# The Crime Scene Photographs

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*Crime scene photographs* are permanent and comprehensive pieces of evidence, which may be presented in a court of law to prove or disprove a fact in question. During the preliminary stage of homicide investigation, it is impossible to determine all of the things which may become relevant or important later. Therefore, it is imperative that photos be taken of the entire area and location where the crime took place, including any sites contiguous with the original crime.

**Remember: You only get one shot at the homicide crime scene, so obtain as much information and documentation as possible.**

## The Value of Crime Scene Photographs

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The old adage “one picture is worth a thousand words” is certainly appropriate when considering the value of crime scene photography. Although an investigator can verbally describe the homicide crime scene, photographs are able to present the same facts in a more accurate and easily understood manner. In addition, photography enables the investigator to stop the clock at any given instant and obtain a durable record, which remains long after other, more fragile evidence has dissipated. From an investigative point of view, crime scene photographs are practical and valuable tools which can:

1. Pictorially recreate the original crime scene
2. Refresh the investigator’s memory and recall significant details which may have been overlooked or forgotten
3. Review particular aspects of the case
4. Provide a new slant on the case
5. Refresh the memory of witnesses
6. Illustrate details of a scene and the relationship of objects to the crime
7. Provide proof of injury or wound
8. Make comparisons

9. Brief newly assigned investigators
10. Convey the crime scene and circumstances of the crime to a jury and serve as *visible* evidence

## **Crime Scene Photography and the Investigator**

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The investigator should have a basic understanding of photography and be able to operate some of the more simple photographic equipment available today. An easy-to-use camera should be provided for use by the investigators at the homicide crime scene. Digital cameras as well as Instamatics and many of the Polaroid models are simple to operate and ideal for obtaining a record of the crime scene before any changes occur.

The type of camera recommended for crime scene photography is one which provides a large negative. Digital cameras are ideal for this purpose because the picture that is taken at 10 or 25% can be blown up to 100%. In addition, any camera which produces a larger negative and provides better clarity and resolution upon enlargement is preferable. Because of its versatility and relative simplicity, the 35-mm camera is an excellent substitute for the large-negative types if they are not available. Investigators can be trained to operate the 35-mm camera in a short time.

Although investigators may be able to operate digital cameras, the 35-mm camera, or the Polaroid and Instamatic cameras, they should enlist the assistance of a professional with sophisticated equipment for the proper documentation of the homicide crime scene. Most departments maintain police photographers or specialized personnel to photograph crime scenes. In the absence of police personnel, civilian professionals can be employed. However, they should be advised of the legal requirements involved. The primary duty of the investigator will be to maintain the homicide crime scene in a condition that assures the integrity of the photos.

## **Admissibility of Photographic Evidence**

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The homicide investigator should have an understanding of the techniques and legal requirements necessary to ensure that the crime scene photos will be admissible in court. The basic premise involved in crime scene photography is that the photographs are a true representation of the homicide crime scene as it was at the time the incident was reported. Therefore, before a detailed examination of the crime scene is undertaken and before any items are moved or even touched, the crime scene must be photographed.

**Remember: Do not draw any chalk lines or place markers in the crime scene until a photograph can be obtained depicting the scene as it was when the police first arrived.**





**Figure 6.1 THE CHALK FAIRY.** Here you see the deceased lying in the position in which he was found. This crime scene photo may possibly be “inadmissible.” While the first officers were securing the scene, someone I describe as a “chalk fairy” suddenly had the irresistible impulse to draw chalk lines around the body. You are *not* supposed to draw chalk lines around a body prior to the crime scene photographs. (From the author’s files.)

The photographer should show the relationship of one object to another by moving from the general to the specific. Several photos of the general view should be taken at eye level in a clockwise direction or from each point of the compass (north, south, east, and west). The photographer should start at the outside perimeter of the scene and work toward the central scene. In addition, the photos of the body should indicate its position in relation to some landmark or permanent point of reference. The entire roll of film should be exposed or at least removed in each investigation. Never leave partially exposed film in the camera for another investigation, or the evidentiary value of the crime scene photographs may be jeopardized.

*Do not add any chalk marks or markers to the scene before a long shot and close-up detail shot are obtained.* Defense counsel can argue that the crime scene photographs are not an accurate representation of the scene as it was upon discovery of the crime because the police have added markers or chalk lines. If chalk lines or

markers are needed to pinpoint the location of a small item, such as bloodstains, hair, or similar articles, photos should first be taken without the markers and then additional photos taken with the markers.

The number of photos taken is usually determined by the case. There is no limit on the number that can be taken. Practically speaking, it is always better to overshoot a scene than to miss some vital shots.

As each photo is taken, an accurate record should be made in the investigator's notebook. In addition, an entry should be made on an official photo log. Some agencies maintain logs or preprinted forms for use at crime scenes in order to assure the proper documentation of crime scene photographs. In any event, the following information should be recorded:

1. The date and time
2. The exact location
3. A brief description of the detail being photographed
4. The compass direction (north, south, east, or west)
5. The focus distance
6. The type of film and camera used
7. Any special equipment used
8. Light and weather conditions
9. The number of exposures
10. The identity of the photographer

The photographer should keep possession of the exposed film or digital disks for delivery to the laboratory for processing. After these photos are developed, the preceding information should be entered on the back of each photo and/or digital disk or on an appropriate form indicating each photo by number.



**Figure 6.2** The CU-5 POLAROID CAMERA. 1 × 1 Camera. (Courtesy of the Polaroid Corporation.)



**Figure 6.3** MACRO 5 SLR CAMERA POLAROID. (Courtesy of the Polaroid Corporation.)

The comprehensive log is necessary to assure the admissibility of the crime scene photos in court. The log includes the ten points mentioned previously, as well as the chain of custody from exposure to final disposition and storage of the film and negatives.

In addition, the police laboratory should keep an evidence log containing the following information:

1. The identity of the individual delivering the film for processing (name, rank, serial number, etc.)
2. Date and time the film was received for processing
3. Results of development
4. Number of prints requested
5. Location of original negatives or digital disks
6. Identity of the person receiving developed prints, digital disks, and/or negatives if there is no central storage

In the event that a commercial laboratory is used to process the film, the management should be requested to cooperate in adhering to the rules of evidence handling. This should include limiting the number of personnel handling the evidence film, as well as guaranteeing the security of the film and negatives. Needless to say, the commercial firm used to process any evidentiary material should be a reputable establishment.



## Photographing the Homicide Crime Scene

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Recording the homicide crime scene is a major facet of the investigation. It is extremely important that this be accomplished before anything is touched or moved at the scene. Also, it is important while photographing the scene to eliminate persons or items — including officers and police equipment — that do not belong in the scene.

As mentioned earlier in the chapter, the photographer should attempt to show the relationships of objects to each other by shooting from the general to the specific, should take several photos of the general view, and should start at the perimeter and work toward the body. This is followed by close-up shots of the body and any significant pieces of physical or trace evidence. Important items of evidence, such as weapons, should be photographed as they appear at the scene.

**Remember: No chalk marks or markers before you get a long shot and a close-up shot of the body and any other evidence.**

### Outdoor Locations

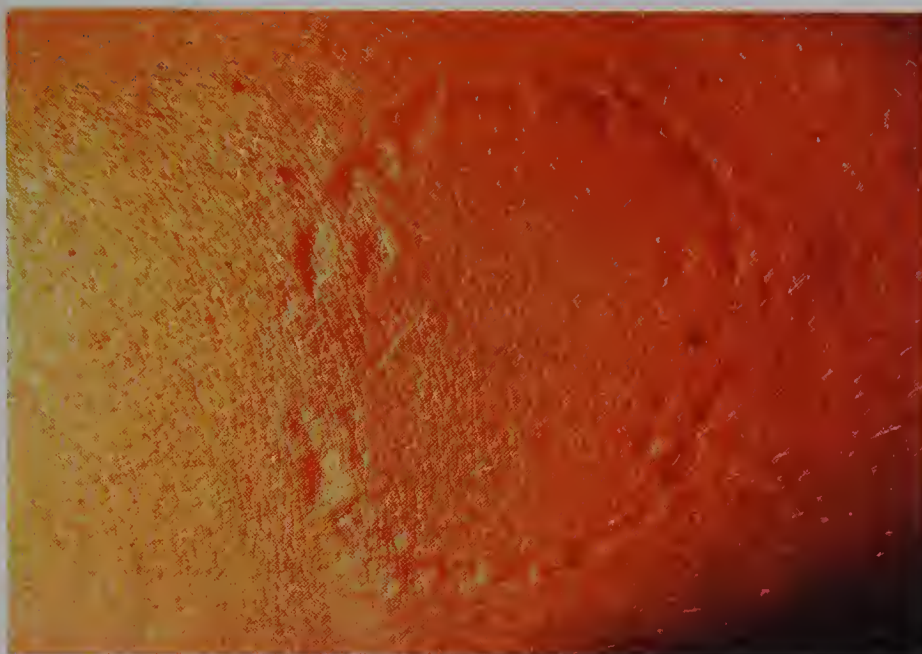
Outdoor locations should be photographed showing the central scene and the surrounding area in order to show the relationship of the scene to its surroundings and give the viewer a point of reference. These photos should be taken at eye level to show exactly how the scene appeared to the investigators or witnesses. If the homicide takes place in a large area or the surrounding street locations become significant, aerial photos are often helpful in providing a better perspective.

### Indoor Locations

Indoor locations are more restricted than outdoor ones; however, the same principles apply. The photographer takes several overall shots in order to relate the scene to its surroundings. He then photographs the body, showing its position and relationship to objects in the room. Indoor locations may include several rooms in a house, an entire apartment or an individual room, the interior of a closet, an office, a hallway, a fire escape, a cellar, etc. The extent of the indoor photos depends on the facts of the case. The position of any windows and doors should be photographed, and exterior photos should be taken of locations — backyards, entranceways, neighboring residences, etc. — that show the premises from the outside.

### The Body

Photos of the body should include a general and a close-up view and at least two full-body shots, one from each side. The photos must be taken *in situ* before the body is moved and should show any significant aspects of the crime as well as the body's position in the scene. Any defense wounds on the body should be photographed at the scene and later at autopsy.



**Figure 6.4 PHOTOGRAPH OF BITE-MARK WOUND.** Homicide case. Bite marks found on victim's arm. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)



**Figure 6.5 PHOTOGRAPH OF BITE-MARK WOUND WITH SCALE.** Homicide case. Bite marks on victim's arm shown with scale. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)



**Figure 6.6 HANDS OF THE SUSPECT.** Both hands of this suspect, who has been charged with homicide, show evidence of a violent struggle, as indicated by the arrows, and are actually part of the crime scene. These photos should be taken in black-and-white and color, with a marker. (From the author's files.)

It is recommended that additional identification photos of the deceased be taken at the morgue, prior to autopsy and after the body has been cleaned of any blood or grime. Sometimes the facial features will be so distorted that it is impossible to get an identification photo. In these cases, pictures should be taken of any scars or other markings, including tattoos, for later identification purposes.

Photographs should also be taken of any wounds or injuries that caused death or are significant to the investigation. These photos should be taken before and after the body has been cleaned in order to show the specific extent of injury and the character of each wound in exact detail. Photographs of any wounds should include a standard or metric ruler along with an I.D. label indicating case numbers and other pertinent information. In homicide cases where the victim has received wounds from bite marks, it is recommended that the photographs be taken with the Polaroid Spectra Close-up kit. Likewise, the CU-5 1 × 1 *fingerprint* camera produced by Polaroid is excellent for photographing fingerprints. These cameras will provide the necessary detail needed for later comparison and examination of the wound. Remember to use a ruler or scale to obtain an accurate measurement. (See Chapter 20 section, "Bite-Mark Identification.")

## Suspects

It is important to note that crime scene photographs are not limited to places, objects, and dead bodies. Many times a suspect's appearance will indicate that he





**Figure 6.7 POLAROID SPECTRA CLOSE-UP KIT.** The Spectra 1200si camera comes with built-in autofocusing and auto lighting. (Courtesy of the Polaroid Corporation.)

or she has been in some sort of altercation. Suspects may have blood on their hands or bodies and blood on their clothes. They may have scratches or cuts on their hands or some superficial wounds on their faces or bodies. In addition, some visible material on the suspect may link him or her to the crime scene. Crime scene photographs must be taken before this valuable and important evidence is lost. However, in order to assure admissible crime scene photos, the suspect must be in custody, be under arrest, or agree to *pose* after having been advised of his or her constitutional rights.

## Type of Film

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I recommend that crime scene photographs be taken in color and in black-and-white. Often an issue of color may arise that cannot be resolved by black-and-white photos. I recall an investigation involving a homicide in a rooming house where the suspect had allegedly brought a blue sweatshirt into the room of the deceased. He had changed the shirt because blood from the victim was splattered all over it. The suspect then threw the shirt on a pile of rags after wiping up some of the blood and left the shirt behind. Later a witness was located who had observed the suspect wearing a blue sweatshirt before the crime was committed. The witness attempted to locate the sweatshirt in the black-and-white crime scene photos but failed to make an identification. Had we been using color film as well as black-and-white, we would have been able to point out the sweatshirt as a piece of evidence.

Photos taken in color give a much more realistic portrayal of the crime scene, which graphically depicts the events to the viewer. However, in certain instances, defense counsel has effectively precluded the submission of color prints into evidence because color was “too inflammatory.” On other occasions, details shot in color are not clear enough for comparison purposes, e.g., latent fingerprint evidence. In any event, if the crime scene photographs are taken in black-and-white as well as in color, the investigator can choose between the two.

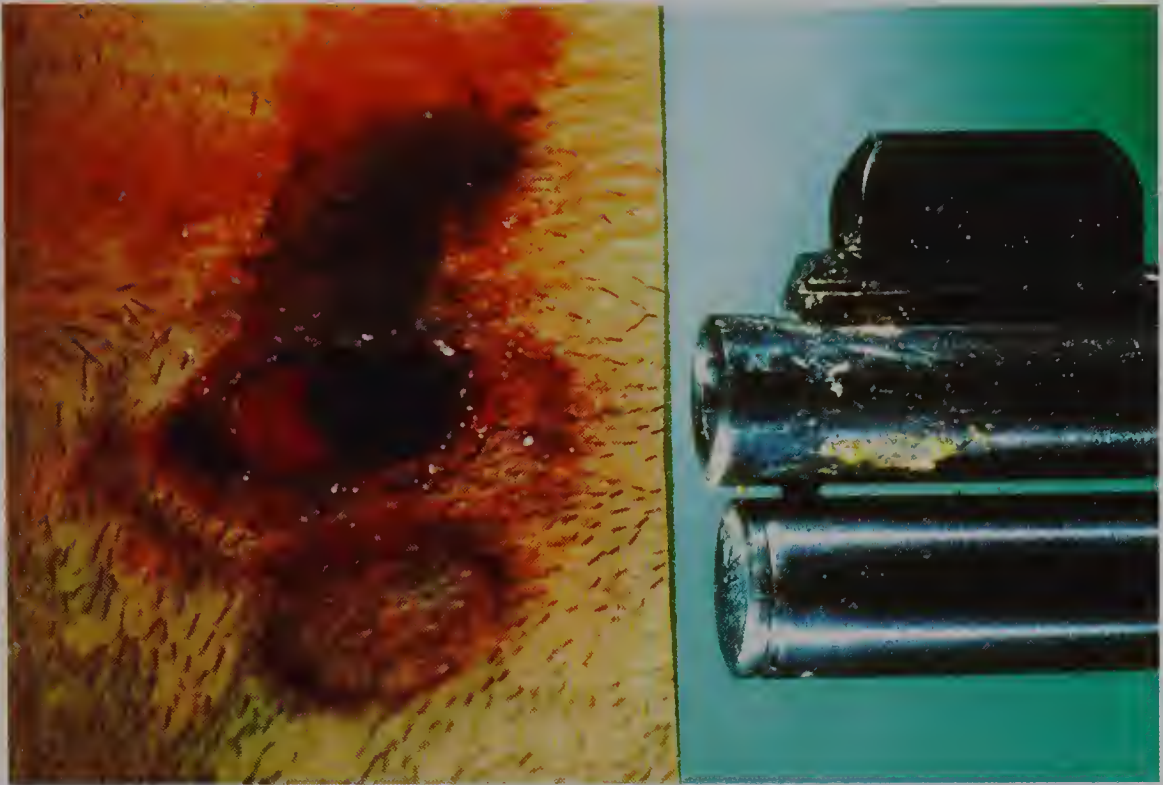


**Figure 6.8 FORENSIC PHOTOGRAPH OF DEFENSE WOUND.** This photograph is a macro photograph of a defense wound from the victim's hand sustained as she attempted to fight off her assailant. (Courtesy of Detective Sergeant Alan Patton, Grand Prairie, Texas, Police Department.)

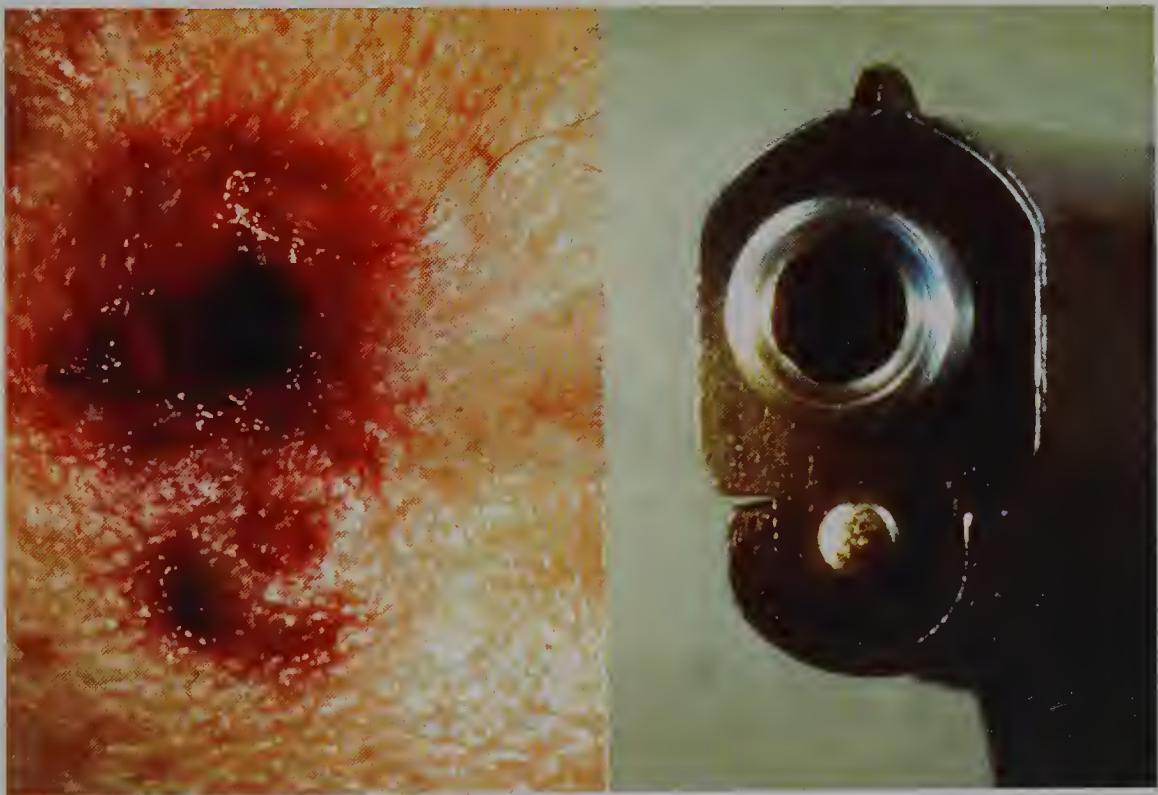
### **Recommended Crime Scene Photographs**

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There is no limit on the number or types of photos one may decide to take at any given crime scene. However, certain photographs should be taken in all homicide investigations. I recommend that the following crime scene photographs be obtained as a matter of routine:



**Figure 6.9** PATTERN INJURY IN FIREARM CASE. (Left) Contact gunshot wound to skin demonstrating muzzle/magazine/front sight imprinting. (Right) Firearm responsible. (Courtesy of Westchester County Medical Examiner's Office. Photograph by W. Reid Lindsay, Westchester County Forensic Science Laboratory.)



**Figure 6.10** PATTERN INJURY IN FIREARM CASE. (Left) Contact gunshot wound to skin demonstrating muzzle/slide/slide guide rod imprinting. (Right) Firearm responsible. (Courtesy of Westchester County Medical Examiner's Office. Photograph by W. Reid Lindsay, Westchester County Forensic Science Laboratory.)





**Figure 6.11 CLOSE-UP BLOWBACK ON GUN BARREL.** Death investigation suicide: close-up showing blood spatter blowback on revolver muzzle. (Courtesy of Detective Steve Shields, Klickitat County, Washington, Sheriff's Office.)



**Figure 6.12 CLOSE-UP SHELL CASING.** Homicide: close-up of .45-caliber shell casing showing unique impressions on face. (Courtesy of Detective Mark Czwozniak, Chicago Police Department.)

1. The front entrance or walkway to the building or dwelling where the homicide took place or the external perimeter of an outdoor crime scene where the body lies
2. The entrance to the apartment or room where the deceased is discovered
3. Two full-body views (one from each side). (If the body has been removed, the original location where the body was discovered should be photographed.)



**Figure 6.13 SEMIJACKET .45** Macro close-up of .45-caliber semijacket hollow point. Base view. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)

4. Two photographs relating the body location to its general surroundings, from opposite and/or diagonal sides
5. Possible entrance and/or escape routes of the perpetrator or perpetrators to and from the crime scene
6. Areas where force was used for entry or exit
7. Area and close-up view of evidence *in situ*; in addition to the body, this would include bloodstains, weapons, shell casings, hairs, fibers, or any other physical or trace evidence
8. If a large outdoor area is involved, take aerial photographs to relate scene to surroundings
9. Photographs of the suspect, if in custody, with attention to any new wounds or injuries or presence of physical or trace evidence
10. Photographs of witnesses surreptitiously or as a matter of record, depending on the circumstances of the case

On completion of these preliminary crime scene photographs, the homicide supervisor should make it a standard practice to keep the photographer at the scene in the event that the crime scene search uncovers additional items or details which should be photographed. Many times after a body has been moved, additional evidence is discovered underneath, such as shell casings, spent rounds, or a weapon. These items should be photographed *in situ* before collection, with a reference in the investigator's notebook as to the original location and the discovery.





**Figure 6.14 BLOODY RIDGE PATTERN.** Homicide/sexual assault. Knife used in the attack. Bloody ridge pattern of suspect recovered from light switch. (Courtesy of Detective Mark Czwozniak, Chicago Police Department.)



**Figure 6.15 CLOSE-UP OF SUSPECT'S BLOODY FINGER.** Homicide/sexual assault. Knife used in the attack. Suspect cut himself. Close-up photo of suspect's cut finger. (Courtesy of Detective Mark Czwozniak, Chicago Police Department.)





**Figure 6.16 PATENT PRINT IN BLOOD.** Homicide/sexual assault. Suspect, who cut himself during the assault, left a bloody patent print at the crime scene. Close-up photo of patent print. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)



**Figure 6.17 LATENT PRINT ON SHOTGUN SHELL.** Shotgun shell was dusted for prints. Latent print of suspect on shell. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)

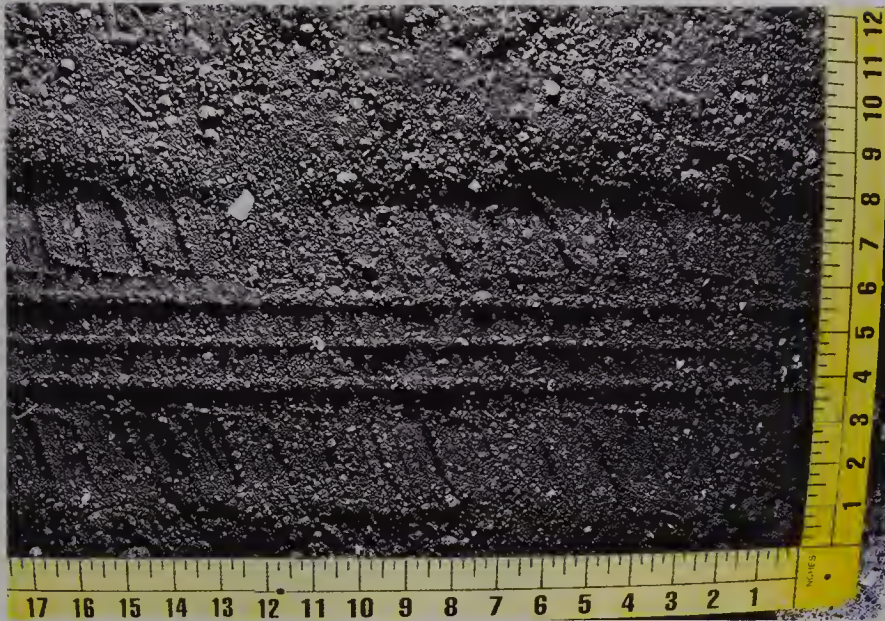


**Figure 6.18 FORENSIC PHOTO OF FRACTURE MATCH.** The knife recovered from the suspect's bedroom was matched to the tip of the blade, which was recovered from the victim's chest at autopsy. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)



**Figure 6.19 TIRE IMPRESSION.** Close-up photograph of tire impression prior to placing a scale of measure into the picture to show size of original impression. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)





**Figure 6.20 TIRE IMPRESSION WITH SCALE.** Death investigation. Tire tracks observed at the crime scene photographed with scale. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)



**Figure 6.21 PHOTO OF VICTIM'S BRA.** This photo depicts a crime scene photograph of a rape victim's bra prior to the application of the alternate light source. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)

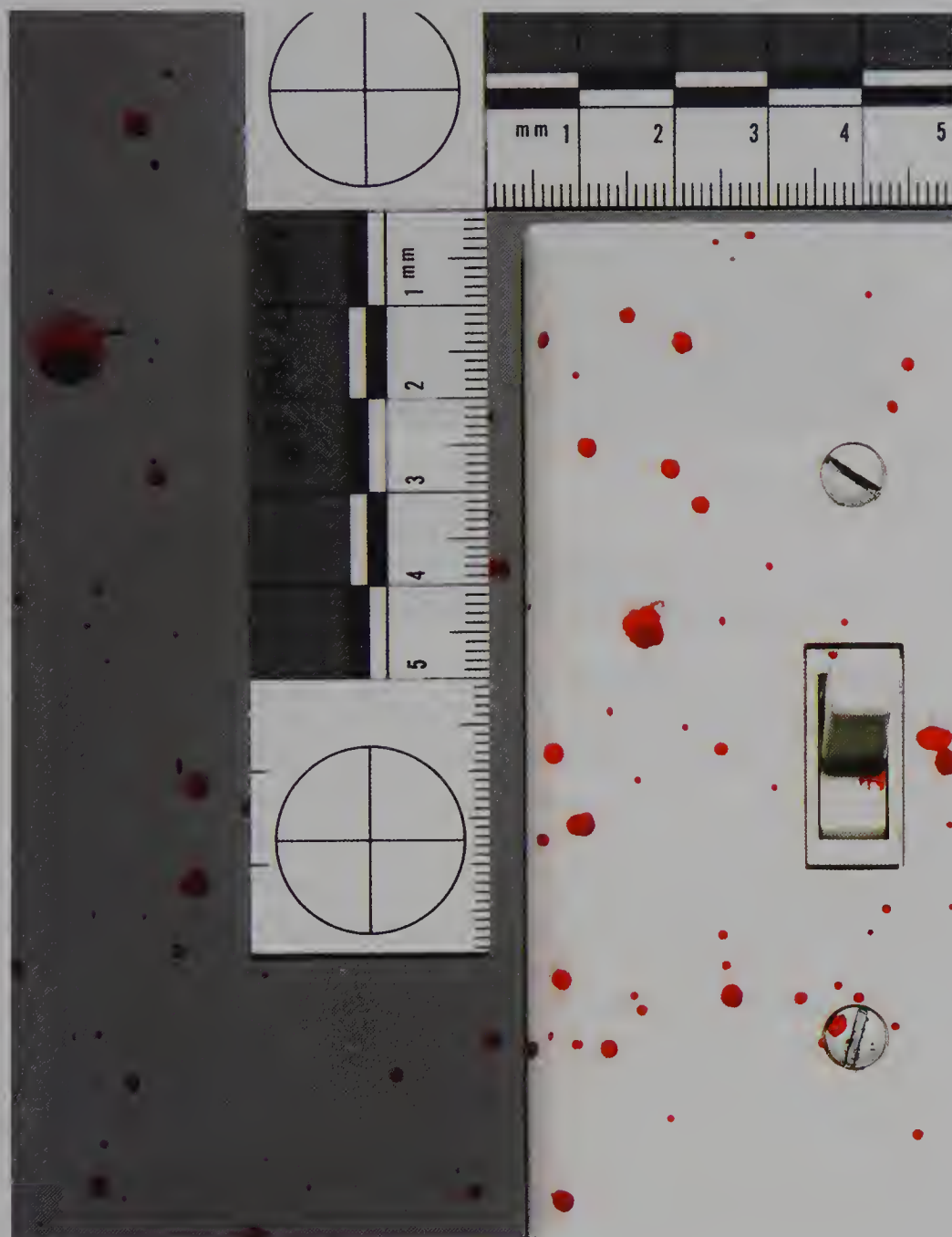


**Figure 6.22 PHOTO OF VICTIM'S BRA TAKEN WITH ALTERNATE LIGHT SOURCE.** This photo was taken using alternate light source photography. The suspected semen is shown here fluorescing. The stains were swabbed and later determined to be semen. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)





**Figure 6.23 PHOTO OF BLOOD SPATTER.** Blood spatter at homicide scene. Victim had been beaten with a barbell. This is a close-up of the blood spatter on the wall with orientation card and ruler. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)



**Figure 6.24 CLOSE-UP PHOTO OF BLOOD SPATTER.** Blood spatter at homicide scene. Same case as in Figure 6.23. This is a closer view of the blood spatter on the light switch with ruler. (Courtesy of Detective Mark Czwozniak, Chicago Police Department.)



**Figure 6.25 AERIAL SHOT.** It is a good procedure to obtain overall aerial views of the crime scene. (From author's files.)

### **Practical Application of Crime Scene Photography**

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In addition to the general application of crime scene photography to the overall investigative process, in some instances the camera can perform what the investigator cannot. For instance, in street homicides, especially in cities, there is always the possibility that the suspect or a witness to the fatal act may still be in the crowd of onlookers. I recommend that pictures be taken of these people surreptitiously while photographing the scene or directly before anyone in the crowd realizes that his or her presence is being documented. In addition, if you have videotape capability, tape the crowd and their reactions. This usually proves to be quite interesting and may help locate persons later for questioning.

I remember two specific incidents where the crime scene photos helped us to break a case. On one occasion, while on investigative patrol, we heard a radio broadcast of a possible homicide and a request for detectives to respond. Because we were close, we arrived as the crowd was still being directed behind hastily erected barriers. As the detective who was with me approached the scene, I stood back and began to take pictures of the surrounding crowd with my Instamatic camera. Later, we discovered that there was a witness to the shooting in the crowd. This witness never would have come forward had we not "captured" his presence on film.

In the other case, we were at the scene of a street homicide when we received information that one of the perpetrators was in the crowd. We could not verify this information or make an arrest because the source had made himself scarce and we did not have enough probable cause to make an arrest. I instructed the crime scene photographer to photograph the crowd surreptitiously while taking the crime scene photos. Later, when we showed these blown-up crowd shots to our witness, he positively identified the suspect as one of the participants.





**Figure 6.26 GROUND ZERO AFTER COLLAPSE OF TOWERS.** Photo depicts the total devastation of the area after the collapse of the Twin Towers, with police and emergency personnel gathered at ground zero during the early search and rescue operations. (Courtesy of retired Detective First Grade Kurtis Harris, NYPD Crime Scene Unit.)

### **The World Trade Center Attack**

The World Trade Center (WTC) attacks of September 11, 2001 on New York City and America by radical Islamic fundamentalists who flew planes into the WTC and the Pentagon resulted in the largest crime scene the NYPD had ever encountered. This outrageous attack on innocent civilians thrust the resources of New York City into a crime scene investigation of unheralded proportions. The resources of the New York Police Department, the New York City Fire Department, the Port Authority Police Department, the Federal Bureau of Investigation, and the New York Office of the Chief Medical Examiner were confronted with the monumental task of recovering and identifying the human remains using every conceivable method available.

#### ***The Polaroid Macro 5 SLR Camera***

The New York City Police Department's Crime Scene Unit was responsible for documenting evidence at the World Trade Center site, as well as the Fresh Kills Landfill and the New York City Medical Examiner's Office. As operations at the WTC shifted from rescue to recovery, the NYPD Crime Scene Unit began the painstaking process of sifting through the rubble for human remains and personal items.

I interviewed Detective First Grade (retired) Kurtis Harris relative to his experience with the Polaroid Macro 5 SLR camera during the crime scene process at ground zero. Detective Harris has managed approximately 1900 homicides,



**Figure 6.27** GROUND ZERO CRIME SCENE. This photo depicts the enormity of the crime scene along with the devastation. NYPD Crime Scene Unit personnel searched through this rubble for any items and/or body parts that could be recovered, photographed, and documented. (Courtesy of retired Detective First Grade Kurtis Harris, NYPD Crime Scene Unit.)



**Figure 6.28** MACRO 5 SLR CAMERA POLAROID USED AT GROUND ZERO. (Courtesy of retired Detective First Grade Kurtis Harris, NYPD Crime Scene Unit.)

suspicious deaths, and other major crime investigations during his 20-year career with the New York City Police Department, 13 years of which he was assigned to the Crime Scene Unit. He is a board-certified senior crime scene analyst and former faculty member of the NYPD Detective Bureau's Advanced Training Unit. Some of the information below was provided by Detective Harris.<sup>1</sup>

The Polaroid Macro 5 SLR-1200 is an all-inclusive camera that permits photographing elements of artifacts for class and individual characteristics. Originally used in the medical field to assist practitioners in identifying patient conditions photographically, the camera was used extensively during the World Trade Center attack investigation and victim identification. The Polaroid Macro 5 SLR-1200 became the "workhorse," not only of the NYPD's Crime Scene Unit but also of the various agencies involved in the WTC investigation. The camera aided them in the identification process subsequent to other occurrences requiring the immediate and precise documentation of artifacts and human remains left at a crime scene.

The pulverizing effect of the collapse of the two towers reduced once whole bodies into mounds of dust-covered flesh and bone. The identification process was initiated at "ground zero" with use of a grid system established with global positioning. The remains were given coordinates, removed to a designated area on site for gross examination, and then transported to 520 First Avenue, the office of the chief medical examiner. At this stage of the identification process, forensic anthropologists performed triage of the remains and artifacts and disseminated the material to the various forensic disciplines present at the morgue. For example, any dentition separated from the victim was forwarded to on-site odontologists for x-rays and comparative analysis with known dental records.

Camera work at the triage stage was essential in documenting the many thousands of pieces of jewelry and artifactual material that offered individual characteristics, which aided in identification. The Polaroid Macro 5 SLR-1200 employs the use of five lenses, which reproduce images at  $0.2\times$  (20%),  $0.4\times$  (40%),  $1\times$  (1:1),



2× (200%), and 3× (300%) magnification. Two enclosed electronic flash units provide an even dispersion of light across the subject matter and microprocessors automatically choose appropriate aperture settings (fixed speed of 1/50 second). The unit also utilizes a dual-light range finder that facilitates remote focal distance from subject to lens, thus allowing crisp and focused photographs without the operator viewing the subject material through the viewfinder. Other features of the camera allow the photographer latitude in recording class characteristics while in an adverse environment. The following is a table of the camera's specifications:

Magnifications	Lens-to-Subject Distance	Lens Focal Length	Effective Lens Aperture	Depth of Field
0.2× (20%) Macro 5	52 in./132 cm	221 mm	F/20	8.8 in./22 cm
0.4× (40%) Macro 5	26 in./66 cm	188 mm	F/34	3.8 in./10 cm
1× (1:1 or 100%)	9.9 in./25 cm	128 mm	F/47	0.86 in./2.2 cm
2× (200%)	4.8 in./12 cm	85.4 mm	F/67	0.31 in./0.8 cm
3× (300%)	3.1 in./8 cm	64 mm	F/100	0.20 in./0.5 cm

Source: Polaroid Company.

Figure 6.29 and Figure 6.30 illustrate the probative value of the camera's worth in recording the inscription on the underside of a ring. The inscription (23rd Psalm) is clear in the photograph and will ultimately aid in the identification of its owner. The photograph was taken at the maximum magnification provided by the camera (3× [300%]) and the image is accompanied with a suitable scale for reference. The reflective surface of the ring is not a factor in washing out the image while the



**Figure 6.29 RING RECOVERED FROM GROUND ZERO.** The photograph was taken at the maximum magnification provided by the camera (3× [300%]) and the image is accompanied with a suitable scale for reference. (Courtesy of retired Detective First Grade Kurtis Harris, NYPD Crime Scene Unit.)



**Figure 6.30 INSCRIPTION INSIDE RING.** This photograph illustrates the probative value of the camera's worth in recording the inscription on the underside of a ring. The inscription (23rd Psalm) is clear in the photograph and will ultimately aid in the identification of its owner. (Courtesy of retired Detective First Grade Kurtis Harris, NYPD, Crime Scene Unit.)



**Figure 6.31 PANOSCAN CAMERA.** (Courtesy of Mr. Casey Coss, C.F.O., Panoscan, Inc., [www.panoscan.com](http://www.panoscan.com).)



**Figure 6.32 PANOSCAN CAMERA.** Panoscan setup with camera and processor. (Courtesy of Mr. Casey Coss, C.F.O., Panoscan, Inc., [www.panoscan.com](http://www.panoscan.com).)

camera's flash mechanisms were employed. Depth of field (the zone of acceptable sharpness) is suitably clear for viewing without additional aids.

### *The Panoscan MK-3 Digital Panoramic Camera System*

The Panoscan MK-3 panoramic camera system creates ultrahigh-resolution 360° images, which allow law enforcement personnel to examine crime scenes in extraordinary detail months or even years later, and high-resolution, photo-realistic mapping of structures and open spaces for courtroom presentations and strategic and tactical planning. Panoscan images can also be used in a variety of law enforcement training applications.

### **Law Enforcement Applications**

- Panoscan's ultrahigh resolution panoramic images document the crime scene in 360 by 180°, so crime scenes can be investigated months or even years later.
- Tactical planning maps create virtual reality "maps" of public places including schools, government buildings, and hostile urban environments for tactical planning and response.



**Figure 6.33** PANOSCAN CARRYING CASE. (Courtesy of Mr. Casey Coss, C.F.O., Panoscan, Inc., [www.panoscan.com](http://www.panoscan.com).)

- Courtroom presentations create detailed virtual tours of entire crime scenes and the relationship of evidence to the surrounding area.
- Multimedia training Panoscan images can be used for a variety of law enforcement training applications.

### *Examples*

In the mock crime scene in Figure 6.34, a typical hotel room was scanned under existing lighting conditions. Notice how the small inset picture shows the extreme detail level captured in this image. The label on the prescription bottle is easily read. This is made possible by Panoscan's extraordinary resolution; no enhancement is needed. In this case, over 580 million pixels were captured, allowing the viewer to zoom in for a detailed examination of every part of the image.

Crime scenes captured in this way can be studied in detail to reveal new clues. Investigators can revisit the scene long after it has changed. Unlike traditional close-up photography, panoramic imaging shows the spatial relationship between items, which provides a view of the whole scene. In an actual case in Kern County, California, a matchbook, among other debris, was missed in the initial examination of the homicide scene. It was found in the Panoscan image and this new piece of evidence led to the conviction of the suspect.

In the following example, a school campus was captured using the Panoscan camera to document the view from inside each classroom. This kind of imaging can be stored on a CD-ROM or a secure file server for later review. This virtual mapping allows the viewer to look around each room and study vital tactical details, such as which way a door may open or where a storage closet may be located, as well as the placement of furniture. In the event of an emergency such as a fire or hostage situation, officials can use this information to plan their tactical response.

This school, with over 70 room views, was captured by one photographer in a single day. The images were then converted to an interactive QuickTime VR presentation, which allows the user, by simply rolling the mouse cursor over any room,





**Figure 6.34 PANOSCAN PHOTO SEQUENCE.** Indicates Panoscan's ability to focus in on a particular item within the crime scene. (Courtesy of Mr. Casey Coss, C.F.O., Panoscan, Inc., [www.panoscan.com](http://www.panoscan.com).)

to make a virtual "leap" into that room. Once inside, the user can pan tilt and zoom the view of the selected room using the mouse. To view another room, the user hits the "back" button or simply clicks on the roof to jump back to the aerial map. The map could also be a floor plan diagram.

Panoscan's rapid workflow allowed this entire school example to be created in less than 2 days. Images from the MK-3 come out of the camera already "stitched"



**Figure 6.35 PANOSCAN PHOTO SEQUENCE VIRTUAL MAPPING.** The images in this sequence were converted to an interactive QuickTime VR presentation, which allows the user, by simply rolling the mouse cursor over any room, to make a virtual "leap" into that room. (Courtesy of Mr. Casey Coss, C.F.O., Panoscan, Inc., [www.panoscan.com](http://www.panoscan.com).)

and ready to use. Panoscan's superior dynamic range and resolution ensure that the viewer always gets to see all of the details. Even under poor lighting conditions, the camera is able to capture scenes with extraordinary detail and clarity.

These interactive tactical VR presentations can also be embedded into a secured Web page or burned onto a CD ROM for distribution. There is no limit to the number of rooms, spaces, or buildings that can be documented in this way. Additional detailed information such as text, sound, and even video footage can be embedded into the images as well.

*Company information.* Panoscan Inc. manufactures and markets ultrahigh-resolution, digital, panoramic camera systems. The company was founded in 1998, in Los Angeles, California, with the introduction of the MK-1 panoramic camera system. This breakthrough in panoramic capture was the first to create full panoramas in a single digital file. Unlike previous digital solutions, images created by the Mark 1 required no stitching, thus saving time and allowing for much higher resolution. After 6 years in business, Panoscan's images are used by every major auto manufacturer for car interiors; the U.S. Air Force for tactical planning; five law enforcement agencies, including the Los Angeles County Coroner; Victoria, Australia Anti Terrorism Unit; and the San Bernardo and Kern Counties Sheriffs' Departments. The images are used in training and educational applications, emergency preparedness, tourism, and a variety of police and military applications.

*Contact persons.* Mr. Casey Coss, C.F.O., or Mr. Ted Chavalas, (818) 908-4641; fax (818) 783-9539; [www.panoscan.com](http://www.panoscan.com).

## Videotaping

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The use of videotape is becoming increasingly popular and has been employed with excellent results in the investigation of homicide. The technical expertise involved is certainly within the ability of the homicide investigator or crime scene technician and videotaping should be considered a viable adjunct to other methods employed in the recording of crime scenes.

### Advantages of Videotaping

Videotaping has the following advantages:

1. It provides a more realistic and graphic portrayal of the homicide crime scene.
2. It tends to capture the atmosphere of the scene, especially when the homicide detective is narrating the events as they are being depicted on film.
3. It can be used to record suspects' statements. This is especially beneficial if suspects later change their stories or deny having made confessions to police. It should be noted that defendants must be given their Miranda rights on the video prior to videotaping their statements. In addition, a

clock visible in the background should be employed to record the total time of the interview.

4. It can be used to record a dying declaration. Often a victim under treatment in a hospital may be diagnosed as critically injured and likely to die. If the victim is coherent, the investigator should attempt to elicit a dying declaration. The use of videotape enhances and permanently documents this legal procedure.
5. It can be used to record a line-up. This recording can depict to the jury the exact position of the defendant and can be shown to additional witnesses in an attempt to identify suspects.
6. A video camcorder records 30 frames of video tape per second. This complements the human eyes' persistence of vision, constantly keeping the viewer informed as to direction and perspective even though the lens may be moving and its field of view is continually recording differing angles of view. An entire crime scene can be scanned and captured in great detail. In addition, items that may have been missed originally will still be preserved on tape.

### **Purpose of Videotaping the Crime Scene**

1. Preserving the entire event for future review of the scene by investigators, medical examiners, serologists, and others for
  - Identification of evidence
  - Conditions at the time of discovery
  - Any subsequent questions regarding the scene
  - Refreshing investigator's and witnesses' memories
  - Comparison with other unsolved crimes
  - Blood stains, direction of fall, location, etc.
  - Location of windows, doors, rooms, rugs, furniture, etc.
  - Lighting conditions (night and day) (interior and exterior)
  - Vegetation, outdoor landmarks, trees, lakes, etc.
  - Weather conditions
  - Outdoor crime scenes, showing crowds for identification
2. Presentation of entire or edited relevant portions for presentations to grand jury, judge, juries, etc. to
  - Corroborate a confession
  - Contradict an exculpatory statement or defense witness
  - Depict the reality of death
  - Prove lines of sight, lighting, spacing, passage

There are different methods of videotaping a crime scene. Some agencies utilize a team method whereby one investigator acts as the technician while the other describes or narrates the events as they are filmed. However, personnel at the scene should be cautioned to remain quiet during this taping because conversation may



prove distracting or embarrassing. I recall a case that was being videotaped that involved a brutal sex act and murder. The suspect was found lying on top of the deceased female by an employee of the building. The suspect had been sodomizing the dead woman when he was “interrupted.” The condition of the victim and the act that had been perpetrated were so heinous that officers at the scene were quite descriptive in their opinions of what should be done to the “perp.” The suspect eventually pleaded guilty and the videotape was never presented. Needless to say, however, if the tape had ever been played in court, the defense counsel would have had a field day depicting the police as crude and vindictive, not to mention unprofessional.

It has been my experience that audio and crime scene narration during the initial taping can become problematic because initial observations and comments may be erroneous (these are discoverable — the defense attorney will be able to subpoena these materials because he is entitled to all documents pertaining to the investigation). Furthermore, incidents such as the one I just cited are all too common. An open microphone may pick up idle talk and conjecture, not to mention some of the unacceptable commentary that takes place at crime scenes. I recommend that only a beginning and ending statement containing the technician’s name, the time, date, and location be recorded for evidential purposes.

### **Recommended Procedure**

The best method is to have one technician with a closed microphone shoot the scene at a normal angle, as would be seen with the human eye. The distances portrayed in the scene are then the same as if you were standing where the camera was located. Videotaping of crime scenes should ideally be accomplished before any forensic work and before changes to the crime scene have been made by police, detectives, and crime scene technicians.

In order to provide the reader with the most effective and efficient manner of videotaping crime scenes, I consulted with Mr. Chris Longueira, who was the chief technician of the Bronx District Attorney’s Video Unit. I had the pleasure of working very closely with him when I was a supervisor in homicide. I was impressed with his expertise and the value of videotaping and encouraged its use whenever I had the opportunity. Mr. Longueira, who has been videotaping crime scenes as well as defendant statements since 1978, is considered an expert on the use of videotape within the criminal justice system.

According to Mr. Longueira, “The technician should attempt to keep video continuity so that the viewer[s] will always know where they are in the scene and from what perspective they are viewing the subject in the scene by utilizing consistent reference points.” He also stated that

Whenever the recordist must change position, which is frequently unavoidable, he/she should make a note of the last frame of video tape recorded and use that as a reference even though the angle and distance may have changed somewhat. Be sure to start recording and hold until

the viewer can comprehend where the recordist has moved to. You must always try to avoid the 180° jump cut.<sup>2</sup>

The videotaping should begin at the perimeter of the scene or outside the location and progress toward the central scene and the body. Long shots as well as close-ups should be taken in a slow and systematic manner. This is accomplished by first “panning” the entire area and then focusing or “zooming” in on the central scene and corpse. In order to document the location or position of the body, the technician should photograph any landmarks or permanent structures as points of reference to give a perspective on the position of the body.

The same principle used in crime scene photographs applies to videotaping. In order for the videotape to be admitted into evidence, the scene must be intact and not have been changed. The scene should first be filmed without any markers or scales and then filmed with the necessary visual aids. In addition, the videotape must be in its original condition, without any erasures or editing, to be admissible as evidence. The following recommended protocol was designed and provided by Mr. Longueira.

### **Videotape Protocol<sup>3</sup>**

#### ***Arrival at Scene***

- Obtain the preliminary information from the first personnel on the scene regarding the occurrence, any observations by witnesses who have entered the crime scene, any EMS activities, etc. Check with the investigators, medical examiners, etc. regarding what they think.
- At this point, the technician should quickly take a look at the scene for such things as:
  - A. Location
    - 1. Layout of the apartment
    - 2. The room the body is in and other rooms where evidence was found
    - 3. Areas you should be careful not to disturb such as blood on the floors or walls, small pieces of evidence that could easily be kicked or stepped on. Use your elbows to open doors instead of imparting your finger or hand prints in the crime scene.
  - B. Body
    - 1. Size of the room in which it was found
    - 2. Whether face up or face down and whether it is accessible and from what angles
    - 3. The wounds: how many, where, and what kind

Conduct a quick review of these areas after you have obtained the information from the scene investigators. Ask about possible entry and exit ways, windows, whether they were forced. Ascertain what evidence has been recovered or located, such as prints, whether they appear to be hand or foot, and the location of any

blood splatterings on walls or floors possibly indicating where the victim was standing or facing when he or she was murdered. Ask about adjoining rooms or areas pertinent to the crime. Did this final scene originate from another apartment (more likely in an urban settings)?

Once you have taken this preliminary information, you are ready to start taping. Keep a mental list of all this information and pertinent locations as you proceed to tape the scene. The best method, according to Mr. Longueira, is to let your shots run as long as possible. You can be redundant as long as each frame is continually depicting new information to the viewer. However, being overly redundant could make the viewer uneasy. Try to walk through the entire scene in one take. This allows persons who view the tape an uninterrupted orientation.

### Taping Protocol

- Begin taping by putting an introduction on the tape: technician's name, date, time, and location.
- Turn off the audio. You do not want to have an ongoing commentary regarding the scene. Opinions and perspectives change.

**Remember: The tape is subject to discovery. You do not want to pick up stray comments or information on the open microphone. Later, in court, the witness can narrate.**

- Begin taping from a logical beginning point — i.e., front door or nearest identifiable landmark or street sign if outdoors.
- Orient your camera work so that viewers will know where you are at a given point, e.g., pan the room or hallway before being specific. Go slowly and use long, steady shots.
- Shoot the scene from a normal angle as the eye would perceive it without wide-angle or telescopic distortion.

*Note:* Normal angle. The rule for 35-mm photography is that the diagonal measurement of a 35-mm aspect ratio is 50 mm or a 50-mm lens. (This is why most 35-mm cameras are sold with a 40- to 50-mm lens as standard.) The recorder wants to capture the scene as he would with the naked eye.

- When you do zoom in, zoom back out to the same spot. This will provide the viewer continuity and perspective and allow editing of zoom portions. *Never zoom without purpose.* The single most overused and abused feature of the novice recorder is the zoom.
- When zooming in, sharpen focus and hold.
- Do *not* do each item on a separate zoom (e.g., in and out on each bullet wound). A much more effective tape will be procured when you zoom to a series of small items or wounds and pan across them slowly and then zoom out very slowly.



- Shoot several angles of the body, room, etc. Try to shoot the body from adjoining rooms if possible or down long hallways. This provides the possible lines of sight that still photos cannot depict.
- Tape all doors, locks, windows, closets, kitchen, dining facilities, medicine cabinets, etc.
- Shoot all lines of sight at location, e.g., top of stairs to downstairs front door and in reverse.
- Tape the body at the end of the scene documentation. After the body has been turned over, reshoot those areas which were hidden from view to document any further wounds or findings.
- Shoot hands, feet, eyes, clothes, jewelry, tattoos, gold teeth, scars, etc.
- Shoot all bloodstains, weapons, shell casings, hair, fibers, and trace evidence.
- Option:* shoot the recovery and collection of evidence.
- Upon completion of the taping, close with your name and time.
- Label and number tape and log as evidence; include weather conditions, lighting, etc.

**Remember: Videotaping does not replace good crime scene photographs. It should be used in conjunction with the photos.**

### Videotaping Suspect Statements

When videotaping suspect statements, it is important to record the suspect's demeanor during the interview. Frequently, a suspect will involuntarily demonstrate some sort of body language that will indicate nervousness or uneasiness at certain questions. This tape can later be played back for evaluation and analysis by the investigator. A review of the tape and the suspect's reactions may form the basis for a different approach or a concentration on certain points of the interrogation.

It should be noted that there is a difference of opinion on whether suspects' statements should be videotaped. Certain experts feel that the implementation of such a system may create additional problems in the prosecution, if all statements are not taped, by providing the defense counsel with ammunition to challenge those statements. For example, if a confession or statement is not videotaped, for any number of legitimate reasons, does this mean the agency was attempting to hide something? Because of this, the decision to videotape statements must be given careful consideration.

### Conclusion

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In conclusion, the application of photography to the documentation of the homicide crime scene is certainly within the capability of the average investigator. Photography is an important element of professional law enforcement that provides an objective, comprehensive, and impartial recreation of the crime scene as it was upon discovery. It is up to the investigators to provide this vital ingredient by taking the photos or by preserving the scene until the arrival of police photographers.

The use of videotape to enhance this documentation is an excellent medium because many people who have VCRs and camcorders in their homes are aware of videos and videotaping and, therefore, can relate to this documentation process.

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# The Crime Scene Sketch

# 7



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The *crime scene sketch* is a simple line drawing that indicates the position of the body in relation to *fixed* and *significant* objects in the scene. It supplements the written reports and the crime scene photographs. Because of camera perspective and distortion, photographs do not always depict the exact location in which objects are situated or the relation of one object to another. The crime scene sketch is an excellent visual aid, which allows for the removal of unnecessary details and the inclusion of significant material. Practically speaking, the homicide crime scene sketch can become one of the most useful tools of the homicide investigator.

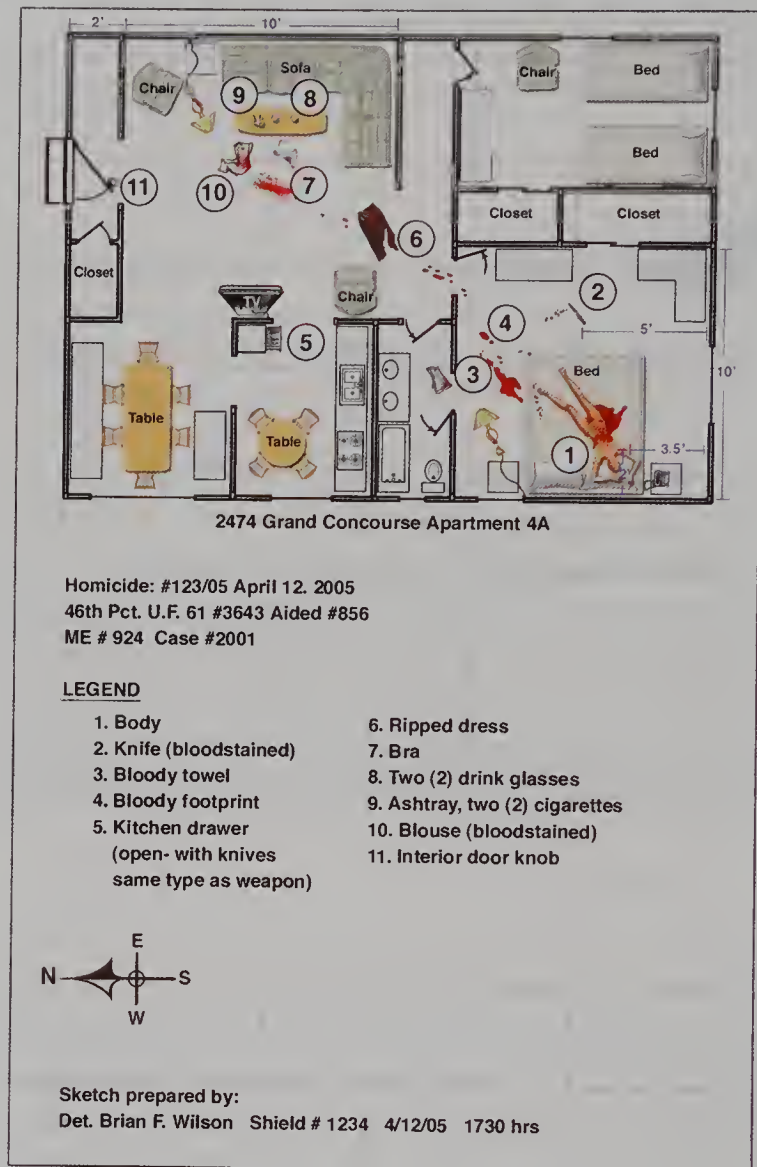
## The Sketch

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A drawing of the crime scene is the simplest and most effective way to present measurements and to identify those items that the investigator deems significant, including the location of the victim's body, location of any physical or trace evidence, position of the weapon, and objects which may be significant to the overall scene. In addition, the drawing permits the deletion of irrelevant or distracting items which appear in photographs. In addition to creating a specific and selective diagram, the crime scene sketch can be used to

1. Refresh the memory of the investigator.
2. Refresh the memory of the witnesses.
3. Refresh the memory of the cooperative suspect to assist in detailing his or her actions at the scene.
4. Develop a clearer understanding of what happened and determine the relative likelihood of various possibilities. For instance, persons may be requested to trace their particular movements on copies of the original sketch.
5. Explain to a jury or witness the specifics of a case that may otherwise be too complex or confusing. The value of the crime scene sketch is that its clarity and simplicity motivate understanding.



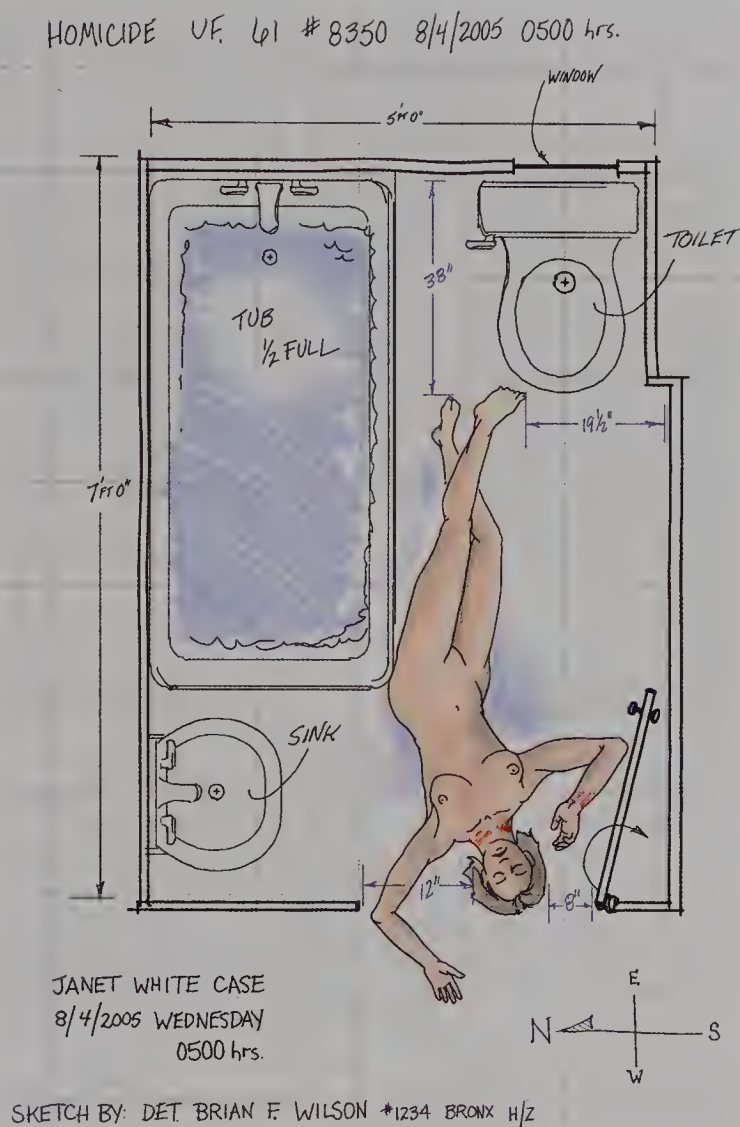


**Figure 7.1 FINISHED CRIME SCENE SKETCH.** Includes case numbers, dates and times, the identity of the drawer, and a legend. There is also an indication of point north. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doereport.com.)

The crime scene sketch should show the position of doors, windows, and staircases, as well as other objects of significance, including blood, weapons, stains, and any other trace evidence identified.

The *rough sketch* should be prepared by the investigator at the scene. He may use graph paper, which is excellent because it provides lines, or draw the sketch in his notebook. The most important element of the rough sketch is careful attention to measurements and distance. The ability of the investigator to draw is a definite asset; however, the rough homicide crime scene sketch need not be a Rembrandt production.

The rough sketch should contain a *legend*. The legend explains any numbers or symbols used and gives identification numbers assigned to the case, the identities

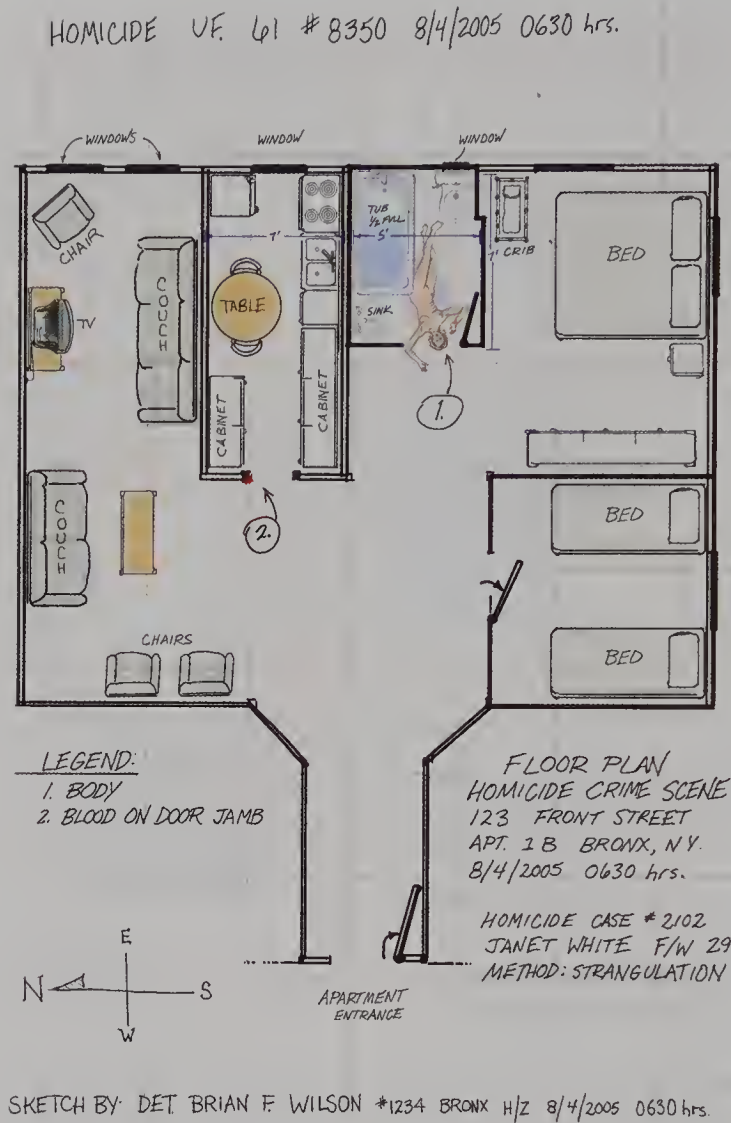


**Figure 7.2 ROUGH SKETCH.** This sketch is made in the investigator's notebook while at the scene. It is nothing more than a simple line drawing, which indicates the position of the body as well as objects of interest in the scene and gives measurements. Once again, there is an indication of point north. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

of the sketcher and person taking the measurements, and a reference to compass direction north.

Many municipalities have a city engineer or graphic arts section with personnel who may, under the direction of the homicide investigator, prepare a professional *smooth* or *finished crime scene sketch*.

In some cases, an existing map or blueprint may be used to portray the crime scene graphically. I remember directing investigations involving homicides or shootings on New York City Housing Authority property. Because it is a city agency, the housing authority maintains blueprints of all properties under its jurisdiction. While at the scene, we obtained the blueprint of the particular project involved and

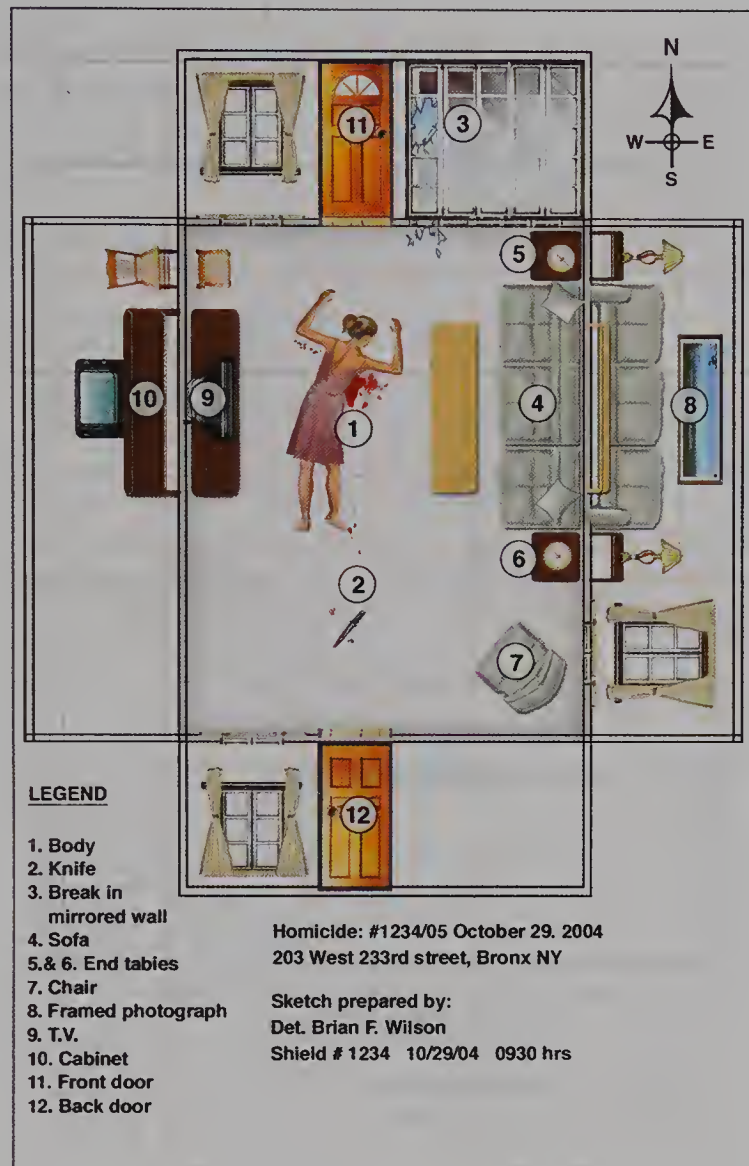


**Figure 7.3 ROUGH SKETCH — CRIME SCENE.** This is a rough sketch of the floor plan of the entire apartment of the preceding sketch. Any number of sketches can be prepared in any case. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doereport.com.)

used the blueprint as our crime scene sketch. Because a blueprint or map will already bear the scales and landmarks of the area, all the investigator need do is add the significant objects in the current case to the finished blueprint, being careful to measure distances and follow the scale provided in the finished plan.

It should be noted that the original sketch is evidence and, as such, must never be altered, changed, or otherwise tampered with after the investigator has completed his drawing at the scene. In addition, the investigator must assure that this original sketch is properly safeguarded even after a smooth or finished sketch is prepared by an expert draftsman. The original crime scene sketch *must not* be mutilated or destroyed. Often, especially in cases where the smooth or finished sketch is prepared for court presentation, the defense counsel will attempt to prevent its introduction or to diminish its value by demanding to examine the original





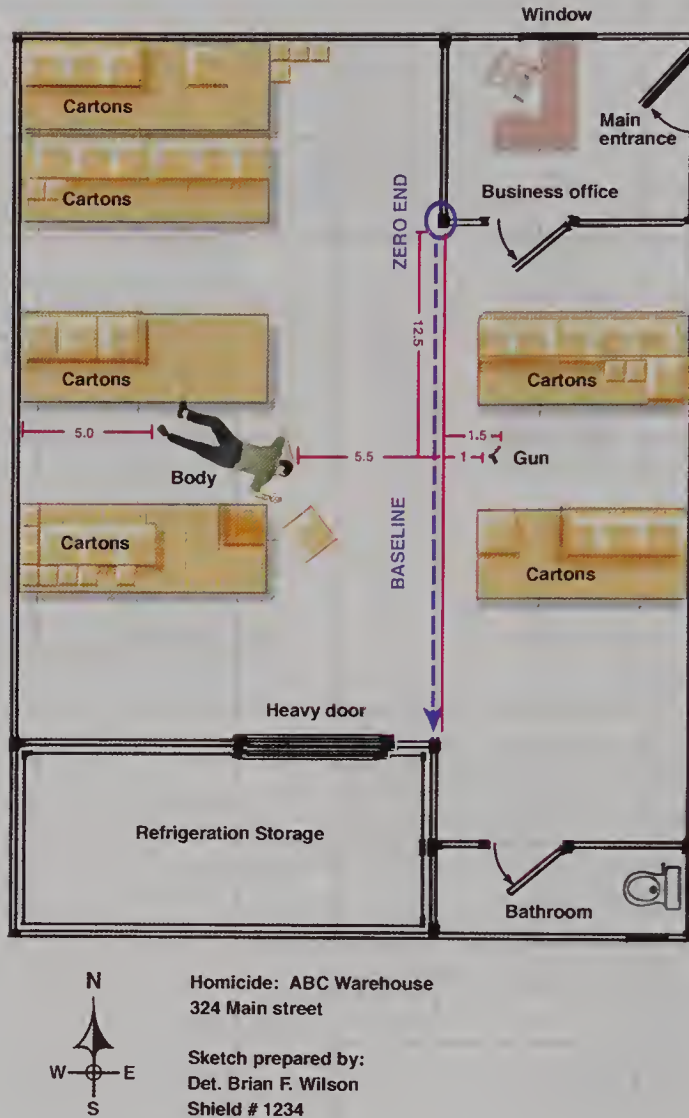
**Figure 7.4 CROSS-PROJECTION SKETCH.** All objects are drawn as if seen from above, but the walls are folded down and the items are drawn as if the room were a cardboard box with its sides flattened. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doereport.com.)

rough sketch. Defense counsel will then compare the rough sketch to the finished product and attempt to discover some inconsistencies or discrepancies.

## Preparing the Crime Scene Sketch

Obviously, a determination must be made regarding what is to be sketched. If you are dealing with a single room, a line drawing or projection type of sketch may be employed. If the crime scene involves two or more rooms, you should use a simple line drawing, which follows a floor-pattern technique.

In order to assist the investigator in preparing the crime scene sketch, I have provided some practical examples and guidelines:



**Figure 7.5 BASE LINE SKETCH.** The base line method of sketching can be used when there is a scene without a convenient straight line or boundaries, such as a warehouse or large outdoor area. In this sketch, the cartons are moveable and the inside area large. By drawing a base line through the scene, you create a point of reference. Each end of the baseline should be identified and there should be a starting point or zero ends. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doereport.com.)

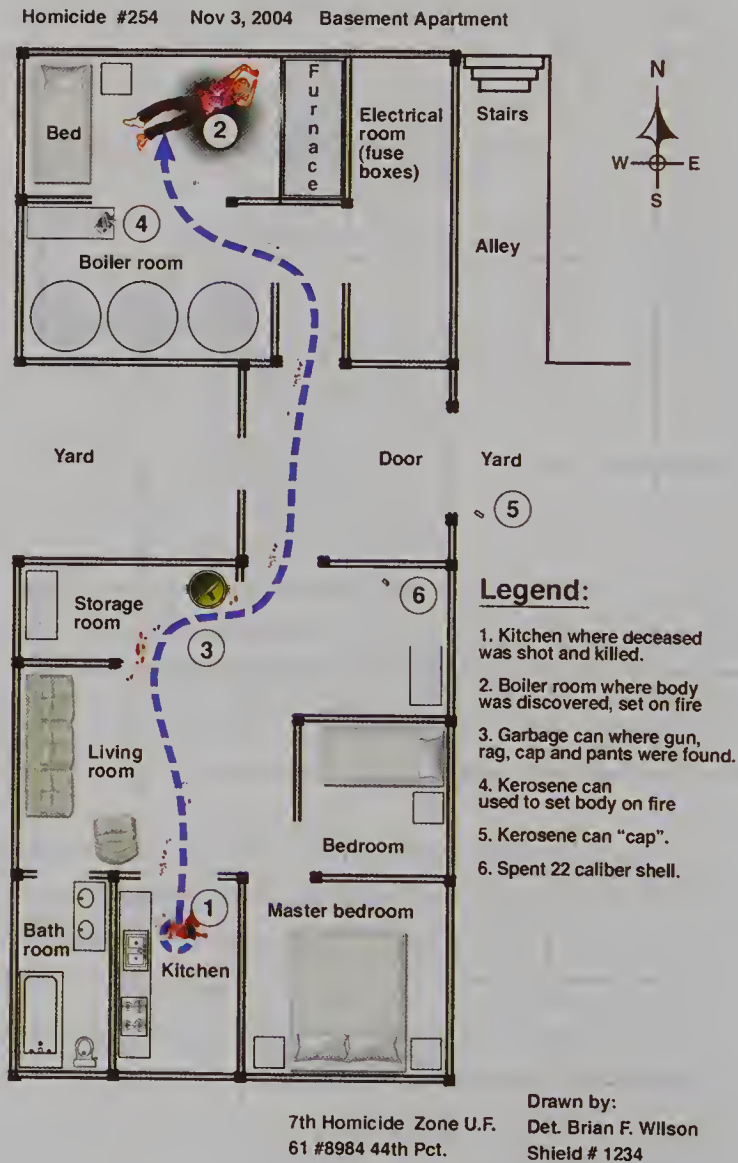
1. Necessary items:
  - a. Notebook, paper (8 1/2 in. × 11 in.) or graph paper with 1/2 in. squares, which can be used to scale feet (Remember to leave an ample margin for the legend.)
  - b. Soft lead pencil with eraser
  - c. Straight edge or ruler
  - d. Steel tape (preferably 100' length)
2. Measurements:
  - a. All measurements must be taken from *fixed* points — for example, doors, windows, walls, chimney, stairs.
  - b. Measurements should be exact and should be taken with a steel tape or ruler.

- c. One investigator should sketch while another officer takes the measurements.
  - d. In drawing the sketch, the investigator can estimate the relative distances or positions of items because this rough sketch is not a scale drawing and artwork and technical detail do not need to be perfect. However, an accurate measurement should be taken and recorded in the sketch.
  - e. If distances are measured by pacing off, this should be indicated by the number of paces. (This procedure is *not* recommended, but may be used in the absence of proper measuring devices.)
3. Methods of obtaining measurements:
- a. *Straightline*. Two measurements are made, one from each side of the object, to a fixed point in the diagram. This method is usually employed to mark positions of furniture or evidence along a wall.
  - b. *Rectangular coordinates* or *perpendicular distance method*. Two measurements are taken at right angles of an item to the nearest two permanent objects, usually the walls. This is the most practical method for marking the location of the body and other evidence. There are more accurate methods; however, I find this to be the simplest and most useful at the scene.
  - c. *Polar coordinates* or *triangulation*. By using a compass and a protractor, the investigator locates two fixed points and transfers this information to the sketch. Measurements are then taken from these two fixed points to the object, forming a triangle. Where the two points intersect is the exact location of the object.
  - d. *Base line*. This method is used for a scene that does not have convenient straight perimeter boundaries, e.g., a large wooded area or the interior of an expansive warehouse. A straight line is drawn through the scene, and each end is located and measured. A starting point is designated and the line is then used as a point of reference for all other measurements. The line can follow a seam or some other naturally existing line.
  - e. *Two fixed points*. This is a simple method whereby the investigator takes *two* straight-line measurements to *two* fixed points within the scene. There is no need for a right angle, but the two points used should not be close together.
4. The title block:
- a. The professional and legally correct crime scene sketch must contain the following official documentation and information:
    - 1. The name and title of the investigator who drew the sketch
    - 2. The date and time that the sketch was made
    - 3. The classification of the crime (homicide, assault, etc.)
    - 4. The identification of the victim
    - 5. The agency's case number
    - 6. The names of any persons assisting in taking measurements
    - 7. The precise address of the location sketched
    - 8. Reference points used during the sketching, including compass direction north, with appropriate indications

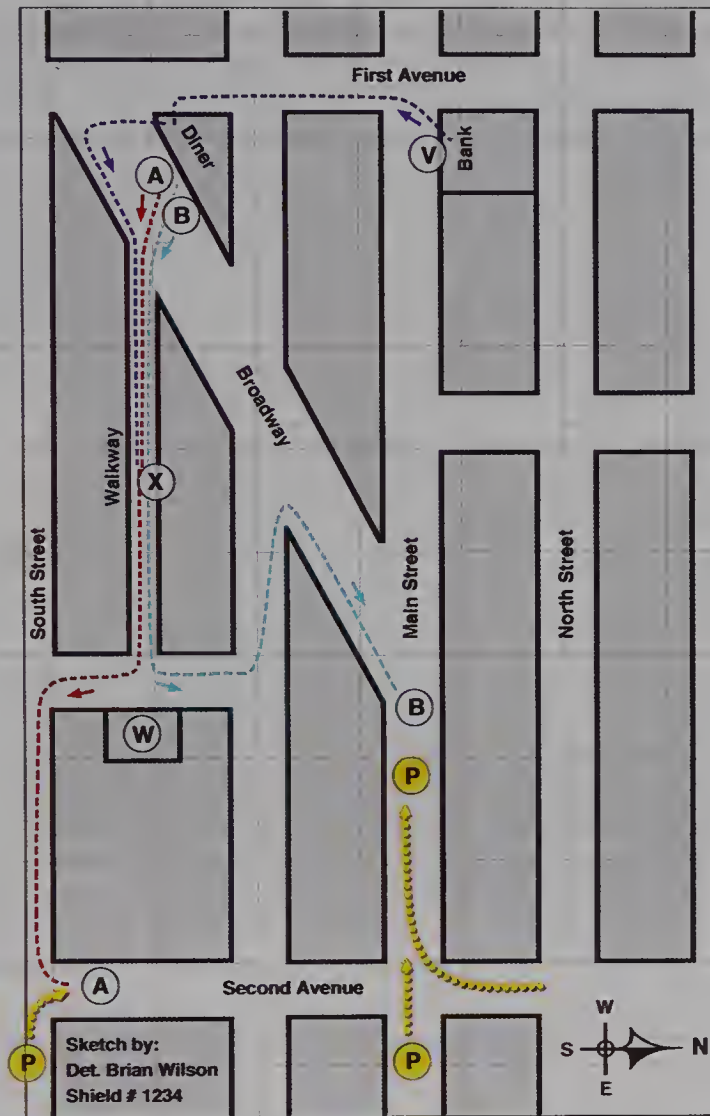


9. The legend. The purpose of the legend is to identify every article or object by number or letter and explain the significance of these characters on the crime scene sketch. The legend also includes the scale used and a reference to any notes taken and measurements recorded in connection with the investigation.
10. Any other pertinent information practical to the investigation at the scene (for example, the season; the ground condition — muddy, dry; traffic or lack of traffic; slope of the ground; site — abandoned building, public place, transportation facility; the position of the camera in any crime scene photographs).

It is important to note that any number of crime scene sketches may be employed during the investigation at the scene, especially in multiple-crime scene situations.



**Figure 7.6 SMOOTH SKETCH.** Includes legend and objects, with a dotted line showing the path the killer took through the scene when he disposed of the body. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doereport.com.)



**Figure 7.7 STREET LOCATION SKETCH.** This type of sketch is useful when dealing with several locations and pinpointing the movement of various persons. Symbols and letters can be used to show the movements of people involved. For example, V is the victim, A and B are the perpetrators, P represents the police, and W is the civilian witness. X is the crime scene. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

Therefore, it is imperative that any sketch used be properly documented in the investigator's notebook along with descriptions and other pertinent information.

### Utilizing Aerial Photographs for Mapping Outdoor Crime Scenes

Mapping and documenting a large outdoor scene can be very time consuming and tedious. A simple method that can be employed involves the tracing of aerial photographs utilizing standard graphics software such as Corel Draw Graphics Suite. The aerial photograph is scanned into the draw program. A "layer" is added to the photo (a layer is the equivalent of digital tracing paper), and the computer



**Figure 7.8 AERIAL PHOTOGRAPH OF CRIME SCENE AREA.** This is an aerial photograph of the area in which a homicide took place. This photograph was scanned into a draw program. (Courtesy of Detective John Brunetti, West Haven, Connecticut, Police Department.)

operator traces the items of importance. The tracing is perceptively as accurate as the photograph.

The investigator can search a variety of sources for up-to-date and accurate aerial photographs. City engineers as well as planning and development departments often have up-to-date copies of aerial photographs, which can be obtained for the investigation. Some situations may require pre- and postcrime scene aerial photographs. An example would be in a building explosion occurrence.

In addition, if no helicopters or airplanes are available to take overhead photographs, the local fire department can assist by providing an aerial truck for taking photos.

### **The “Total Station” Crime Scene Reconstruction Program**

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I conferred with Mr. David George, Survey Sales and Training, GeoLine Positioning Systems, Inc., in Bellevue, Washington, whose company distributes the Total Station units and software.<sup>1</sup>

#### **Definition**

What is a Total Station system? It is an electronic measuring instrument, combining an electronic distance meter (EDM) and an electronic theodolite, which records





**Figure 7.9 PREPARING CRIME SCENE DIAGRAM OR MAPPING.** A layer was added to the previous photo. The computer operator traced the items of importance. The tracing is perceptively as accurate as the photograph. (Courtesy of Detective John Brunetti, West Haven, Connecticut, Police Department.)



**Figure 7.10 FINISHED STREET LOCATION SKETCH.** This type of sketch is useful for court presentation to familiarize the jurors with the street locations within the immediate area of the event. (Courtesy of Detective John Brunetti, West Haven, Connecticut, Police Department.)



**Figure 7.11 TOTAL STATION.** The “Station” looks similar to a surveyor’s transom; however, it is much more sophisticated. The instrument contains several internal components which perform various functions, and an external hand-held prism on a rod; the prism is placed at the location of the object to be measured. (Courtesy of Mr. Dave George, Geoline Positioning Systems, Inc., Bellevue, Washington.)

distance, slope, and horizontal and vertical angles to a given point. It is an instrument developed for use by surveyors and has been used by them for many years.

### Operation

The Total Station looks similar to a surveyor’s transit; however, it is much more sophisticated (see Figure 7.11). The instrument contains several internal components, which perform various functions. The system also can use an external handheld prism on a rod; the prism is placed at the location of the object to be measured.

The slope and distance are measured by an EDM that uses infrared light, which it emits in a beam. The beam of light pulses at a given frequency toward the prism. Once it reaches the prism, the light returns to the instrument. When the light returns from the prism, the “pulse” frequency has been changed slightly based on the distance traveled. The difference in the “pulse” frequency is calculated and converted into a distance measurement. Additionally, some Total Station models use a laser as the EDM. With these laser EDM instruments, the user does



not need to use a prism to reflect the beam at distances up to 300 m. This allows the user to measure the distance from any object without needing to occupy the location directly.

The horizontal and vertical angles are measured by an electronic theodolite, which by definition is a surveyor's device for measuring horizontal and vertical angles with a small telescope that can move in horizontal and vertical planes. The horizontal angle is measured to the right or left relative to an established "zero" direction (called backsight or baseline). The vertical angle (or zenith angle) is measured relative to being level, with straight up being a "zero" angle and level being a 90° angle.

When the information is gathered by taking readings from the total station to the prism, it is recorded on a magnetic card, the internal memory of the instrument, or an external data collector by point number, along with a code describing what the point measured is — i.e., the head of a body, a gun, a knife, the right front tire of a car, etc.

The information can be recorded in several formats: "raw" data, which are the two angles and the distance; "coordinate" data, which are called northing (the difference in latitude between two positions as a result of movement to the north), easting (the difference in longitudinal distance from an eastern meridian), and zenith (zenith being the elevation); a combination of "raw" and "coordinate" data; and "tilt" or "offset" data. A code describing each point is entered and encoded by the operator. The code can describe an individual point or object, or it can describe the start of a line, skid mark, etc.; the number and type are limited only by the imagination of the operator. With newer external data collectors and software available, maps can be "drawn" in the field on scene with each measurement made. This allows the user to make sure the scene has been completely measured before leaving.

Why is the system called "Total Station"? What makes the system complete, and the reason it is called Total Station, is that once the data are collected at the scene, they can be downloaded into a computer. The addition of the computer element is what makes this system complete, thus the name Total Station.

Once the information is downloaded from the data collection device into a computer, via a card reader, several things can be done with the data. For example, software programs, which can be purchased separately, can be used to complete a crime scene diagram to scale for reconstruction or courtroom purposes.

Once the data are in the computer, several things can be done with them. First, and probably the most important thing, the data are stored in a "read-only file," which cannot be altered in any way. This is an important legal issue. The data can be retrieved at any time and worked with and refined; however, changes will be stored in a different file, never overwriting the original data file. Once the raw data are copied into a working file from the original file, the software calculates northing, easting, and zenith coordinates for each point, processes the codes as defined by the operator, and generates a "plot" file of what has been measured.



Once the plot file is generated, several things can be done with it. The file will be created with a .DXF file extension, which will allow it to be used in conjunction with various CAD (computer-aided design) programs, such as AutoCAD, EasyCAD, EdCAD, in two- or three-dimensional files, and/or certain computer animation files. The advantage to this is that the information can be output directly to a monitor (screen) or output to a plotter for a hard copy, or a disk file can be created for outputting at a later time. Some new CAD programs have been developed specifically for crash and crime scene mapping. These programs make it easier to develop final plots of a scene without the necessity of learning many different software programs.

### **Practical Application**

The Total Station system is a new, modern, sophisticated way of using electronic equipment to take crime scene measurements. No longer are the familiar steel tapes and measuring wheels needed. Perhaps more importantly, no longer is it necessary to close down a roadway in order to take crime scene measurements.

Today, using the Total Station, an investigator sets up the instrument in a position off the roadway from where all the necessary points can be observed. The first measurement that the investigator takes after setting up and calibrating the Total Station is the end of a certified 100-ft steel tape. This is done as the first and last measurement to ensure the instrument is accurate for court purposes.

The investigators, working in tandem, then take the necessary measurements; one works the Total Station and the other holds the prism-rod. With some of the new Total Station prismless technology, investigators in a room can take measurements to location on a road without putting someone in harm's way or disturbing critical evidence. Research has shown that this methodology saves countless hours at the scene as well as later on when producing the necessary crime scene diagrams.

Once the measurements are taken and entered into the computer, an investigator can produce as many diagrams as needed to whatever scale is desired, with just the push of a button. Manual labor hours of producing a diagram are eliminated. Colored diagrams and color transparencies can also be produced by the computer. With the utilization of CAD, three-dimensional and animated reconstructions can be performed.

The Washington State Patrol had a case where a woman's body was found on the side of a cliff. Preliminary investigation had led investigators to believe the victim had committed suicide. However, by using the Total Station system in conjunction with the crime scene measurements it recorded, investigators were able to prove the incident was a murder because the body had to be thrown off the hill onto the side of the cliff for it to be in the position in which it was found. Without the Total Station, a murderer would have gone free and a family would have unnecessarily suffered the stigma of a suicide, not to mention the loss of insurance money.



**Figure 7.12 TOTAL STATION CALCULATES THREE-DIMENSIONAL COORDINATES.** The drawing here represents the sophisticated Total Station system's ability to take crime scene measurements. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

For further information about this crime scene documentation technique, contact:

GeoLine Positioning Systems, Inc.  
(425) 452-2700  
1331 118th Avenue S.E., Suite 400  
Bellevue, Washington 98005  
[www.geoline.com](http://www.geoline.com)

## Reference

1. George, D. Personal interview, September, 2004.

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Gardner, R. *Practical Crime Scene Processing and Investigation*. Boca Raton, FL: CRC Press, 2005.  
Geberth, V.J. *Practical Homicide Investigation: Tactics, Procedures, and Forensic Techniques*. 3rd ed. Boca Raton, FL: CRC Press, 1996.





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# The Homicide Crime Scene Search

# 8



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The search of the crime scene is the most important phase of the investigation conducted at the scene. Decisions of the courts restricting admissibility of testimonial evidence have significantly increased the value of physical evidence in homicide investigations. Therefore, law enforcement personnel involved in the crime scene search must arrange for the proper and effective collection of evidence at the scene.

Physical evidence, which is often referred to as the “unimpeachable witness,” cannot be clouded by a faulty memory, prejudice, poor eyesight, or a desire not to get involved. However, before a forensic laboratory can effectively examine physical evidence, it must be *recognized as evidence*.

Practically speaking, *anything* and *everything* should be considered as evidence until proven differently. I cannot recall how many times I found myself along with my detectives returning to a crime scene. This was after we received additional information, which revealed that some seemingly innocuous item was actually an important piece of evidence. That is why it is imperative to hold onto the crime scene as long as possible. Some item that didn’t seem significant on the first day of the investigation may suddenly take on the intrinsic value of gold.

An excellent example of the *Practical Homicide Investigation* principle that anything and everything should be considered as evidence is the case involving serial murderer Danny Rollings, who became known as the “Gainesville Ripper.” He had been staying in the woods at a campsite near an apartment where 18-year-old Christa Leigh Hoyt had been murdered. The police, who had been scouring the woods looking for anyone or anything suspicious, came upon Rollings and another male on their way back to a campsite. When the police ordered the two men to halt, Rollings ran away. The police questioned the other male, who remained behind. He led them to the campsite where Danny Rollings and he were heading.

When the officers discovered the campsite, they found a number of items that would later link Rollings to the five murders. However, the only item that seemed important at the time was a bag of cash covered with pink dye. There had been a bank robbery the previous day and the unknown white male who ran from the police matched the description of the bank robber, who turned out to be Danny Rollings.

The police collected and secured everything at the campsite, which included bedding, a gun, a ski mask, a cassette tape deck, and a screwdriver. Subsequent laboratory tests were conducted on these crucial materials retrieved from the campsite. The authorities were astonished to find that 17 pry marks at three of the murder scenes were matched to the screwdriver retrieved from the Rollings campsite. In addition, pubic hairs found through vacuuming the campsite matched Christa Hoyt through DNA analysis.

**Remember: Do it right the first time. You only get one chance.**

## Legal Considerations

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Once an item is recognized as evidence, it must be properly collected and preserved for laboratory examination. However, in order for physical evidence to be admissible, it must have been legally obtained. The courts have severely restricted the right of the police to search certain homicide crime scenes without a warrant. The United States Supreme Court has rendered three major decisions which require police to obtain a search warrant to search a location where the suspect and the deceased share a proprietary right to the premises.

In *Mincey v. Arizona* (437 US 385, 1978), the Supreme Court said that the police had violated the defendant's Fourth Amendment rights. Mincey, who was a dope dealer, had shot and killed an undercover narcotics officer during a drug raid. Mincey was wounded and one of his companions was killed in the subsequent gun battle. Following procedure, the narcotics officers secured the premises and notified Homicide. Homicide detectives conducted an investigation during which hundreds of pieces of evidence were seized by the police over a 3-day crime scene search. Mincey was convicted of the murder of the undercover officer. The conviction was overturned by the Supreme Court, which maintained that Mincey's Fourth Amendment rights were violated and that the police should have secured a search warrant. The Supreme Court basically informed law enforcement that "there was no homicide crime scene exception" to the Fourth Amendment.

Did we in law enforcement get the message? *No*.

In 1984, the Supreme Court once again stepped in to address the same issue in *Thompson v Louisiana* (469 US 17, 1984). In the Thompson case, a woman who was reportedly depressed shot and killed her husband. She then took an overdose of pills in an attempt to commit suicide. She suddenly experienced a "change of heart" and decided she did not want to die. She called her daughter, who in turn called the sheriff's department, which dispatched an ambulance and deputies to the woman's home. The woman was transported to the hospital, where she was treated. Investigators were called to the house and gathered evidence of the murder in the crime scene. The woman was subsequently charged and convicted in the murder of her husband.

The Supreme Court ruled against the State of Louisiana, citing the *Mincey* decision and the expectation of privacy provided in the Fourth Amendment. The woman's conviction was overturned. Once again, the courts ruled that there was *no* homicide exception and that the police were required to obtain a search warrant.

Did we in law enforcement get the message this time? *No*.

In 1999, the Supreme Court once again stepped in to address the same issues raised in the *Mincey* and *Thompson* cases. This time it was in *Flippo v West Virginia* (98 US 8770, 1999). Flippo was a pastor who reportedly was having a homosexual affair with a member of his congregation. His wife had discovered the relationship and was going to divorce him. Flippo convinced her that they should reconcile and talked her into going on a camping trip. They went to a cabin in West Virginia that the pastor had rented. While at the cabin, the pastor reported that they had become victims of a home invasion during which his wife was fatally beaten and the pastor was slightly injured.

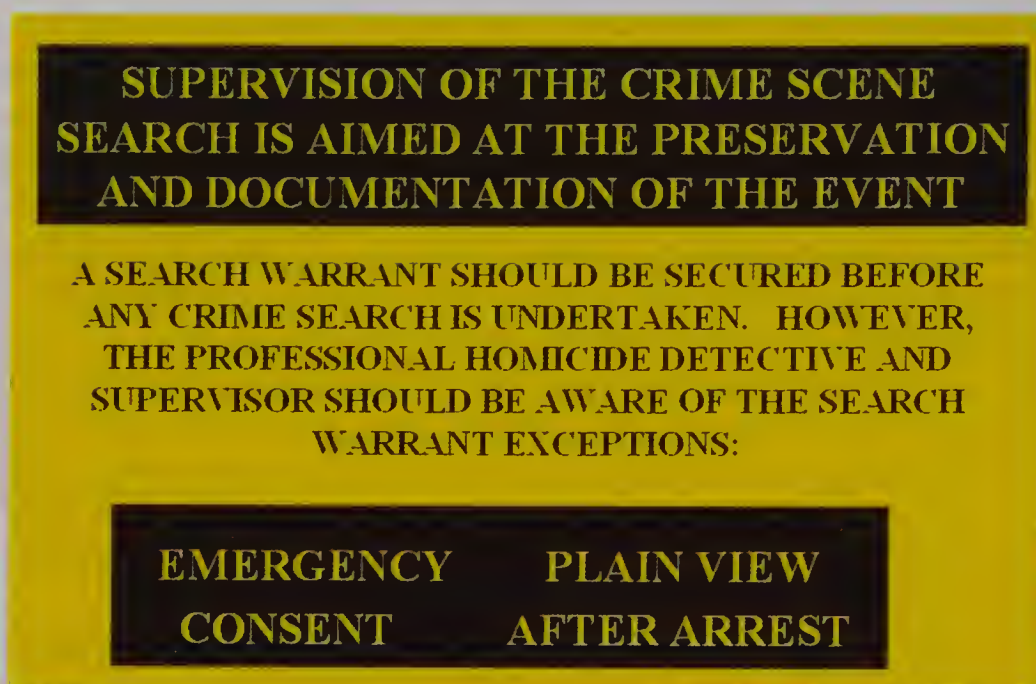
The police were not impressed with Flippo's injuries. He was brought to a local hospital and "patched up." Investigators processing the crime scene came upon Flippo's briefcase. Inside the briefcase were various pornographic pictures of Flippo and his male lover engaged in sexual activities. These materials, which represented motive, as well as the other evidence seized from the cabin were introduced into trial. Flippo was convicted of the murder of his wife. The conviction was overturned based on the same issues raised in *Mincey* and *Thompson*. *The message is quite clear:*

**A search warrant should be secured before any crime scene search is undertaken under these circumstances. There is no "homicide scene exception" to the Fourth Amendment. Any extended search of a homicide scene, without consent or exigent circumstances, requires a search warrant.**

Homicides involving common-law relationships, husbands and wives, or family disputes may necessitate that the detective secure a warrant before a premises can be searched. The professional homicide detective must be aware of the legal requirements for a warrant dependent upon Supreme Court decisions, as well as state law and case law within his or her jurisdictional purview. An additional consideration is the dynamics of the event, which may present legitimate search warrant exceptions. The courts have recognized certain circumstances which allow for exceptions to the requirement of a search warrant. These exceptions are *emergency or exigent circumstances, evidence in plain view, postarrest search of an individual for weapons and contraband, and consent*.

The ruling in the O.J. Simpson hearings that the authorities properly entered the compound of Mr. Simpson based upon exigent circumstances is an example of a search warrant exception. In addition, blood evidence on the subject's Ford Bronco and in the driveway of his residence, which was in plain view of authorities, was also allowed into evidence.





**Figure 8.1 SEARCH WARRANT EXCEPTIONS.** This graphic used by the author indicates the search warrant exceptions. (From the author's files.)

Practically speaking, if there is any possibility that evidence you are about to seize for use in a homicide prosecution requires a search warrant, *get the warrant*. You will save a lot of headaches later.

### **Warrantless Searches Where Suspect Shares Possessory Right to Premises**

Almost every crime will constitute an emergency that *justifies* law enforcement's warrantless entry to the scene. Traditionally, courts have recognized three.

- Threats to life or safety
- Destruction or removal of evidence
- Escape

Officers are authorized to do whatever is *reasonably* necessary to resolve the emergency. Once the emergency is resolved, the emergency exception is *negated*.

### ***Practical Examples of Reasonableness: Officers Arriving at Scene of Violent Crime***

- They can unquestionably *sweep* the premises in an effort to locate the victim, additional victims, and or the suspect.
- If a body is found, the police can take the M.E. into the scene to view and collect the body
- They may have probable cause to believe a crime scene contains evidence that will be destroyed if not quickly recovered. *That* evidence may be retrieved as part of the emergency.

- The “plain view” doctrine can be followed.
- They can preserve the crime scene. (This is considered reasonable.)
- They can document the scene (photographs, videotape and diagrams).

## Physical Evidence

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*Physical evidence* refers to any tangible article, small or large, which tends to prove or disprove a point in question. It may be used to reconstruct the crime, identify participants, and confirm or discredit an alibi.

Homicide and sexual assault crime scenes usually contain an abundance of physical or trace evidence. The systematic search for, collection of, and preservation of physical evidence is the goal of the crime scene search. Therefore, the detective supervisor should organize the crime scene search so as to collect as much physical evidence as possible. In addition, the search *must* be based on constitutionally legal grounds, and the evidence collected must be properly documented and handled so that it may be presented in court later. It is imperative that each piece of physical evidence be treated separately and carefully to avoid cross contamination.

### Types of Physical Evidence

*Transient evidence.* This type of evidence is temporary in nature. It can include odors, temperature, imprints and indentations in soft or changing materials (butter, wet sand, snow, or mud), and markings (e.g., lividity, blood spatters on moveable objects).

*Pattern evidence.* Pattern evidence is produced by contact. Blood splatter, glass fracture patterns, fire burn patterns, furniture position patterns, projectile trajectory, tire marks, modus operandi, clothing or article patterns, and powder residue patterns are considered pattern evidence.

*Conditional evidence.* Caused by an action or event, conditional evidence can be lighting conditions at a crime scene; odor, color, direction of smoke; flame (color, direction, temperature); location of evidence in relation to the body; and the vehicle (locked or unlocked, lights on or off, window open or closed, radio on or off, mileage).

*Transfer evidence.* Transfer evidence is generally produced by the physical contact of persons or objects, or between persons or objects. It is characterized by the *linkage concept*.

*Trace evidence.* A principle in homicide investigation refers to a theoretical exchange between two objects that have been in contact with one another. This theory of *transfer* or *exchange* is based on Locard’s “exchange principle.” Edmond Locard, a Frenchman who founded the University of Lyon’s Institute of Criminalistics, believed that whenever two human beings come into contact, something from one is exchanged to the other and vice versa. This exchange might involve hairs, fibers, dirt, dust, blood, and other bodily

fluids, as well as skin cells, metallic residue, and other microscopic materials. In *Practical Homicide Investigation*, Locards' principle is summed up as follows:

1. The perpetrator will take away traces of the victim and the scene.
2. The victim will retain traces of the perpetrator and may leave traces on the perpetrator.
3. The perpetrator will leave behind traces at the scene.

## The Concept of Linkage

Dr. Henry Lee, a forensic scientist who is the director emeritus of the Connecticut State Crime Lab, developed the concept of linkage as the basis for any crime scene examination. Figure 8.2 is a visible representation of this concept.

The goal is to establish a link between the various facets of the crime scene, the victim, physical evidence, and the suspect. All of these components must be connected for the successful resolution of the case. The basis of conducting such a four-way linkage rests on Locard's principle of the "theory of transfer and exchange."

**Remember:** *Anything and everything* may eventually become evidence.

An excellent example of the four-way linkage concept was presented by the prosecution during the O.J. Simpson case. The "trail of blood" theory based on the DNA analysis indicated that blood drops at the scene of the double murder of Nicole Brown Simpson and Ron Goldman, as well as blood in O.J. Simpson's Ford Bronco and his residence, positively identified O.J. Simpson as the suspect. The



**Figure 8.2** LINKAGE CONCEPT. (Reprinted with permission of Dr. Henry Lee, Ph.D., *Crime Scene Investigation*, Taiwan, China: Central Police University Press, 1994, p. 80.)



DNA analysis of three stains on the console of Simpson's vehicle indicated that droplets were a mixture of blood from Mr. Simpson, the blood of his ex-wife Nicole Brown Simpson, and the blood of Ron Goldman. The famous bloody gloves presented as evidence provided the crucial linkage. One glove was found at Bundy Drive, the scene of the double homicide. The matching right-hand glove was found at O.J. Simpson's estate.

DNA testing of the glove found at the estate indicated that blood matching Simpson's and the two murder victims' "linked" him to the murders. DNA testing of the blood on the glove at Bundy Drive matched O.J. Simpson's blood. The ski cap found near Ron Goldman's body had fibers like those from the carpet in Simpson's Ford Bronco. Goldman's shirt contained a head hair that matched O.J. Simpson's. The socks found in Simpson's bedroom bore traces of blood from Simpson and his ex-wife, who was one of the murder victims. Dr. Cotton, from the DNA testing firm Cellmark, stated that the odds that the blood found at the crime scene belonged to anybody except O.J. Simpson were 1 in 170 million.<sup>1</sup>

Dr. Cotton also stated that no one on the face of the Earth except for Nicole Brown Simpson could have blood matching the stain found on O.J. Simpson's sock in the bedroom of his home.<sup>1</sup> A second DNA expert, Gary Simms, informed the court that the odds that the blood on O.J. Simpson's sock came from someone other than his slain ex-wife were a whopping 7.7 billion to one.<sup>2\*</sup>

From my perspective as a homicide and law enforcement consultant, this evidence represented the ultimate forensic evidence case. In fact, I would prefer to have this type of "unimpeachable evidence," which positively links a suspect to the crime, as opposed to relying on eyewitness testimony.

On October 3, 1995, however, the jurors in the O.J. Simpson case totally rejected the State's evidence and voted to acquit Mr. Simpson of the murders of his ex-wife and Ronald Goldman.

This extremely controversial verdict was rendered in less than 4 hours after 9 months of trial testimony. Early in the trial, the defense team introduced the issue of race and played upon the emotions of the predominantly black jury. The sad truth of the matter is that the Mark Fuhrman tapes actually validated the defense position that their client was a victim of a police frame-up. The murder trial was turned into a race trial. Despite the overwhelming physical and forensic evidence linking Simpson to the murders, the jury rejected good solid physical and forensic evidence and rendered a not guilty finding.

The DNA analysis of the evidence in this case overwhelmingly inculpated Mr. Simpson, so much so that in response to his vow to catch the "real" killers, "a somber District Attorney Gil Garcetti bitterly dismissed Simpson's promise, insisting that the evidence still overwhelmingly proved O.J. was a cold-blooded killer. And he declared the investigations into the murders closed."<sup>3</sup> In addition, the Los

\* Additional sources: *Today*, January 23, 1995, p. 3A; *New York Daily News*, January 25, 1995, pp. 2, 3; *New York Daily News*, May 12, 1995, p. 3; *New York Daily News*, May 17, 1995, p. 8; *New York Daily News*, May 18, 1995, p. 4.

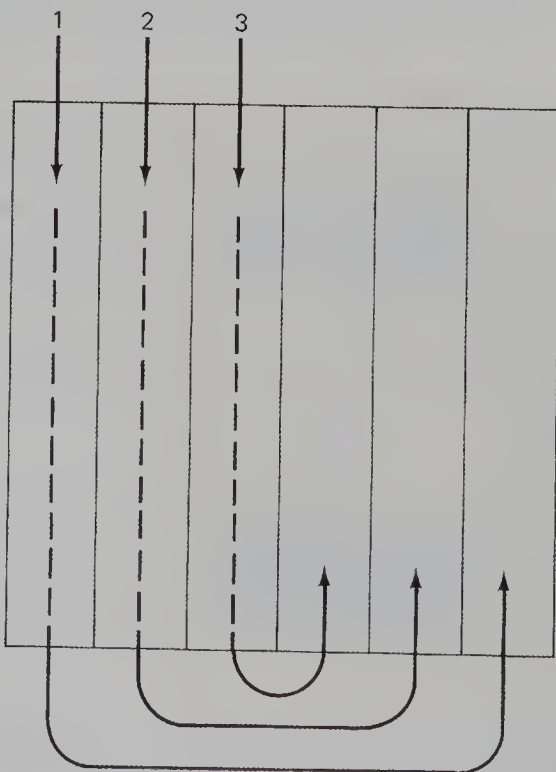
Angeles Police Department announced that it would not reopen the case because its investigation indicated that Simpson had committed the murders. In a *USA Today* report published in the *Rockland Journal News*, “Los Angeles Police Chief Willie Williams said he had no plans to reopen the probe.”<sup>4</sup>

The goal in the linkage concept is to establish a link among the various facets of the crime scene, the victim, physical evidence, and the suspect. Despite the verdict in the Simpson case, the linkage concept clearly established these facets of the event.

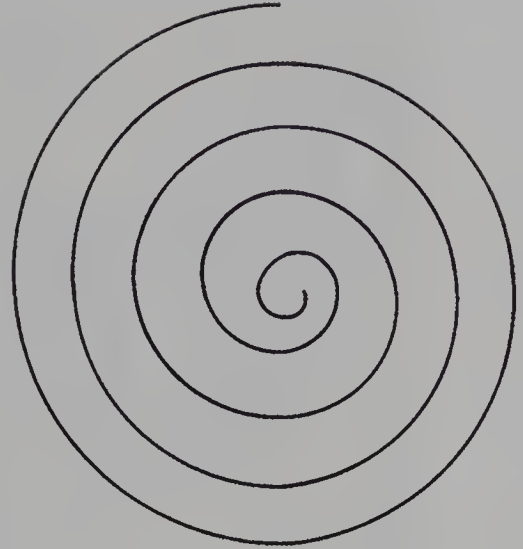
I recommend the *Practical Crime Scene Processing and Investigation* textbook by Ross M. Gardner as an additional resource for the important considerations in crime scene processing. This book, which is in my Practical Aspects of Criminal and Forensic Investigations series, illustrates a number of practical and proven methods and procedures.

## Methods of Crime Scene Search

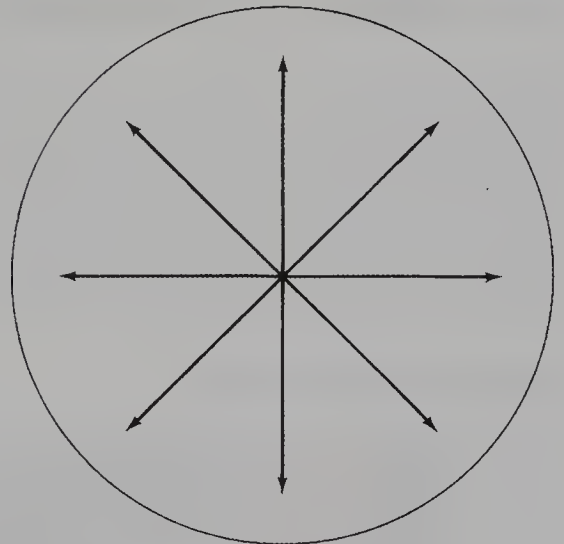
The method selected for search of the crime scene is usually determined by the size, location, and complexity of the scene. Many criminal-investigation textbooks describe various types of crime scene searches. However, there are actually only six basic methods which are universally accepted. These are (1) the *strip* method; (2) the *spiral* method; (3) the *wheel* method; (4) the *grid* method; (5) the *zone* method; and (6) the *line* method. Practically speaking, it does not really matter which method you select, as long as the search is systematic and complete.



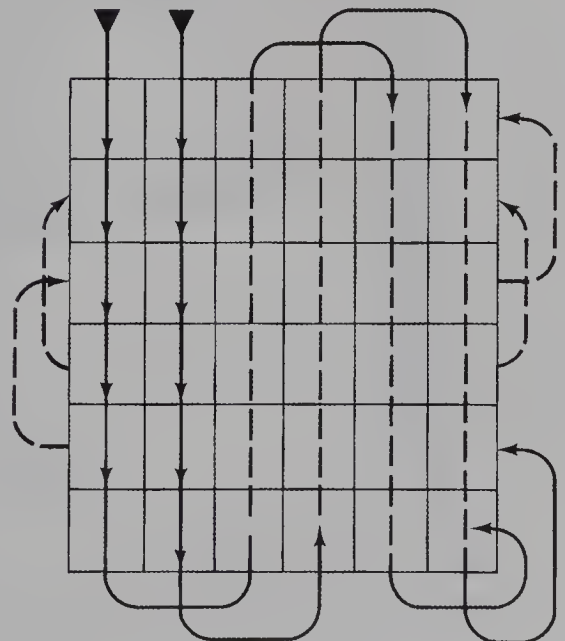
**Figure 8.3 STRIP METHOD.** This method can be used effectively if the area to be covered is large and open. It is relatively quick and simple to implement and may even be performed by a single investigator in a limited area such as a room.



**Figure 8.4 SPIRAL METHOD.** This method, sometimes called the circle method, is effective in a small area. However, as the circle widens, evidence can be overlooked. The searcher begins at the center or the perimeter and moves in a circular path.

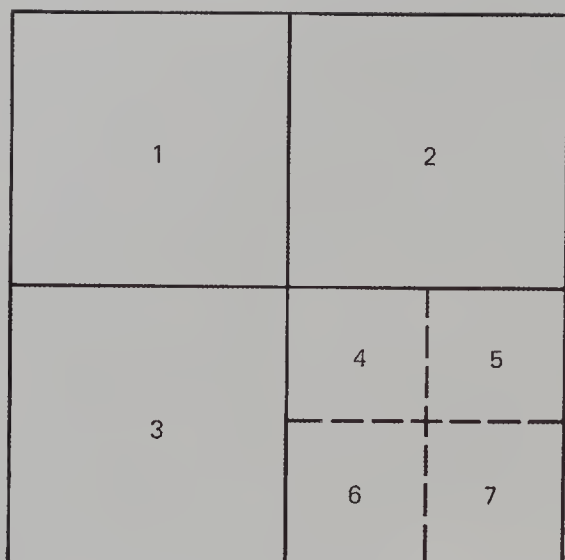


**Figure 8.5 WHEEL METHOD.** The searchers gather at the center of the scene and move out in spoke-like directions. The obvious drawbacks in this method are the possibility of ruining evidence when gathering at the center and the ever increasing distance between searchers as the investigators move outward.

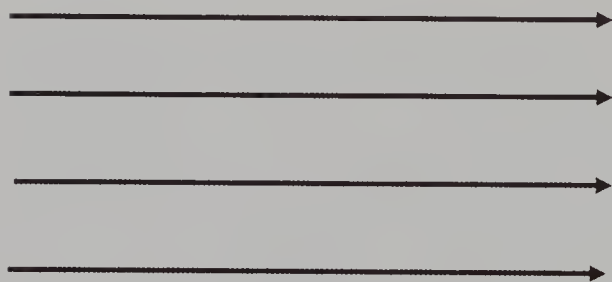


**Figure 8.6 GRID METHOD.** This is the best procedure to cover a large area. The searchers move parallel to one another and cover the same area twice. There are a number of variations of this method. The grid method is considered the most thorough system for covering large areas with a number of searchers.





**Figure 8.7 ZONE METHOD.** The area to be searched is divided into squares or sectors. An officer is assigned to each zone, or set of squares if the zones are further divided. This method is effective for indoor locations.



**Figure 8.8 LINE METHOD.** Outdoor scenes can be difficult to search due to vegetation and topography. One of the quickest and easiest methods to use is the line search. The officers are lined up next to one another and proceed along a straight line as they search a designated area.

## Formulating the Search

The search for evidence begins with the isolation and protection of the scene. The searcher must ascertain that the scene is intact and then proceed to reconstruct the events that have transpired since his arrival.

Photographing and recording the homicide crime scene is a major facet of the investigation. It is extremely important that this be accomplished before anything is touched or moved at the scene. Also, it is important while photographing the scene to eliminate persons or items — including officers and police equipment — that do not belong in the scene. Prior to any search, the scene must be properly photographed and documented. (See “Photographing the Homicide Crime Scene” in Chapter 6.)

Obviously, the best places for obtaining physical evidence are nearest to where the critical act occurred, such as in the immediate vicinity of the homicide victim. However, other areas related to the primary crime scene must not be overlooked, for example:

- The point of forced entry
- The route of escape
- The suspect (clothing, hands, body, hair, etc.)
- The location where the weapon is or may be located



**Figure 8.9 LINE SEARCH — OUTDOOR CRIME SCENE.** This photo shows an academy class participating in a line search of an outdoor crime scene. The only problem is that the crime scene detectives did not instruct the searchers about cross-contamination or provide the recruits with protective gloves. Only one officer is wearing gloves and those are not crime scene protective gloves. If these officers had recovered any crucial biological evidence, a clever defense attorney could have used this newspaper photograph to criticize the police evidence collection techniques and/or attack the laboratory results. (Courtesy of the *New York Post*, photographer Jim Alcorn.)



**Figure 8.10 DETECTIVE PHOTOGRAPHING THE SCENE.** This photo shows a detective photographing evidence in the scene. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)



**Figure 8.11 DETECTIVES AT SCENE.** This photo shows a detective at the crime scene documenting and taking measurements. (Courtesy of Chief Criminal Deputy Robin Wagg, Douglas County, Washington, Sheriff's Department.)

- A vehicle that was used in the crime
- The suspect's residence
- The location where the assault leading to death took place
- The location from which the body was moved

Before entering the crime scene, the detective supervisor and the homicide investigator must determine its boundaries, decide how to approach it, and determine whether any fragile evidence that requires immediate attention is present. The crime scene should then be photographed and sketched. (See Chapter 6 and Chapter 7.) The scope of the search is usually determined by a theory or hypothesis agreed upon by the investigators, based on their initial observations of the scene. The hypothesis emerges from a set of simple assumptions of *how* and *why* the homicide occurred and the sequence of events that followed. This hypothesis is used to guide the investigator in discovering physical evidence. However, remember that *anything* and *everything* may be evidence and become significant later. Therefore, every item at the scene must be handled as evidence until determined otherwise.

The investigators must keep in mind that their hypothesis is provisional. If new evidence emerges that suggests a different sequence of events, they must be willing to reassess and modify their hypothesis as the new facts dictate. I have been at many



different homicide scenes over the years and have seen initial theories change over and over again. The key to success in this phase of the investigation is *flexibility*. Practically speaking, use your common sense in this process. Do not get bogged down in theory and hypothetical speculation. Many times the answer you are looking for is right in front of your nose. The problem is that with all the events going on at the scene, it is sometimes easy to miss a simple observation. Your instincts should not be discounted. They can bring you back to reality or direct you to a situation that would otherwise have slipped by.

Crimes of violence such as homicide usually involve some sort of struggle — a break, use of weapons, use of physical force — or other contact between the perpetrator and the deceased. Therefore, there is a good possibility that trace evidence will be found and recovered. Remember the basic theory of transfer and exchange. (See “The Homicide Investigation Starts at the Crime Scene” in Chapter 1.)

In formulating the search plan, you may want to cover some critical areas immediately or may have some question as to what is or is not evidence. Do not be influenced by the original report, the police call, or any initial statements. Note this initial information and then make your determination based on the total information available. Ask yourself the following questions:

1. Is the death caused by
  - a. Homicide?
  - b. Suicide?
  - c. Accident?
  - d. Natural causes?
2. Do the facts, the crime scene, the statements, and the physical evidence support this explanation?
3. If the death is homicide,
  - a. What was the means or agency of death?
  - b. Is the homicide excusable or justifiable?
  - c. Does it appear that any effort was made purposely to mislead the police?  
For example:
    - i. A simulated burglary
    - ii. Arson
    - iii. Murder made to look like suicide
    - iv. Suicide made to look like murder (insurance case?)
  - d. Is there more than one possible cause of death?
  - e. Are the witness statements consistent with the facts?
  - f. Is the time element consistent with the condition of the scene?
    - i. Are the bloodstains wet or dry?
    - ii. What is the condition of the body (rigor, lividity, etc.)? (See Chapter 9.)
  - g. Is there a weapon involved?
    - i. Was more than one weapon used? What does this suggest?
    - ii. Are the wounds consistent with the weapon suspected?

- iii. Is the weapon from the premises?
- iv. If the weapon was a firearm,
  - (a) Are any shell casings present?
  - (b) Are any bullet holes or spent rounds present on the ground, the walls, the ceiling?
- v. Is a weapon under the body?
- vi. Was the deceased armed?

During this self-cross-examination, do not make any final evaluation because you are merely formulating a hypothesis to assist you in planning the search. However, you should estimate as closely as possible the time and place of the homicide. In addition, you should have a general idea of how much evidence you plan to collect. During this stage, you will be depending on hard work, common sense, and keeping an open mind.

## **The Homicide Kit**

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If the search is to be successful, certain equipment and logistical support must be available to the homicide investigators. Many departments maintain a forensic or crime scene unit that responds to major crimes with sophisticated equipment necessary to conduct an extensive crime scene search.

I recommend that homicide units maintain a portable homicide kit with the equipment necessary for the collection and documentation of evidence from the scene. A practical kit can be assembled at nominal cost and will usually prove to be invaluable to the investigator at the scene. The important consideration in maintaining any crime scene kit is in the inventory and restocking procedure. A maintenance schedule that assures a routine and periodic resupply and replacement of materials must be put into effect. Sirchie® Fingerprint Laboratories supplies excellent crime scene kits and accessories. Although any number of items may be included, a good homicide kit should contain the following.

### **Crime Scene Integrity Kit**

- Crime scene barrier tape (“Crime Scene — Do Not Cross” type)
- Crime scene cards
- Rope and/or line (rope at least 100 ft)
- Crime scene screen
- Crime scene tent (to prevent media or onlookers overhearing observations)

### **Evidence Collection Tools**

- Basic tool kit containing:
  - Hammer and nails
  - Screwdrivers (Phillips and straight edge)

- Pliers
- Vise grips
- Saws
- Crowbar or pry bar (2 ft)
- Crescent wrench
- Wire cutters
- Knife (multipurpose)
- Shovels
- Collapsible shovel
- Saw (keyhole type)
- Thermometer
- Tape recorder with microphone
- Extra blank tapes
- Cassette recorder with extra batteries and AC/DC hook-up
- Clipboard
- Measuring tape (100 ft, steel)
- Razor blades (single edge)
- Adhesive tape
- Cellophane tape
- Pencils and marking pens
- Straight-edge ruler
- Swivel mirror with 12-in. handle
- Light socket extension cord
- Surgical gloves
- Cotton gloves
- Cotton cloth
- 1 Box of cotton swabs (e.g., Q-tips®)
- Sterile disposable pipettes
- Forceps and tweezers
- Glass cutters
- Sterile disposable scalpels
- Flashlights (2 cell or 9 V with extra batteries)
- Spotlight (12 V, 50-ft extension)
- Electric extension cords, 50 and 100 ft)
- Drop light
- Spare bulbs
- Alternate light source (ALS)
- Spare barrier-filter goggles for ALS
- Magnifying glass
- Magnet extension rod
- Metal detector
- Safety pins
- Steel tape (12 ft)



- Lumber crayons
- Box of chalk
- Tongue depressors (50)
- Ball of twine
- Paper towels
- Putty knife
- One pair scissors (8 in.)
- Sieve screens
- Hand shovel and/or trowels

### **Fingerprint Kit**

- Fingerprint powders (regular and magnetic) as well as various color powders
- Fluorescent powder
- Fiberglass brushes for each color
- Magnetic brushes
- Lifting tape
- Hinge lifters
- Rubber or gel lifters
- Fingerprint cards
- Fingerprint-taking pads
- Fingerprint ink and cleaners
- Postmortem fingerprint tools
- Finger-softening kits
- Luminol
- Phenolphthalein
- Leucomalachite green
- Leucocrystal violet
- Iodine
- Ninhydrin
- Silver nitrate
- Amido black
- Fluorochromes (fluorescein)
- Tetramethyl benzidine
- Specialized light source
- Small particle reagent
- Cyanoacrylate (glue fuming)
- Portable fuming chamber

### **Photography Kit**

- 35-mm SLR or large-format or digital camera with appropriate lens, including macro
- 1 to 1 Camera (e.g., Sirchie EV-CAM™ III evidence camera)

- 1 to 1 Lens adapter for 35-mm SLR cameras
- Tripod
- Photo placards (numbers and scale type)
- High-visibility photo markers
- Polaroid® Spectra LE and Macro 5
- Off-camera flash unit
- Photographic evidence folding scale
- Photo evidence rule tape
- Surveyor flags
- ALS filters
- Lens cleaner and paper
- Spare batteries (flash and camera)
- Video camera

### **Sketching and Mapping Kit**

- Magnetic compass
- School compass
- Straight edge ruler
- Tape measures
- Graph paper (8 1/2 × 11 in.)
- Clipboard
- Plain paper (writing tablets)
- Pencils and marking pens
- Professional drawing instruments
- Appropriate crime scene sketch kit templates
  - Plan template
  - Layout template
  - Furnishings template
  - Lavatory template
  - Traffic template
  - Human figure template
  - Clear plastic triangle template

### **Casting Kit**

- Collapsible gallon water container
- Flexible mixing bowls
- Casting forms
- Plaster casting material
- Silicone evidence casting kit (e.g., Sirchie)
- Dental stone
- Spray sealant for loose soil (dust or dirt)
- Snow impression wax

- Gelatin lifters
- Electrostatic lifting device and film
- Indelible marking pen
- Tape

### **Evidence Collection Containers**

- Paper envelopes (small, medium, and large)
- Paper bags (lunch and grocery size)
- Butcher paper
- Paper for creating pharmacist folds
- Box of Glassine envelopes
- Box of paper envelopes
- Plastic bags with zipper closure (various sizes)
- Large plastic bags
- Evidence collection boxes (various sizes)
- Evidence collection tubes
- Pill boxes (various sizes)
- Evidence boxes (various sizes)
- Clean evidence collection jars with screw-on lids
- Solid material evidence containers (e.g., sterile paint cans with lids)
- Evidence tags
- Evidence tape
- Indelible marking pens

### **Lasers and Alternate Light Sources (ALS)**

Forensic lasers produce an extremely high-energy beam of light capable of causing fluorescence in certain materials. The fluorescent effect is usually viewed through goggles or lenses. They are quite expensive and require accessory cooling systems. Because of their size, forensic lasers are usually confined to laboratories.

The ALS is more portable and less expensive. It is a high-intensity white-light source with multiple filters that provides several wavelengths of visible light for examining the scene. An ALS source allows the crime scene technician to see and perceive the scene much more accurately. Lasers and ALS units detect body fluid stains, fibers, and various materials that contain chemical substances capable of fluorescence. The ALS can also be useful in locating fingerprints when fluorescent fingerprint powder is applied.

Most of the wavelengths in an ALS are in the visible range of the spectrum. However, an ultraviolet source can be built into an ALS unit. The usefulness of UV depends on the fluorescence capability of the trace evidence. Some obstacles are laundry detergents.





**Figure 8.12 ALTERNATE LIGHT SOURCE (ALS).** The portable UltraLite ALS is one of the most powerful, serious-level, solid-state forensic alternate light sources. (Courtesy of Mr. Ryan West, CAO Group, Inc., Sandy, Utah.)

**Remember: Any light source can cause eye damage. The resulting fluorescence should be viewed through filtered glasses or goggles.**

The UltraLite ALS is one of the most powerful, serious-level, solid-state forensic alternate light sources. It features an intensity range of 400 mW to an astounding 1000 mW of power. The UltraLite ALS kit comes complete with the light unit, two rechargeable lithium batteries, ALS power pack, universal A/C input power cord, goggles, twin-battery charger, and a custom-designed zippered “holster pack.”

## The Search

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The most practical search method is to begin at the point where the body is first discovered and work in an outward direction until the entire room or location has been covered.

**Remember: Do not smoke or dispose of any cigars, cigarettes, matches, gum wrappers, or any other item that may be confused with evidence at the scene.**

Once the search method has been determined, it is up to the detective supervisor to coordinate the efforts of the investigators in order to provide for location of physical or trace evidence, systematized search techniques, a chain of custody, and the recording of evidence.

The search should begin with an examination for latent fingerprints; before any item is touched or moved, the crime scene technician should dust for prints. The supervisor should direct this phase by indicating what areas he wants examined. If possible, an attempt is made to determine points of entry and exit for latent impressions. In addition, any weapons or objects that were apparently handled by the suspect, as well as all door handles, telephones, windows, glasses, light switches, etc., should be dusted. Special attention should be given to objects that may have caused death, newly damaged areas, or items apparently missing from their original location. It is important to note that a good latent print will place the suspect at the scene.

**Remember: It is your case. You only get one shot at the crime scene, so make sure you do it right.**

Direct the fingerprint people. If you do not direct that certain areas be dusted, they may not be. Tell the crime scene people or technicians what you want and then make sure that you get it. All visible details should be observed and described before dusting anything, in the event that something might need to be moved. Note the location of any stains, weapons, etc.

During the initial search, each possible item of evidence should be measured from a fixed location. (See “Preparing the Crime Scene Sketch” in Chapter 7.) The measurements, along with a complete description, should be entered in the investigator’s notebook. This information should also be recorded on the crime scene sketch.

Any latent prints located during this preliminary dusting should first be photographed and then lifted. The photo should be taken with an identifying label in order to document the lift, in case the lift fails. The photo can then be used for identification and comparison.

## **Examination of the Body at the Scene**

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The actual examination of the body should not begin until all photographs and sketches are completed. In addition, a complete description of the body as well as any clothing must be obtained, including

- Sex
- Race
- Appearance
- Age
- Build
- Color of hair
- Evidence of injury and apparent cause of death
- Condition of the body (rigor mortis, lividity, etc.)



**Figure 8.13** MASTER LATENT PRINT KIT. (Courtesy of Sirchie Fingerprint Laboratories, Inc., Youngsville, North Carolina.)



**Figure 8.14** DUSTING FOR LATENT PRINTS. This photo shows the proper technique for dusting a bullet for latent print evidence left on the casing. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)





**Figure 8.15 LATENT PRINT RECOVERED FROM CASING.** This photo shows the bullet from the dusting in Figure 8.14 indicating latent print evidence. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)

Color of blood (wet or dry?)

Position of body relative to objects of significance at the location.

The investigator should then concentrate on recording a complete description of the clothing as follows:

Position of clothes

Condition of clothes (buttoned, unbuttoned, twisted sideways or pulled down, inside out, zipped or unzipped)

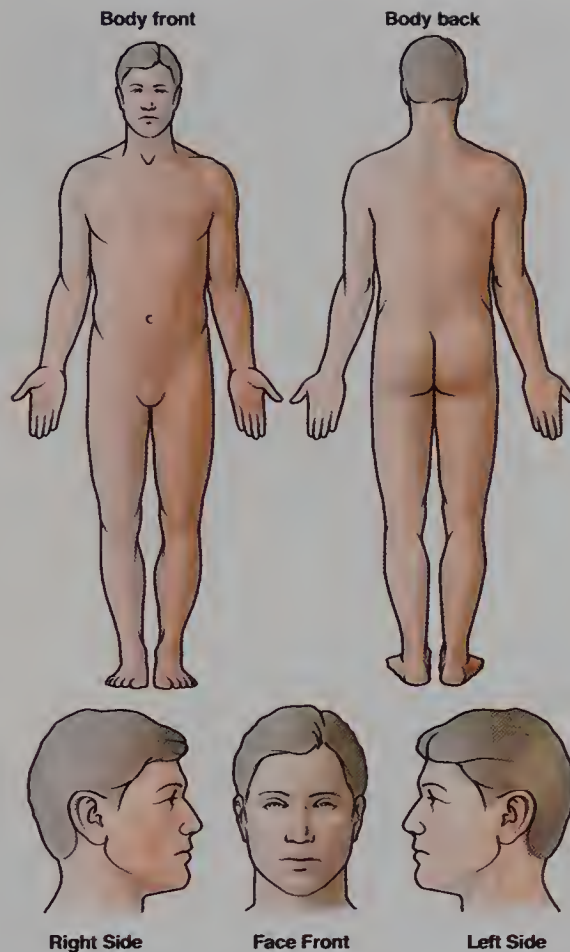
Damage to clothes (rips, tears, cuts, holes, etc.)

Stains: blood, saliva, vomit, semen, phlegm, urine, or feces. Where are they?

What are they? Is there any direction of flow?

After the clothing has been completely described and any significant position, condition, damage, or stains have been noted, the investigator begins a careful examination of the body starting with the head and working down to the feet. This description will necessitate moving the body to look for any wounds or evidence of further injuries that are not visible in the original position. Examination questions include the following:

1. The head
  - a. Are the eyes open or closed?
  - b. Is the mouth open or closed?
  - c. What is the position of the head in relation to the body?



**Figure 8.16 WOUND CHART.** This chart can be used by the investigator to record observations of injuries to the deceased. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)



**Figure 8.17 SKETCH OF DEFENSE WOUNDS ON HAND.** (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

- d. What is the color of the skin (lividity, etc.)?
  - e. Is there any blood present? (Describe.)
  - f. Are there any visible wounds? (Describe.)
  - g. Is there any foreign material on the head (soil, mud, etc.)?
  - h. What is the condition of the deceased's hair (neat or messy)?
  - i. Any phlegm, saliva, or vomit present?
2. The trunk
    - a. Position of the trunk (twisted or bent over, on side or back, etc.)?
    - b. Any injuries? (Describe.)
    - c. Presence of any stains (blood, semen, vomit, etc.)?
    - d. Presence of any hairs or fibers?
    - e. Presence of any foreign substances on the trunk (soil, mud, grease, tar, paint, etc.)?
3. Arms and legs
    - a. Position of each arm and leg?
    - b. Presence of any injuries?
    - c. Presence of any stains?
    - d. Any foreign matter on the legs or arms?
    - e. Any defense wounds on the hands, arms, legs, or feet?

**Remember: Note the presence or absence of any jewelry (rings, watches, etc.) on the body, including any mark on the body indicating that such objects have been worn.**

In most cases, it is good to bag the hands of the deceased with paper bags. This will preserve any trace evidence found under the fingernails later during autopsy. A paper bag is used because plastic tends to accelerate putrefaction, especially if any blood is on the hands. In addition, plastic does not allow the skin to “breathe” and may even change the chemical composition of certain trace evidence.

The area under the body must be carefully examined, bearing in mind that extensive bleeding may create pooling, which conceals bullets, cartridge casings, or other small items of evidence. If the body has been lying on soft earth, bullets may be embedded in the soil. If any such items are found, they should be photographed in the position in which they were found before being collected and marked.

**Remember: Appropriate notation should be made on the crime scene sketch and in the investigator's notebook.**

Although this procedure is particularly important in cases of apparent death from gunshot wounds, it should be followed as a matter of routine in all cases.





**Figure 8.18 PRESERVING TRACE EVIDENCE.** Following the preliminary examination at the scene and taking of the crime scene photographs, the hands have been bagged to preserve any trace evidence, which may be found under the fingernails. It is recommended that the investigators use paper bags. (From the author's files.)

## Bloodstain Pattern Analysis

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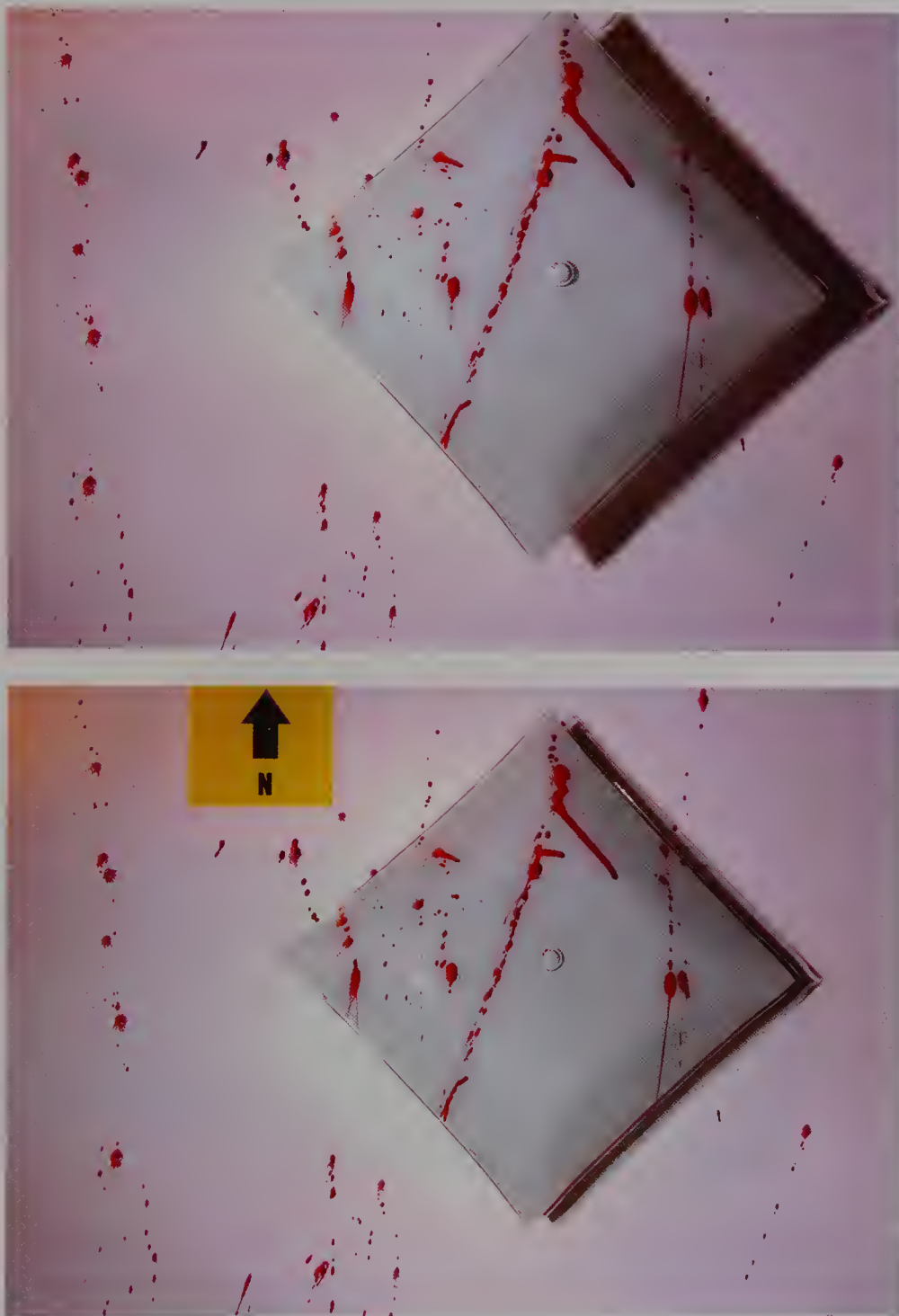
Crime scene reconstruction and the presence of bloodstains and patterns in the scene are important considerations in the crime scene search process.

The discipline of bloodstain pattern analysis considers the location, shape, size, distribution, and other physical characteristics of the bloodstains in the scene. In practical homicide investigation, the mission of the crime scene technician or ERT is to be able to recognize the critical classifications of stains and to document the crime scene properly. He or she is not expected to be able to perform the sophisticated analysis that an expert in bloodstain pattern analysis performs as part of his expertise and training. However, in some cases, the person processing the scene does in fact have the expertise to conduct bloodstain pattern analysis.

As series editor for a number of forensic textbooks, I recommend two excellent textbooks on the subject of crime scene processing and bloodstain pattern analysis:

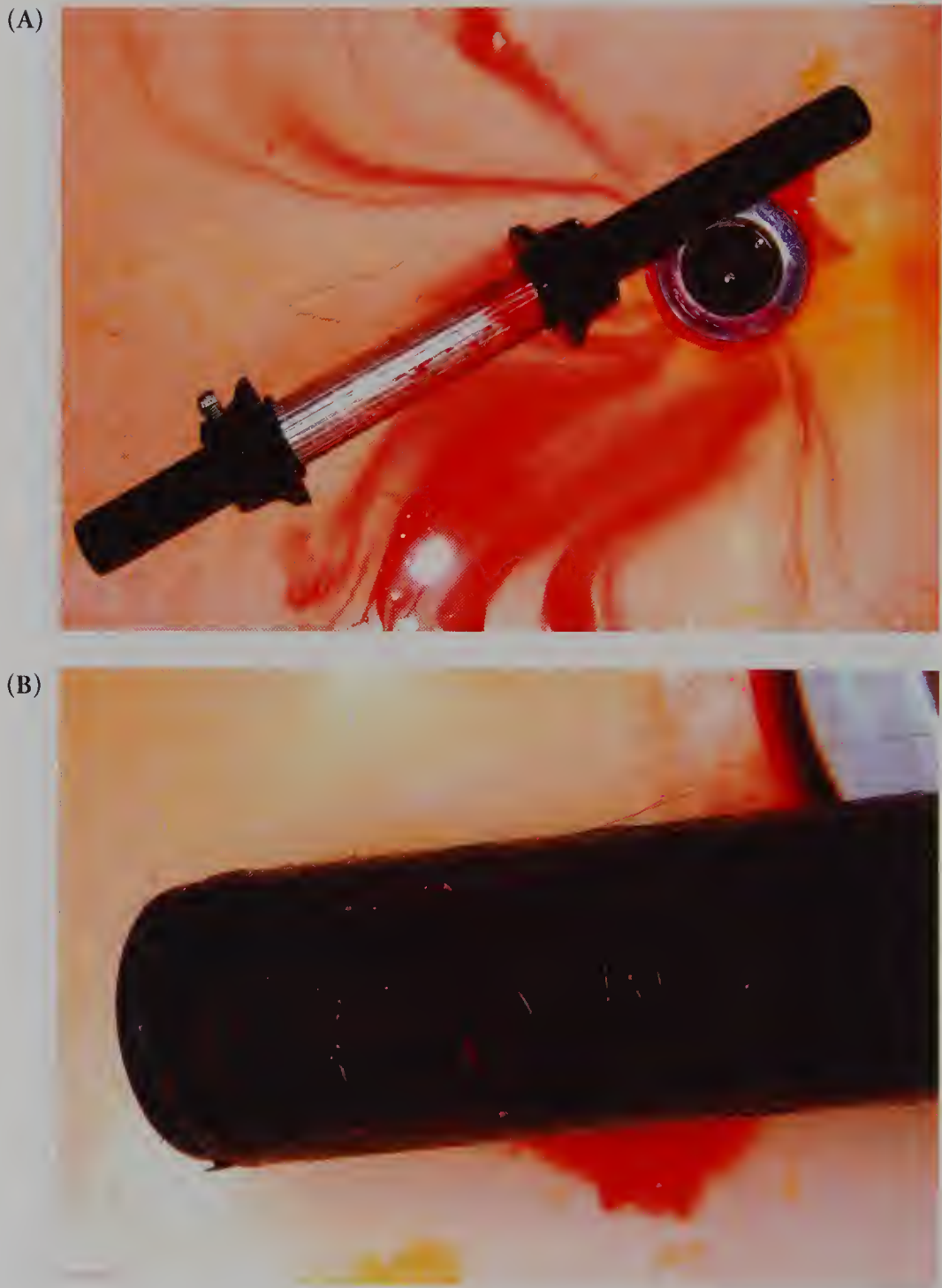


**Figure 8.19 APPLICATION OF LUMINOL.** These photos were taken of a murder scene in which a 30-year-old woman was stabbed to death in her bedroom. The suspect transported her body to a dump site, returned to the residence, and cleaned the house of all obvious traces of blood. The Honolulu detectives requested the Scientific Section to process the scene. Luminol was applied and produced evidence indicating locations where blood had been present prior to the clean-up attempt by the perpetrator. (A) View of the floor in the victim's bedroom prior to the application of luminol. (B) The same view after the application of luminol. (Courtesy of Captain Gary A. Dias, Honolulu Police Department's Scientific Section.)



**Figure 8.20 BLOOD SPATTER EVIDENCE.** These photos illustrate the proper documentation and photography of blood spatter evidence on the ceiling light fixture. (Top) Before adding the reference marker. (Bottom) With the marker. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)





**Figure 8.21 BLOODY WEAPON AND TRANSFER EVIDENCE.** (A) The instrument used, which resulted in the blood splatter in the previous photos, was a barbell. (B) Macro photo, which shows the victim's hair transferred to the barbell. (Courtesy of Detective Mark Czwor-niak, Chicago Police Department.)

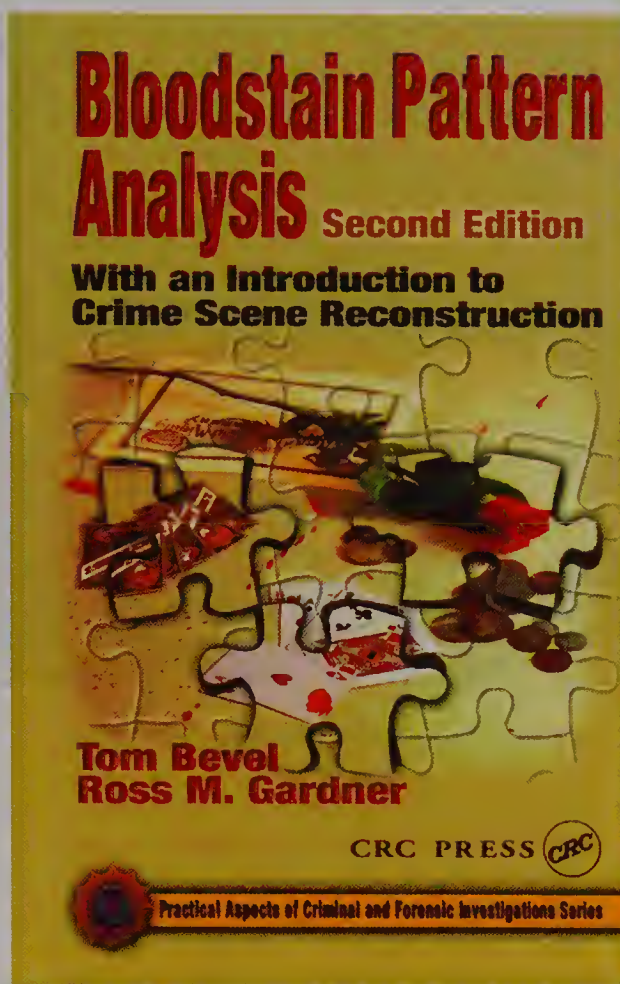


Figure 8.22 BEVEL AND GARDNER TEXTBOOK, CRC PRESS.

*Bloodstain Pattern Analysis* (second edition) by Tom Bevel and Ross Gardner and *Practical Crime Scene Processing and Investigation* by Ross Gardner.

## Release of the Body

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The body should not be moved until completion of the preliminary investigation at the scene. The medical examiner or coroner, if responding, should have the opportunity to view the body in its original position. This can be very helpful to these officials in carrying out their responsibilities. After the homicide investigator and medical examiner have completed their work at the scene and details have been noted, the question arises as to when the body can and should be released.

This decision is critical. Because the consequences of the decision are irrevocable, removal should be undertaken only after due consideration of several factors.

**Remember:** I recommend that, in certain cases, the medical examiner/coroner be requested to allow the body to remain at the scene during the crime scene process in order to recover crucial microscopic evidence that would have been lost in the removal or transport of the body. (See “Special Procedure to Follow in Specific Cases” in Chapter 4.)



**Figure 8.23 BLOOD SPATTER RECONSTRUCTION.** This photo illustrates a blood pattern reconstruction. The question was whether the victim was sitting or standing. The wall has been marked off in 2-foot grids. Each box is labeled with letters and numbers. The victim had been bludgeoned to death and the reconstruction indicated that he was in fact sitting when the first blow was struck. (Courtesy of Detective Sergeant Joe Pietropaolo, Yonkers, New York, Police Department, Crime Scene Unit.)



**Figure 8.24 DISPOSABLE BODY BAG.** (Courtesy of Sirchie Fingerprint Laboratory, Inc. [www.sirchie.com](http://www.sirchie.com).)

1. Before the body is removed, it should be wrapped in a clean sterile sheet or disposable body bag to preserve any evidence or residue for later analysis.
2. If the medical examiner is not going to conduct an immediate autopsy and the body will be lying in the morgue until the following day, there should be no rush to remove the body, particularly in cases of apparent homicide



where there are no witnesses and no named perpetrator or arrests. If the body is not in a public place, the location can easily be secured. The reason for this procedure is that information may come to light during the canvass or while talking to witnesses at the station house that may require some additional photos or other police procedure with respect to the body. If the body has been removed hastily, this opportunity will be lost.

3. If an immediate autopsy is to be conducted by the medical examiner, the removal should be directed only after conferring with the investigators doing the canvass and the interviewing teams at the station house to determine whether there is any new information which may require additional things to be done with the body.
4. If the body is in a public place and the medical examiner has completed his scene examination and the crime scene work has been accomplished, the detective supervisor can release the body, usually after checking with his detectives at the station house and with the officers doing the canvass.
5. If the body is in a public place and the medical examiner is not responding, the chief investigator will authorize the removal after the crime scene work has been completed.
6. As previously discussed under conditions of violent crowds, public disorders, etc., the body may need to be removed immediately. (See “Dealing with Emergencies at the Scene” in Chapter 2)

## The Scene

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A technique I have found useful is to have someone thoroughly familiar with the scene go over it with you, bit by bit, first visually and then physically, being careful not to touch any items. This person can identify the usual positions of objects in the scene. You can then get a complete inventory on the spot. Instruct the person to take his time and ask whether he recognizes any inconsistencies or “foreign” material present. Have him point out the usual position of drapes, curtains, blinds, pictures, statues, ashtrays, etc. Obtain a detailed report. You may even want him to examine the scene along with an investigator so that he may point out new stains, signs of disorder, or any factor inconsistent with the lifestyle of the deceased.

The ideal situation in any crime scene search is to have one officer designated the “searching officer,” whose responsibility is to search and take the evidence into custody. Other homicide detectives can assist by taking notes of locations where objects are found and even participating in follow-up searches. However, these officers assisting the searching officer should *not* handle any evidence. Instead, they can alert the searching officer, who will take significant evidence into custody. This procedure limits the chain of custody and makes the recording of evidence more uniform and professional.

Because items tend to fall to the ground, especially in a violent struggle or confrontation, the floor is the best place to begin the search after examining the body. As the search progresses, the investigators may move from the floor or ground



**Figure 8.25 CRIME SCENE SEARCH.** (A) Evidence that the perpetrator cleaned up in the crime scene. These areas should be thoroughly processed for trace evidence. The sink traps, drains, and garbage cans often contain valuable evidence. (B) Evidence that the perpetrator was in the refrigerator. It is not uncommon that a murderer will have fixed something to eat or may have helped himself to something in a refrigerator at the crime scene. It is good procedure to check the refrigerator and its contents. (C) Latent print evidence retrieved an item from inside the refrigerator. This case involved a vicious rape, sodomy, and murder of a young woman in her apartment. The perpetrator had multiply stabbed his victim during the attack. Upon completing his assault, he went into the refrigerator to get a cold beer. He had to move the wine box to get to the beer. His bloody hands left a perfect set of latent prints on the back of the wine box, which placed him at the crime scene. (Courtesy of Detective Sergeant Alan Patton, Grand Prairie, Texas, Police Department. Photos by Evidence Technician Don Swanz.)



Figure 8.25 *Continued.*

to waist height and from waist height to ceiling. The areas to be searched depend on the type of homicide. If the homicide is the result of a robbery or burglary, you will want to check the entire apartment or house for locations where the intruder searched for valuables. If the homicide was the result of a shooting, you will want to check the walls and ceiling for any bullet holes or spent rounds; any carpeting or rugs should also be rolled back or lifted up for examination.

If the murderer cleaned up after the crime, you must examine such additional locations as sinks and sink traps or garbage areas. If narcotics are involved, you might need to locate a “stash” or secret hiding place. The murderer may have fixed something to eat or may have taken something from a refrigerator. Did the killer turn the light off or on? Does the scene give an appearance of being ransacked? Was the door unlocked or locked? Are the windows open or closed? Where is the point of entry? These are all questions you should ask yourself.

### **Remember the theory of exchange and transfer.**

Locations where any physical or trace evidence may be found depend on the individual crime and the actions of suspects at the scene and will vary from scene to scene. However, certain areas and objects should always be given attention:

Under rugs or carpets  
Under chair cushions  
Doorjambs

Elevator shaft  
Tops of cabinets or furniture  
Chimney

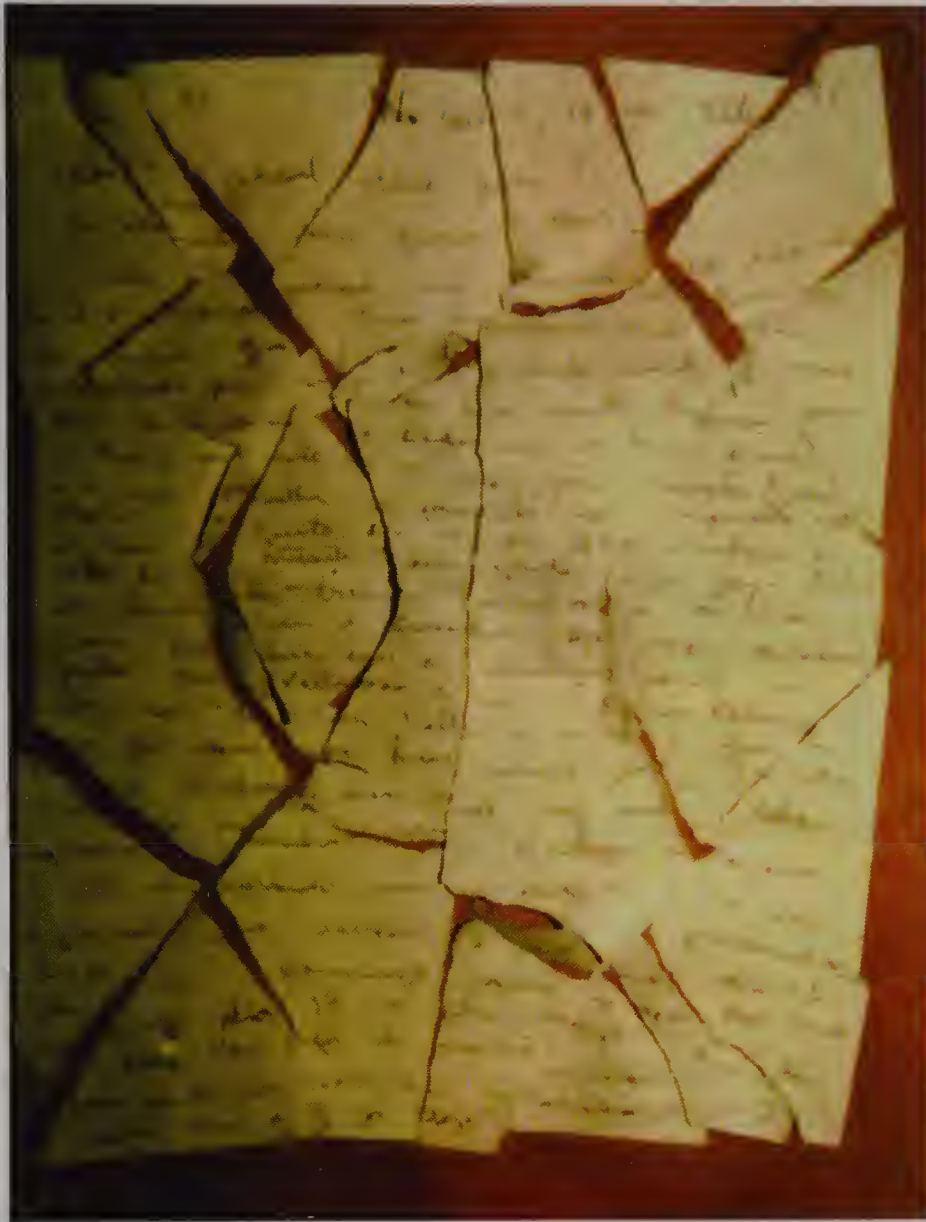


Light fixtures	Refrigerators
Behind drapes or curtains	Statues
Garbage pails or bags	Behind pictures or clocks
Wastebaskets	Sewers
Hampers or soiled clothes	Drainpipes
Ashtrays	Ventilation ducts
Ceilings	Behind desks set against walls
Suspended ceilings	Closets
Walls	Backs and bottoms of drawers
Under chairs	Inside ovens
Under beds	Inside cabinets
Behind mirrors	Kitchen or bathroom towels
Telephones	Sinks, toilets, or tubs
Cell phones	Pagers
Computers	Computer hard drives
PDAs	Computer disks
Signs of a party	Counter tops
Glasses	Windows
Stairs	Any newly damaged area
Passages	Garments
Backyards	Mailboxes
Behind boxes or cartons	Post office boxes

The ability to recognize and discover evidence at the crime scene is a prerequisite of successful search. The acquired expertise of the homicide investigator and the detective supervisor will probably determine what trace evidence is found.



**Figure 8.26 CRIME SCENE SEARCH — BULLETS RECOVERED.** This photo illustrates the recovery of bullets, which were matched to the shell casing recovered at the crime scene. Detectives had obtained a search warrant for the suspect's residence and found the shell bullets secreted in the suspect's sneakers inside a closet. (Courtesy of Detective Sergeant Joe Pietropalo, Yonkers, New York, Police Department, Crime Scene Unit.)



**Figure 8.27 CRIME SCENE SEARCH — LETTER RECOVERED.** Search of the garbage revealed a torn letter written in Portuguese by the offender, who had killed his American wife. Detectives searched the garbage according to Practical Homicide Investigation® recommendations and discovered this incriminating piece of evidence. (Courtesy of Investigator Jack Henander, Larimer County, Colorado, Sheriff's Office.)

It is in this search phase that one can see the need for close cooperation between the investigators and the forensic scientist. It is imperative that the officers performing the search have a working knowledge of handling physical evidence. (See Chapter 17.) Most major departments maintain a forensic or crime scene unit with trained personnel to assist in the search of major crime scenes. These officers have the expertise and equipment necessary to work under the detective supervisor for the proper retrieval of physical evidence.

Information sources such as papers, personal effects, and address books as well as any other property which may aid in the investigation should be taken by the homicide detectives for later perusal and disposition. The patrol or uniformed division should be responsible for the administrative search and safekeeping of any



**Figure 8.28 EVIDENCE FOUND IN GARBAGE.** A search of the garbage revealed the suspect's bloodstained jeans. Investigators found these jeans and other bloody clothing he had been wearing during the murder and clean-up after the murder wrapped in a plastic bag. DNA analysis matched the victim's DNA and connected him to the murder. (Courtesy of the Kansas Bureau of Investigation.)

valuables or property of the deceased. These items can be vouchered and safeguarded at headquarters for later disposition to the property clerk, medical examiner, coroner, or family of the deceased.

Any photos of the deceased taken in life should be collected to use in the canvass to identify the victim clearly to persons interviewed, as well as to personal acquaintances or associates of the victim. If photos are not available at the scene, they should be obtained from the victim's family, friends, or employer; yearbooks; or a driver's license. Photos should have a good likeness of the deceased just prior to death so as not to confuse the person to whom they are shown.

### **Processing a Vehicle (See Chapter 17)**

#### **Examining the Outdoor Scene**

The general techniques of crime scene search apply to all homicide crime scenes; however, the outdoor scene poses additional problems for the investigator, for example:

1. The scene usually does not have easily defined borders.
2. The "floor" of the scene is usually rough and irregular and may be composed of hills, valleys, bodies of water, swamps, sand, or other natural contours.
3. The investigation is vulnerable to weather conditions. Rain or snow may have washed much trace evidence away, or the threat of a storm may force immediate procedures to collect evidence in a manner that precludes efficient collection of all evidence.





**Figure 8.29 DETECTIVE PROCESSING VEHICLE.** This photo depicts Detective Sergeant Joe Pietropaolo processing a car. The photo illustrates the proper clothing and procedure when vacuuming a vehicle for trace evidence. A body had been found in the trunk of this vehicle. Fiber evidence was recovered from the vehicle. (Courtesy of Detective Sergeant Joe Pietropaolo, Yonkers, New York, Police Department, Crime Scene Unit.)

4. The investigator does not have the luxury of electricity, running water, telephones, or other common conveniences found indoors.
5. Daylight is limited; be prepared to return to the scene the following day.

The investigator's actions at outdoor scenes are usually determined by the weather and the time of day. I have provided some practical procedures to follow. However, they are presented only as a guide. Each individual case will dictate how an investigator will retrieve evidence.

1. Rope off the largest area possible and secure the scene.
2. Establish a path of entry and exit, usually the original path taken by the person who discovered the body. It should be examined for any possible trace evidence and then staked off or marked. All persons approaching the area should be cautioned to use this route and not deviate from the established path.
3. The body and immediate surrounding area should be systematically examined before any weather or lighting conditions change. One of the recommended methods of crime scene search should be used. Get additional people to the scene to implement this procedure.
4. If the weather is obviously contributing to or about to destroy trace evidence, collect that evidence as soon as possible even though some additional evidence may be missed, lost, or destroyed.

**Remember: Some evidence is better than no evidence.**



**Figure 8.30 PROPER VEHICLE SEARCH.** (Top) Photograph of the truck before the search. (Bottom) Photograph of the truck after the search. Valuable trace evidence was recovered. (Courtesy of Chief Criminal Deputy Robin Wagg, Douglas County, Washington, Sheriff's Department.)

### *Examples of Evidence Found Outdoors*

1. *Pollen, vegetation, soil, or seeds* may be found on the suspect or the victim. The investigator should collect any foreign matter found on the suspect or the body for later comparison. However, each individual item must be separately packaged and labeled in order to assure proper examination and admissibility later in court.





**Figure 8.31 CRIME SCENE — METAL DETECTORS.** This photo depicts officers at an outdoor crime scene with a metal detector attempting to recover shell casings at a homicide scene. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)

2. *Foot and tire impressions* may appear on the soil. In addition to gathering samples for laboratory analysis, these impressions must be sketched, photographed, and properly cast for later comparison purposes. When gathering this type of evidence, several control samples should be secured for later analysis.
3. *Trees, shrubbery, and fencing* should be examined for any trace evidence that may have been transferred during sudden contact. Fibers, hair, threads, and other material may be affixed to these objects and should be collected and preserved for later comparison with the victim or the suspect.
4. *Bloodstains, seminal fluid, saliva or phlegm, brain matter, hair, feces, and any other biological evidence* are not only subject to rapid change and destruction, but also almost impossible to locate in heavily vegetated terrain. Likewise, these pieces of trace evidence are subject to insect activity and are likely to be washed away if it rains on the scene.
5. *Bullets and casings* may be located if the investigator closely examines any foliage or newly broken parts of shrubbery. In some instances, the bullet may have lodged in a tree, causing telltale damage to the bark or pieces of twigs or branches may be lying on the ground in the line of trajectory. The area immediately surrounding the body should be examined for any shell casings and bullets embedded in the ground under the body.
6. *Oil or gasoline traces.* When vehicles are driven through tall grass or weeds, this material from the underside of the vehicle is transferred to the vegetation. This residue should be collected for later comparison.





**Figure 8.32 TIRE MARKS.** This photo shows the tire impression of the murderer's automobile. The killer had used the vehicle to transport the victim's body to the place of discovery. Investigators at the scene discovered this tire mark during the crime scene search. This evidence should be preserved through photography and casting. (From the author's files.)



**Figure 8.33 CASTING OF SUSPECT'S SHOE.** This shoe print was found outside the victim's residence. The detectives cast the shoe impression for later comparison. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)

7. *Crankcase traces.* If a vehicle has been driven through an area of heavy foliage or rocky terrain, traces of this material that can be compared will be on the crankcase.
8. *Any foreign material at the scene.* Many times, a suspect unwittingly will leave traces of himself at the scene that may be gathered and compared later — e.g., cigarettes, cigars, toothpicks. In addition, some sort of struggle may result in a lost item of clothing such as a button or piece of jewelry that can link the suspect to the scene.
- 9 *Foreign material found on the body.* Sometimes the body may reveal traces of evidence that come from a distinctive location. For instance, the body and clothing may indicate that the deceased was a mechanic or cement worker, or traces of sawdust or coal dust may be on the corpse.

In the event that the body must be moved before an extensive examination is conducted at the scene, I recommend that it be wrapped in a clean sheet or placed in a disposable body bag so that any trace evidence remaining on the clothing will be preserved for later inspection.

### **Examination of an Outdoor Scene at Night**

**Remember: Under ordinary circumstances, an outdoor scene is usually searched during the daylight hours.**

1. Direct that the area be effectively secured and safeguarded.
2. Direct that the body be photographed prior to removal.
3. Direct that measures be taken to safeguard the body against additional damage.
4. Any changes that occur after discovery should be noted in the investigator's notebook.

The actual crime scene search for trace evidence should be postponed until daylight. However, consider pending weather conditions.

The reason for postponing the search until daylight is that it is utterly impossible to detect minute traces of evidence under nighttime conditions. If some larger pieces of evidence are discovered that are not subject to dissolution, they should be covered or secured pending daylight because their significance can be better realized in connection with the overall scene. However, if you are faced with a sudden change in the weather, delaying the search until daylight may prove disastrous to the investigation. Obviously, no set procedure can cover all possibilities, so — as in all other aspects of homicide investigation — be flexible and use your common sense.

### **Physical Examination of a Suspect in Custody**

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The suspect and his or her clothing should be considered part of the homicide crime scene search. If the suspect is in custody at the scene, he or she should be





**Figure 8.34 OUTDOOR CRIME SCENE.** These two photos show the same scene. (Top) Taken during the daylight hours. (Bottom) Taken at nighttime. It is obvious that the investigator has a much better chance of locating evidence under daylight conditions. (From the author's files.)

immediately removed. If the suspect is apprehended a short distance away, he or she should not be allowed to return to the central crime scene. Instead, the suspect should be isolated for a preliminary examination for evidence.

**Remember:** If a suspect is allowed access to the crime scene, you will negate the value of any evidence found on the suspect that came from the scene or destroy the value of any evidence imparted by the suspect to the scene.



The examination of the suspect for evidence should be performed by the investigator assigned to the case or by an experienced detective assigned to the crime scene search. The examination must be conducted in a manner that precludes any possible destruction or loss of evidence. In addition, the search for evidence on the person of a suspect requires that the investigator be able to recognize certain materials and marks as related to the crime. This ability to recognize and recover trace evidence is a prerequisite to successful search of suspects.

The suspect's clothing and shoes should be closely examined for any trace material from the scene or evidence of the crime. These items should be seized and vouchered as evidence. If the suspect has any visible injuries or marks that might link him or her to the crime, such as bruises, bite marks, scratches, cuts, or injuries on the hands, face, or other parts of the body, photographs should be taken in black and white and color, using a scale or marker.

Many homicides involve a struggle where both participants receive injuries. Color photographs of these injuries to the suspect as well as to the deceased are valuable pieces of evidence that can be presented in court.

It is important to note that once a person is under arrest, he or she has no reasonable expectation of privacy. Suspects under arrest can be subjected to a



**Figure 8.35 NEW INJURIES.** The suspect's hands indicated new injuries, which he had obviously received during the struggle with the deceased. The investigator can prepare a simple sketch by tracing his hand or the suspect's hand and then draw in the locations of any injuries or marks. This is usually done in conjunction with crime scene photographs of the suspect's hands. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

thorough examination and body search. Under certain conditions, if the case warrants, the investigator should have the suspect undress over a clean sheet or large paper to prevent the loss or destruction of any physical evidence on the clothing and examine the suspect for any injury. Of course, female suspects subjected to body searches should be processed by female officers, and male suspects processed by male officers in order to avoid any criticism or objection later on.

If patrol officers have been assigned to transport a suspect to the police station or are assisting in the examination of the suspect for evidence, they should be cautioned to use extreme care and to preserve the suspect's clothing and shoes for examination for trace evidence. Furthermore, they should be instructed not to allow the suspect to wash his or her hands or engage in any activity that may alter or destroy any evidence. I have seen instances where suspects have "cleaned" themselves with urine and spittle to remove blood from their hands or bodies.

When evidence is located on the suspect, the same procedures used in other crime scene searches must be applied:

1. Photographs of the evidence *in situ* and close-up photos of the evidence should be taken.
2. The evidence should be described and documented in the investigator's notebook.
3. A sketch should be prepared of the area where evidence is found and the location noted on the sketch. This procedure is quite simple. If the evidence is found on the hands, for example, merely trace your hand (right or left, depending on the hand of the suspect on which evidence is found) and indicate on the sketch where this evidence is located. The same procedure, without tracing, can be employed for the face and other parts of the body. Use a simple line drawing of the body part concerned, with appropriate notations.
4. The material should be collected in a manner that preserves its value.

### **Gunshot Residue Testing**

If the homicide involves a shooting, and the suspect is apprehended within a short time or is in custody at the scene, the investigator may want to consider subjecting the suspect to gunshot residue (GSR) testing. The discharge of a firearm may contaminate the shooter's hand with significantly larger amounts of the elements antimony and barium than normally found on an individual who has not fired a weapon. (The contamination results from a "blowback" of primer residues from the cartridge; see Figure 12.13.) These microscopic residues can be removed for analysis by swabbing the back of the index finger, thumb, and connecting web area of the hand.

The most effective test, however, for GSR is the SEM (scanning electron microscope) test, which involves the collection of tiny particles from your suspect and testing these particles to determine whether they contain lead, barium, and antimony.

A positive test shows that a subject was in the vicinity of a gunshot, as long as he or she was not cross-contaminated. You are advised not to test a victim of a gunshot in an attempt to show that he did not fire the weapon because he may have this residue on him. Testing consists of the use of an approved SEM kit, which consists of a small device covered with an adhesive substance, which is dabbed around the thumb and index finger area of the hand, sealed, and then sent to the lab. It is then tested for the previously stated elements. The advantages to this test are the ease of collection and low cost. The disadvantages are the ease of cross-contamination, that particles can be removed through hand washing and/or 2 hours of normal activity, and that some .22-caliber ammunition does not contain barium and antimony.

ASPEX is the world leader in GSR analysis. The ASPEX GSR system is an automated analysis system that can accommodate up to 30 specimens (adhesive stubs) simultaneously. This system is able to detect individual residue particles and determine the dimensions as well as the chemical structure of each particle. As lead-free primers are becoming increasingly common (lead is replaced by aluminum and strontium), new methods are required to handle GSR analysis. Traditional approaches would no longer be useful, but ASPEX GSR can be configured to detect, classify, and report on new types of ammunition that are being manufactured. For further information, see the company's Web site: [www.aspexllc.com](http://www.aspexllc.com) or <http://www.aspexllc.com/html/products/gunshot.html>.

In order for the examiner to interpret these data properly from the swabs submitted for analysis, the following information should be provided to the laboratory:

1. A brief summary of the case
2. The time and date of the shooting
3. The time and date the hands were swabbed
4. Location of shooting, i.e., indoors, outdoors
5. Treatment afforded the suspect, i.e., if wounded, whether the hands were washed or contaminated in any way during medical treatment
6. Activity of the subject from arrest until specimens were obtained, i.e., washing of hands, fingerprinting, etc.
7. Description of the firearm used: caliber, type, manufacturer
8. Brand of ammunition used
9. Whether subject is right- or left-handed
10. Subject's occupation

Practically speaking, these tests may have no forensic value at all to your investigation. Although antimony and barium are components customarily found in most primer mixtures, they are also commonly found in nature and may have come from some other source. The problem from an investigative point of view is that most testing is inconclusive in that the examiner cannot positively state that the quantity found is sufficient for determining that a gun was definitely fired by the suspect.



You may want to administer this test, however, in order to preclude any attempt by defense counsel to make an issue of why his or her client was not given this examination. Nevertheless, even if you do subject the suspect to this type of examination and the results are positive, the defense counsel could bring in another forensic expert who could dispute the results and challenge your findings based on a different interpretation.

The decision to test or not to test must be determined by the facts of the particular investigation. The investigator should always be aware that, because of its ambiguous results, residue testing can be a two-edged sword that could possibly damage the later prosecution.

## **Release of the Scene**

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The decision to release the scene should be carefully considered. Obviously, the problem with releasing the scene prematurely is that soon thereafter information may come forth which would have required different photos or the search for and collection of other items. The scene should never be released before the initial canvass is completed, all known witnesses interviewed, and the suspect in custody questioned fully.

In some cases, it may be necessary to secure the scene and post a guard pending interview of witnesses who cannot be immediately located or, in other instances, to hold the scene until completion of the autopsy. This may not always be practical, but it is a recommended procedure in case additional examinations or searches are necessary as a result of information obtained during autopsy. Of course, if the autopsy is conducted while the investigators are still at the scene, any such additional information can be immediately communicated to the chief investigator at the scene. Autopsy findings should always be made available to the homicide investigators as soon as possible to help them in their investigation and in questioning witnesses.

Before releasing the scene, the chief investigator should remember that any good defense attorney will visit the crime scene at his first opportunity. From this inspection, he will be able to gauge the nature, character, and extent of the investigation at the scene. He will be alert to things which may have been overlooked: dusted and not dusted areas; the shape, pattern, and location of blood and other stains; flash bulbs, film packs, and other debris which the investigators may have carelessly left at the scene. During police activities at the scene, the chief investigator should see that all waste materials from the lab work and photography are deposited in one container in a location which will not interfere with other activities and that this container is removed before the scene is released.

The detective supervisor or chief investigator would do well to check over the whole crime scene from the point of view of the defense attorney before releasing it. Before abandoning the scene and securing it against re-entry, make sure that you have all your equipment and notes, including any portable radios and/or cell phones (which seem to have a way of disappearing at crime scenes). It would be

embarrassing if you had to break into the recently secured crime scene to retrieve something that was left behind.

**Remember: Do it right the first time. You only get one chance.**

## Crime Scene Process Protective Equipment and Clothing

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The investigator involved in the processing of the crime scene is at risk from airborne pathogens and other biohazards as well as the discomfort of breathing the noxious gases of a decomposing body. I have listed some examples of protective equipment:

- Disposable jumpsuits composed of Tyvek® to prevent snags, tears or punctures
- Disposable shoe covers
- Disposable protective high-top boots
- Antiputrefaction masks
- Disposable antiodor masks
- Heavy-duty rubber gloves
- Goggles
- Work gloves
- Latex gloves
- White cotton gloves
- Prewet hand towels (e.g., Clorox wipes)
- Paper towels
- Hand sanitizer
- Portable eye-wash station



**Figure 8.36 PROTECTIVE CLOTHING OUTFIT.** This photo depicts a protective clothing kit, which contains disposable jumpsuits, shoes covers, antiputrefaction masks, and replacement mask filters, as well as latex gloves with carrying case. (Courtesy of Sirchie Fingerprint Laboratories, Inc., Youngsville, North Carolina.)



**Figure 8.37 ANTIPUTREFACTION MASKS.** I highly recommend that the crime scene investigator as well as the detective assigned to the case wear an antiputrefaction mask as protection from the stench of a decomposing body. (Courtesy of Sirchie Fingerprint Laboratories, Inc., Youngsville, North Carolina.)



**Figure 8.38 SIRCHIE PUTREFACTION KIT.** Excellent low-maintenance, reusable masks that weigh less than half a pound, with a chemical filtration system. (Courtesy of Sirchie Fingerprint Laboratories, Inc., Youngsville, North Carolina.)



**Figure 8.39 SIRCHIE PROTECTIVE CLOTHING OUTFIT.** Disposable jumpsuit. (Courtesy of Sirchie Fingerprint Laboratories, Inc., Youngsville, North Carolina)





**Figure 8.40 HEAVY-DUTY GLOVES.** These gloves are ideal for handling strong chemicals and bloody or contaminated evidence. (Courtesy of Sirchie Fingerprint Laboratories, Inc., Youngsville, North Carolina.)



**Figure 8.41 NITRILE GLOVES.** These are thin, comfortable puncture- and abrasion-resistant gloves that allow for a better grasp of small items of evidence. (Courtesy of Sirchie Fingerprint Laboratories, Inc., Youngsville, North Carolina.)

Biochemical gas mask with filters  
 Dust respirator/mask  
 Chemical-splash face protector

## Antiputrefaction Masks

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The overwhelming odor of a body undergoing putrefaction is a problem that many crime scene investigators and detectives encounter in their duties while investigating sudden and violent death. Sirchie Fingerprint Laboratories carries a line of lightweight nose and mouth masks, which protect the wearer against the undesirable odors of cadaverine, butyl mercaptide, and other mercaptides as well as hydrogen sulfide and other sulfides.

I highly recommend the use of antiputrefaction masks to prevent exposure to these noxious gases and to allow the detectives to go about the job of processing the crime scene with a minimal amount of discomfort. Antiputrefaction masks are available today through various manufacturers. I recommend Sirchie Fingerprint Laboratories, Inc., 100 Hunter Place, Youngsville, North Carolina, 27596. Telephone number: (800) 356-7311.

## Crime Scene Protocol for Protection from Airborne Pathogens and Other Biohazards\*

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### Communicable Diseases: Required Precautions

Investigators should adhere to the following procedures at any crime scene where blood or body fluids are encountered. Because it is difficult to predetermine who

\* The information for this section was provided by retired Sergeant Rueben Puente and Crime Scene Investigator Michael Phillips, Arlington, Texas, Police Department's Crime Scene Unit.

may have a communicable disease, all crime scene investigations should be treated with the following precautions:

1. Wear approved disposable gloves while in the crime scene and remain aware that blood and other body fluids may carry diseases.
2. Consider wearing a disposable mask while in crime scenes where airborne communicable diseases such as meningitis or tuberculosis might exist.
3. Wear eye protection and disposable infectious disease gown to protect clothing when exposed to large amounts of blood or other body fluids.
4. After the investigation is complete, dispose of gloves, masks, and gowns contaminated by *blood* or *body fluids* in a biohazard bag and wash hands thoroughly with an antiseptic hand rinse, e.g., Cida rinse.
5. Before returning to the station, wash hands again with water and a bacterial liquid hand wash, e.g., Bacti-Stat.
6. Restrict the number of investigators on the scene who may come in contact with potential infection exposure.
7. Advise any investigators on the scene who may come in contact with the scene of the potential infection exposure.
8. Decontaminate all equipment used prior to your return to the station.
9. Change clothing contaminated with blood or other body fluids immediately and decontaminate.
10. Dispose of contaminated supplies as recommended in this protocol.
11. Skin provides a very effective barrier for the prevention of infectious diseases. Wash all contact areas as soon as possible after exposure to help prevent contamination. Wounds such as cuts, sores, and breaks in the skin, regardless of the size, provide an entrance for infection into the body and should be properly bandaged.
12. Report all significant exposures to blood or *other* body fluids within 24 hours of exposure.

### ***Decontamination of Equipment***

Investigators should decontaminate any equipment exposed to blood or other body fluids, which could have been transferred to equipment at the crime scene.

1. Clean equipment such as boots, rulers, cameras, and carrying cases with a mixture of household bleach and water in a 1:10 dilution.
2. Wipe clean radios and other delicate equipment with a disinfectant solution, e.g., TOR.

### ***Decontamination of Clothing***

Investigators should immediately decontaminate clothing that has been contaminated with blood, vomitus, or other body fluids from the crime scene as follows:



**Figure 8.42 HOMICIDE VICTIM WITH KAPOSI'S SARCOMA.** This photo shows a victim of a homicide who has Kaposi's sarcoma, a disease of the skin usually associated with persons afflicted with AIDS. (From the author's files.)

1. Change contaminated clothing as soon as possible.
2. Use plastic bags to transport contaminated articles before cleaning.
3. Use disposable gloves when cleaning possibly contaminated clothing or equipment.
4. Prewash contaminated clothing separately in a disinfectant detergent solution and hot water and then launder in a normal manner.

### ***Precautions***

Investigators should adhere to the following simple precautions, which will provide protection from most communicable diseases:

1. Avoid unnecessary contact with the blood or other body fluids.
2. Always wear gloves when contacting persons who are bleeding or when handling other body fluids.
3. Wash hands thoroughly after each contact.
4. Clean equipment soiled with blood or other body fluids after each response call.





**Figure 8.43 CRIME SCENE DETECTIVE EXAMINING BODY.** Note that the crime scene detective conducting a preliminary examination of the body is wearing heavy-duty gloves to prevent any possible contact with infectious disease. (From the author’s files.)

The information in the following table is provided as a quick reference guide to the common communicable diseases that investigators may encounter. A communicable disease should be suspected when fever, skin rash and/or weeping lesions, jaundice, diarrhea, or cough is present.

Communicable Diseases

Disease	Transmission
AIDS (acquired immune deficiency syndrome)	Blood or body fluids, needle sticks, sexual contact
Hepatitis B	Blood or body fluids
Meningitis	Droplet spread
Tuberculosis	Droplet spread

Exposure Guide

Exposure	Action Necessary
Contact limited to merely being in the presence of a person suspected of having a communicable disease.	No action required except when airborne disease is involved. If airborne disease exposure occurs, seek medical review.
Contamination of clothing or equipment by person’s body fluid.	Decontamination of clothing and equipment.
Exposure of skin/mucous membranes to person’s body fluid, includes needle punctures and human bites.	Emergency medical treatment and necessary precaution

**Prevention**

Investigators who are required to respond to crime scene calls should obtain preventative immunization for any disease for which immunization is possible and to

which investigators may be exposed in performing their official duties. Immunizations should be offered periodically as needed, based on recommendations from infection control specialists.

## **Exposure of First Responders**

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Exposure of a first responder to the AIDS virus requires very specific conditions. The virus must be directly introduced into the person's body. In the first responder environment, this means an infected person's blood or body fluids must be introduced through the skin (percutaneous event) or by contact through the eye, mouth, or nose (mucocutaneous event). It is important to note that acquisition of the Hepatitis B virus (HBV) and other blood-borne infectious agents occurs via these same percutaneous and mucocutaneous events.

A percutaneous event occurs when blood or body fluid is introduced through the skin. This can occur by a needle stick; by sustaining a cut from metal, glass, or other sharp objects contaminated with blood; or by having blood contaminate an existing open wound, sore, broken cuticle, or chapped skin.

A mucocutaneous event occurs when blood or body fluids come in contact with a mucous membrane. This means blood or body fluid is splashed into the eyes, mouth, or nose.

## **Exposure to Blood-Borne Diseases**

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Risk of infection from blood-borne diseases varies according to the type of exposure. The following list was published by the Centers for Disease Control and Prevention to help evaluate risk levels (risk level increases from top to bottom):

- Blood or body fluid contact to intact skin
- Blood or body fluid contact to the mucous membrane surface of the eyes, nose, or mouth
- Cuts with sharp objects covered with blood or body fluid
- Contaminated needle stick injury

## **Infection Control Techniques**

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### **Universal Precautions**

Universal precautions are based on the concept that blood and certain body fluids of *all* contacts should be considered potentially infectious for HIV, HBV, and other blood-borne pathogens. Specific body fluids (in addition to blood) to which universal precautions apply include any body fluids containing visible blood, semen, vaginal secretions, tissues, cerebrospinal fluid (CSF), synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, and amniotic fluid.

## Body Substance Isolation

Body substance isolation goes a step beyond universal precautions and considers *all body substances* potentially infectious. Thus, body fluids or substances such as feces, nasal secretions, sputum, sweat, tears, urine, and vomitus are considered potentially infectious. Such an approach is obviously wiser in the crime scene where medical histories are not usually known. In effect, investigators must treat each crime scene as a potential infectious disease exposure.

To achieve body substance isolation, investigators should use the barrier technique — the use of personal protective equipment (gloves, masks, protective eye wear, gowns, etc.) to prevent contact with blood or other potentially infectious material.

## Exposure Treatment

In the event of an exposure and/or injury in the field:

1. For percutaneous (through the skin) exposure, wash with soap and water if available. If not, wipe off blood and apply alcohol to the wound.
2. For mucocutaneous (in the eyes, nose, or mouth) exposure, flush eyes thoroughly or rinse mouth with water.
3. If the wound is serious, arrange for treatment. All injuries should be documented.

## Conclusion

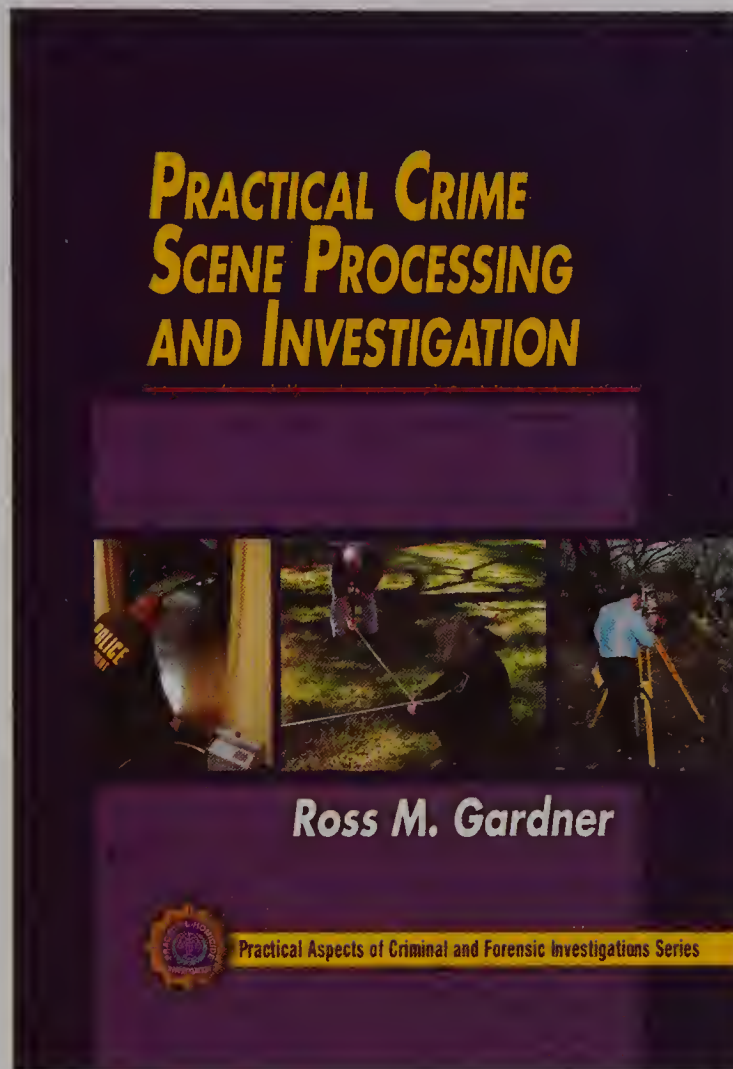
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The homicide detective and detective supervisor have the responsibility of locating physical and trace evidence and assuring that this evidence is gathered in proper fashion for delivery to the police laboratory. It is up to them to interpret and evaluate the lab results with all the other information developed during the investigation. Hopefully, the total results obtained from the homicide investigation will do what the deceased cannot do — point the finger at the murderer.

Practically speaking, all murders are distinctively different and unique. However, there is one solid base on which to build the case — the determinations you have made from your study of the crime scene and how you apply that knowledge. Keeping in mind the theory of transfer and exchange, you can be sure the minute a killer “does his thing,” whether it is a carefully premeditated crime or a spur-of-the-moment impulse, he must go places, handle objects, and move things. The murderer will do this without thinking, on purpose, or by accident. This is the rationale behind a good crime scene search.

**Remember: Do it right the first time. You only get one chance.**





**Figure 8.44** *PRACTICAL CRIME SCENE PROCESSING AND INVESTIGATION*. This is one of the many excellent books in my series and highly recommended for crime scene processing.

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# Estimating Time of Death

# 9



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If the circumstances surrounding death indicate the possibility of homicide, then the body and immediate surrounding area become crucial in estimating *time of death*. Time is one of the most important factors of consideration in a murder case. It may very well convict a murderer, break an alibi, or eliminate a suspect. Estimating the time of death, especially in cases where there are no witnesses, is critical to the investigation. A good homicide detective is going to want to know the time of death in order to establish a foundation for further inquiry.

Time may focus attention on various suspects. For example, the deceased may have had an appointment with someone at a specific time. In cases of “exclusive opportunity,” where only certain persons are present during a specific time (e.g., husband and wife during the evening), if one of those persons is found in nightclothes the following afternoon dead from a beating, and the estimation of time of death places the incident in the range of 3 to 6 A.M., the spouse is sure to be the suspect.

A definite time of death can corroborate or disprove a suspect’s alibi. Those circumstances are extremely rare — e.g., a bullet hitting and stopping a watch or an eyewitness who was present when death occurred and noted the time.

In civil matters, time may be the factor that determines whether an insurance policy was in effect or was void. Most insurance companies include “suicide clauses” in their policies whereby they are released from contract to pay if the insured commits suicide within a specific time, usually within 1 year after becoming insured. Furthermore, in probating a will, it can be crucial to learn whether the husband or wife died first because the estate usually goes to the one who expired last.

Throughout the years, forensic scientists and pathologists have searched for a definitive method of determining time of death; yet, at present, no single reliable method has been found. Moreover, because it is impossible to fix the exact time of death, we refer to an estimated time. Based on an appreciation of a large number of variables, an experienced pathologist can arrive at a reasonable estimation of time of death, usually placing it within a range of hours. The process is subject to error, especially if some crucial piece of information is omitted. It should be noted, however, that this estimation certainly represents more than just an educated guess. It is a scientifically derived opinion based on a totality of specific factors distinctive





**Figure 9.1 PUTREFACTION AND INSECT ACTIVITY.** These photographs depict the body of a man in a bathtub, fully clothed and lying in the water. The cause of death was electrocution. A hair dryer was found in the tub. This event occurred indoors during the summer time. The body is in an advanced state of decomposition due to the extensive maggot activity. (From the author's files.)

to each particular case compared with ordinary time factors attributed to the pathological changes that occur in a human body.

Although the homicide investigator is not expected to have the knowledge of a forensic pathologist, he would certainly do well to have some basic understanding of the postmortem changes that occur in the human body and the effect of time and atmosphere on the cadaver, on blood pools, and on stains so that he can make intelligent observations at the scene.

I have found that it is good procedure to take notes of the appearance of the deceased and any blood at the scene so that you can relate to the medical examiner exactly what you observed. The investigator should also interview the first officers for their observations of the scene along with the exact time of their arrival. These observations will be helpful in the analysis of approximate time of death when coupled with the results of the medical examination and autopsy. Generally speaking, the sooner after death a body is found, the more accurate and precise the estimation of time of death will be. A “fresh” body gives a better time frame than one in advanced putrefaction. However, it is utterly impossible to fix the exact hour and minute that life ceased unless you were there at the moment of death. That is the reason why I stress the importance of assessing and documenting the early *postmortem interval* changes at the scene.

## The Process of Dying

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To understand what takes place in the body after death, one must first have some basic knowledge of the processes that occur in the living body. During life, the systems of the human body have the capacity to maintain themselves by providing oxygen to all the body tissues. In addition, the system provides for the removal of waste products that result from body functions. This is accomplished by the circulation of blood through the arteries and veins. The heart keeps the supply of oxygen continually flowing by its pumping action. As the blood deposits oxygen to the tissues, it picks up the waste products and returns to the lungs, where a new supply of oxygen is obtained. During this process, the body is able to defend itself from bacteria and germs within the body. Upon death, however, these bacteria grow at will and begin to release enzymes, which dissolve the internal body components. The changes that occur in the dead body are recognized as *postmortem decomposition*.

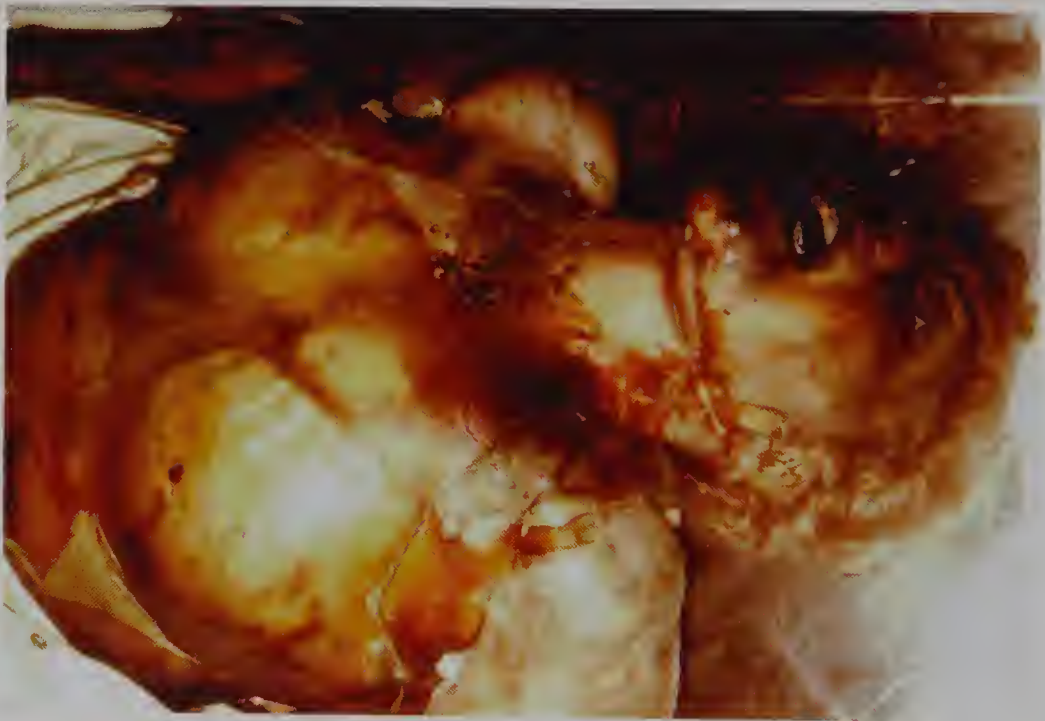
The body begins to decompose from the time of death in a manner dependent on any number of variables, such as temperature, time, location of the body (outdoors, indoors, in soil, in water, in the desert, etc.), humidity, air currents, physical condition, and clothing. Externally, insects and animal life may attack the remains so as to disfigure the body further. These changes in the human body result from the same process one observes in an unrefrigerated piece of meat when it rots.

Dying is a process, and estimating the time of death depends on those factors that occur during that process. Death can be said to occur in stages, and a “smart”





**Figure 9.2 GROSS PUTREFACTION.** The body of a man who overdosed on methadone has gone into gross decomposition. (Courtesy of Detective John Carlone, Newport, Rhode Island, Police Department.)



**Figure 9.3 DECOMPOSED BODY.** Note the bloating and peeling of skin. This body was indoors with the windows closed and not subject to insect infestation. (Courtesy of Dominick J. DiMaio, M.D., former chief medical examiner, City of New York.)





**Figure 9.4 PUTREFACTION.** Note the bloating and decompositional blisters as well as the greenish discoloration around the area of the abdomen. This is a classic example of autolysis, the breakdown of cells and organs from the aseptic chemical process caused by intercellular enzymes. (From the author's files.)

medical examiner will want to see the scene or have proper documentation of the scene before he or she attempts to make any determination about the time of death.

## Body Changes after Death

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*Color.* Upon death, the heart ceases to function. As a result, the blood and its life-giving properties cease to circulate through the body. As the blood settles into the dependent capillaries of the lower portions of the body, it gives the upper surfaces of the skin a waxy or translucent look. The lips and nails lose their normal pinkish or lifelike color. The blood, which has ceased to circulate, changes from a bright red to a deep purplish color as it loses oxygen. This is apparent even in persons with darker skin. This is the beginning of *lividity*, the process whereby the blood settles into dependent capillaries and eventually “fixes” in certain areas of the body.

*Eyes.* The eyes, which are the most sensitive area of the human body, do not react to light, touch, or pressure in death. The cornea or clear part of the eye becomes slightly milky or cloudy within a half-hour to several hours after death. The changes are affected by whether the eyelids are open or closed; the temperature, air currents, and humidity will also affect the condition of the eyes. In fact, to the experienced observer, the eyes alone will indicate that death has occurred.

*Loss of body heat.* During life, the body maintains an approximate temperature of 98.6°F. After death, the body gives off heat until it becomes the same temperature as the surrounding medium. The rate of cooling can be an important measurement in the estimation of time of death and is dependent upon a number of factors: the temperature at the time of death, the temperature of the environment, body covering and clothing, and the portion of the body in contact with the surface area. Body temperature can be taken by rectum with a thermometer to obtain an accurate reading. However, core body temperature is generally considered the most reliable indicator of time of death up to approximately 18 hours. Core body temperature is taken by inserting a thermometer into the liver, which is then compared with the ambient temperature in the crime scene.

The environmental temperature should be taken at the same time if the body temperature is to have any meaning. Never take the temperature by inserting a thermometer into a wound; when the wound was received, the body was probably standing or sitting, not lying face down or in a supine position. If a thermometer or probe is carelessly inserted into the wound, it will probably cause additional damage to the organs or tissues beneath the wound entrance or destroy or distort the wound track. In addition, in gunshot cases, it may destroy or obscure the ballistics value of a spent round lodged within the wound track. From a practical viewpoint, there are “just too damn many” variables that affect the rate of cooling, such as size and amount of fat on the body, clothing, the position of the body (bent upon itself or lying flat on surface), age of the victim, drafts, environmental humidity. It is almost impossible to calculate them all. I recommend to investigators who want to get a rough idea of just how long the body has been dead that they place the palm of their hand on a protected surface of the body, such as under the arms. *If the body is warm, death occurred a few hours ago; if the body is cold and clammy, death occurred anywhere between 18 and 24 hours ago.*

*Rigor mortis.* The process of rigor mortis is the result of a stiffening or contraction of the body muscles related to chemical changes occurring within the muscles after death. As a general rule, rigor mortis begins 2 to 4 hours after death. Contrary to popular belief, rigor mortis starts at the same time throughout the entire body; however, it is first observed in the jaws and neck. It then seems to progress in a head-to-foot direction and is complete in 8 to 12 hours after death. At this stage, the jaws, neck, torso, and upper and lower extremities are literally “stiff as a board” and, in this marked state of stiffening, resist any change in position. Rigor “fixes” the body in the position assumed at death. I had one particular case where the body of a young boy who had been brutally murdered and sodomized became literally “frozen” in the position of assault.

A body seated in a chair at death will remain in that position, with arms and legs fixed in the position of a seated individual, even after removal. This complete rigor begins to disappear about 18 to 36 hours after death and, in the average body, is completely gone within 48 to 60 hours.





**Figure 9.5 RIGOR MORTIS.** This young boy was found literally “frozen” in the position of assault in a South Bronx abandoned building. He had been brutally sodomized and stabbed to death. Rigor mortis has resulted in “fixing” the body in the position in which it was lying at the time of death. (From the author’s files.)



**Figure 9.6 RIGOR MORTIS.** Victim of homicide found in rigor in this position. The body had been dumped down a ravine, where it came to rest after tumbling down the incline. (Courtesy of Lt. Mark Prach, Morris County Prosecutor’s Office, Morris County, New Jersey.)



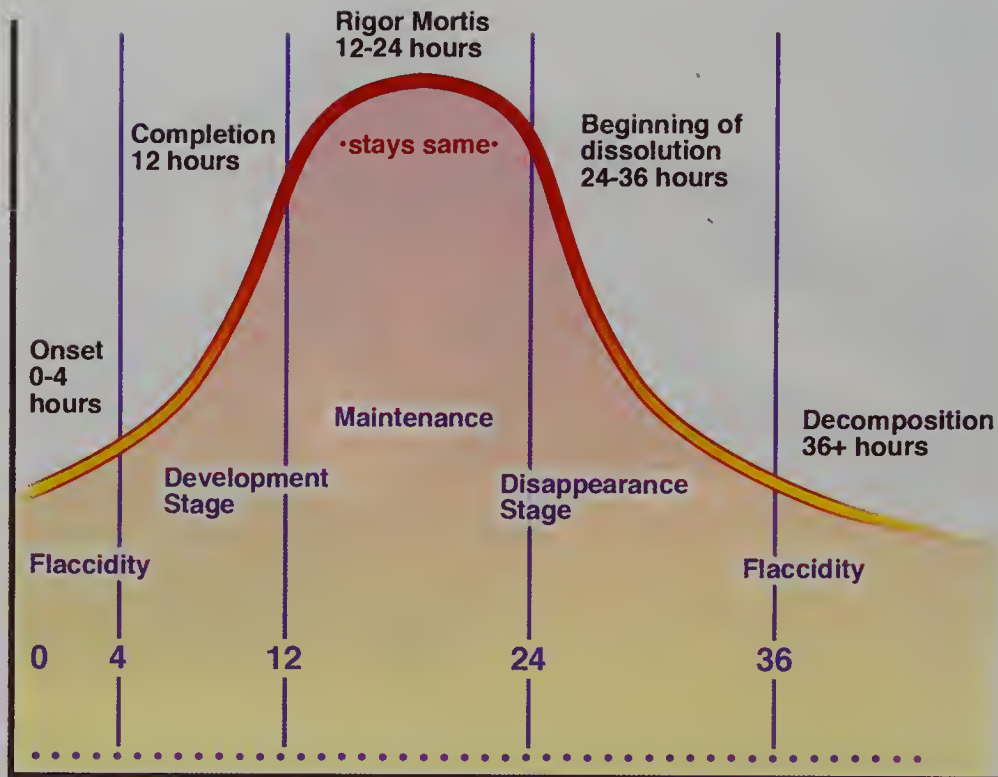


Figure 9.7 GENERAL TIME ELEMENTS INVOLVED IN RIGOR MORTIS. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doereport.com.)

A word of caution: this factor is the poorest of the gauges used in estimating time of death because of the many variables involved. The various theories on rigor mortis are loaded with contradiction and misinterpretation. For example, obese people do not always develop rigor and skinny people develop it fast; heat speeds up the process of rigor and cold retains it; a fight or body shock usually accelerates it; no two bodies even under similar circumstances develop it at the same time.

Practically speaking, if the underarms are warm to touch and the body is without rigor, death probably occurred less than 3 hours earlier.

*Cadaveric spasm.* Under certain conditions, the stiffening of the hands or arms may take place immediately at the time of death. This is known as *cadaveric spasm* and is often confused with rigor mortis. It is not uncommon for persons who had a firearm or a knife in their hand at the time of death to clutch it tightly in their hands after death. Also, suicides have been known to have the weapon clutched tightly in their hands after death.

It is important from the investigator's point of view to note such clutching of weapons because you can be sure that the person held this weapon at the time of his or her death. It is impossible to "duplicate" this spasm. For example, a person attempting to place the weapon in the deceased's hand after death cannot get the same type of tight grasp. Cadaveric spasm remains until putrefaction. I have a number of cases of cadaveric spasm in my files from various jurisdictions across the United States. The reason I mention this is that some forensic pathologists do not recognize this phenomenon.



**Figure 9.8** CADAVERIC SPASM. The deceased's hand tightly clutches the weapon in cadaveric spasm, which is instantaneous rigor mortis. (From the author's files.)



**Figure 9.9** CADAVERIC SPASM. The deceased, who was terminally ill with cancer, used his firearm to end his life. Note the man's hand is clutched tightly on the handle of the gun and his thumb is pressed down onto the trigger. (Courtesy of Corporal Larry Hallmark, Grapevine, Texas, Police Department.)

*Postmortem lividity.* Also known as *livor mortis*, this is caused by the pooling and settling of blood within the blood vessels from the effect of gravity. It appears as a purple discoloration of the skin. During life, the pumping action of the heart maintains a constant flow of blood through the numerous vessels of the body. Upon death, this pumping action ceases, and the blood pools within the dependent portions of the body. The location of livor mortis is determined by the position of the body after death. If the body is lying face down, livor will develop on the front of the body rather than on the back. The observation of lividity is important for two reasons:

1. It gives you a general idea how long the body has been dead.
2. It tells you definitely whether or not the body was moved after death.

For example, if lividity is observed on the back of a body found lying face down, you can be sure that the body had originally been on its back. Lividity begins about 30 minutes after death, with full development after 3 to 4 hours, and becomes “fixed” in 8 to 10 hours. *Fixed* means that the livor has settled in one position for more than 8 hours and can no longer be significantly shifted by changing the position of the body. However, parts of the body that remain in direct contact with an object, such as the floor, a piece of pipe or wood, or even the weapon, will remain white because the pressure will not allow the blood to settle into the dependent capillaries.

When lividity first develops, if the investigator presses his finger firmly against the discolored skin, the pressure will cause “blanching.” When pressure is released, the discoloration returns. After 4 or 5 hours, the discoloration becomes clotted and pressure will not cause blanching.



**Figure 9.10 POSTMORTEM LIVIDITY.** At the crime scene. Notice the deep purplish discoloration as well as the white pressure areas of “blanching” on the victim’s back, where the body was in contact with a hard surface. This is a classic example of lividity. (From the author’s files.)





**Figure 9.11 POSTMORTEM LIVIDITY.** Note the pinkish discoloration on the victim's back. This photo was taken at the morgue. (From the author's files.)



**Figure 9.12 LIVIDITY IN BLACK MALE.** Sometimes the color of the skin will mask the presence of lividity, especially in dark-skinned victims. Note the "blanch marks" on the face, shoulder, and chest where the pressure prevented the blood from settling in the dependent areas. (From the author's files.)

The investigator should know that the discoloration will not be the same for all types of death. For instance, a person whose death was caused by inhalation of carbon monoxide or cyanide or whose death occurred under extremely cold conditions will have a livor mortis that is cherry-red in color. If a person lost a great deal of blood, little or no discoloration will be seen; in cases where death was caused due to heart failure or asphyxia, a deep purple color will be present. These observations should be recorded and the coloration of the lividity evaluated with the later toxicological examination performed at autopsy.

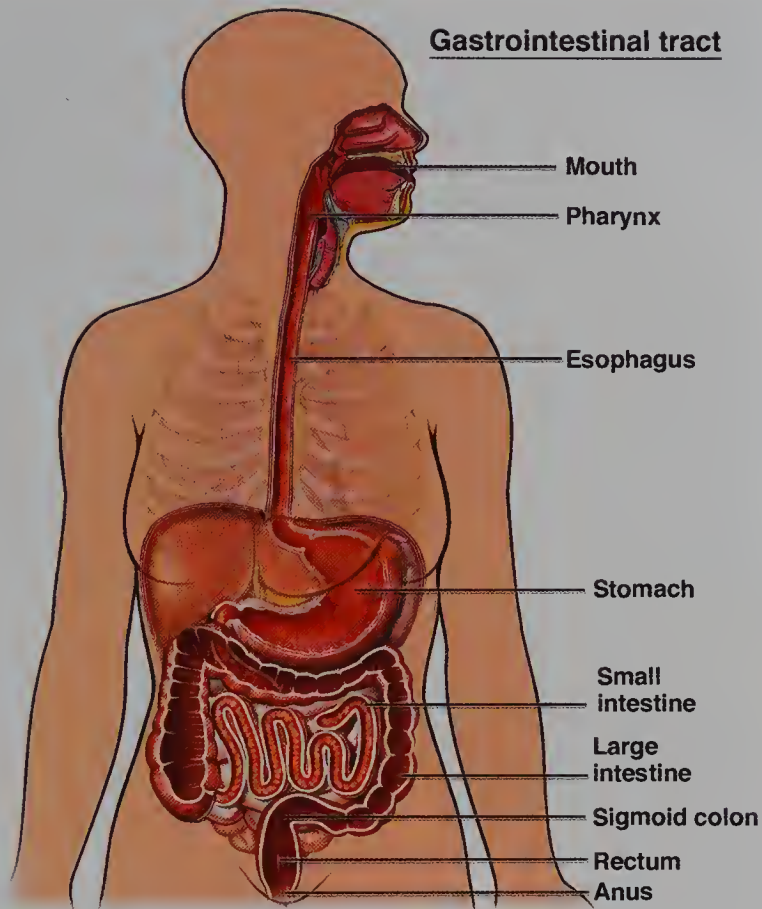
Suppose you have a body that is cool to the touch and rigor has set in in the neck and jaws; when you press against the lividity, it does not blanch. Under ordinary conditions, you can assume that the body has been dead about 6 to 8 hours. Notice that I said *ordinary* conditions, and watch the word *assume*.

**Remember: You are dealing with tricky circumstances, and even the experienced pathologist will have to weigh all the facts before he attempts an estimate.**

*Gastrointestinal tract contents.* Although commonly referred to as stomach contents, this also includes digested and undigested matter within the entire body. The presence of food particles in the stomach and upper small intestine provides still another source of information to the pathologist regarding time of death. From an investigator's point of view, the presence of food on the table may offer some assistance if the victim maintained a routine eating time. When the deceased ate his last meal and what he ate then are important information for the pathologist who will do the autopsy.

Various ingested food materials remain within the stomach for variable periods of time, depending on the nature and size of the meal. It has been determined through extensive research that, under ordinary circumstances, the stomach empties its contents 4 to 6 hours after a meal. If, at autopsy, the stomach is found to be filled with food and digestion of the contents is not extensive, it is reasonable to assume that death followed shortly after the meal. If the stomach is entirely empty, death probably took place at least 4 to 6 hours after the last meal. If the small intestine is also empty, the probability is that death took place at least 12 or more hours after the last meal. In certain cases, the medical examiner will be able to determine the type of food still remaining in the stomach, if matched with the last known meal. This can help establish a time period.

Of course, this determination will be made by the medical examiner conducting the autopsy. I have been present at many autopsies where the stomach contents were examined and it was quite discernible what foodstuffs were ingested by the deceased prior to his death. In certain cases, it is a good procedure to obtain a control sample of the food products found at the crime scene that were apparently eaten by the deceased, for comparison with the stomach contents, especially in cases which involve the possibility of murder by poison or of suicide by ingesting toxins or deadly drugs.



**Figure 9.13 GASTROINTESTINAL TRACT.** (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

*Putrefaction.* The most certain sign of death is when the body is in decomposition. Decomposition, or putrefaction, is a combination of two processes: autolysis and bacterial action. Autolysis is the breakdown of cells and organs through an aseptic chemical process caused by intracellular enzymes. Because it is a chemical process, it is accelerated by heat, slowed by cold, and stopped by freezing. Bacterial action results in the conversion of soft tissues in the body to liquids and gases. The chemicals produced as a result of putrefaction are cadaverine and butyl mercaptides as well as hydrogen sulfide and other sulfides, which generate a horrible smell.

Putrefaction begins immediately upon death and usually becomes noticeable within 24 hours. As soon as death occurs, the bacteria or microorganisms within the intestinal tract escape from the bowel into the other tissues of the body. As they grow, they begin to produce gases and other properties that distort and discolor the tissues of the body.

The discoloration is a dark greenish combination of colors and is generally pronounced within 36 hours. As a result, the body begins to swell from the putrefactive gases, emitting an extremely repugnant odor. The rate of decomposition depends on the temperature, ground conditions, amount of clothing, size of the body, etc. For example, a body in a warm climate will not only encourage insect attack from the outside, but will also increase the interior bacteria development





**Figure 9.14 PUTREFACTION INDOORS.** Note the bloated face of the deceased. This victim's body was found indoors during the summertime. He had been dead for only 60 hours when discovered. (From the author's files.)

and subsequent tissue attack from within. As the tissues inside are destroyed and enzymes released, the gases formed emit a foul and sickening smell.

This particular method of determining time of death is very inaccurate because of the variables involved. The putrefactive changes disfigure the facial features, making visual identification by relatives impossible. Postmortem changes may also alter the appearance of and camouflage antemortem injuries. When bloating and darkening occur, it may be difficult to determine the race and color of the deceased.

Because putrefaction, just like rigor mortis, is subject to a great variation, the estimate must be based on other sources derived from the autopsy and the scene. It has been established that even in deaths occurring as a result of the same cause, with identical environmental conditions, one body showed an advanced state of putrefaction and the other showed little change. The general signs of putrefaction are

1. Greenish discoloration of abdomen and genitals.
2. Veins in the skin are blue or purplish due to pigment of decomposing blood. This is referred to as *marbling*. Marbling is produced by the hemolysis of



**Figure 9.15 POSTMORTEM BIRTH.** Note the dead fetus between the legs of the deceased. The woman, who was 7 months pregnant, died from a heart attack. As the body began to decompose, the putrefactive gases and bloating caused the fetus to descend and the baby was expelled from the mother's womb. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)

blood vessels with reaction of hemoglobin and hydrogen sulfides and development of red, purple, or greenish black discoloration along the vessels.

3. After the body fluid dries, a yellow parchment-like membrane forms.
4. After several days:
  - a. The abdomen swells and the body bloats (from gas).
  - b. Purge fluid emits from mouth and nose (the source being the lungs and stomach).
  - c. Rectum may empty.
  - d. Skin blisters resembling peeling sunburn and filled with watery fluid and putrefactive gases appear on the skin, which has darkened.

*Adipocere.* This is a greasy, soap-like substance which develops on the surface of a body that has been lying in a moist area, such as a swamp, or in damp soil. It is due to chemical changes that occur in the body fats — hydrogenation of body fats into fatty acids. It develops mostly in warm weather and usually forms in 6 to





**Figure 9.16 MARBLING.** Produced by hemolysis of blood vessels with reaction of hemoglobin and hydrogen sulfide and development of red, purple, or greenish black discoloration along the vessels. (From the author's files.)

8 weeks. The material is rancid smelling and floats in water. Adipocere usually covers the face and buttocks, but any part of the body can be affected. Where it is present, the internal organs are usually in good shape because they have been dehydrated and mummified in the process.

*Mummification.* The conditions that produce mummification are the exact opposite of those causing adipocere. If death occurs in a hot, dry place with an adequate and constant circulation of dry air, and body fluids are rapidly absorbed, the body tissues become hard and dry instead of decomposing. The mummification process delays putrefaction, and as a result the form of the body may be preserved for years.

## External Agents of Change

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### Insects

Various insects may eat the flesh of, or lay eggs on, the body of the deceased. Observation of insect larvae can aid in the estimation of time of death. This is an example of the assistance that an *entomologist* — insect expert — can lend to the investigator. Many insects develop from eggs and then progress through growth stages before emerging as adult insects. The time element involved in this developmental stage is rather constant for any given species. For instance, the adult female





**Figure 9.17 ADIPOCERE.** A greasy soap-like substance develops on the surface of a body in moist areas. (Courtesy of Dr. Leslie I Lukash, chief medical examiner, Nassau County, New York)



**Figure 9.18 MUMMIFICATION.** This photo shows the effects of mummification upon a body of a man who hanged himself. The mummification was due to the hot and dry climate and circulation of dry air where this death took place. (Courtesy of Detective Jerry Fariss, Las Cruces, New Mexico, Police Department, Criminal Investigations Division.)



**Figure 9.19 INSECT INFESTATION.** This body had been subject to advanced putrefaction and insect infestation from house flies and maggots. It should be noted that an entomologist could make determinations of estimated time of death based upon a forensic evaluation of the structures and habits of certain necropagous insects collected from the carrion, which provide cycle time frames for the species. (From author's files.)

housefly deposits eggs upon the remains, usually in the mucous membranes of the eyes, mouth, and nostrils and also in the wounds and bloody parts of the body. These eggs are white, measure about 1/16 of an inch long, and are laid in clumps. The eggs develop into the larvae (maggots), which then feed off the body. The usual time span for hatching of the maggot is 24 hours. On a body lying indoors, the larvae usually come from the common housefly (*Musca domestica*)

Development time varies among the various species of flies. Temperature and humidity play very important roles in this developmental stage, as do other factors. The larvae may even go into a period of suspended animation if conditions do not warrant further development.

The bluebottle, or blowfly (*Calliphora erythrocephala*), greenbottles (*Lucilia caesar*), and sheep maggot flies (*Lucilia sericata*) are the most common types found on remains discovered outdoors. The investigator at the scene and the medical examiner at the autopsy should collect some specimens for examination by an entomologist. The entomologist can identify the specific insect and provide an estimated time frame based on the stage of growth or development of the larvae. In addition, the experienced entomologist can possibly identify the stage of the life cycle and, ultimately, the season of the year in which death occurred.

In order to assist the entomologist in making an accurate determination, the following procedure for collection and preservation of specimens is recommended:





**Figure 9.20 INSECT ACTIVITY.** The most common insects to invade the human body after death are flies. The common housefly and the outdoor bluebottle are seen more frequently than some of the others. This photo shows flies on a body. The flies lay their eggs and the developing maggots feed off the remains. The entomologist can assist in this phase. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)

1. Collect some maggots from the remains and place them in a KAAD solution. (This is a mixture of kerosene and alcohol along with certain other ingredients for preservation.) If this solution is not available, place the sample in hot water first, then in a bottle containing alcohol, and then seal it. The hot water bath will prevent the alcohol from shriveling the sample and maintain the specimen in a condition for examination.
2. Collect some live maggots as a control sample and place them in a separate container.
3. Collect any pupae (hard, shell-like casings or cocoons) from around the site, under the body, and the corpse. Keep the samples separated. The presence of pupae usually provides a minimum time span of approximately 2 weeks. However, several cycles may be involved, and the determination should be left up to the entomologist.

Note that the type of maggots found on the body may be significant. For example, the presence of larvae from a housefly found on a body outdoors will indicate that the body had previously lain indoors.

In addition to flies and maggots, a body is also subject to insect attack from different types of beetles that feed off the body (called carrion beetles) as well as ants and even worms that bore their way into the body. These are among a vast





**Figure 9.21 PUPAE.** Hard, shell-like casings or cocoons. (Courtesy of Detective Mark Czwor-niak, Chicago Police Department.)

host of scavengers responsible for recycling decaying materials. The recommended procedure for collecting all insect samples is to place them in 75% ethyl alcohol for preservation.

The forensic entomologist has knowledge of many of the habits of insects and other invertebrates most likely encountered on the corpse and/or in the immediate surroundings of the scene. Seemingly insignificant data to the untrained eye, such as insects not found on the body, habitat information, and climatological conditions, can be observed by the entomologist. This knowledge enables him to form certain determinations and opinions of how long the body has been at the scene.

In keeping with the team concept of homicide investigation, I recommend that an entomologist, if available, be brought to the scene to assist the investigators. The entomologist's expertise will ensure that proper entomological techniques are employed and the collection of specimens is conducted as it should be.

## Plants

Bodies found lying on the ground are usually in areas that are abundant with plant life. A competent *botanist* can estimate the age of vegetation found under the body in relation to the vegetation found in the immediate surrounding area. Samples of the sod and vegetation found under the body, as well as a control sample from the immediate area, should be collected for examination.

**Remember: Keep the two samples in separate containers to prevent any cross-contamination.**

The botanist can then examine these samples and may be able to determine how long the body has lain in a particular location. Although this information will not provide an estimate of time of death, it can contribute a relevant time factor to the investigation.

### Animals

Bodies are also subject to animal feeding, indoors as well as outdoors. Animals feed off the remains of a dead human body just as they feed off any other piece of meat.

Household pets as well as rats and other rodents often attack the body in indoor locations. I investigated one scene in which the deceased's dogs had actually begun to devour the body. Outside locations increase the chances of this occurrence because many wildlife creatures are carnivorous. Ravens, crows, seagulls, and turkey buzzards are just a few of the carrion birds that will feed off a body and may leave wounds that could be initially mistaken as mutilation injuries consistent with some sort of assault. I remember conferring with authorities in a Florida case where turkey buzzards had fed off a woman's body before police recovered it. The turkey buzzards had eaten the eyes and around the eye sockets. The authorities at first thought that the offender had taken the eyes until they conferred with their medical examiner, who recognized the damage as having been caused by the buzzards.



**Figure 9.22 POSTMORTEM ANIMAL FEEDING.** Bodies are also subject to animal feeding indoors and outdoors. This woman's face was eaten by the family dog, which increased putrefactive changes to the internal components of the body. You can also observe skin slippage on the woman's scalp as her hair separates from the skull. (From the author's files.)





**Figure 9.23 ANIMAL FEEDING.** This badly burned body had been dumped at an outside location where animals fed on the cadaver. (Courtesy of Dr. Leslie I. Lukash, chief medical examiner, Nassau County, New York.)

Bodies that have been mutilated by domestic and wildlife creatures or insect activity may give an appearance of gross injury, which is not necessarily associated with an antemortem attack. In addition, certain portions of the body may have been carried away or be missing from the cadaver due to animal activity. Practically speaking, investigators must be careful not to jump to any false conclusions based on their initial observations at scenes of this type.

### Bodies in Water

Similarly, marine life, especially crabs and/or lobsters, are known to nibble on “floaters” (bodies in the water). Many different forms of marine life, including lampreys and eels, may invade and/or feed off a human body submerged in the waters. In addition, movements of the currents and/or contact with marine propellers will further add to disfigurement. These types of postmortem injuries require the knowledge and interpretation of the forensic pathologist so as not to be mistaken for an injury that occurred in life.

From an investigative point of view, a body exposed to the air for 1 week is equivalent to a body submerged in water for a 2-week period. A body in water generally decomposes more slowly due to the colder temperatures as well as the lack of oxygen. However, a body disposed in a septic tank or in waters containing large amounts of chemical waste or bacteria will cause decomposition to be accelerated.

The following are some general time spans associated with bodies in water:

- Hands swollen after several days
- Outer layer of skin separated from the body within 5 to 6 days, skin of the hands and fingernails separated from the body in 8 to 10 days





**Figure 9.24** BLOATED BODIES OF "FLOATERS." (A) Male body. (B) Female body. Notice the effects of submersion and postmortem changes in the tissue. Both bodies had been in the water for approximately 1 week. Many times it is difficult to determine the sex of bodies which have been immersed in water. (From the author's files.)

- Seaweed vegetation on the body within 8 to 10 days
- Floating — in warm water, 8 to 10 days; in cold water, 2 to 3 weeks

## Information Derived from the Scene

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Even though certain morphological changes in the body after death are subject to measurement, the variables involved require additional supportive information before an estimate of time of death can be made. Data obtained by the investigator relative to events associated with the deceased are of utmost importance. This is where the work of the homicide detective really comes into play. I have been involved in many homicide investigations where the determination of the approximate time of death was directly related to the information retrieved from the crime scene and the neighborhood canvass. (See “The Canvass” in Chapter 4.)

The date and time the deceased was last seen alive give the detective a starting point to begin the task of narrowing the time of death. The status of the deceased’s home or apartment lends additional information — e.g., are there any current newspapers, milk deliveries, mail in the mailbox, dishes in the sink, food on the table? Are the electric lights on or off? If the lights are burned out, is the light switch in an *on* or *off* position? Are the shades drawn or open?

The detective will want to reconstruct the deceased’s last known movements. These would include who spoke to him or her last and where the deceased was prior to being found (at home, at work, with a friend, etc.). The failure of the deceased to perform a daily routine, such as picking up the newspaper, reporting for work, jogging, calling friends or family, or any other personal habit which was routine in his or her life, will also help narrow the time frame.

Another factor to be considered is the weather. For example, if the deceased is found outdoors covered with snow and the ground beneath is dry, it is important to know what time the snow started in the area. It would be safe to assume that the body was on the ground before the snow fell.

In cases where there has been a struggle and the deceased has a broken watch or a clock in the room has been damaged, causing it to stop, the time of death can be pinpointed if the investigator can ascertain whether the timepiece was in working order prior to death and kept correct time.

**Remember:** The presence of prepared food on the table may offer assistance in determining time of death if the investigator can ascertain that the victim maintained a routine eating time.

Information derived from the scene as well as knowledge of any personal habits of the deceased will play an important part in the final estimate of time of death. These are referred to as *associative factors*.

## Conclusion

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The estimate of time of death is complex. Before you lock yourself into a specific time frame, it is imperative that all the information available be examined by competent experts. If the time of death tends to fix responsibility for the death or becomes the factor that points the finger at a particular suspect, then the estimate must be based on positive facts and interpreted by the experienced pathologist.

The physical manifestations of death discussed in this chapter, as well as the autopsy findings; the deceased's personal habits; the medical opinion regarding *survival interval*, the period between the infliction of injury and death; and the statements of witnesses, must be taken into consideration in the final analysis. Therefore, complete cooperation between the experienced homicide investigator and the medical examiner/coroner is essential if there is to be an intelligent estimate of time of death.

**Remember: Do it right the first time. You only get one chance.**

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# The Identity of the Deceased

# 10



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The purpose of this chapter is to provide practical information on identifying deceased persons and to assist the homicide investigator in the difficult and often frustrating task of identifying badly decomposed bodies or skeletal remains.

Most deceased persons are readily recognizable to relatives and friends and can be officially identified for law enforcement purposes. Decomposition and dismemberment as well as mass disasters pose further problems because ordinary means of identification such as photographs and fingerprints may not be effective.

The tsunamis in Asia that occurred in December of 2004 after an undersea earthquake resulted in the deaths of almost 300,000 persons, many of whom have never been identified. Other mass disasters, such as airplane crashes, explosions, fires, and major catastrophic events, often result in identification problems for authorities.

In addition, as we have entered the new millennium, the law enforcement and forensic communities have encountered an increase in suicide bombings — specifically by Islamic terrorists, as well as other terrorists who target civilian populations. In September of 2001, the United States of America suffered the worst attack since Pearl Harbor when radical Islamic terrorists flew commercial airliners into the Pentagon and New York City's World Trade Center, killing thousands of innocent civilians. In fact, the World Trade Center attack resulted in the largest crime scene process ever undertaken by the New York City Police Department and New York Medical Examiner's Office as attempts were made to identify human remains through DNA.

The criminal investigator should be aware of the contributions that forensic experts, such as microbiologists and forensic anthropologists and odontologists, can lend to the process of identification of human remains. I recommend that the homicide investigator establish personal contact with these forensic people and include them in the investigative team.

**Remember: Joint contribution to a team effort is not only professional, but also effective.**

## The Identification

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The identification of the victim is critical because, in order to prove a charge of homicide, it must be established that a named or described person is in fact dead. (This verification of death is usually made by a physician; however, in many jurisdictions an ambulance technician's pronouncement of death is sufficient.) Furthermore, from an investigative point of view, identification provides a starting point and direction for the inquiry.

Practically speaking, most homicide victims are killed by someone they know. Therefore, the identity of the deceased may provide motive and establish a clue to the identity of the killer. In addition, even in "stranger homicides," the identity of the victim will furnish information about his or her movements, which may establish time of occurrence and other information about the crime. Knowing the identity allows the investigator to establish the victimology (see "Victimology" in Chapter 1) and to discover:

The family, spouse, and relatives of the deceased

The friends, lovers, and neighbors of the deceased

The residence of the deceased (which will provide additional information about the deceased)

His or her business associates

Whether the deceased was involved in criminal enterprise

Where the deceased socialized and locations frequented

Habits and routines of the deceased

The character of the deceased

Personal information and lifestyle of the deceased; enemies of the deceased (if you know the enemies of the deceased, you can consider one of them — a business competitor, spouse, lover, etc. — as a suspect).

### Identification at the Scene

#### *Personal Identification*

In many cases relatives or acquaintances are present and can make an identification to the police at the scene. Usually, this identification will be sufficient for investigative purposes, pending official identification by some member of the family to the medical examiner or coroner. The investigator, however, should still pursue established practices of identification. The body should be photographed, a complete description of the body and clothing should be obtained, information relative to medical and dental data should be gathered, and a request for DNA and blood-typing at autopsy should be made. In addition, all dead bodies, especially in homicide cases, must be fingerprinted.

I recall a case which took place in another jurisdiction, north of New York City. A suspect was shot and killed during a narcotics rip-off by the would-be victims. The police who responded to the shooting arrested the would-be victims and a



female accomplice of the dead man and seized a gun as well as other evidence. The woman gave the police a fictitious name for the deceased. Although fingerprints were taken during the autopsy, they were mistakenly put in the dead file under the fictitious name. No record check was ever made.

However, a separate investigation by New York City police was undertaken because the gun used in the aborted stick-up was the same caliber as one used in three New York City homicides during similar rip-offs. An additional set of prints was taken by the city detectives for comparison with latents obtained during the homicide investigations, and a record check was conducted at New York City Bureau of Criminal Identification. The gun was also subjected to ballistics tests in New York City and was positively identified as the same weapon used in the three homicides.

The record checks revealed that the dead suspect was not the person named by his accomplice, but was in fact a wanted escapee who had already been identified as a murder suspect along with his female partner. The female accomplice had purposely misled police in an attempt to avoid identification. Her ruse would have worked had it not been for the second fingerprint record check. Although she gained temporary freedom, she was rearrested in New York and subsequently indicted for murder on the three outstanding homicide cases.

The original prints should never have been filed before a record check. Obviously, an oversight such as this can result in a wrong identification; identity should be positively established before the body is released and the case closed.

### ***Clothing and Possessions***

The clothes and possessions of the deceased — such as driver's license, social security card, and I.D. card — are the best sources of tentative identification at the scene. The pockets of the deceased should be searched for any other material documents or photos. This information and, if the body is in good condition, a digital or Polaroid picture of the deceased or photos using the Polaroid Macro 5 SLR camera can be used by investigators to attempt to locate family or friends and verify identity. The clothing should be preserved for future identification.

### **Identification by Photographs**

If the body is in good condition, a color photograph should be taken of the face. A full facial shot and a profile as well as detailed pictures of any tattoos or scars and the ears (which are distinctive) should be obtained. If the body is found indoors and there are photos of the deceased there, they should be retrieved and duplicated with the Polaroid Close-Up Kit, which includes the spectra 1200si camera, to produce a 1:1 copy and the copies distributed to the investigators doing the canvass.

**Remember: The body should be photographed before autopsy with and without clothes.**

This should be done even in cases where the body is in decomposition. In addition, x-rays should be taken of unidentified bodies because medical records may be available which can be used to make identification. I recall a case where the headless and handless bodies of two young women were found in a midtown motel. The murderer had poured a flammable liquid over the bodies and set them on fire in an attempt to prevent identification. Extensive medical and pathological efforts were employed to establish identity. The autopsy revealed a 3-inch surgical scar on the abdomen of one of the victims. This scar eventually provided police with the identity of the victim, a 22-year-old prostitute. The killer was eventually caught after he committed a series of similar mutilation sex killings in the metropolitan area. However, the key to his involvement in the New York City killings was the identity of the torso. A search warrant was obtained for the suspect's residence, and items belonging to the 22-year-old victim were found in his home.

### **Description of the Body**

A complete description of the body should be obtained, with emphasis on any deformities, markings, abnormalities, and distinctive traits. The ears make a good identifying feature because, even in the event of decomposition and other changes, they remain the same. The following information should be obtained if possible:

1. Name (if papers or documents indicate name — tentative only)
2. Sex
3. Age (date of birth if available or estimated age)
4. Race, color, and nationality (skin color)
5. Length or height
6. Build (muscular development — be careful in cases of decomposition)
7. Shape of face (square, round, etc.)
8. Neck (thin, large, Adam's apple, etc.)
9. Hair (color, length, type of configuration, curly or kinky, wavy or straight)
10. Beard or moustache
11. Forehead (high, protruding, receding hair line, etc.)
12. Eyes (color), eyebrows, lashes (bushy, thin, fake, etc.)
13. Ears (cauliflower, large, small, deformed, etc.)
14. Nose (small, large, base of nose)
15. Chin, jaw (protruding, receding, square, round, etc.)
16. Mouth, teeth (condition of teeth, missing, spaces, size of lips, etc.)
17. Lips (thin or thick) — note decomposition
18. Hands (small, large, rough, smooth, manicured, calluses, craggy, dirty or clean, which may indicate possible profession, e.g., laborer vs. office manager, etc.)
19. Fingers (long or short, marks of any rings, jewelry, etc.)
20. Describe any jewelry and/or rings
21. Feet (big, small, shoes, etc.)



**Figure 10.1 IDENTIFICATION — TATTOOS.** Identification of persons through distinctive markings, abnormalities, and tattoos — especially if the tattoo is unique — is very effective. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)

22. Body piercing (decorative and/or sexual in nature and unique and recognizable to family and friends)
23. Tattoos (some tattoos are remarkably unique)
24. Scars
25. Prosthesis
26. Dentures
27. Physical malformations (clubfoot, missing toe, etc.)



## Clothing

Clothing should be examined for identification marks. The use of laundry marks and dry-cleaning tags by commercial cleaners can be traced to specific locations. In addition, there are manufacturers' marks and, in some instances, serial numbers for valuable items.

## Jewelry and Watches

Most items of jewelry are quite distinctive and may contain inscriptions or jewelers' marks. In addition, there are wear patterns that are distinctive to certain items and the rare "special piece" that can be identified as belonging to a certain individual. I have an excellent example of a special piece of jewelry, which represents a one-of-a-kind piece, in my files. A man who worked at a local funeral parlor had decided to kill his ex-wife and get rid of her body by cremating her after the funeral parlor had closed for the day. He tricked her into meeting him on the pretense of buying a Christmas present for their little girl and requested her to come back to work with him so that he could secure the premises. He knocked her unconscious and placed her body in the crematorium. The body was reduced to cremains (unidentifiable except for later DNA analysis). However, he did not have the knowledge of how the crematorium worked and was left with a bucket full of cremains.

During the early stages of the investigation, the husband emerged as suspect when his ex-wife was reported missing. However, the DNA analysis to prove that his wife was in fact the victim who had been cremated was not readably available. The detectives requested a search of the crematorium filter unit, which caught small items that did not burn such as teeth, buttons, pins, metal plates. Among the various metallic and noncombustible items was a piece of jewelry — a gold necklace with diamonds always worn by the deceased. The victim and her friend had designed the necklace when they worked together at a jewelry store. This was an extremely important piece of circumstantial evidence, which indicated that the cremains were those of the victim pending the positive DNA parenting match.

The more expensive watches can be traced to their source of retail sale and if the watch was worked on by a watchmaker or jeweler, the item will usually have some marking which will identify the particular craftsman.

In the absence of fingerprint and/or positive identification, the investigator should attempt to obtain as much information as possible from the clothing, jewelry, body, and material found in the pockets, as well as photographs, with a view toward publication of this information in local papers and on radio and television. Many identifications have been obtained with appeals to the public for information.

I remember one case in which the body of a young woman was found in the wooded area of a park. The woman had apparently been shot "execution style." The body was stripped of all identification except jewelry. One of the pieces of jewelry was quite distinctive. It consisted of a caricature of a devil's head with two diamond eyes and ruby mouth. This item and five or six other pieces of jewelry were carefully described, as was the body and clothing of the deceased. The description was given



**Figure 10.2 FILLING OUT FINGER.** Injection of water into a finger that has become shriveled or wrinkled so that the fingerprints can be obtained. It is recommended that the fluid be injected to restore the finger's normal contour and that a string be tied above the needle hole to prevent the water from leaking out. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

to the press, with a request for anyone with information to please call the police. Twenty-four hours later we received a call, based on the description of the devil ring. A positive identification was obtained and the case continued.

## Fingerprints

The fingerprints of the deceased matched with fingerprint records on file provide positive identification. If the victim does not have fingerprints on file, the comparison and match of the deceased's prints with latent prints taken from the dead person's home or place of employment is sufficient to prove identity. In the absence of identification by immediate family, fingerprint records represent conclusive evidence of identity.

The circumstances of death and the condition of the body usually determine whether good fingerprints can be obtained. The methods used to obtain prints from dead bodies range from the simple to the complex. Heavily decomposed bodies, fire victims, and bodies in mummification make this process extremely difficult, if not impossible.

### *Obtaining Fingerprints from Dead Bodies*

A standard fingerprint card, preferably a thin one, can be cut into two strips, one strip for each set of five fingers. The fingers are inked with a roller or pad. Each inked finger is then placed on the strip in the corresponding box. The strip is held



**Figure 10.3 SKIN SEPARATING FROM HAND.** This “floater” was removed from the Hudson River waterway in New York City. In some instances, the entire outer layer of skin from the hand can be removed intact. It should be pointed out that it also can be lost during recovery operations. (From the author’s files.)

in a curved holder or spoon. The finger is pressed against the strip and an impression is obtained.

If there is rigidity in the fingers, the joints can be bent back and forth several times until they are sufficiently flexible. You may need to take several prints before you get a good impression. Select the best impression and paste this on the respective section of the fingerprint card.

**Remember: Be careful not to mix up the prints.**

In the cases where the skin is dried out or shriveled up, as in mummification, the fingers are amputated and immersed in a softening solution or water for several days until the skin softens. Each finger is placed in a separate bottle and each bottle is numbered one through five for each hand. It is imperative that these fingers not be mixed up. This procedure should not be undertaken without the permission of the medical examiner, who usually will do the cutting. The examination will be performed by a technician or laboratory.

If the fingers have been immersed in water or the body is that of a “floater,” a fingerprint technician or expert is the best person to attempt to obtain prints. Various procedures are employed, depending on the condition of the body. If the fingers are shriveled or wrinkled but the skin is still intact, a print can be obtained





**Figure 10.4 SKIN REMOVED FROM HAND.** In these two photos, the entire epidermis of the hand has been removed intact from the body of a "floater." A fingerprint technician will be able to obtain fingerprints effectively from this fragile tissue. (From the author's files.)



**Figure 10.5 SKIN FROM FINGER.** This photo shows the epidermis of the finger of a deceased person. (From the author's files.)

by filling out the finger by injecting water under the skin until the finger's normal contour has been restored. The best instrument for this procedure is a hypodermic syringe with a fine needle so as not to break the skin. It is recommended that a string be tied around the finger directly above the hole after injecting the water to prevent the fluid from leaking out. Also, the point of the needle should not be too close to the skin because the pressure may break the skin.

Sometimes the skin will be so loose that it will come off the hand like a glove and can be cut away from the fingers. Each tip should be placed in a separate test tube, so as not to mix up the prints. The tubes can then be sealed with water and sent to the FBI laboratory for examination.

In certain cases, the technician can remove the skin, place it over his own finger (wearing a thin surgical glove), and "roll" the skin as if it was his finger. Another method used to obtain prints is by brushing black fingerprint powder on the fingers and removing the impression by "lifting" the print with transparent fingerprint tape. The tape is then placed on the fingerprint card in the respective box.

**Remember:** Once again, be careful not to mix up the fingers or prints and be sure to place the proper lift in the right box.



**Figure 10.6** TECHNICIAN “WEARING” SKIN ON GLOVE. This photo depicts a technician “wearing” the finger skin of a deceased to roll out a fingerprint. (From the author’s files.)

Advanced decomposition will necessitate special lab techniques, the use of photography with side lighting to emphasize ridge patterns, and more sophisticated procedures beyond the capability of the ordinary investigator. Fingerprint impressions and finger stalls can be sent to the FBI laboratory for identification by mailing as follows:

Director  
Federal Bureau of Investigation  
10th and Pennsylvania Avenue, N.W.  
Washington, D.C. 20537  
Attention: Identification Division, Latent Print Section

## Mass Fatality Events

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Mass fatality events, defined as events that result in multiple deaths, happen anytime, anywhere. The apocalypse of the tsunamis in Asia, which occurred in December of 2004 after an undersea earthquake, resulted in the deaths of almost 300,000



persons, many of whom were never identified. The earthquake, which measured 9.0 on the Richter scale, struck off the northern Indonesian island of Sumatra. It triggered 30-ft tsunamis that crashed into coastal areas in ten other countries, traveling at speeds of 500 mph. Most of the missing and presumed dead would never be positively identified due to the need for quick interment.

Although most such events result from acts of nature, such as earthquakes, floods, hurricanes, or tornados, others result from accidents, such as airliner crashes — the crash of American Airlines Flight 587 on November 12, 2001 in New York City where 265 died and the nightclub fire that occurred on February 21, 2003 in Rhode Island where 97 died are recent examples. These recent events are not isolated. Mass fatality events are common occurrences and have happened regularly throughout recorded history. California is known for its earthquakes; the two in San Francisco — 1906 and 1989 — are specific examples. New York City has also had its share of mass fatality events. Mostly women died in the 1911 Manhattan Triangle Waist Company fire and over 1000 died when the *General Slocum* sank in the East River on June 15, 1904.

Recently, increased terrorist activity has caught the attention of the world; the most extreme examples are the attacks on the World Trade Center in New York City where 2749 died and the Pentagon in Washington, D.C., on September 11, 2001, and the 2004 insurgent attacks in the Middle East. Other activities in the United States have been the bombing of the Federal Building in Oklahoma, which sent an uneasy ripple through the minds of Americans, and the bombing of the World Trade Center in 1993. Other countries have not been spared the activity of zealots. The downing of Flight 103 over Lockerbie, Scotland, incensed the world as did the 2004 attacks on the elementary school in Russia and the bombing of the commuter train in Madrid, Spain.

I conferred with Dr. Robert Shaler, who contributed to this section of the textbook with his expertise in mass fatality identifications. Dr. Shaler as the director of the Department of Forensic Biology for the New York Medical Examiner's Office and a nationally recognized authority on forensic DNA applications. He led the groundbreaking DNA effort to identify human remains recovered from the World Trade Center attacks. Dr. Shaler and his associate, Shiya Ribowski, P.A., M.L.I., are currently working on a textbook, titled *Practical Aspects of Managing Mass Fatalities*, which will be in my forensic series.

A comprehensive text that covers the essentials of mass disaster planning, implementation, and management is needed. This section will address some of the issues in mass fatality identifications and refer you to *Practical Aspects of Managing Mass Fatalities* for more information.

### **The World Trade Center Attack**

The World Trade Center (WTC) attack created the largest crime scene imaginable for the authorities in New York City and all of the agencies involved. The identification process was severely hampered by the pulverizing effect of the collapse of



**Figure 10.7 GROUND ZERO WORLD TRADE CENTER.** This photo illustrates the extensive destruction from the collapse of the two World Trade Center towers. It also depicts the massive search and recovery operation. (Courtesy of retired Detective First Grade Kurtis Harris, NYPD Crime Scene Unit.)

the two towers as they reduced once whole bodies into mounds of dust-covered flesh and bone. Dr. Shaler points out that such mass fatality events are characterized by massive search and rescue missions that typically occur in three phases: *rescue*, *recovery*, and *identification*.

The rescue phase comprises life-saving endeavors in which first responders attempt to save injured victims, put out fires, and secure the crime scene. This is often a race against time, with success depending on the nature of the disaster. Early in the WTC event, it became painfully obvious that there would not be many victims rescued from the collapsed buildings. Doctors standing by emergency rooms throughout the city and preparing for triage operations as victims were brought to area hospitals soon realized their services would not be required.





**Figure 10.8 BODY RECOVERY.** This photo was taken at the morgue and depicts one of the few intact bodies recovered at Ground Zero. Most of the bodies were pulverized by the collapse of the two buildings. (Courtesy of retired Detective First Grade Kurtis Harris, NYPD Crime Scene Unit.)

The second phase concerns the recovery of human remains, which might be prolonged depending on the characteristics of the disaster. In the World Trade Center attack, very few bodies were found intact. Instead, the authorities were confronted with pieces of bodies comingled at Ground Zero, where the initial recovery process had begun. It soon became evident that any recovery of human remains would have to be continued off-site and away from Ground Zero. The recovery process was moved to the Fresh Kills Landfill in Staten Island, as debris from the WTC was truck loaded to barges at the Hudson River and transported to Fresh Kills.

At the Fresh Kills Landfill, the debris was spread out by machines and then separated and screened by Crime Scene Unit (CSU) personnel and other NYPD officers. The materials were then machine lifted onto conveyer belts, which led to





**Figure 10.9 FRESH KILLS LANDFILL.** This photo depicts the extensive search and recovery of human remains at the Staten Island Fresh Kills Landfill, where truckloads of debris from Ground Zero were brought to be processed by the NYPD crime scene personnel. (Courtesy of retired Detective First Grade John Botte, NYPD Crime Scene Unit.)

the sifting tents where the materials were again separated and screened as the crime scene investigators searched for pieces of bodies and any identifiable materials. This method was utilized throughout the landfill area. The reason for the repetition was to ensure that nothing was overlooked. If something was missed by the first screener, the second or third screener would find it. Items as small as a fingernail were recovered and properly marked and tagged for transport to the Medical Examiner's Office. The most prolonged recovery exercise was the 9 months it took to recover the victims' remains at the World Trade Center site and the Fresh Kills Landfill.

The final and most prolonged phase is the identification of the dead and the return of the remains to the families. Although the recovery efforts at the World Trade Center and the landfill lasted 9 months, the identification of the missing continues at the Office of Chief Medical Examiner after 3 years. Dr. Shaler managed this project, which, in addition to the OCME laboratory in New York, included six other laboratories. The World Trade Center event was the largest forensic identification project in U.S. history. Under Dr. Shaler's direction, the WTC effort pioneered new extraction techniques, high-throughput mtDNA testing, and autocalling software and reinvented the paradigm of forensic mass fatality testing by instituting universal mtDNA testing, SNP (single nucleotide polymorphism) panels, and miniprimer sets for short tandem repeats (STRs). The need to explore technologies other than those employed routinely in crime laboratories stemmed from the quality of the DNA being recovered from the WTC site.

### Mass Fatality Considerations

Since September 2001 (9/11), governments have discussed the implications of terrorist activity with respect to their use of weapons of mass destruction (WMD).

There is a legitimate concern over the use of biological, chemical, or nuclear weapons. One chemical attack occurred in 1995 in Japan, where terrorists left punctured canisters containing low-lethal liquid sarin, a nerve gas, in a subway. The critical nature of WMD disasters is the contamination of the site and the remains. The possibility of contamination complicates the rescue and recovery efforts; before identifications can be made, the remains must go through a decontamination process.

However, whether the mass fatality event results from an act of nature, an accident, or a terrorist activity, even with WMD disasters, the final phase of the mass fatality operation requires the identification of the missing. Historically, identifying human remains after mass fatality events has relied on nonscientific methods such as examining the clothing that someone was wearing, facial recognition, and personal items, such as jewelry, found on the remains. In the Triangle Waist Company fire in 1911, for example, the bodies were laid in a row, face up. Those who had lost someone passed by the bodies, hoping to recognize a face, a necklace, or a ring — anything that would trigger recognition.

### **DNA Testing in the Identification of WTC Victims**

As scientific methods of identification became available, more sophisticated and accurate methods have been employed. Fingerprints and dental x-rays are standard methods, and whole-body x-rays can be used to identify medical intrusion, such as finding prostheses or healed injuries. In the past decade, DNA has acquired a more prominent role in identifying human remains.

The first extensive use of DNA in mass fatality investigations was for TWA Flight 800, which crashed off the coast of Long Island in 1996 and killed 230, and for the Swiss Air Crash SR111 in Nova Scotia in September 1998, where 229 died. In each of these investigations, local crime laboratory scientists used STRs to identify the missing.

The WTC work involved the most extensive use of DNA to identify human remains. Until the WTC disaster, DNA was a secondary mode for identification. The WTC effort was characterized by an environment that propelled DNA testing into the forefront as the primary identification modality. Officially, 2749 people died and 19,916 remains were recovered and brought to the Office of Chief Medical Examiner (OCME) in New York City.

The collapsing buildings acted like huge grinding stones that pulverized and fragmented the victims as they fell. This meant that fingerprints or dental x-rays would have minimal value for making identifications; in fact, these two methods of identification accounted for the identification of only 121 missing persons. In order to identify as many as possible, the OCME decided to analyze all fragments the size of a thumb or larger. This was an important decision because it maximized the chances for identifying the missing and reassociating remains.

DNA testing allowed families to receive fragments of their loved ones for burial. Some received a single piece of tissue or bone. Other families received many fragments, and some received more than 100. Although there were many large pieces, very few were totally intact. Most remains were missing some part of their bodies.



Extensive co-mingling complicated the DNA analysis effort, and it became necessary to analyze many of the remains several times in order to sort out conflicts between tissue and bone which supposedly came from the same source but were giving different STR profiles. The largest problem for the DNA effort was the extensive decomposition of the remains, which compromised the quality of the DNA.

In order to obtain useable DNA profiles, new procedures had to be developed that had never been employed in DNA testing in mass fatality investigations. Multiplexes were developed to enhance the ability to obtain STR profiles from badly degraded DNA. SNPs and extensive mitochondrial DNA sequencing were also employed for the first time. Each of these new technologies led to identifications which otherwise would not have been made.

In January 2005, the first phase of the work began to wind down. There were 52,000 STR profiles, 45,000 mitochondrial sequences, and 17,000 SNP profiles in the OCME WTC DNA database, from which 1583 (58%) of the missing had been identified and 10,000 (50%) remains had been reassociated. DNA had been solely responsible for 842 (87% of the missing) identifications and 507 identifications in which more than one modality was involved in making the identification. Without DNA, the identification process would have stopped in May 2002, with only 736 victims identified.

## The Iceman Case

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### Case History

On July 1, 1981, Louis Masgay left his home in Pennsylvania and headed for Little Ferry, New Jersey. Masgay, who was 50 years old, owned and operated a discount variety store. He had told his wife that he was going to New Jersey to meet a supplier who had agreed to sell him a large quantity of blank video tapes at a very good discount. He was taking the money in cash, nearly a \$100,000, which he had stashed in a concealed compartment in the driver's side door of his black 1980 Ford Carry Van. The "supplier" he was going to meet was Richard Kuklinski.

Unknown to Masgay, Kuklinski was planning to rob and kill him. Richard Kuklinski was a contract killer, who eventually would admit to over 100 murders. In fact, it would be the murder of Masgay that would ultimately earn Kuklinski the title, "the Iceman."

Masgay's black 1980 Ford Carry Van was found abandoned on Route 17 North in Rochelle Park, Bergen County, New Jersey. The family was sure that something terrible had happened. The cab was locked, and the police had to break in to move it. Police found that the primary gas tank was empty, but the secondary tank was full, leading them to suspect that whoever was driving the van did not know how to engage the reserve tank. A hidden compartment in the driver's side door was also discovered, but it was empty.

In September 1983, a body was found in a wooded area off Clauseland Mountain Road in Orangetown, New York, 3 miles north of the New Jersey border. The body was taken to the office of the Rockland County Medical Examiner, where the chief medical examiner, Dr. Frederick Zugibe, performed the autopsy.





**Figure 10.10 ICEMAN CASE.** Photos depict the condition of the body found in September 1983 in a wooded area off Clauseland Mountain Road in Orangetown, New York. The body was taken to the office of the Rockland County Medical Examiner, where the chief medical examiner, Dr. Frederick Zugibe, performed the autopsy. (Courtesy of Dr. Frederick Zugibe, chief medical examiner, Rockland County, New York.)

The body had been carefully trussed with tape and then wrapped in 15 to 20 plastic garbage bags, a task that must have taken some time and effort, Dr. Zugibe noted. One arm was taped to the body, but the other had apparently come loose during the wrapping. This hand was less protected than the other, and it had dried out. In effect, the hand was mummified.

As the final layer of plastic was removed, Dr. Zugibe saw that decomposition was advanced and that the flesh was greasy. The color of the man's skin was putty beige. There was a single bullet wound in the back of the head.

When he opened up the body, Dr. Zugibe noticed something very peculiar. The body was not distended and the organs were less decomposed than the outside of the body. Decomposition had started from the outside, which is the reverse of the normal process. Checking the heart muscle, he discovered ice crystal artifacts, which supported his imme-



**Figure 10.10** *Continued.*

diate suspicion that the body had been frozen, perhaps by a killer whose intention was to disguise the time of death. Had the murderer dumped the body in the early spring, the time of death might have been completely disguised and Dr. Zugibe probably would have concluded that this was a recent killing.

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### **Dr. Zugibe's Medical Evaluation**

During an investigation of illegal dumping, several plastic bags were found along a mountain road in September of 1983. One bundle appeared suspicious because it contained an object suggestive of a body. X-rays of the bundle at the medical examiner's office confirmed the presence of a human body with radiopaque objects noted within the skull. Careful unwrapping revealed that the body was wrapped in about 20 consecutive layers of plastic garbage bags and rope. The inner layers appeared older than the outer layers and each bag was taped with 2-inch wide plastic tape and tied with small segments of clothesline rope in between each layer of plastic.

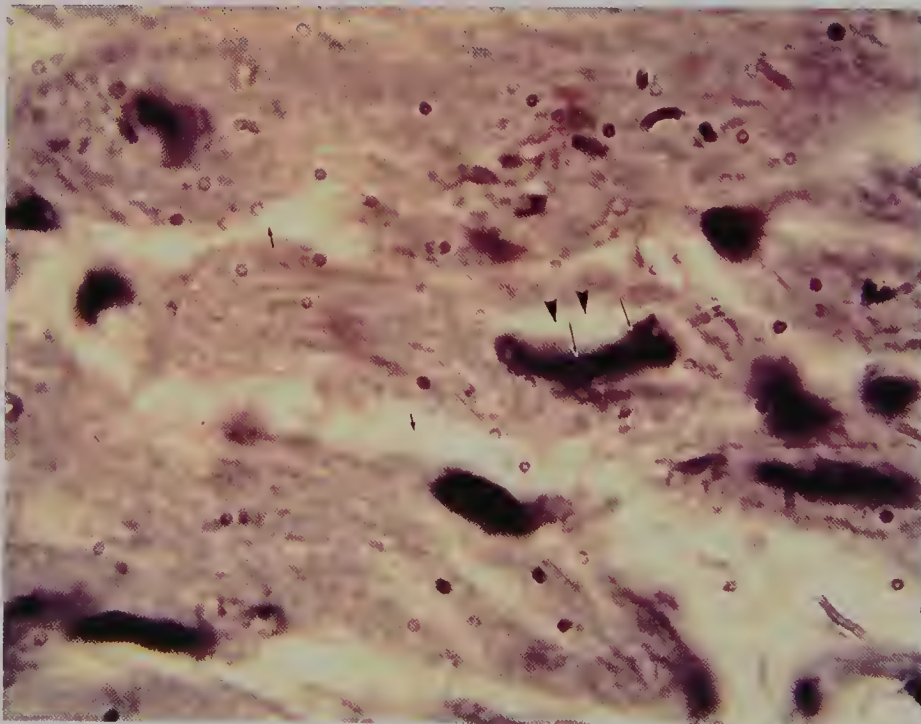
The body appeared to be markedly decomposed but without any discernible distention or bloating. It emitted a peculiar, foul odor not representative of the usual odors associated with decomposition. The surface of the body appeared to be very greasy in consistency. In contrast, there was significantly less decomposition internally than externally with no significant distention of the gut and fair preservation of the viscera. The head region, however, showed a greater degree of decomposition than the rest of the body. A contact-type entrance bullet hole was present in the left occipital-parietal region and a fracture emanated from the bullet hole and extended for a distance of 10.5 cm. into the parietal bone. The brain was liquified. A lead bullet and two large bullet fragments were found in the cranial cavity.



Information for identification purposes was tabulated that included anthropomorphic findings, odontological charting, physical characteristics, unusual characteristics, clothing, shoe size, jewelry, glasses, and fingerprints using a special technique developed by this office for securing fingerprints from mummified bodies.<sup>1</sup> Dr. Zugibe was able to rehydrate the fingers by using a chelation technique based on an entirely new process. He used disodium ethylenediamine tetracetic acid in a detergent solution adjusted to a pH of 7.5 and obtained the fingerprints that identified the body as that of Louis L. Masgay.

### Forensic Evaluation

According to Dr. Zugibe, the peculiar decomposition with the external aspects of the body markedly more decomposed than the visceral aspects and with no intestinal or tissue distension suggested that the victim may have been frozen for a period of time. Freezing would kill or alter the growth pattern of enteric flora, and the external aspects of the body would be the first to thaw and therefore be directly exposed to microorganisms from outside the body. The head region showed more decomposition than the rest of the body because the bullet hole to the head would allow entrance of organisms from the outside. Moreover, if the body had indeed been frozen, the head may have decomposed more rapidly because of rapid thawing due to its small size. Tissue sections were evaluated for the presence of ice crystal artifacts in an attempt to confirm the impression that the body may have been frozen prior to dumping.



**Figure 10.11 MYOCARDIUM ICE CRYSTAL ARTIFACTS.** Myocardium showing ice crystal artifacts. Note the nuclear distortion (black and white arrows) and vacuoles and spaces around the nuclei (arrow heads) and between the fibers (black arrows). (Courtesy of Dr. Frederick Zugibe, Chief Medical Examiner, Rockland County, New York.)



Dr. Zugibe's careful examination of the heart muscle sections revealed features suggestive of ice crystal artifacts. According to Dr. Zugibe,

This preliminary hypothesis was met with skepticism by other law enforcement agencies. However, we pursued our suspicions by carefully laundering all of the clothing of the deceased and meticulously describing each item, including color, size, style, brand labels, etc. so that in the event that he was successfully identified, they could be compared with the clothing he was reportedly wearing when he was last seen alive (Personal interview, 1995).

The body was subsequently identified as Louis Masgay, Sr. from Forty Fort, Pennsylvania, who was last seen alive about 2<sup>1</sup>/<sub>4</sub> years prior to his death. A comparison was then made of the clothing found on the victim's body with a description of the clothing that Masgay was wearing when he had left home on July 1, 1981, with a large amount of money to meet a Mr. Richard Kuklinski to buy video tapes. He was never seen again. This appeared to confirm Dr. Zugibe's suspicions that he was frozen for over 2 years prior to the dumping of his body.

This hypothesis was fully corroborated almost 3 years later, when the Rockland County medical examiner was contacted by the New Jersey Attorney General's Office that they had a suspect named Richard Kuklinski in connection with a series of homicides, which included the Masgay case. Dr. Zugibe stated,

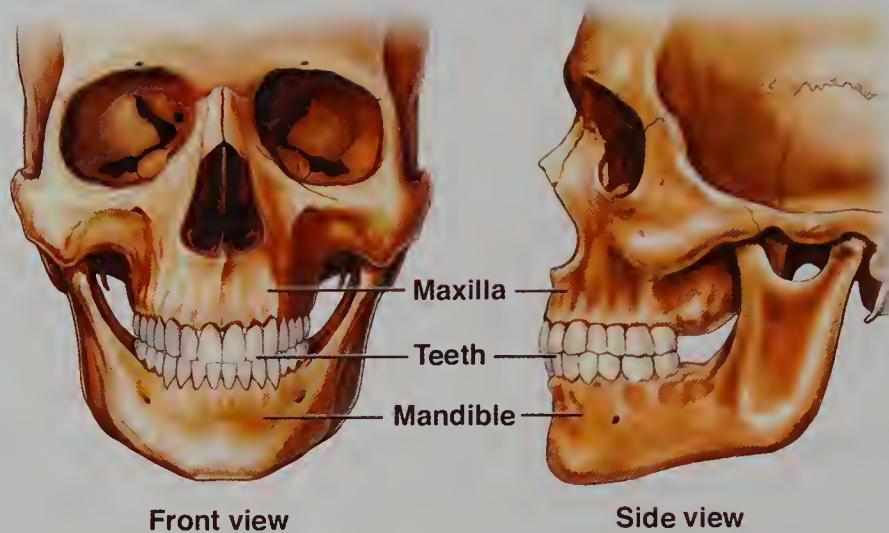
They were greatly impressed by our conclusion that the victim had been frozen because one of their informants, a convicted murderer who was unaware of our findings, in exchange for certain personal requests, provided them with a sworn statement that he had observed a body hanging in a freezer compartment within Richard Kuklinski's North Bergen warehouse. Moreover, a taped conversation of Kuklinski by an undercover agent wearing a wire reaffirmed that the body had been frozen and afforded the impression that Kuklinski had fooled the authorities. Our case was responsible for Kuklinski being dubbed the "Iceman," although this was the only victim that he purportedly froze (Personal interview, 1995).

## The Teeth

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Dentition provides an excellent means of identification, especially when antemortem records and x-rays of the deceased are available for comparison. Forensic odontology — the scientific application of dentistry to legal matters — has become a viable asset to the law enforcement community. Today, many forensic odontologists are trained to respond to the needs of law enforcement officers, the legal profession, and forensic pathologists.

Forensic odontologists work on problems involving identification, bite marks, and dental and oral injuries. In addition, they are invaluable in the identification



**Figure 10.12** NORMAL ANATOMIC POSITION OF TEETH AND JAWS. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

of bodies in mass disasters, where the only semblance of human remains may be a jaw fragment, shattered teeth, or broken dentures. During the World Trade Center search and recovery mission, many forensic odontologists, as well as other dentists trained in identification of human remains, participated in the painstaking efforts to identify victims of this despicable attack.

As a result of modern dental procedures involving restoration such as tooth capping and root canal work, dentists have made extensive use of x-rays and molds, both of which are accurate records of oral anatomy. Fillings and caps are highly individual, and jawbone construction provides information based on certain anatomical landmarks that never change in an individual.

Practically speaking, in cases where the remains have been badly mutilated or burned, are in advanced putrefaction, or have been submerged in water for a long period of time, etc., the possibility of obtaining any fingerprints of value is quite remote. This is where the forensic odontologist can be of assistance. Using powerful cameras, x-rays, and medical records, he or she can, through examination of the dentition and jawbones of the deceased, provide the investigator with positive identification as well as bite-mark identification. In addition, the forensic odontologist can provide information about the deceased, including age, general facial characteristics, race, socioeconomic group, occupation or habits.

### Age

The eruption of teeth in the human body is a relatively predictable process during the early years of growth. The forensic odontologist can provide a rather accurate estimate of ages of persons under 14. The first teeth, referred to as baby teeth or deciduous teeth, make their appearance from 7 months to 2 years. The loss of these baby teeth and the eruption of the first permanent molars begin at approximately 5 years of age and continue into the early teens. The forensic odontologist relies





**Figure 10.13 IDENTIFICATION HUMAN REMAINS.** In this particular case, the badly charred and burned remains of the victim of a kidnapping and rape–murder were found in a wooded area. Although the authorities believed they had found the missing victim, they would require the services of a forensic odontologist to assist in providing positive identification based on dental records. (From the author’s files.)

on the wear patterns for victims past age 14. As a general rule, the older a person becomes, the more his or her teeth show evidence of wear, dental repair, and gum recession. Using microscopic and radiological (x-ray) examination of dentition, the forensic odontologist can estimate the age of an adult within 5 years’ accuracy. Estimates of age for the prepubertal child can be calculated within 6 months by examining the stage of development of the permanent tooth buds.

### General Facial Characteristics

By comparing certain aspects of the configuration of teeth and jaws, a forensic odontologist can roughly determine the shape of the face. According to certain experts, there are three basic shape formations: square, tapering, and ovoid. These computations, however, are not infallible and are subject to different interpretations.

An importance factor used in arriving at facial contour is position; the lower front teeth fit inside the upper front teeth and are in direct contact with the upper teeth. The exceptions to this rule can help in identifying facial features. The following are possible conditions:

1. Teeth are in normal anatomical position.
2. Overbite: in this case, the lower teeth fail to meet the upper front teeth because of a protruding upper jaw. This results in an overprominence of the upper jaw, accompanied by an underprominence of the lower jaw, resulting in a receding chin. This is commonly referred to as the “Andy Gump” look.





**Figure 10.14 TRUCK WRECK — BODY BURNED.** This photo depicts an individual killed in a tractor-trailer wreck, which occurred as a result of fog on I-40. Five people were killed in this accident and this individual was burned beyond recognition. (Courtesy of Kevin M. Dugan, DDS, forensic odontologist, North Little Rock, Arkansas.)

3. **Prognathic:** in this case, the lower teeth protrude beyond the upper teeth. The lower jaw and chin are excessively prominent. This is referred to as the “Fearless Fosdick” look.

It should be noted that there are operations whereby these abnormalities can be corrected, resulting in drastic changes in profile. These procedures are known as orthognathic surgery.

## Race

The forensic odontologist can sometimes determine the race of the deceased by examination of the jawbones and teeth. Certain anthropological traits exist within races which make such a determination possible. However, with mixed races, it is extremely difficult. From a practical point of view, the investigator would obtain a more definite determination from the physical anthropologist, who may even need to use a computer.

## **Socioeconomic Group**

The socioeconomic group and relative economic status of a person may be estimated by the quality of dental treatment he or she obtained in life. The forensic odontologist bases his determination on the general oral hygiene of the deceased and the manner and type of dental restoration. For instance, missing teeth which have not been replaced, unfilled cavities, and a generally poor dentition would indicate a low economic status. Conversely, gold inlays, root canal work, and prostheses such as well-made bridgework and dentures would indicate that the individual was able to afford good dental treatment. Expensive dental work is easily observed by the odontologist during examination.

## **Occupation or Habits**

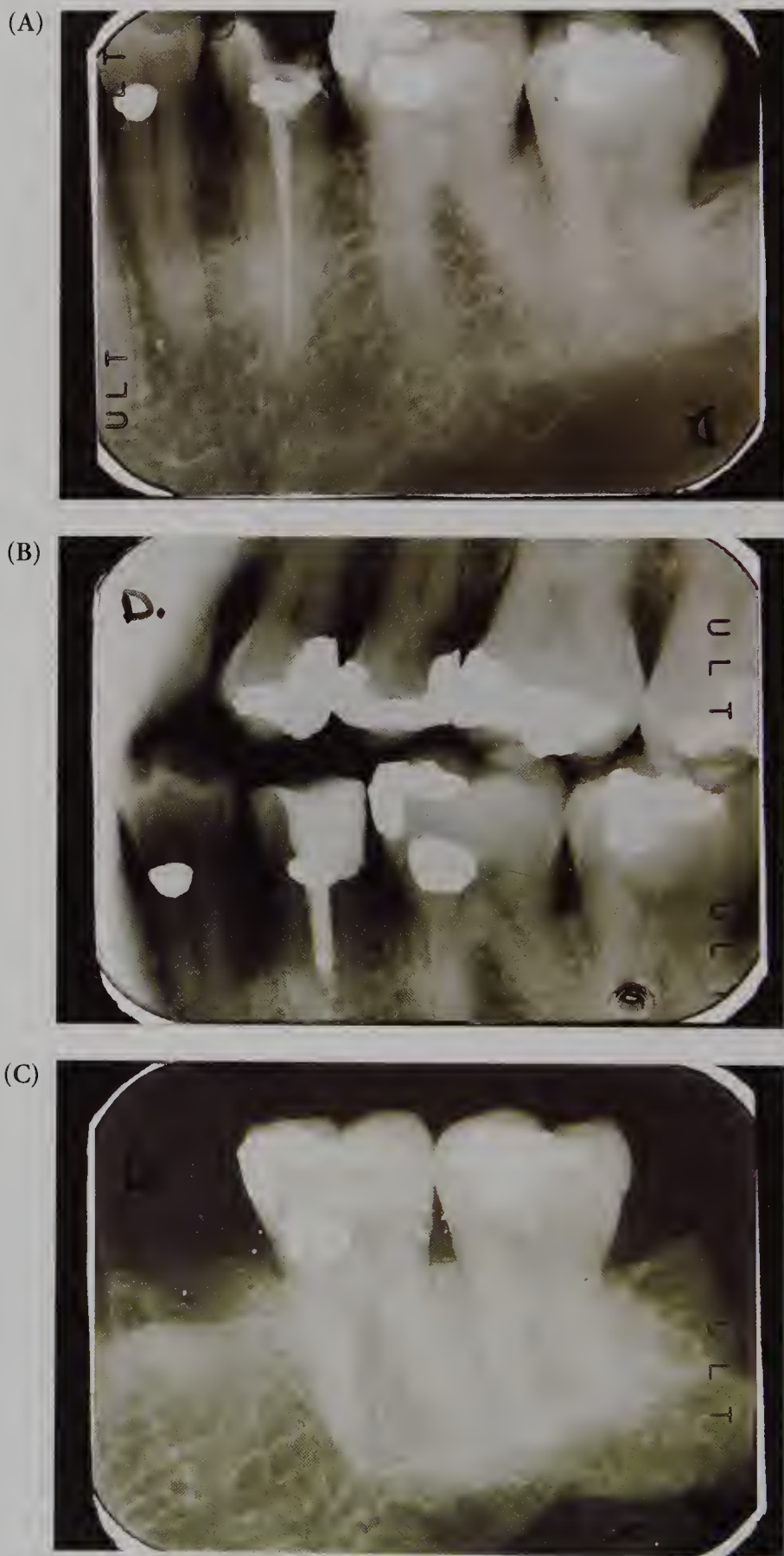
In some instances, habits of the deceased which have caused dental change will be noted during a forensic examination. For example, holding nails between the teeth, which is a habit of carpenters, or playing certain musical instruments, such as the trumpet, causes a distinctive type of wear which may provide a clue to the occupation. Furthermore, habits such as holding a pipe between the teeth or long-time cigar smoking will be evidenced by wear patterns and heavy tar accumulation.

## **Positive Identification**

Practically speaking, this is the most valuable information that can be learned from an examination of the teeth. Forensic odontology is probably the most effective means available to the investigator for arriving at a positive identification in cases where fingerprints are unobtainable or no matchable fingerprints of the deceased are on file.

It should be noted that no two sets of teeth are exactly alike. A full complement of teeth is 32. Each tooth has five surfaces, with various fissures and grooves. The arrangement of the teeth within the jaw is different for each person. In addition, individual differences are present in the arch of the palate and the mode of occlusion (bite). If one adds to these the individual physiological differences, the many types of dental operations, such as caps, fillings, root canal work, crowns, dentures, prostheses, and other surgical procedures, one realizes that the teeth are quite distinctive. In fact, teeth have literally thousands of identifying characteristics.

Modern equipment used by dentists today, specifically the high-speed, air-driven handpiece, has allowed them to undertake many more sophisticated dental treatments and operations. These advanced procedures have created the need for comprehensive dental examinations involving x-rays and molds of teeth, both of which are highly accurate and individualized. In addition, all dentures have manufacturers' brands that may be traced to a specific dental laboratory in a specific area. In some instances, the dentist will personalize the appliance by engraving the patient's name or social security number on the denture. When attempting to identify an edentulous (toothless) person, the forensic odontologist will take an



**Figure 10.15 TRUCK WRECK — DENTAL X-RAYS.** (A) (B) Antemortem x-rays of victim's teeth. (C) Postmortem x-ray taken at morgue. (Courtesy of Kevin M. Dugan, DDS, forensic odontologist, North Little Rock, Arkansas.)





**Figure 10.16 ENGRAVED DENTURE.** This denture has been engraved by the dentist. The denture, along with antemortem records, led to the identification of a victim who had been kidnapped from the Bronx and slain in Nassau County. (Courtesy of Leslie Lukash, MD, forensic pathologist.)

impression of the palate and upper arch because the palate's anatomical form and characteristics are also distinct. In addition, even an old denture may prove useful in identification procedures. If the investigator can locate this denture, it can be examined by the odontologist. Many people are like “pack rats” and save even the most useless articles and so too do wearers of dentures. Often, an investigator who needs to locate an old denture for identification purposes will be surprised to find two or three such appliances.

Military service and private and governmental insurance programs have made dental services available to most of our population. Comprehensive dental examinations are mandatory prior to treatment, so a wealth of dental information on our citizens is now in the hands of the dental profession, insurance companies, and government agencies.

If the investigator can locate the dental records of the deceased, the forensic odontologist can make an absolute and positive identification. For this reason, experts in the field of odontology recommend the data banking of dental information by computer. This knowledge would certainly aid in the identification of unknown homicide victims and greatly assist in the tremendous job of identifying bodies in mass disasters.

### **Bite-Mark Identification**

This particular phase of forensic odontology will be discussed in more detail in another section. (See “Bite-Mark Identification” in Chapter 20.) However, as a practical matter, the investigator at the scene of a homicide in which teeth have been used as a weapon or the body indicates that the murderer may have assaulted the victim by inflicting bite marks must view these wounds as evidence. Bite marks are specific to the person who has inflicted them. In addition, saliva washings should be obtained for later serological comparison. It is important to note, however, that these washings must take place before the lapse of too much time.

I recommend that the investigator obtain photos of these marks using the Polaroid Close-Up Kit, which includes the Spectra 1200si camera, to produce 1:1 copies or a 35-mm camera with color film. Side lighting is sometimes useful to

accent the marks. In addition, a scale should be included in the photo to assist the experts in their later examination and comparison of the bite marks and evaluation of any impressions obtained from possible suspects.

### **Inquiries Relative to Forensic Odontology**

Investigators may request information or obtain the location of an odontologist within their specific geographic area from a national organization of forensic odontologists. The Web site address is <http://www.abfo.org/>

The American Board of Forensic Odontology, Inc.  
c/o The Forensic Sciences Foundation, Inc.  
P.O. Box 669  
Colorado Springs, CO 80901-0669  
(719) 636-1100

### **The Bones**

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The examination of skeletal remains by a physical anthropologist can provide certain basic classifications, which may assist police in determining the identity of the deceased. Depending upon the completeness and condition of these skeletal remains, the forensic examination can supply the age of the deceased at the time of death, as well as his or her sex, race, height, and other individual characteristics such as right- or left-handedness, overweight or underweight, well or poorly developed musculature, and prior bone injuries. The examination can also determine the cause of death in certain cases and ascertain whether the bones are human or animal.

Estimates of age, sex, race, and stature do not provide positive identification of an individual. However, they become an integral part of the identification process when compared with unique characteristics and matchable records of the deceased made in life. Examples of records which would yield positive identification are medical records (operations, births, amputations, etc.), dental records, and ante-mortem x-rays.

Armed with the information provided by the anthropologist's examination of skeletal remains, the investigator now has a general description of the deceased, which can be compared with missing persons reports, registered ownership records if property is involved, and official records.

#### **Age**

A trained radiologist and physical anthropologist can provide an estimate of age, based on skeletal remains, which ranges from somewhat unpredictable to considerably accurate depending on the age of the deceased. After age 30, the reliability of the formulas used by scientists to gauge age decreases, and tooth structure gives a better estimate of age than do the gross bones.

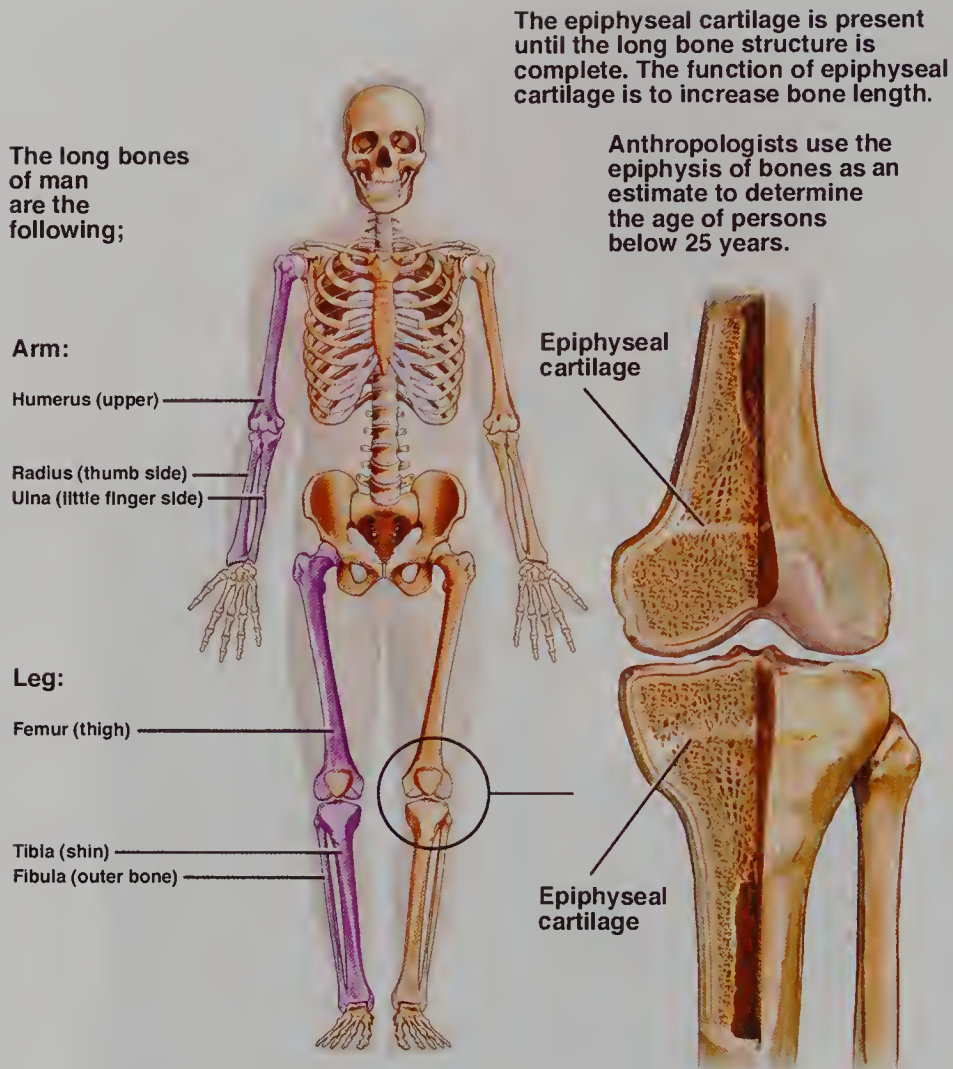


**Figure 10.17 HUMAN SKULL — SKELETAL REMAINS.** Skeletal remains of a body found outdoors. (Courtesy of Dr. Leslie I. Lukash, Chief Medical Examiner, Nassau County, New York.)

Anthropologists use formulas based on the *epiphyses* of bones (the stage of uniting of bones, a condition which varies with age) to make their determinations. Basically, science has determined that the bones develop from small areas known as *ossification centers*. These centers produce calcium and other minerals, which are deposited to form bone. Many of the ossification centers start their production during the early months of fetal life; others do not completely finish producing bone until the early 20s. Anthropologists have worked out a series of formulas to estimate age based on the appearance of these different ossification centers. X-ray examination can determine age up to 25 years with considerable accuracy.

Another determining factor in estimating age is the skull, which is composed of several curved bones joined together along irregular lines called *sutures*. As an individual approaches his early 20s, these sutures begin to fill up with bone and close. This process continues with age and follows a distinct pattern. Anthropological studies of these patterns resulted in the establishment of a formula whereby





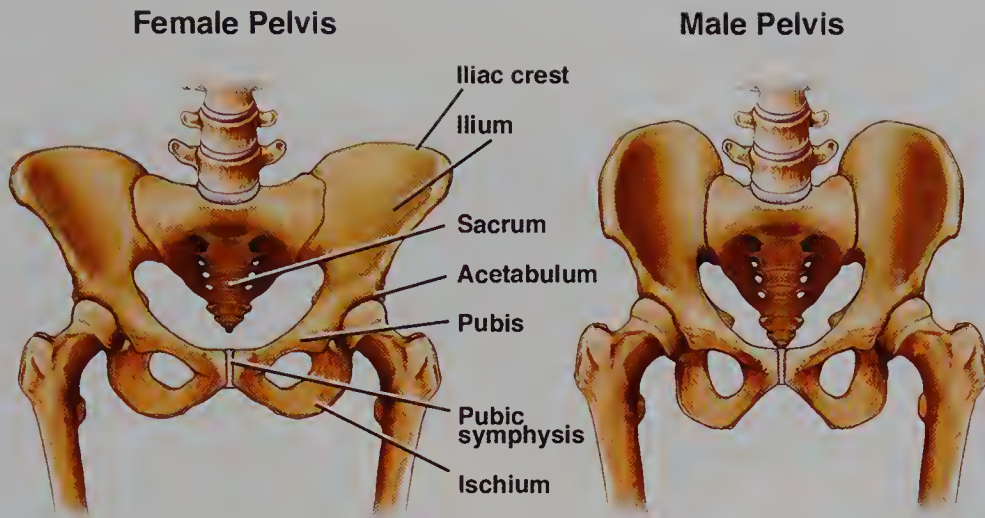
**Figure 10.18 LONG BONE STRUCTURE.** (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

scientists could determine the age of an individual by examination of the skull. Suture closing, however, is not as reliable as first predicted. Instead, scientists have developed a new scheme, which yields an estimate of age and an error of estimate. Most estimates of age for remains of persons between 30 and 80 years of age are given in 7- to 10-year brackets.

The pelvic bone can also be used to determine age. Various changes in the structure of the bone occur within approximately 5-year intervals.

In addition, some studies indicate that calcification begins in the cartilages of the larynx and ribs at about 55 years of age and that males in the age bracket of 35 to 40 show a presence of arthritic lipping in certain joints, especially in the vertebral column. At present, research is being conducted on calculating age based on spectrographic evaluation of bone particles, a procedure still under evaluation.

Although the criminal investigator need not comprehend the technical aspects of these anthropological computations, he would do well to be aware of their value in the identification process.



**Figure 10.19 MALE AND FEMALE PELVISES.** The pelvis bone is the most accurate indicator of sex. If you look closely at the two drawings, you may observe the different structure between the male and female pelvises. Of course, to the trained eye of the anthropologist, the differences are readily discernible. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

## Sex

If an anthropologist has the whole skeleton to examine, sex can be determined with 90% accuracy. Male skeletons are larger than female skeletons, and the bone surfaces of the male are rougher than those of the female. The pelvic bone, however, is the most accurate indicator of sex. Because the female pelvis is designed for childbearing, its difference is readily observable to the trained eye of the anthropologist. Scars of parturition on the pelvic bone not only help to determine sex, but can also provide evidence that the deceased has borne one or more children. In addition, anthropologists now have a variety of metrical techniques, such as the *ischium-pubis index*, to assist them in determining sex.

## Race

Through the application of sophisticated statistical procedures to skull dimensions, anthropologists can now determine the race of the skeletal remains. Because of the number of mixed racial heritages in this country, the variables are considerable and a computer is often used to sort out all the information. Determining the race of an individual utilizing the skull is almost without error. However, without the skull, the possibility for error drastically increases.

## Height and Other Individual Characteristics

In determining height, several different formulas have been devised based on the measurement of the long bones. The most accurate method is based on the measurement of the long bones compared with a simple table. Although there is some slight variation in different races, the height can, in general, be determined within an inch of accuracy.

The anthropologist can determine whether the person was overweight or emaciated and, by examining the muscle attachments to the bone, whether the remains are from a muscularly well-developed person. In addition, the skeleton reveals whether the person was right- or left-handed because the bones of the dominant arm are slightly longer. Certain characteristics of the *scapula* (shoulder blade) and *clavicle* (collarbone) also help to determine handedness.

The bones will readily indicate whether there has been past trauma such as a fracture. If antemortem x-rays can be obtained, this information will provide positive identification of the deceased.

### **Determination of Cause of Death**

In some instances, the bones will readily reveal the cause of death. For instance, the skull is most likely to yield important evidence of direct violence in gunshot cases or direct blunt force injuries. The penetration of a bullet through the skull will be easily recognizable from its telltale pattern. Likewise, evidence of injuries to the skull or other bones by a hammer, crowbar, or other weapon will be evident upon examination. In addition, if a person died as a result of one of the metallic poisons, the poison can still be extracted from the bones years later.

### **Determination of Whether Bones Are Human or Animal**

The first two questions in identifying unknown skeletal remains are (1) Are they human? (2) Is more than one person or animal represented? A complete human skull is readily identifiable as human. However, the investigator may be confronted with pieces of broken jaw, bone fragments, teeth, or other parts of a skeleton. Practically speaking, law enforcement personnel should consider all pieces of a skeleton human until experts determine otherwise. For example, parts of bear paws are misidentified more often as human than parts of any other animal.

In addition, many animal skeletons lacking the telltale skull have been thought to be those of a small child. I remember one incident in the South Bronx that confused the police. A body of an apparently nude, decapitated male was found lying in the gutter. The body weighed about 300 pounds. The case was reported as a "possible homicide." Although this was not a skeleton, I bring this case to your attention because upon medical examination at autopsy it was determined to be the body of a full-grown skinned gorilla!

Often bones or remains can fool people. Therefore, it is imperative that the investigators suspect each case to be human until proven otherwise.

### **Examination of Bones**

The examination of the bones should be performed by the forensic experts, particularly the physical anthropologist, radiologist, and forensic odontologist. Although this phase is beyond the skill of the criminal investigator, it is the investigator who will set the stage for the successful evaluation of this evidence by following certain preliminary procedures. These include photographing and sketch-





**Figure 10.20 FORENSIC EXAMINATION OF SKELETAL REMAINS.** These cremains were of a victim cremated by her ex-husband in a crematorium. They were placed in anatomical order by the forensic anthropologist, who came to the following conclusions: the bones were those of a white female, approximately 32 years old, who weighed approximately 100 pounds and had given birth within the last 5 years. (Courtesy of Major John Dotson, formerly with Wichita, Kansas, Police Department. Presently chief of police, Sparks, Nevada.)



**Figure 10.21 HUMAN HANDS OR BEAR CLAWS?** This photo illustrates the difficulty in making a determination of whether the bones are human or animal. These remains are actually bear claws that resemble human hands. (From the author's files.)

ing the remains before moving them, consulting with the medical examiner and anthropologist for any instructions, and if there is more than one skeleton, keeping the parts separate and assigning them consecutive numbers.

### Facial Reconstruction

Facial reconstruction from the skull is a method sometimes used in forensic anthropology to identify skeletal remains. In fact, according to Dr. Harry L. Shapiro, who was curator emeritus of the Anthropology Department of the American Museum of Natural History, facial reconstruction is a procedure that has been used for years by anthropologists to recreate general physiological features of an individual based on information derived from skeletal remains. Although the physical anthropologist can arrive at an osteobiography of an individual based on the examination of the bones, Dr. Shapiro is quick to caution the investigator that determination of individuality based on these findings is subject to error. As he points out in his own reconstruction of a skull called the “Peking Man,” the reconstruction is an approximation of what a general or nonspecific Peking man looked like.

Doctor Shapiro contends that arriving at an individual or specific face based on examination of the skull and bones leaves too much margin of error because the soft-tissue features — such as shape of eyelids, mouth width, lip thickness, lower part of the nose, and ears — are not necessarily indicated by the skull's shape. However, a relatively new process of facial reconstruction combines the science of anthropology and artistic judgment based on anatomical knowledge and experience. It is called forensic sculpture.

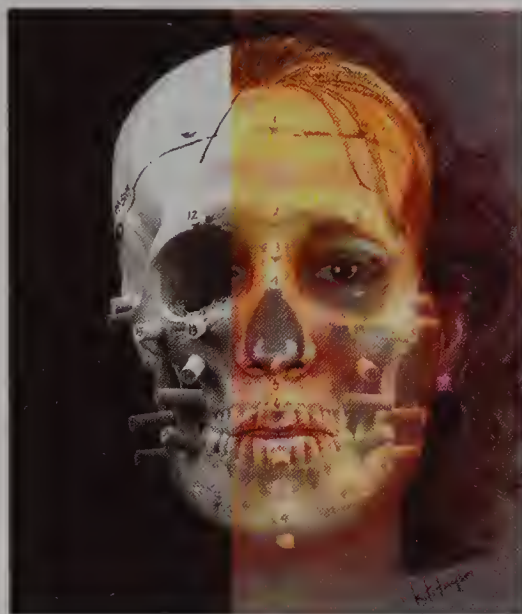
## Forensic Art

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### Introduction to Forensic Art

According to Karen Taylor, the author of *Forensic Art and Illustration*, “Forensic art is any art that is of a forensic nature; that is, art used in conjunction with legal

# Forensic Art and Illustration



**Figure 10.22** FORENSIC ART. (Courtesy of Karen T. Taylor.)

procedures.” Ms. Taylor adds, “Forensic art is any art that aids in the identification, apprehension, or conviction of criminal offenders, or that aids in the location of victims or identification of unknown deceased persons.”<sup>2</sup>

Ms. Taylor, a freelance portrait artist, worked for 18 years as a forensic artist at the Texas Department of Public Safety in Austin. Ms. Taylor taught forensic art at various law enforcement institutions, including the FBI, as well as in medical schools in the U.S. and Canada. She graciously contributed the information and material in this section, which has been revised, updated and redefined to reflect the advances and changes since the previously published “Facial Reconstruction” and “Forensic Sculpture” in the first three editions of this book.

I met Karen Taylor through Ms. Betty Gatliff, a forensic sculptor and contributor to my first edition of *Practical Homicide Investigation*. Ms. Gatliff is a former medical illustrator who has developed, taught, and practiced forensic sculpture at her freelance studio, SKULLpture Lab, in Norman, Oklahoma. She is internationally recognized for her expertise in this field. Ms. Gatliff and her associate, Dr. Clyde C. Snow, a physical and forensic anthropologist, pioneered the sculptural technique that has come to be known as the American method of facial reconstruction from the skull. Karen Taylor, who learned the sculptural method from Gatliff in the early 1980s, is credited with development of the two-dimensional or drawn method of facial reconstruction based on Gatliff’s American method.

Both artists emphasize that forensic art is a collaborative effort, which may involve the multidisciplinary expertise of professionals in various fields such as





**Figure 10.23 COMPOSITE IMAGERY, HAND-DRAWN.** Composite drawing by Karen T. Taylor based on a victim's verbal description (left) and photo of suspect identified (right). (Courtesy of Karen T. Taylor and the Texas Department of Public Safety.)

anatomy, biology, anthropology, psychology, pathology, forensic dentistry, or other disciplines.

#### Four Categories of Forensic Art

In her textbook, *Forensic Art and Illustration*, Taylor has defined four areas of concentration, each of which encompasses several subcategories. Art from any of the four categories may be useful in homicide investigations, though the fourth area of specialization, reconstruction and postmortem identification aids, is emphasized in this volume.

1. *Composite imagery.* Graphic images made up from the combination of individually described component parts. This may include full body drawings or object/evidence drawings.
2. *Image modification and image identification.* Methods of manipulation, enhancement, comparison, and categorization of photographic images. This may include age progressions of missing children or fugitive updates of long-term missing offenders.
3. *Demonstrative evidence.* Visual information for case presentation in court as trial displays. Trial displays may be two dimensional, three dimensional, or electronically generated.
4. *Reconstruction and postmortem identification aids.* Methods to aid in the identification of human physical remains in various conditions.



**Figure 10.24 COMPOSITE IMAGERY, COMPUTER GENERATED.** Composite developed electronically on Likeness software (top) and photo of subject (bottom). The face depicted is that of the author and was not made from memory. (Courtesy of Rarified Media through Karen Taylor.)



**Figure 10.25 CHILD AGE PROGRESSIONS.** Hand-drawn age progression based on photograph of a male child at 2 1/2 years of age (upper left), projecting the appearance to 18 years of age (upper right). Photo of the young man when located at age 18 (lower left) and age progression with facial hair added (lower right). (Courtesy of Karen T. Taylor and the Texas Department of Public Safety.)



**Figure 10.26 FUGITIVE UPDATE.** Hand-drawn fugitive update based on a poor-quality photocopy of subject (left), projected appearance after 15 years (center), and subject after capture when aired on *America's Most Wanted* (right). (Courtesy of Karen T. Taylor and the Texas Department of Public Safety.)



## Forensic Art in Identification of Human Remains

One of the most unpleasant and complicated tasks for law enforcement personnel is dealing with deceased bodies for which no immediate means of identification can be found.

Based on the condition of a particular body, the forensic artist must decide which of several methods is the logical approach to aid with identification. *The primary purpose of forensic art done in unidentified deceased cases is to attach a name to the body, which can then lead to a legally valid positive identification.* The artwork is intended to provide a link between an unidentified person and the records needed to positively identify him or her. Although there are jurisdictional variations, most authorities agree that legally acceptable positive identification is derived by one of the following means: visual identification, fingerprint comparison, dental comparison, comparison of radiographs, or DNA comparison. Possible art methods include the following.

### *Postmortem Drawing*

Postmortem drawing is a method of forensic art done when bodies are in good enough condition for the artist to develop a reasonable facial likeness based on morgue or crime scene photographs or by viewing the actual body.

Forensic artists who undertake unidentified deceased cases must gain a general understanding of the physical and biochemical changes that occur after somatic death or death of the body. These taphonomic changes and their specific effects on the human face are described in Karen Taylor's textbook, *Forensic Art and Illustration*.

Photographs of the deceased and pertinent information gained from the autopsy or other scientific reports should be provided to the artist. It may be useful to include crime scene photos and morgue photos. Ideally, frontal and lateral views of the deceased's face are photographed and a scale or ruler is included. The scale should be placed perpendicular to the camera lens so that it can be accurately read. Close-up documentation of other details such as dentition, scars, or tattoos may allow the artist to include these features accurately in the forensic artwork.



**Figure 10.27** POSTMORTEM DRAWING. Oblique morgue photo of unidentified homicide victim (left), postmortem drawing by Karen T. Taylor (center), and life photo after identification (right). (Courtesy of Karen T. Taylor and the Texas Department of Public Safety.)

As a result of climatic and situational factors, human remains are found in a variety of physical conditions. Postmortem drawings may be prepared from intact or relatively intact bodies. Such drawings may not be possible, however, in cases of severely damaged bodies or those in advanced stages of decomposition. In instances of semiskeletal or totally skeletal remains, a method of reconstructing the face from the skull may be indicated.

Two- and three-dimensional approaches have proven successful. In some cases, one may choose one method over another method, or the artist may simply prefer or have greater skill in a particular method. Each reconstruction type is explained and illustrated step by step in *Forensic Art and Illustration*. The book and the Web site ([www.karenttaylor.com](http://www.karenttaylor.com)) contain numerous photos of successful identifications using these techniques.

The drawing and the sculptural methods of facial reconstruction depend upon scientific input, particularly from the forensic anthropologist. First, the anthropologist examines the skull to determine sex, race, and approximate age. This information is important because the depths of the soft tissues of the face are different in males and females and in the three major racial/ancestral groups: Mongoloid (Asian-derived populations), Caucasoid (European-derived populations), and Negroid (African-derived populations).

The anthropologist also looks for evidence of individual anatomical peculiarities, diseases, or injuries that could influence a person's facial features during life. Items of clothing or jewelry found at the scene may be clues to the individual's body weight in life. Care should be taken at the scene to recover all teeth present and any available hair specimens. These items should be provided to the forensic artist. Armed with the anthropological information, the forensic artist draws or sculpts the face using anatomical knowledge, artistic judgment, and experience.

### ***Two-Dimensional Facial Reconstruction from the Skull***

The technique of two-dimensional facial reconstruction from the skull is a method of forensic art used to aid in identifying skeletal remains. Ideally, the artist and anthropologist collaborate to construct the facial features of the unknown individual on the basis of the underlying cranial structure.

Extremely fragile skulls may not be strong enough to bear the weight of clay for a sculptural reconstruction. In such cases, particularly if the damage is in the facial area, a two-dimensional approach may be taken. A plus with the drawing approach is that it is somewhat less expensive, and the skull is left uncovered so that it is available for other types of analyses to be conducted. With the drawing approach, it is also easy to alter the hair, facial hair, or eye color using acetate overlays without having to purchase wigs or prosthetic eyes.

Two-dimensional facial reconstruction follows the same preparatory steps by the artist as those for the three-dimensional method. These include

Receipt of the skull as evidence

Gathering case information and scientific input



**Figure 10.28 TWO-DIMENSIONAL FACIAL RECONSTRUCTION.** Skull of unidentified homicide victim (upper left), two-dimensional facial reconstruction by Karen T. Taylor with skull visible beneath (upper right), two-dimensional facial reconstruction (lower left), and subject identified (lower right). (Courtesy of Karen T. Taylor and the Texas Department of Safety.)

Preparing and protecting the skull

Gluing the mandible to the cranium

Cutting and applying tissue depth markers based on race and sex according to anthropological studies

Then, the skull is photographed at a scale of 1:1, face-on and in profile. Semi-transparent paper is then taped over the top of the photos and the forensic artist draws the victim's face on this, using the tissue markers as a guide. The artist uses various anatomical formulas for determination of the individual features such as eyes, nose, and mouth. Facial expression may also be added to give an element of life to aid in recognition.

### ***Three-Dimensional Facial Reconstruction on the Skull***

Facial sculpture — synonymous with facial or skull reconstruction, restoration, approximation, and reproduction — is a method of forensic art used to help identify skeletal remains. As with the drawn reconstruction method, the artist and





**Figure 10.29 THREE-DIMENSIONAL FACIAL RECONSTRUCTION.** Skull of unidentified homicide victim (left), lateral view of three-dimensional facial reconstruction by Betty Pat Gatliff (center), and subject identified (right). (Courtesy of Karen T. Taylor and the Texas Department of Public Safety.)

anthropologist collaborate to construct the facial features of the unknown individual on the basis of the underlying cranial structure.

Three-dimensional reconstruction offers the advantage of viewing and photographing the sculpture in multiple views. In addition, actual items recovered at the scene with the skeletal body, such as eyeglasses, dentures, jewelry, hair accoutrements, or clothing, may sometimes be placed directly on the finished sculpture for photography.

If an extremely fragile skull is to be reconstructed sculpturally, it would first have to be painstakingly molded and cast in a stronger material and then sculpted.

The preparatory steps described for two-dimensional reconstruction are performed. Once the tissue depth markers are in place, the forensic sculptor develops the facial features in a step-by-step manner based on anatomical formulas and bony clues. Hair can be sculpted on or a wig chosen based on any recovered hair specimens. The finished sculpture is photographed in multiple views and distributed to the media or in law enforcement bulletins in hopes that it will be recognized.

### ***Methods of Superimposition***

Another possible aid for use in the identification of skeletal remains may be a method of superimposition. This could be indicated in situations where skeletal bodies are found and there is possibly a matching missing persons' record. If no dental or other radiographic records exist for ready comparison of the body and the missing person, a facial morphological comparison may be made. This is usually done as a team effort involving an anthropologist and possibly a forensic artist.

Photos of the missing person are compared in an overlay manner with images of the unknown skull. This has been done by photographic, video, or computer-aided means. Such comparisons include several critical variables, including positioning, size, distortions, features to be used for comparison, and the defining limits for concluding a possible match or exclusion. Though superimposition is not

usually considered a means of determining positive identification, it has other benefits. A favorable comparison may be an economical way to suggest that further tests, such as mitochondrial DNA comparison, are indicated.

Taylor and Gatliff caution investigators to choose forensic artists carefully. Artists should be prepared to show examples of their previously successful cases because forensic art is a specialty that requires an anatomical foundation and is very experienced based.

## Conclusion

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The identification of the deceased is obviously critical to the overall success of the homicide investigation. The same principle that applies to estimating time of death, however, applies to determining the identity of the deceased: the “fresher” the body is, the better are the chances.

The normal methods of identification, such as informational sources found at the scene, photographs, and fingerprints, can be performed by the investigator. The more technical aspects of identification involving radiological examination, DNA, forensic odontology, and physical anthropology require the assistance of scientists and experts from various fields. The homicide investigator does not need to possess the expertise of these scientists, but he or she should have a working knowledge of their availability and potential for determining the identity of the deceased.

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# Death Notifications: The Surviving Family as Secondary Victims

# 11



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The purpose of this chapter is to emphasize the professional responsibility of the homicide investigator when making death notifications and to focus on the dynamics of dealing with the secondary victims of homicide.

Secondary victims are those persons left behind when a husband, wife, child, or other loved one is prematurely deprived of life due to a homicide. These persons are the survivors. The homicide detective has a profound duty and awesome responsibility in dealing with the surviving family in the murder investigation process.

1. The homicide detective encounters the reality of sudden and violent death and then must deal with the emotions and dynamics of the surviving family.
2. The homicide detective must personally process this information and then establish a base of inquiry that does not further traumatize the survivors.
3. The homicide detective makes the notification of death to the surviving family and next of kin.
4. The homicide detective assists the family and arranges for the official identification process at the morgue and/or medical facility.
5. The homicide detective provides the family with the information relative to the circumstances of the death and the progress of the investigation.
6. The homicide detective must guide the family through a complicated and confusing criminal justice system that is void of human compassion.

In fact, the homicide detective, in addition to pursuing the case, also becomes the advocate for the deceased and the surviving family throughout the entire process. Therefore, it is extremely important that he or she understands the psychodynamics of the grief process and recognizes the value of professional crisis intervention.

## Psychological Reactions to Death

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The subject of death and dying is depressing and most people avoid thinking or talking about it. In fact, death is considered fearful and frightening. Some persons even avoid going to funerals or wakes in an exercise of denial. The terminally ill are usually sent to hospitals or institutions to die, and the general public is seldom exposed to the presence or reality of death.

Yet, most of us have experienced the loss of a loved one due to illness or the aging process and have gone through a period of bereavement. Although death is an inevitable event for each of us, we usually ignore or deny that it can happen to us and we remain basically unprepared for it. When death occurs suddenly and/or is otherwise unexpected, the survivors find themselves in an emotional turmoil and become psychologically disoriented. The first reaction is disbelief, followed by feelings of sadness, grief, despair, and anger. Then there is a natural progression of healing termed the normal grieving process.

### The Normal Grieving Process

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The normal grief period following the loss of a loved one begins with a period of numbness and shock; the first reaction is usually one of disbelief. This is the *acute phase*. In this acute phase, which follows the initial notification of death, the person will usually grieve quite intensely. There will be crying, screaming, denial, and depression. For several days, the feelings may be blunted and the person is in a semidazed state punctuated by episodes of irritability or anger.

This initial phase usually ends by the time of the funeral, which allows for the release of tears and feelings of despair that may have been bottled up in the grief-stricken person.

Thereafter, a very intense grief reaction ensues. The mourner weeps copiously, yearns for the lost person, and wishes he or she had been more helpful and considerate when the loved one was alive. The mourner may also be preoccupied with memories of the dead person.

For a period of days, and perhaps weeks, the mourner remains somewhat depressed and apathetic, expresses a general sense of futility, and becomes socially withdrawn. During this period of despair, the person is likely to suffer from insomnia, psychosomatic (psychologically induced) intestinal disorders, loss of appetite, restlessness, and general irritability. A tendency to deny the fact of death may persist for many weeks.

Gradually, mourners go through a psychological reorganization. They experience hours, days, weeks, and even months during which they do not consciously think about their loss and feel no grief. They are able to return to work and resume daily activities after about 2 or 3 weeks, but may continue to withdraw from certain types of social affairs.

After a month or two, even the most acute symptoms begin to subside, but there may still be residual sadness, yearning, and attacks of acute grief during the ensuing months.

However, there will always be something that reminds the mourner of the loss. Many times it will occur on the anniversary date of the murder. Other events which may suddenly remind the family of their loss could occur on the birthday of the victim. It might also occur at the first family gathering since the loss of the loved one or even a seemingly unrelated event, which might bring the thought forward into consciousness. A news story, television program, or discussion about a similar incident might suddenly thrust a person back into grief. However, the intensity of the grieving process becomes shorter in duration and gradually less intense.<sup>1,2</sup>

## The Stages of Grief

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Elizabeth Kubler-Ross and other experts have identified various stages of grief in death and dying. The Kubler-Ross Model identifies the five stages of grief as denial, anger, bargaining, depression, and acceptance.<sup>3</sup>

According to the National Organization for Victim Assistance (NOVA) the stages of grief for survivors of homicide victims also follow the Kubler-Ross Model.<sup>4</sup> These consist of

1. Denial: shock, confusion, avoidance, refusal to participate in acknowledgments, crying, physical pain, weakness, nausea, sleep disturbances, loss of appetite
2. Protest or anger: anger at self, loved one, God, the world; irritability, lack of concentration; frenzied activity; fatigue
3. Despair: urge to recover what was lost, slower thinking and actions, sorrow, agony, depression, hopelessness, and powerlessness
4. Detachment: apathy, indifference, decreased socialization, disengagement from the world, absent spontaneity and affect
5. Reconstruction of life: spasms of grief, a loss is forever\*

The important point to note is that grief is a natural process that seems to allow survivors to mourn their loss and then free themselves for life without the departed person.

However, an even more important point to note is that the grieving process, despite clinical interpretations and definitions of stages and references to “normal periods,” is unique to each individual. People grieve in different ways and process that grief over different lengths of time. In fact, the grieving process is often the entire life span of the griever. There are cultural and religious differentiations as well as individual dynamics. Survivor behaviors vary considerably from one person to another and there is a wide range of normal responses in thinking, feeling, and behavior.

\* In the Kubler-Ross model, the last stage is acceptance; however, for the survivors of homicide victims, there is never acceptance. Acceptance is replaced with reconstruction of life.



## Psychological Reactions to Murder

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Homicide creates an intense psychological turmoil due to the sudden and violent nature of the death. The surviving families of murder victims are suddenly thrust into the terrible reality of the permanent loss of a family member under horrifying circumstances. The initial shock is devastating and survivors find themselves totally unprepared for such a tragedy.

The unfairness of the loss is magnified by the knowledge that their loved one will never have the opportunity to experience his or her full potential in life and the surviving family members will never be able to express to the victim how much they loved him or her. The grieving process under these circumstances is extremely intense and is commonly accompanied by acute feelings of rage and anger as well as a sense of injustice and helplessness.

Another factor that will affect the psychological reactions of survivors is the type of homicide that occurred and which member of the family was lost. For instance, a father and husband is shot and killed in a grocery store, leaving the family devastated and destitute. However, is that circumstance the same as having the family's teenage daughter kidnapped, raped, and murdered by a group of sexual predators? The grief reaction will obviously be much more intense as the family imagines the horror that their daughter experienced before death.

## Psychological Reactions to Murdered Children

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The death of a child under any circumstance is an extremely tragic and sad event. The death evokes strong emotions because it seems to go against the natural order of things. Children usually do not die before their parents, and parents usually do not have to bury their children.

When a child is murdered, the parents are totally devastated. It is so unacceptable, inappropriate, and unnatural that parents cannot even begin to comprehend what has happened. The result is extreme psychological stress, which is termed *parental bereavement*.

Research has shown that the grief of parents is much more intense than any other kind of grief. The sorrow and depression are long lasting, and the anger and bitterness are extremely difficult to resolve. The death of a child due to murder often invokes self-blame as the grieving parents begin to convince themselves that they may have prevented the murder or been able to protect the child.

In addition, the family may experience intense interpersonal difficulties, which result in marital discord and separation. Detectives should be aware that parental bereavement and unresolved grief might require professional intervention. For further information, I recommend contacting Parents of Murdered Children Inc. (<http://www.pomc.com/>; see listing at the end of the chapter). This organization maintains a directory of local chapters and is an excellent resource for victim support services.

## **Psychological Reactions to the Murder of Police Officers**

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The murder of a police officer has a psychological effect on the entire department. Although death and homicide are part of the everyday work of many police officers, when a fellow officer is killed “in the line of duty,” the terrible reality of death suddenly strikes home.

Psychologically speaking, false feelings of invulnerability are suddenly shattered with the realization that “it could have been me.” There may be fear and confusion on the part of fellow law enforcement officers as they go through the trauma of losing a coworker. Families of police officers killed in the line of duty often find themselves isolated or abandoned by the police department after the funeral because they represent the “bad reminder” of law enforcement’s ultimate sacrifice. It is very common to hear officers exclaim that “every time I see that family (the slain officer’s), I see my own family and that gives me the creeps.” Thus, avoidance is the most common psychological defense and reaction. This might work out fine for the coworker, but what about the slain police officer’s surviving family?

The important point to note here is that men and women in police service are certainly not immune death and the grief process. Homicide detectives should be aware of the impact upon police survivors and be prepared to assist them through the department’s resources as well as intervention services.

An excellent national organization formed to assist police survivors and provide emotional care for the deceased officer’s family is Concerns of Police Survivors, Inc. (<http://www.nationalcops.org/>; see the listing at the end of the chapter).

## **Notifications of Death by the Homicide Detective**

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Homicide detectives become an integral part of the family’s grieving process. How detectives make the notification of death, the information they provide to the family regarding the incident, and what assistance and support they offer the family have been identified by experts in the field of grief therapy as crucial to the eventual healing process. Most experts agree that death notifications should not be made by telephone unless there is no other alternative.

The compassionate expression of condolences coupled with dignity and respect is a necessary component of a proper notification. This empathic consideration will ultimately assist survivors in coping with their great loss. Notifications of death are extremely difficult for survivors and law enforcement personnel. Practically speaking, there is no really “good” way to notify survivors that a loved one has been murdered.

I recommend that death notifications in homicide cases be made by at least two detectives. The case officer can communicate the information while the other detective carefully observes the reactions of the survivors. Individuals may react to death in a violent manner, or they may suffer physical reactions requiring emergency first aid. Needless to say, the second officer can assist as necessary.

In some circumstances, detectives may need to notify two or more survivors separately in order to obtain investigative information, or there may be an indication that a family member is involved or suspect in the homicide. In either event, it is crucial that detectives be prepared to obtain and document these significant interviews.

I recommend that detectives have a uniform officer accompany them when making an official death notification. The presence of an officer in uniform can have a calming effect, which will prevent confusion and readily identify those making the notification as police officials. A detective may want to have uniform officers present while making death notifications for another reason. Uniform officers might be necessary to stabilize persons who have the potential for hostility toward the police, especially in police-related shooting events.

In addition, detectives may wish to consider the assistance of a crisis counselor when making a notification of death. The crisis counselor may often choose to remain behind with the family after the detectives have left and provide support services to the survivors.

## **Recommendations and Guidelines for Proper Death Notifications to Surviving Family Members**

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The following recommendations and guidelines are based upon my experience in making death notifications as well as information from *Revised Homicide and Sudden Death Survivor Guidelines* established by the Attorney General of the State of New Jersey,<sup>5</sup> The National Organization for Victim Assistance (NOVA) *Community Crisis Response Team Training Manual*,<sup>6</sup> and research developed by The National Center for Victims of Crime.

- Notification should be made in person by the assigned detective as soon as possible after identity has been established. Under no circumstances should the media be advised of an identification prior to notification of next of kin.
- Try to assure that the appropriate closest adult relative receives notification first.
- Get as much information about the person to be notified as possible. Medical information, i.e., heart condition, etc., of the person to be notified is particularly important, if available.
- Identify yourself as the assigned detective and present your credentials. Request permission to enter the home.
- Encourage survivors to sit, and sit down with them when you talk to them.
- Make sure there are no dangerous objects nearby. This includes scissors, knives, heavy objects, etc.
- The actual notification of death should be made simply and directly, i.e., “I have some bad news for you. Your son is dead.” Tell the surviving family





**Figure 11.1 THE AUTHOR CONSOLING FAMILY MEMBERS AT THE SCENE OF A HOMICIDE.** Family members who arrive at the scene of the murder often express a desire to see their loved one. This can be discouraged by advising them that it would be better to remember their loved one as he or she was in life. The author is consoling and guiding the mother of the victim away from the crime scene as he provides the family with the necessary details of the event that are required in a death notification. (From the author's files.)

that you are sorry for their loss and express your condolences in a professional and empathic manner.

- Answer all questions tactfully and honestly *without jeopardizing the criminal investigation.*
- Be prepared to explain what happened, when it happened, where it happened, and how it happened. Be prepared to present confirming evidence and the source of positive identification in a clear and convincing fashion in the face of denial.
- After the survivors have recovered from the initial shock, explain that you need to ask certain informational questions about the deceased in order to initiate the investigation and that you will try to keep these questions as brief as possible.
- You should then explain that it will be necessary for a family member to identify the deceased. Allow the family to choose who will make the identification.
- Transport or arrange for his or her transportation to and from the hospital or morgue.
- Inform the survivors that a medicolegal autopsy is required to establish the exact cause of death.
- Focus on the immediate needs of the survivors. Offer to assist them in notifying and contacting others, i.e., "Is there someone I can call to see if he or she could come over now?"

- Make sure that the survivors are not left alone. Have an officer or crisis worker remain until the arrival of some designated friend or relative.
- Explain that you will be available for any of their questions and provide them with your business card and office telephone number.
- Offer information on crime victims' services by providing them with the telephone numbers. (See the listing at the end of this chapter.)
- If the survivor is at his or her place of employment, you should proceed there, contact the survivor's supervisor, and request to speak privately with the survivor so that proper notification can be made.
- In some instances, the surviving relatives of victims of sudden and violent death are not immediately available. In these circumstances, you should make inquiries of neighbors to ascertain when the family is expected home. You should explain that there has been a medical emergency involving the deceased and request the neighbor to contact you if the survivors return home.
- You should request that the neighbor not provide the next of kin with any information regarding the medical emergency until the family is contacted.
- If surviving family members do not reside within the jurisdiction responsible for investigating the death or within a reasonable distance of that jurisdiction, you should contact the appropriate law enforcement agency covering the residence of the family. That agency should be requested to make an in-person notification to the surviving family and provide the family with the investigating officer's name, agency, and telephone number.

## **Providing Information to the Surviving Family**

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There is some difference of opinion on what information can and should be released to the surviving family in murder investigations. If it is at all possible that some member of the family is involved in the homicide, then obviously any disclosure of investigative information would jeopardize the investigation.

However, in most instances, the surviving family members are not suspects and they express a need to know certain details. The most immediate concern of survivors is the physical injury that was inflicted upon the victim and the varying degrees of trauma associated with the murder: "How was he killed?" "Did he suffer?" "What did the killer do to him?" "Who did it?" NOVA identifies specific situational factors that affect the survivor's trauma, such as the relationship of the survivor to the murder victim and the occurrence of significant events.

In circumstances where survivors have witnessed the event or had a relationship to the assailant, there is an added grief. Certain types of murder and how the victim was killed invoke greater anguish. For instance, murders accompanied by sexual assault, torture, and/or mutilation can be psychologically overwhelm-

ing to survivors as they imagine what degradation and suffering the victim must have endured.

The determination of what information and how much detail to provide to the surviving family is unique to each case. The homicide investigator is in the best position to make this determination based upon the nature of that case and the ability of the family to process the information.

In the early stages of the inquiry, there is a tactical and strategic rationale in withholding certain information known only by the police and the murderer. The detective should advise the family accordingly so that they understand why the police do not provide them with all the details. Most persons will accept this explanation early in the investigation.

However, what should be noted is that as the case progresses, the family should be provided with as much information as possible. If an arrest is made, the family should be notified immediately before they learn of it through the media. Once an arrest has been made, the family should be prepared for the court process.

### **Guiding the Surviving Family through the Criminal Justice System**

The criminal justice system has a heavy impact upon the surviving family. Although the law enforcement community is fully aware of the inequities of the criminal justice system, most people are not prepared for a system that punishes the innocent by protecting the guilty.

According to research conducted by Crime Victims Research and Treatment Center of the Medical University of South Carolina, "six out of ten family members (56%) thought that the criminal justice system treated the defendant better than it treated them, and more than six out of ten (61%) said that they felt mostly or totally helpless while the case was in progress."<sup>7</sup>

Many survivors experience outrage as the homicide case progresses through a system which bends over backwards to be fair to defendants while completely ignoring the victim. While judges and attorneys ponder endlessly over the technical issues of the case and the rights of the accused, the surviving family members are often left completely out of the process, which adds to their feelings of helplessness and frustration.

Legal delays and postponements may last for months and even years. The family may be barred from the courtroom so as not to prejudice the jury against the defendant, or the victim may be maligned by the defense in order to minimize the significance of the murder.

The responsibility to guide the family through this criminal justice process falls on the shoulders of the homicide detective who must act as an advocate for them.

Detectives should warn the family that the defense may attempt to contact them. Advise them that they have no obligation to speak to any representative of the defense. Provide the family with the telephone number and name of the State's



Attorney or prosecutor assigned to their case. Put the family in touch with a victims' rights organization and encourage them to ask questions.

The Stephanie Roper Committee and Foundation is an organization with which I became familiar during a murder case consultation. This organization has been renamed The Maryland Crime Victims Resource Center, Inc. (<http://www.mdcrimevictims.org/>). I have referred a number of persons and agencies to this group for advice and counsel to ensure that victims of crime receive justice and are treated with dignity and compassion through comprehensive victims' rights and services. Roberta Roper and her husband, Vince, were the founders of this organization, which has become one of the most powerful victims' rights organizations in the United States. Sadly, the organization, named after their daughter Stephanie, was formed as a direct result of Stephanie's rape and murder at the hands of two sexual psychopaths and the initial miscarriage of justice that occurred during the first trial of the defendants.

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## Case History

On April 3, 1982, Stephanie Roper became an innocent victim of a heinous crime in Maryland. She was a college senior about to graduate from Frostburg State University and was home for a weekend visit with her family in Prince George's County. After she left her friend's home, her car became disabled. Two men, Jack Ronald Jones and Jerry Beatty, came upon Stephanie in the early morning hours as she waited on the side of the road for assistance. The two men kidnapped her and drove her to a location where she was raped and sodomized.

After the sexual assault, the offenders took her 40 miles south to an abandoned cabin that they used as a hang-out in Oakville, Maryland. During this 5-hour period, she was brutally raped, tortured, and murdered. Stephanie attempted to escape from her captors, who shot her in the head. In a final act of savagery, they doused her body in gasoline and watched as the fire consumed it. They then dragged her by the ankles deeper into the woods where her body was disposed of in a swamp.

Her two assailants were arrested, brought to trial, and convicted. However, the murderers received sentences which would have permitted them parole eligibility in less than 12 years. There was a public outcry. The Ropers, who thought that their family would receive justice from the courts, expected that the offenders would be punished for what they had done to Stephanie. They were devastated to learn that the offenders had more rights than an innocent victim and decided to do something about the criminal justice system to ensure the victim's rights and that the survivors would be empowered.

Friends and neighbors who had known and loved Stephanie found it impossible to do nothing. Frustration and anger were diverted into acts of love toward Stephanie's family. A small group was formed to help them through the funeral and subsequent criminal trial: the Stephanie Roper Family Assistance Committee.

In October 1982, the group incorporated as the Stephanie Roper Committee and Foundation, Inc. Guided by the cause, Stephanie's memory, and the leadership of Stephanie's parents, Vince and Roberta Roper, volunteers came forward to form the staff. Goals and priorities were set, chapters were formed, space was donated, and the first office opened.

The Ropers effectively channeled their grief and dedicated their resources to force the criminal justice system to become more responsive to victims and victims' rights.

Twenty years later, on October 1, 2002, the sister organizations bearing Stephanie's name merged to become the Maryland Crime Victims' Resource Center, Inc., a statewide non-profit organization dedicated to serving the interests of crime victims in Maryland, while maintaining a nationwide reputation for dedicated advocacy and services.

Today, the MCVRC serves Maryland's victims from two offices, one in Prince George's County and the other in Baltimore City. It has diversified its services to include criminal justice education, court accompaniment, therapeutic counseling, support groups, community education, prevention education, legal information and assistance, direct legal representation, policy advocacy, technical assistance for allied professionals and criminal justice agencies, and faith-based referrals.

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## Conclusion

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I included this chapter in the text based upon my strong belief in victims' rights and the rights of the surviving family to see that justice is done. In my professional opinion as a homicide consultant, investigators should avail themselves of the information within this chapter and be cognizant of their duties and responsibilities to homicide victims' survivors.

## Victim's Assistance Organizations

Concerns of Police Survivors (C.O.P.S.)  
2096 State Highway 5  
P.O. Box 3199  
Camdenton, MO 65020  
<http://www.nationalcops.org/>  
Telephone: (573) 346-4911  
Fax: (573) 346-1414

Crime Victims Research and Treatment Center  
Medical University of South Carolina  
165 Cannon Street, P.O. Box 250852  
Charleston, SC 29425  
<http://www.musc.edu/cvc/>  
Telephone: (843) 792-2945  
Fax: (843) 792-3388

Maryland Crime Victims Resource Center, Inc.  
14750 Main Street Suite, 1B  
Upper Marlboro, Maryland 20772-3055  
<http://www.mdcrimevictims.org/>  
Telephone: (301) 952-0063  
Fax: (301) 952-2319  
Toll free: (877) VICTIM-1 (842-8461)

National Center for Victims of Crime  
2000 M Street N.W.  
Suite 480  
Washington, D.C. 20036  
<http://www.ncvc.org/ncvc/Main.aspx>  
Telephone: (202) 467-8700  
Fax: (202) 467-8701  
Toll free: (800) FYI-CALL (394-2255)

National Organization for Victim Assistance (N.O.V.A.)  
1730 Park Road, N.W.  
Washington, D.C 20010  
<http://www.trynova.org/contact.html>  
Telephone: (202) 232-6682  
Fax: (202) 462-2255  
Toll free: (800) TRY-NOVA (879-6682)

Parents of Murdered Children  
100 East 8th Street, B-41  
Cincinnati, Ohio 45202  
<http://www.pomc.com/>  
Telephone: (513) 727-5683  
Fax: (513) 345-4489  
Toll free: (800) 818-POMC (7662)

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From an investigative point of view, it is imperative that detectives have a practical understanding of the manner, means, and mode of several kinds of death. (See “Purpose of the Autopsy” in Chapter 18.) During the course of basic death investigations, various situations and types of death will confront the investigator. Because this chapter cannot conceivably cover all of the possibilities involved, it will address the more common methods of death:

Gunshot wounds

Cutting wounds

Stabbing wounds

Blunt force injuries

Poisons

Asphyxia deaths

Autoerotic deaths

Arson and fire deaths

In order to provide only the basic knowledge necessary to conduct an intelligent investigation, I have purposely avoided a technical and in-depth discussion of the pathology of wounds, injuries, and forms of death.

## Gunshot Wounds

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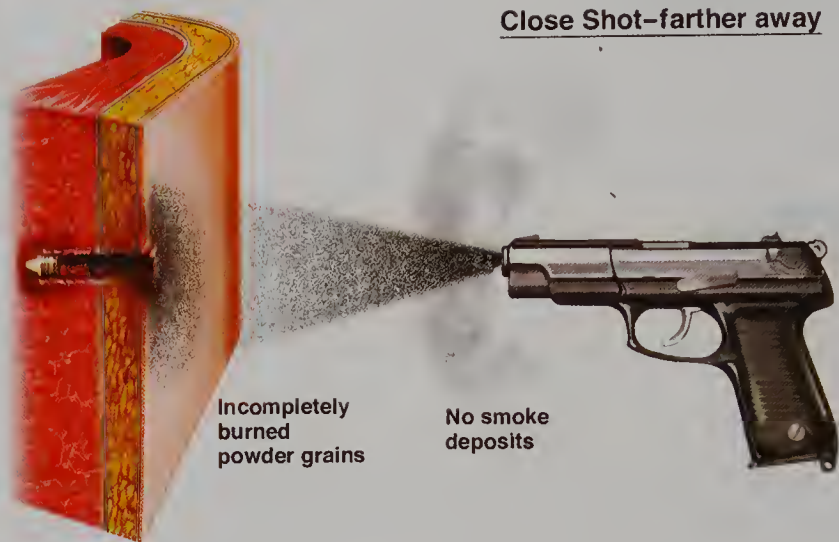
Gunshot wounds may resemble stab wounds in external appearance. However, certain physical characteristics of gunshot wounds will assist the investigator in differentiating stab wounds from wounds caused by firearms. In addition, certain wounds will provide the investigator with a clue to the circumstances under which they occurred.

In order to appreciate the nature of gunshot wounds, one must first understand what takes place as a bullet is fired from a weapon and what happens to the body as this projectile or bullet strikes it.

Basically, when a firearm is discharged, four things occur:

1. Fire or flame is emitted from the barrel.
2. Smoke then follows this flame.





**Figure 12.1** CLOSE SHOT — FARTHER AWAY FROM THE SKIN THAN INDICATED IN FIGURE 12.2. Unburned powder grains but no smoke deposits in the zone of blackening. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doereport.com.)



**Figure 12.2** CLOSE SHOT — SHORTER DISTANCE. Unburned powder grains and smoke deposits in the zone of blackening. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doereport.com.)

3. The bullet emerges from the barrel.
4. Additional smoke and grains of burned and unburned gunpowder follow the bullet out of the barrel.

As this material exits the barrel, it spreads out like a funnel. As the distance from the barrel increases, the density of the pattern decreases, i.e., the flame does not go very far, the smoke goes a little further, the powder grains travel different distances depending upon individual factors, and the bullet travels the greatest distance of all.

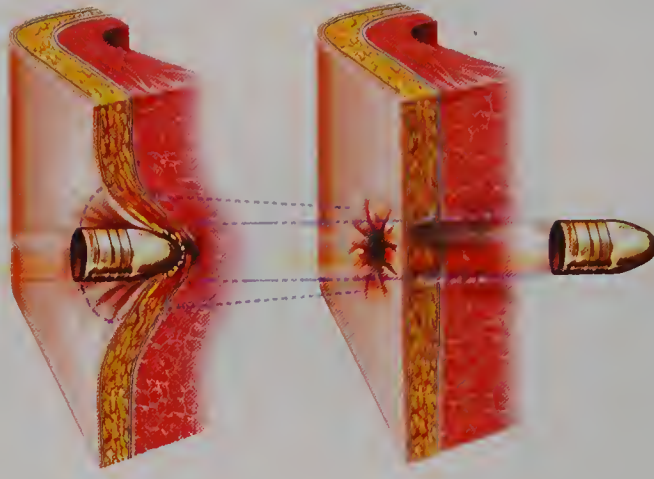


**Figure 12.3** ENTRANCE WOUND — .357 CALIBER. Suicide. Contact wound under throat. Observe the entrance wound of the bullet. Note the contusion and smudge ring around the collar of the wound. (Courtesy of Chief Deputy Doug Richardson, Coffee County, Tennessee, Sheriff's Office.)



**Figure 12.4** ENTRANCE WOUND — SMALL CALIBER BULLET. Observe the small entrance wound in the head of the victim from a .22 caliber semiautomatic. The wound was hardly visible in the hairline, which the ME has shaved to expose the wound. (From the author's files.)

Depending on the material present on the body or clothing and the degree of density, it *may* be possible to determine the distance involved. To make this determination, it is necessary to conduct test firings with similar ammunition.



**Figure 12.5** DIAGRAM OF BULLET PENETRATING THE SKIN. The skin is pressed inward, stretched, and perforated in the stretched condition, after which it returns to its original position. The entry opening is smaller than the diameter of the bullet. Immediately around the opening is a contusion ring because the bullet rubs against this part of the skin and scrapes off the external layer of epithelial cells. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

### The Projectile Striking the Body

There are two basic types of wounds:

1. The entrance wound
  - a. Generally smaller than an exit wound
  - b. Typically round, neat hole with an abrasion collar, and a gray or black ring around the edges
  - c. Comparatively small amounts of blood
2. The exit wound
  - a. Generally larger than an entrance wound
  - b. Ragged and torn in appearance, shreds of tissue extruding
  - c. Generally a greater escape of blood than from entrance wounds and possibly profuse bleeding

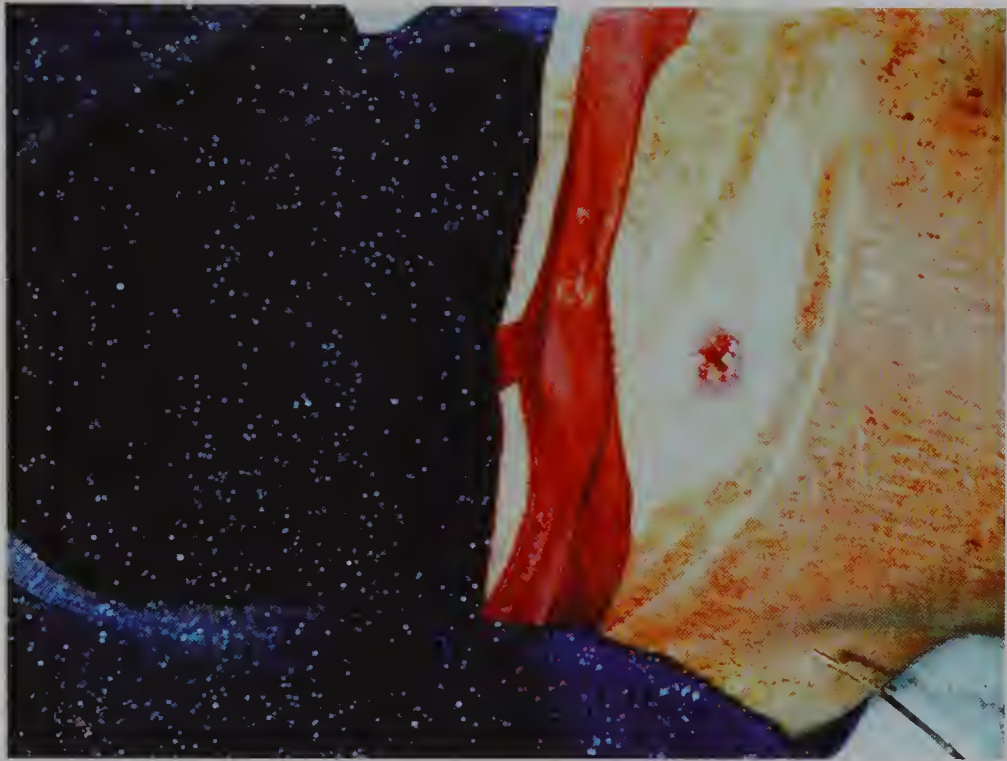
### The Nature and Extent of Gunshot Wounds

A number of factors will affect the characteristics of the wound and change its appearance, for example:

The distance	Passage through clothing
Ricocheting	The type of weapon
Type of ammunition used	The part of the body affected
Passage through the body	

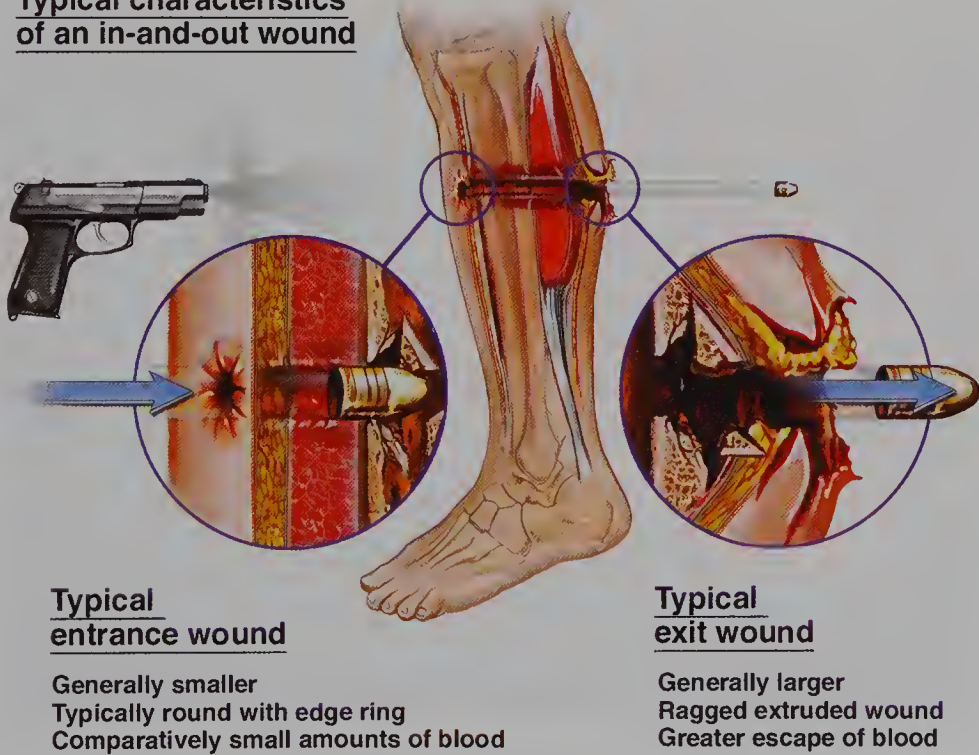
The homicide investigator should have a working knowledge of the pathology of wounds and the effect of a firearms discharge on the human body. Human skin





**Figure 12.6 EXIT WOUND.** This type of wound is usually larger than the entrance wound. It is jagged and torn in appearance. (From the author's files.)

**Typical characteristics of an in-and-out wound**



**Figure 12.7 DIAGRAM OF WOUND DYNAMICS.** Typical characteristics of in and out wounds, which follow a general configuration. There are many exceptions. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)



**Figure 12.8 CONTACT WOUND.** Contact wound to head over bony surface. Note the contusion ring and large deposit of gunpowder in the wound. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)

is very elastic and resistant. When a projectile or bullet strikes the skin, it causes an indentation. As the bullet perforates the skin and bores through, it causes a circular perforation and an *abrasion collar*, which is caused by the damage to the skin as a result of the friction between the bullet and the stretched, indented skin. In addition to this perforation and abrasion collar, there will be a blackening effect around the wound's edges caused by the discharge of lubricants, smoke particles, and grime from the barrel of the weapon onto the bullet. The skin actually wipes this residue off the bullet as the bullet enters the tissue.

The skin, which has been stretched by the bullet, then returns to its normal or former position. This will make the wound appear smaller than the projectile which has passed through it. The resistance of the skin is evidenced by the fact that many times a bullet will go clear through the body only to be stopped by the skin on the opposite side.

A bullet usually travels in a straight line as it passes through the soft tissue of the body. However, if the bullet hits bones, its direction is unpredictable and will be determined by the velocity of the bullet, the size and shape of the bone, and the angle at which the bullet strikes the bone. In some instances, the bone may be shattered, creating additional projectiles of bone fragments, which cause even further tissue destruction. The exit wound will be large and ragged as this impacted tissue and the bullet push their way through.

As mentioned earlier, a bullet hitting a bone may deflect. Often a bullet fired into the chest cavity or skull will be deflected because of angle and, instead of entering straight into the body, may travel under the skin, sometimes encircling the entire chest or head of the victim.





**Figure 12.9 WOUND INTO CHEST THROUGH CLOTHING.** This photo depicts a wound that resembles a bullet entry that had gone through the victim's clothing. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)



**Figure 12.10 WOUND EVALUATION.** This wound was actually a puncture wound from an ice pick, which had been plunged into the victim's chest through the clothing. The drying wound resembled a gunshot entry wound. Medical examination determined it to be a stab wound. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)





**Figure 12.11 CLOSE-CONTACT WOUND.** A close-contact type wound with a clustered tattooing around the entrance wound (results from the gun's muzzle pressed directly to the victim's chest through light clothing). The wound is a perforating type with the bullet exiting the victim's back. The muzzle blast caused the tattooing. (From the author's files.)



**Figure 12.12 X-RAY DEPICTING LODGED BULLET IN CHEST.** (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)



**Figure 12.13 EXAMPLE OF GUNSHOT RESIDUE DISTRIBUTION.** This revolver discharge demonstrates how gunshot residue particles fall on a shooter's hand during firing. The crime lab can perform analysis on these particles if they are collected in an appropriate manner. Also note the cloud of discharge materials following the bullet from the muzzle. This soot and the particles can be detected on clothing and/or skin. The muzzle/bullet impact site distance can be estimated from the spread of materials (see Figure 12.1 and Figure 12.2). (Photograph courtesy of the Federal Bureau of Investigation.)

### Smudging or Smoke

1. Smoke and soot are deposited around the wound.
2. The wound has a dirty and grimy appearance.
3. This is easily wiped off the skin.
4. This indicates that the gun was held close to the victim, but was not in actual contact.
5. Clothes should be held for examination.

### Searing

Searing is a yellow singed effect due to the discharge of flame from the barrel.

### Tattooing or Stippling

1. Pinpoint hemorrhages due to the discharge of burned powder can be seen.
2. Unburned powder or pieces of metal of the bullet from the blast are driven into the skin.
3. Unlike "smudging," this cannot be wiped off the skin.

### Reentry

If the bullet has already passed through another part of the body and reenters, an irregular wound will result which may appear as an exit perforation.



**Figure 12.14 TATTOOING OR STIPPLING.** The bullet entrance is surrounded by pinpoint hemorrhages due to the discharge of burned powder and fragments, which have been driven into the skin. This is the result of a close shot. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)



**Figure 12.15 EFFECT OF HIGH-VELOCITY AMMUNITION.** Homicide. This woman was hit in the face at close range with a bullet from a 30.06 rifle. (From the author's files.)





**Figure 12.16 EFFECT OF HIGH-VELOCITY WEAPON.** Suicide. This man committed suicide by firing a shotgun into his mouth. This high-powered weapon combined with the shotgun load obliterated the man's face and head. (Courtesy of Detective Mark Reynolds, Harris County, Texas, Sheriff's Department.)

### Ricocheting

Similarly, if a bullet has struck another object before entering the body, the entry wound will be irregular.

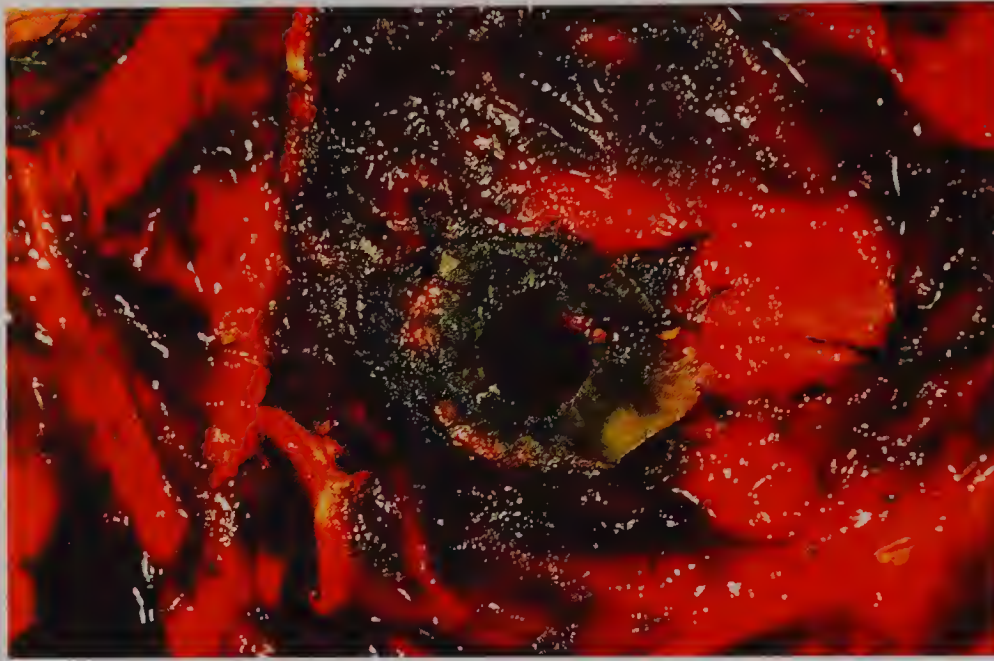
### Shotgun Wounds

The shotgun, specifically the 12-gauge, is the most common weapon confronting law enforcement, and it is the most deadly.

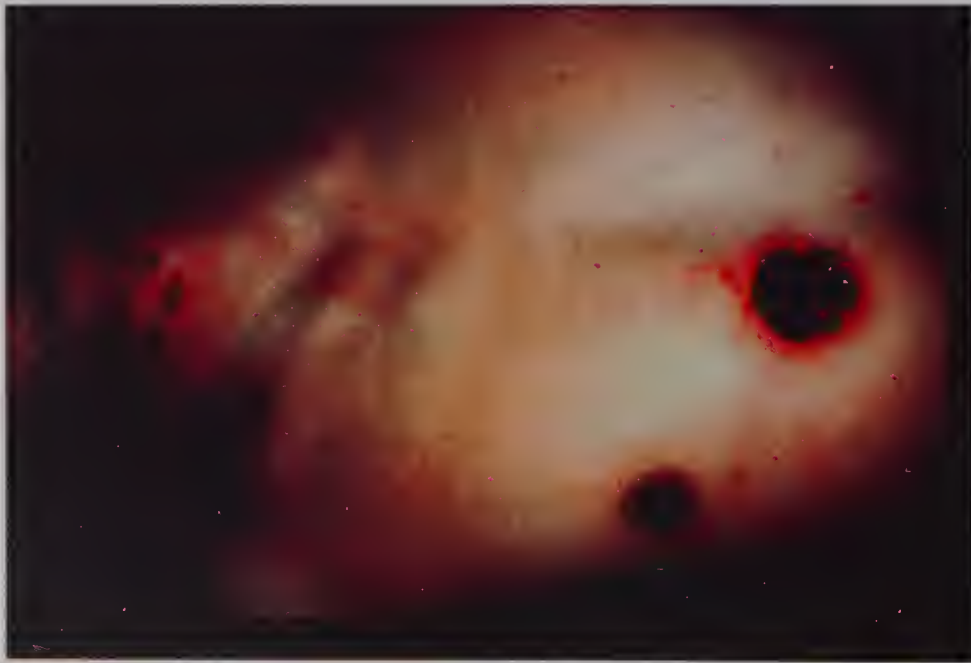
1. Massive tissue destruction occurs.
2. Wadding is usually embedded in the wound if the shotgun is fired within 10 feet of the victim.
3. Wadding can provide the investigator with (1) the type of shot, (2) the gauge of the gun, and (3) possible evidence to identify the gun used.

### Contact Wounds

1. The muzzle of gun is held directly against the skin at discharge.
2. The shape is a result of penetration of the bullet and escape of the flame and expanding gases.
3. The perforation will be larger than the diameter of the bullet.
4. The wound is dirty looking.
5. Skin edges are ragged and torn.



**Figure 12.18** INTERNAL VIEW OF THE WOUND SHOWN IN FIGURE 12.17. (From the author's files.)



**Figure 12.17** SHOTGUN ENTRANCE WOUND TO THE CHEST. (From the author's files.)



**Figure 12.19 INTERMEDIATE RANGE SHOTGUN WOUND.** This photo shows a close-up and intermediate-range shotgun blast to the neck of the victim. Note the spinal cord seen beneath the displaced tissue. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)



**Figure 12.20 DIAGRAM REPRESENTATION OF A CONTACT WOUND.** The weapon is pressed against the head or body in an area overlying bone surfaces. Subsequently, the gases from the explosion expand between the skin and the underlying bone surfaces producing a bursting effect with a ragged entrance wound. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

6. Charring of skin tissue occurs due to tremendous heat from the muzzle blast.
7. Particularly large and marked tissue destruction occurs when the contact wound is in the head or over bones. There will be a characteristic cross-shaped or star-shaped wound, sometimes referred to as stellate. Due to the force of the explosion and the gases against the skull, there is an expansion under the scalp, producing a ragged and torn wound that is much larger than an exit wound.





**Figure 12.21 CONTACT WOUND TO SIDE OF HEAD.** Particularly large and marked tissue destruction is evident, characterized by a cross-shaped or star-shaped wound referred to as a stellate-type wound. (From the author's files.)



**Figure 12.22 MUZZLE STAMP.** Contact gunshot wound to the neck under chin demonstrating muzzle/slide/slide guide rod impression. (Courtesy of Westchester County Medical Examiner's Office.)



**Figure 12.23** TWO BULLET ENTRY WOUNDS IN HEAD. The medical examiner has shaved the hair from the area of the entrance wounds into the victim's head. (From the author's files.)

*It should be noted that the contact wound is the exception to the general configuration of entrance and exit wounds.*

In some instances, the muzzle of the gun may be in contact with the skin and the underlying organs allow for the expansion of gases. The result will be a *muzzle stamp* or *brand* whereby the muzzle of the gun causes an abrasion on the body outlining the muzzle of the barrel and front sight. In this situation, the wound will not be ragged, but rather clean and round, because the charring and destruction take place under the skin. This is the exception in contact wounds.

### **Bullet Track**

The *bullet track* is the path of the bullet or projectile as it passes through the body. In certain instances, the on-scene examination may readily indicate the direction of fire if the classic entrance/exit wounds are present. The bullet track is usually straight but may be bent, changed, or erratic, depending on any number of factors. The most common cause for change of track is when the bullet or projectile has hit or been deflected by bone. However, keep in mind that outer garments may deflect the path of the bullet, or the wounded person may have fallen and been hit again. Other factors that may affect bullet tracks include the following.

1. The velocity of the bullet (high or low) will determine the direction of track.
2. The type of bullet (lead or copper jacket) will determine how far the projectile traveled.





**Figure 12.24** X-RAY OF VICTIM'S HEAD. The x-ray indicated the location where the two bullets are embedded in the victim's head. (From the author's files.)



(A)



(B)

**Figure 12.25** BULLET TRACK. Observe the skull cavity. (A) Two separate probes inserted into the entrance wounds of the projectile. (B) The direction of the bullet through the brain. Both (A) and (B) indicate the bullet track of the projectile. The pathologist will be able to make a determination of the direction and travel based on this procedure. (From the author's files.)



3. The ricochet factor — increasing size and number of projectiles — can give a wrong impression as to size and number of wounds.

**Remember to note your observations, but be prepared to re-evaluate your thinking in light of additional information.**

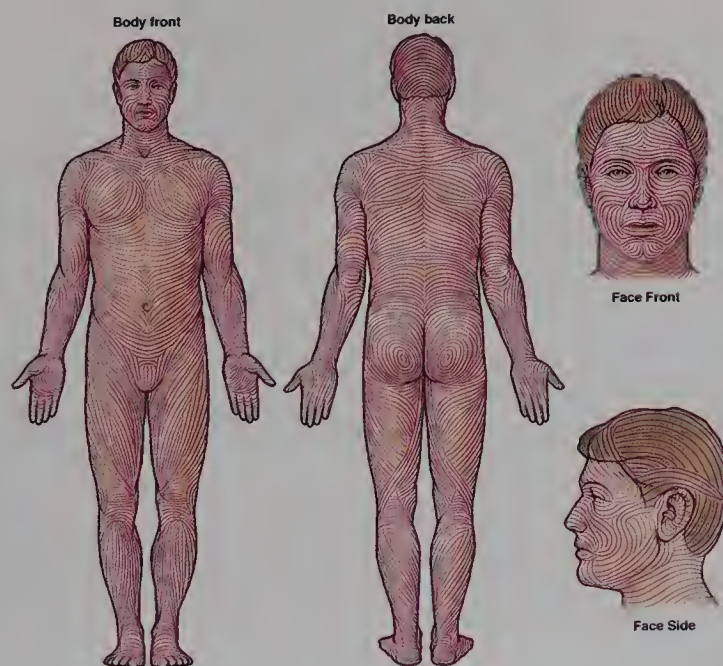
The bullet track is important in ascertaining the direction of fire. However, this determination must be made by the forensic pathologist, who can properly evaluate entrance and exit wounds through microscopic and physiological methods conducted during the autopsy.

## Cutting Wounds

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An incision or cut-type wound is caused by a sharp instrument or weapon and is generally longer than it is deep. The cut or incised wound is deepest where the weapon was first applied to the skin. If the cutting is done parallel to the lines of cleavage, the edges of the wound will remain together. If the cutting is across the lines of cleavage, the wound will be gaping or open.

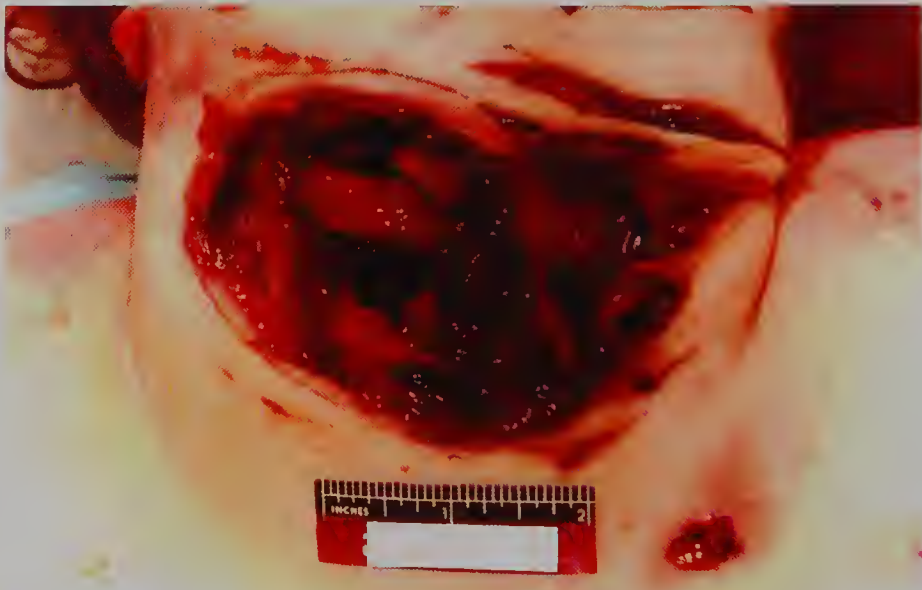
The incised wound usually involves the skin and underlying tissue, but may be deep enough to slice bones or organs. It is difficult to determine whether cutting wounds are antemortem or postmortem; therefore, only the pathologist should attempt to make this determination.



**Figure 12.26** LINES OF CLEAVAGE. Body and head. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)



**Figure 12.27** INCISED NECK WOUND. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)



**Figure 12.28** SLASHING OF THE THROAT — SEXUAL ASSAULT. The victim's throat was slashed by her assailant during a sexual assault and murder. Her larynx was severed, preventing her from screaming for help. (Courtesy of Detective Sergeant Alan Patton, Grand Prairie, Texas, Police Department.)

Characteristics of cutting wounds include the following:

- Clean and sharp edges
- Minimum bruising
- Longer than deep
- No bridging of skin
- Freely bleeding

It should be noted that it is extremely difficult to make any determination of the type of instrument or weapon used.

## Stabbing Wounds

---

Stabbing wounds are piercing wounds, which may extend through the tissue and bone into the vital organs. They are caused by relatively sharp pointed instruments such as knives, screwdrivers, ice picks, daggers, scissors, or pieces of glass.



**Figure 12.29 STABBING INTO BACK — LARGE KNIFE.** This photo depicts stab wounds into female victim's back made with a large-bladed knife. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



**Figure 12.30 STABBING INTO CHEST — KNIFE IN WOUND.** Suicide. This photo depicts stab wounds into a female victim's chest with the knife left in one of the wounds. Many times the medical examiner will be able to state that a wound is consistent with a particular weapon. In this case, the weapon used by the victim is still in the victim. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



Stab wounds vary according to the type of weapon employed and how it was used in the attack (thrust, pulled out, twisted, etc.) The principle involving lines of cleavage (Langer's lines) is also applicable to stab wounds. The stabbing wounds can appear open and gaping or tight and narrow depending on whether the wound runs parallel to the lines of cleavage or against them. The shape of the stab wound *may* indicate what type of weapon or blade was used. However, like a bullet wound, the stab wound will be smaller than the blade which caused it due to the elasticity of the skin. The type of wound is, therefore, determined by estimates of minimum and maximum size. Sometimes the knife hilt may bruise the skin and leave an identifiable mark.

Characteristics of stabbing wounds are

Deeper than wide

Possible damage to vital organs beneath skin and bone

Internal bleeding with little or no external blood

Possible indication of type of weapon used

The pathologist will examine the wound track and can determine the position of the deceased when he or she was stabbed. In addition, if the victim fought with the assailant, there will be evidence of *defense wounds* on the hands and arms and between the fingers. Many times, the victim will have grabbed the knife only to have it pulled away by the assailant. This will leave a deep gash in the palm or on the undersurface of the fingers.



**Figure 12.31 DEFENSE WOUNDS TO THE HAND.** This photo depicts defense wounds to the victim's hand from a bladed instrument. There is also a foreign hair in the deceased's hand that can be used for DNA comparison. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)



**Figure 12.32 INCISED WOUNDS — STRAIGHT RAZOR.** Homicide. This photo depicts homicidal injuries inflicted with a straight razor. Note that the wounds are longer than deep and will bleed profusely. These types of injuries cut across the lines of cleavage and usually result in permanent scarring for victims who survive assault. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)



**Figure 12.33 OVERKILL — STAB WOUNDS INTO CHEST.** This photo depicts “overkill” injuries in which the offender stabbed the woman 94 times. These types of injuries usually occur when an offender is expressing rage, anger, or lust. (From the author’s files.)



The type of weapon, the direction of injury, and the position of the victim are all factors which can be ascertained by a careful examination of the stab wound. However, estimating the length of a knife from the depth of a wound can be problematic because different parts of the body have different degrees of elasticity. For example, a knife can be driven into the abdomen further than into a person's chest due to the ribs and sternum. The clothing of the victim should always be obtained for later inspection to determine the position of the deceased during the attack and to correlate injuries to the body with tears or rips in the clothing.

## Blunt Force Injuries

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Blunt force injuries are evident by outward signs such as lacerations and bruising. However, lack of external injuries does not mean that blunt force was not applied. In many instances, internal damage to organs occurs without any external sign of violence.

### Lacerations

A laceration is a tear in the tissue, which may be external (on the skin) or internal (such as a torn spleen). The torn edges of the skin will be ragged and bruised, and bridges of connective tissue may be stretched across the gap.

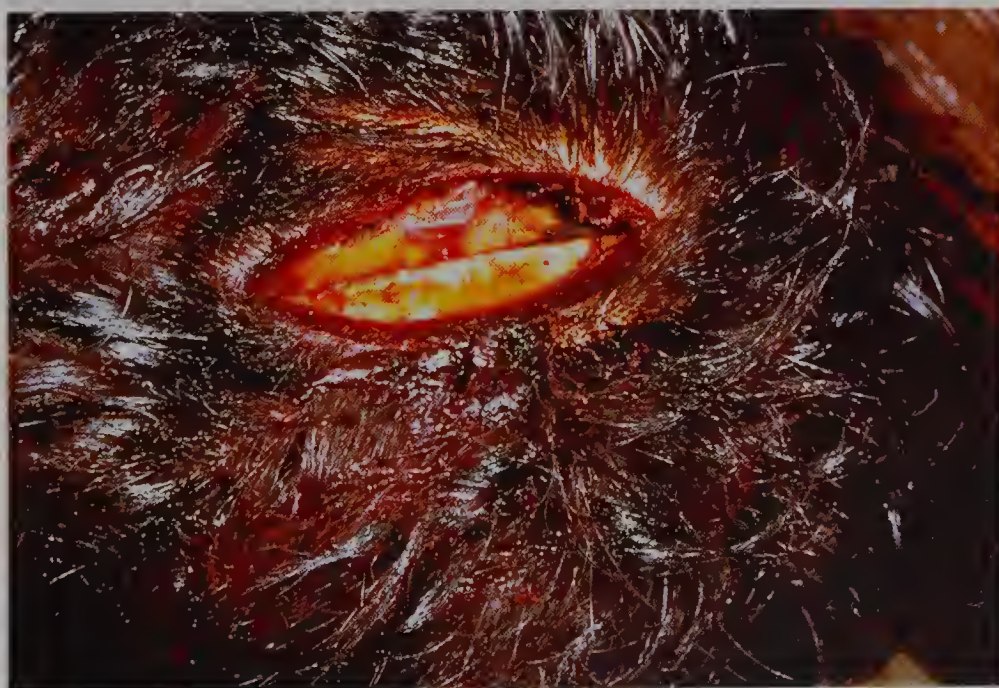


**Figure 12.34 LACERATIONS IN SCALP — BLUNT TRAUMA.** This photo depicts pattered lacerations in the scalp from a hammer. The medical examiner has shaved the area of trauma to expose the external wounds, which are consistent with the hammer used. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)





**Figure 12.35 BLUNT TRAUMA — SKULL FRACTURES.** This photo depicts the skull fractures beneath the lacerations seen in the previous photo. Note the extreme depressed skull fractures consistent with a hammer attack. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



**Figure 12.36 DEPRESSED SKULL — CHOPPING WOUNDS.** This photo depicts a depressed skull with multiple contusions. The weapon used was an axe wielded in a chopping fashion. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)



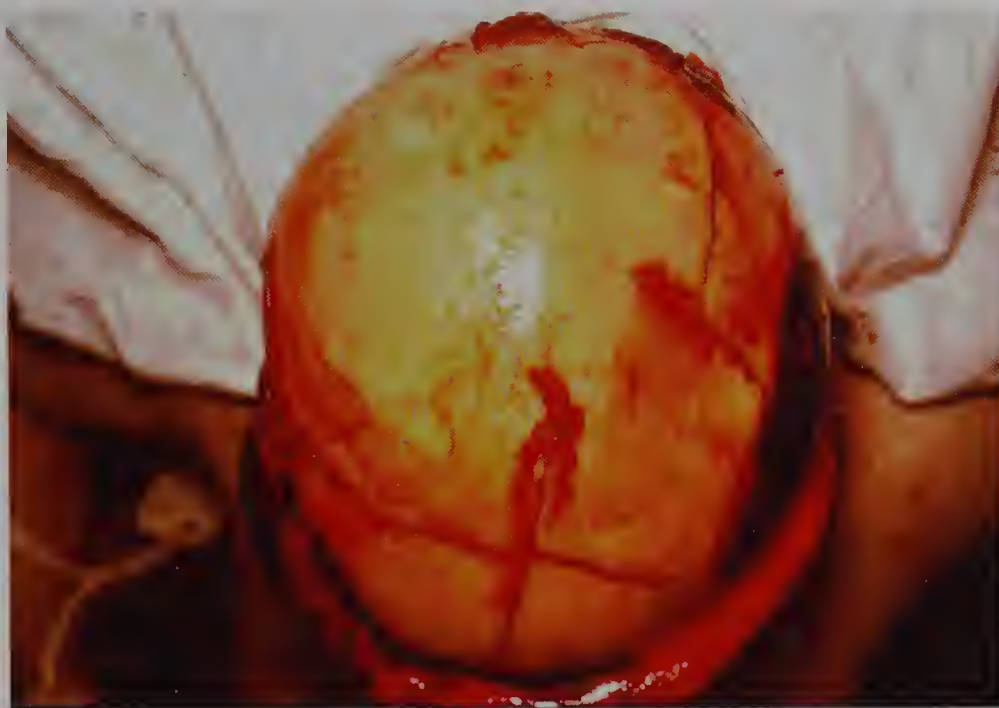
**Figure 12.37** PATTERN INJURY — BLUNT FORCE TRAUMA. These photos depict blunt force injury to the head. Note how the pattern of the weapon used to inflict the injury matches that of the wound. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)

### Chopping Wounds

These wounds are caused by a heavy object which has an edge, e.g., an axe. A wound produced by an axe will not only cut into the skin, but also cause contusions and structural damage to the body parts beneath. There will be a deep gaping wound, with contusions and structural damage.

Blunt force injuries are usually directed at the head of the victim. The evidence of injury to the head is evident in the lacerations of the scalp or the blackening of





**Figure 12.38 INTERNAL VIEW — SKULL FRACTURES.** This photo depicts the internal effect of massive blunt force trauma to the head with multiple fractures of the skull. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)

the eyes. However, a severe injury to the head need not be accompanied by evidence of laceration or eye trauma. A person may receive a blow to the head and appear to be all right, only to die later as a result of an internal hemorrhage.

Injuries to the brain in the back of the head are more likely to be fatal than injuries to the brain in the front part of the skull. This information must be well known in the underworld because in many execution-type murders, the victim is found face down and shot through the back of the head.

Blunt force injuries to the abdominopelvic cavity, which contains many organs, can cause severe internal bleeding and death. The most common injury within this area is a torn spleen. However, damage to the liver, intestines, and bladder is relatively easy to cause when blunt force is directed to the body.

Bone injuries also result from the use of blunt force. In a fractured skull, the direction of the cracks or fractures may make it possible to determine the direction of force.

## Deaths by Asphyxia

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Death by asphyxia can occur through any number of circumstances. The most common, however, are

- Strangulation (manual or ligature)
- Hanging
- Drowning





**Figure 12.39 ASPHYXIATION — MANUAL STRANGULATION.** Observe the marks on the throat area of the victim, which were caused by the fingernails of the assailant. (From the author's files.)



**Figure 12.40 PETECHIAL HEMORRHAGE.** Minute (pin-like) hemorrhages that occur at points beneath the skin. Usually observed in the conjunctivae (the mucous membrane lining the inner surface of the eyelids and anterior part of the sclera). (From the author's files.)

Inhalation of poison gases  
Suffocation

In fact, any death in which air is cut off from the victim is considered to be asphyxial in nature. This would also include those classified as *sexual asphyxia* and *autoerotic deaths*, which are discussed later in this chapter.

## Strangulation

Direct strangulation involves the choking of a person manually (by the hands) or mechanically (using a ligature). However, strangulation can also occur through such means as judo moves, use of forearms or legs (as in yoking), and use of instruments employed in combat to restrict air flow or to render an assailant unconscious by cutting off the supply of oxygen to the body. In manual strangulation deaths, there may be fractures of the hyoid bone or thyroid cartilage accompanied with hemorrhage. The fracture of the hyoid bone in ligature strangulation is found in less than 1% of cases.

In ligature-type homicides, any number of instruments can be employed, such as ropes, wires, and pieces of clothing. Any type of material or action which causes a person to stop breathing is considered to be asphyxial.

A cord, wire, or similar instrument will leave an obvious groove on the victim's throat, which resembles the mark on a hanging victim. The pathologist can often tell the investigator whether the marks left on the throat by the assailant's fingernails during the attack took place from the rear or the front of the victim.

Strangulation homicides will cause damage to the interior structures of the neck, throat, and larynx, which will be evident to the forensic pathologist who performs the autopsy.

## *Investigative Considerations*

The investigator can make certain observations at the scene which may enable him or her to determine the manner of death, for example,

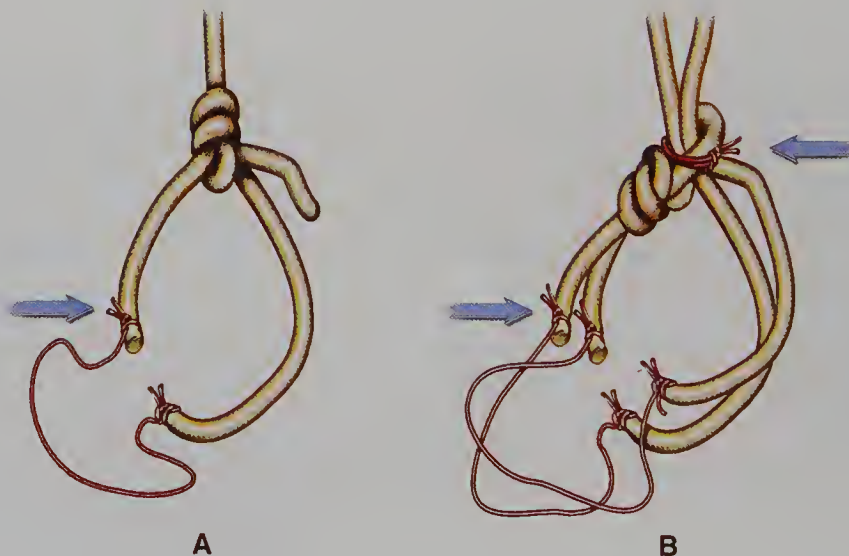
1. The presence of new abrasions, bruises, or fingernail marks on the throat of the victim may indicate a strangulation.
2. The presence of *petechial hemorrhages* (minute blood clots which appear as small red dots) in the *conjunctivae* (the mucous membrane lining the inner surface of the eyelids) or in the *sclerae* (tough, inelastic, opaque membrane of the eyeball) are presumptive evidence of strangulation.
3. Evidence of trauma to the tongue may be found. Many times persons who are asphyxiated will bite their tongues.

## Hanging

Incidents of hanging are usually suicidal or accidental, as in autoerotic deaths. However, the investigator must be alert to incidents in which a hanging may have



**Figure 12.41 ASPHYXIAL DEATH — HANGING.** Note the reddened groove mark on the neck of the victim, indicating hemorrhage of the underlying tissues. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)



**Figure 12.42 REMOVING NOOSE FROM AROUND NECK.** The knots should not be disturbed or loosened. (A) A fixed noose should be cut off and the ends immediately tied together with a string or wire. (B) With a running noose, the position of the knot on the standard part is fixed, after which the noose is cut off. If the noose consists of a number of parts, they should be cut and the ends tied together with a string or wire. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)





(A)



(B)

**Figure 12.43 HANGING.** These photos depict a typical noose-hanging death. The victim had strung a rope over a pipe by standing on a chair. (A) She placed the noose around her neck and stepped off the chair, resulting in her death. (B) Close-up of face. (From the author's files.)

been purposely staged in order to cover up another crime, thereby making a homicide appear to be suicide.

Hanging deaths must be thoroughly investigated by the detective as well as the medical examiner/coroner. Practically speaking, the homicide investigator should be aware of certain characteristics of hanging deaths:

1. A body need not be completely suspended in order to suffer asphyxia. If a suicide has fastened a rope, noose, or other type of material around his or her neck, attached the other end to a door-knob, towel rack, or other hook-type object, and then allowed his or her throat to be contracted, asphyxia will take place, whether or not other portions of the body are in contact with the floor. A majority of the body weight supported by the ligature will effect the required result.
2. If the material used is small or ropelike, there will be a deep groove across the neck, usually high up.
3. Minute areas of bleeding due to the rupture of small blood vessels in the skin will cause small black-and-blue marks to appear within the area of the groove line. This type of rupture indicates that the person was alive when the hanging took place.
4. Persons who have died as a result of asphyxia may expel urine or feces.
5. Postmortem lividity will be pronounced in the head, above the ligature, and in the arms and lower legs due to gravity.

It should be noted that if the body is obviously dead and immediate lifesaving methods do not need to be employed, nothing should be touched, handled, or otherwise disturbed until the body and scene have been photographed. If the material around the neck must be removed, the knot or tie should not be touched. Instead, the material should be cut in an area which does not disturb the knot. When the noose is cut, the ends should be tied together with string to show the original position.

This procedure is usually performed by the pathologist who performs the autopsy. There is no need to remove the noose from the person at the scene unless it is possible that the victim is still alive.

## **Drowning**

This type of asphyxia is the direct result of liquid entering the breathing passages and preventing air from going to the lungs. Practically speaking, a person need not be submerged to drown. As long as the mouth and nose are submerged in any type of liquid, drowning will occur. The sequences of events in drowning are breath holding, involuntary inspiration and gasping for air at the breaking point, loss of consciousness, and death. The mechanism of death in acute drowning is irreversible cerebral anoxia.



**Figure 12.44 HEMORRHAGIC EDEMA FLUID.** The white frothy fluid in the mouth and nostrils of the deceased is hemorrhagic edema fluid, commonly found in drowning victims. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)

I remember one case in which a *crew* (violent urban youth gang) had forced their way into the victim's apartment. They proceeded to torture the man and then tied his hands and feet together. He was then carried to the bathroom, where one of the youths had filled the tub. The victim was placed facedown into the half-filled tub. They held his face under the water until he stopped squirming. The cause of death was drowning.

The most indicative characteristic of drowning is the white foam (hemorrhagic edema) which forms as a result of the mucus in the body mixing with water. The presence of this white lathery foam in the mouth and windpipe prevents air from entering and contributes to the asphyxia.

Bodies in the water for long periods of time are subject to additional damage or injury unrelated to the actual drowning. (See "External Agents of Change" in Chapter 9.) Most bodies will sink upon drowning, only to rise later when the gases from putrefaction begin to inflate the body, causing it to rise to the surface. The amount of time before this occurs depends upon water temperature, the condition of the body (fat or thin), and other variables such as currents. The victim of a drowning will often be found grasping objects such as mud, grass, or other material found in the water.

### Inhalation of Poison Gases

The most common type of asphyxia results from the breathing in of certain chemicals, such as carbon monoxide. These deaths are best determined after toxicological testings are made of the blood. Carbon monoxide (CO) attacks the red blood cells of



(A)



(B)



**Figure 12.45 FLOATERS.** The term “floaters” is applied to describe bodies which show the effect of submersion and drowning asphyxia. (A) This is a photo of the body of a homicide victim recovered from the waters with his hands still cuffed behind his back. (B) This photo is a close-up of the same floater’s face. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



**Figure 12.46 SMOTHERING.** This photo depicts a victim who has smothered. She committed suicide by placing a plastic bag over her head and tying it around her neck. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)

the body. It combines with the hemoglobin of the red blood cells, becoming cherry red, which creates a pinkish discoloration of the skin of the victim. At the scene, examinations sometimes will indicate the possibility of carbon monoxide poisoning if the lividity is cherry red. However, this is only a rough gauge, and before attributing the death to carbon monoxide, the investigator should await the results of the autopsy.

### **Suffocation**

Suffocation or smothering occurs when the passage of air through the mouth and nose is blocked. The mechanisms necessary to accomplish this suffocation vary. Deaths from suffocation are a direct result of oxygen failing to reach the blood.

### ***General Forms of Suffocation***

- Smothering
- Choking
- Inhalation of suffocating gases

- Mechanical asphyxia
- Entrapment/environmental suffocation
- Mechanical asphyxia combined with smothering

If the smothering is homicidal, hands may be placed over the mouth and nose, a pillow forcibly compressed over the face, or a plastic bag, gag, or other obstruction forced into the mouth. When the suffocation is done with the hands, there may be evidence of scratches on the face.

Homicidal deaths occur when a victim chokes on a gag or when someone places an object in a newborn's mouth. Most deaths due to choking are accidental. In children, this usually involves the aspiration of a small object into the larynx with occlusion of the airway.

## Deaths by Fire

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Deaths caused by fire generally result from the inhalation of noxious gases and fumes created by the fire. The victim is usually dead prior to any burning or charring of the flesh. The pathologist will be able to determine the critical question of whether the victim was alive at the time of the fire. In burns due to flames, there is actual contact of flame with the body with singeing of the hair and scorching of the skin, which progresses to charring. Contact burns involve physical contact between the body and a hot object. Scalding burns are due to contact with hot liquids, the most common being scalding water.

### Severity of Burn Injuries

Burns are described as first, second, third, and fourth degree.

*First-degree* burns are superficial types of burns, with redness of the skin usually associated with sunburn type injuries and subsequent peeling of the skin.

*Second-degree* burns can be superficial or deep. The burns are moist, red, and blistered with lesions. In deep second-degree burns the epidermis is disrupted.

*Third-degree* burns are full thickness burns with destruction of tissue and charring. This wound can heal but there will be scarring.

*Fourth-degree* burns are incinerating injuries extending deeper than the skin.

### Investigative Considerations

If the body was alive at the time, it will evidence the following:

- Smoke stains will be found around the nostrils, in the nose, and in the air passages.
- Blood will have elevated levels of carbon monoxide.
- Blistering and marginal reddening of the skin will occur.



(A)



(B)



**Figure 12.47 BURNED BODY.** The classic pugilistic attitude is assumed by the body as a result of the coagulation of the muscles due to extreme heat. (A) The deceased had doused himself with gasoline and run until he collapsed. The gas-soaked clothing was burned off his body. (B) Note the severe burning and positions of the arms on the body after it has been turned over. Self-immolation is extremely rare. (From the author's files.)



**Figure 12.48** FOURTH-DEGREE INCINERATING INJURY. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)

- Burned bodies often assume a distorted position referred to as the “pugilistic attitude.” This is caused by the contraction of the muscles due to heat.
- The skin may “crack,” giving the impression of wounds.

### Scalding Burns

There are three types of scalding burns:

- Immersion — accidental or deliberate
- Splash or spill — usually accidental burns
- Steam — exposure to superheated steam

Hot water accounts for most of the immersion and splash burns and, although most splash burns are usually accidental due to a spill, they can be homicidal as in domestic homicides and child abuse. Scalding of children is a common form of child abuse and homicide. The investigator should look for patterns of burns indicating immersion.

### Arson

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It should be noted that acts of arson to commit homicide and to cover up homicides have become very common. Therefore, homicide investigators should have some basic knowledge of arson-type fires and be familiar with the effects of fire on the human body, in order to interpret events at the scene properly.





**Figure 12.49 SCALDING BURNS.** The photo depicts the body of a woman who was scalded to death in her shower. A defective water heater had heated the water to a temperature of approximately 200°F. The woman crawled from the bathroom to the living room, where she collapsed. The body has been rolled over by the EMTs. (From the author's files.)



**Figure 12.50 SCALDING — CHILD ABUSE.** This photo depicts the body of a child dipped in scalding water. Note the lower extremities and even distribution of scald. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)





**Figure 12.51 SOOT IN TRACHEA.** This photo depicts soot in the trachea, indicating that the victim was alive during the fire and breathed in smoke and carbon monoxide. (Courtesy of Dr. Frederick T. Zugibe, chief medical examiner, Rockland County, New York.)

Practically speaking, the average investigator lacks the expertise to investigate crimes of arson thoroughly. However, most arson-related homicides are very amateurish, and it will be obvious to the investigator that something is wrong. The presence of flammable liquids, several points of origin of the fire, and intensity of the blaze are examples of clues which may indicate arson. Meaningful interpretations of these clues, however, must be left to the experts because arson investigation is highly technical and complex. Therefore, death investigations in which arson is the cause of the death or has been employed by the killer to cover up the crime require that the homicide detective team up with the arson investigator.

The discovery of a body or bodies in a burned-out building or vehicle presents additional investigative problems. The mode of death could be natural, suicidal, accidental, or homicidal. The body may be too badly burned even to recognize whether it is male or female, or there may be evidence of gross injury and dismemberment. The investigators will have to rely on the pathologist to interpret these injuries. The pathologist will be able to make certain determinations regarding cause of death. Despite the tissue damage done by the fire, the examination at autopsy will reveal the wounds or injuries that actually caused the death.

Most incidents of arson are perpetrated to destroy evidence or conceal the crime by destroying the body. However, the body does not burn as easily as most people believe. Instead, it resists the destructive forces of the fire with amazing durability, allowing the pathologist to make determinations from the remains.

## Poisons

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Practically speaking, murder by poisoning is extremely rare. Investigators are usually confronted with cases in which the victim has committed suicide by taking an overdose of pills or ingesting something dangerous in order to cause death. Other cases of poisoning are usually accidental and involve narcotic overdoses or the inadvertent taking of the wrong medication. In some cases in medical facilities, a mix-up has occurred and a patient has been given the wrong medication or too high a dosage; if death occurs, it is assumed to be natural. In some instances, health care workers may have intentionally given overdoses to patients in a misguided effort to “end their suffering.” Serial killer Donald Harvey, who worked as a nurse’s aide, ultimately confessed to the murders of over 50 persons whom he killed by injecting them with mixtures of cyanide and arsenic or, in some cases, by disconnecting life-support equipment.

In December 2003, Charles Cullen, a former nurse, was arrested. Cullen claimed to have killed up to 40 patients during his nursing career in New Jersey and Pennsylvania. He pled guilty to killing 13 Somerset Medical patients and attempting to kill two others by injecting them with various medications. That plea was entered



**Figure 12.52 OVERDOSE — SECONAL STAINS ON LIPS.** (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)

as part of an agreement in which he promised to cooperate with authorities if they did not seek the death penalty. Cullen also pled guilty to the homicides he committed in Pennsylvania. Other deaths still are under review in both states.

The examination at the scene and the intelligent questioning of witnesses, members of the family, and others is of paramount importance in determining whether the mode of death was a homicide, suicide, or accident.

Many times, the initial investigation at the scene will reveal the presence of a suspected material or fluid. This material should be retrieved by the detective for later toxicological analysis. Any glasses, cups, or other containers from which the deceased may have been drinking, as well as a sample of the fluid or material believed to have been ingested by the deceased, must also be obtained. Any liquid evidence should be placed in a sterile container, sealed, and delivered to the medical examiner/coroner. Any residue or solid material should be placed in a clean paper bag for similar disposition.

In certain cases, it will be obvious to the police that the death was due to the introduction of some poisonous substance. Drug overdoses are the most common. Any drug paraphernalia or residue found at the scene, including hypodermic needles or syringes, should be collected and forwarded to the pathologist. It is important to secure any needles in order to prevent injury or infection to others. A cork placed on the end of the needle will be sufficient to prevent the needlepoint from scratching or cutting anyone during transportation.

In some instances, corrosion or burning around the mouth may be present. This usually indicates the consumption of some sort of caustic substance. If a person is desperate, as are most suicides, he or she may ingest a corrosive chemical such as lye or one of the common household cleaners. However, any number of chemicals or substances can be introduced into the human body to cause death. The investigator must be alert to the presence of any material found near the body.

The most important fact to keep in mind is that the scene examination and investigation into the events leading to the death must be thorough and complete. The medicolegal autopsy will determine the type and quantity of the poisonous substance involved. However, determination of the mode of death will be based on the police investigation at the scene.

### **Deaths Caused by Injection**

Insulin is the most common drug used by persons who commit homicide because the death will appear to be natural, and if there is an autopsy, the medical examiner will ordinarily not be looking for injection sites or high levels of insulin in an ordinary toxicology screen.

I remember acting as a consultant for CBS News involving a series of cases assigned to an incompetent investigator. I had determined that the cases I had reviewed were inadequately investigated and consisted of a series of pervasive police errors and omissions. There was also official malfeasance involved in these events,



which was referred to the state authorities for investigation. The investigator subsequently was fired for his actions.

One of the cases involved a murder where the former husband killed his wife with an insulin injection. The victim, who was not living with her husband, was discovered in her home. She was found nude from the waist down and her blouse had been pulled up over breasts. A bloody rag was by her head and a telephone answering machine was between her legs. The family considered her husband a suspect and advised the detective of their concerns.

There had been a history of domestic violence. The wife had confided in friends that her husband was going to kill her. The family ascertained that the husband had taken out a large insurance policy on his wife totaling over \$300,000.

When the detective was informed of this information, he stated that he did not think that this information was relevant. The detective never processed the scene for fingerprints. He never had the bloody rag tested. He did not request tests for sexual activity and disregarded the fact that husband's drivers license was found next to his wife's body.

The medical examiner did conduct a sexual assault exam and provided swabs to detective. However, the detective never brought them to state lab and the evidence became contaminated.

I learned that an informant had revealed that the husband was planning on killing his wife for the insurance money. The informant had reported this to the neighboring police department and to the victim. When the victim's body was found, the informant told the assigned detective that the husband was planning on using an insulin injection to kill his wife.

However, the detective never advised the medical examiner. Toxicology was not performed for the presence of insulin and the medical examiner was not afforded an opportunity to locate the injection site. The death was ruled "undetermined" and the suspect got away with murder.

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## Case History<sup>1</sup>

Dr. Charles Friedgood, a general thoracic surgeon who had a practice in Brooklyn, New York, lived with his wife Sophie in the Great Neck section of Kensington, Long Island. The couple had five grown children and reportedly a stormy marriage due to Dr. Friedgood's affair with a medical assistant, who had borne him two children. The woman, who was 14 years younger than the doctor's wife, had recently moved back to her native Denmark.

*Case Facts.* On Tuesday evening, June 17, the doctor and his wife had dinner at a fish restaurant about 8:00 P.M. and returned home at 11:00 P.M. On Wednesday morning, June 18, the doctor stated that he had spoken to his wife before going to work in Brooklyn at about 9:00 A.M.

At approximately 10 to 11 A.M., the doctor called the housekeeper to see how his wife was and was informed by the housekeeper that Sophie could not be awakened. Dr. Friedgood called a local ambulance company. Police and ambulance responded. The EMT refused to take the body without a death certificate.

When Dr. Friedgood arrived, he examined his wife's body and verified death. He called some doctor colleagues who lived in the area, but none was available to sign a death certificate. Dr. Friedgood signed a death certificate that he had with him indicating that the cause of death was a cerebral vascular accident. Dr. Friedgood explained to the police officer and EMT that his wife had suffered an extreme stroke 15 years earlier.

Dr. Friedgood arranged for a funeral home to pick up his wife's body and then have it taken to Hazelton, Pennsylvania, where her family had a burial plot. He cited his family's Orthodox Jewish beliefs that burial should take place within 24 hours of death and that autopsies were to be avoided.

On Thursday morning, June 19, the Kensington police chief, who was suspicious of the circumstances — especially that the doctor had signed his own wife's death certificate, notified the Nassau County District Attorney and Medical Examiner's offices.

Nassau County authorities requested Dr. Friedgood to allow them to conduct an autopsy, but he refused citing religious reasons. However, under family pressure, he agreed to an autopsy to be conducted in Pennsylvania by Dr. Hudock, who was a pathologist and part-time medical examiner. On June 19, Dr. Hudock performed an autopsy. His opinion was that the death was inconclusive as to cause but was definitely *not* caused by cerebral vascular accident. Dr. Leslie Lukash, Nassau County's chief medical examiner, spoke to Dr. Hudock during the autopsy and offered his lab's toxicology services.

On Friday, Dr. Lukash sent a police helicopter to Pennsylvania to retrieve the specimens, which consisted of blood, bile, urine, brain, liver, kidney, and stomach contents.

On Saturday the preliminary toxicology studies indicated 15 mg of meperidine in the liver tissue, which was a toxic dose. Stomach contents also indicated trace amounts of Demerol.

The following Wednesday, June 25, Dr. Lukash went to Pennsylvania to discuss the high levels of meperidine with Pennsylvania authorities. He informed the authorities that Sophie Friedgood had died from Demerol intoxication by injection not ingestion.

On June 28, family members called the Nassau County District Attorney to alert the office that Dr. Friedgood was leaving the country on an international flight out of JFK airport. The plane was told to return 20 minutes into flight. Dr. Friedgood, who had a one-way ticket to London, was escorted off the plane. He had \$600,000 in negotiable bonds and jewelry worth \$37,000.

On June 30, the following Monday, Dr. Lukash advised the Nassau County District Attorney that the deceased had died from Demerol intoxication. Dr. Lukash wanted to have the body exhumed to determine the injection sites. This meant convincing Pennsylvania authorities for the need to get a court order for exhumation. Dr. Lukash also wanted further testing done by an outside laboratory. Dr. Leo DalCortivo, Suffolk County toxicologist, confirmed the Nassau County findings and, in one sample, found 225 mg in the liver, indicating that the injection occurred in the agonal or dying state.

Dr. Lukash subsequently testified at an exhumation court hearing in Pennsylvania that the deceased had died from Demerol intoxication by injection. In order to determine whether it was a homicide or suicide, an autopsy would be necessary to seek the sites of injection.

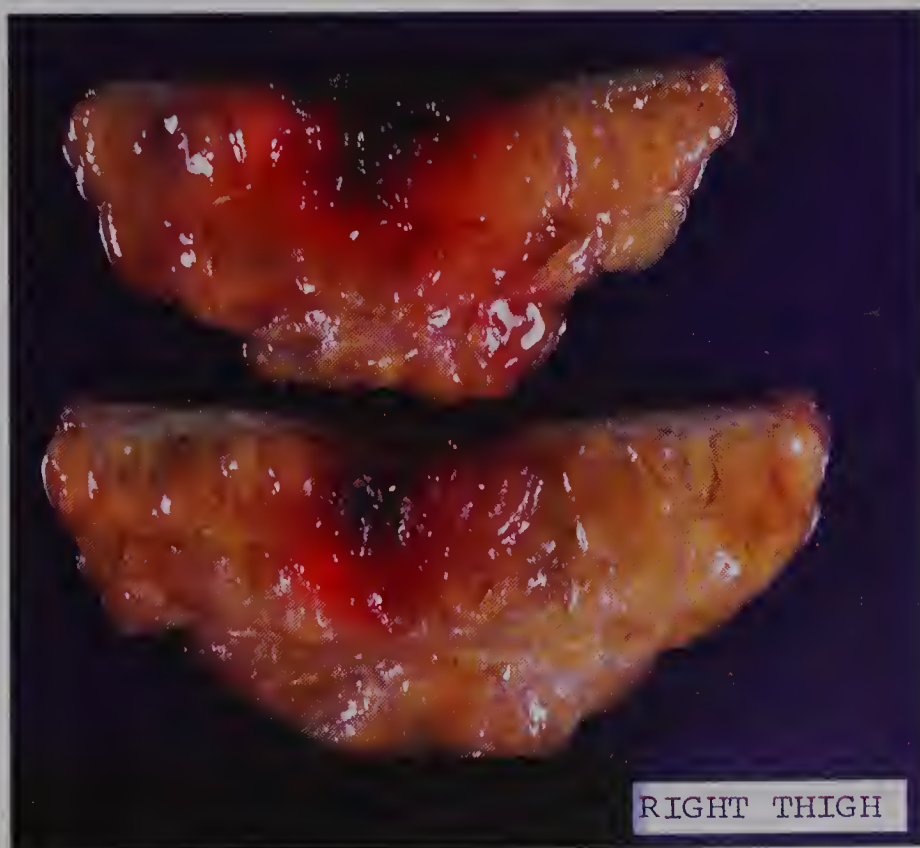
Dr. Lukash further testified that based upon the last consumption of food at 8:00 P.M. on June 17 and the amount of food found in the stomach (6 to 8 oz), it was his opinion that the deceased died during the early morning hours of June 18. This contradicted the statement by Dr. Friedgood that he had spoken to his wife on June 18 at 9:00 before going to work.

On July 11, Dr. Lukash and Dr. Hudock performed an autopsy for the purposes of detecting sites and bruised tissue, which were removed and analyzed. Four of the six injection sites showed the presence of Demerol.





**Figure 12.53 LOCATION OF INJECTION SITE.** The medical examiner located various injection sites on the exhumed body of the victim. This injection site was in the thigh. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



**Figure 12.54 TISSUE SPECIMENS.** This photo depicts a slide of the tissue injection sites. Four of the six injection sites showed the presence of meperidine, which is Demerol. In one sample, toxicology revealed 225 mg in the liver, indicating that the injection occurred in the agonal or dying state. Dr. Lukash proved that the victim was killed by lethal injection. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



Dr. Friedgood had a criminal history. The doctor had been indicted in Brooklyn for an illegal abortion that resulted in the death of a woman. However, the charges had been dismissed because of an illegal wiretap. A few years later, Dr. Friedgood was convicted on three federal income tax evasion charges and had been sentenced to 2 years' probation. In addition, his business partner in some real estate transactions charged that Dr. Friedgood had him kidnapped and drugged. The partner claimed that the doctor was trying to force him to sign a \$510,000 promissory note. The case was dismissed because of lack of evidence. At the time of his wife's death, Dr. Friedgood was one of 13 doctors under investigation for fraud involving Medicaid benefits. This information was subsequently ruled inadmissible in his murder trial.

Dr. Charles Friedgood went to trial in October and was convicted in December of the murder of his wife and sentenced to 25 years to life in prison.

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## Sexual Asphyxia: The Phenomenon of Autoerotic Fatalities

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### Introduction

Sex-related deaths due to solo sex-related activities involving asphyxia are generally known as *autoerotic fatalities*. These manners of death are not prevalent. Nonetheless, police and medical examiners as well as coroners in various jurisdictions have recorded a sufficient number of cases to make this phenomenon a concern in the accurate determination of manner of death. Therefore, the homicide investigator should be aware of them. The mechanism of death may be asphyxia or some other physiological derangement caused by strangulation or suffocation. Based on first observation, the manner of death may be classified as suicide or homicide, when in fact it is an accident that occurred during a dangerous autoerotic act.

Most of the literature on the subject of autoeroticism analyzes the involvement of teenage boys, and older men who obtain some sort of sexual gratification through certain ritualistic activities. The male victims have been discovered nude, attired in female clothing, wearing a piece of female lingerie, or in normal attire. It should be noted that there are documented cases of female participants who have been discovered nude, seminude, or in bondage, as well as in normal attire.

The investigator confronted with a female victim found under these circumstances is cautioned to assess carefully all of the information available before jumping to any conclusions. In some cases, evidence indicates self-abuse and other masochistic activities. Contraptions or ligatures with padding, to prevent visible marks of this activity, are often used to cause hypoxia.

Hypoxia is defined as "an inadequate reduced tension of cellular oxygen characterized by cyanosis, tachycardia, hypertension, peripheral vasoconstriction, dizziness or mental confusion."<sup>2</sup> Dr. H.L.P. Resnick, an author and researcher in this field, states that "a disruption of the arterial blood supply resulting in a diminished oxygenation of the brain ... will heighten sensations through diminished ego controls that will be subjectively perceived as giddiness, light-headedness, and exhilaration. This reinforces masturbatory sensations."<sup>3</sup>



**Figure 12.55 AUTOEROTIC DEATH INVOLVING BONDAGE.** A 35-year-old male expired during an autoerotic act involving sadomasochism. His fantasy focused on bondage. He had a black garbage bag over his head. His body was bound in several areas, with his feet tied together. His arms were bound behind his back with belts, which were attached to a metal hook. All of the bindings were interconnected and joined in a metal clasp that was attached to a rope with a loop knot, which was connected to a hook in the ceiling. As bizarre as this appears, the deceased was able to tie himself up in this fashion and reportedly had done this a number of times without injury. (Courtesy of Sgt. David Vanderploeg, Village of Glenview, Illinois, Police Department.)





**Figure 12.56 AUTOEROTIC CASE INVOLVING FEMALE.** This case involved a female who was into bondage. She was discovered in this position on her bed. (From the author's files.)

A combination of ritualistic behavior, oxygen deprivation, danger, and fantasy appears to bring about sexual gratification for these people. According to Robert R. Hazelwood, a retired supervisory special agent, "Death during such activity may result from: (1) a failure with the physiological mechanism; (2) a failure in the self-rescue device; (3) a failure on the part of the victim's judgment and ability to control a self-endangering fantasy scenario."<sup>4</sup>

The results of some 150 cases were the basis for an in-depth study and subsequent textbook, *Autoerotic Fatalities*,<sup>5</sup> by retired Supervisory Special Agent R. Hazelwood; Dr. Park Elliot Dietz, M.D., M.P.H., professor of law, behavioral medicine and psychiatry at the University of Virginia; and Ann Wolbert Burgess, R.N., D.N.Sc., associate director of nursing research, Department of Health and Hospitals, Boston, Massachusetts. In my opinion, their text is one of the most thorough and comprehensive studies to date on the subject of autoerotic fatalities.

According to their text, approximately 500 to 1000 people die from autoerotic asphyxiation each year in the United States. Many times this type of case has been misclassified or gone unrecognized due to lack of knowledge, misinformation, or misguided efforts on the part of the surviving family to cover up what is perceived to be an embarrassing situation.

I have investigated and assessed over 200 of these situations. Often, during a class presentation on the subject of autoerotic deaths, one of the participants will remark how his department had a case like the ones presented and that the death had been classified as a suicide or homicide. In most instances, I have been afforded an opportunity to view the crime scene photographs and case reports which the investigators have supplied for my review.

I also have a number of videotapes which graphically portray the dangers of autoerotic hangings and how quickly the hypoxia affects the victim's ability to





**Figure 12.57 TYPICAL AUTOEROTIC DEATH BY HANGING.** Asphyxial death due to hanging. Note the “heavy leather” outfit as well as the ladder in place. The victim’s pants were open and his genitals were exposed. (Courtesy of retired Supervisory Special Agent Robert R. Hazelwood, Behavioral Science Unit, FBI Academy, Quantico, Virginia.)

control the onset of fatal cerebral anoxia. Cerebral anoxia is defined as “a condition in which oxygen is deficient in brain tissues caused by a circulatory failure. It can exist for no more than 4 to 6 minutes before the onset of irreversible brain damage.”<sup>2</sup> Therefore, the person who practices this sort of activity is certainly at high risk for sudden death.

I became involved in one particular case after reading a *New York Daily News* article that described the suicidal death of a 17-year-old. Based upon my professional experience in the investigation of this type of death, I immediately recognized the possibility of an accidental autoerotic fatality. The following day, I called the detective commander of the local jurisdiction with whom I had grown up and whom I felt would be open to my speculations. He filled me in on the details of his investigation, which further assured me that this alleged suicide was in fact a tragic accident.

In this incident, the crime scene had been changed. The brother of the deceased had discovered the body, removed the ligature from his brother’s neck, and out of embarrassment, dressed him. I learned that the detective supervisor had never heard of autoerotic fatalities. After I provided him with the necessary information,

the case was properly reclassified. More importantly, the surviving family was made aware of the actual circumstances of their son's death. The family, who had been blaming themselves, could not understand why their son would commit suicide. We enlisted the services of a family priest to assist in explaining what had happened to their son. Although at first they were astonished and embarrassed (a typical response in this type of case), they were greatly relieved to learn that their son had not taken his life due to some unknown personal or family problem, but had died accidentally. In fact, this family actually wanted to go public to warn other parents of this phenomenon. I counseled them against going public, but advised them they could work anonymously to accomplish the same objective without exposing their family to any further trauma.

Periodically, a story in the local newspaper focuses on one or more deaths believed to be teenage suicides. I remember one particular story in my area that made reference to a "teenage suicide epidemic." The series of stories that followed these initial events was directed toward warning the public about this devastating public health problem. There was a call for a renewed effort in bringing suicide prevention programs into the schools as public health officials sought a solution for what was perceived to be the contagious effect of suicide among teenagers. Parents, teachers, and public health officials were mobilized in an effort to identify a motive for these unexplained deaths. Ironically, it was discovered that half of the reported suicides were actually autoerotic fatalities. However, the focus of attention on this issue, although initially misinterpreted, was instrumental in identifying other potential problems and issues of concern regarding suicide.

Some syndicated publications have reported on the phenomenon of autoerotic fatality quite accurately. Stories with headlines such as "Answers Sought in Unusual Deaths," "Six Deaths in Past Year Stir Warning," and "Medical Examiner Concerned about Bizarre Fatal Accidents" actually provide a genuine insight into these types of deaths. Of course, there is always the possibility that publicity about this phenomenon may actually increase incidents. I believe, however, that persons predisposed to this type of behavior will be neither encouraged nor discouraged by the presentation of information on sexual asphyxia. Instead, I believe that certain details need to be made public for the purposes of alerting people to the dangers of this potentially lethal practice. As a result, I agreed to an interview with the Associated Press entitled, "Autoerotic Deaths — Shocking Practice Often Mistaken for Teen Suicide."<sup>6</sup>

Parents, who have the responsibility of raising their children, as well as educators and others responsible for the *public welfare* of society, have a right to information and need to be educated about this phenomenon. I have investigated and consulted on a number of autoerotic deaths involving teenage boys. Teenagers, who are going through a period of sexual experimentation, are extremely vulnerable to peer suggestions. They have traditionally developed their own lifestyles, which involve pleasures, amusements, and pastimes different from those of their parents. They have their own slang, music, expressions, dancing, TV programs, movies, etc. Often

parents are not even aware of their children's socialization into the teen culture. They are certainly not privy to their secret conversations, social groups, and/or risk-taking ventures, which explains their total shock, horror, and disbelief when advised of this phenomenon.

I supervised one investigation where a 16-year-old boy's mother showed him an article about autoerotic deaths in a newspaper so that he would be aware of the dangers. He offhandedly remarked to his mother, "Those kids are stupid. They don't know what they're doing." His mother missed the significance of the remark. Her son was engaged in such activities himself and he was found dead 2 weeks later, the victim of an autoerotic fatality.

In most of the cases in which I have been involved, the teenage victim was made aware of the practice through word of mouth. There have been cases, especially those involving adult practitioners, where the victim learned of this activity through pornographic magazines, X-rated movies, underground publications, the media, and even novels.

### **Preliminary Investigation at the Scene**

Every autoerotic fatality is unique because the circumstances surrounding this activity are based upon the person's fantasy and perception of what is considered sexually stimulating. The death scene will vary according to the victim's age, resources, and/or sexual interests. However, some common denominators do suggest that the death may be accidental.

There are five criteria for determining death during dangerous autoerotic practices:

1. Evidence of a physiological mechanism for obtaining or enhancing sexual arousal that provides a self-rescue mechanism or allows the victim to discontinue its effect voluntarily
2. Evidence of solo sexual activity
3. Evidence of sexual fantasy aids
4. Evidence of prior dangerous autoerotic practice
5. No apparent suicidal intent<sup>4</sup>

The most common method practiced during this type of activity is neck compression or hanging, with some sort of padding between the neck and the ligature to prevent any markings from being left by the tightening noose or rope. However, more elaborate and exotic methods such as chest compression, airway obstruction, and oxygen exclusion with gas or chemical replacement have been found.

### **Atypical Autoerotic Deaths**

It should be noted that all autoerotic deaths are *not* attributed to sexual asphyxia. Some of the participants in autoerotic practice have devised some interesting and unique devices, which may or may not involve asphyxia. I am aware of one





**Figure 12.58 BONDAGE FANTASY.** The victim had used the blow-end of a vacuum cleaner to inflate a plastic bag, which was inside a canvas laundry bag secured with a rope around his neck. However, when the bag inflated, he had no way of letting the air out. He suffocated from chest compression. (From the author's files.)

particular case where the victim had constructed a long ceramic cone in the base of his “play toilet,” which extended above the rim of the toilet seat. Over the toilet the subject had constructed a pulley system. He had affixed a wooden seat with a hole in the bottom that fit over the ceramic cone, which was lubricated with Vaseline. He pulled himself up and down with the ropes on the pulleys. As the man lowered himself down over the toilet seat, the ceramic cone would go into his anal cavity. The victim apparently did not keep up with his maintenance on his system, and one day one of the ropes, which had worn, broke. The subject was impaled on this device when discovered.

In a number of other cases of which I am aware, subjects have resorted to mechanical equipment to stimulate themselves or have employed electricity with some devastating results. One such case involved a 16-year-old male, who was found with a cow's heart attached to his genitals. Wires had been attached and plugged into a wall socket. The boy died from electrocution and he was charred. Detectives found several pornographic magazines in the scene. One of the magazines described a sexual toy that can be made from the fresh heart of a cow. Practitioners use a

simple electrical circuit and some batteries to get the heart to beat and use the beating organ for sexual stimulation.

In one autoerotic death, the subject used a commercial vacuum on his penis to simulate fellatio and died a horrible death. Another subject hooked up electricity to shock his genitals and inadvertently stood in a puddle of water, resulting in electrocution. In another bizarre case, a man, who was discovered nude, had strapped himself into a harness and lowered himself into a septic tank. He died from inhaling the methane gases. This case was classified an autoerotic fatality based on his prior history and an examination of the crime scene.

### **Asphyxial Deaths — The Pathology of Autoerotic Death**

Asphyxiation is the end stage of significant interference with the exchange of oxygen and carbon dioxide. According to Drs. Dominick J. DiMaio and Vincent J. DiMaio, nationally renowned forensic pathologists, “Asphyxial deaths are caused by the failure of the cells to receive and/or utilize oxygen. This deprivation of oxygen may be partial (hypoxia) or total (anoxia).”<sup>7</sup> Fatal cerebral anoxia is an inadequate oxygen supply to the brain with consequent disturbance of bodily functions. The person loses muscle control and goes into spasm, resulting in convulsions, which are sudden violent involuntary contractions of a group of muscles; the person experiences seizure-like activity.

Asphyxial deaths can be grouped into three categories: suffocation, strangulation, and chemical asphyxia. The most common form of asphyxial death in autoerotic fatalities is strangulation, which is characterized by the closure of the blood vessels and air passages of the neck from hanging or ligature. This results in vasoconstriction, which causes tachycardia, during which the heart beats more than 100 beats a minute to increase the oxygen to the cells of the body. Bradycardia develops because the heart muscle becomes anoxic and cannot maintain the pace. The person succumbs to fatal cerebral anoxia.

The suspension of the body may be complete or incomplete. In sexual asphyxia cases, the body is usually in touch with the ground. There may be elaborate bindings of the body and hands of the victim. However, an analysis of these bindings will reveal that the victim was capable of binding himself or herself.

Suffocation is the second most frequently occurring form of autoerotic death. This may result from covering the mouth and nose with a plastic bag or mask, or from what is described as proximal or positional asphyxia, such as in chest compression.

Chemical asphyxia takes place when oxygen is excluded by inhaling noxious gases. The most common chemical asphyxial deaths involving autoerotic activities are with nitrous oxide.

The practitioners of this activity often are aware of the possibility of death and may even have taken precautions against a fatal act, but die as a result of a miscalculation. It would appear that the victim, who may be intent upon achieving an orgasm, misjudges the existent hypoxia already present and the time required to

reach orgasm by masturbation. The victim loses consciousness and succumbs to the fatal cerebral anoxia.

### **The Reality of Asphyxial Death — Videotaped Cases**

In my *Sex-Related Homicide and Death Investigation* textbook, I included the description of four videotape cases to indicate how suddenly one can lose his or her ability to survive such a dangerous game as sexual asphyxia. My review of these particular videotapes validated all of my research into the dynamics of sexual asphyxia and the reality of fatal cerebral anoxia.<sup>8</sup>

### **Equivocal Death Investigations**

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Equivocal death investigations are those inquiries that are open to interpretation. There may be two or more meanings and the case may present as either a homicide or a suicide depending upon the circumstances. The facts are purposefully vague or misleading as in the case of a “*staged crime scene*.” Or, the death is suspicious or questionable based upon what is presented to the authorities. The deaths may resemble homicides or suicides, accidents or naturals. They are open to interpretation pending further information of the facts, the victimology and the circumstances of the event.<sup>9</sup>

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### **Videotape Case History**

I had the opportunity to review a case in which the victim, a white male, 38 years of age, had set up a video camera to record his autoerotic fantasy. The victim, who was married with children, had selected an area inside the garage of the family home to create some sort of execution scenario for his fantasy. He had placed a large sheet over the furnishings in the room to create a background for the camera. The entire scene was recorded on the videotape.

At 4:00 P.M., the victim was discovered hanging in the garage by his mother, who had gone to the house with one of her grandchildren to get a key to enter the house. She reported to police that earlier that day she had tried to call her son at 10:30 A.M. but there was no answer. When they entered the garage, they encountered the body. They then ran down the street to her residence where she informed her husband, the father of the victim. The victim’s father ran to the house, which was only four houses away, and discovered his son hanging with a pair of blue panties completely over his head. The father quickly removed the panties from his son’s head and checked for life and found none. He then called an ambulance. The father reported that he had also observed a VHS video camera near the overhead garage which was aimed towards the body. He took the camera down and placed it on a table. The father was asked whether there had been any problems. He stated that his son was not depressed, did not have any business problems, did not have any enemies, and as far as he was concerned, everything was going great for his son, who was happily married and had three children.



The responding officers saw a man's body hanging from a rope, which had been placed over a beam running east and west, the second beam from the wall. This rope had been placed over a rafter beam and was tied to an adjustable post, which ran in the center support beams and had been further tightened with the use of a screwdriver.

The victim was wearing a red, long-sleeved sweatshirt with red short pants. He had a wristwatch on his left wrist and there was lividity present. The body was also cool to the touch. Upon closer examination, a red cloth-type belt was observed protruding through the zipper fly of the victim. This cloth belt had been tied around the waist and the penis of the victim.

The investigators also noted a pair of blue slippers on the floor and a small wooden stool beneath where the victim was hanging. A screwdriver was on the floor where the father stated he had knocked it down checking his son, and a camera tripod, which had held the video camera, was near the garage door. The investigators located a box of pornographic periodicals in the living room along with certain hand-drawn sketches depicting sexual hanging scenes. This box also contained handwritten literature in reference to sexual-hanging types of actions.

*Review of the Videotape.* A hangman's noose was secured over a rafter in the ceiling and was tied off to the side. Directly below the hanging noose was a small wooden stool, which the subject could stand on to place the noose over his head and around his neck. The subject was observed walking into the camera's view wearing a pair of women's panties over his head. In the background, a large white sheet covered the wall and workbench. He looked in the direction of the camera and placed the noose over his head and around his neck. In order to secure the rope around his neck, he had to stand on his toes. He then stood with his hands behind his back. The hypoxia began to take effect immediately because the noose had begun to restrict the blood flow to the head. He suddenly lost his balance and the noose became tightened around his neck. At this point, he could have saved himself by simply standing back onto the stool.

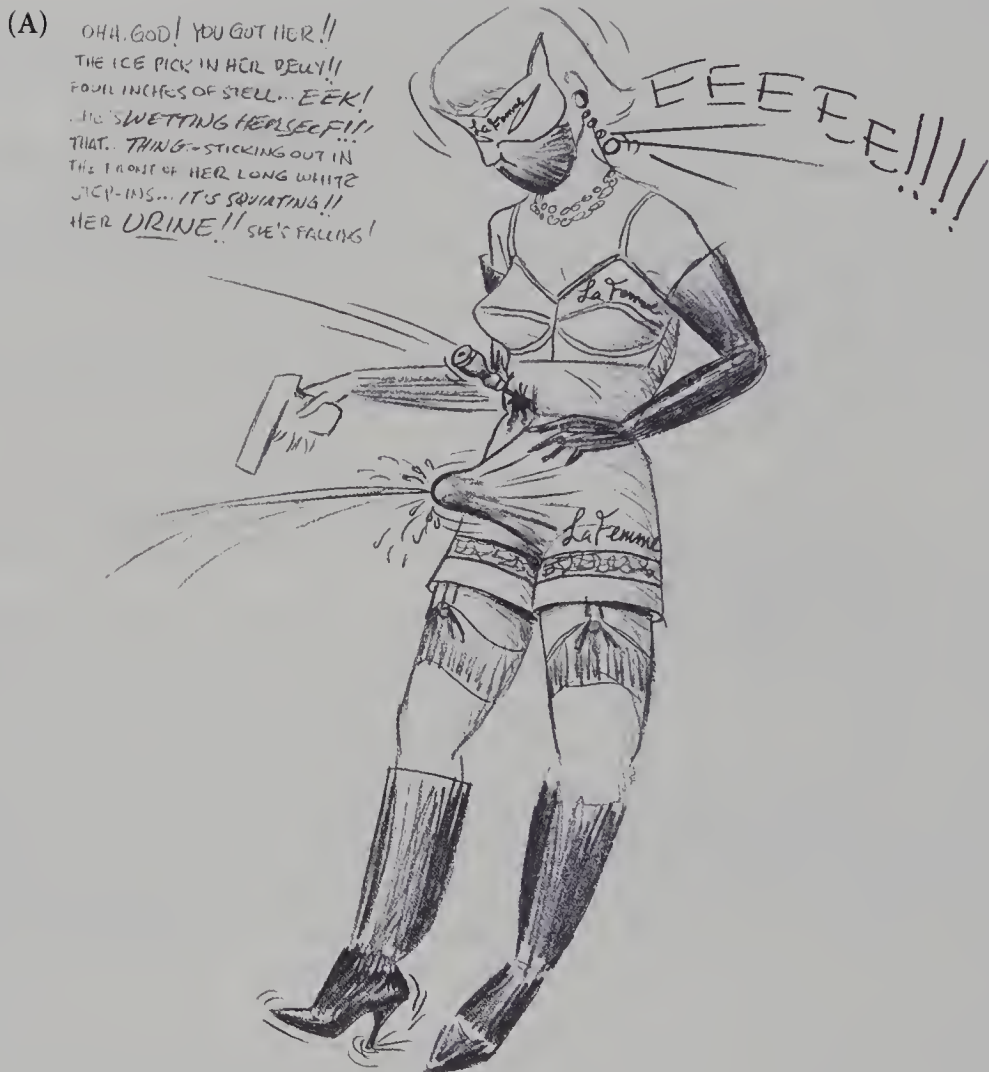
However, he was not aware of the impending danger and again placed his hands behind his back and continued with the fantasy. In less than 15 seconds, he lost consciousness and went into fatal cerebral anoxia. He attempted to escape; however, it was too late. He lost muscle coordination and began to convulse. He went into seizure-like activity. He attempted to raise his arms, but they were in spasm and his fingers took on the classic claw-like spasm consistent with oxygen deprivation. He went into full convulsion and spasm until finally his heart stopped and he was no longer breathing. This asphyxial death occurred while his feet were touching the floor. His video production had gone from fantasy to reality in less than 4 minutes. This was also an extremely dramatic portrayal of the reality of sexual asphyxia.

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### **Sexual Asphyxia — the Psychosexual Aspects of Autoerotic Activity**

The purpose of this section is to acquaint the investigator with some of the clinical terminology used to define bizarre and deviant human sexuality. The psychopathology of this phenomenon is better left to the clinicians and other professionals trained in the fields of medicine and psychiatry. I refer the reader to the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*,<sup>10</sup> *Abnormal Psychology and Modern Life*,<sup>11</sup> and Chapter 5 of *Autoerotic Fatalities*.<sup>5</sup>

The investigative interpretation of the psychosexual aspects of autoerotic activities can be found in a group of persistent sexual arousal patterns defined in *DSM-IV* as *paraphilias*. The essential feature of disorders in this subclass is that unusual



**Figure 12.59 FANTASY DRAWINGS.** (A) The victim has drawn a woman, who is actually him, dressed in “LaFemme” undergarments. His fantasy involved cross-dressing. (B) Here a female victim has supposedly hanged herself with her bra. In both drawings, the victim has created a fantasy that involves urophilia. Approximately 20 of these drawings were found at the death scene. Additionally, the victim had taken Polaroid photos of himself dressed in female attire acting out similar events. (From the author’s files.)

or bizarre imagery or acts are necessary for sexual excitement. Such imagery or acts tend to be insistently and involuntarily repetitive and generally involve (1) preference for use of a nonhuman object for sexual arousal, (2) repetitive sexual activity with humans involving real or simulated suffering or humiliation, or (3) repetitive sexual activity with nonconsenting partners. In other classifications, these disorders are referred to as sexual deviations. The term paraphilia is preferable because it correctly emphasizes that the deviation (para) is in that to which the individual is attracted (philia).

Because paraphiliac imagery is necessary for erotic arousal, it must be included in masturbatory or coital fantasies, if not actually acted out alone or with a partner and supporting cast or paraphernalia. In the absence of paraphiliac imagery, non-erotic tension is not relieved and sexual excitement or orgasm is not attained. The imagery in a paraphiliac fantasy or the object of sexual excitement in a paraphilia

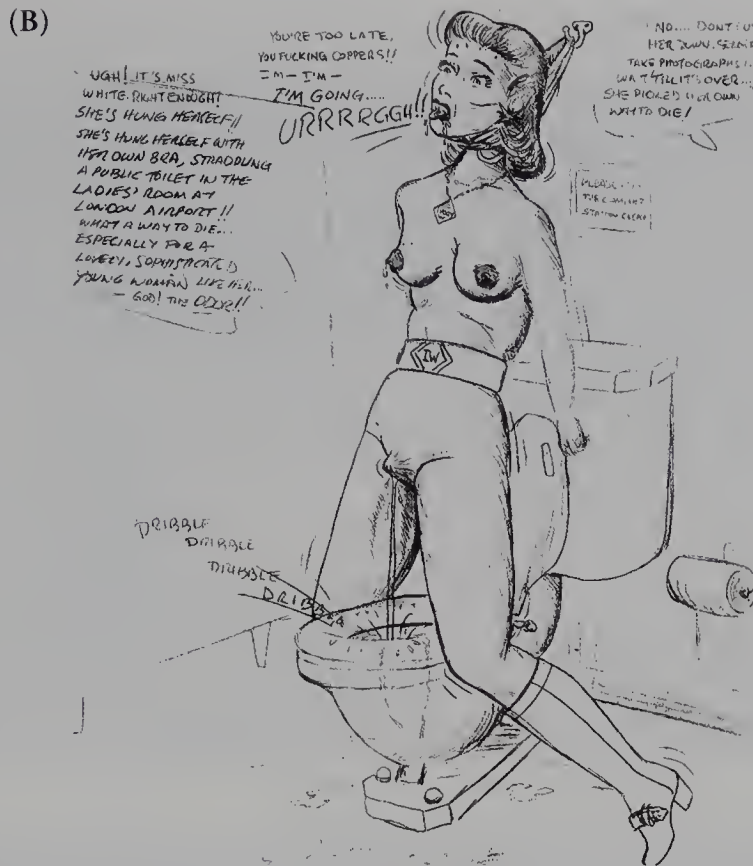


Figure 12.59 Continued.

is frequently the stimulus for sexual excitement in individuals without a psychosexual disorder. For example, women's undergarments and imagery of sexual coercion are sexually exciting for many men; they are paraphiliac only when they become necessary for sexual excitement.<sup>10</sup>

According to *DSM-IV*, there are nine paraphilias. These are listed in Chapter 14, this volume, with a brief definition. However, for further information, see *Diagnostic Manual of Mental Disorders IV* and *Abnormal Psychology and Modern Life*:

1. **Exhibitionism (302.4)**: Exposing the genitals to an unsuspecting stranger for the purpose of obtaining sexual excitement
2. **Fetishism (302.81)**: Use of nonliving objects for sexual arousal (female undergarments, panties, shoes, etc.)
3. **Frotteurism (302.89)**: A sexual attraction to rubbing against the genitalia or body of another
4. **Pedophilia (302.2)**: Engaging in sexual activity with prepubertal children
5. **Sexual masochism (302.83)**: Getting pleasure from being humiliated, bound, beaten, or otherwise made to suffer for sexual arousal (considered a chronic disorder)
6. **Sexual sadism (302.84)**: The infliction of physical or psychological pain on another person in order to achieve sexual excitement (considered a chronic and progressive disorder)



7. **Transvestic fetishism (302.3):** Cross-dressing by a heterosexual male for sexual excitement (ranges from solitary wearing of female clothes to extensive involvement in a transvestite subculture)
8. **Voyeurism (302.82):** Repetitive looking at unsuspecting people who are naked, in the act of disrobing, or engaging in sexual activity (the Peeping Tom)
9. **Paraphilia not otherwise specified (302.9):** This category is included for coding paraphilias that do not meet the criteria for any of the specific categories:
  - Telephone scatologia:** A sexual attraction to making obscene telephone calls (lewdness)
  - Necrophilia:** A sexual attraction to dead bodies; having intercourse with a dead body
  - Partialism:** An exclusive focus on a part of the human body, a breast, leg, penis, etc.
  - Zoophilia:** Use of animals for sexual arousal (includes intercourse with animals as well as training the animal to lick or rub the human partner)
  - Coprophilia:** A sexual attraction to feces
  - Klismaphilia:** A sexual attraction to the giving or receiving of enemas
  - Urophilia:** A sexual attraction to urine
  - Mysophilia:** A sexual attraction to filth<sup>10</sup>

## Case Histories

*Hanging.* A white male in his late 40s, never married and living at home with his mother and sister, was found hanging in his basement workshop. He was wearing street clothing, which covered women's undergarments — a bra stuffed with padding and women's panties, women's boots, and leather gloves. A mask, which he had apparently been wearing, was found on the floor beneath him. He was hanging by a rope affixed to a hook in the ceiling. There was a Polaroid camera positioned on the workbench and a number of photographs of the deceased participating in this conduct. A number of pornographic magazines depicting female bondage, lesbian conduct, and sadomasochistic behavior were found in his room.

In addition to these commercial products, police discovered sadomasochistic drawings depicting the deceased dressed as a woman. In these drawings, this "woman" is observed with an erect penis, threatening and abusing other women. There were also a number of these sexually explicit drawings of nude and seminude women urinating. These fantasy drawings were further illustrated with words indicating that the deceased was actually verbalizing his sadomasochistic fantasies. Also discovered were two legal-size sheets of paper listing approximately 200 pieces of women's apparel and undergarments that the deceased had purchased. The victim had listed these items by number, description, price, and the name of the store from which the item was purchased. He then had a separate column, which indicated whether or not he had photographed himself in the item. This individual's total sex life was involved with solo sexual activities. His drawings further suggested paraphilias of transvestism, sadism, and masochism with fantasies of necrophilia and urophilia.

*Suffocation.* A white male, 66 years of age, was discovered lying upon his bed by police who had been called to the man's apartment. The deceased was wearing women's clothing, which consisted of a gray turtleneck sweater with crotch snaps and red panty hose. The



**Figure 12.60 AUTOEROTIC DEATH SEQUENCE.** A male had dressed in female attire with a discipline mask over his head. His eyes were covered with duct tape, his mouth stuffed with foam rubber, small rubber balls were in each ear, and he had a headband around the ears. The victim was wearing pantyhose and female undergarments beneath this outfit. All of the chains and binds were interconnected. A copper loop of wire between his legs had been connected to an electrical apparatus with a timer, which sent intermittent shocks to the victim's genital area. The victim was a 66-year-old male. (Courtesy of Detective Lieutenant Raymond Krolak, commanding officer (retired), Investigations Division, Colonie, New York, Police Department.)

*Continued.*





**Figure 12.60** *Continued.*

upper torso was bound with straps and chains, which were interconnected by a series of locks. A rubber mask covered his face and the mask was connected to the bed board by rope. An electrical apparatus consisting of a timer and two wires was attached to a hook in the ceiling. This equipment was plugged into a wall socket. One of the wires extended down to the crotch area of the victim. A copper wire loop had been fitted beneath the snaps of the turtleneck sweater and this could be connected to the electrical device. In the man's room, police investigators discovered three suitcases full of women's undergarments, wigs, and "falsies," as well as other sexual paraphernalia consisting of dildos, discipline masks, and pornographic materials. When the body was examined, the victim was found to be wearing women's undergarments. Under the head mask, duct tape covered his eyes, foam rubber was stuffed in his mouth, and a headband held a small rubber ball in each



ear. He was totally in the dark and could not hear a thing, but all of the bindings and chains were within his grasp.

His escape mechanism was a single lock, which secured all of the chains wrapped around his body. The deceased had held the keys for this lock in his right hand. He had apparently dropped his keys on the floor, where the police discovered them. The duct tape and rubber balls in his ears certainly shut out any possibility of seeing the keys or hearing them drop to the floor. He had been bound to the bed in such a manner that he would not have been able to reach down to the floor even if he had heard the keys drop. The cause of death was suffocation. The police supervisor as well as the detective investigating this case had been to one of my Practical Homicide Investigation lectures. They immediately recognized the death to be an autoerotic fatality based on the preceding information. However, when the medical examiner of the jurisdiction arrived at the scene, he told the detectives it appeared to be a homicide related to “biker-gang” activity. He obviously was not familiar with such cases and based his conclusion of homicide on the bizarre binding of the body.

*Chest compression.* The author reviewed a case involving a male who had constructed a device that would cause chest compression. The victim had used the blow-end of a vacuum cleaner to inflate a plastic bag, which he had placed inside a canvas bag. The victim, who was wearing his wife’s teddy and nothing else, had apparently crawled into the bag and was able to secure the contraption by pulling a rope around his neck. He then rolled over to the vacuum and turned it on with his nose. The vacuum filled the plastic bag with air, which in turn caused the canvas bag to tighten around the subject’s chest. The only problem with this device was that the victim had no way to turn off the vacuum once the canvas bag had become inflated. He suffocated to death during his autoerotic activity.

*Oxygen exclusion.* A deceased male was discovered lying on a bed in a rental cabin with a plastic bag over his head. This male had rented the summer cabin during the off-season. The proprietor, who was checking on the rental, made the discovery when he entered the premises and noticed the nude body of the deceased on the bed. Police were called to the location and discovered an array of pornographic magazines opened to the centerfolds on the floor next to the bed. Also next to the bed was a canister of nitrous oxide. The investigators learned that the man, who had been involved with this activity in the past, had been sniffing the pure nitrous oxide by releasing the gas into the plastic bag from the tank. He would then write down his sexual fantasies on a pad while viewing the pictures of the nude models in the magazines next to the bed. When he placed the plastic bag over his head, the oxygen was excluded and the victim was asphyxiated.

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## Female Victims of Autoerotic Fatality

Although most of the cases of autoerotic death involve males, it is important to realize that this type of practice is not limited to males. For example, what may appear to be a sex slaying involving the bondage and suffocation of a female victim may in fact be the accidental death of a female practitioner of autoerotic activities.

One of the earlier such cases was reported by retired Special Agent Frank Sass of the FBI. A 35-year-old female divorcee was discovered dead by her 9-year-old daughter. The woman was nude and lying on a small shelved space in the rear of a closet in her bedroom. She was on her stomach and an electric vibrator with a hard rubber massaging head was between her thighs and in contact with her vulva. The vibrator was operating when the victim was discovered. Attached to the nipple of her right breast was a spring-type clothespin compressing her nipple. Immediately

below her left breast another clothespin was found. Around the victim's neck was a hand towel; a nylon stocking went over the towel in loop fashion and was fastened to a shelf bracket above her head. The lower portion of the body was supported by the shelf and the victim's upper body rested on her arms, which were extended downward from her body in a push-up position. The clothespins were used to cause discomfort, the vibrator was used in a masturbatory exercise, and the ligature reduced oxygen flow. She obviously intended to support her upper body weight with her arms, but she lost consciousness and the weight of her body, hanging from the nylon stocking, caused her to strangle.<sup>12</sup>

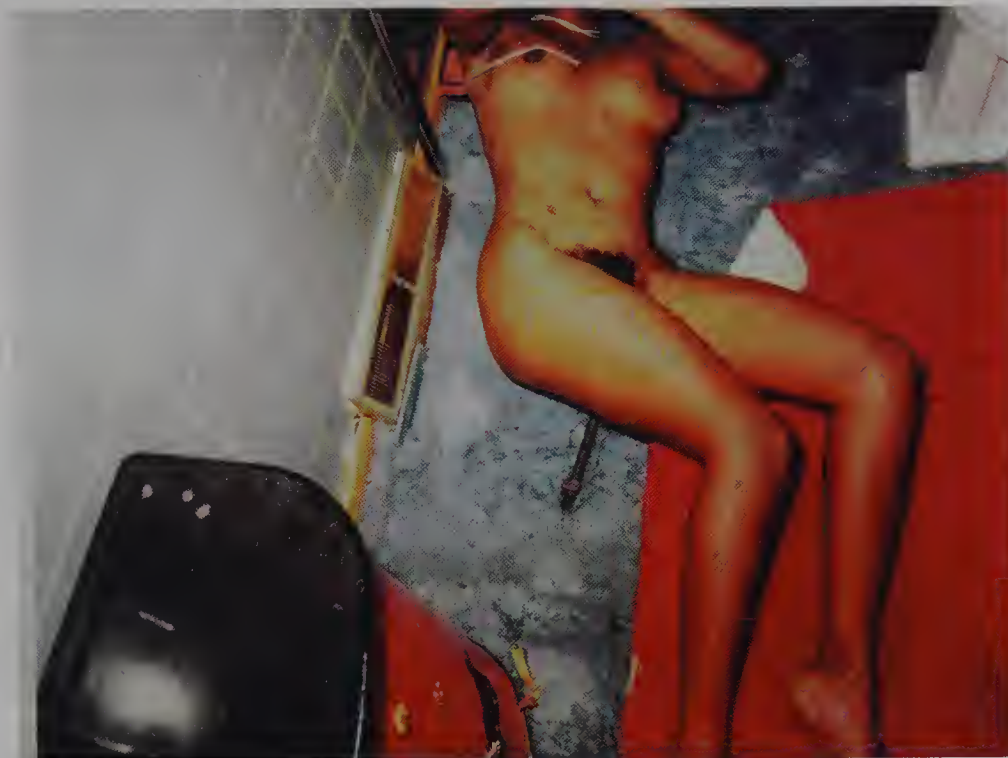
**It should be noted that the female victim of an autoerotic fatality who has involved herself in binding and some sort of sadomasochistic scenario presents authorities with circumstances actually resembling a sex-related homicide.**

Hazelwood et al. cite the following case. A 23-year-old black woman was found dead in her bathroom. The victim's upper torso rested on the edge of the bathtub, her face was in the water, and her knees were on the floor. The faucets were turned on, and the water had filled the tub, spilled on the floor, and run throughout the house. There was vomitus in the tub water. A piece of rope had been doubled and looped around her on the left side of her neck, with the loose ends coming across and over her right shoulder. Her wrists were wrapped together in front of her body and the end of the rope securing them rested in her right hand. The decedent was nude, and a 9 1/2-inch bolt was on the floor beside the body. There was a bruise on the left side of her forehead and drops of blood were found on the edge and side of the tub. Autopsy revealed the cause of death to be aspiration of vomitus.<sup>5</sup>

This case was investigated initially as a suicide, based upon statements by a relative and friend of the victim. It was also investigated as a possible homicide, with the boyfriend, who had discovered the body, as a primary suspect. This case had enough factors to support both possibilities. In actuality, the case was eventually classified as an autoerotic fatality. According to the authors,

A theory that accounts for all of the facts in this case is that the victim had been drawing a bath while asphyxiating herself with the rope, intending to use the bolt for manual masturbation or already having done so. Through asphyxiation, she lost consciousness, struck her head on the bathtub, and aspirated vomitus...<sup>5</sup>

I present additional case histories involving female participants in my other textbook, *Sex-Related Homicide and Death Investigation: Practical and Clinical Perspectives*.



**Figure 12.61 FEMALE VICTIM — ATYPICAL AUTOEROTIC.** A metal bolt had been inserted into the victim's vagina from the rear. There was a rope secured around the victim's neck and she was bent over the water-filled tub. At first, the case appeared to be a sex-related homicide. However, upon closer examination, it was revealed that the rope was loosely placed around the neck and the deceased could control the pressure by pulling the end, which was in the front of her body. She apparently lost consciousness and her face went into the water. The actual cause of death was drowning. (Courtesy of retired Supervisory Special Agent Robert R. Hazelwood, Behavioral Science Unit, FBI Academy, Quantico, Virginia.)

## **Equivocal Death Investigation**

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Many times while I am conducting homicide programs, participants will provide me with cases in order to get my opinion. One such case involved the reported suicide of a 17-year-old black female. The detective who brought this case to my attention was concerned that the medical examiner and other detectives had classified this case as suicide. Based on his investigation into the background of the victim and what he observed at the scene, he felt that the death might have been an autoerotic fatality. He was concerned that the family were blaming themselves for the daughter's death. I reviewed his case file and crime scene photos and provided the detective with a full report, which included the following information, which he could bring to his superiors and the medical examiner for review.

### **Crime Scene**

The location of the incident was in the basement of a single-family home occupied by the deceased and her family. The victim was home alone at the time of the incident. The area that the victim selected was secluded from the rest of the home.



(A)



(B)



**Figure 12.62 FEMALE VICTIM — EQUIVOCAL DEATH.** (A) This victim reported as a suicide was actually an autoerotic fatality. She had been standing on a plastic bucket, which slipped out from under her feet. She was found hanging from an electrical wire fastened into a noose. **CLOSE-UP SHOWING PADDING.** (B) The presence of the padding was a crucial factor in the analysis of this case, coupled with the victimology. (Courtesy of Detectives Steven Little and Edward Dahlman, Columbus, Ohio, Police Department.)

There was no evidence of any break-in or entry. The victim's brother found her hanging from a wire noose, which had been affixed to a rusty metal clothes rod. There was a white towel wrapped around the victim's neck, which would have formed a padding between the wire and her neck. She was nude from the waist up and was wearing a pair of black sweat pants. A white T-shirt was observed

approximately 6 feet away and appeared to have been discarded by the deceased. A white 5-gallon bucket was observed lying on its side near the area where the deceased was found. Forensic examination of this bucket revealed latent prints, which were later identified as belonging to the right foot of the deceased. The material on the deceased's hands turned out to be rust from the metal pipe to which the wire had been affixed.

### The Victim

The deceased was a healthy and apparently happy 17-year-old young woman. The investigation disclosed that she came from a good family background where the mother and stepfather provided parental guidance and support. The family consisted of the 17-year-old victim, her 19-year-old brother, her mother, and her stepfather. In addition, the inquiry into the victim's background indicated that the victim maintained good social relationships with peers and was performing well in school. The interview of the deceased's best friend indicated that the victim was popular and well liked. The victim had two boyfriends and was sexually promiscuous with a young man. *There was no indication in the reports that the deceased was depressed or suicidal. In fact, from all indications, she was functioning physically and socially as well as any typical 17-year-old teenager.*

### Investigative Considerations

A teenage female victim was found partially nude in a secluded area of the house when no one was home. The location that the victim selected afforded her an opportunity to engage in a private fantasy. The most common method practiced in sexual asphyxia is neck compression or hanging with some sort of padding between the neck and ligature to prevent any markings. The suspension point was within the reach of the deceased (rust on hands) until the plastic bucket was knocked over. It is a known fact that most victims of suicide are not found partially or fully nude. In this case, the victim's breasts were exposed.

**Remember: This is an investigative theory. Do not get bogged down in theory and hypothetical speculation. In death investigations there are no absolutes.**

### Opinion

In my professional opinion, the victim died as a result of a tragic accident involving sexual asphyxia. The bases for this conclusion are twofold: (1) the indicators present at the scene and enunciated here and (2) the lack of suicidal intent on the part of the victim. This fact was supported by the thorough police investigation into the background of the deceased. I recommended that the authorities confer with the medical examiner to reclassify this death as an *autoerotic fatality*.

## Results

The detective took this report and conferred with his superiors and the medical examiner. Reportedly, the medical examiner's initial concern about classifying this case as accidental was that the deceased did not fit the stereotypical profile of a practitioner of autoeroticism because she was a black female. However, the professional in-depth investigation undertaken by the detective provided enough factual basis to have this case reclassified. My consultative report simply validated the detective's hypothesis. The important point here is that the detective's dedication to classify this case properly as accidental provided a measure of consolation to the surviving family. The family was advised that their daughter did not commit suicide.

## Notifying and Advising the Surviving Family of the Mode of Death

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Advising surviving family members of the circumstances and nature of this type of death can be quite stressful and difficult. The tragedy is often compounded by survivor reactions, which range from guilt, shame, and humiliation to anger and rage.

As professional investigators, we are entrusted with a profound duty and responsibility, not only to the deceased, but also to the surviving family. It is imperative that we do all in our power to assist the surviving family by our professionalism. The official explanation of the circumstances of the death is best undertaken with the assistance of clergy or a professional practitioner after considering the family's ability to cope with the facts of the case. However, it is important to note that each case and set of circumstances will dictate the proper course of action. In some instances, I believe investigators who recognize what has happened may make a conscious decision to spare the family and allow them to believe the death to be an accident. Under certain circumstances, this action might be an entirely appropriate alternative. I offer this advice as a veteran homicide cop: whatever course of action you decide, just make sure you do the right thing.

## Investigative Considerations

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Although each autoerotic death scene may be unique, there are many common factors for the investigator to consider in determining the mode of death. I have listed some of these considerations within this section.

*Victim profile.* Research has indicated that most victims of this activity are white males ranging from 13 years of age to their late 30s. White females in their early 20s follow this group; then black males 20 to 40 years of age; and one reported black female was in her late 20s. The victims are considered to be basically moral people, successful in their respective occupations. They may be considered shy by friends because they are not sexually or romantically active. However, they may be married or involved with a significant other person. Interviews and investigations do not disclose any indications of depression or suicidal tendencies.



*Location.* The location selected is usually secluded or isolated and affords the practitioner the opportunity to become involved in a private fantasy. Some examples are locked rooms at home, attics, basements, garages or workshops, motel rooms, places of employment during nonbusiness hours, summer houses, or outdoor locations.

*Nudity.* Most victims of suicide are not found in the nude. Although this is not a conclusive indicator, the discovery of a nude victim should alert the investigator to the possibility of an autoerotic fatality if other indicators, such as those listed next, are present.

### **Determining the Involvement of Sexual Asphyxia: Autoerotic Checklist**

In determining whether a death is related to autoerotic activity, the investigator should consider certain questions:

1. Is the victim nude, sexually exposed, or if a male, dressed in articles of feminine attire: transvestism, make-up, and wigs?
2. Is there evidence of masturbatory activity: tissues, towels, or hanky in hand or in shorts to catch semen? Seminal fluids?
3. Is there evidence of infibulations: piercing or causing pain to the genitalia, self-torture, masochism, pins in penis, etc.?
4. Are sexually stimulating paraphernalia present: vibrators, dildos, sex aids, pornographic magazines, butt plugs, etc.?
5. Is bondage present: ropes, chains, blindfolds, gags, etc.? Are any constrictive devices present: corset, plastic wrap, belts, ropes, vacuum cleaner hoses around the body, or chest constraints?
6. Is there protective padding between the ligature and the neck: towels, rags, or cloth to prevent rope burns or discomfort?
7. Are the restraints interconnected? Do the ropes and ties come together or are they connected? Are the chains interconnected through one another? Is the victim tied to himself so that, by putting pressure on one of the limbs, the restraints are tightened?
8. Are mirrors or other reflective devices present? Are they positioned so that the victim can view his or her activities?
9. Is there evidence of fantasy (diaries, erotic literature, etc.) or fetishism (women's panties, bras, girdles, leather, rubber, latex, high-heel shoes, etc.)?
10. Is the suspension point within reach of the victim or is there an escape mechanism (keys, lock, slip knot, etc.)?
11. Is there evidence of prior such activities (abrasions or rope burns on suspension point), unexplained secretive behavior, or long stays in isolated areas?
12. Does the victim possess literature dealing with bondage, escapology, or knots?
13. Is there a positioned camera? (Check film and/or videotapes. Look for photos and view any videotapes in the camera.)

Although not all such deaths will involve the preceding characteristics, their presence will certainly alert the investigator to the possibility of death occurring as the result of sexual misadventure.

## Summary

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The investigation of sexual asphyxia and the appropriate determination of mode of death require that the investigator conduct a knowledgeable scene examination. This obviously means that the investigator should have an understanding of clues that may be present at the scene and in the background of the deceased. The psychological autopsy can be helpful in resolving those cases in which it is not clear whether the motivational intent was suicidal or autoerotic in nature. As further information on this mode of death becomes available through research, the investigator will be afforded additional assistance in making this determination and properly classifying these cases.

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The rationale behind suicide, which is defined as the intentional taking of one's life, can be as simple or as complex as life itself. The person who commits suicide may see his or her actions as some sort of solution to a severe physical or psychological dilemma. Often, a police investigator will find a note indicating that the victim had suffered psychological torment or was severely depressed. The note might even suggest that he or she believed that suicide was the last resort. Many of the suicide notes I have seen over the years indicate the acute depression of persons who have taken their lives. Depression does not discriminate. It affects the young and old alike.

According to the 2004 statistics from the Centers for Disease Control in Atlanta, suicide took the lives of 31,655 persons in 2002, and 132,353 individuals were hospitalized following suicide attempts.<sup>1</sup> The overall rate of suicide among youth has declined slowly since 1992. However, rates remain unacceptably high.

Adolescents and young adults often experience stress, confusion, and depression from situations occurring in their families, schools, and communities. In 2001, 3971 suicides were reported in the 15- to 24-year-old age group. Of these, 86% were male and 14% were female.<sup>1</sup> Suicide rates increase with age and are very high among those 65 years and older. In 2001, 5393 Americans over age 65 committed suicide; 85% were male and 15% were female.<sup>1</sup>

Periodically, the nation's newspapers and television networks may cover this phenomenon by reporting a series of events including "teenage suicide pacts." Ironically, the media attention often results in further teenage suicides. The course of action would be to seek out professional assistance and create programs within the school system to deal with this problem.

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## Risk Factors<sup>2</sup>

- Previous suicide attempts
- History of mental disorders, particularly depression
- History of alcohol and substance abuse

- Family history of suicide
- Family history of child maltreatment
- Feelings of hopelessness
- Impulsive or aggressive tendencies
- Barriers to accessing mental health treatment
- Loss (relational, social, work related, or financial)
- Physical illness
- Easy access to lethal methods
- Unwillingness to seek help because of the stigma attached to mental health and substance abuse disorders or suicidal thoughts
- Cultural and religious beliefs — for instance, the belief that suicide is a noble resolution to a personal dilemma
- Local epidemics of suicide
- Isolation, a feeling of being cut off from other people

## Depression: A Clinical Perspective

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The primary motivation for suicide is depression. Depression is a mood disturbance characterized by feelings of sadness, despair, and discouragement resulting from and normally proportionate to some personal loss or tragedy. Depression can become an abnormal emotional state, which exaggerates these feelings of sadness, despair, and discouragement out of proportion to reality.

There are four major clusters of depressive symptoms: *emotional*, *cognitive*, *motivational*, and *somatic*. Each of these clusters of depressive symptoms dependently and independently affects the depressed individual. In fact, as one set of clusters begins to affect the individual, another affects and reinforces the depressive effect. Eventually, the emotional and cognitive clusters affect the motivational symptoms causing what clinicians refer to as a “paralysis of the will” and/or psychomotor retardation (psychomotor pertaining to or causing voluntary movements usually associated with neural activity). In severe depression, the depressed person may actually experience a slowing down of his or her movements and may even have trouble walking and talking. The depressed individual experiences physical changes, which further exacerbate the depressive symptoms. The physical changes are referred to as the somatic symptoms.

### Emotional Symptoms

Sadness is the most conspicuous and widespread emotional symptom in depression. Depressed people may even articulate their depression by statements such as “I feel sad.” This emotional symptom is worse in the morning, usually as a result of not having been able to sleep. Feelings of anxiety are also present along with a loss of gratification and a loss of interest. The loss of interest may start with work and extend into practically everything the individual does (hobbies, recreational activities, etc.). Finally, even biological functions such as eating and sex lose their appeal.



## Cognitive Symptoms

The term *cognitive* refers to the mental process characterized by knowing, thinking, learning, and judging. It is an intellectual process by which a person perceives or comprehends. The depressed individual thinks or perceives of himself in a very negative way. His future is viewed with despair. The individual may feel that he has failed in some way or that he is the cause of his problems. He believes that he is inferior, inadequate, and incompetent. His depressed cognitive functioning causes him to have intense feelings of low self-esteem. This sows the seeds for eventual hopelessness and pessimism. The depressed individual actually believes that he is doomed and there is no way out.

## Motivational Symptoms

These particular symptoms are first noticed by those who are close to the depressed person. Depressed persons generally have trouble “getting started.” Most of us are able to function by getting up in the morning, going to work, interacting with one another, and engaging in routine activities. The depressed individual is marked by passivity or lack of activity. This passivity and lack of normal response undermine the individual’s ability to engage in important life functions and general socialization. In its extreme form, there may even be a “paralysis of will,” whereby the individual does not even feel like doing what is necessary for life, such as attending properly to nourishment.

## Somatic Symptoms

These are the biological manifestations of depression. They are perhaps the most insidious set of symptoms due to their impact. As depression worsens, every biological and psychological joy that makes life worth living is eroded. Loss of appetite, loss of interest in sex and sexual arousal, weight loss, and sleep disturbances lead to weakness and fatigue. Depressed individuals *physically* feel the depression. They are more susceptible to physical illness because the depression, as it becomes more severe, erodes the basic biological drives.

## Clinical Scenario

An individual begins to feel sad and sustains a restless sleep. He begins to feel sad in the morning and experiences a lack of interest in work (*emotional symptoms*). He then begins to question his ability to perform at work and starts to feel inadequate. This adds to his anxiety and low self-esteem (*cognitive symptoms*). He then discovers that he just cannot get started in the morning and cannot bring himself to go to work and loses interest in life (*motivational symptoms*). As the depression deepens, the individual loses his appetite and experiences weight loss, which leads to weakness and fatigue. He then slips deeper and deeper into depression and becomes ill (*somatic symptoms*). The cycle of depressive symptoms will continue to evolve and the depression will worsen. At this point, the individual is in dire need of assistance.<sup>3</sup>



**Figure 13.1 SUICIDE BY .308 RIFLE.** (A) This suicide victim's locale, the interior of a vehicle, shows the devastating effect of the blast from a .308 rifle. Note the brain matter on the interior roof as well as the back seat of the car. (B) This photo depicts a close-up of the victim and the extensive damage inflicted by the high-velocity blast. The victim committed suicide by placing the barrel of the .308 rifle into his mouth and pulling the trigger. (Courtesy of Detective Lieutenant Raymond Krolak, commander, Investigative Division, Colonie, New York, Police Department.)



(A)



(B)



**Figure 13.2 SUICIDE BY HANDGUN.** (A) This photo depicts a suicide victim with gun still in hand. The woman had shot herself in the head with a .357 magnum revolver. The gun should be checked for any blowback. (B) This is a close-up shot illustrating the devastating effect of the .357 and the type of head wound the victim received. (Courtesy of Detective Steve Shields, Klickitat County, Washington, Sheriff's Office.)



## Other Motives for Suicide

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Although depression may be the primary motive for the suicide, other factors frequently play a part. Alcohol, drugs, stress, frustration, fear, anger, hostility, and guilt may lay the groundwork for suicide. In fact, motivations may range from the clinical to the bizarre. Some persons may actually take their life in order to punish the survivors, i.e., their family, coworkers, or even society in general, for some perceived wrongdoing.

I have a case on file that was reported in a *Daily News* story and actually aired on television. It was a particularly bizarre case in which the victim had planned his death for approximately 7 months. He had promised reporters that his story would be “the story of the decade.”<sup>4</sup> The victim was a state official who had been found guilty of bribery earlier in the year. On the day of his death, he called for a news conference, ostensibly to resign from public office. As he read his statement, he urged the reporters and camera crews to keep their lenses on him. He then pulled a .357 magnum handgun from a manila envelope and placed it into his mouth, pointing the barrel of the gun up toward his brain. He fired and effectively blew his brains out for the viewing audience.



**Figure 13.3 SUICIDE BY MULTIPLE STABBING.** (A) The body has been turned over by the arriving paramedics. Note the extreme violence to the body with the clustered stabbing wounds. (B) This photo illustrates the extensive stab wounds to the body as well as the presence of “hesitation” type wounds. The woman had stabbed herself 31 times. Only one wound penetrated the heart. (C) The knife the victim used was recovered at the scene. The blade was approximately 7 in. long. The blood on the blade indicated that the knife had been plunged into the chest at least 5 1/2 in. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)

(B)



(C)

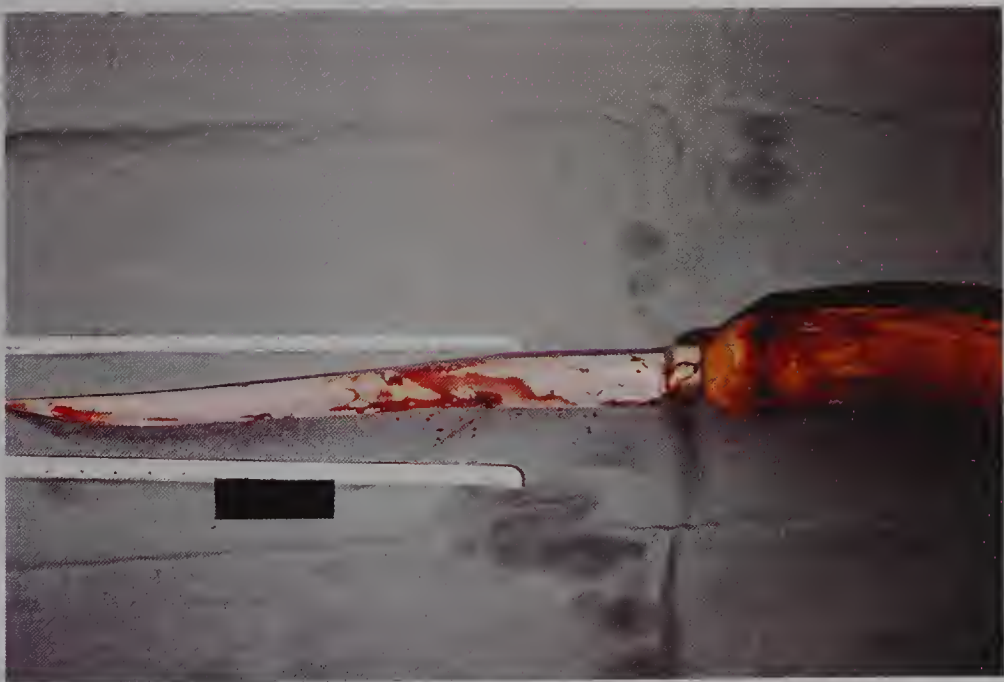


Figure 13.3 Continued.

In addition, some people feel that they have a right of self-determination and take their lives rather than suffer with an illness or disease. These types of suicides will be discussed later in the section “Final Exit Suicide Investigations.” Also, some people wish to end their lives but do not want to do it themselves. They create a confrontational situation in order to force the police to shoot them. These types of suicides will also be discussed later in the section “Suicide-by-Cop.”

## The Investigation

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Investigatively speaking, all death investigations should be handled as homicide cases until the facts prove differently. The resolution of the mode of death as suicide is based on a series of factors that eliminate homicide, accident, and natural causes of death.

**Remember: Do it right the first time. You only get one chance.**

*It has been my experience that suicide cases repeatedly cause more problems for the investigator than homicide investigations.* There is the possibility that suicide notes may have been taken or destroyed. In addition, the weapon and/or other evidence may have been removed prior to the arrival of the police. Also, it is not surprising to encounter misdirected grief and/or anger. The surviving family grieves the loss of a loved one and is faced with the psychological uncertainty of whether or not they could have prevented the act. These relatives frequently suffer a deep



**Figure 13.4 BIZARRE SUICIDE — SUICIDE BY CHERRY BOMB.** This individual decided to commit suicide with a large firecracker. He duct-taped a roll of pennies to a cherry bomb and placed the contraption into his mouth with the fuse extending through his lips. He lit the fuse and blew up his head. (From the author's files.)





**Figure 13.5 MULTIPLE GUNSHOT SUICIDE.** Victim had attempted suicide by shooting himself in the face with a rifle, blowing part of his face off. However, when this did not work, he placed the barrel of the rifle into his mouth and fired a second time, creating this effect. (From the author's files.)

sense of guilt about the death, anger at the deceased, and feelings of shame because of the social stigma attached to a suicide incident.

I remember one case in which an 84-year-old woman was found with a gunshot wound to her head. A daughter of the deceased had notified the police of the death. Unknown to the police, the deceased had been suffering from terminal cancer and had been very depressed. Her daughter, who had unsuccessfully attempted to call her mother at home, went to the mother's house.

She opened the door with a key and discovered her mother's body. She saw a .32 caliber handgun, which she immediately recognized as an old family heirloom. The daughter removed the gun from the premises, along with some personal papers and a codicil she found in her mother's dresser drawer. She went home, got rid of the gun, and then called the police to report that she had not been able to get through to her mother. She requested the police to respond to her mother's apartment and she would meet them there.

Needless to say, when we arrived, we were looking at a burglary/homicide case and not a possible suicide. Later that week, we were called by the family's priest, who advised us of what had taken place. The case was properly reclassified as a suicide.

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## Case History

One of the more problematic cases of suicide I investigated involved the suicide death of an attractive 27-year-old woman. She was discovered in her sister's fiancé's apartment with a cut throat and three stab wounds to the chest. She had been hiding at the apartment

from a boyfriend, who at first was our primary suspect. However, upon a complete and thorough death investigation, it was soon discovered that the circumstances of her death, as well as the evidence obtained by investigators during the crime scene search, indicated this death to be suicide. The cutting to the throat was superficial, with a stigma of hesitation. The stabbing to the chest was self-inflicted. The weapon came from the scene. The premises were locked from inside. Her palm prints were found on the blade of the kitchen knife. A note found at the scene, although not a classic suicide note, did indicate the victim's depression. A handwriting analysis revealed that the deceased had written the note.

A background check of the deceased indicated drug and alcohol abuse. Interviews of family and friends were conducted. Additional evidence was discovered that indicated the deceased had first tried to kill herself with a rifle found in the apartment. There were no signs of a struggle or forced entry into the locked apartment. The medical examiner who responded to the scene agreed with the investigative hypothesis and confirmed that the death was suicide.



**Figure 13.6 STABBING SUICIDE — MULTIPLE WOUNDS. EQUIVOCAL DEATH — CASE HISTORY.** (A) The victim in her original position when police arrived. She had incised wounds to her neck and blood emanating from her mouth and nose. (B) Close-up of victim's face. (C) The kitchen knife *in situ* between her legs and a large bloodstain on the carpet. (D) Close-up of the incised wound to the victim's neck indicating a stigmata of hesitation. (E) Close-up of the victim's chest after the blood was removed. The first two stab wounds hit the sternum. Only one wound was fatal; the wound, which is anatomically to the left, pierced the victim's heart and lungs. (From the author's files.)

(B)



(C)



Figure 13.6 Continued.



(D)



(E)



Figure 13.6 *Continued.*

However, the following day an associate medical examiner, who lacked the expertise of the medical examiner at the scene and the homicide detectives involved in the case, reclassified the case as a homicide. Her rationale was that she had never seen a body with three stab wounds into the chest and that the victim's throat had incised wounds. The associate medical examiner made this determination without consulting the "tour" doctor, who had been at the scene. She disregarded his official notes, refused to discuss the case with the detectives or me, and adamantly insisted that this case was a homicide. As a result of her arrogant incompetence and the family's insistence, this case was subject to review by the State Attorney General's Office, the New York City Department of Investigation, and the NYPD Internal Affairs Division.

I would later have the pleasure of conferring with the chief medical examiner to make an official complaint against the associate medical examiner for her inappropriate and unprofessional behavior. The case was properly reclassified as suicide. However, the damage was done; to this day, the parents of that girl are convinced that their daughter was killed by the boyfriend. It was easier for them to believe that their child was killed than to accept the fact that she had killed herself.

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**Remember: Suicide cases can cause more problems for detectives than homicide investigations.**

In fact, in my present capacity as a homicide and forensic consultant, many of the inquiries I receive concern death investigations that had originally been classified as suicides. Many of these cases raise serious questions about the actual cause of death (*homicide, suicide, accident, or natural*). These cases have been inadequately investigated, or there has been inappropriate interference in the investigative process due to political or other personal considerations beyond the control of the investigator.

However, in some situations, the police have been too quick to classify a case as suicide based on their initial observations at the scene. The death might have looked like a suicide; however, the presentation of the circumstances was created by a clever offender who staged the scene to make it appear to be a suicide. I have investigated many such cases and the truth of the matter is that initially, the cases *did* look like suicides. (See Chapter 22, "Equivocal Death Investigation.")

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## Staging a Scene

Staging a scene occurs when the perpetrator purposely alters the crime scene to mislead the authorities and/or redirect the investigation.

The term *staging* should not be used to describe the actions of a surviving family member who covers or dresses a loved one who is found nude or has died in an embarrassing situation.

**Staging is a conscious criminal action on the part of an offender to thwart an investigation.**



**Figure 13.7 STAGED CRIME SCENE.** (A) Homicide made to look like suicide by hanging. The victim was discovered hanging from a piece of construction equipment. (B) Close-up of victim's head area. Closer examination indicated that the victim had been "strung up" after death and the scene staged to look like a suicide. However, a piece of vegetation that did not come from the crime scene was caught in the victim's hair. This trace evidence indicated that he had been killed elsewhere and transported to this site. (From the author's files.)



## Investigative Considerations

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The investigator should be aware of three basic considerations to establish if a death is suicidal in nature:

1. The presence of the weapon or means of death at the scene
2. Injuries or wounds that are obviously self-inflicted or could have been inflicted by the deceased
3. The existence of a motive or intent on the part of the victim to take his or her life

It should be noted that the final determination of suicide is made by the medical examiner/coroner after all the facts are evaluated. However, the investigation at the scene and an inquiry into the background of the deceased may indicate the presence of life-threatening behavior or activities that suggest suicidal intent. Of course, the medical examiner/coroner is supposed to avail himself or herself of the input of the investigators who were present at the scene and conducted the death investigation.

### The Weapon

The weapon or means of death should be present in cases of suicide. However, the absence of a weapon does not necessarily indicate that death was due to a homicide. The weapon could have been stolen or otherwise disposed of prior to the arrival of the authorities (as seen in the case of the heirloom handgun). Furthermore, family members have been known to conceal weapons and/or suicide notes in order to collect on an insurance policy. In many recorded cases, the suicide victim has arranged to make his or her death appear to be a homicide for a number of reasons.

If the weapon is observed in the hands of the deceased, the investigator should examine the hand to see whether the weapon is clutched tightly due to *cadaveric spasm* (instantaneous rigor mortis). (See “Body Changes after Death” in Chapter 9.) In some instances, the firearm or knife will be tightly clenched in the victim’s hand at the time of death due to an intense muscular contraction of the hand. Some victims of suicide have been found tightly grasping their weapon in death. It is important to note such clutching of weapons because you can be sure that the person held this weapon at the time of his death. A person attempting to place a weapon in the deceased’s hand after death would *not* be able to recreate the same grasp. This is especially important in cases involving firearms. Usually, when a person shoots himself in the head with a handgun, the weapon will fall from his hand. Long-barrel rifles and shotguns may be found cradled in the arms of the suicide victim, depending on the original position of the victim when the firearm was discharged.

In all suspected suicidal gunshot wound cases, an examination of the hands should be made for the presence of soot or powder. The weapon should be examined for evidence of discharge and operability. In addition, the weapon should be examined for the presence of any blow-back materials, including blood from the victim. A ballistics test should also be conducted. It should be noted that the weapon need

not be in the hand of the deceased in order for the death to be a suicide. It is important to note the survival time factor — time between injury and death — which may have enabled the deceased to perform any number of activities, including disposal of the weapon or leaving the original location where he first attempted suicide.

## Wounds

Injuries and wounds in suicides may be very similar to those observed in homicides. However, certain observations that the wounds found on the body are consistent with homicide or suicide should be made. For example, a person found dead from multiple stab wounds of the back would certainly not be considered a victim of suicide. Likewise, in suicide cases, there appear to be preferences and avoidances for certain parts of the body.

If the victim used a knife to commit suicide, the wounds will usually be on the throat or wrists. If the injury is a stab wound, it will generally be through the heart. Most suicidal stab wounds involve the mid- and left-chest areas and are multiple in nature.

The investigator should closely examine any slashing types of wounds for evidence of hesitation marks, which appear as parallel slashes alongside the mortal wound and are indicative of suicide. The investigator should not jump to any conclusions based on hesitation marks because an assailant knowledgeable about these factors might leave similar markings to cover up a homicide.

If the victim uses a handgun, the target will likely be the head, followed by the chest into the heart, followed by the abdomen. Head shots with handguns are usually found in the temple (consistent with the handedness of the victim), followed by the forehead or directly into the mouth. The wounds will be close range as opposed to long range. There should be evidence of powder burns and/or smudging.

In some instances, there may even be evidence of hesitation gunshot wounds or evidence of other shots fired prior to the fatal shot. The investigator should also examine the hands of the deceased for evidence of any blood or tissue splattering. In suicides with rifles and shotguns, the preferred sites are the head (81%), chest (17%), and abdomen (2%).<sup>5</sup>

It is important to remember that wounds are never too painful to a person determined to take his or her life. Deranged persons may inflict several extensive wounds on themselves before they collapse and die. I reviewed one case in which the deceased had attempted to hang himself with an electrical cord, but the cord broke under his weight. He then cut open his stomach with an 8-in. knife and systematically removed his intestines, which he cut into pieces using a pair of tin snips. Investigators at the scene recovered an 8-in. knife, a pair of tin snips, scissors, and towels containing blood and intestines.

**Remember: It is not the number of self-inflicted wounds that is important, but rather the lethality of these wounds and what particular organs have been affected.**



**Figure 13.8 HESITATION MARKS.** (A) This photo illustrates the dynamic of hesitation marks on the throat of the victim. Note the hesitation cuts surrounding the fatal wound. **STRAIGHT RAZOR WITH FINGERPRINTS.** (B) The man had used a straight razor to cut his neck. He had gripped the weapon tightly in his hand. As a result of cadaveric spasm, a perfect set of fingerprint impressions were left in blood on the handle of the razor. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)





**Figure 13.9 CLASSIC EXAMPLE OF SLASHING OF WRIST.** This photo illustrates the classic cut-wrist pattern observed in suicides where the victim cuts across the wrist. Also note the hesitation marks. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



**Figure 13.10 OLD INJURIES FROM SUICIDE ATTEMPT.** The photo depicts the presence of old injuries from a prior suicide attempt in which the victim slashed his wrist. Investigators should note these injuries for predisposition towards suicide as well as victimology information. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)

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## Case History: Suicide with Multiple Stab Wounds

Las Vegas Metro Homicide was called to a suspicious death case involving a 61-year-old male with multiple stabbing wounds found in a residence. The man had an apartment in the residence, which was separated by a dead-bolted interior door; he shared the residence with another male, who reported finding the body and calling 911.<sup>6</sup>

The victim's body was lying in a water feature, which consisted of a tiled sunken basin/pool with a rock formation to the side. Detectives observed the victim lying in a pool/basin. The basin was devoid of water and had been plumbed shut. Detectives also observed a half empty bottle of Drano® drain cleaner liquid lying on the floor of the basin/pool beneath the victim's right knee. Later, it was determined that the victim had ingested this caustic substance.

There was a black leather knife sheath lying on the dining room floor. Resting between the victim's left hand and his left chest was a bloody Buck folding knife, with a 4-in. blade. The knife was open, blade extending downward from the victim's hand.

It was learned that both men, who came from Bulgaria, were good friends over the last 35 years. In fact, the victim had lived in a separate apartment in the residence for the last 4 years. Reportedly, the victim had problems with drinking and gambling, which led to money problems. In addition the victim had recently seen a doctor for depression.

Las Vegas Metro detectives interviewed a female friend of the victim. She stated she had been a friend of the deceased for the last four years and knew him to be left-handed. She also told detectives that the victim had been depressed since his mother died and she had taken him to see a doctor. The doctor had advised the victim go into The Mojave Mental Clinic; however, the victim refused. She stated that, when she drove the victim home, he had given her his \$2000 gold chain, cash, and credit cards and instructed her that these items should be given to his sister in Bulgaria.



**Figure 13.11 SUICIDE — MULTIPLE STAB WOUNDS.** This photo depicts a victim lying in a pool basin indoors. There is a Buck knife still in the victim's hand. He suffered multiple self-inflicted stab wounds. (Courtesy of Detective Sergeant Mike Thompson, Las Vegas Metropolitan Police Department Homicide, Las Vegas, Nevada.)



**Figure 13.12 AUTOPSY — MULTIPLE STAB WOUNDS.** This photo depicts the victim's chest area at autopsy. There were 83 stab wounds into the torso, with incised wounds to his wrist. (Courtesy of Detective Sergeant Mike Thompson, Las Vegas Metropolitan Police Department Homicide, Las Vegas, Nevada.)

Detectives noted that all of the blood was contained within the lower half of the basin/pool, primarily on the flooring around the victim and on the step or ledge. There were no footprints in blood and there was no blood anywhere else in the residence. Detectives noted the apparent stab wounds through the shirt into the chest and the bloody clothing. There were numerous apparent knife wounds of the abdomen and some internal organs were protruding from the victim's lower left abdomen. The victim was removed from the basin/pool; a cursory examination revealed slashing injuries to both wrists. The death was ruled a suicide.

It should be noted that there were 83 stab wounds to the torso, multiple incised wounds to both wrists, and the ingestion of Liquid Drano.

The cause of death was exsanguination due to multiple stab wounds of the torso. The wounds were largely concentrated on the left side; four penetrated the heart muscle. One penetrated the full thickness of the right ventricle of the heart. In addition to the stabbing wounds into the torso, there were multiple incised wounds to the wrist. The esophagus was edematous (abnormal accumulation of fluid). The mucosa was edematous and hemorrhagic with coagulated blood. Gastric mucosa similar with chunks of granular coagulated blood was found within the stomach. The Drano caused hyperemia and hemorrhage. Blood flow was increased due to inflammatory response.

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### Medicolegal Analysis

It is important to note that, although four stab wounds penetrated the heart, only one wound penetrated the full thickness of the right ventricle. According to medicolegal opinion, if that one wound had penetrated the left ventricle, the man could



not have continued to stab himself because one wound penetrating the left ventricle of the heart would have incapacitated him. The left ventricle of the heart supplies the pressure recorded in blood pressure (BP) measurement, e.g., 130/70. The left ventricle of the heart is under pressure. The right ventricle is under less pressure than the left. The right ventricle of the heart is the collection system before the blood is transferred to the left ventricle for pressured release to the arteries.

## Summary

Just as investigators should not presume homicide based merely on the extent of injury, they should not be fooled by the method. Although suicide by fire is extremely rare, gasoline is readily available and can provide a convenient method of self-immolation. Ironically, I have found more women resorting to death by fire than men. I presume that the reason for this situation is that men are perhaps more likely to obtain firearms.

## Bizarre Suicides

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### Suicide by Blasting Cap

The badly decomposed body of the victim was discovered in his trailer. He had been dead 6 or 7 days. Detectives found a surge protector with several wires protruding under the victim's hand with his thumb above the ON/OFF switch. Interviews with family and friends indicated that the victim's family had a history of suicide. The victim had recently bragged about "going out in style" after finding "something" in a mineshaft. When investigators examined the victim's computer, they discovered several visits to [www.suicide.com](http://www.suicide.com).

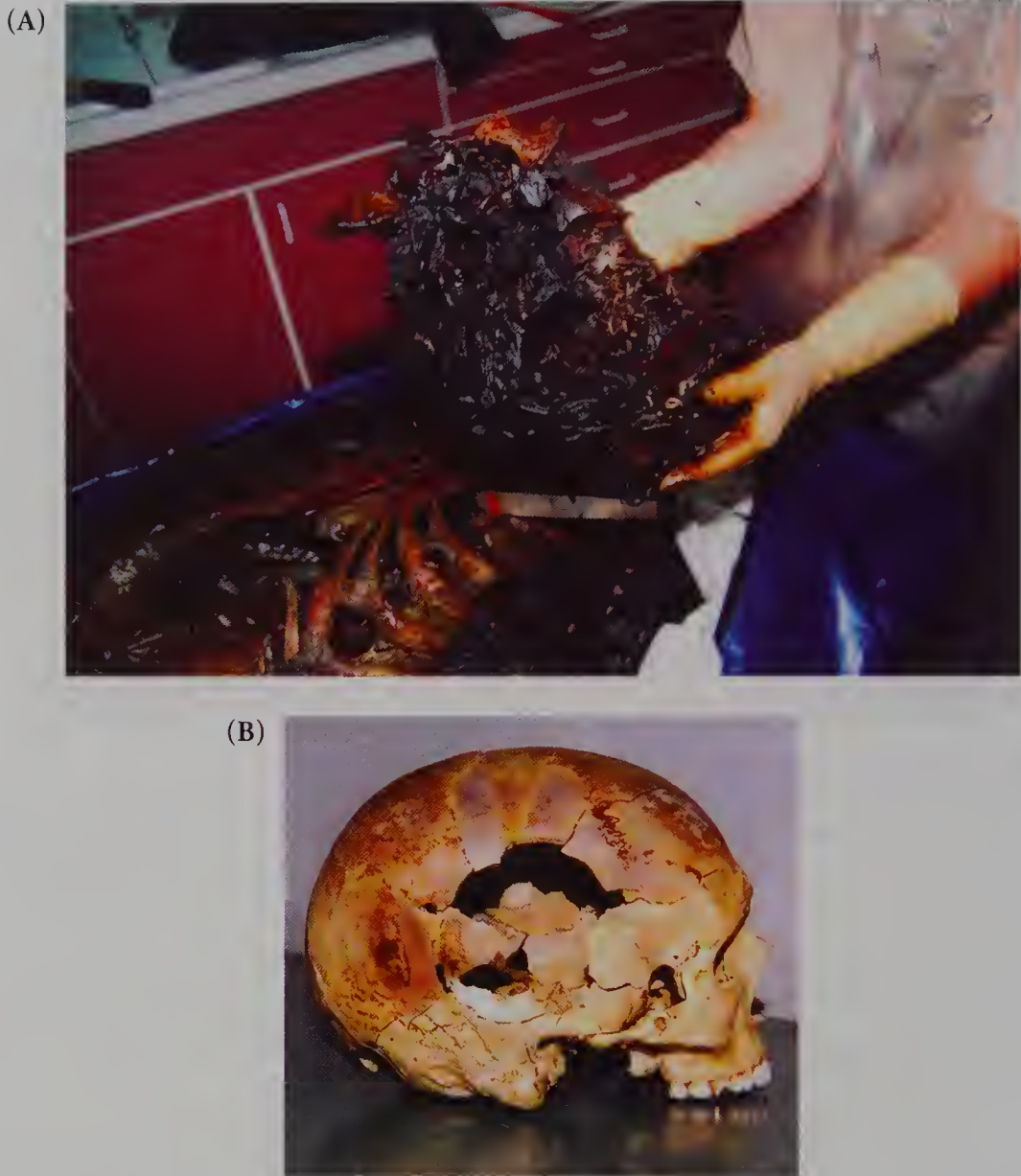
The windows of the trailer had been blown out and the head area had suffered extreme trauma. No facial features remained. His ball cap was shredded from an apparent blast. Further investigation revealed that the decedent had wired two blasting caps into the surge protector and had placed a blasting cap into each ear. At some point, he pressed the ON/OFF switch and blew himself up. Reconstruction of the victim's skull revealed that it had been blown out in the region of the ear.<sup>7</sup>

### Suicide by Fireplace

An emotionally disturbed woman decided to end her life by stripping off her clothing and climbing into her fireplace. Most people would assume that crawling into a hot fireplace would be excruciatingly painful and a person could not actually sit on a fire. However, the victim left a note describing her suicide intentions and the fact that she chose her fireplace as a way out.

### Attempted Suicide — Self-Mutilation

One of the most bizarre cases I ever investigated was a self-mutilation event, which was first thought to be a bizarre suicide attempt. We later determined it to be a



**Figure 13.13 SUICIDE BY BLASTING CAP.** (A) This photo depicts what is left of the victim's head as a result of the blasting caps in each ear and the effects of decomposition. (B) The effect of the blast inside the skull. This photo shows the right side of skull; the left side was also blown out. (Courtesy of Lt. Jim Ezzell and Investigator Pat Downs, La Plata, Colorado, Sheriff's Department.)

brief psychotic episode, which was the consequence of ingesting a large amount of PCP, or “angel dust.”

We had received two calls simultaneously — one from the administrator at the hospital where the victim had been transported and another from a patrol sergeant requesting detectives. We stopped at the hospital first, where emergency room doctors briefed us as to the injuries. I examined the victim, a black male in his late 20s, who was being stabilized by doctors. I observed that the victim's entire face was missing. At this point in the investigation, we were not sure whether the victim had self-inflicted these injuries or had been the victim of an assault.





**Figure 13.14** SUICIDE — VICTIM SITTING IN FIREPLACE. (A) This victim actually sat in her fireplace with the fire to end her life. Remember: do not assume that something may have been too painful for a person desiring to commit suicide to endure. (B) The same suicide victim when the body was removed from the fireplace. Note the pugilistic attitude. (From the author's files.)



We then headed for the crime scene, which had been secured by the first officers. We were told that the police officers had to secure some “wild” dogs in a bedroom in the apartment so that the EMTs could approach and treat the blood-soaked victim, who was then transported to the hospital.

I ordered Emergency Service officers to respond to the location to control the dogs before we entered the apartment to examine the crime scene and requested that our Crime Scene Unit process the scene. The ESU officers shot the dogs with tranquilizer darts to render them harmless. As we examined the scene, I was surprised that we could not find any flesh or skin. I had examined the victim at the hospital and his entire face was “shaved” from his skull. I then remembered the dogs. I surmised that the dogs had, in fact, eaten the flesh. I ordered the dogs to be brought to the ASPCA and instructed the veterinarians to pump the dogs’ stomachs. This procedure resulted in the recovery of pieces of the man’s face, lips, and nose. These pieces were rushed to the hospital for possible reattachment. However, a medical decision concluded that this would not be possible.

We later determined that the victim had smashed a mirror while sitting in a chair and under the influence of PCP, or angel dust. He then apparently peeled his face from his skull with the broken pieces of mirror. He dug out an eye and rendered the other eye useless by severing the optic nerve. He cut off his ears, nose, and lips and fed the flesh to his pet dogs, which were a female shepherd and three pups. He survived this bizarre self-mutilation due to the large amount of drugs anesthetizing his system. However, the large amount of drugs had affected the victim’s brain function. He became a ward of the state. This also required some intricate plastic surgery as doctors performed reconstructive surgery to recreate a face for the young man.

Apparently, this case so intrigued the author Thomas Harris that he “borrowed” the case information from my textbook without authorization. One of the creepier scenes in Thomas Harris’ 1999 novel *Hannibal* involved a character named Mason Verger, who scraped off pieces of his face and fed them to his pet dog. I contacted Mr. Harris, who now properly cites his source. However, the folks at Urban Legends persist in debunking the facts of this case with their faulty interpretations at <http://www.snopes2.com/horrors/drugs/facepeel.htm>. The publisher of this textbook has warned them that the photos and information within this text are copyright materials.

### **Barrel of Gun in Suicide Victim’s Head**

A 14-year-old female was discovered in the bedroom of the family home with an apparent gunshot wound to the head. Several suicide notes were found in the scene, along with a Ruger .357 handgun, the apparent suicide weapon. The Ruger brand revolver was missing the barrel on the gun and the hammer was in the forward position. There was a pool of coagulated blood under the decedent’s head. Her forehead had a large star-pattern open wound with tissue missing. This was a large entrance wound with no apparent exit wound. At autopsy, a 2-in. barrel for the Ruger revolver was recovered inside the victim’s head.<sup>8</sup>

(A)



(B)



**Figure 13.15 SELF-MUTILATION — MIRROR MAN.** (A) Victim at hospital. He had peeled his entire face from his skull while under the influence of "angel dust," or PCP. (B) Recovering victim being fed with a nasal gastric tube. His face is being reconstructed using a "pectoral flap" technique. (From the author's files.)



**Figure 13.16 SUICIDE.** An apparent suicide victim was found in her bedroom. There were several suicide notes found in the scene along with a Ruger .357 handgun. There was a gaping wound in the victim's forehead consistent with a contact type wound with no apparent exit wound. (Courtesy of Maria Weir, Crime Scene Analyst II, and Detective John Williams, Henderson, Nevada, Police Department.)



**Figure 13.17 RUGER .357 FOUND AT SCENE.** The apparent suicide weapon was found at the scene. There was no barrel on the gun and the hammer was in the forward position. There was one expended cartridge in the cylinder, located behind the hammer. The cylinder also contained four live cartridges. (Courtesy of Maria Weir, Crime Scene Analyst II, and Detective John Williams, City of Henderson, Nevada, Police Department.)





**Figure 13.18 BARREL OF THE RUGER.** The victim's head was x-rayed at the medicolegal facility. The 2-in. barrel, which was observed in the x-ray, was removed from the victim's head. (Courtesy of Maria Weir, Crime Scene Analyst II, and Detective John Williams, City of Henderson, Nevada, Police Department.)

## **Equivocal Death Investigations**

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Equivocal death investigations are those inquiries that are open to interpretation. There may be two or more meanings and the case may present as a homicide or a suicide depending upon the circumstances. The facts are purposefully vague or misleading, as in the case of a “staged crime scene,” or the death is suspicious or questionable based upon what is presented to the authorities. (See Chapter 22, “Equivocal Death Investigation.”) I reviewed one particularly bizarre case in which a psychologically disturbed woman committed suicide under circumstances that made the case appear to be a sex-related homicide.

Investigators were called to the scene of a “possible homicide” in a secluded area near a canal. Upon arrival, they observed a vehicle, which had been completely burned, at the edge of a canal as if someone had pushed the car towards the water. In the rear hatchback of the auto, the detectives observed the badly burned and charred body of a white female, with her pants pulled down to her mid-thigh area.

The body was secured to the spare tire wheel-well bracket with a steel chain. Investigators found four 5-gal gas containers approximately 60 ft from the vehicle. It appeared that the victim had been sexually assaulted and killed by an offender who then secured the body by chain to the vehicle. The vehicle was doused with gasoline and pushed towards the canal. The car had been stopped from going into the river by a small tree.

However, upon closer examination, it was discovered that the chain was actually loose enough for someone to crawl into. The vehicle was registered to a woman who had a history of psychological problems and had just been released from a mental institution. Authorities went to her residence, where they found documents and letters indicating her intention to take her life, along with her will leaving her possessions to her son. The investigators were able to trace the gas cans to a Wal-Mart, where the deceased had purchased them along with the chain and a cigarette lighter. She had paid with American Express checks. Detectives retrieved the sales slips and cancelled checks.

In addition, the detectives located the gas station where the deceased had filled her containers. At this gas station there was a 24-hour video. She was observed on the video making the purchase the day of the incident. She also paid for the gas with American Express checks.

Investigative reconstruction indicated that the woman had secured the chain to the spare tire wheel-well bracket beforehand. She had left it loose enough to crawl into after she doused herself and her automobile with the 20 gal of gasoline. After crawling into the chain, she lit a cigarette lighter and caused an explosion. The explosion caused the windows to blow out and the extreme heat caused the auto, which was in gear, to start up and move down towards the canal.

As she struggled and writhed in pain from the flames and fire, the victim's pants were pulled down to her mid-thighs by the chain, which was wrapped around her torso. The case was properly classified as a suicide.

## Motives and Intent

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The manner of death may be important in determining suicidal intent. For example, people who hang themselves or jump to their deaths from fatal heights have certainly indicated an intention to take their lives. Similarly, deaths that involve a combination of methods (poisoning, shooting, slashing, inhaling gas, etc.) show an extreme desire to die.

There are numerous motives to consider in suicide cases. I have found from my experience, however, that some people's motives never surface; the motive dies with the deceased. Some of the more common motivations are

Depression

Drugs

Alcohol

Marital or family crisis

Severe emotional trauma

Psychological problems

(A)



(C)



**Figure 13.19** EQUIVOCAL DEATH — SUICIDE CASE. (A) Victim's fire-damaged automobile at the edge of the canal. The fire department had responded to a reported brush fire at this location by the St. Jude Canal in Plaquemines Parish. (B) The fire department discovered the badly burned body of a female victim wrapped in chains in the rear of the hatchback auto. Police were notified of a possible homicide. (C) View of the victim's body when it was removed from the auto. (D) Evidence of gas containers. Four 5-gal cans were found 60 ft west of the burned auto. They were brand new and recently purchased. (Courtesy of Detective James "Skip" Wright and the Jefferson Parish Sheriff's Office, Gretna, Louisiana.) *Continued.*



(C)



(D)



Figure 13.19 *Continued.*

Stress

Frustration

Fear

Anger

Hostility

Guilt

Terminal illness

Illness in the family

Physical deterioration

Loss of a loved one

The death of a child

Financial situations

Teenage problems

Loss of employment

Despair

General inability to cope with life

I remember working a case in which the body of the deceased was found at the base of a high drop. There was evidence of some cutting on the wrists and it was apparent that he had jumped or fallen from the ledge approximately 70 feet above. An examination of the body, however, indicated that his wallet was missing. A further examination of the area on the ledge failed to locate the wallet or any type of blade that could have been used to cut the wrists. The deceased had been at work the previous day and seemed to have been fine. Friends and family of the deceased had not noticed any suicidal tendencies. The case was definitely shaping up into a real mystery.

Later in the day, we received a call from a neighboring jurisdiction. The police had recovered the wallet belonging to the deceased in a motel room. The room was very bloody and it appeared that there had been an assault in the premises. Further examination, however, disclosed a suicide note, an empty bottle of pills, and a bloody razor blade. Apparently, the deceased had gone to the motel room to take his life. He had cut both wrists, consumed the contents of the prescription bottle, and bled all over the place. When death did not occur, he left the motel, got into his car, and drove approximately 10 miles back to New York City. He then selected a relatively high building in the area and jumped to his death. The suicide note, which was recovered by police, indicated that the deceased was extremely upset with his life and had planned to kill himself at the motel.

## Suicide Notes

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Suicide notes are direct communications indicating intent to commit suicide. Letters and notes that indicate severe depression and/or anger may be addressed to relatives and friends and left at a death scene. The notes are often coherent and legible. They may be instructional and/or admonishing. Suicide notes often have mixed emotional content, including “positive” and “negative” feelings. Many notes reveal what are referred to as “suicide ideations.” These are the formation and conception of ideas in the mind of a person that present suicide as a viable option. References to an “afterlife,” once again being with a loved one, or “looking down” are quite common.

The presence of a suicide note certainly suggests suicide. However, the investigator should conduct a further inquiry to ascertain whether the note is genuine. Was it written by the deceased? Was it written voluntarily? The investigator should collect the note in a manner that will preserve any latent fingerprints. In any event, known writings of the deceased (exemplars) should always be collected for comparison. Remember: even when you are sure that the deceased has written the note and you are not anticipating doing a handwriting analysis, you should still collect exemplars. This could become an issue at a later date and you will not have an opportunity to obtain such exemplars.

Excerpts from a few suicide notes from cases I have investigated and consulted on over the years are provided next in order to add some insight into the thinking of a person who has chosen suicide as the final solution to a real or imagined problem.



The psychology of suicide becomes an integral part of the professional investigation; often the note provides the detective with a basis of inquiry into the background of the victim for a later psychological autopsy.

Dear Mom and Dad, I guess the past ten years escapades have finally paid off — with my Life...I'm sorry I'm letting a lot of people down, who had faith in me, but I no longer had any faith in myself...

This above case involved a young man who had a serious alcohol problem. The actual note was two pages and contained his telephone number and home address. The note was found in his vehicle, which had been parked on the George Washington Bridge in New York City. The note also contained a drawing that indicated he had jumped into the waters of the Hudson River. His body was found approximately 5 days later.

To my family, I just got a little tired. It's not your fault, but I want you to know I love YOU very much...Love always Dad.

This case involved the suicide of a police officer. I knew this man for some 15 years and would never have suspected that he would take his life. I remember interviewing his wife, who told me, "This was not the [Jack] you or I knew. He changed. There was a drastic change during the week. I think it was the medication he was taking." Jack (not his real name) had been prescribed drugs for an infection. The prescription had put him into a deep depression.

Last will and testament, Everything goes to [Jim] with the exception of the things that belong to [John]. I love you all.

This case involved a young woman who had moved to New York City from the Midwest and become depressed with her life. Although she had a good job as a nurse in a hyperbaric center, her real goal was to be in fashions. She decided to kill herself in front of her place of work. She probably decided that no one would miss her and she did not want to die alone, so she took her pet dog with her. She hooked up a vacuum cleaner hose, which she taped to the exhaust pipe of her car, and ran the hose into her vehicle. She was found by her fellow employees the next morning.

Now, [Eva] doesn't have to say Oh she a pain now I'm dead. Now everybody is happy. I hope I wasn't a problem to nobody but if I was now I am not...I hope I didn't cause so much trouble. Tell everybody I say goodbye. Have a Happy Thanksgiving.

This was an extremely sad case involving a 12-year-old girl, who took her life rather than risk being sexually abused any further by her father. The young girl,





**Figure 13.20 SUICIDE VICTIM'S AUTO.** (A) The victim's auto. Note how the vacuum hose has been taped to the exhaust pipe. The victim had placed the hose inside the front door of her vehicle to allow the fumes to flow inside. (B) The victim's face presented with a cherry-red complexion, which is consistent with the inhalation of carbon monoxide poisoning. (From the author's files.)

who was staying with relatives, believed that her father, who had recently been released from prison, might take her back to live with him. Investigation indicated that she had been abused since she was 5 years old. She shot herself with an unlicensed .38 caliber handgun after swallowing a number of pills.

Brother and sister, we didn't have anything else in this world. Please put our bodies in the same coffin...We love you all...Don't be sad about us. Everything is in God's hands...

This was a classic "lovers' suicide pact." The two bodies were found in a motel; both of them had been shot through the head. The male was found with the gun by his hand. They were both lying in bed. The note was found on a lamp table next to a Chinese symbol that meant eternity.

I reviewed an investigation for a detective who wanted me to analyze the suicide notes left by the victim. The series of notes were classic examples of suicide cognition. These notes contained a combination of intense feelings. There was anger, rage, and revenge. There were classic suicide ideations of a better afterlife to be shared with loved ones. There were acceptance, hope, and a plea to God for forgiveness. There were instructions to her best friend on burial arrangements. There was an expression of gratitude to her friend, whom she thought of as family, and there were admonitions.

The notes indicated an intense anger and rage toward the victim's granddaughter, whom she accused of stealing her money. The victim blamed her granddaughter for all of her depression. There was even a suggestion of revenge as the deceased wrote:

When you receive this letter from me, I will be gone and where you can not *hurt* me anymore.

The note then went on to list all of the money and gifts that the woman had given her granddaughter over the years, including the power of attorney, to assure her well-being in later life.

How could you rob a grandmother, who did all that...I hope that you shed as many tears as I did. Any person, that can do what you did to me, is a person lost...God can see you for what you are...Before, I close I want you to know that no matter where you are day or night, I will follow you with my eyes...Remember, I am your shadow looking at you until you tell me why you robbed me, mistreated me, and then hated me. You will suffer as I have suffered.

In another note, the deceased asks for forgiveness and expresses her thanks to her best friend:

(A)



(B)



**Figure 13.21 SUICIDE PACT.** (A) Two Vietnamese lovers made a pact to kill one another when their families objected to their relationship and pending marriage. Their bodies were discovered in bed in a motel room. Both suffered gunshot wounds to the head. (B) A Chinese symbol for eternity was found on the night table next to the bed where the two suicide victims ended their lives.



You have been a good friend, a sister, a mother God has sent to me. I love you like a daughter. I can't thank you enough for taking care of me...I will be looking down smiling at you and I hope that I will find peace...I will pray for you and will be at Joe's wedding. You won't see me, but I will be there. [*classic ideation*]

Dear God forgive me. I can't keep going on anymore. I don't want to live anymore, I want to be with my God. I want to go home and be with my beloved daughter and be with my Lord. [*The daughter had predeceased the victim — another classic ideation.*] I know that God will forgive me, because He knows that I have tried. I am so sorry...Christmas coming, just can't do it. I will be with God and my daughter and my husband. *God loves me. Please think kindly* of me and forgive me.

[*instructional*] [Name], maybe you should have this [note] copied just so it doesn't get lost in case you may need it.

I want to keep my little medal of the Blessed Virgin that I have around my neck on me. I want to take the medal with me. [*ideation of going to heaven*]

[*instructional*] Remember to check and see that I have all the underclothes on me when am layed [sic] out. [*The deceased, who was elderly, was concerned about modesty.*] Thank you for every thing and God will repay you some day...

## Background Information

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It is important to note that the deceased may have indicated an intent to commit suicide through activities and statements prior to death. The investigation should focus on any prior mental disease or defect. Was the deceased under any professional treatment? Consider obtaining this information via subpoena if necessary. The therapist–client relationship is terminated with the death of the client. Has the deceased ever attempted suicide in the past? Research has indicated that persons who have attempted suicide in the past are likely to repeat these behaviors under similar circumstances. Has anyone in the family ever committed suicide? There may be underlying pathological or psychological dynamics to consider. Any diaries, unmailed letters, or similar writings should be examined for information that may explain the death. Many suicide deaths are preceded by verbal threats of self-destruction and other indications of despondence. In some instances, these threats are made to people whom the deceased respects or highly regards. In other instances, sudden change in behavior is shown by subtle actions, such as increasing

life insurance, giving away prized possessions, disregarding doctor's advice, or abuse of alcohol or drugs.

## **Psychological Autopsy**

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The psychological autopsy is a collaborative procedure involving law enforcement and mental health experts who attempt to determine the state of mind of a person prior to the fatal act. By examining the victim's lifestyle and interviewing the friends and relatives, they determine whether the death was accidental or involved suicide.

## **Warning Signs**

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1. A change in sleeping habits — sleeping more than usual or staying up much later — followed by sadness
2. A change in eating habits — weight loss or lack of appetite
3. A lack of interest in sex — loss of sex drive
4. A sudden drop in grades or school attendance (young people); loss of work interest (adults)
5. Loss of interest in favorite activities, hobbies, or sports
6. Loss of interest in friends, family, etc. — isolation

## **Extreme Danger Signs**

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1. Suddenly becoming cheerful or calm after a depression — a sudden euphoria or burst of activity. This could mean that the person has resolved the inner conflict by deciding to take his or her life. The decision is made.
2. Giving away prized possessions.
3. Speaking of life in the past tense — e.g., saying, "I've loved you" or "You've been a good mother."

## **Investigative Considerations**

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### **Evaluation of the Wounds**

1. Could the deceased have caused the injuries and death?
2. Was the person physically able to accomplish the act?
3. Are the wounds within reach of the deceased?
4. Are the wounds grouped together?
5. Is there more than one cause of death?
6. Describe the nature and position of the injuries.
7. Are there any hesitation marks?

## Psychological State of the Victim

1. Obtain a background of the victim from family and friends. This background should include medical as well as social information
2. Were there any *warning signs* indicated by the victim?
3. Were there any recent deaths in the family?
4. Is there any indication of a recent upset or stress?
5. Did the victim leave any notes? Request a sample of the victim's handwriting for analysis in case a note is later discovered.
6. Did the decedent have any close personal relationships, close friends, etc.? Interview as soon as possible.

## Any Prior Mental Disease or Defect

1. Had the deceased been under any professional treatment?
2. Had the deceased attempted suicide in the past?
3. Has anyone in the family committed suicide?
4. Was the deceased a heavy drinker?
5. Was the deceased on any medication?
6. Was there a history of drug abuse?
7. Was there a history of physical or psychological abuse to the deceased?

## *Final Exit* Suicide Investigations

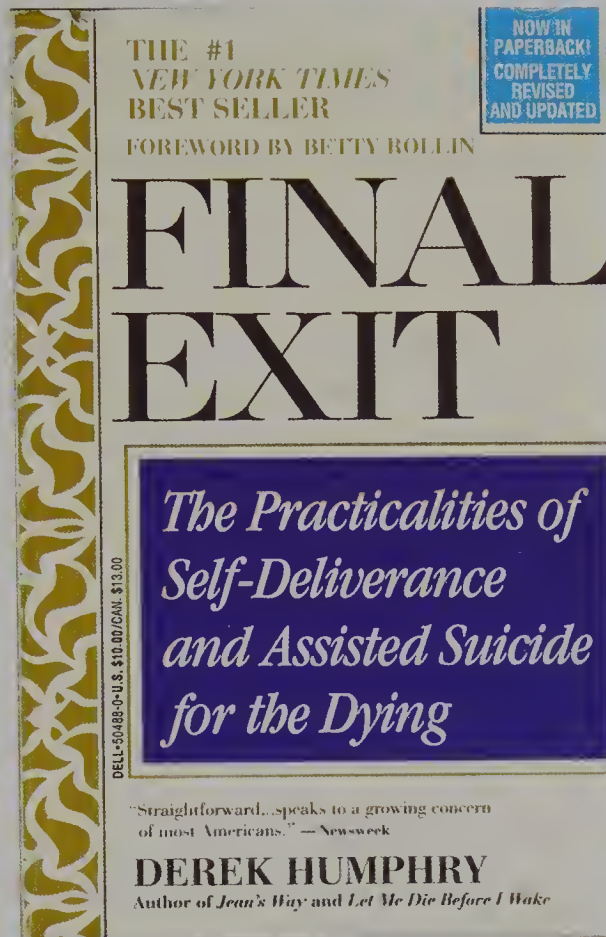
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### Introduction

This section addresses the phenomenon of victim-facilitated suicide and victim-assisted suicide events in which the individual has followed instructions provided in the book *Final Exit*. In my capacity as a homicide consultant, I have had the opportunity to interact with many investigators from a number of different agencies within the United States and Canada. As a result of an informal survey conducted among attendees at my Practical Homicide Investigation® programs, I have discovered an increase in these types of suicides. I selected the city of St. Louis for my case illustrations; however, my research indicates that a significant number of *Final Exit* suicides occur throughout the country. In an article appearing in *The New York Times* on November 6, 1993, medical authorities in New York City reported an increase in the number of suicides since the publication of the book. The article also referred to statistics from the National Center for Health Statistics, which reported that plastic bag asphyxiation types of suicides increased 30.8% between 1990 and 1991.<sup>9</sup>

In 1991, Mr. Derek Humphry wrote a very controversial book entitled *Final Exit: The Practicalities of Self-Deliverance and Assisted Suicide for the Dying*.<sup>10</sup> Ironically, this book about suicide and death actually topped *The New York Times* best-seller list in 1991. In 1992, it was published in many languages and made available





**Figure 13.22** *FINAL EXIT*. This book is often found at the scene of a “*Final Exit* suicide” with notations in or highlighting of pertinent chapters. (From the author’s files.)

in a revised and updated paperback version. Published as an informational aid to end life, this book actually provides detailed instruction and guidance to the reader on how an individual can effectively terminate his or her life.

The initial impassioned debates over whether this book should have been published have since diminished. The moral implications of such a treatise rightly remain the subject of theology and personal religious beliefs. However, Mr. Humphry does make a statement early in his book: “If you consider God the master of your fate, then read no further. Seek the best pain management available and arrange for hospice care” (p. 4).<sup>10</sup>

However, once Mr. Humphry gets that “God” question out of the way, he further states, “If you want personal control and choice over your destiny, it will require forethought, planning, documentation, friends, and decisive, courageous action from you. This book will help” (p. 4).<sup>10</sup>

In my professional opinion, this book provides someone predisposed to suicide the wherewithal and step-by-step guide to terminate his or her life. It is not my intention to debate the moral implications of this book or to impose my theology and belief in God on the reader. Instead, I wish to focus on the investigative considerations that this book presents in suicide investigations. Investigators need to be cognizant of the concept of self-deliverance and the methodologies presented

in *Final Exit* in order to conduct professional death inquiries — particularly, if the deceased was assisted in the suicide by another person. At the risk of increasing Mr. Humphry's book sales, I do recommend that investigators secure a copy of *Final Exit* for their research library as a reference source in the event that they encounter such cases.

### Synopsis of Contents

*Final Exit* is composed of two major sections. Part 1 is entitled "Self-Deliverance for the Dying Person" and comprises 23 brief chapters. Each of these sections addresses substantive issues in the dynamics of suicide and euthanasia. Contents include

- "The Euthanasia Decision"
- "Shopping for the 'Right Doctor'"
- "Beware of the Law"
- "The Hospice Option"
- "The Cyanide Enigma"
- Ways to die (presenting a number of options and case scenarios)
- Going together
- "Self-Deliverance via the Plastic Bag"
- Recommendations of medications and how to obtain the drugs
- How to avoid the medicolegal autopsy
- Insurance considerations
- What letters need to be written
- Sample legal forms
- Documentation
- A final exit checklist

Part 2, "Euthanasia Involving Doctors and Nurses," comprises five chapters, which address the medical profession and the law, including a section on Dr. Jack Kevorkian's "suicide machine." *Final Exit* includes a drug dosage table (with footnotes to drug dosage), which identifies the most effective drugs for self-deliverance by generic and trade names. In addition, there a listing of recommended readings, information on the Hemlock Society (a group formed in 1980 to campaign for the right of a terminally ill person to choose voluntary euthanasia), and four appendixes dealing with the Death and Dignity Act, pain control, suicide hot lines, and a living will and durable power of attorney for health care.

### Investigative Considerations

Specific instructions within *Final Exit* will indicate that the deceased intended to commit suicide and was guided by the rationale of self-deliverance. The presence of the book at the crime scene as well as the dynamics of the suicide event should be properly documented. In addition, certain items at the scene as well as the circumstances of the death might suggest the possibility of victim assistance.

## Letters to Be Written

In Chapter 17, Mr. Humphry explains the importance of the “suicide note”:

It must clearly state why you are taking your life, that you accept sole responsibility, and that nobody else persuaded you. In the event you are discovered before death has taken place, you must demand that you are not to be disturbed but allowed to die. Using the law of informed consent, you cannot be touched or treated without your permission. If you were revived you could, technically, sue for battery (p. 81).<sup>10</sup>

Mr. Humphry also states that the person can use a tape recorder to make the suicide statement, clearly marking the cassette, “My Final Statement” (p. 83).<sup>10</sup>

In addition, the reader is advised to attach to the suicide note copies of a living will and durable power of attorney for health care. (The reader is provided with an address and telephone number for information where to obtain these items.) The reader is also advised to make two copies because the police and/or coroner will take a copy.

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## Case History

St. Louis Police were called to an apartment to “check the well-being” of the occupant. Upon arrival, the officers met the concerned friend, who had called the police after being unable to make contact. The police were admitted to the secured apartment by the building manager and discovered the deceased. The victim was discovered nude, face down. There was a syringe and a large amount of prescription drugs at the scene.

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## Police Investigation

P.O. Daniel Chitwood conducted a preliminary investigation for follow-up by Detective Sergeant Joseph Beffa, St. Louis Homicide. The investigation revealed that the deceased was HIV positive and terminally ill with the AIDS virus. According to his close friend, the deceased had talked of committing suicide on several occasions. There were three letters found at the crime scene indicating the deceased’s suicidal intention as well as a copy of the book *Final Exit*. The case was classified as suicide

The three letters were written according to the recommendations in *Final Exit*, one of which used the “Law of Informed Consent”:

“To whom it may concern:

I [name deleted] have decided to end my life because of my AIDS DISEASE. I have seen too much pain and been through alot! I am tired of trying and no longer wish to continue life as I know it and as I know my body will become...



This decision is known to no other and has been mine alone in a normal state of mind. No one helped or persuaded me to take my life.

If I am discovered before I stop breathing. I will certainly sue anyone who attemp [sic] to revive me. Do not touch me until I'm dead. [signed by the deceased]

### **Self-Deliverance via the Plastic Bag**

In Chapter 19, Mr. Humphry makes reference to the use of a plastic bag as an aid in self-deliverance. He states, "If you don't have the help of a physician to aid the dying, then a plastic bag as well as drugs is highly advisable" (p. 91).<sup>10</sup> Mr. Humphry states that it is important that the bag be firmly tied around the neck in order to prevent any air from coming through. He also makes reference to the use of an ice-bag to avoid the distress of breathing hot air, which may create an unpleasant hot and "stuffy" feeling.

The author makes reference to "devoted couples" wanting to handle the process themselves and also instructs the reader on the law relative to assistance in suicide:

The actual helping of the person constitutes the crime by demonstrating intent. Intent is necessary for successful prosecution. So it is preferable if the person wanting deliverance does it alone. There is no legal risk in removing the bag once the person stops breathing. Removal also reduces the chance of police or medical examiners suspecting suicide (p. 95).<sup>10</sup>

Mr. Humphry points out that the two best methods of self-deliverance are from the use of selected prescription drugs, aided by a plastic bag (p. 109);<sup>10</sup> he also recommends barbiturate drugs such as secobarbital (Seconal) and pentobarbital (Nembutal) as first choice, followed by Valium and Darvon, which are nonbarbiturates. He asserts that drinking alcohol will hasten the drug's effect by 50% (p. 110)<sup>10</sup> and that vodka is extremely effective (pp. 112).<sup>10</sup>

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### **Case History**

St. Louis Homicide detectives were dispatched to a call of "suspicious sudden death." Upon arrival at the location, they observed a female victim lying on her bed with an ice-pack under her neck and a plastic bag covering her head. The detectives also observed 11 bottles of various prescription medication bearing the deceased's name.

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### ***Police Investigation***

Detective Sergeant Alfred Adkins and Detective Dave Calloway conducted the police investigation. Their analysis of the circumstances and facts surrounding this incident revealed that the deceased had numerous medical problems and was seeing a



**Figure 13.23** *FINAL EXIT SUICIDE VICTIM*. The victim was discovered with a plastic bag over her head and evidence that she had taken an overdose of prescription drugs. (Courtesy of Lieutenant Alfred Atkins and Detective David Calloway, City of St. Louis, Missouri, Metropolitan Police Department.)

psychiatrist. She had recently been despondent and, according to a close friend, had stated that she was going to get all of her affairs in order and leave the world. The deceased often spoke about suicide and had bought several books on the subject including *Final Exit*.

The detectives seized the book as evidence. In their police reports, they referenced Chapter 19, “Self-Deliverance via the Plastic Bag,” and Chapter 22, “The Final Act,” due to the similar circumstances of the decedent’s death. The victim had apparently followed the instructions in *Final Exit*. Their investigation indicated that she was not assisted in her death and the case was classified as suicide.

In Chapter 22, Derek Humphry presents the reader with the following “self-deliverance” procedure:

### ***The Final Act***

1. An hour beforehand have an extremely light meal — perhaps tea and a piece of toast — so that the stomach is nearly vacant but not so empty that you would feel nauseous and weak.
2. At the same time, take a travel sickness pill such as Dramamine, which will ward off nausea later.
3. When the hour has elapsed, take about ten of your chosen tablets or capsules with as large a drink of spirits or wine as you are comfortable with. Vodka is extremely effective. If you cannot drink alcohol, use your favorite soda drink.

4. Have the additional powdered tablets already mixed into a pudding and swallow that as fast as is possible.
5. Throughout, keep plenty of alcoholic drink or soda at your side to wash this all down. It will also help dilute the bitter taste.<sup>10</sup>

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## Case History

The body of a 38-year-old male was discovered in a warehouse in St. Louis, Missouri, by two members of a rock band that used the building for band practice. The deceased was found lying on his back. A cylinder of compressed gas and an empty bottle of vodka were lying next to the body. The label on the cylinder indicated that the gas was carbon monoxide. Several handwritten notes, apparently written by the deceased, were found near the victim, which indicated his intention to take his life by inhaling the carbon monoxide gas along with “what to do” instructions to whoever found his body. Also found next to the victim’s body was the book *Final Exit*.

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## Police Investigation

Detective Sergeant Joseph Beffa and Police Officer Daniel Chitwood conducted the death scene investigation. The deceased left four notes. The first note was addressed to “Young Rockers” and dated the day before. The victim instructed them (1) to turn off the gas and (2) not to smoke. He then explained that he got into the “Rock Warehouse” and hid in the corner while the band rehearsed. He stated, “I enjoyed it — Thanks.” He then added, “Sorry for the hassal [sic]” and signed his name.

In Chapter 17, Mr. Humphry states, “If you are unfortunately obliged to end your life in a hospital or motel, it is gracious to leave a note apologizing for the shock and inconvenience to the staff” (p. 82).<sup>10</sup> Although not in a hospital or motel, the deceased took the advice and left this note apologizing for any inconvenience he caused by taking his life at the warehouse.

There were two suicide notes. One stated, “I have committed suicide,” and provided the name of a police official from his hometown to contact. The second note was a three-page handwritten letter in which the deceased discussed his rationale for ending his life.

The fourth note was attached to a gas company receipt. This receipt indicated that the deceased had put a \$100 deposit down for the carbon monoxide cylinder. In his note, he apologized to the company representative for “tricking” her into providing him with the gas. He then requested that they help his parents get the deposit money back.

On pages 152 and 153 in the *Final Exit* book found at the crime scene, the investigators noticed that the deceased had underlined and circled those passages relevant to the use of carbon monoxide gas; on page 153, he had written “how many cubic feet?” The authorities seized the book and photocopied this reference for their file on this case. The death was classified as suicide.



(A)



(B)



**Figure 13.24** *FINAL EXIT CASE.* (A) Victim used a canister of carbon monoxide to end his life. The *Final Exit* book was found at the scene. (B) Suicide notes and book with some entries marked were found at the scene just as described in *Final Exit*. (Courtesy of Lieutenant Joe Beffa, Homicide Squad, City of St. Louis, Missouri, Metropolitan Police Department.)

## Investigative Checklist for *Final Exit* Cases

- Is the book *Final Exit* at the crime scene?
- Check the book for any entries, highlighting, or writing relative to what is observed in the crime scene and how this relates to what is observed in the crime scene or any evidence of “acts of self-deliverance.”
- Are there any suicide notes at the scene?
- Seize these notes as evidence for fingerprint and handwriting analysis.
- Obtain a handwriting exemplar (writings of the deceased when he or she was alive).
- Compare the contents of the notes with the “Letters to Be Written” chapter recommended in the book *Final Exit*.
- Take “major case” prints of the deceased. These include not only fingerprints, but also palmar (hand) prints.
- Request “major case” prints from all persons present or who are considered close to the deceased.
- The plastic bag: Presence of a plastic bag at the scene is highly suggestive of a *Final Exit* type of suicide. The investigator should note and document the following:
  - Is there a plastic bag over the victim’s head or present at the crime scene?
  - Submit the entire plastic bag for an examination of latent fingerprints. Check the plastic bag for any fingerprints for comparison with/elimination of the deceased’s prints.
  - Seize all prescription drugs/medication at the scene for subsequent toxicological examination
  - Note trade name, doctor, pharmacist, and date.
  - Compare these with the drug dosage chart in *Final Exit*.

**Remember:** There is a presumption of possible victim assistance in these types of suicides based upon the information in *Final Exit*.

## Recommendations

I recommend that investigators be cognizant of the concept of self-deliverance and the methodologies presented in *Final Exit* in order to conduct professional death inquiries. At present, no empirical study of these cases has been conducted due to the lack of an identifiable population of cases. The informal sampling that I conducted tends to support the hypothesis that these events are occurring with some regularity. Therefore, I recommend that investigators who encounter these events make an appropriate reference to the case as a “*Final Exit* suicide.”

## Conclusion

*Final Exit* types of suicides are distinctively unique from other suicide cases. They are planned events, with possible victim assistance. Law enforcement personnel

who investigate sudden and violent deaths have a responsibility to document and classify these events properly.

## Staged Crime Scenes Involving *Final Exit*

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Investigators should be aware that a clever perpetrator could mislead the police by committing a homicide and making it appear to be a *Final Exit* suicide. The author reviewed a case in which the scene had been staged as a *Final Exit* suicide. The victim, who had been on chemotherapy after an operation to remove ovarian and liver cancer, had recently been informed that the cancer tumors had started to grow. She was found in her bed with a gun by her right hand. There was a typed note at the scene stating, "I can't take it anymore, no more, no more." The book *Final Exit* was found next to the victim. The death appeared to be a suicide, especially considering the victimology of the deceased.

However, the woman's death was in fact a cleverly disguised murder. The son of the victim had purchased *Final Exit* with the mother's credit card. He had shot her in the head while she was sleeping. He then wiped off the gun and placed it near her hand. He typed the suicide note and placed it on the night table next to the book and then called police to report that his mother had killed herself. (See "The Staged Crime Scene" in Chapter 1.)

## Suicide-by-Cop

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### Introduction

The term "suicide-by-cop" is a police colloquialism used to describe incidents in which individuals, bent on self-destruction, engage in life-threatening and criminal behavior in order to force the police to kill them.

### Example

A 27-year-old male, identified as Tim Sebastian, called the Butler County Sheriff's Department, in Hamilton, Ohio, to report that a man (himself) was prowling around his home and that the man was armed and dangerous. He then cut his telephone lines so that his wife could not call back. When the officers arrived, Sebastian approached them despite their instructions for him to remain still. The officers attempted to discourage Sebastian from making any further threatening motions. He then pulled a shiny metallic object from his belt and pointed it at one of the officers. Both officers fired, hitting the man in the chest. The object turned out to be a pair of vice grips. A review of the incident indicated that the subject had given a farewell birthday gift to his son before calling police and had made a prior suicide attempt earlier in the month by swallowing rat poison. This is an example of suicide-by-cop.

This phenomenon confronting law enforcement appears to have begun in the mid-1980s. These events are seemingly on the increase. However, because they are



not classified as suicide-by-cop, the actual number of these incidents is unknown. To date, no empirical study of these events has been undertaken. Historically, there have been many justifiable homicide events resulting from the imminent use of deadly physical force against law enforcement officials. Most of these police shootings occur during the commission of a violent crime or in connection with an independent police action resulting in a confrontation between the offender and the police.

However, there has been a growing number of *justifiable homicides*, in which police officers have shot and killed an apparently armed individual who threatened the officer or others with the immediate use of deadly physical force. The subsequent homicide investigation, assessment, and review of the circumstances reveal many of these events to be *victim precipitated*.

The dynamics of such victim-precipitated homicides is that the police officer is confronting an individual who has a death wish and intends to force the police into a situation where the only alternative is for the police to kill him. The motivations of these people bent on self-destruction range from the clinical to the bizarre.

### ***Early Example***

An example of one such bizarre circumstance was played out in Jasper, Arkansas. Keith “FOU” Haigler and his wife, Kate, took a busload of hostages in order to force a confrontation with the police. They were members of a religious cult called the Foundation of Ubiquity (FOU) also known as the Father of Us. Keith Haigler stated, “I am the spiritual son of the long awaited Messiah.” The entire episode was based on a delusional belief that they would be resurrected after the police killed them. The media covered the event, during which Haigler made the following statements:

We are the two witnesses spoken about in the Book of Revelations...We want you [the media] to put this nationwide. The long awaited Messiah is here. The proof is that we are going to be shot by the police officers. We have the consent of my father to have our bodies placed on his land for 3 1/2 days. After the 3 1/2-day period, the spirit of life and God enters. They stand on their feet...It's all in the Book of Revelations.

As the police were attempting to negotiate with Haigler, the media advised that they had to get their film to the local T.V. station in time for the evening news. At this point, Haigler stated, “I want you to get the shooting in.” A short time later, Keith and Kate “FOU” Haigler exited the bus with their guns in hand. The police fired at their right shoulders to immobilize and save them from themselves. However, both parties turned the guns on each other in a homicide/suicide ending. *It should be noted that on the third day neither one of them rose from the dead.*

### ***Clinical Interpretations***

I interviewed Dr. Harvey Schlossberg, former director of Psychological Services of the New York City Police Department and presently chief consulting psychologist

for the Port Authority of New York and New Jersey.<sup>11</sup> I asked him whether he recognized the phenomenon of “suicide-by-cop” scenarios. He stated, “Absolutely. It is crystal clear. These type incidents represent clear-cut suicides in which the offender is inviting the police to kill him.” Dr. Schlossberg described an incident involving two police officers. They had responded to a “man with a gun” call and were confronted by an individual who took up a barrier position and pointed his weapon at the police. The police ordered the man to drop his gun. He refused and made actions as if he were about to fire the pistol. The man was shot and killed by the police. His pistol was actually a toy gun. This case is an example of a clear-cut intention to die by police gunfire.

Dr. Schlossberg has testified as an expert witness in many such cases in New York City and across the U.S. He states:

The motivational elements in such incidents illustrate the person’s desire, oftentimes unconscious, sometimes conscious, to commit suicide. Determining the motive is based on the type of weapon, which includes unloaded or imitation guns; the threat to shoot, which forces the police to fire; and the discovery of an intent on the part of the subject to commit suicide. In other situations, the individual may be seriously psychiatrically disturbed and there will be an extensive psychiatric background.

I asked Dr. Schlossberg why people selected police officers as a vehicle of their deaths. He replied:

It’s the most obvious and easiest way to die. Suicide by jumping from a tall building, suicide by running your car into a tree, and suicide by blowing your own brains out requires a decision on the part of the person bent on self-destruction. If you can get someone else to do it for you, you are “writing-off the sin” or avoiding the stigma or social taboos associated with suicide. The police are a good object for this. Police symbolically represent the social conscience. Sometimes, suicidal people feel guilty about something real or imagined. They seek punishment. In other cases they just don’t have the guts to end it all.

### ***The Psychopathology of Suicide-by-Cop Scenarios***

I interviewed Dr. Ronald Turco, a psychiatrist and police detective from Beaverton, Oregon, who stated that suicide-by-cop scenarios may take several forms:<sup>12</sup>

1. Individuals simply are depressed to the extent that they wish to die, but do not want to take their own lives. There may be a degree of grandiosity associated with the act of a public display of their difficulty and having the supreme authority figure take their lives.
2. In other instances and possibly at the root of all such occurrences is the identification that the individual has with a parent figure or substitute that

has been rejecting and critical. In such an instance, the parent may have harbored an unconscious wish for the destruction of the offspring. It is as if the individual is asking the police officer to kill him or her because this represents the ultimate hostility toward the original parent. It is as if he or she is saying, “You want me dead. Go ahead and kill me. This is what you want. To hell with you.”

3. In some cases of terrorists’ activity, the individual has identified with a “super cause” and desires to die at the hands of the hated enemy in a show of defiance. Usually, this type of suicide-by-cop comes at the end of a hostage negotiation that has gone sour or under circumstances in which the member or members of the terrorist group do not wish to capitulate to the “enemy” and therefore choose to be blown up, shot, etc. and go down “in a blaze of glory.”

According to Dr. Turco,

The most commonplace police officer–assisted suicide is that of a mentally ill person who is simply depressed, is acting out a rage toward a parent or parent substitute (in psychiatric terms, an introjected object), and has basically cast the police officer in the role of despised parent. Therefore, the individual accomplishes his own destruction, but flaunts it in the face of authority. Police officers in such instances experience various degrees of guilt, sometimes necessitating treatment.

### ***Hostage Situations***

Many suicide-by-cop scenarios involve hostage taking. This requires that police personnel on the scene be effectively able to diffuse the situation and/or dissuade the hostage taker from harming the hostages or himself. Hostage negotiation skills are of paramount importance in such incidents. Dealing with hostage incidents requires setting up communications, establishing a command post and support personnel for the negotiator, and effective intelligence gathering in order to formulate a negotiating strategy and cooperative team effort with the tactical unit.

I interviewed retired Detective Captain Frank Bolz, Jr.,<sup>13</sup> who was one of the founders of the New York City Hostage Negotiation Team and is presently a crisis management consultant. Frank Bolz is the author of *The Counterterrorism Handbook: Tactics, Procedures, and Techniques*, second edition — one of the textbooks in my Practical Aspects of Criminal and Forensic Investigations series. Bolz states, “The perpetrator of a hostage situation has four perceived options: escape, surrender, suicide, or homicide. For two of these options, *suicide* and *surrender*, there seems to be a ritual that a subject will go through. These are difficult for the police to differentiate.” Some suicide indicators are

1. The subject sets a deadline for his or her death.
2. The subject mentions names of people who are dead and talks about them as if they are still alive or indicates that he or she will soon be with them.



3. The subject makes verbal statements or arrangements for the disposition of “worldly goods,” giving away “prized possessions,” which includes items he or she has at the time of negotiations — i.e., wrist watch, rings, etc.
4. The subject may create a confrontational face-to-face negotiating posture with the police.
5. The subject makes an announcement or declaration of intent to die.
6. The subject makes biblical references, specifically as they relate to the Book of Revelations and resurrection.

According to Bolz, who is a recognized authority on hostage negotiations,

The resolve to commit suicide many times fades or is diminished if the person is contained and allowed to articulate and ventilate his or her problems. Many times, in hostage/barricade situations, the tactical people inadvertently contribute to the success of the perpetrator committing suicide by police because they do not have good cover and are forced to respond with fire power in order to save their own lives.

However, when one sets his or her mind to commit suicide-by-cop, police negotiations and tactics will probably not dissuade their intentions. The Jasper, Arkansas, incident in which two religious cult members wanted to die at the hands of the police is an example of such intent.

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### **Classic Case History Involving a Retired Police Officer**

On August 6, 1992, at approximately 6:57 P.M., Richard Raymond Segura entered a retail store in a shopping mall located at 3329 E. Bell Road in Phoenix, Arizona. He approached the clerk and asked her to call the police, stating that there was a man in the parking lot waving a gun around. The clerk called 911 and was asked for a description by the police operator. The clerk went outside and contacted Mr. Segura. When the clerk asked about the man with the gun, Segura told her it was him and showed her a gun. The clerk returned to the store and notified the 911 operator.

Phoenix police officers Gregory Sargis, Dean Flaherty, Ben Leuscher, and James Collins were among the first officers to arrive at the parking lot of the shopping complex. The officers had received a description of the “man with the gun” and his vehicle from the police radio and spotted their suspect on the north side of the parking lot. As Officer Collins drove towards the subject’s vehicle, he saw the man get out of the car with a gun in his hand. The man held his weapon up for Collins to see and “worked the action.” Officer Collins exited his vehicle and drew his service weapon. The man then reached back into his auto and removed a red colored book. He held his weapon in his right hand and the red book in his left hand and began to move towards Collins. In the meantime, Officers Sargis, Flaherty, and Leuscher had positioned themselves behind their police vehicles. Officer Collins yelled to the man to drop his gun and Segura stated, “I can’t do that” and kept advancing. Segura then stated, “Shoot me, but don’t mess up my face.”

As the suspect got closer, Collins retreated to the rear of his car. At this point, all four of the officers were yelling to the man to drop his gun, but he repeatedly yelled, “Shoot

me.” During this confrontation, Segura was facing Collins and Flaherty. Officers Sargis and Leuscher were south of the suspect. As Segura made a movement of his right arm towards Officer Collins, Officer Sargis fired two shots, one of which hit the suspect in the chest. The suspect Segura died at the hospital. His weapon was a .380 caliber semiautomatic pistol, which was unloaded but with the hammer cocked.

Richard Raymond Segura was a 42-year-old male Hispanic who had been a deputy with the Pima County Sheriff’s Office. He had retired in 1989 due to injuries he had received on the job. Investigation revealed that approximately 2 weeks before this incident, Segura and his wife had become involved in a domestic altercation. Richard Segura was reportedly despondent over the break-up of his marriage and apparently decided to take his life by forcing the officers to kill him. Among the items that Segura held in his left hand during the confrontation was a handwritten note stating, “I love you my dear wife. To live without you and Krystal is not to live at all.” The note had his address and telephone numbers and was signed, “Love, Chiquito.” At the bottom of the piece of paper Segura had apparently left a message for the police officers who were forced to fire upon him. It stated, “Thanks guys, always trust your own to do the job.”

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### **Psychological Ramifications for Police Officers Involved in Suicide-by-Cop Incidents**

Suicide-by-cop scenarios psychologically traumatize the officers involved in such incidents. According to psychiatrist Ronald Turco and psychologist Harvey Schlossberg (forensic experts in the field of police-related stress), officers will be depressed and angry upon discovering that they were used for an execution. They need to vent and get in touch with their anger. Both recommend intervention strategies.

According to Dr. Schlossberg, who has treated a number of officers for shooting-related stress, the effects of a suicide-by-cop incident can be devastating. It amounts to a psychological assault on the officer. He or she is basically shattered as a result of the incident.

As a general rule, people tend to feel guilty about their actions. It is part of human nature to feel guilty. We are basically governed by guilt — you should do this, you should not do that, etc. The officer finds himself or herself second-guessing the incident: Maybe I should have held fire until I could get a better look at the gun. Maybe I should have tried to physically disarm him, etc. The officer begins to relive the incident over and over again. All of these thoughts are psychologically damaging and parallel post traumatic stress disorder (PTSD). Some of the most common symptoms are depression coupled with anxiety, an inability to sleep, hypersensitivity, irritability, nightmares, and flashbacks.

In addition, civil suits will probably be filed by lawyers for the family of the deceased against the police, and the sympathies will generally be for the surviving family. This seems to reinforce the guilt the officer is already experiencing. According to Dr. Schlossberg, critical incident stress debriefings and intervention are a must. Ironically, the officer finds himself or herself in a moral dilemma based on role conflict. The messages police receive are twofold: Shoot to kill. Defend yourself. You are supposed to shoot the bad guy. The media, T.V., and movies — e.g., *Dirty Harry*, *Out for Justice*, *Lethal Weapon* — all support the concept of the police

shooting the offender. At the same time, the other message being driven home by many police administrators is “You are not supposed to shoot your gun. Shoot only as a last resort. You will be suspended and placed under investigation, etc.” According to Dr. Schlossberg, these dual messages amount to the “double-bind” concept where the individual receives contradictory messages as portrayed by the schizophrenic mother who tells the child, “You have to drink your milk” and then adds, “You’re putting on too much weight, don’t drink so much milk.”

## The Racial Component in Police-Related Shooting Incidents

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A police-related shooting incident in which a minority subject is killed by police can cause community unrest and in some instances major civil disturbances. The shooting may be justifiable; however, many times the potential for civil violence can be exacerbated by certain individuals, who can best be described as racial racketeers. I refer to them as the racial PEP squad: the *provocateurs*, *entrepreneurs*, and *prevaricators*, who have made a business of racism in this country. In the case cited in the following case history, some members of the black community alleged that the police shooting was unnecessary. There were demonstrations against the police and a suggestion that the death was racially motivated.

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### Case Histories — Racial Incidents

*Incident:* St. Louis, Missouri. A 17-year-old black male was shot and killed by police. A hostile crowd gathered and surrounded the police, who called for assistance. The allegation by some members of the community was that the police shot an unarmed youth for no reason.

*Facts:* The police officers had attempted to pull the suspect over for a series of traffic violations. There was a pursuit when he failed to comply. The suspect drove onto a front yard. When the police approached the suspect, he reached for a gun in the back seat and pointed it at the officers. The officers yelled twice to the suspect to “drop the gun.” The suspect shouted, “You’ll have to kill me.” He then turned toward one of the officers with a gun in his right hand. The officer fired four shots at the suspect. As the suspect was being handcuffed, he stated, “Please kill me, please kill me.” *The gun was unloaded.*

*Investigation:* The investigation revealed that the suspect, who was upset with his girlfriend, had told his grandmother that he was going to kill himself or someone else. Other relatives confirmed that the subject was “acting and talking crazy” and had made statements that he was going to kill himself. He had last been seen by a friend who saw him run out of the house, enter his jeep, and speed away.

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### Investigative Considerations

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Practically speaking, incidents of suicide-by-cop should be investigated as *homicide and suicide*. The investigative procedures employed should not only focus on the homicide aspect but also on the clinical considerations and dynamics of suicide. The reality of police-related shootings is that the onus is on the police agency



involved to articulate and explain exactly how and why the incident took place. In addition, most police-related shootings become matters of civil litigation. Therefore, it is imperative that the police agency's investigation take into account the legal justification aspects of the shooting and indicate whether the incident and police actions were consistent and in conformance with that agency's department policy. In cases where the elements and facts indicate victim precipitation, I would recommend a specific reference to the incident as "suicide-by-cop," with official reports and witness statements supporting this classification based on the dynamics of the event.

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# The Investigation of Sex-Related Homicides

# 14



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## Introduction

Sex-related homicides include rape murders, serial murders, and killings that involve anal and oral sodomy and other acts of sexual perversion, as well as sexually oriented interpersonal violence cases. For a more comprehensive and in-depth discussion of sex-related homicides, I recommend *Sex-Related Homicide and Death Investigations: Practical and Clinical Perspectives*.<sup>1</sup>

A homicide is classified as “sex-related” when evidence of sexual activity is observed in the crime scene or upon the body of the victim. This includes

1. The type of or lack of attire on the victim
2. Evidence of seminal fluid on, near, or in the body
3. Evidence of sexual injury and/or sexual mutilation
4. Sexualized positioning of the body
5. Evidence of substitute sexual activity, i.e., fantasy, ritualism, symbolism, and/or masturbation
6. Multiple stabbing or cuttings to the body, including slicing wounds across the abdomen of the victim, throat slashing, and overkill types of injuries, which are considered highly suggestive of a sexual motivation.<sup>2</sup>

The victims of these crimes are usually females and young children, and the killer a male. However, it is important to note that sex-related homicides involve homosexual as well as heterosexual relationships. (See “Homosexual Homicides,” Chapter 15.)

The homicide might have sexual implications even without an overt sex act or observable sexual activity at the crime scene. It is important to note that unlike other murders, the motive or reason for the killing may not always be readily discernable or as “clear-cut” as is presented in a robbery–homicide, a drug-related murder, or an organized crime “hit.”

Practically speaking, if the body is that of a female and it is found nude or partially clothed, the investigator should think “sex crime.”

## The Crime Scene Investigation

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The search of the homicide crime scene is the most important phase of the investigation conducted at the scene. It begins with a twofold purpose:

1. The complete documentation of events. Photographs (black-and-white and color) and/or video tape as well as crime scene sketches should be accomplished prior to any other police procedures at the scene.
2. A careful and complete search. A search should be conducted for any forensic materials and other evidence which might provide a clue to the identity of the killer.

### Sex-Related Crime Scene Checklist

- Physical evidence in the form of seminal fluid must be collected as soon as possible before it is lost or destroyed. Samples can be allowed to air dry naturally or you can use a hair dryer on low speed. Wet samples can be drawn into an eyedropper and should be placed in a sterile test tube. Dry stains will have a stiff “starchy” texture. If the stain is on clothing, submit the entire article, being careful not to break or contaminate the stained area. *Consider DNA testing technique requirements.*
- Blood (wet) should be collected using an eyedropper and transferred to a sterile container. The blood can be put into a test tube with EDTA, an anticoagulant, and refrigerated. Small amounts can be collected using 100% cotton swab, #8 cotton thread, or a gauze pad. Allow the swab to air dry and place it in a sterile container. *Consider DNA testing techniques.*
- Blood stain, spittle, and hair (including pubic combings) should be obtained at the scene, properly packaged, and forwarded to lab. *Consider DNA testing techniques.* Trace evidence found on the victim and/or upon the victim’s clothing should be collected. Search for hair, fibers, and other microscopic evidence. Use forceps, a vacuum cleaner fitted with an in-line canister attachment in the hose, or tape. Tape and forceps are the best methods so as not to contaminate samples.
- Bruises and marks on the victim, including the presence of sadistic injuries, should be noted and documented in the investigative notes.
- Urine or feces may be left at the scene by the assailant. This evidence should be recorded and collected. Urine can be removed by eyedropper or gauze. Place in a sterile test tube or other container. If they are on clothing, submit the entire article. *DNA testing can be performed on urine.*
- Fingernail scrapings should be obtained for an analysis of any blood, skin, or hair from the perpetrator. *Consider DNA testing technique.*

- Confer with the medical examiner and assure that specimens are taken from the body (e.g., hair from various areas of the body). In addition, vaginal washings, as well as anal, nasal, and oral swabs, should be requested for serological evaluation and examination. *Consider DNA testing techniques.*
- Examine the scene for evidence of a struggle. The presence of torn clothing, missing buttons, ripped textiles, marks on the ground or floor, and blood splatters must all be photographed, documented, and collected as evidence.
- Homicides involving mutilation may yield clues such as style of attack, the type of weapon used, the amount and location of mutilation, the position of the body. These items should be recorded. (See Chapter 21, “Investigative Assessment: Criminal Personality Profiling.”)
- If a suspect has been taken into custody, his or her clothing should be taken and an examination conducted for any physical evidence. Examine for hairs and fibers.
- Each piece of evidence should be packaged in a separate container in order to prevent cross-contamination.
- The suspect’s body should be examined for any fingernail scratches, bite marks, or other indications of a violent struggle.
- Hair and blood samples should be obtained. (Ensure that any such samples are obtained legally.)
- The body should be examined for the presence of bite-mark evidence. Collect and record:
  - Saliva washing of the bite-mark area for blood grouping. Use 100% cotton dampened in distilled water. *Important:* Obtain a control sample from another area of the body.
  - Photograph the bite mark. Obtain black-and-white and color photos. Use a rule of measure and obtain an anatomical landmark.
  - Casting should be done if possible. Use dental materials.

(For further information on collection of evidence and DNA testing see Chapter 16, “Forensic Application of DNA Analysis” and Chapter 17, “Collection of Evidence.”)

### **Method for Diagnosing Abrasions, Lacerations, and Other Skin Disruptions in the Perineum and Perianal Areas**

According to Dr. Frederick T. Zugibe, chief medical examiner, Rockland County, New York, an excellent procedure in determining sexual assault injuries can be visualized by the application of Toluidine Blue in 0.01% solution and/or Methylene Blue or Azure.<sup>3</sup>

Toluidine stains ground substance or mucopolysaccharides, which are found in abrasions as well as other skin injuries. The intact skin will not stain but injured skin will be visualized with the application of Toluidine Blue and/or Methylene Blue or Azure. This test is extremely effective in child sexual abuse cases. It can also be administered by doctors in hospital emergency rooms who treat live victims of



sexual assault to document the presence of mucopolysaccharides. A simple color Polaroid taken before and after the application produces excellent documentation of sexual abuse, which can be used in trial.

Toluidine Blue is applied with cotton or gauze to the area of suspected trauma. The excess is wiped off with a K-Y jelly or similar substance. The stain will remain in the area of trauma.

In sex-related homicide cases, basic evidence collection procedures acquire an increased importance. Human behavior patterns and psychosexual activities, not generally amenable to ordinary collection techniques, become additional factors to consider in determining the reason and motive for the killing. *Practical experience in homicide investigation* and an understanding of human behavior patterns and human sexuality are important prerequisites in analyzing these types of cases.

### **Human Sexuality and Sexual Deviance**

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The three components of the human sex drive are biological (instinctive), physiological (functional), and emotional (mental). The emotional or mental component



**Figure 14.1** BONDAGE AS FANTASY — CORDOPHILIA. This bondage scenario depicts a person as a willing participant in a bondage game. (From the author's files.)



**Figure 14.2 BONDAGE AS REALITY — SADISTIC MURDER.** The photo depicts the reality of S&M bondage. After raping this victim, the offender “decorated” her in duct tape to fulfill a sadistic fantasy. The woman was bound with her arms above her head in an extremely vulnerable position. He plunged a knife into her chest and then eviscerated her. (Courtesy of Detective Scott Mummert, Chambersburg, Pennsylvania, Police Department.)

is the manifestation of the culmination of our psychosexual development. According to experts, the psychosexual or emotional component is the strongest of the three, accounting for approximately 70% of the human sex drive.

Emotions are controlled by the mind, so it follows that “the mind controls the act.” The mind determines what is and what is not sexually arousing to an individual.

Essentially, our human sexuality is established during our psychosexual development through conditioning and experience, which involve nature and nurture. Sexual behaviors are learned behaviors in which the individual develops a perception of what is sexually satisfying and what is socially appropriate within the context of his or her environment.

Clinically speaking, there is a behavioral distinctiveness in human sexuality. This unique aspect of our arousal and response system accounts for why individuals differ in their sexual behaviors and show selectivity in choosing their mates or



**Figure 14.3 SEXUAL PARAPHERNALIA.** These devices were recovered in a sex-related homicide case. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)

sexual partners. Human sexuality is no longer simply instinctive, but rather is based upon learned patterns of attraction, activity, and fulfillment. Our sexual arousal and response system is affected by hormones, the brain's capacity to recall pleasurable experiences, fantasies, emotions, various sensory processes, and the level of intimacy between two people.

Sex is also a sensory act, involving the five senses of touch, sight, sound, smell, and taste. Each of our five senses is employed to a greater or lesser degree in our sexuality. For example, the sight of a scantily clothed woman might be an arousal factor for a man, or the sense of touch as it relates to a tender caress might be the stimulus that serves as an arousal factor for a woman. These are perfectly appropriate responses as they relate to human sexuality because they are viewed as acceptable behaviors. However, persons who are inhibited sexually may develop unconventional forms of sexual expression. The person who becomes aroused looking at the scantily clad woman might become obsessed with this sensory "turn-on." A deviance might then begin to emerge in a sexual behavior that becomes compulsive, such as in the paraphilia voyeurism.

Sexual behaviors are classified as *acceptable* or *unacceptable*. This determination is based upon statistical, cultural, religious, and subjective considerations. The subjective determination of what is sexually pleasing to the individual could be and many times is in conflict with the *acceptable* standards determined by the majority and also based on cultural considerations or religious influence. This does not prevent the individual from expressing his or her sexual needs. According to Cole-



man et al., “The sex drive is normally sufficiently powerful enough to override all but the most severe social sanctions. Thus we see variant sexual needs frequently erupting into variant sexual behaviors.”<sup>4</sup>

These variations are divided into two groupings. The distinction between the categories is based on social effect. Does the activity infringe on the public welfare? Or is the activity a victimless sexual variant?

We in law enforcement are often called upon to investigate what are described as nuisance violations or sexual deviations. This can be an important consideration when analyzing “*What took place?*” in a sex-related crime scene. It also is the basis for an important investigative concept, which we in homicide investigation refer to as the “signature aspect” of the offender. (See “Criminal Personality Profiling — The Signature Aspect in Criminal Investigation” in Chapter 21.)

According to Dr. John Money,<sup>5</sup> there is a kind of lovemap depicting an idealized lover, love scene, and a program of erotic activities. These are related to the natural human development of the individual and are influenced by biological aspects as well as the environment: nature and nurture. Sexual deviation occurs when these “lovemap” patterns become derailed. Child molesters, rapists, deviant murderers, and others with peculiar erotic interests are an example of this phenomenon. The formulation of sexual deviance can usually be traced to aberrant erotic development. For example, strict antisexual upbringing, sexual abuse of a child between the ages of 5 and 8 by the primary caregiver, overexposure to sexually stimulating behaviors, and/or inappropriate and pathological family dynamics.

According to Coleman et al., the *sexual deviations* are described as “acts which involve nonconsent or assault and those acts which can be described as problematic from the standpoint of the welfare of society.” The sexual deviations are<sup>4</sup>

Voyeurism	Exhibitionism	Pedophilia
Sexual sadism	Incest and rape	Masochism

In *DSM III* (1980), it is stated that “the term paraphilia is preferable because it correctly emphasizes that the deviation (para) is in that to which the individual is attracted.”<sup>6</sup> In *DSM-III-R* (1987), paraphilias were also described using the deviation (para) and attraction (philia) explanation.<sup>7</sup> However, in *DSM-IV*, published in 1994, the text specifically disregards the “attraction to deviance” explanation.

Presently, in this new “kinder and gentler” and overly tolerant society, many sexual perversions heretofore considered shameful and despicable are now looked upon as legitimate expressions of one’s sexuality. According to some of the alleged “experts,” there is no “right or wrong” anymore. Instead, we hear the words “preference” and “choice.” We do not hear about responsibility.

Sexual behaviors are classified as *acceptable* or *unacceptable*. This determination is based upon statistical, cultural, religious, and subjective considerations. The subjective determination of what is sexually pleasing to the individual could be and many times is in conflict with the *acceptable* standards determined by the majority, which is statistical, cultural considerations, or religious influence. In law enforce-



**Figure 14.4 TRANSVESTIC FETISHISM.** A “john” who thought that he had picked up a female prostitute killed this subject, who was a transvestite, when he realized he was with a man. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)

ment, we have a duty and responsibility to enforce the statutes as they are written. The clinical community may choose to ignore or minimize the impact of the paraphilias. In law enforcement, we view the paraphilias differently.

*In Practical Homicide Investigation, I prefer the analogy that paraphilias are indeed an attraction to deviance, and in my experience, I have found that certain paraphilias clearly indicate the potential of future sexual misconduct.*

“The paraphilias are a group of persistent sexual arousal patterns in which unusual objects, rituals, or situations are required for full sexual satisfaction to occur.”<sup>4</sup> According to the *DSM-IV*, there are nine paraphilias. I will list them here with a brief definition. However, for further information, see the *Diagnostic Manual of Mental Disorders IV* and *Abnormal Psychology and Modern Life*, 7th edition.<sup>4</sup>

1. **Exhibitionism (302.4):** Exposing the genitals to an unsuspecting stranger for the purpose of obtaining sexual excitement



**Figure 14.5 KLISMAPHILIA.** A sexual attraction to the giving or receiving of enemas. (From the author's files.)

2. **Fetishism (302.81):** Use of nonliving objects for sexual arousal (female undergarments, panties, shoes, etc.)
3. **Frotteurism (302.89):** A sexual attraction to rubbing against the genitalia or body of another
4. **Pedophilia (302.2):** Engaging in sexual activity with prepubertal children
5. **Sexual masochism (302.83):** Getting pleasure from being humiliated, bound, beaten, or otherwise made to suffer for sexual arousal (considered a chronic disorder)
6. **Sexual sadism (302.84):** The infliction of physical or psychological pain on another person in order to achieve sexual excitement (considered a chronic and progressive disorder)
7. **Transvestic fetishism (302.3):** Cross-dressing by a heterosexual male for sexual excitement (ranges from solitary wearing of female clothes to extensive involvement in a transvestite subculture)
8. **Voyeurism (302.82):** Repetitive looking at unsuspecting people who are naked, in the act of disrobing, or engaging in sexual activity (the Peeping Tom)





**Figure 14.6** SEXUAL MASOCHISM. This subject engaged in penis infibulation as part of his masochistic inclinations. (From the author's files.)



**Figure 14.7** SEXUAL SADISM AS A FANTASY. This photo was altered by a subject who fantasized about what he would like to do to a woman. The device was glued onto a photograph complete with blood drippings and shadow. (From the author's files.)



**Figure 14.8 SEXUAL SADISM AS REALITY.** This photo illustrates the dynamics of the paraphilia of partialism. The murderer removed the victim's breast and then placed it next to his second victim's body for shock value. (Courtesy of Chief Criminal Deputy Robin Wagg, Douglas County, Washington, Sheriff's Department.)

9. **Paraphilia not otherwise specified:** This category is included for coding paraphilias that do not meet the criteria for any of the specific categories:
- Telephone scatologia:** A sexual attraction to making obscene telephone calls (lewdness)
  - Necrophilia:** A sexual attraction to dead bodies; having intercourse with a dead body
  - Partialism:** An exclusive focus on a part of the human body, a breast, leg, penis, etc.
  - Zoophilia:** Use of animals for sexual arousal (includes intercourse with animals as well as training the animal to lick or rub the human partner)
  - Coprophilia:** A sexual attraction to feces
  - Klismaphilia:** A sexual attraction to the giving or receiving of enemas
  - Urophilia:** A sexual attraction to urine
  - Mysophilia:** A sexual attraction to filth<sup>8</sup>

## Determining Motivation

An extremely important aspect of homicide investigation is the determination of the *motive* for the killing. In the sex-related homicide, there are a number of possibilities to consider. Sex-related homicides include rape–murders, serial murders, killings involving anal and oral sodomy and other acts of sexual perversion, and interpersonal violence scenarios.

No one acts without motivation. According to the late James A. Brussel, M.D., a criminal psychiatrist,

...the motivations behind the acts of a madman possess their own logic. The psychotic murderer does not act wholly irrationally. There is a method to his madness: there is a logic, a rationale, hidden behind what he does and how he does it, however wildly bizarre and completely without reason it appears to be...<sup>9</sup>

The investigative challenge is to discover this perverse or seemingly irrational logic and then apply this information to the case.

A careful search should always be conducted at the crime scene and within the surrounding area for evidence of sexual activity. This includes the presence of sexual assault activity as well as substitute and paraphiliac behaviors. This evidence may be seminal fluid in the vagina, mouth, nasal area, or rectum. Semen and other evidence may be discovered outside the body or upon the clothing. Pornographic books, videos, magazines, and/or photographs may be found at the crime scene. The photographs may depict the victim involved in sexual activity. Writings or messages may be left by the offender at the crime scene and/or upon the body of the deceased. In any event, these factors are important in determining the type of sexual activity that may have taken place.



**Figure 14.9 CRIME SCENE — SEX-RELATED HOMICIDE?** This is a crime scene photograph of a sex-related homicide. The first question is “What took place?” Is this a rape-murder or an interpersonal violence scenario? (From the author’s files.)





**Figure 14.10 RAPE–MURDER? SEXUAL PERVERSION?** This victim of a suicide was sexually assaulted 12 hours after death. At first viewing, one can see how this scenario might be mistaken for a rape–murder. (Courtesy of Detective Early McKee, University of Utah Police Department.)

Human behavior, although unpredictable, is often repetitive. Research has indicated that certain actions engaged in at the homicide crime scene by certain types of personalities will be repeated in other homicide investigations. The homicide detective who has enhanced his experience with a comprehension of the psychodynamics of human behavior will be able to develop a base of knowledge that can be applied to the review of similar cases.

An investigator should ask certain preliminary questions when examining a crime scene: “*What took place?*” “*Why did it occur?*” “*Who could have done it?*”

The reason and motivation for the crime are an extremely important consideration in establishing the investigative direction. Was the murder the result of a lover’s quarrel? Is the case attributed to interpersonal violence? Does it appear the victim was killed during a rape or sodomy attempt? Is the killing sexually oriented? Is there a psychotic motive, which sometimes appears to be motiveless or bizarre? Is the homicide the work of a sexual psychopath, with sadistic or impulsive implications? Each of these scenarios suggests a specific course of action.

However, in sex-related homicide investigations, the motivation behind the killing may not be immediately ascertained. Even when you do believe that you have determined the motive, my experience suggests exercising caution.

### **Significance of Fantasy in Sex-Related Incidents**

All human sexual activities are initiated through fantasies, which are mental images usually involving some fulfilled or unfulfilled desire. Fantasy plays a major role in

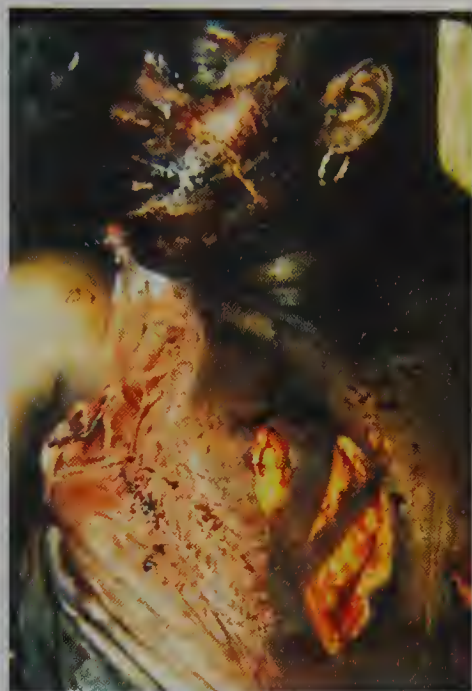


**Figure 14.11 DEFEMINIZATION.** A disorganized offender mutilated this female victim and removed her breasts; this illustrates pathological sadism. (From the author's files.)



**Figure 14.12 EVISCERATION AND ANTHROPOPHAGY.** The subject engaged in postmortem mutilation of the victim's body consistent with "disorganized" behavior. He then eviscerated her and removed the ovaries, which he consumed in behavior described as anthropophagy. This is also pathological sadism. (From the author's files.)





(A)



(B)

**Figure 14.13 SEX-RELATED HOMICIDE INVOLVING BIZARRE ACTIVITIES.** Anthropophagy and postmortem mutilation of body. These photographs show the partially clad body of an eviscerated female. The victim was hit in the head with a baseball bat. Her throat was cut, and there are multiple cuttings to her breasts and legs. The offender engaged in sadistic activities with the victim's body and placed a soda bottle in the abdominal cavity. Evidence in the scene also indicated that the offender had drunk the victim's blood. A bloody drinking glass with the offender's lip prints was found at the scene. (From the author's files.)

everyone's sexual behavior. It is the drive factor for sexual expression. Sexual fantasies normally consist of imaginings and/or a series of mental images that are sexually stimulating. The contrast of these "normal" fantasies would be the aberrant development of bizarre mental images involving grotesque unnatural distortions of sexual imagery.

For the sexual predator:

1. The underlying stimulus often is expressed through sexual aggression, domination, power, and control.
2. Sexual fantasies constructed around such themes begin to develop shortly after puberty.
3. The individual becomes aroused with thoughts and fantasies of sexual aggression.
4. Clinically speaking, the subject has developed a *paraphilic lovemap*<sup>5</sup> where lust is attached to fantasies and practices that are socially forbidden, disapproved, ridiculed or penalized.



This paraphilic lovemap is then reinforced through repetition illustrated by the use of sadistic pornography and fantasy stories featuring sexual sadism. “Acting out” these themes with consenting partners coupled with masturbatory activities eventually formulates the subject’s “template” or what we refer to in law enforcement as the “signature” of the offender.

Detectives involved in the investigation of sex-related homicides and deaths should be aware of the role of fantasy in sex-related homicides and accidental deaths to sexual asphyxia. Fantasy fuels the mental and emotional processes underlying human behavior and is revealed in the crime scene or accidental death event.<sup>1</sup>

Sexual sadists rely heavily on fantasy and ritual to obtain sexual satisfaction. There is an element of compulsivity as well as an obsession on the part of the sexual sadist to keep trophies and recordings of the event. Photographs of the victims play a significant part in their rituals as well as their ability to recall their sadistic acts. Therefore, I recommend that any search warrant applications in these types of cases should certainly reference photographs as well as any records, scripts, letters, maps, diaries, drawings, audiotapes, videotapes, and newspaper reports of the crimes as possible evidence to be seized.

I remember reviewing an investigation in which the partially clad body of a 28-year-old college coed had been found on campus of a large university. Her pants and panties had been removed and her legs had been spread apart. Her blouse had been pushed up to reveal her breasts. The cause of death was not readily apparent at the scene. However, it was ascertained that there had been sexual activity at the crime scene and the medical examination confirmed the presence of semen in the girl’s vagina. The motive in this case was determined to be a rape–homicide. However, upon further investigation, it was discovered that the young woman, who was a pharmaceutical student at the university, had actually committed suicide the evening before. A suicide note was found in her dorm explaining that she was extremely depressed and had taken an overdose of prescription drugs. The medicolegal autopsy confirmed that her death was related to an overdose of drugs.

Eventually, the homicide inquiry revealed that the groundskeeper, who had initially reported finding the body, was responsible for the sexual act. He confessed to police that he had come across the body and experienced a “sexual urge.” The girl’s body, which had been lying there for some 12 hours, was in rigor. He broke the rigor to loosen her legs and then removed her clothing. He then engaged in an act of necrophilia. What had appeared to be a rape–homicide was actually a suicide with an act of sexual deviance committed upon the body after death.<sup>10</sup>

**Remember: Things are not always what they appear to be.**

The identification of the victim is a crucial consideration in determining motivation. An intensive investigation into the victim’s background, lifestyle, and associations many times will reveal a possible motive. An examination of any relationships, acquaintances, and risk factors may provide a clue to the “*Who could*

*have done it?*” scenario. For example, With whom does the victim live? Who was with the victim last? Does it appear that the victim knew his or her assailant? What is the victim’s current social status? Why was this particular victim selected? Does the crime appear to be a “stranger-homicide”? Was the deceased in a high-risk occupation (call girl or prostitute)? Was the victim a runaway or hitchhiker? Was the victim a late-hours worker, e.g., waitress or service worker, who had to travel alone at night? What method of transportation did the victim utilize? What route did the victim travel? Were there any recent sexual incidents in the area, such as voyeurism (Peeping Tom cases) or fetish burglaries? Are there any rape or sexual assault patterns?

One of the most significant factors to consider in death investigation is victimology. In sex-related events, victimology becomes paramount in the assessment and analysis of “*Who was the victim and what was going on in his or her life at the time of the event?*” (See “Victimology” in Chapter 1.)

I remember reviewing and critiquing a serial murder case in which an offender had killed ten young women over a period of 2 years. In the first case, authorities had little or no information except that the deceased was a drug user and prostitute. The second case involved a missing person, who was not found until the killer was apprehended. However, the next two cases, which came in about 4 months apart, were strikingly similar. Both young women had been killed in their respective apartments and there were no signs of forced entry, suggesting they might have known their assailant. In both of these cases, the investigators failed to interview friends and coworkers of the two women. Had the detectives conducted this very basic inquiry, they would have become aware that the two cases were related and that both young women had worked at the same fast-food restaurant where the offender had made their acquaintance. This failure to conduct basic investigative inquiry proved to be devastating to an entire community as six additional young women were found under similar circumstances over the next year. Ultimately, a serial murderer was apprehended, but not before ten women had become victims in this series of sex-related attacks.<sup>10</sup>

Any number of questions can be asked and answered depending upon the circumstances and/or scenario of the crime scene. Consequently, an important factor in the proper formulation of a hypothesis will be the experience and knowledge of the investigator assigned to the case.

Examining a crime scene with the purpose of identifying and interpreting certain items that may serve as clues to the type of personality is an excellent technique. (See Chapter 21, “Investigative Assessment: Criminal Personality Profiling.”) There are common denominators between the psychological make-up of the criminal and the psychological clues the crime scene reveals.

Research by the FBI’s Behavioral Science Unit into sex-related homicides has disclosed a remarkable consistency in the type of person who commits certain acts. Although there is a wide range of differences among offenders who commit similar offenses, these offenders also share similarities and common traits.

## Organized and Disorganized Offenders

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The organized and disorganized dichotomy devised by the FBI's Behavioral Science Unit is a description of criminal offender typologies. The information presented here as it relates to the phenomena of organized and disorganized offenders is based upon the studies and research of the Behavioral Science Unit, personal interviews with retired Supervisory Special Agent Robert K. Ressler and others involved in the project, and interaction with colleagues across the United States who are homicide experts, as well as my experience as a homicide investigator, instructor, consultant, and expert in the field of homicide investigation.

### What Is the Motive?

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Psychotic	Psychopathic
Motiveless	Sadistic
Bizarre	Impulsive
Disorganized	Organized

## The Organized Offender

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The clinical definition of the elements making up an *organized offender* can be found in *DSM-IV* under the category *Antisocial Personality Disorder*. Antisocial personality is often referred to as *psychopathic* or *sociopathic* behavior. Today, the clinical community has come to realize the significance of psychopathy as it relates to criminal behavior. As far as I am concerned, the word *psychopath* “fits” the law enforcement term of *organized* “like a glove.”

The organized offender is usually above average in intelligence. He is methodical and cunning. His crime is well thought out and carefully planned. He is likely to own a car, which is in good condition. The crime is usually committed out of his area of residence or work. He is mobile and travels many more miles than the average person. Fantasy and ritual are important to the organized personality type. He selects a victim whom he considers the “right” type — someone he can control (through manipulation or strength), usually a stranger. Most of his victims will share some common traits.

This offender is considered socially adept. He uses his verbal skills to manipulate his victims and gain control over them until he has them within his “comfort zone.” He is fully cognizant of the criminality of his act and takes pride in his ability to thwart the police investigation. He is likely to follow news reports of the event and will often take a “souvenir” from his victim as a reminder; this is sometimes used to relive the event or continue with the fantasy. (The souvenir is referred to as a “trophy” when describing this particular action by the organized offender.)

He is excited by the cruelty of the act and may engage in torturing the victim. Sexual control of the victim plays an important part in this scenario. He avoids leaving



evidence behind and usually brings his own weapon. He is aware of police procedures. The body is often removed from the crime scene. He may do this to taunt the police or to prevent its discovery by transporting it to a location where it will be well hidden. (See Chapter 21 for a more in-depth profile of the organized offender.)

### **The Disorganized Offender**

The clinical definition of the elements making up a *disorganized offender* is found in such diagnoses as the *psychotic disorders*, i.e., the schizophrenias, which are characterized by gross distortions of reality involving delusions and hallucinations, and paranoia, which may or may not affect the personality, as well as paranoid schizophrenics, who are marked by acute personality fragmentation. In addition, individuals who are not psychotic may experience psychotic episodes. A psychotic episode, which is referred to as *brief psychotic disorder* in the *DSM-IV*,<sup>8</sup> relates to a temporary condition brought on shortly after or in response to an extreme stressor. The individual will typically experience emotional turmoil or overwhelming confusion.

Under certain conditions, an inadequate individual experiencing intense sadistic sexual fantasies may suddenly “act out” these fantasies on a victim of opportunity. The crime scene would be disorganized, and his actions and behavior could be viewed as psychotic.

The disorganized offender is usually of below average intelligence. He is generally a loner, who usually is not married and lives alone or with a relative in close proximity to the crime scene. He experiences difficulty in negotiating interpersonal relationships and is described as socially inadequate.

This offender acts impulsively under stress and will usually select a victim from his geographic area. In most instances, this type of offender will not own a vehicle, but will have access to one. Generally, he will avoid people. He is described as sexually incompetent without any meaningful sexual relationships. He uses a “blitz” style of attack, which catches the victim off guard. This spontaneous action in which the offender suddenly “acts out” his fantasy does not allow for a conscious plan or even a thought of being detected. This is why the crime scene will be disorganized. In homicide investigation, we call these events a clustered crime scene.

*A clustered crime scene involves a situation where most of the activities take place at one location: the confrontation, the attack, the assault and sexual activity, etc.*

The disorganized offender usually depersonalizes his victim by facial destruction or overkill types of wounds. Any sexually sadistic acts are performed post-mortem. Mutilation to the genitalia, rectum, breasts of females, neck, throat, and buttocks is performed because these parts of the body contain a strong sexual significance to him. (See Chapter 21 for an in-depth profile of the disorganized offender.)

According to Ressler et al., “...there are significant differences between the organized and disorganized offender. However, there are no situations where the organized and disorganized offenders are mutually exclusive. That is, both types of murderers are capable of all types of behavior.”<sup>11</sup>



**Figure 14.14 RAPE HOMICIDE CRIME SCENE.** This is the victim of a rape–homicide that occurred in an unoccupied apartment within a building in the South Bronx. The victim was raped and sodomized by the killer, who had forced her into this location after tricking her into going into the building. She was a classic “victim of opportunity” who just happened to be at the wrong place at the wrong time. (From the author’s files.)

## Classifications

In my opinion as an expert in the sphere of homicide investigation, sex-related homicides can be classified into *four* distinct categories based upon frequency of occurrence:

1. Interpersonal violence-oriented disputes and assaults
2. Rape- and/or sodomy-oriented assault
3. Deviant-oriented assault, commonly referred to as a lust psychotic killing (in these situations the motive for the murder is not readily discernible)
4. The serial murder

My opinion of the FBI classification of crime as found in the *Crime Classification Manual (CCM)*<sup>23</sup> is that it does not facilitate or assist in the solving of criminal offenses. These *CCM* classifications serve no purpose, other than to allow alleged “experts” to testify to the data and statistical information compiled in a research project. In fact, the *CCM* not only confuses the investigative process, but also actually allows for an interpretation of events that may or may not conform to state, county, and local government legislation as it applies to the specific crime.

I believe that the FBI attempted to produce the equivalent of a *DSM-IV* type of publication, which is fine for research and theoretical analysis of criminal events in the area of clinical research but lacks the “practical application” necessary in the investigative practice.



**Figure 14.15 RAPE-HOMICIDE CRIME SCENE — DEPERSONALIZATION.** This young woman was raped and murdered by an *organized offender*. The woman, who had been bound for the purposes of sexual assault, was under the control of this killer for a number of hours. The covering of the face and/or turning over of the body is referred to as *depersonalization*. (Courtesy of Detective Sergeant [retired] Robert L. Bittle, Cumberland County Sheriff's Department, North Carolina.)

In the “real world” of death investigation, we do not need to complicate the investigative process by constructing theoretical definitions and subclassifications for computer analysis. I believe in keeping things simple. I have instructed, proposed, and recommended that the criminal investigator approach sex-related death investigations by considering the *practical* statistical significance of the four classifications of sex-related homicides as specified at the beginning of this section.

### **Interpersonal Violence-Oriented Disputes and Assaults**

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The most common type of sex-related homicide originates from interpersonal violence. “Sexual domestic disputes” involve husbands and wives, men and women, boyfriends and girlfriends, boyfriends and boyfriends, girlfriends and girlfriends, and even occasionally siblings. They may also involve third-party relationships,





**Figure 14.16 RAPE-HOMICIDE CRIME SCENE — PREVENTING IDENTIFICATION.** The offender engaged in multiple breast assault by knife and assured the victim's death by cutting her throat. The police investigation indicated that the victim could have identified her assailant. The offender killed her to prevent identification. He also killed two of her children, who could have identified him. (Courtesy of Detective Sergeant [retired] Robert L. Bittle, Cumberland County Sheriff's Department, North Carolina.)

such as “love triangles,” former husbands and/or wives, and jilted lovers. In some instances, the death may not appear to be sexually motivated. However, upon an examination into the background and relationships of the victim, a new possibility soon presents itself to the authorities.

Practically speaking, whenever a man reports the sudden death of his wife, girlfriend, lover, or associate or makes a report of a missing person for one of those relationships, a smart homicide cop should immediately consider him a possible suspect until the facts prove otherwise. Who kills women in our society? Men. I base this conclusion on statistics. In fact, experienced homicide cops usually take a good hard look at the husband, lover, or boyfriend to scrutinize their behaviors as they report the event. What do think that the O.J. Simpson case was all about? A jury swayed with the racial shenanigans orchestrated by the defense acquitted Simpson. However, in the civil trial where *all* of the evidence was presented to the fact finders, O.J. Simpson was found liable for the death of his former wife, Nicole Brown, as well as for the death of Ronald Goldman.

I remember a case in which a 36-year-old female executive was found shot to death “execution style.” She had been shot three times in the head at close range and her body was left in her automobile, which was found parked under the George Washington Bridge. The police investigation revealed that the victim had an ongoing lesbian relationship with a 31-year-old female bartender. Detectives ascertained that the deceased had become embroiled in an argument with her lesbian girlfriend over another woman. The victim had met this woman at an East Side “singles” bar.

When the “other woman” arrived, the argument began and the three women ended up leaving the bar together. The deceased drove the auto with her new “friend” sitting in the front seat and her lesbian lover sitting in the rear seat. The argument continued as they drove. During the argument, the jealous lover shot her friend in the head from the back seat. The woman passenger fled the scene as the shooter exited the back of the vehicle and got behind the wheel of the auto. She then drove the victim’s car and body to the location of discovery. The “witness–passenger” eventually came forward and police arrested the jealous lover, who was hiding out at another woman’s Manhattan apartment. Initially, this case did not appear to be a sex-related homicide.<sup>10</sup>

The motive in this category of slayings is most often based upon elements of rage, hate, anger, jealousy, or revenge. The psychological dynamics involved in such violent interpersonal disputes and assaults often presents scenarios which involve violent actions and statements such as, “If I can’t have you, then nobody will have you.” This is most common in sexual domestic dispute cases. The woman petitions the court for an order of protection. The court order directs the man to stay away from the petitioner and refrain from any further harassment. The man becomes enraged with this attempt by the woman to break the relationship. This often culminates in a violent homicidal episode in which sexual aggression is evident in the crime scene. An estimated 1432 females were killed by intimates in 1992, according to the FBI’s Crime in the U.S. Female victims represented 70% of the intimate murder victims.<sup>12</sup> Currently, statistics indicate that most women who are murdered in the United States are killed by former husbands, lovers, and friends.<sup>13</sup>

**Murder serves as the ultimate form of sexual revenge for certain abusive types of personalities. That is why I classify interpersonal violence as the most prevalent form of sex-related murder.**

I remember investigating a case in which the nude body of an apparent rape victim was found in a city park. Initially, it was believed that the victim had been raped at an undisclosed location, shot to death, and then transported to the park where the body was dumped. However, upon identification of the victim, it was ascertained that she had been missing from the previous day. Investigation revealed that she had been abducted by her estranged husband. He had kept her captive in his auto, where she was repeatedly raped and subsequently killed when she refused to reconcile with him.<sup>10</sup>

In some domestic dispute cases, especially those involving “crack,” which is a concentrated form of cocaine, the crime may appear to be based upon some sort of psychotic episode. The body of a nude woman was found in her neatly furnished apartment. She had been stabbed seven times in the back, chest, and neck, and there was evidence that she had been sexually assaulted. Investigation revealed that her boyfriend, a 24-year-old ex-Marine, had smoked six vials of crack earlier in the day. The suspect, who worked for a Long Island electronics firm, was reportedly a good employee. He did not have any criminal history and according to family

members had apparently been happy in his relationship with the woman. Yet, while under the influence of the crack, he had sexually assaulted her and stabbed her to death with a 9-inch carving knife.<sup>10</sup>

An enraged lover or spouse who is acting under extreme emotional circumstances is capable of anything. I recall a number of cases in which offenders attempted to dispose of their wives and girlfriends through dismemberment. Initially, the police are confronted with a complete mystery and some unidentified body parts. However, once the identity is ascertained, the investigation usually leads to a relative or friend and an interpersonal violence scenario.

There may be an attempt to destroy the victim by depersonalizing the body. Facial destruction, multiple cuttings and stabbing, sexual assault, overkill, and even postmortem attack may be present.

I remember supervising the investigation of a case which appeared to have been committed by a lust murderer or a psychotic killer. The partially clad body of a 22-year-old black female was discovered in her apartment. She had been savagely beaten on the head with a baseball bat and her throat had been slashed. Next to the body was a bloodstained drinking glass. I observed a lip print in blood upon the rim of the glass, suggesting that the glass had been used to drink blood. On the coffee table in the living room were a number of kitchen knives, which had been used to slice the victim's body. All the utensils were lined up on the coffee table like an operating room in a hospital. The victim had been eviscerated and a large soda bottle had been thrust into her abdominal cavity. Her intestines could be observed inside the clear plastic bottle. There were a number of postmortem slicings to her breasts and chest. In addition, the killer had also carved diagonal wounds into both of the victim's legs. This murder was actually committed in a fit of rage by the victim's live-in boyfriend.<sup>10</sup>

It is important to note that the *motivation* in an interpersonal violence-oriented dispute may be obscured by a clever offender. "Staging" the crime scene or changing some of the elements in the scene might mask the motivation. Originally, what appeared to be a rape or lust murder or the work of a sexual psychopath can often turn out to be based on interpersonal violence.

## **Rape- and/or Sodomy-Oriented Assault**

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In this category of sex-related homicide, the offender's primary intent is to rape and/or sodomize the victim. The offense may be heterosexual or homosexual depending on the circumstances of the crime. These homicides occur under the following circumstances:

1. The assailant has used excessive force in overcoming the resistance of the victim and/or furthering the sexual assault.
2. The death is intentional because the victim knows the assailant, or the assailant kills to prevent the victim from identifying him.



These cases are extremely brutal, and death usually results from the assailant's overcoming the resistance of the victim to the rape, sodomy, or homosexual assault. The victim may be choked or strangled into submission, or the mouth and nose may be held tightly in order to stifle the victim's screams, thereby causing asphyxia. Blunt force injuries may be present when the killer has attempted to beat the victim into submission. In addition to the brutality of the attack, a victim may also die of shock or other trauma. This is especially evident in young children or older persons.

The "Murder at the Met" case in New York City was a classic rape–homicide. In this case, a young violinist, who was performing at the Metropolitan Opera House, was attacked and killed by a stagehand. The young woman was walking through one of the many hallways backstage when she was spotted by a stagehand who had been drinking. He followed her to an elevator, forced her to accompany him into a stairwell, and attempted to rape her. He then brought her up to the roof, where he bound and gagged her. He returned a short time later when he heard her making noise as she struggled to break free. He then pushed her from the roof into a ventilating shaft where she was crushed to death in the fall. The offender had killed the victim to prevent her from identifying him.

In some cases, the offender may actually attempt to mislead the authorities by staging the crime scene to make it appear to be something other than a sex crime. For instance, I remember a case where the police were requested to respond to a possible suicide. When they arrived, EMS personnel were attempting to revive a partially clothed female. The EMS personnel advised the officers that when they arrived they observed the unconscious female with a ligature around her neck. Her body was partially suspended by this ligature, which was affixed to some molding. However, upon closer examination of the death scene, the officers noticed signs of a struggle. The officers noticed that the victim's blouse had been ripped open. They also observed some buttons on the floor along with a broken wristwatch, which belonged to the deceased. In addition, a closer examination of the victim's neck revealed concentric fingernail marks, which would be consistent with a manual strangulation. The officers immediately initiated basic crime scene procedures and notified detectives. As a result, additional evidence was located and a proper crime scene investigation conducted.

Sexual assaults by strangers are predatory in nature and therefore the selection of victims is usually a planned affair with the offender engaging in stalking activity as he considers the most appropriate circumstance to capture his victim. The exception would be the opportunity rapist who entered a premises to commit a burglary and/or encounters a potential victim during a robbery and commits the rape secondarily to the original crime. The rapist, who by the nature of the crime is a potential killer, selects his prey based on her vulnerability. The serial rapist incorporates his past rape experience with each new event and has an acute perception of his potential victim. In my opinion, the rapist also has a high level of survival instincts that preclude him from taking any chances of getting caught. This

translates to killing his victim rather than risking apprehension and that is why there are more serial killers today than previously.

### Investigative Strategy

The usual intent of the offender in sexual assault is to rape and/or sodomize. The offender in this category generally does not receive any sexual satisfaction from the murder. Therefore, as a practical matter, the police are dealing with a rapist who has killed and not a murderer who rapes.

Investigatively speaking, it has been my experience that a rape–murder is usually preceded by other sexual offenses including rapes and/or sodomies where the victim has not been killed. The investigative approach should be first to ascertain whether other cases involving a similar modus operandi have taken place in the jurisdiction. This can then be expanded to include other jurisdictions within the immediate area. This avenue of inquiry can then be expanded to research records for similar offenses committed in the past by persons who have since been released.

I recommend that the investigators contact parole officers regarding any recently released sex offenders. Request their assistance in reviewing their parolee's modus operandi and "signatures." Many times the underlying sexual aspect of the offender's crimes shows a marked progression. "The signature aspect of a violent criminal offender is a unique and integral part of the offender's behavior. This signature component refers to the psychodynamics, which are the mental and emotional processes underlying human behavior and its motivations."<sup>14</sup> Likewise, "From an investigative perspective, it is important to note that an offender's M.O., or 'method of doing things' is a learned behavior and tends to remain consistent."<sup>14</sup>

In the investigation of rape/sodomy–oriented homicides, remember that you are dealing with a sexual offender. Larger and more progressive police departments usually maintain specialized operations, such as Homicide, Robbery, and Sex Crimes Units. The investigators in these specialized units have a unique advantage. They have become experts within their respective fields and are able to gain an insight into certain criminal behaviors that the average generalist detective will not experience. I think it is good procedure to assign a member of the Sex Crimes Unit to work with the homicide detectives on sex-related homicide investigations. In fact, on *major case investigations* involving a series of rapes or homicides, I recommend that teams of Sex Crimes and Homicide detectives work together in a *task force* type of operation.

I also recommend another one of the books within my Practical Aspects of Criminal and Forensic Investigations series, *Practical Investigation of Sex Crimes: A Strategic and Operational Approach*,<sup>15</sup> by Thomas P. Carney, a retired commanding officer of NYPD's Manhattan Special Victims Squad and one of my former colleagues.

I remember a particularly brutal rape–homicide in which the semi-nude body of a 21-year-old victim was found dumped in a Bronx lot. The victim was an art therapist who was last seen at a college campus in New Rochelle, New York. Her



body was discovered at approximately noon on Saturday. At the time of the body's discovery, the victim's car was missing as were her wallet and keys. She had been at the New Rochelle Public Library on Friday, the previous day, and had checked out a few books. An autopsy confirmed that the young woman had been raped and that the cause of death was due to manual strangulation. The day after her body was discovered, someone found her wallet in Pelham, New York, which is a town between the Bronx and New Rochelle. Three days after her murder, her car was located in a parking lot in New Rochelle. In the victim's auto were four library books that she had checked out of the New Rochelle Public Library. There was also a slip of paper from the library upon which she had written the "key numbers" for the books she had borrowed.

It was quite apparent to the New York City Police investigators that the abduction of the deceased had taken place in the Westchester County city of New Rochelle and that, in reality, this investigation should be focused in New Rochelle and Pelham.

The detectives got their first break when the Latent Prints unit was able to develop a fingerprint off the slip of paper from the library that had been found in the victim's car. However, there were no suspects with whom to compare this print and the investigation began to wind down. Detectives from the Bronx decided to look into all rape and sex crimes within Westchester County during the period of the murder. A rape pattern, which is actually "a sexual assault pattern, can be described as multiple sexual assaults (rape, sodomy, sexual abuse) forcibly committed by the same person upon unsuspecting victims."<sup>15</sup>

The investigators came up with a rape pattern involving a black male, 27 years of age, who had been arrested and convicted for rape and abduction. In fact, he had been apprehended with another victim less than half a mile from where the Bronx victim's body had been found. Detectives requested a latent print check of the suspect's fingerprints with the slip of paper from the victim's car. The latent print from the murder case matched that of the suspect, who was incarcerated in the Westchester County Jail. However, when the information was presented to the Bronx District Attorney's Office in 1984, the late Mario Merola, District Attorney for the Bronx, declined to prosecute, citing lack of evidence.<sup>10</sup>

I ordered this investigation to be reopened in 1985. The detective who had originally discovered the rape pattern was assigned to the investigation. However, once again, our efforts were thwarted by the failure of the Bronx District Attorney's Office to prosecute.

However, in 1989 — approximately 9 years after the murder — a detective and detective sergeant decided to try a different tactic. Using DNA information supplied by me as well as current newspaper articles dealing with this state-of-the-art forensic technique, they constructed an interview strategy. The strategy was to allow the suspect to peruse the materials on DNA and then convince the offender through explanation of DNA technology that he had been forensically identified as the rapist. The suspect, who had since been released from prison on the rape charges, was invited in for an interview with the New York City detectives.



The suspect, who was “jail smart” but *legal stupid*, thought that he could invoke the statute of limitations on the rape charge. He would have been correct if the only charge were rape. The statute of limitations on felonies in the state of New York is 7 years. However, the authorities in this case were pursuing a *rape–homicide* investigation. *There is no statute of limitations on homicide.*

During the interview, the suspect made statements implicating himself in the rape and indicated that he had an accomplice who actually did the killing. The original police investigation had never revealed an accomplice in the rape pattern for which the suspect had been convicted. Often an offender who is providing police with an inculpatory statement will attempt to minimize his participation. The detectives presumed that this suspect was likewise trying to minimize his involvement and allowed the suspect to continue with his statement. Surprisingly, when the detectives conducted a record check for the alleged accomplice, they were able to document the existence of this person as described by their suspect.

This individual was located and invited in for questioning. This suspect came up with the exact same story as the first suspect. The only difference was in *who* did the killing. The second suspect predictably blamed the first suspect. However, both suspects were charged with the rape–murder of the 21-year-old victim.

I feel that this case is an excellent example of the principles of practical homicide investigation. Murders are solved because of the tenacity of homicide detectives who care. I was involved in this case, as were a number of other detectives. You can imagine our frustration when the district attorney’s office under Merola refused to prosecute. However, that did not prevent the detectives from utilizing tactics, procedures, and forensic techniques to continue to pursue this case. Allow me to quote from the “Oath of Practical Homicide Investigation”:

Death investigation constitutes a heavy responsibility, and as such, let no person deter you from the truth and your own personal commitment to see that justice is done, not only for the deceased, but for the surviving family as well.<sup>16</sup>

### Categories of Rapists

I recommend another textbook from my Practical Aspects of Criminal and Forensic Investigations series, the third edition of *Practical Aspects of Rape Investigation: A Multidisciplinary Approach*, for further information and case studies of these types of offenders.<sup>17</sup>

According to Groth, Burgess, and Holmstrom,<sup>18</sup> there are four categories of rapists: (1) power reassurance, (2) power assertive, (3) anger retaliatory, and (4) anger excitation. I will list the categories with a brief description.

1. **POWER REASSURANCE** — This type assaults to assure himself of his masculinity. He lacks the confidence to interact socially and sexually with women.

Indoor type	Victim can negotiate
Victim alone with small children	Takes a souvenir
Local victims	Probably is married
Attacks victims as they are asleep	Weapon only for show
Uses ski mask or pillow (or) makes victim turn over	Maintains guilt; may call the victim
Loner type; dominant mother	Will kiss victim; wants to please her
May keep a diary or scrapbook	Underachiever
	Nonathletic

2. **POWER ASSERTIVE** — This type has no doubts as to his masculinity. He uses rape to express his dominance over women. He uses force.

Same age as victims	Sports minded
Cruises for victims	Flashy vehicle
Resides in area near crime	Body conscious
Selects victim of opportunity	Tears clothing
Short time span between attacks	Oral assault
Prior institutionalization	Direct approach
Selfish actions	Commits crime outdoors
Poor record if in military service	Alcohol user

3. **ANGER RETALIATORY** — This type is getting even with women. He uses sex as a weapon to punish and degrade. He is anger oriented.

Strikes out at women; may select prostitutes or elderly	Selects symbolic victims
Does not spend much time	Tears clothing
Blitz style of attack	Uses alcohol
	Random times (no pattern)

4. **ANGER EXCITATION** — This type is sexually turned on by the victim's response to the infliction of physical and/or emotional pain. The sexual acts will be varied and experimental and intended to cause pain.

Might work with an accomplice	Into S&M activities
No mental or health problems	No remorse
Uses auto	Brings weapon
Uses degrading language	Good I.Q.

## Deviant-Oriented Assault — the Lust Murder

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### Anatomy of Lust Murder

#### Definition:

Lust murders are homicides in which the offender stabs, cuts, pierces, or mutilates the sexual regions or organs of the victim's body. The sexual

mutilation of the victim may include evisceration, piquerism, displacement of the genitalia in both males and females, and the removal of the breasts in a female victim (defeminization). It also includes activities such as “posing” and “propping” of the body, the insertion of objects into the body cavities, anthropophagy (consumption of blood and/or flesh) and necrophilia.<sup>19</sup>

Lust murders are predicated on the obsessive fantasies of the offender. It is not enough for these types of killers just to kill; they have a compulsive need to act out their fantasies with their victims and their victims' bodies. This would be the “*Signature*” component of the crime.<sup>1</sup>

A psychological perspective of the development and effects of deviant fantasies and behaviors can be found in the psychosexual disorders, specifically sexual sadism and other paraphilias as they are listed in *DSM-IV*.

Lust murder may be classified as *organized or disorganized* depending on the psychopathology manifested in the crime scene and the killings. In addition, lust murders may have a homosexual as well as heterosexual orientation. In the case of Jeffrey Dahmer, all of the psychodynamics of lust murder were acted out on his male victims, some of whom he cannibalized.

In the case of an organized lust murderer, there will be penis assault as well as torture inflicted on the live victim consistent with controlled rage. In the case of a disorganized offender, the victim will be immediately rendered unconscious or dead by a “blitz” style of attack, and there will be evidence of symbolic and postmortem sexual activities.

In both instances, however, the cutting, mutilation and overkill type of wound structures will be directed toward those parts of the body that the offender finds sexually significant to him and that serve as a sexual stimulus. This is consistent with sexual sadism, which is a chronic and progressive disorder. Sadism is a compelling element in some lust murders; in others, arousal is not derived from the infliction of pain and suffering of the victim but rather from the act of killing.

Lust murderers can also be distinguished from other sex related homicide offenders by their involvement in necrophilia. In fact, the dynamics of lust murder and necrophilia are intimately connected. The Jeffrey Dahmer and Ted Bundy cases are examples of this dynamic.

### **Psychodynamics<sup>1</sup>**

- The lust murderer who engages in necrophilia may not witness any prolonged degree of suffering on the part of the victim. However, he is likely to call upon his imagination and fantasy to supply him with the necessary engram to satisfy his craving for his depravity.





**Figure 14.17** (A) **GANG RAPE AND LUST MURDER.** Victim was discovered under a bridge of a highway within a rural area in McLean County, Illinois. This particular highway served as a truck route between Chicago and St. Louis. At first, authorities felt they were dealing with a serial killer due to the location of discovery. This location was obviously a disposal site. The body was hog-tied and bound in plastic bags and there were two used condoms found at the location of discovery. An examination of the body indicated that there was a hole in the plastic bags in the area of the perineum of the victim. It appeared that the offender(s) had sexual intercourse with the victim's body after she was bound. (B) **BODY AT AUTOPSY.** There was evidence of multiple stabbing to the chest area, which is consistent with sex-related homicides. (C) The medical examiner observed white plastic in the area of the perineum of the victim. Three plastic bags were removed from the vaginal vault of the victim. These three bags bore latent prints of one of the suspects of this rape-murder. (Courtesy of Lieutenant Mike Essig, McLean County Sheriff's Department, Bloomington, Illinois.) *Continued.*

(C)



Figure 14.17 *Continued.*



**Figure 14.18 CLASSIC LUST MURDER — SEX-RELATED HOMICIDE, DISORGANIZED OFFENDER.** After postmortem mutilation and sexual abuse, the body was positioned in a sexually provocative manner significant to the offender. There is postmortem binding as well as penis substitution into the vaginal canal with foreign objects (see the case history). (From the author's files.)



**Figure 14.19 PIQUERISM.** Piquerism is the sexual inclination to stab, pierce, or cut — obtaining sexual gratification from the shedding of blood, tearing of flesh, and/or observing such pain and suffering of a victim who is subjected to this activity. This photo illustrates the dynamic of piquerism. The victim was attacked in her bedroom by a fetish burglar, who then engaged in this conduct with the victim's body. (Courtesy of retired Detective Marsha Reed, Ft. Collins, Colorado, Police Department.)

- The lust murderer may also torture victims before killing them and then recall an after-image engram of the sensation produced by the physical torture and mutilation. This sadistic scenario is thus conjured in the imagination, whether it is a recreation of the actual crime scene or the product of fantasy.
- Most lust murders are viewed as behaviors of sadistic sexual psychopaths. This is the type of offender who tortures and kills for sexual gratification and characterizes the prototypical serial killer, who is an organized offender.

However, it should be understood that disorganized offenders are also capable of similar behavior and engage in related sadistic activities with their victims as well.

The primary difference between the organized and disorganized lust murderer is the inability of the disorganized offender to repeatedly escape apprehension. In fact, most disorganized lust murderers are apprehended at the time of the event or shortly thereafter.

Lust murders are premeditated in the obsessive fantasies of the offender. According to studies conducted by the FBI, most of these offenders are *disorganized* and do not engage in penis penetration of the victim. Instead, they may masturbate upon their victims and engage in postmortem mutilation. There may be displacement of the breasts of females (defeminization), postmortem attack of the genitalia of males and females, evisceration, insertion of objects into the body cavities of



victims, and sometimes anthropophagy, the consumption of human flesh and blood. However, in the case of an organized lust murderer, there will be penis assault as well as other varied acts inflicted on the victim. The cutting and overkill types of wound structures will be directed toward those parts of the body that the offender finds sexually significant to him.

The offender usually lives or works in close proximity to the crime scene. This type of killer, who acts on the spur of the moment, is obsessed with some sort of perverse fantasy. In his mind, he has planned the event. However, when the opportunity presents itself, this type of offender does not have a plan for avoiding detection. He panics or becomes so involved in the fantasy that he is totally oblivious to the fact that he is leaving evidence behind.

I remember participating in an investigation in which the nude body of a 26-year-old woman had been discovered on the roof landing of her Bronx building. She had been the victim of a classic lust murder. The young woman's jaw and nose had been broken suggesting a blitz style of attack. She had been manually strangled with a strap from her purse and her panties had been placed over her face (depersonalization). Her body had been placed in a grotesque position (a position which was probably sexually significant to the offender). Her nylon stockings had been loosely tied around her wrists, suggesting evidence of symbolic postmortem binding (fantasy and symbolism). The items used to create this postmortem binding came from the victim and included a belt, which was draped across her abdomen representing bondage.

The killer had cut off the victim's nipples and placed them upon her chest. An umbrella and a pen had been inserted into the dead girl's vagina (penis substitution), and a comb was placed in her pubic hair. The words "fuck you" were written upon her abdomen, and on the inside of her left thigh, the killer had etched in pen, "You can't stop me." In addition, there were postmortem bite marks on the victim's thighs. This offender was classified as disorganized based on the analysis of the crime scene information. The profile, which was prepared by the FBI, matched all of our suspects developed during the police investigation. However, there was one particular suspect of interest on whom we were focused early in the investigation. He was the son of the superintendent at the building where the young woman had been found. He was also an outpatient at a local psychiatric hospital and stayed with his father when he was not at the psychiatric center.

The suspect claimed to have been in the hospital on the day of the murder. The authorities had already ascertained that the suspect had been absent from the institution on that day. However, the hospital records did not indicate his absence. This created an additional problem for the police, who were attempting to obtain a court order for teeth impressions of the suspect. Hospital administration was not about to admit this transgression. When the court order was finally approved, the suspect's teeth impressions were compared with the bite mark evidence. Three forensic dentists agreed that the suspect had inflicted the bite mark wounds on the victim's body.

The suspect was arrested after an exhaustive 13-month police investigation. The bite-mark evidence was crucial in the outcome of the case. The suspect was found guilty and is presently serving 25 years to life in a New York State facility.<sup>10</sup>

Lust murders are primarily heterosexual and intraracial, but can also be homosexual. In Chapter 15, I present examples of the homosexual lust murder. I prepared a case analysis for a jurisdiction which experienced a vicious lust murder of a young boy. He had been multiply stabbed, sticks and dirt had been forced into his throat, and the body had been sexually mutilated.

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## Case History

I had the opportunity to assess a sex-related homicide for the United States Postal Inspections Service. The case involved the lust murder of a female letter carrier. The crime had originally been classified as an attempted rape. However, upon analysis of the case reports, the crime scene information, the victimology, and the facts of the case, it was soon apparent that the offender in this investigation was a classic disorganized personality. In my opinion, this offender would not have been able to perform sexually with a live victim. Any sexual activity that would have taken place would have occurred after death.

The victim was a 30-year-old letter carrier. Her partially nude body had been discovered in the rear seat of her postal vehicle in a church parking lot. This location was approximately 1 mile from the deceased's assigned route. There was evidence of blunt force trauma to the head and multiple stabbing to the torso. The victim's uniform shirt and bra had been pulled up over her arms exposing the woman's breasts. The obvious lack of blood for such devastating injuries suggested that the victim had been killed elsewhere and the body had been transported to this location.

There was an extensive amount of evidence in and upon the postal vehicle. In fact, police used a flatbed truck to transport the vehicle directly to the lab. The large amount of bloodstained mail suggested that the victim had not gotten too far along her route. The murder weapon was found in the trunk of the car, along with the shoes of the victim and additional bloodstained mail. The mail bore bloody footprints that did not match the victim's shoes as well as bloody fingerprints. On the rear of the trunk was a patent print in blood. Crime scene technicians also located vegetative matter consistent with plant debris, long strands of blond hair (the victim was a brunette), a large leaf from a philodendron plant, small flecks of green and blue paint, and a portion of panty hose that did not belong to the victim. An inspection of the odometer of the postal auto did not show any significant deviation from the carrier's assigned route except for the distance between the delivery area and the church parking lot. The autopsy revealed the cause of death to be cerebral hemorrhage and stabbing wounds. The victim had 18 stab wounds from a hunting knife, which was matched to the knife recovered at the scene, and had suffered extreme blunt force trauma to the head. The time of death was placed between 12:00 noon and 2:00 P.M. that day. The victim had last been seen at approximately 11:30 A.M. and only a small portion of her mail had actually been delivered.

It was obvious to seasoned detectives that the actual assault and murder had taken place somewhere along the victim's mail route. However, they could not utilize the undelivered mail to ascertain deliveries because the mail recovered from the victim's auto contained evidence. Investigators targeted her postal route and conducted a door-to-door canvass in an attempt to locate the crime scene. Tracking dogs were brought in and scented with a leather steering wheel cover. The dogs led investigators back to the victim's route. Detectives

located the crime scene and discovered blood on the driveway of the home. In addition, there was a large philodendron plant on the front porch. The vegetative matter found on the victim's body came from a juniper bush in front of the house. The blue and green flecks of paint came from the weathered Christmas bulbs, which were left on the house year round. The paint had flecked and fallen into the cracks in the driveway. When the suspect had dragged the body from the house, the trace evidence had adhered to the woman's body.

Police obtained a search warrant for the premises. Although the interior of the house had been cleaned and scrubbed, additional evidence of the crime was recovered, including the matching piece of panty hose found in the auto.

The offender was an 18-year-old youth who had dropped out of high school. He was a loner with a drug habit. He was enrolled in a community college but was doing poorly. He was described as weird and argumentative by persons who knew him. At one point, he had lived in a tent behind his house for a 6-month period. The long strands of blond hair found at the crime scene came from the family dog. The suspect had been having sex with his dog and was reportedly into solo sex-related activities, which involved sadistic fantasies. The pieces of pantyhose in this particular case were fetish items for the offender. He was found guilty and is presently incarcerated.<sup>10,20</sup>

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It should be noted that despite the fact that most of these deviant-oriented homicides and lust murders are committed by *disorganized type* offenders, the investigator must keep in mind that *organized offenders* are just as likely to involve themselves in this type of conduct. The Jerome Henry Brudos case is an excellent example of such a circumstance.

Jerome Henry Brudos was considered by his neighbors to be a gentle mild mannered man. To his employers, he was considered an expert electrician, the kind of skilled worker you just don't find anymore. To his wife Darcie, Jerry was a good husband and a loving father to their children despite his increasingly bizarre sexual demands on her. To the Oregon police, Jerry Brudos was the most hideously twisted killer they had ever unmasked.<sup>21</sup>

Jerry Brudos killed four young women in a series of lust murders predicated on a sadistic and bizarre plan to kidnap and kill women, whom he would force to dress and pose in various sexually provocative positions. In some instances, he would continue to dress the bodies after death and interact with the corpses. This series of lust murders began with the killing of an encyclopedia saleswoman who mistakenly went to Jerry Brudo's home. Brudos, who had a number of fetishes for women's panties and high-heel shoes, amputated the woman's foot after killing her. He then placed this foot into various high-heel shoes which he had stolen and kept in his workshop. He preserved the foot by keeping it in the freezer in his workshop in his garage.

The second killing took place about 10 months later. Brudos strangled this victim and then took her body to his workshop where he engaged in necrophilia with the corpse. He removed this victim's breast and attempted to make an epoxy mold of it.



The third victim, whom he abducted at gunpoint, was brought to his garage workshop alive. He had sexual intercourse with the victim and then took pictures of her dressed in various stolen undergarments in his collection. He then strangled her. However, he was not finished with his outrages. He performed necrophilia with the corpse and then cut off both her breasts to make plastic molds.

Less than 1 month later, Brudos killed his fourth victim, a 22-year-old college student that he tricked into his car when he displayed a fake police badge and told her she had to accompany him to the police station. He brought her back to his garage, where he strangled her as he was raping her. He then hung her corpse from a hook in the ceiling and undressed the body, which he subjected to electrical charges to see if he could make the body dance. He also engaged in necrophilia with this corpse before disposing of the body.

In each of these cases, the victims were brought to his garage workshop, which he had equipped for this purpose and where he acted out his sadistic sexual fantasies. He then effectively disposed of the bodies by depositing them in rivers. He was apprehended after an intensive police investigation in which he was identified on an attempted assault. He finally admitted his killings in a manner that suggested he was proud of his accomplishments. He at no time showed any remorse.<sup>21</sup>

## The Serial Murder

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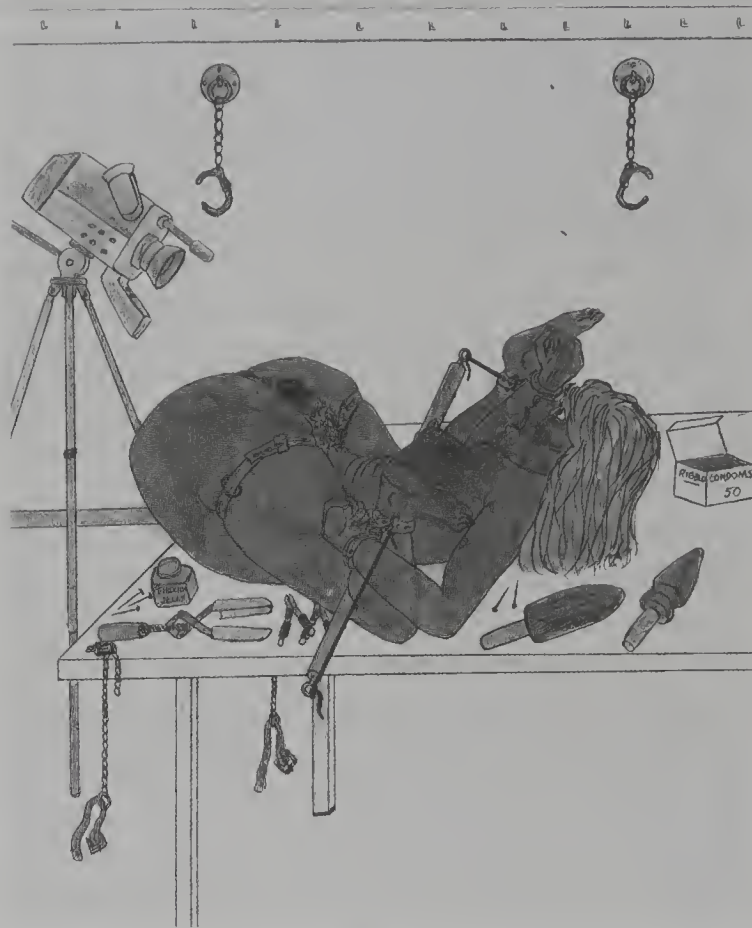
The definition of serial murder, according to *Practical Homicide Investigation*, is “two or more separate murders where an individual, acting alone or with another, commits multiple homicides over a period of time, with time breaks between each murder event.”<sup>14</sup>

According to the original definition of the FBI, “Serial murder is the killing of three or more separate victims with emotional time breaks between the killings.”<sup>22</sup> Douglas et al. state that “serial murders involve three or more separate events, with an emotional cooling off period between homicides.”<sup>23</sup> These breaks or “cooling off” periods range from days to weeks or months between victims. I concur with the emotional time breaks between the killings and the cooling-off periods in their definition. I do take issue with waiting for the third incident before some “expert” decides whether it is a serial murder case.

In the real world of homicide investigation, two murders make a series. Some specialists in the FBI have since amended their definition of serial murder to the Practical Homicide® model.

In my professional opinion as an expert in homicide investigation, one of the original and most complete studies of the research into the serial killer can be found in *Sexual Homicide: Patterns and Motives*.<sup>22</sup>

There has been a great deal of public interest generated in the phenomenon of serial murder. A number of books and articles have been published on the subject. There have been television documentaries as well as major Hollywood movies such as *Silence of the Lambs*, *Hannibal*, and *Red Dragon*, as well as many serial murder



**Figure 14.20 FANTASY DRAWING.** This fantasy drawing prepared by the offender is extremely significant because it depicts exactly what he was doing to his victims. Many times an offender will prepare materials or draw pictures of his perverted interests, which are based on what he has engaged in with his victims. (Courtesy of Deputy District Attorney Jim Yontz, Potter County District Attorney's Office, Amarillo, Texas.)

cases presented on the A&E and Discovery channels. The NBC miniseries based upon the deviant exploits of Ted Bundy, a convicted serial killer who was finally executed by the State of Florida in 1989, is still periodically aired.

In the case of the psychopathic killer who is a serial murderer, I would suggest, based upon my personal experience and research into these types of offenders, that they kill because they like to kill. In fact, in my *Sex-Related Homicide and Death Investigations: Practical and Clinical Perspective* textbook,<sup>1</sup> I have an entire chapter, "Psychopathic Sexual Sadism — A Clinical Study," to address the psychopathology of these types of killers.

According to Ressler et al.,<sup>22</sup> "These men have conscious, detailed plans for murder. Often these plans are improved on with each successive killing; each new experience gives the offender insight into his next murder."

Serial killers have been described as intelligent, charismatic, street-wise, charming, and generally good looking. They are mobile individuals capable of traveling any number of miles in search of the "right" victim. I analyzed one case in which the killer cruised a local strip for 3 hours and put over 120 miles on his van while



**Figure 14.21 VICTIM POSITION TO FULFILL FANTASY.** This photo of a victim being sexually tortured is very much like the fantasy drawing in the previous photo. David Parker Ray was a serial killer responsible for multiple sexual murders of young women. (Courtesy of Deputy District Attorney Jim Yontz, Potter County District Attorney's Office, Amarillo, Texas.)

searching for a victim. They target a certain type of victim. They look for someone who is vulnerable and easy to control. Their victims may be males or females. They may select children, vagrants, prostitutes, or homosexuals. If the victim is a female, she may resemble other female victims in some aspect (long hair, brunette or redhead, coed, nurse, waitress, female executive, etc.). (See Chapter 15, "Homosexual Homicides.")

### The Serial Killer Profile

- Their crimes are sadistic and repetitive in nature and, in most instances, sexually oriented.
- Their crimes are geographically oriented.
- They plan their murders, their approach and escape routes, and the site of their attack, as well as the disposal site for their victims' bodies.
- They research their craft and adjust their operations as required to access and control victims as well as thwart the police investigation.

The original FBI theory that serial killers were white males, late 20s to early 40s has proven to be wrong. Practically speaking, known serial killers are heterosexual, homosexual, and bisexual. Most serial killers are men (95%).



Female serial killers are extremely rare. Aileen Wournos is one of the more infamous female serial killers whom the “Hollywood types” decided to make into some sort of counterculture victim–feminist type of character in the movie *Monster*. As usual, the truth was relegated to the back-burners and the victims were demonized in order produce a sympathetic character.

Women who have been charged with serial murder usually are in partnership with a male offender, who choreographs the events. Examples of male/female serial killing couples include:

- Douglas Clark and Carol Bundy
- Alton Coleman and Denise Brown
- Gerald Gallego and his wife, Charlene
- Paul Bernardo and his wife Karla
- David Parker Ray and his girlfriend Cindy Hendy

Serial killers can be white, black, Hispanic, Asian, and/or Native American; in fact, they can be from any ethnic grouping. Serial killers can come from all races, cultures, nationalities, education level, economic level, gender, and sexual orientation. Statistically speaking, most serial murderers in the United States are predominantly white. However, there has been an increase in black male serial killers, most of whom have had a history of rape and/or other sexual assault and kill to prevent identification.

In fact, there have been a number of serial murder cases involving black males who have targeted prostitutes within the inner city. Major cities, such as New York, Detroit, Chicago, St. Louis, Atlanta, Baton Rouge, and New Orleans, offer examples. Black serial killers include Wayne Williams, Alton Coleman, Derrick Todd Lee, Coral Watts, Kendell Francois, and Maury Travis, to mention a few.

Serial murderers may or may not have superior intelligence; however, most are street-wise. This is what enables them to function very effectively and repeatedly avoid apprehension. Serial killers are methodical and cunning. They plan and research their crimes and display a complete indifference to others because they are self-centered and thrive on self-gratification, whether it is sexual gratification or to fulfill a fantasy. In some instances, the murders are to express control. In other instances, the murders are for the pleasure of possessing the power of life and death over another person.

Serial killers are extremely manipulative. Often, they are able to talk their victim into what has been described as their “comfort zone.” This is a location where the serial killer feels comfortable and safe and can control the victim. Frequently, serial killers target prostitutes. Arthur Shawcross admitted to killing 11 women, whom he picked up in Rochester in an area frequented by prostitutes. He then dumped their bodies in rural areas as well as the Genesee River. Gary Ridgeway admitted to killing 61 women as the “Green River Killer.” He was adept at engaging the prostitutes because he “walked the walk and talked the talk.” He was able to pick

up victims quickly without attracting attention because he had an intimate knowledge of the area and its denizens.

Many times, serial killers use a ruse to gain access to a potential victim. Ted Bundy, when he was not purporting to be a police officer, used a cast on his arm to feign injury and appear to be vulnerable as he targeted his victims. John Wayne Gacy lured young men into his comfort zone by offering them jobs in his construction business. Bittaker and Norris, Alan Gore and Waterfield, Michael Ross, and others offered hitchhikers a lift or, as in the case of Christopher Wilder, posed as a talent scout and offered modeling assignments. Bianchi and Bouno as well as others have posed as police officers. They continually perfect their ruse and seem to have an uncanny knack at recognizing potential victims. They are able to quickly gain the victim's confidence with their verbal skills.

Many serial killers have a fascination for police procedure. Some have even worked as police officers, reserve officers, or security guards and used their experience to avoid detection. Some have been known to frequent police hangouts and eavesdrop on police conversations during a case. They may even interject themselves into the investigation or offer to assist authorities in some manner, which will avail them an opportunity to monitor the investigation.

In many instances, serial killers go back to the crime scene or location where the body was discovered. They usually return to make sure that they have not left any evidence or to assess the police investigation. The burial site also has a psychological significance to them because they have an "ownership" over the remains. Sometimes, the serial killer will return to a site to taunt police with additional clues. In Gary Ridgeway's case, he would attempt to throw off the investigators by leaving bogus evidence. Ridgeway, who neither smoked nor chewed gum, left chewing gum and cigarette butts at dump sites. At one scene, he scattered airport motel pamphlets and car rental papers to imply that the killer was a traveling salesman. According to Keppel, "In February 1984 Ridgeway wrote a letter to the local newspaper that was designed to throw police off the track.... The letter suggested that the killer was a traveling salesman or long-distance trucker, and that the killings were motivated by profit or revenge."<sup>24</sup> Ridgeway also returned to one of his dumpsites to retrieve the remains of two of his victims, which he transported to Oregon to make authorities believe that the Green River Killer had moved south.

In addition, Ridgeway would often go back to his dumpsite and have necrophilic sex with the dead victim's corpse and/or bring girlfriends to the locations where he had dumped bodies and have sexual intercourse with them there as some sort of sick thrill.

The serial killer, despite his outward facade, is a very insecure individual. He is without power unless he is in control. This is reflected in his personal life and in his behavior. He is at his "peak" when he has a victim under his control. He enjoys the publicity of his crimes for the same reason.

Serial killers are likely to follow news events of their crimes very closely and gain satisfaction in the knowledge that they have defeated the police. Some com-





(B)



(A)

**Figure 14.22 TWO PHOTOS OF SERIAL MURDER VICTIMS.** Michael Ross, who murdered eight young women between 1982 and 1984, was finally executed in 2005 — 21 years after his murderous rampage. This was a classic case of a geographical serial killer whose killings increased along with a decreased “cooling-off” period between the killings. (A) The body of a victim killed in June 1982 and left in a wooded area was discovered in October 1982. (B) The body of another victim killed in November 1983 and discovered before the killer could return to the scene. (Courtesy of Major Frank Griffin, Connecticut State Police.)



municate with the press. David Berkowitz, the “Son of Sam” serial killer in New York City, communicated with authorities by sending cryptic messages to a major metropolitan newspaper.

In St. Louis, Missouri, a serial killer named Maury Travis was captured after sending a letter to a reporter directing him to the location of his “17th” victim. Travis committed suicide in jail before authorities could learn more about him and his activities. However, it was estimated that he was responsible for approximately 20 homicides of black, female prostitutes and drug users in Missouri and Illinois.

Initially, back in the 1970s “BTK” sent messages to the press demanding that they acknowledge his killings by affording him a title like other serial murderers. At that time, the unknown serial killer, who called himself BTK, indicated that the initials were derived from the words, bind them, torture them, kill them. In his earlier communication, he wanted to know why he was not being given his recognition. He mentioned Son of Sam, Jack the Ripper, Harvey Glatman, the Hillside Strangler, and others, including a reference to “Ted” of the West Coast (meaning Ted Bundy).

For all intents and purposes, the BTK killer had virtually disappeared from the scene. Then, without explanation, in 2004 he reemerged. Due to some malignant narcissistic need for publicity, Dennis Rader initiated and carried on a yearlong communication with authorities that ultimately led to his identification and arrest. Dennis L. Rader, a life-long resident in the Wichita, Kansas, area, was the BTK killer.

My research has indicated that many of these serial killers are aware of police techniques. For example, perpetrators of crimes will change their modus operandi as they become more sophisticated in their criminal activities. Some criminals even read specialized journals to learn about law enforcement techniques. Many of the serial killers within my study followed the police investigation in the newspapers and media. They would adjust their activities and change their modus operandi to thwart the police investigation. In fact, many of these serial murderers were “students” of serial killings and had read about the activities of other serial murderers in the many popular books detailing these cases.<sup>25</sup>

Jack Owen Spillman III had revealed his sexual fantasies, which included murder, to his cellmate and others while incarcerated. He bragged about his ambition to become the worst serial killer in the country. His fantasies included sexual assault, evisceration, and sexual mutilation of girls. Spillman talked to his cellmate about hair evidence and using gloves with tape to prevent any hair from being left at the scene. He read and studied books on murders, serial killers, and police investigation, including FBI law enforcement bulletins.

### **Organized Serial Killer Activities**

The serial killer engages in purposeful postmortem mutilation of the corpse as opposed to the disorganized offender who engages in sexual or exploratory mutilation. The organized offender will employ mutilation to hinder identification, for

shock value, or to allow ease of transport of the body. Remember that organized and disorganized offenders commit lust murders.

In one of the New York City serial murders, the offender removed the heads and hands of two prostitutes in order to prevent the identification of the victims. In another case, this offender removed the breasts of one of his victims and left them on the bed board for police to find. Some serial killers have posed their victims' bodies or left them in an open area.

The serial killer who displays bodies and body parts does so for the shock value. In the Gainesville, Florida, case in which a serial killer named Danny Rollings terrorized an entire college community, the police were confronted with posed bodies, which had been horribly mutilated. In one particularly grotesque murder scene, Rollings had eviscerated the nude victim and had sliced off both of her nipples. He then decapitated the young woman and propped her head up on a bookshelf. The first officer who entered the scene would see the head with its eyes open, staring back at him.<sup>26</sup>

Serial killers may choose to leave the body of their victim for discovery to satisfy some psychological need, or they may go through elaborate detail to assure that the body is never found. Serial killings are considered by a number of experts in the field of psychology and psychiatry to represent the ultimate extension of violence. From a rational standpoint, serial killings are completely senseless acts. However, in the mind of the serial killer, he experiences great pleasure in exerting power and control over his victim, including the power of life and death. The sex act is secondary. He is excited by the cruelty of the act and will engage in physical and psychological torture of the victim. He derives his pleasure by watching the victim writhe in pain as she is humiliated and tortured to death.

Kenneth Bianchi and Angelo Bouno, dubbed "The Hillside Strangler" because authorities were not aware that there were two killers, sexually violated and brutally murdered 12 young women between them. They would tape and gag their victims and proceed to torture and sexually abuse them. Bianchi and Bouno experimented with various techniques of torture for their victims, such as injecting them with Windex, smothering them with gas from the stove, subjecting them to electrical shock, and then eventually killing them by strangulation when they tired of their perverse and inhuman entertainment.<sup>27</sup>

The serial killer operates in an emotionally detached manner. It is almost as if he is following a script. The script is usually based upon a sadistic fantasy. Police investigations of serial murderers have revealed intricate and precise planning on the part of the serial killer. In some instances, detectives have seized recorded evidence of the offense, such as audio tape recordings of his victim's screams of pain, writings, photos, and even videotape segments of their sadistic activities. The videotapes depicting the atrocities committed by Leonard Lake and Charles Ng in Calaveras County, California, are an example of the depravity of a sadistic serial killer.

Lawrence Bittaker and Roy Norris, however, provide the most graphic example of evil. These two psychopaths, who met in prison, shared a mutual interest in female



domination, rape, torture, and murder. They eventually murdered five young women using a combination of methods, which included stabbing them through the ears with an ice pick and strangling them manually and with wire coat hangers tightened around the victims' necks with pliers. They tape recorded two of their torture sessions while they repeatedly raped, sodomized, and tortured the young women.

In each of these examples, the conduct displayed by the offenders suggests that the sex act is secondary. Instead, the offenders are sexually excited by the cruelty of the acts and engage in physical and psychological torture of the victims. They obtain their gratification through the humiliation and torture of their prey. The murder is an expression of power and control. Necrophilia is an extension of their control and sadistic quest for complete and total domination.

Other offenders have used a variety of torture techniques, such as biting, whipping, burning, electricity, and forcing the victim to ingest a caustic cleaning fluid.

Many of these serial killers seemingly maintained a respectable lifestyle and engaged in sexual relations with a primary female in their lives. However, most do not have any type of satisfactory relationship with anyone. They are nonaffiliates and nonsocial individuals totally vested in self-gratification to a point where nothing else matters.

Most of the serial killers interviewed by the FBI's Behavioral Science Unit or by psychiatrists conducting independent examinations reported that they had been victims of child abuse, usually at the hands of a female parent or parent figure. Many of the offenders were reportedly under the influence of alcohol or marijuana while committing the crime, which tended to exacerbate their sadistic fantasies.

The serial killer tends to increase his killings. It appears that he must kill more often to maintain his equilibrium. The fantasy and psychic high that he obtains through his conduct induces bold and more frequent attacks, sometimes with a complete disregard of risk. Consequently, many of the country's most notorious serial killers were caught by accident or during some independent police action not related to the murder investigation.

### **Disorganized Serial Killer Activities**

The disorganized serial killers, who would fit the clinical description of psychotic, are in the minority because they lack the ability and wherewithal to escape apprehension repeatedly. An excellent example of the disorganized offender is the case of Richard Trenton Chase, who was conclusively linked to the murders of six individuals, five of whom were killed in one week. This case is presented in Chapter 21.

David Berkowitz, the infamous "Son of Sam" murderer, is another example of this type of serial killer. Berkowitz terrorized New York City for 13 months. The killings began in July 1976. Berkowitz preferred young women with long dark hair. His victims were usually parked in cars when they were attacked. The police at first were baffled by these seemingly unrelated shootings and murders. However, once the ballistics were matched and notes were left at the scenes, the authorities knew they had a serial killer on their hands. Berkowitz used the name "Son of Sam" when



he communicated with the press. In these communications, he claimed to be getting messages from his neighbor's dog, which ordered him to kill. By the time Berkowitz was caught, he had killed six victims and wounded seven others.

### Serial Murder Investigation

Serial murder investigations are often stymied because there is a tendency for some agencies to jealously guard their respective "turfs" and not confer with other law enforcement agencies in the region or ask for help from an "outside" agency. Serial offenders who realize that law enforcement will probably miss the linkage use this dynamic by killing their victims in different jurisdictions.

Serial murder investigation entails that the police agency recognize that they are in the midst of a serial murder case and take the necessary and appropriate measures to *legitimately* sustain a task force with the necessary manpower, equipment, and resources. Many times, police agencies under pressure from the media and/or general public will make an announcement that they have formed a task force to investigate a series of crimes or a major event. However, the alleged "task force" exists only in name to assuage the community and lacks the financial and psychological support of the command staff.

The Shawcross serial murder case in the Rochester, New York, was an extremely expensive undertaking. According to Captain Lynn Johnson, commanding officer of the Criminal Investigation Unit, "The costs associated with the investigation were unexpected. Conservative estimates for on-duty personnel, overtime, and nonpersonal services alone were \$572,559. If the patrol-time, training, administrative management factors and volunteer efforts were included, the figure could be dramatically inflated to over 2 million dollars.<sup>28</sup> I do not know of many municipalities financially equipped to deal with this expenditure — not to mention the pressure associated with a full-blown serial murder case.

Dr. Robert Keppel has an excellent textbook that addresses this subject: *The Psychology of Serial Killer Investigations: The Grisly Business Unit*,<sup>29</sup> written by Keppel and William J. Birns. One of the early quotes in that book is attributed to my good friend and colleague, retired Lieutenant Ray Biondi, who addressed The Fifth National Conference on Homicide, Unidentified Bodies, and Missing Persons in Nashville, Tennessee. According to Lieutenant Biondi, it is necessary to recognize and acknowledge that a serial killer is responsible for the events. Biondi presents

- A quick and valid interpretation that one murder is related to another murder
- A reliable admission to others that a serial killer is operating within a particular jurisdiction
- A strategy that properly commands, staffs, and funds the investigative effort<sup>29</sup>

I have incorporated some of Keppel's proposals on serial murder task force operations coupled with my experience and research into the cases within this

section of the textbook. I recommend that the reader obtain his book for further and complete reference.

### Command Responsibility

- There must be a working agreement about who is “in charge” or who will “run the show.”
- If there is not *one* leader, all that gets accomplished are meetings that try to *placate* everyone.
- Remember that dealing with egos, politics, and differing investigative philosophies places a *strain* on all aspects of the investigation.
- Even though a request to have a “joint investigation” looks good on paper, it is very inefficient and results in delays, which hampers a meaningful investigation.

As a homicide investigator, you should focus on the similarities of cases as you develop an investigative hypothesis. If you have a second victim killed in a similar fashion with an M.O. and signature *consistent* with the other case, you must think of the possibility of a serial killer. There is a tendency on the part of some investigators to ignore the possibility that one case may be related to another case because the offender used a different method to kill his victim (stabbing vs. strangulation), especially if the homicides occur in different jurisdictions. That is why establishing the victimology is a crucial component of the investigative process.

Westley Allen Dodd was a serial killer who targeted young boys. Dodd was a pedophile and psychopathic sexual sadist who tortured and killed three little boys during September and October in the Vancouver area of Washington State. The police investigation had been hampered by lack of any witnesses or information. Two different law enforcement agencies were involved in this investigation and the composite sketches showed two different suspects. In fact, there was considerable discord whether these two events were related. The first two children had been stabbed to death. The third victim had been strangled to death.

Dodd was captured as he attempted to kidnap a screaming little 6-year-old boy from a movie theater. He had been prowling the movie house for a victim a few nights after killing his last victim. At first, he denied any involvement in the murders of the other three children. However, police learned he worked near the place where the body of the last victim had been found. Dodd was confronted with additional evidence, including his diary, which graphically detailed the murders. He confessed to all of the brutal slayings.

### Linkage Blindness

According to *Practical Homicide Investigation*, “linkage blindness” is a failure to recognize a pattern that “links” one crime with another crime in a series of cases.

It usually occurs when the investigator fails to address the following issues (See “Linkage Blindness” in Chapter 21):

1. Victimology and/or background information paramount to any criminal investigation
2. The geographic region or area of events, as well as psychological barriers such as neighborhoods, ethnicity
3. The “signature” of the offender
4. The “modus operandi” of the offender
5. A thorough review of the autopsy protocols, looking for the similarities or significance of the injuries, wound patterns, toxicology, etc.<sup>14</sup>

### Typical Serial Killer Murder Task Force

- The killer keeps striking and more bodies are discovered as the case continues.
- The more bodies or killings that are discovered, the more incompetent the police appear.
- The murderer becomes part of the “landscape” and he blends in completely with the community.
- The killer is able to prey right through the police surveillance.
- When the serial murder case is solved, the police are amazed at how obvious the killer was.
- The killer knows that the police are on his trail, so he travels outside that jurisdiction to commit murders in other areas, which may not connect the cases.
- Most serial killers are sex offenders who live or work in the same neighborhoods where they are killing. They blend in and in some instances even establish subtle relationships with their victims.
- The serial killer is a 24/7 predator. Even as he attempts to appear normal in his everyday life, he is constantly looking for opportunities to kill.
- His sexual fantasies drive him toward his next victim and ultimately into a frenzy of sexual anticipation and gratification.
- Once his lust is expended, he quickly lapses into a kind of panic or fugue state as he attempts to hide.
- Once he believes it is safe to be seen about, he relives his sexual gratification.

In some cases, the serial killer’s gratification and sexual experience have actually been heightened by the activities of the police task forces on his trail. George Russell, who operated in King County, Washington, followed the cases very closely. He engaged in the following activity as he scoffed at the police:

- He cut out newspaper stories.
- He cut out photographs of the victims.



- He compared the victims with each other.
- He ridiculed police techniques.
- He told people that the only way the police would catch the killer was with trace evidence.

Dennis Rader, who dubbed himself the “BTK Killer,” was arrested in February 2005. He had taunted Kansas authorities for over 30 years. However, during the last year, from March 2004 till his arrest in February 2005, his communications had become increasingly sarcastic and malicious as he watched the authorities “chase their tails” with his bogus information.

### The Typical Serial Killer

- A typical example of a sexual serial killer’s response and behavior occurs after he gets away with his *first* murder.
- He has crossed the “psychological barrier” of murder, accompanied by the “thrill” of his success.
- The *thrill* is then punctuated by *fear* that the police know who he is or that he might be caught.
- After a certain amount of time has passed without his being caught and another successful kill has taken place, the serial killer begins to feel that he is invisible to the police.

Richard Allen Krebs was a suspect in two missing persons cases involving college coeds in San Luis Obispo, California. Krebs, who was on parole for rape, had access to a very rural and mountainous area. Rachel Newhouse, a 20-year old coed, was his first murder victim. Rachel was reported missing by her roommates on November 13, 1998. The police considered the case an abduction and formed a task force. Krebs laid low during this high-profile investigation.

However, as soon as he felt that he had eluded the police, he was on the prowl stalking another coed. This time he abducted Aundria Crawford, a 20-year-old coed from San Luis Obispo. The victim’s mother reported her missing on March 13 when she had not heard from her. Aundria had been abducted from her duplex apartment sometime in the early morning hours. Krebs later told investigators that he felt more confident after getting away with the Newhouse kidnapping and felt the urge to rape again.<sup>1</sup>

The goal of any serial murder task force is to find the serial killer before he kills again. One of the *most critical breaks* is to locate and interview a living witness, someone who got away. For some reason known only to the killer, circumstances were inopportune for the serial killer to kill. A second *most critical break* occurs when a suspected serial killer is apprehended during a routine police operation unrelated to the murder case.

On June 23, 1993, at 3:15 A.M., New York State troopers on routine patrol observed a motorist operating a vehicle without headlights and missing a rear

license plate. When the troopers activated their emergency lights to pull the car over, the suspect attempted to flee. The state troopers captured the driver, identified as Joel Rifkin. In the trunk of Rifkin's mother's car was the rotting corpse of a prostitute named Tiffany Bresciani — Joel Rifkin's 18th victim.

Rifkin eventually confessed to the murders of 17 other New York City prostitutes, whom he had butchered and disposed of in the New York City waterways. He had put the bodies of his victims in oil drums, which he placed in the water. He also had dumped some of the bodies in other jurisdictions to confuse the police. The routine vehicle and traffic stop by the New York State troopers uncovered one of New York State's worst serial killers

### Three Main Methods Used to Link Murders

1. Physical evidence
2. Offender description
3. Crime scene behavior

### Investigative Considerations

- Most serial offenders are sexually motivated.
- They may have prior arrests for sex-related incidents.
- They may have burglary incidents in their background.
- Investigators should have access to *all* criminal records as well as those of parole and registered sex offenders.
- These types of offenses do not occur in a vacuum.
- Many times the actual murder is preceded by some other seemingly unrelated sexual event (fetish burglary)
- Any missing persons reports should be examined, especially those for women or children. Many serial murder cases involve the burial or hiding of the body to avoid detection.
- Most serial offenders target prostitutes.
- They may have prior arrests as "Johns" in a "sting."
- Many times they will have used the services of other pros.
- They may have assaulted or attempted to assault others.
- They may have attempted to kill but the victim got away.
- Many prostitutes are drug users and therefore are dependent upon this lifestyle to survive.
- Most prostitutes are not going to make police reports.
- Interviews reveal some of the bizarre activities required.
- However, the prostitutes do talk to each other about "Johns" to avoid or "bad" experiences.
- Most prostitute serial murders are solved through a combination of the following tactics:

- Nonthreatening interviews of prostitutes relative to their customers and/or any “strange” events
- Attempts to locate a living witness
- Police “sting” and undercover operations targeting the area where the prostitutes have disappeared or have been killed, to identify “Johns”
- Police “saturation” of the area with “routine vehicle stops for the purpose of identifying potential suspects

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### Case History — Arthur Shawcross

The investigation of this series of murders began on March 24, 1988, when a woman’s body was found in a western Monroe County park. Investigation revealed that the victim had been involved in prostitution in the city of Rochester, New York. On September 11, 1988, another woman’s badly decomposed body was discovered in the Genesee River gorge in Rochester. This victim was also a known prostitute. The investigation into these two murders continued for almost a year, when three additional Rochester-area prostitutes linked to the on-going investigation were found murdered.

On October 21, 1989, the skeletal remains of a woman were located in the Genesee River gorge. On October 27, 1989, a second woman’s body was located near the same gorge. On November 11, 1989, another woman’s body was found in the same area. Investigation revealed that the murdered women were all involved in prostitution.

Rochester Police requested assistance from the New York State Police and the Monroe County Sheriff’s Department to conduct an extensive search for additional victims and/or evidence. The searches were conducted by helicopter, on foot, on horseback, and by boat.



**Figure 14.23 BODY OF SERIAL MURDER VICTIM.** This is a photograph of the fifth victim of the serial killer. Her body was discovered on November 11, 1989, in the Genesee River area. (Courtesy of Captain Lynde Johnson, Criminal Investigations Unit, Rochester, New York, Police Department.)



On November 23, 1989, the body of another known Rochester prostitute was discovered in Wayne County.

As the investigations into the deaths of these women continued, the task force investigators contacted outside agencies throughout the United States who had experience in serial murder investigation for advice and assistance. The discussions focused on successful investigative techniques, investigatory project management, possible crime scene similarities, and criminal offender typologies. As a result, additional emphasis was placed on crime scene protection and intensive searches for trace evidence at each of the crime scenes to forensically link the events and any possible suspect.

On December 31, 1989, clothing and identification were found on a rural road in the town of Sweden in western Monroe County. New York State Police helped in identifying these items as belonging to a known prostitute in Rochester. An intensive search of the area by Rochester Police and New York State Police was initiated. The search, which was hampered by forbidding weather, continued for 4 days. Police K-9 units, mounted officers, foot patrols, and aviation searched the area for evidence.

On January 3, 1990, a New York State Police aviation unit spotted a body lying on the ice under a viaduct. A car was parked on the road above. As the police helicopter passed overhead a second time, the vehicle left the scene. New York State Police ground units were alerted and stopped the vehicle. The driver was identified as Arthur Shawcross, who was questioned and released.

As the task force processed the crime scene in Sweden, a hunter located a second body in the vicinity of where the latest body had been found and additional evidence was retrieved linking Arthur Shawcross to the murders. Shawcross was picked up by task force members and brought in for questioning.

On January 4, 1990, Arthur Shawcross confessed to 11 murders, thus concluding a nearly 2-year investigation conducted by Rochester Police Department, The New York State Police, Monroe County Sheriff's Department, Monroe County District Attorney's Office, Monroe County Medical Examiner's Office, Wayne County Sheriff's Department, and other area law enforcement agencies.<sup>28</sup>

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## A Clinical Perspective

In clinical terminology, a serial killer may be defined as psychotic or psychopathic, depending on the information supplied during the examination and the facts presented to the clinician. In my experience, serial killers are rarely psychotic. They are more properly defined as *sexual psychopaths* or *psychopathic sexual sadists*, depending on the circumstances of the homicide and what was done to the victim. They obviously have a profound personality disorder but are keenly aware of their criminality and certainly not out of touch with reality. If serial killers were psychotic, they probably would not be as successful in eluding the police.

In the case of the *psychotic killer*, one could propose that he kills because his psychosis drives him to kill. An example of this type of serial killer was Joseph Kallinger, whose exploits were detailed in Schreiber's 1983 book, *The Shoemaker*.<sup>30</sup> Kallinger reportedly was acting under orders from God to kill his victims. His hallucinations had God commanding him to "destroy mankind" and to "kill three billion people." According to Schreiber, Kallinger could not obtain an erection without the thoughts and images of mutilation of sexual organs.<sup>30</sup> From an early



**Figure 14.24** PHOTOS OF SERIAL MURDER VICTIM. (A) The view that the New York State Police aviation unit had when it spotted a body under a viaduct. The suspect's car was parked on the bridge above the body. The blue line indicates where the body was. (B) Crime scene photograph of the partially clothed victim's body under the viaduct. (Courtesy of Captain Lynde Johnson, Criminal Investigations Unit, Rochester, New York, Police Department.)





**Figure 14.25** ARTHUR SHAWCROSS. Arrest photos of Arthur Shawcross after he confessed to 11 of the murders. (Courtesy of Captain Lynde Johnson, Criminal Investigations Unit, Rochester, New York, Police Department.)

age, Kallinger associated sex with violence and fantasized about cutting the sexual organs of males and females. He eventually involved his 12-year-old son Michael, who enthusiastically agreed to help his father in this bizarre mission.

Serial killers display aggressive and antisocial behaviors during their childhood, which escalate and take on elements of sexual sadism in adulthood. The style and pattern to their killings involve domination, control, humiliation, and sadistic sexual violence. Their murders are committed without the least sense of guilt or shame and the killers display a total lack of remorse. The victims are chosen at random, and the murders are carried out in almost an obsessive manner. The behaviors of these subjects can appropriately be described as *psychopathic sexual sadism*.<sup>25,31</sup>

In any event, it is not the purpose of this chapter to present psychiatric information or engage in an in-depth psychological analysis of the serial murderer. Instead, I present this information from an investigative perspective with clinical references for the purpose of analyzing the sex-related murder investigation.



## Conclusion

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The criminal investigator confronted with a sex-related homicide investigation should first address the basic crime scene techniques as outlined in *Practical Homicide Investigation*. He or she should then concentrate on the total documentation and preservation of the scene, including factors that suggest the possible psychodynamics of the event.

Remember the *four classifications* of sex-related homicide: (1) interpersonal violence-oriented disputes and assaults, (2) rape and/or sodomy-oriented assault, (3) deviant-oriented assault — the lust murder, and (4) the serial murder. I have presented them in the order of their frequency of occurrence. Start your investigation with an eye toward an interpersonal violence scenario and then work your way through the other options. Specific law enforcement strategies can be applied to the investigation upon identification of the motive.

There is a need for a centralized database repository for violent sexual offenses. Homicide detectives conceived the VICAP system to be used by homicide detectives. VICAP was not intended to be an informational source for academic research, self-proclaimed profilers, or the talking heads frequently seen on television. An example of which would be computer analysis of similar offenses, a request for a criminal personality profile through VICAP, utilizing a statewide or regional information system.

From a practical perspective, the solution might be simply to recanvass the neighborhood where the crime took place. Remember that elements of human behavior, human sexuality, and possible sexual deviance exist within each of the four categories presented in this chapter. In any event, there are no simple clues, solutions, or explanations which account for the logic of a person who commits a sex-related homicide.

**Just remember: Things are not always what they appear to be.**

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## Introduction

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Homosexual homicides are relatively common and may involve male victims killed by other males or female victims, involved in some sort of lesbian relationship, who are killed by another female. A homosexual person is an individual “whose primary erotic, psychological, emotional, and social interest is in a member of the same sex, even though that interest may not be overtly expressed.”<sup>1</sup>

Homosexual-related homicides, like all sex-related homicides, include interpersonal violence-oriented disputes and assaults, killings that involve forced anal and/or oral sodomy, lust murders and other acts of sexual perversion, and serial killings.

Homosexuals who engage in “cruising” and other high-risk behaviors drastically increase their potential to become victims of robbery–homicide as well as fatal incidents of “gay-bashing,” which present additional considerations for the detective engaged in the investigation of homosexual homicide.

## Homosexual Relationships

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There are a wide variety of lifestyles among homosexuals who, like heterosexuals, are represented among all social classes, occupations, races, religions, and political persuasions. Individuals in homosexual relationships engage in sexual behaviors similar to those of heterosexual persons, with the exception of penile–vaginal intercourse. Touching, kissing, body contact, and manual and oral genital stimulation are common sexual expressions.<sup>2</sup>

It should be noted that uncomplicated homosexual male or female relationships as well as sexual orientation are not the subject of this section.

*Sex in America: A Definitive Study*, which is considered the most extensive research on human sexuality to date, found that only 2.8% of men and 1.4% of women identified themselves as gay or bisexual, far below the one out of ten number popularized by the Kinsey Report study.<sup>3</sup> Present research has indicated that there are differences between homosexual men and women regarding the number of

sexual partners.<sup>3,4</sup> Research also indicates that lesbian couples are more likely to have monogamous relationships than male homosexuals are.<sup>5</sup> However, more importantly, the current research indicates that most homosexuals do not fit the commonly held *effeminate* and *butch* stereotypes.

## Homosexual Lifestyles — Investigative Considerations

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However, the appearance, dress, and demeanor of some homosexuals do fit the exaggerated *effeminate* and *butch* gestures and dress of lesbians or male homosexuals. These individuals are highly visible within the general population due to these attributes. The males are often referred to as “fag,” “faggot,” or “flit.” Lesbians who take on the role of masculinity through clothing, dress, gestures, or hair are referred to as “dykes,” “bull dykes,” or “diesel dykes.” Male and female homosexuals might dress as “bikers” and other macho types or “femme” and “fruit,” depending upon what role they assume in their sexual exploits. These lifestyles represent specific subcultures within the subculture of homosexuality.

In addition, many male homosexuals engage in brief, casual sex with multiple partners. They participate in what is called “cruising” as they seek out a homosexual pick-up or partner for a brief sexual encounter.

A number of “gay bars” cater to different segments of the homosexual community. For instance, there are lesbian bars, leather bars, business suit bars, drag bars, and dancing bars. These locations provide gays and lesbians, who have a specific orientation, a place where they can be themselves. However, other establishments exist exclusively for cruising opportunities, which make multiple sexual encounters convenient and easy. In back rooms and stalls patrons can participate in various sexual activities privately with a partner or publicly while other patrons stand around and watch. It is not uncommon for some of the more active patrons to have several sexual encounters throughout the evening. They engage in furtive eye contact, staring, smiles, bodily moves, and wearing apparel, which signal an interest in participating in a particular sexual encounter (see Table 15.1).

In an article written by a freelance writer who specializes in gay issues, the author states that “the number of businesses allowing unsafe sex has grown.”<sup>6</sup> Statistics indicate that AIDS is far more common in men with many sexual partners than in the general population.<sup>7</sup> Despite the fact that this behavior has made AIDS an epidemic among gay men, it continues into the 21st century.

In fact, “straight gays,” as some homosexuals refer to themselves, speak of these previously described activities and the types of gays who participate in them as “queer queers.”<sup>8</sup> Gays, in general, resent these extreme types and usually avoid social contact with the “queer queers,” who they feel cast all homosexuals in a bad light.<sup>8</sup>

In order for professional homicide investigators to investigate homosexual murders effectively, they must be able to break through these various subcultures in a nonthreatening and nonjudgmental manner to open up lines of communication.

**Table 15.1 Standard Color Codes for Homosexual Handkerchiefs**

Handkerchief Color	Sexual Activity	Where Worn	
		Left	Right
Red	Fisting	Top	Bottom
Dark blue	Anal intercourse	Giver	Receiver
Light blue	Fellatio	Desires	Provides
Robin's egg blue	69	Both	Both
Mustard	Penis more than 8 in.	Has	Desires
Orange	Anything	Top	Bottom
Yellow	Golden shower	Giver	Receiver
Green	Hustler	Seller	Buyer
Olive drab	Into uniforms	Both	Both
White	Masturbation	Desires	Dual
Gray	Bondage	Giver	Desires
Brown	Scat (fecal matter)	Spreads	Receives
Black	Heavy S&M	Top	Bottom
Purple	Genital torture	Piercer	Receiver

It should be noted that individuals within the homosexual community devised and regularly use specific slang terms to describe certain activities and lifestyles, such as “flaming faggots,” “drag queens,” “leather queens,” “diesel dyke,” “rough trade,” “chicken hawks,” “trash,” and “deviant.” In the investigation of homosexual murders, the proper and discreet use of these terms may be necessary to aid in communication and assist the investigator in understanding the dynamics of an event. Therefore, I have included some of these descriptive terms in the Glossary at the end of the book.

### **Interpersonal Violence-Oriented Disputes and Assaults**

It has been my experience that male homosexual homicides involving interpersonal violence often present patterns of injuries that can best be described as overkill.

These injuries are usually directed to the throat, chest, and abdomen of the victims. It has been suggested, but not empirically proven, that the assault to the throat takes place because of the sexual significance of the mouth and throat in male homosexual “love-making.” There are certain “psychosexual wound structures” present in homosexual and heterosexual homicides. The cutting of the throat, the stabbing into the chest, attacks to the breasts in females, the slashing of the abdomen, and attacks to the genitalia are indications of the sexual significance of the motive. The psychological significance in an attack to the throat in male homosexual homicides manifests the destruction of this “substitute sex organ” which engulfs the penis. Anal intercourse is often thought to be the most prevalent sexual behavior between homosexual men. However, according to Crooks and Baur, the Bell and Weinburg study of 1978 found that fellatio was the most common mode of sexual expression.<sup>2</sup>





**Figure 15.1 HOMOSEXUAL HOMICIDES.** Homosexual homicides involving “lovers’ quarrels” — slashing and cutting to the throats of the victims. Note the increased level of violence and “overkill” types of injuries that are in homosexual homicides. In addition to the cutting, the offender stabbed his lover in the head with an ice pick. These types of violent wound structures to the throat and chest of victims are attributed to the dynamics of two biologically engineered sexual aggressors involved in an emotional conflict with elements of rage, anger, and revenge. (Courtesy of Dominick J. DiMaio, M.D., former chief medical examiner, City of New York.)

Although most of these interpersonal violence-oriented scenarios involve male participants, there are similar cases of extreme sexual violence involving female victims engaged in a lesbian relationship. I am aware of a brutal sexual torture and mutilation murder of a 12-year-old girl in Indiana. The victim, whose first name was Shanda, was killed because she had begun a lesbian relationship with a young girl who had previously dated another lesbian named Melinda. Melinda talked three other teenage girls into helping her kill Shanda. Shanda was taken to a remote location where she was stripped. She was physically and sexually assaulted. The pathologist later reported findings which indicated numerous multiple insertions had been made into the victim’s anus. She was strangled, stabbed, and hit in the head with a tire iron. Her tormentors then poured gasoline on her and burned her while she was still alive. All four were convicted and currently are serving their sentences in Indiana Women’s Prison in Indianapolis.



**Figure 15.2** INTERPERSONAL VIOLENCE — LOVERS' QUARREL. This man was a victim of a dispute involving his younger male partner. After he killed him, the lover covered the victim's face with the bloody towel. (From the author's files.)



**Figure 15.3** INTERPERSONAL VIOLENCE — LOVERS' QUARREL. Note the stabbing into the victim's chest and cutting of the throat. (From the author's files.)





**Figure 15.4 HOMOSEXUAL HOMICIDE — THROAT AND BACK.** This photo illustrates the classic attack to the victim's back. There were a number of stab wounds into the victim's back. Another male homosexual using a sword perpetrated the assault. (Courtesy of Detective Jim O'Conner, High Point, North Carolina, Police Department.)

Interpersonal violence-oriented scenarios can also include instances in which a homosexual male solicits or is solicited by another male to engage in fellatio. Young heterosexual male subjects and others, who are described as “hustlers,” will participate in this conduct as long as the nature of the sexual activities allows them to maintain the more masculine role. In other words, the parties will agree to certain “ground rules.” The homosexual male (customer) is allowed to perform fellatio on the subject, but the subject will not reciprocate. I have investigated and consulted on murder cases where these ground rules were broken, resulting in an apparent homosexual homicide. These cases usually involve older homosexual males in a sexual liaison with younger males or hustlers. The older male may attempt to carry the activities beyond performing fellatio or demand that the younger male reciprocate. The younger male, who usually denies being a homosexual, suddenly has his masculinity threatened and he responds with violence and viciously attacks the victim. The injuries inflicted upon the victim usually will indicate an extreme rage and sexual violence.

In any event, if presented with the death of a male in a crime scene that suggests sexual activity and in which the throat has been cut or slashed, consider a homo-





**Figure 15.5 HOMOSEXUAL HOMICIDE — THROAT AND BACK.** This photo illustrates the classic attack to the victim's throat. The sword had been thrust through the victim's neck. (Courtesy of Detective Jim O'Conner, High Point, North Carolina, Police Department.)

sexually oriented interpersonal violence motivation. I would suggest that these interpersonal violence-oriented scenarios and "lover's quarrels" between male homosexuals manifest an increased level of violence due to the fact that the parties involved in the emotional conflict are "biologically engineered" sexual aggressors.

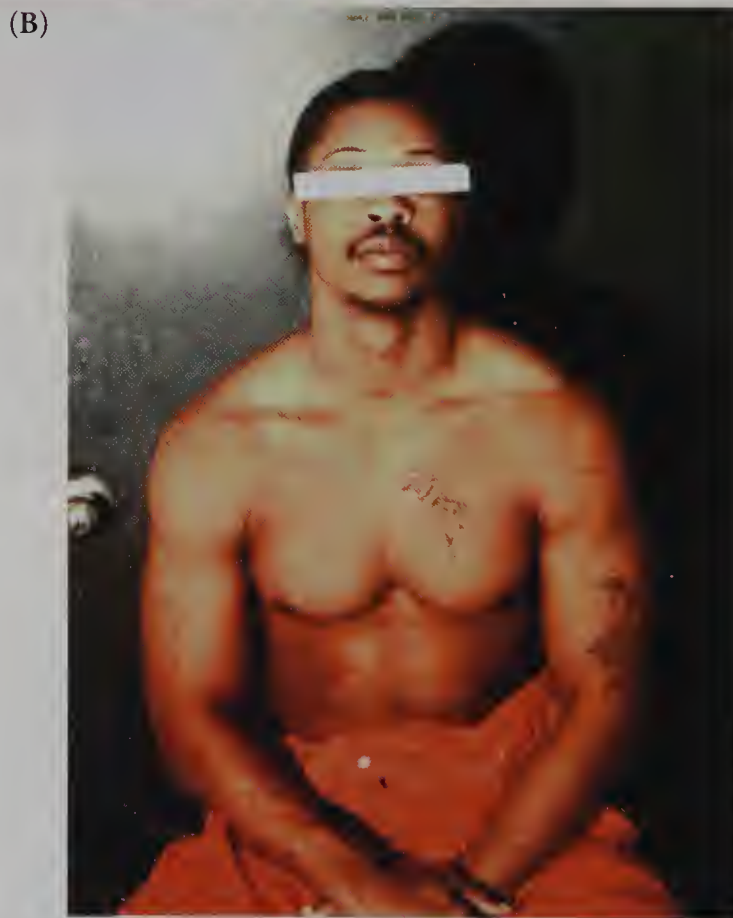
### **Murders Involving Forced Anal Rape and/or Sodomy**

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Homosexual homicides involving forced anal and/or oral sex are to some extent analogous to the rape–homicide among the heterosexual population. These can be extremely brutal homicides, where death occurs from the amount of force used to overcome the victim's resistance, or the victim is killed to prevent identification.

I refer to one particularly brutal sexual assault on a male homosexual, who thought he was going to a party to participate in "a little S&M." He was almost killed. He was physically and verbally abused as his tormentors called him "faggot," "scum," and "asshole." He was whipped on his back and buttocks until bloodied. The group then urinated on him. He was then forced to perform oral sex on the leader of the group before he was allowed to leave, with a warning that if he told the cops he would be killed.

In prisons and institutions, many less aggressive males ("punks") and females ("bitches") are sexually dominated by macho male ("gorilla") and female ("bull") offenders. The more aggressive homosexuals (male and female) are referred to as



**Figure 15.6 HOMOSEXUAL ROBBERY CASE.** (A) Crime scene. The deceased, who was a Mexican diplomat, had picked up his assailant at the Greyhound bus terminal. The assailant then accompanied him to the man's residence for a sexual liaison during which time the man was assaulted, robbed, and killed. The assailant took the victim's credit cards and his vehicle. (B) Suspect was identified and located in jail in another jurisdiction on an unrelated matter. During the interview, detectives noticed a number of fresh scratches, bruises, and a bite mark on the suspect. (C) Detectives secured a search warrant to obtain evidence from the suspect's body, particularly the bite mark, which was ultimately matched to the dentition of the victim. (Courtesy of Lt. Col. James J. Hackett, deputy chief, Bureau of Investigation, St. Louis Police Department.)





Figure 15.6 *Continued.*

“insertors.” Examples are the homosexual male who puts his penis in the partner’s mouth or anus and the lesbian who performs cunnilingus on her partner. The “insertee” is the homosexual male who receives the partner’s penis in his mouth or anus and the lesbian who receives the partner’s tongue in her sexual parts.

I remember supervising the investigation of a homicide on a South Bronx rooftop landing. The deceased, who lived in the building, was “discovered” at the location by a male resident of the building. The reporting witness told police that he had gone to the roof to urinate when he came upon the body. He told the officers that he had lit a match and recognized the dead man as a fellow resident. He then reportedly summoned his common-law wife to the roof and she called the police. The victim was fully clothed, but there was a belt around his neck.

Once again, I caution the reader. I do not have any independent empirical data to support this theory. *However, it has been my experience that when you observe a belt, strap, or ligature around the neck of a male victim, you can expect that there has been forced anal sodomy. This method of controlling the victim by choking off the air is a prison trick employed by the more aggressive male inmates to intimidate and sexually dominate other, weaker males.*

I immediately recognized the significance of the belt and directed that the male who found the body be brought in for questioning as a “witness.” Investigation at the scene indicated this to be a sex-related death. A canvass of the building yielded evidence that the victim and the reporting witness were observed going to the roof together. The “witness” had just been released from prison. Originally, he told his common-law wife that some “faggot” in the building had “hit on him” sexually. He then explained to her how he got mad and beat the guy to death. He conveniently forgot to tell his wife that he had had anal intercourse with the deceased before





**Figure 15.7 HOMOSEXUAL HOMICIDE — VICTIM ASSAULTED.** Belt was used to overcome victim's resistance. These photographs show a homosexual homicide crime scene. The victim's body was found on a roof landing in the Bronx. Note the belt around the neck of the victim. This may be a clue that suggests that the offender may have spent time in a prison or institution. (From the author's files.)

strangling him. When the common-law wife was advised of what had actually transpired on the roof landing, she became the state's best witness.

## **Lust Murders and Other Acts of Sexual Perversion**

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In sadomasochistic sex, one partner is the "master" and the other is the "slave." The master, who is usually a sadistic type of personality, obtains sexual pleasure in tying up the slave, whom he beats or whips. The slave, who is usually a masochistic type of personality, obtains a sexual thrill from being treated this way. Often, male-oriented homosexual homicides involve bizarre and sadistic methodologies, such as "S&M" (sadomasochism) or "B&D" (bondage and discipline) scenarios. A male might be chained to a rack to be whipped by a master, who is dressed in a special leather suit. The slave might wear a leather discipline mask in a display of submission. In some scenarios in these "B&D" sex games, the slave is forcibly "raped" (anally sodomized) by the master or other, more dominant participants.

Other male homosexual activities include the insertion of a live gerbil into the anal cavity and then allowing the rodent to extricate itself from this orifice, as well as "shrimping." Shrimping is a disgusting action in which one homosexual, who has engaged in anal intercourse with another, then "sucks out" the ejaculate from the recipient's anal cavity.

In some cases, the slave will be urinated or defecated on by others. In other male homosexual scenarios, the activities include urolangia (the consumption of urine) and coprolangia (the consumption of human feces). I am aware of a homosexual homicide involving these activities, which were videotaped by the participants.

There is an organization of homosexuals who refer to themselves as the "Fist Fuckers of America" (F.F.A.). This loosely knit organization made its debut in May of 1981 in San Francisco, where it held its first conference. It even produced a videotaped "training film" for members on the proper method of "fisting." In "fisting," the "top man" inserts his lubricated fist and forearm up to the elbow into the anal cavity of the "bottom man." These sadistic acts and other sexual perversions, which are considered deviant and abnormal, can result in serious injury and death.

The Rockland County, New York, "Death Mask" case, which made national headlines, is an example of depraved homosexual violence involving bondage, anal assault, beatings, and torture. This case was a classic example of a sadistic homosexual "snuff" killing. The victim, who was a Norwegian fashion student, had been at a homosexual club in Manhattan. He was brought to the Rockland home of one of the perpetrators for what he thought was a coke and sex party. While at the house, the three men drank wine and did some "coke." The victim was stripped, handcuffed, sexually abused, and tightly laced into a leather bondage mask. He performed fellatio on one of the offenders, who told the other offender that this would be a good night to kill a "faggot." The victim was brought outside to an area by an old smokehouse on the property. While one of the offenders was engaged in anal sex with the victim, the other offender shot him twice in the head at point-blank range.





**Figure 15.8 SADOMASOCHISTIC PARAPHERNALIA.** These photos depict some of the S&M paraphernalia removed from the scene of a homosexual sex-related death. Some of the persons who participate in these S&M and B&D scenarios do not realize the risk factors involved. (From the author's files.)





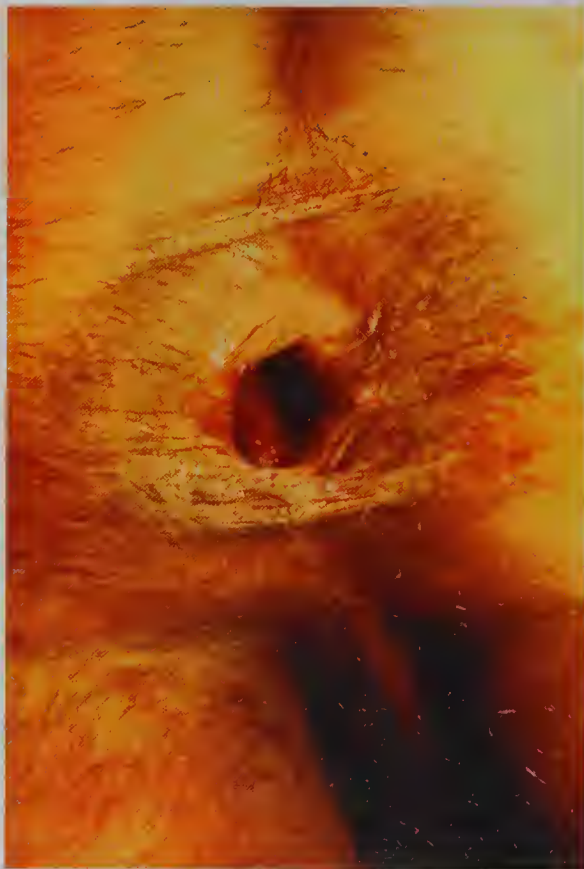
**Figure 15.9 MALE HOMOSEXUAL ASSAULT — BONDAGE.** The victim was discovered face down and tied in this sadomasochistic position. He had been sexually assaulted and robbed by a man he picked up in a gay bar. (Courtesy of Dominick J. DiMaio, M.D., former chief medical examiner, City of New York.)



**Figure 15.10 NECROPHILIA — HOMOSEXUAL ASSAULT.** The victim was stabbed to death and *then* sexually assaulted anally in an act of necrophilia by the homosexual lover of the man the victim had "made a move on." The victim was killed and posed in this position as a lesson to the other homosexuals "not to mess with his boyfriend." (From the author's files.)



**Figure 15.11 FISTING.** In "fisting," the "top man" inserts his lubricated fist and forearm up to the elbow into the anal cavity of the "bottom man." (From the author's files.)



**Figure 15.12 DISTENDED ANAL CAVITY.** This photo illustrates the effect of inserting a large object and/or fist into the anal cavity. This is a distended anal cavity of a male homosexual. (Courtesy of Dominick J. DiMaio, M.D., former chief medical examiner, City of New York.)



**Figure 15.13 RUPTURED BOWEL.** These sadistic acts and other sexual perversions, which are considered deviant and abnormal, can result in serious injury and death. (Courtesy of Dominick J. DiMaio, M.D., former chief medical examiner, City of New York.)

After shooting the victim, the offenders cut a hole into his chest cavity. The blood was collected in a cup. Both offenders drank this blood in an oath to keep their evening of sadistic homosexual depravity a secret.<sup>9</sup>

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### Case History

Kenneth and Richard had been male lovers for approximately 10 years. They had a long history of domestic violence and Kenneth had stabbed Richard in the past. The two had often discussed a murder/suicide pact. *In my opinion, such pacts never work out because after the murder the other party usually decides not to hold up his or her end of the bargain.*

They decided to meet each other at a motel to carry out their long planned murder/suicide. The plan was for Kenneth to hang his lover, Richard, and then stab him while he was hanging. Richard was already high on Librium, and Kenneth had drunk a pint of Richard's Wild Irish Rose wine. They first went to a party store to purchase two more bottles of the wine and then headed for the motel to carry out their plan. They were high when they arrived at the motel.

Kenneth left Richard tied up at the motel and went to purchase some sharper knives. He could not find one, so instead he purchased two more bottles of Richard's Wild Irish Rose. When he returned to the motel, he found Richard lying motionless with his lips



turning blue, so he took his knife and stabbed him in the stomach, leaving his knife in the victim. Kenneth then consumed the wine. He then put Richard's body on the floor to provide more "working room." When he removed the rope, Richard began to breathe. Kenneth decided to try to save him, but then changed his mind.

Kenneth later told detectives that when he realized Richard was dead he panicked. He went across the street to the hospital and decided to commit suicide by jumping off the parking garage roof. But then he changed his mind.

Kenneth came back to the motel and began to think of the fantasies he had had in the past of cutting up his partner and taking body parts. Kenneth told the detectives that he would often masturbate to these fantasies and think about playing with the body parts. Kenneth removed Richard's penis and testicles. He then began pulling out intestines and sucking and playing with them. He also sucked on the ears to see what they felt like. He then decapitated the corpse and mutilated the body. Kenneth then went to sleep with Richard's body. The next day he attempted to make love with the body but, according to him, the body was beginning to smell.

Kenneth then called his former lover in Southfield and asked him to pick him up at the motel. The friend drove him to his house. When they arrived, Kenneth attempted to stab him. However, the friend escaped and called the police. The police located and arrested Kenneth for the attempted murder of his boyfriend. The police were not aware of the murder at the motel until they searched Kenneth. Kenneth had taken Richard's penis, ears, tongue, and armpit, which he pocketed before leaving the motel. *The body parts were still in his pocket when the police searched him.* While Kenneth was in Oakland County Jail awaiting trial, he finally completed his end of the bargain by committing suicide. He hanged himself.

*Psychosocial information.* In the police interview, Kenneth admitted to having homosexual tendencies at the age of 7. According to Kenneth, his first homosexual experience was in Clinton Valley State Hospital at age 14 when another patient forced him to have anal sex with him. He stated that it scared him but he liked it. Kenneth had been hospitalized after he had killed the family dog. He admitted to fantasies about killing his neighbor and had begun tape-recording his fantasies. Kenneth spent 3 years at Clinton Valley State Hospital. During his stay at Clinton, he claimed to have these "killing fantasies" constantly; nevertheless, he was released.<sup>9</sup>

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## Homosexual Serial Murders

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Homosexual serial murders involve sadomasochistic torture, lust murders, thrill killings, and child killings, as well as robbery-homicides, which are homosexually oriented. Homosexual serial killers can be loosely divided into three groups: (1) the homosexual serial killer who exclusively targets other male homosexual victims, (2) the homosexual-oriented serial killer who attacks heterosexual and homosexual victims, and (3) the male pedophile homosexual serial killer who attacks young males and boys.

It should be noted however, that these three categories are not mutually exclusive due to victim opportunity and victim availability. For instance, John Wayne Gacy and Wayne Williams, who were basically homosexual male pedophiles, sexually assaulted and killed children and young adult males who were heterosexuals as well as homosexuals. Jeffrey Dahmer solicited homosexual young



**Figure 15.14** HOMOSEXUAL "SNUFF KILLINGS." The "Death Mask" case. These photos show the decomposed body of a male victim of a homosexual "snuff killing." Note the leather mask on the skeleton. Ironically, the face of the victim, which was tightly covered by the mask in an outdoor location during the winter months, was preserved well enough for physical identification of the deceased by family members. However, for the purposes of official identification, the medical examiner utilized the services of a forensic odontologist. (Courtesy of Stephen G. Scurti, chief of police, Stony Point, New York, Police Department.)





**Figure 15.15 HOMOSEXUAL LUST MURDER.** These photos depict the result of a homosexual lust murder in which the participants allegedly agreed to a suicide pact. However, one of the individuals never intended to commit suicide. Instead, he acted out a perverse sexual fantasy with his lover's body and removed body parts, which he took with him. (Courtesy of Sergeant Jeffrey W. Smith, Pontiac, Michigan, Police Department.) *Continued.*

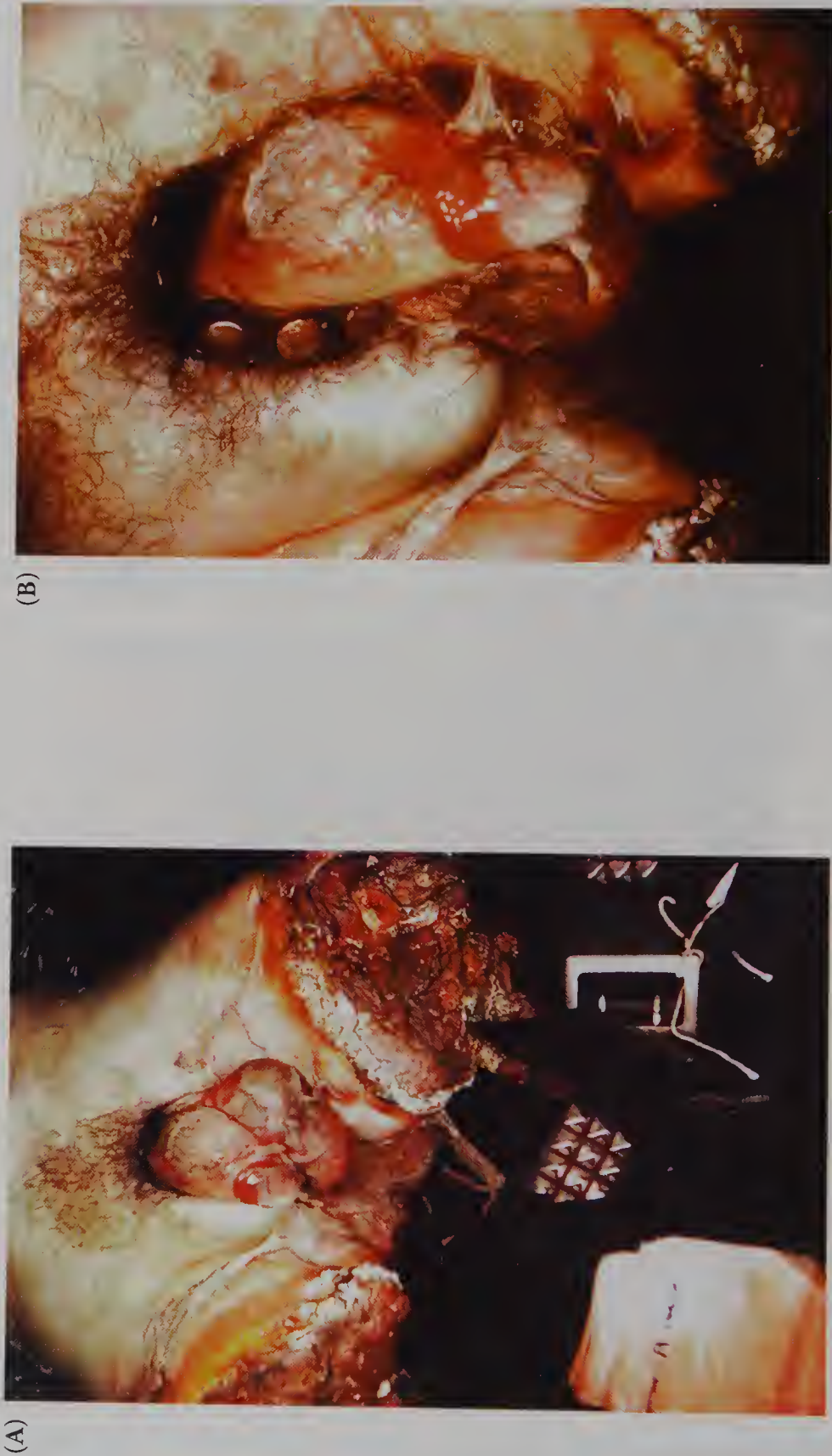




Figure 15.15 *Continued.*



**Figure 15.16 HOMOSEXUAL MUTILATION.** This man was killed and then decapitated and disarticulated. The assailants then placed his penis into the neck structure as some sort of macabre message. (Courtesy of Dominick J. DiMaio, M.D., former chief medical examiner, City of New York.)



**Figure 15.17** (A) REMAINS RECOVERED FROM RIVER. The mutilated remains of a homosexual victim recovered from the Hudson River. A serial killer had killed this victim. (B) MUTILATED BODY OF A HOMOSEXUAL. Note the "cock ring" recovered from the victim's body. The body had been mutilated and dumped into the river to prevent identification. The cock ring indicated that the victim was into heavy S&M activities. (Courtesy of Dominick J. DiMaio, M.D., former chief medical examiner, City of New York.)



men, but he also was charged in the death of heterosexuals as well of a young boy. (See Table 15.2).

My research, which appears in Table 15.2, shows a listing of 37 known and documented homosexual serial killers, who represent 30 cases of homosexual serial murder. These 37 offenders were charged with the deaths of approximately 280 male victims and were actually suspected of murdering approximately 755 victims.

Seven of the offenders worked in teams. Offender William Bonin worked with three other males. Offender Dean Corll worked with two other males, and Kelbach and Kearney each worked with a partner.

The most frequent motivation was sadomasochistic sexual acts followed by male pedophilia. Lust murders and robbery accounted for the balance. Twelve pedophile homosexual serial killers were suspected in the deaths of 126 young males and boys. John Wayne Gacy, for example, killed 33 young men and boys. He was executed in 1994. Dean Corll, with the assistance of Elmer Wayne Henley and David Brooks, killed 27 young men and boys.

Cruising or tricking male homosexuals, who hang out at gay bars, gay baths, restrooms, bus stations, amusement parks, truck stops, and other kinds of public places looking for casual sex, represents a high-risk victim group. Serial killers who “work” these locations can operate anonymously among their victims. The impersonal nature of cruising, where participants meet to engage in sexual acts with complete strangers, affords the clever serial murderer with a number of killing fields of opportunity. Approximately 70 of the victims listed in Table 15.2 were cruising before they were killed. Approximately 80 of the males were victims of thrill killings and were selected *because* they were homosexual.

Jeffrey Dahmer, who engaged in necrophilia, anthropophagy, and other bizarre activities with the bodies of his victims, is recognized as one of America’s most notorious male homosexual killers. He had managed to kill 17 young men and boys over a 13-year period before he was apprehended by authorities on July 22, 1991. Police found the body parts of 11 victims in Dahmer’s Milwaukee apartment. There were four male torsos stuffed into a metal barrel, two heads in the refrigerator, two heads in a freezer, and seven skulls. There were boxes of bones and severed hands, a man’s genitals in a lobster pot, a freezer packed with lungs, intestines, a kidney, a liver, and a human heart that Dahmer told police he was “saving to eat later.”<sup>10</sup> He confessed to drugging, strangling, dismembering, and cannibalizing his victims. Police found photographs of some of the victims in various stages of mutilation.

Dahmer had decapitated some of his victims, boiled their skulls to preserve them, and then painted the skulls, which he kept as trophies. Dahmer reportedly had tried to create homosexual love slaves or “zombies,” by drilling holes in the victim’s skulls and pouring acid into the holes while they were still alive. In addition, he performed sexual acts with some of the bodies of his victims after they were dead, including an act of anal sex with one corpse.

Jeffrey Dahmer was killed in prison by another inmate, who was serving time for murder, on November 28, 1994.



Table 15.2 Homosexual Killers in the U.S.

Name	Race	St	A	Killed	Sus	Dates	Method	Motive	Type
Paul Bateson	W	NY	G	1	6	1977-78	Beat, dismember	Lust murders	Cruising murders
Robert A. Berdella	W	MO	G	6		1982-88	Strangle, torture	S&M	
Arthur Bishop	W	UT	G	5		1979-83	Shoot, beat, drown	Pedophile	
William G. Bonin	W	CA	G	14	26	1972-80	Stab, strangle, torture	S&M	Thrill killings Team w/Corll
David Owen Brooks	W	TX	G	2	8	1973	Shoot, strangle	S&M	
Eugene Butler	W	ND	G	6		1901-06	Blows to skull	S&M	
Vernon Butts	W	CA	G	6		1972-80	Stab, strangle, torture	S&M	Team w/Bonin
Dean Corll	W	TX	G	27		1970-73	Shoot, strangle, torture	S&M	Thrill killings
Juan Corona	H	CA	G	25		1970-71	Machete, head	S&M	
Jeffrey Dahmer	W	WI	I	17		1978-91	Strangle, torture	Lust murders	
Bruce A. Davis	W	IL	I	3	29	1969-71	Shoot, stab, poison	Robbery	Cruising murders
Frank Davis	W	IN	G	3		1971-83	Strangle, axe, shoot	Pedophile	
Westley Allen Dodd	W	WA	I	3	1	1989	Stab, strangle	Pedophile	
Donald William Dufour	W	FL	I	5		1982	Shoot, stab	Robbery	Thrill killings
Larry Eyer	W	IN	I	3		1982-84	Stab, dismember	Lust murders	Cruising murders
John Wayne Gacy	W	IL	G	33	22	1972-78	Strangle, torture	Pedophile	
Arthur Fred Goode	W	FL	I	2	2	1976	Strangle	Pedophile	
Anthony Goodin	W	AL	I	1	4	1984-87	Stab	S&M	Cruising murders
Waldo Grant	W	NY	G	4		1971-76	Stab, mutilate	Lust murders	
Vaughn O. Greenwood	B	CA	G	8	1	1974-75	Stab	S&M	Thrill killings
William Guatney	W	IL	I	5	15	1979	Slay	Pedophile	
Elmer Wayne Henley	W	TX	G	7	19	1973	Shoot, strangle	S&M	Team w/Corll
David Hill	W	CA	G	21	11	1977	Dismember, shoot	S&M	Team w/Kearney
John Joubert	W	NE	I	3		1982-83	Stab, torture	Pedophile	
Joseph Kallinger	W	PA	I	3		1974-75	Stab, torture	Pedophile	
Patrick W. Kearney	W	CA	G	21	11	1977	Dismember, shoot	Lust murders	Thrill killings
Walter Kelbach	W	UT	G	6		1966	Shoot, torture	S&M, robbery	Thrill killings
Randy Steven Kraft	W	CA	I	21	39	1972-83	Strangle, stab	S&M	Thrill killings
Myron Lance	W	UT	G	6		1966	Shoot, torture	S&M, robbery	Thrill killings
Greg Miley	W	CA	G	2	8	1972-80	Stab, strangle, torture	S&M	Team w/Kelbach
Michael Munro	W	CA	G	1	8	1972-80	Stab, strangle, torture	S&M	Team w/Bonin
Gordon Northcott	W	CA	I	3	20	1928	Shoot, axe	Pedophile	Team w/Bonin
William Sarmento	W	RI	G	4		1987	Beat, stab	Pedophile	
Erno Soto	W	NY	G	5		1972-73	Stab, mutilate	Pedophile	
Michael Terry	B	GA	G	5		1985-86	Shoot, stab	S&M	Cruising murders
David Villarreal	H	TX	G	7		1974-81	Stab	S&M	
Wayne B. Williams	B	GA	G	2	27	1978-79	Strangle	Pedophile	

A = area; G = geographical; I = interjurisdictional.



**Figure 15.18 DAHMER VICTIM.** This Polaroid photo of a dead victim was taken by Jeffrey Dahmer. (Courtesy of retired Captain James Ferrier, Milwaukee, Wisconsin, Police Department.)



**Figure 15.19 POSING OF DEAD VICTIM'S BODY.** Dahmer would pose his victims after death in various positions and then photograph them as trophies. (Courtesy of retired Captain James Ferrier, Milwaukee, Wisconsin, Police Department)



**Figure 15.20 POLAROID PICTURE OF BODY PARTS.** Dahmer also photographed the decapitated heads and body parts of his victims, which he kept as trophies. (Courtesy of retired Captain James Ferrier, Milwaukee, Wisconsin, Police Department)

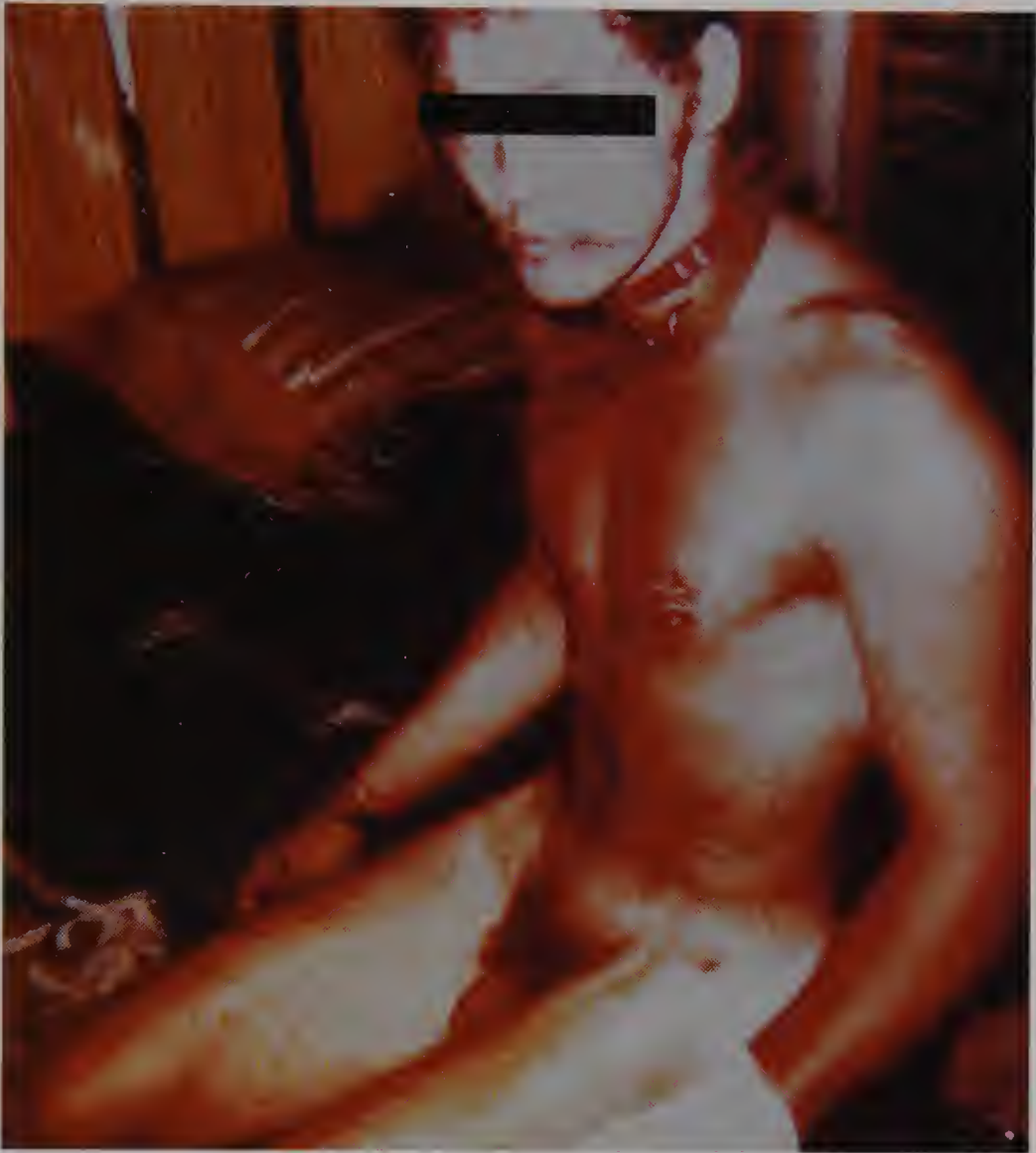
Robert Berdella, who killed six male victims, was also interested in creating “sex slaves.” Police recovered 357 photographs at his residence, which depicted 23 persons in various states of sexual torture. Six of these 23 people were identified as homicide victims. The other persons in the photos had been consensual partners of Berdella, who engaged in sadomasochistic activities with his “guests.”

Berdella established “rules of the house” for his sex slaves, who were punished by beatings and electric shock. He put bleach into his victim’s eyes and injected different types of drugs and caustics into his “slaves” and then recorded the effects in a diary. He experimented by injecting his captives with Thorazine, animal tranquilizers, curare, and other unknown drugs. Berdella also injected Drano into their throats. He anally raped his victims and submitted them to the insertion of foreign objects into their anal cavities.

Larry Eyler was responsible for the sadistic murders of 23 young men in Indiana, Illinois, Ohio, and Wisconsin. His killings started in 1982 and ended with his arrest in 1984. Eyler’s stunning jailhouse confession, made through his attorney on December 4, 1990, provided law enforcement authorities with a vivid insight into the sadistic murders of young gay men by Eyler and an associate.

Eyler described how a young man named Steven was brutally killed during an evening of sadistic sex orchestrated by an associate who was a college professor. The professor was subsequently acquitted of murder. I will refer to him as *John* in this case history. Lt. Perry Hollowell, who had originally investigated the homicide in 1982, was provided with this information during an interview with Eyler and his attorney in December 1990. Lt. Hollowell, now with the Indiana Law Enforce-





**Figure 15.21** PHOTOGRAPH OF “HOMOSEXUAL LOVE SLAVE.” Robert A. Berdella took photographs of his “slaves.” This man’s head was found buried in Berdella’s back yard. (Courtesy of Special Agent Jon Perry, Virginia State Police, formerly with the Kansas City, Missouri, Police Department.)

ment Academy, and Trooper Frank Turchi, Indiana State Police, provided the following details, which I have edited for brevity and legal considerations, due to the acquittal of the associate referred to as “John.”

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### Case History

According to Larry Eyler, he and *John* were driving around in Eyler’s Ford pickup truck in an area frequented by gays. They had decided “to play a scene.” *John* liked to play “director” and create sexual scenes, which he photographed. *John* liked everything to follow a sequence. They saw the victim (Steve), whom they recognized to be homosexual. Eyler nodded his head at him and he nodded back. They made some small talk with the victim and asked him if he wanted to take a ride. They rode around for a while and talked about doing some sex. *John* said something about being horny and he wanted to “get his dick off.” Steve stated that he was also horny.

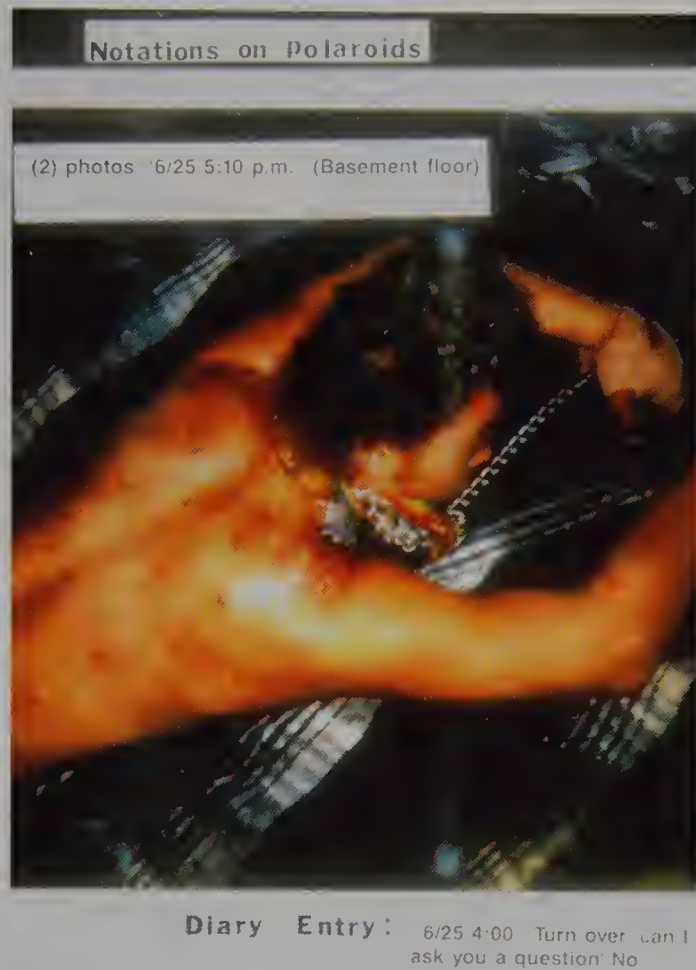


**Figure 15.22 PHOTOGRAPH OF THE VICTIM BEFORE THE MURDER.** This photo depicts a victim being tortured by Berdella shortly before he was sadistically murdered. (Courtesy of Special Agent Jon Perry, Virginia State Police, formerly with the Kansas City, Missouri, Police Department.)

According to Eyler, they asked Steve if he wanted to fuck around with them and the victim reportedly agreed. They told him that they were looking to get into “bondage.” Eyler explained that they would tie him up and one of them “would suck him off.” Steve agreed to participate. *John* told the victim that he would be paid for participating in the sex game. Both offenders then drove off with Steve sitting between them in the front seat of the truck. They made a brief stop so that *John* could pick up a bag. [Author’s note: murder kit.] The bag had rope, tape, handcuffs, knife, and a beige wrap. *John* also brought along his cameras — a Polaroid and a Nikon camera with its own flash.

All three ended up at an abandoned farm house. *John* told Steve they were going to tie him up to some beams. Steve agreed and Eyler tied Steve to the beams. Eyler wrapped duct tape around Steve’s head four or five times and then placed an Ace bandage around his eyes. According to Eyler, *John* had an erection at this point and he began taking pictures of Eyler removing Steve’s clothes. *John* then switched cameras from the Nikon to the Polaroid. *John* told Eyler to “get the knife.” *John* then took pictures of Eyler holding the knife against Steve’s stomach. After a few minutes, *John* said, “O.K. Kill the motherfucker.” Eyler then stabbed Steve in the stomach. *John* took pictures of the stabbing and then took the knife and also stabbed Steve. According to Eyler, Steve’s body went limp. *John* then started to masturbate over it. Eyler cut the body down with *John*.

Eyler stated that he suddenly felt this rage build up, so he took a piece of wood and began to beat Steve’s dead body. *John* took pictures of this beating. They then took the body behind the house, where Eyler took out his knife and cut the body open. *John* took pictures of the eviscerated body. Both offenders then cleaned up the crime scene by



**Figure 15.23 PHOTOGRAPH FROM BERDELLA'S COLLECTION.** Berdella had hundreds of photographs that he kept as trophies. On some of the photographs, he had made notations. (Courtesy of Special Agent Jon Perry, Virginia State Police, formerly with the Kansas City, Missouri, Police Department.)

collecting all of the evidence in plastic bags, which they took from the scene. Eyler wore Playtex gloves. Both offenders then went to *John's* house, where they cleaned up and washed their clothes. According to Eyler, *John* kept the pictures of the murders in his bedroom closet and would periodically look through them and masturbate. Eyler stated that after he was arrested in Indiana, the police went to *John's* house to search it for evidence and missed the box with the pictures of the murder victims.<sup>11,12</sup>

Larry Eyler and his activities were unknown to authorities in Indiana and Illinois, who were investigating a series of homosexual homicides in varying jurisdictions. In fact, during Christmastime 1982, three different bodies, including that of Steve, were found in Indiana. A multiagency task force was formed to investigate these series of murders in Indiana as the body count continued to rise into the spring of 1983. Many of the bodies were mutilated and disemboweled and in an advanced state of decomposition. In early June of 1983, a man who was upset with Eyler for taking his male lover called the task force office and informed authorities that he believed that Larry Eyler was responsible for the recent murders.

Authorities began to "look" at Eyler, whose name appeared in a number of police reports. However, the evidence was, at best, circumstantial. The multiagency task force began surveillance on Eyler and alerted various troop barracks to report any unusual activities of Eyler to the task force. A problem occurred when an Indiana trooper observed Larry





**Figure 15.24 HOMOSEXUAL SERIAL KILLER VICTIM.** The victim was found face down on farm property by a real estate agent who was showing the property to a prospective client. (Courtesy of Lieutenant Perry Hollowell, Indiana Law Enforcement Academy, and Trooper Investigator Frank L. Turchi, Indiana State Police.)



**Figure 15.25 VICTIM DISEMBOWELED.** The serial killer would disembowel his victims in his homosexual rage, which would greatly enhance the postmortem artifacts and decomposition of the bodies. Most of the remains were skeletonized when they were recovered. This was one of 22 victims of Larry Eyler, homosexual serial killer. (Courtesy of Lieutenant Perry Hollowell, Indiana Law Enforcement Academy, and Trooper Investigator Frank L. Turchi, Indiana State Police.)

Eyler and another male park a truck on the side of an interstate highway and walk into the woods. The trooper went to investigate and asked Eyler for identification. When the trooper called in the information, he was erroneously informed that “Larry Eyler was ‘wanted’ by the multiagency task force.” At this time, Eyler was placed under arrest and brought into the barracks. The task force responded and Eyler was “unarrested.” However, during the interview of the other male, it was learned that Eyler had made a homosexual proposition to the male. The authorities searched the pickup truck with Eyler’s permission. They seized a pair of boots, surgical tape, rope, and a hunting knife stained with blood.

Unknown to Indiana officials, Larry Eyler was also quite active in Illinois. The body of Ralph Calise was found dumped in a field on August 31, 1983, in Lake County, Illinois. Calise had been bound with clothesline and surgical tape. He was stabbed 17 times and his pants were pulled down to his ankles. Ironically, the Calise homicide appeared to have the same signature as the slayings in Indiana. Authorities finally made the connection. The evidence seized by Indiana authorities was forensically matched to the Calise case. Eyler was charged, but the evidence was excluded and Eyler was acquitted on that case.

On August 21, 1984, Larry Eyler was arrested for the murder of 15-year-old Danny Bridges, a street hustler in Chicago. Danny Bridges' dismembered body had been wrapped in garbage bags and placed in a dumpster; he had been lured by Eyler and an associate to Eyler's apartment in Chicago. Eyler was convicted and sentenced to death on this case. He died of AIDS while in prison in March of 1994.<sup>9</sup>

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## Investigative Significance

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It should be noted that in each of the three serial murder cases discussed in this section, the behaviors of the offenders can appropriately be described as psychopathic sexual sadism. For a complete discussion of the dual diagnosis of psychopathic sexual sadism, see Chapter 14 in my textbook, *Sex-Related Homicide and Death Investigation: Practical and Clinical Perspectives*.<sup>13</sup>

There was a style and pattern to these killings that involved domination, control, humiliation, and sadistic sexual violence. The murders were committed without the least sense of guilt or shame, and the killers displayed a total lack of remorse. The victims were chosen at random and the murders carried out in almost an obsessive manner.

Sexual sadists rely heavily on fantasy and ritual to obtain sexual satisfaction. There is an element of compulsivity as well as an obsession on the part of the sexual sadist to keep trophies and recordings of the event. Photographs of the victims played a significant part in their rituals as well as their ability to recall their sadistic acts.

Therefore, I recommend that any search warrant applications in these types of cases should certainly reference photographs as possible evidence to be seized, as well as any records, scripts, letters, maps, diaries, drawings, audiotapes, videotapes, and newspaper reports of the crimes.

## Psychological Considerations

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Serial killers attempt to satisfy psychological desires. That is to say, they seek sensual gratification. These desires are aggressive libidinal wishes that are not expressed in their daily lives and are a product of their developmental arrests and unresolved needs. Following the outburst of lust murder, behavior returns to "normal"<sup>14,15</sup> until the next outburst of murder. The victim in homosexual serial murders becomes the target of the "badness" displaced from the mother. This fusion of the destructive impulses results from disorganized developmental experiences and faulty object relations,<sup>16</sup> along with the incapacity for empathic bonding — both typically found



in the antisocial personality disorder individual. This dynamic is consistent with his superficial adaptation and noninvolvement in any socially integrative manner.

In the homosexual serial murderers, the mechanism of projection is utilized to displace the “badness” to the same-sex victim. The destructive elements of the early mother–child relationship are “introjected” and “split” and then projected with a recycling of this badness through projection and displacement. The male victim becomes dehumanized from the point of view of the killer. The role of the father as a passive “object” in the life of the homosexual perpetrator also plays a role in the displacement of the aggression to another male. The victim becomes the “object” of the “badness” that the perpetrator perceives about himself. The perpetrator can therefore unconsciously identify with the victim and yet destroy him, thus preserving himself.

### **Robbery–Homicide of Homosexuals**

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Male homosexuals who engage in “cruising” and other high-risk behaviors drastically increase their potential for harm. If they cruise gay establishments looking for a partner, they may inadvertently pick up an offender who frequents these locations with the intention of setting up and robbing homosexual victims. In some instances, peer delinquent prostitutes, who work alone or in groups, use homosexual prostitution as a vehicle for assault and robbery. They will solicit a “gay” customer who is willing to pay to perform fellatio on them. They then rob and physically assault the victim in a display of masculinity. These offenders are known within the criminal element as “fag workers.”

Four of the homosexual serial killers listed in Table 15.2 accounted for the robbery–homicide of 43 males. Two of the killers, Donald Dufour and Bruce A. Davis, were suspects in the murders of 37 homosexual male victims who were sexually assaulted as well as robbed. Walter Kelbach and Myron Lance were two aggressive homosexuals who enjoyed inflicting pain on their victims. Their victims were not homosexual and were anally raped by the offenders, who were sadistic thrill killers.

I remember working a robbery–homicide of a known homosexual who was found tied up in his ransacked apartment. What made this case interesting was the fact that we had investigated this man’s attempted murder about 4 years earlier. It was during the attempted murder investigation that we learned that the victim, who was gay, had gone cruising at a popular gay bar in Manhattan. He had picked up a young man, who pretended to be gay, and brought him back to his apartment for a sexual liaison. The victim had a double-key type of lock on his apartment door. In order to enter or exit, a key had to be inserted into the lock. The man had installed this lock because some of his former “guests” had ripped him off while he was sleeping. While at the apartment, after engaging in some sexual activity, the young man suddenly turned on his guest with a knife. He told the victim that he was going to rob him and began stabbing the man in the chest and shoulder. The victim, who was seriously injured, traded his key for his life and the assailant ran from the apartment with the victim’s jewelry and wallet.





**Figure 15.26 HOMOSEXUAL ROBBERY-HOMICIDE.** This victim met his assailant, who pretended to be gay, at a homosexual bar. He brought the man back to his apartment for a sexual liaison. During the sexual activity, the offender killed the victim and robbed the apartment. (From the author's files.)

The police were summoned and the victim was brought to the hospital in serious condition. In fact, we were handling this case as an attempted murder and robbery due to the medical condition of the victim. As the victim began to recover, he was interviewed by my detectives regarding his lifestyle and his activities the evening of the assault. He directed us to the club where he had met the offender and provided us with a description. After an extensive investigation, we were able to obtain an identification of the offender and were ready to proceed with a prosecution. However, as soon as the victim made a complete recovery, he informed us that he was dropping the charges. He moved away and was unavailable for the prosecution.

It was 4 years later when I received a call from a detective sergeant who requested my response to the location. I remember standing in the crime scene and remarking how the apartment looked familiar. I soon learned why. The deceased was our former complainant in the attempted murder and robbery case. I told the sergeant to pull the notes from the original case and sure enough, the deceased had gone back to the same location and had picked up another "trick" from the same crew.

## Homophobic Assault and “Gay-Bashing” Incidents

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In some instances of homosexual homicides, the victim is killed by a person described as homophobic. Homophobia is defined by Martin Weinberg<sup>17</sup> as irrational fears of homosexuality in others, the fear of homosexual feelings within oneself, or self-loathing because of one’s homosexuality.<sup>2</sup> The term “gay-bashing” is the politically correct version of what street people refer to as “fag-bashing.”

I remember a case that took place in Greenwich Village in New York City. The homophobic son of a minister was apparently distressed over his own homosexual tendencies and went on a shooting rampage with an automatic rifle and “sprayed” street corners outside The Ramrod, a popular hangout where homosexual men would congregate. Two males were killed and six others were wounded.

In New York City, a corrections officer was arrested and charged with a series of killings. He reportedly would cruise a certain area in his vehicle looking for gay men whom he would proposition. He then would bring them to a secluded location and kill them with his newly issued off-duty revolver. Three murders were linked to this individual.

In another incident, a Vietnam War veteran who was gay was attacked as he walked along the deserted Arthur Kill Beach in Staten Island, New York. This victim was purposely hunted down and killed by two assailants because he was homosexual. The killers removed the victim’s trousers and boots and took his house keys to burglarize his home. The victim’s body bore numerous stab wounds to the chest and his throat was slashed.<sup>18</sup> According to one of the suspects apprehended, the victim was killed because “he was a queer.” In fact, one of the suspects had a previous arrest for kidnapping and assaulting another gay man. Both suspects could appropriately be described as homophobic.

## Conclusion

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The investigation of homosexual homicides presents law enforcement with additional and unique considerations. The mere fact that the death is classified as homosexual related might prove to be problematic due to factors beyond the control of the police. Social agendas and personal issues relating to gay rights, as well as the politics of special interest groups, can possibly have an impact on the police murder inquiry.

If authorities appear to be indifferent to the sensitivities of the homosexual community or critical of homosexuals in general, the inquiry may be seriously hampered. The law enforcement community needs to stress the fact that the murder — not the homosexual community or lifestyle — is under scrutiny.

Homicides involving interpersonal violence, killings that involve forced anal and/or oral sodomy, lust murders, and other acts of sexual perversion, robbery–homicide, and “gay-bashing,” as well as the prolific killings of victims by homosexual serial murderers, are cause for concern by everyone in society.

The circumstances and dynamics involved in homosexual homicides require detectives to be able to communicate effectively with the homosexual community. They must be able to break through various subcultures in a nonthreatening and nonjudgmental manner in order to open up critical lines of communication in pursuit of the necessary information relating to the murder investigation.

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# Forensic Application of DNA Analysis\*

# 16



## Introduction

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Biological evidence retrieved from a victim or crime scene can be examined at its most fundamental level — the deoxyribonucleic acid (DNA) molecule. DNA profiling can be used to

1. Establish the link between evidential DNA and that of the possible suspect's DNA
2. Identify whether the DNA in question is human or nonhuman and establish sex

The purpose of this chapter is to acquaint the reader with the application of DNA and genetic identification techniques in criminal investigation. The information within this section also includes personal interviews and materials furnished by Dr. Robert Shaler<sup>1</sup> and Dr. Pasquale Buffolino, Ph.D.<sup>2</sup>

Several private corporations perform forensic DNA analysis in addition to the FBI laboratory. The private corporations include:

- Forensic Science Associates in California
- Orchid Biosciences with laboratories in Maryland, Tennessee, and Texas
- Roche Biomedical Labs in North Carolina
- ACTG, Inc., in Colorado

I served as an investigative consultant for the Lifecodes Corporation under the supervision of Dr. Robert Shaler. At that time, he was the company's forensic director. Dr. Shaler is the director of the Department of Forensic Biology for the New York Medical Examiner's Office and is a nationally recognized authority on

\* Dr. Pasquale Buffolino, who worked in the New York City Medical Examiner's Office under the supervision of Dr. Robert Shaler from 1992 to 2001, prepared and updated this chapter at the request of the book's author to ensure the accuracy of the contents presented herein.

forensic DNA applications. He led the groundbreaking DNA effort to identify human remains recovered from the World Trade Center attacks.

Dr. Buffolino is the director of the Nassau County Medical Examiner's Office in East Meadow, New York. Dr. Buffolino worked in the New York City Medical Examiner's Office under the supervision of Dr. Shaler from 1992 to 2001; he updated and prepared this DNA chapter at my request to assure the accuracy of its contents.

## **Deoxyribonucleic Acid — DNA**

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DNA, or deoxyribonucleic acid, is housed in every nucleated cell in the body. These DNA molecules are often described as the body's blueprints because they carry the genetic codes that govern the structure and function of every component of the body. DNA has been described as the fundamental natural material that determines the genetic characteristics of all life forms. Although some portions of our DNA are relatively conserved through the evolutionary process, as humans we share a human form that is basically human specific, and other classes of organisms share a DNA composition unique to that particular species, e.g., an elephant, horse, cow, insect, fish or mouse.

In fact, the DNA molecule carries the genetic information that establishes each person as separate and distinct. (The exceptions are identical twins.) We as humans create progeny through the transfer of this DNA to our children. According to the genetic experts, the DNA molecule's configuration does not vary from cell to cell. Therefore, the billions of cells that make up each person contain the same molecules of DNA carrying the same codes in precisely the same sequence. All cells in the human body are nucleated except for red blood cells.

## **The Cell**

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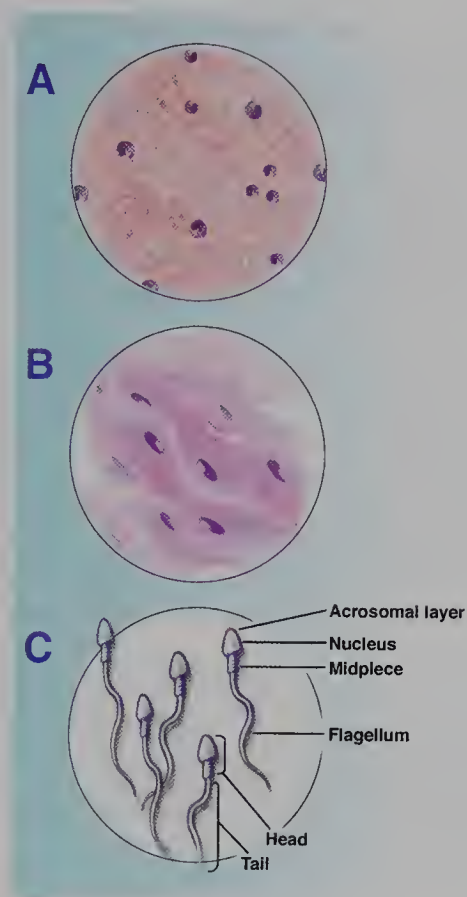
The cell is the basic unit of all living organisms, including humans, animals, insects, and plants. The human body has more than 10 trillion cells. The cell is composed of two parts:

1. The nucleus, which contains two structures: the chromosomes and the nucleoli
2. The cytoplasm, which is all of the material inside the cell membrane outside of the nucleus

## **Molecular Biology of the Cell**

Before forensic applications of DNA technology can be discussed, one must have a general understanding of the cell. A cell is the basic unit of life for all living creatures. Whether they are simple single cell organisms or complex organisms containing billions of cells, as humans do, they function to give life. If one would





**Figure 16.1 COMMONLY ENCOUNTERED CELL TYPES IN CRIMINAL INVESTIGATIONS.** (A) Graphic representation of a magnified blood sample under light microscopy. White blood cells or lymphocytes (represented in blue stain) contain a single nucleus per cell. There are four types: neutrophils, basophils, eosinophils, and monocytes. Each type performs a different function in the immune response. (B) Graphic representation of stratified squamous epithelium cells (under light microscopy) commonly found on the surfaces subject to abrasion as skin, inner cheek (buccal cells), vagina, and anus. The cells are constantly sloughing off and regenerating. This example was prepared from a buccal cell swabbing. (C) Graphic representation of a human sperm cell. Sperm is equipped with a tail known as the flagellum, which propels it through aqueous media, enabling it to deliver DNA to the egg. The flagella are driven by a motor situated in the midpiece, which is rich in mitochondrial DNA. Mitochondrial DNA supplies the motor the energy it requires to function. Sperm cell DNA is packaged in the nucleus situated in the head region. (Information by Dr. Pasquale Buffolino, Ph.D., director of Department of Forensic Genetics, Nassau County Medical Examiner's Office. Figure courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

take a handful of beach sand and sift through it until one grain of sand remained, this grain would represent the most basic unit of that beach from which the sand was collected, similar to a single human cell.

Cells work together to form units, which differentiate into tissue and organs. Human cells (also known as eukaryotic cells) are highly compartmentalized structures composed of three major units: a cell membrane, cytoplasm, and a nucleus. Human cells are bound by a structure known as the cell membrane, which protects it from its environment. Within this membrane resides a viscous substance known as the cytoplasm. Composed mainly of water, the cytoplasm contains all membrane-bound structures, called organelles, two of which are the nucleus and the mito-

chondrion. The nucleus, also a membrane-bound structure, is where our nuclear DNA is located and functions as the information center of the cell. DNA, which is responsible for our genes and the factors that control them, is packaged within the nucleus in the form of chromosomes.

Not all cells contain a nucleus. A general misconception is that DNA is carried in red blood cells. Red blood cells, which function to transport oxygen to our body tissue, are non-nucleated cells. DNA is carried in the nuclei of a variety of cell types; for the purposes of this discussion, we will limit them to (1) white blood cells, or lymphocytes, responsible for the production of antibodies that protect us from infection; (2) epithelial cells, which line the inner and outer surfaces of our body; and (3) sperm cells involved in reproduction. Biological fluids containing nucleated cells most commonly encountered in connection with violent crimes are blood, semen, and saliva. This is not to say that no other types of fluids or biological matter may be present (e.g., pus, perspiration, urine, vomit, fecal matter, skin cells from points of contact).

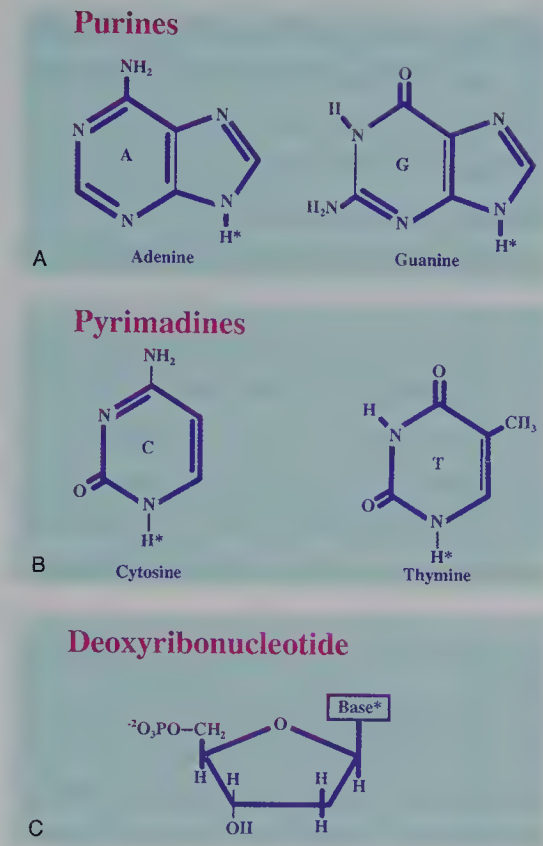
## Structure and Function of DNA

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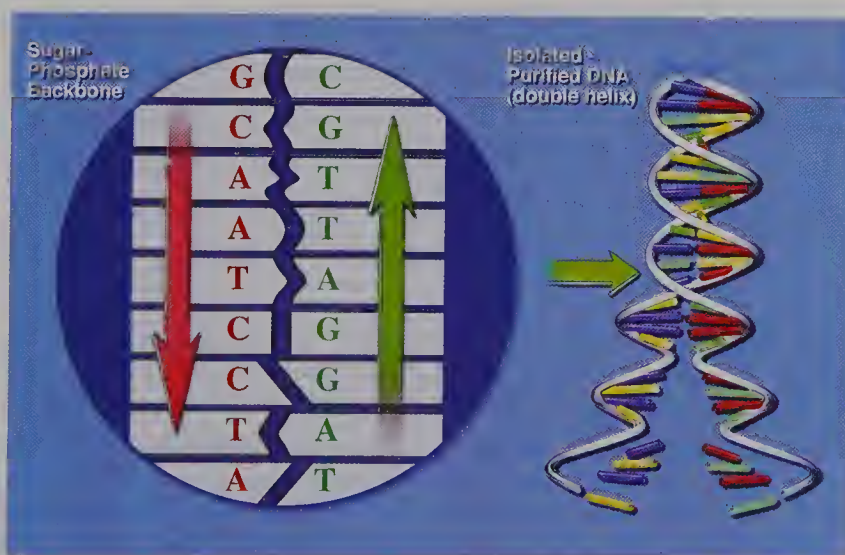
### Nuclear DNA

DNA is commonly referred to as the hereditary material of life due to its role in transmitting genetic information from generation to generation. Nuclear DNA is inherited in a diploid fashion, with half of our DNA inherited from our mothers and the remaining half from our fathers. DNA molecules are packaged into tightly wound structures known as chromosomes. If DNA were stretched out, it would measure approximately 5 feet and exceed the capacity of the nucleus; therefore, DNA must associate with proteins known as histones, which package the DNA into chromosomes. Normal humans contain 46 chromosomes organized as 23 pairs. The 23rd pair is specific to the sex chromosomes, where an X or Y chromosome is inherited from the father and an X chromosome is inherited from the mother. In its native form, DNA exists as a double-stranded helix composed of a series of nitrogenous bases known as nucleotides and a sugar and phosphate backbone. There are four bases: two purines — adenine (A) and guanine (G) — and two pyrimidines — thymine (T) and cytosine (C).

If one could envision the DNA helix uncoiled, it would resemble a ladder with the sides composed of the sugar and phosphate strands and the rungs created from the bases. The native form of DNA is kept in place by base pair complementation, which is an association through hydrogen bonding. The bases do not pair randomly. Adenine always binds with thymine and guanine always binds with cytosine to form A–T, T–A, G–C, and C–G base pairs. The human genome contains approximately 6 billion bases, the sequences of which determine the genetic make-up of our cells. The entire genome was sequenced in 2003 as part of the Human Genome Project, a 13-year study which has led to major medical and forensic advancements.



**Figure 16.2 CHEMICAL COMPOSITION OF DNA.** Chemical structure of purine bases adenine (A) and guanine (G). Chemical structure of pyrimadine bases cytosine (C) and thymine (T). Chemical structure of deoxyribonucleotide. The deoxyribonucleotide binds to one of the four bases at the N-H\* position to form a deoxyribonucleic acid unit. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)



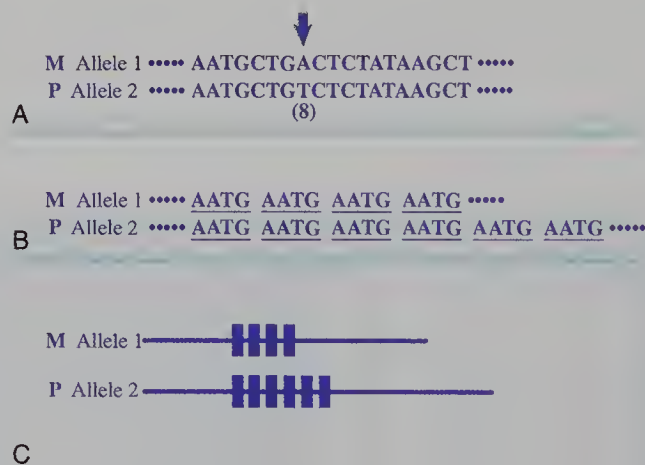
**Figure 16.3 DNA MOLECULE.** (Left) Double-stranded DNA in its uncoiled form resembling a ladder structure. Representation of A-T G-C base pairing. (Right) DNA in its native helical form. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)



Approximately 99.9% of our entire genome has been conserved through the evolutionary process; therefore, normal humans share the same genetic sequence within these conserved regions. In order to survive, humans must consume, break down, and convert foods into energy. This process is crucial to our existence and is therefore conserved genetically. Mutations or variations within genes are known as polymorphisms (defined as “many forms”).

Mutations within vital genes result in the alteration of the particular protein for which the gene codes and thus alter its intended function, affecting the organism’s ability to survive. Therefore, evolution plays a significant roll in molecular polymorphisms. Because conserved regions within the human genome have no discriminative value, they would not serve as probative forensic markers.

The remaining 0.1% of our DNA (approximately 6 million bases) displays molecular polymorphisms or variations from person to person. These polymorphisms result in multiallelic variants. An allele is defined as an alternative form of a gene. Therefore, a multiallelic variant defines many forms of the same gene. For example, the hair color gene contains several forms: black, brown, blond, red, etc. The same gene codes for hair color; however, there are several forms of the particular gene. There are two types of polymorphisms: (1) sequence polymorphisms and (2) length polymorphisms. Sequence polymorphisms display variations within the genetic sequence composition. Length polymorphisms display variations within the physical length of DNA.



**Figure 16.4 DNA POLYMORPHISM.** (A) Sequence polymorphism. The maternal (M) and paternal (P) alleles are represented. Base position number (8) denoted below the cursor displays a polymorphic site or single nucleotide polymorphism (SNP). The specific sequence at this given region of DNA (also known as a “DNA locus”) can vary from individual to individual. Therefore, individuals can be distinguished by their genetic variation in sequence. (B) Length polymorphism. Display of a short tandem repeat region (STR) where a short sequence of DNA (in this example, AATG) is repeated randomly, four repeats in the maternal allele and six repeats in the paternal allele. (C) Graphic representation of the length polymorphism described in (B). Each block (■) represents a tetrameric AATG repeat. Length polymorphisms differ in the number of times a particular sequence block is repeated at a locus. Therefore, individuals can be distinguished by their respective length of DNA. (Information by Dr. Pasquale Buffolino, Ph.D., director of Department of Forensic Genetics, Nassau County Medical Examiner’s Office. Figure courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doereport.com.)

Approximately 5% of the human genome codes for genes. The remaining 95% has no genetic function and is often referred to as “nonsense” or “junk” DNA because its function is not entirely understood. These polymorphic DNA regions are known to repeat over and over like a stutter. Contrary to their role in gene production, these noncoding regions have been found to contain a substantial degree of length polymorphism. These regions are termed *variable number of tandem repeats* (VNTRs) for their multiallelic variation in randomly repeated sequences of DNA; genetic researchers have discovered that they are unique to the individual. The first hypervariable region of DNA was discovered by chance. Following the discovery of several other such regions, Dr. Alec Jeffreys, an English geneticist, developed a method that could detect many hypervariable regions simultaneously.<sup>3</sup> This method was essentially the first individual-specific identification system — what is commonly referred to today as “DNA fingerprinting.”

Further research determined that the human genome is full of repetitive DNA. These multiallelic markers are categorized according to the number of tandem repeat units within them. There are three classifications: (1) satellite DNA, which contains repeat blocks of greater than 100 base pairs; (2) minisatellite DNA, which contains repeat blocks of 10 to 100 base pairs; and (3) microsatellite DNA, which contains repeat blocks of 2 to 9 base pairs commonly known as short tandem repeats (STRs).<sup>4,5</sup>

### **Y-Chromosomal DNA**

The human Y chromosome is approximately 60 million base pairs in size. Unlike nuclear DNA, Y chromosomal DNA is passed from father to son and is transferred along the paternal lineage, commonly referred to as a haploid fashion of inheritance. The Y chromosome plays a central role in human biology. The presence or absence of this chromosome determines gender. Therefore, the presence of a Y chromosome in a developing embryo results in a male child, and those without it become female.<sup>6</sup> Approximately 50% of its genome comprises repetitive DNA. More than 200 microsatellites and a single minisatellite are identified on the Y chromosome. The degree of variation within these markers is comparable to their autosomal (non-sex chromosomes) counterpart and therefore has made the genetic analysis of the Y chromosome a valuable tool in forensic identity testing.<sup>4</sup>

### **Mitochondrial DNA**

In addition to nuclear DNA, eukaryotes contain another form of DNA, which resides within the mitochondrion. Human mitochondrial DNA (mtDNA) is a circular genome composed of 16,569 base pairs and codes for 37 genes, mainly responsible for energy production within the cell. This makes the mitochondrial genome approximately 4000 times smaller than the Y chromosome. mtDNA is inherited in a haploid fashion, strictly from our mothers, making mtDNA the Y chromosome female counterpart. Therefore, all individuals along the same maternal lineage share a common mtDNA type. The complete nucleotide sequence of the extranuclear genome was reported in 1981.<sup>7</sup>

Base-substitution mutation rates of mtDNA have been calculated at approximately ten times the rate of nuclear DNA resulting in a high degree of genetic diversity. The displacement loop (D-loop), which is situated within the mitochondrial control (noncoding) region, is one of the most polymorphic regions in the entire genome. Two regions of increased polymorphism were discovered through sequence comparison of the 680-bp (base pairs) D-loop region among human, bovine, and rat genomes. These regions are referred to as the hypervariable region I and hypervariable region II. There are several hundred to thousands of mitochondria per cell, with multiple copies of the mtDNA genome per mitochondrion as compared with one nucleus and one copy of the nuclear genome per cell. Therefore, in highly degraded samples, the chance of obtaining mtDNA is greater than it is for nuclear DNA. These inherent characteristics (maternal inheritance, high degree of molecular polymorphism, and high copy numbers) make this genome a powerful alternative to nuclear DNA testing.<sup>8</sup>

## **Techniques and Procedures in Forensic DNA Analysis**

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### **Collection and Preservation of Biological Evidence**

The most crucial role in the examination of biological evidence is its method of collection and preservation. The integrity of forensic evidence has always been the burden of the crime scene investigator, who must assure that proper evidence collection procedures are followed because improper collection and preservation may compromise DNA evidence. Because there is a chance that biological evidence may contain hazardous pathogens such as the hepatitis B virus and the human immunodeficiency virus (HIV), crime scene investigators must be trained in the methods of universal precautions. What is noteworthy is that the same precautions that protect the crime scene investigator from biological pathogens also protect the integrity of DNA evidence.

At the least, the use of disposable Tyvex jump suits, respirators, and latex examination gloves will minimize the chances of introducing DNA contaminants. DNA contamination can be defined as the introduction of nonrelated DNA from an external source into a DNA sample relevant to the crime. The latest DNA technology, known as the polymerase chain reaction (PCR), utilizes trace amounts of DNA; therefore, the potential of contamination must be addressed by crime scene investigators and laboratory personnel. Sterile techniques should always be employed even if the crime scene investigator has been summoned to a “nonDNA” scene. There is no guarantee that physical evidence initially collected for the sole purpose of criminalistics (e.g., latent fingerprints) will not require DNA analysis at a later date.

There are essentially three methods of collection: (1) swabbing, (2) cutting, and (3) recovery of the entire item. Each method has a specific purpose and should be utilized in an effort to preserve forensic evidence. Any instruments used in the collection of evidence (i.e., scissors, razors, tweezers, etc.) must be sterilized prior





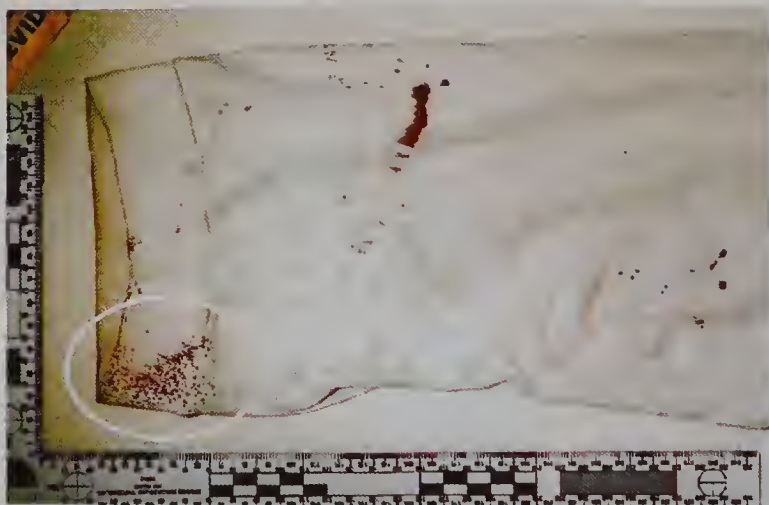
**Figure 16.5 EVIDENCE TECHNICIAN AT CRIME SCENE WEARING TYVEX SUIT.** This photos depicts a properly outfitted ERT technician processing a bloodstain in the crime scene. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)



**Figure 16.6 EVIDENCE TECHNICIAN SWABBING BLOODSTAIN.** Close-up photo of an ERT swabbing a bloodstain in a crime scene. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)

to the collection of each sample unless disposable devices are used. The use of a 10% bleach solution followed by a 90 to 100% ethanol solution is the most common method of sterilization. Because of its versatility and reliability, the most common method of collecting DNA evidence is swabbing. This method can be used for liquid and dry bloodstains from nonporous surfaces. Sterile, individually wrapped cotton-tipped applicators are commercially available for this method. For dried stains, the cotton swab should be moistened with sterile water. When a sufficient sample exists, the entire cotton swab (or multiple swabs) should be used to collect the sample. For small stains or control samples of nonstained areas less than 1/8 in., the sample should be concentrated at the tip of the cotton swab. These samples may not be visible, especially if the sample collected does not cause the swab to stain.

As a general rule, forensic biologists sample the top third of swabs submitted to the laboratory; therefore, concentrating the sample on the tip of the swab assures it will be maximized for DNA analysis. Biological evidence should be collected by cutting when swabbing or collection of the entire item is not possible, especially when dealing with porous surfaces (i.e., fabric) that may prevent sufficient samples from being collected by the swabbing method. Stains from clothing recovered from victims, suspects, or witnesses should not be removed because the stain may be part of a pattern that could be more probative than the DNA evidence. For these instances, the collection of the entire item is recommended.



**Figure 16.7 BLOODSPATTER PATTERN.** The right sleeve of a bloodstained shirt worn by a defendant during the commission of a stabbing is represented. The victim was fatally stabbed through the left lung and heart. When questioned by case detectives, the suspect claimed to have been nowhere near the vicinity of the victim during the stabbing and that another gang member was responsible. Submission of the entire item enabled the association of the victim's DNA profile with a distinct bloodspatter pattern. The bloodspatter pattern circled was theorized to have been produced by expiratory blood from the victim. Because this type of bloodspatter cannot be projected for long distances, the suspect's statement was refuted. When confronted with the evidence, the suspect admitted to his role in the crime and accepted the plea bargain offered to him. This case exemplifies collection and submission of the entire item for DNA analysis. (Information from Dr. Pasquale Buffolino, Ph.D., director of Department of Forensic Genetics, Nassau County Medical Examiner's Office.)



Also, at some scenes blood and other relevant biological fluids are not detected on probative items. The crime scene investigator should consider collecting the entire item for a more thorough examination under the controlled environment of the laboratory.

Regardless of the method of collection, all stains, swabs, and all other wet evidence must be thoroughly air dried before packaging. Crime scene investigators are aware that this is sometimes not an easy task, especially for blood-soaked items. Packaging samples wet in airtight containers (e.g., plastic containers) promotes bacterial degradation of DNA and thus the potential for sample loss. Wet swabs should be air dried completely before packaging or packaged in commercially available kits that promote drying.

Large, blood-soaked items may be packaged in a plastic container to protect others from hazardous material, which can soak through paper packaging, but only for the purposes of transport. The item must be air dried completely, preferably under a biological fume hood to advance the drying process, and then packaged properly. To prevent cross-contamination between items, each item must be packaged separately and sealed in a manner to prevent loss or deleterious change from occurring.

### **Scheduling Analysis**

Advancements in forensic DNA technology have led to a significant increase in the number of samples collected during crime scene investigations. For this reason, investigators and attorneys should discuss the probative nature of evidence submitted to the laboratory. There should be a general understanding of how each item relates to the crime and analysis should be prioritized according to the level of importance. Considerations should be made to minimize the testing of nonprobative case evidence because this type of evidence creates extreme bottlenecks in DNA laboratories and its forensic relevance seldom outweighs the cost of analysis.

In most cases, items recovered in connection with violent crimes will require a battery of forensic examinations. Considerations must be made concerning the preservation of all types of evidence — latent, trace, ballistics, DNA, etc. — because one type of examination may destroy another. For example, a firearm should not be submitted to ballistics prior to DNA analysis if there is sufficient cause to believe that blood can be recovered from within the barrel of the weapon. Firing the weapon would greatly reduce the chances of recovering blood, whereas swabbing for the presence of blood will have no effect on ballistics.

One of the most important relationships with the forensic DNA laboratory is that with the latent fingerprint laboratory. The two forensic disciplines must function symbiotically for the benefit of latent and DNA evidence because DNA profiles can be developed from fingerprints. Points of entry (doors, windows, etc.) are common areas dusted for fingerprint evidence. DNA from these areas would be difficult to recover without identification of prints through latent examination. Several studies disprove the detrimental effect of dactyloscopic methods on the ability to develop DNA profiles.<sup>9,10</sup>



Therefore, in most cases, latent print examination should be performed before DNA analysis because DNA swabbing will destroy latent prints. In any situation where one form of examination may consume another form of forensic evidence, investigators, attorneys, and laboratory personnel must determine which science will result in the greater probability of success and at the same time offer sufficient probative value. Open lines of communication are extremely important in the preservation of forensic evidence, and therefore, submitting agencies should make every effort to inform the laboratory of the nature of their evidence and have a general understanding of the analysis they request.

## DNA Extraction

DNA from biological samples recovered from crime scenes must be liberated from the cell prior to DNA analysis using a specific method known as DNA extraction. Essentially, DNA must be separated from other cellular material in a series of steps aimed to purify the DNA molecule. Three general types of DNA extraction methods are commonly used in DNA analysis: (1) organic extraction, (2) Chelex extraction, and (3) magnetic bead extraction. Each method varies mechanistically, and the type chosen is dependant upon the type of sample being examined.

One of the oldest and most common DNA extraction methods is the organic extraction method. In this method, the cell walls and nuclear membranes are disrupted through the use of enzymes, which break down proteins involved in maintaining their structural integrity, and a detergent that is equally disruptive to the membrane. The DNA is then isolated by adding a mixture of organic solvents, which forces the DNA into the top aqueous layer. This layer is transferred to a filtration cartridge where the DNA is purified and concentrated. The method is long and laborious but results in a high yield of undegraded (high molecular weight) DNA and is useful when dealing with low-level, degraded DNA samples.

Geberth<sup>11</sup> presents a graphic representation of the original DNA process for clarification and understanding of the DNA extraction process prior to the current STR/PCR technology (see Figure 16.9). This results in an electropherogram instead of an autoradiograph, illustrating how DNA technology has evolved in the new millennium.

The Chelex extraction method is a simpler, more rapid method compared with the organic extraction method. Introduced in 1991,<sup>12</sup> the method requires fewer steps, thus minimizing the chances of cross-contamination. A crude yet stable product of low molecular weight DNA is obtained. Chelex extraction does have certain drawbacks because the extracted product is not as pure or concentrated as organically extracted DNA. The method is quick and reliable, especially for simple samples such as bloodstains or buccal swabs submitted as known comparison samples for victims and suspects.

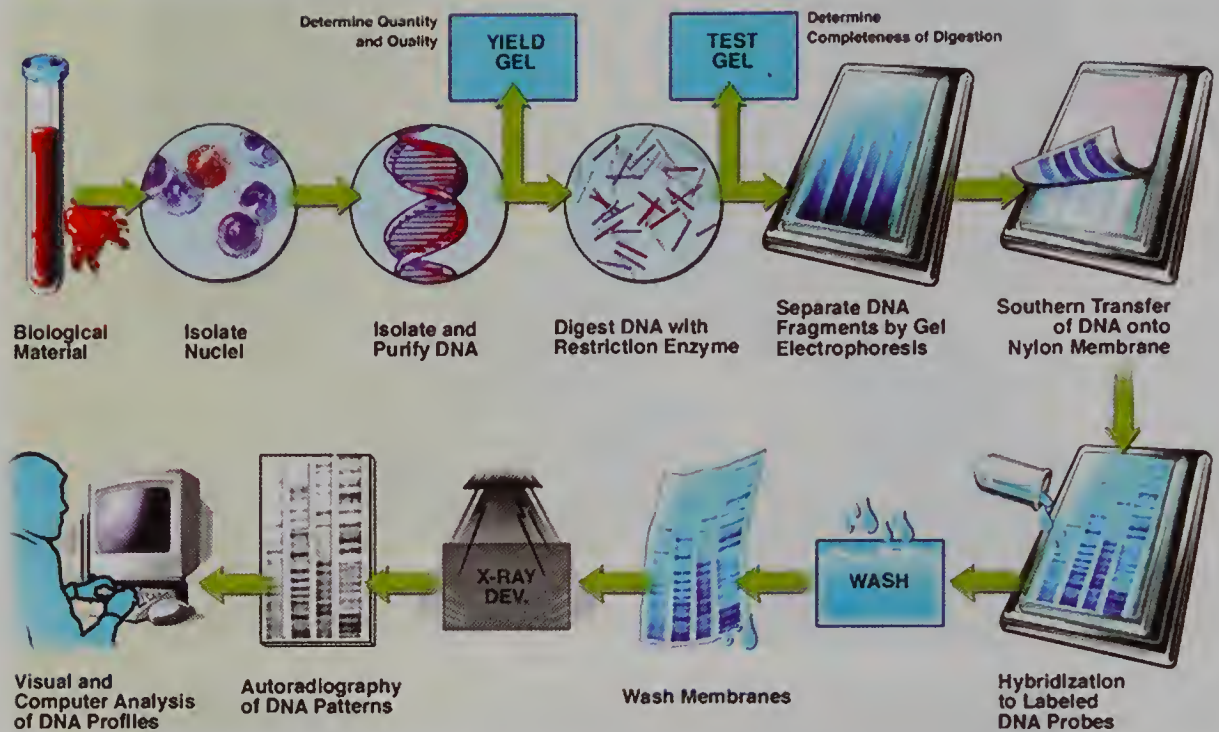
One of the most efficient extraction procedures available to forensic DNA laboratories is the magnetic bead extraction. This technology has been available since the early 1990s; however, it was not a major application in forensic DNA laboratories until the introduction of robotic workstations. In this method, a mag-



**Figure 16.8 EXTRACTION.** A forensic DNA analyst extracts DNA from a bloodstain of unknown source from an item of evidence. (Courtesy of Fred Drummond, chief of Forensic Sciences, Westchester County, New York, Forensic Laboratory. Photographer: Carlos Morales.)

netic bead is coated with a highly specific DNA-binding surface that has no affinity for other cellular contents or PCR inhibitors commonly associated with the substrates of crime scene evidence. Following a short incubation period, the magnetic bead–DNA complex is placed into a magnet, where it is immobilized to the side of the reaction tube. The supernatant (liquid) containing all but DNA is removed from the reaction, leaving behind a highly purified DNA extract. The major advantage of this type of extraction is that it is easily automated and can be used for all types of forensic specimens.





**Figure 16.9 ORIGINAL EXTRACTION PROCESS.** The DNA-Print™ process. (Courtesy of Lifecodes Corporation, Stamford, Connecticut.)



**Figure 16.10 THE QIAGEN M48 BIOROBOT.** The Qiagen M48 BioRobot is designed to make the extraction of DNA samples less time consuming. The robot automatically transfers reagents and samples from tube to tube using magnetic beads to hold the DNA and allow its purification. (Courtesy of Fred Drummond, chief of Forensic Sciences, Westchester County, New York, Forensic Laboratory. Photographer: Keith Mancini.)



## Differential DNA Extraction

Forensic evidence recovered in connection with sexual offenses is collected with the use of standardized rape kits. The swabs utilized to recover evidence most often contain a mixture of DNA from the victim (epithelial cells from the vaginal wall) and assailant (sperm cells).<sup>13</sup> These cell mixtures can be separated using a differential analysis procedure commonly employed in forensic casework.<sup>14</sup> With this procedure, DNA from the semen donor can be separated from the victim's DNA using modifications of the extraction methods discussed previously. The method takes advantage of the robustness of the sperm cell membrane and enables the independent typing of the semen donor's DNA.

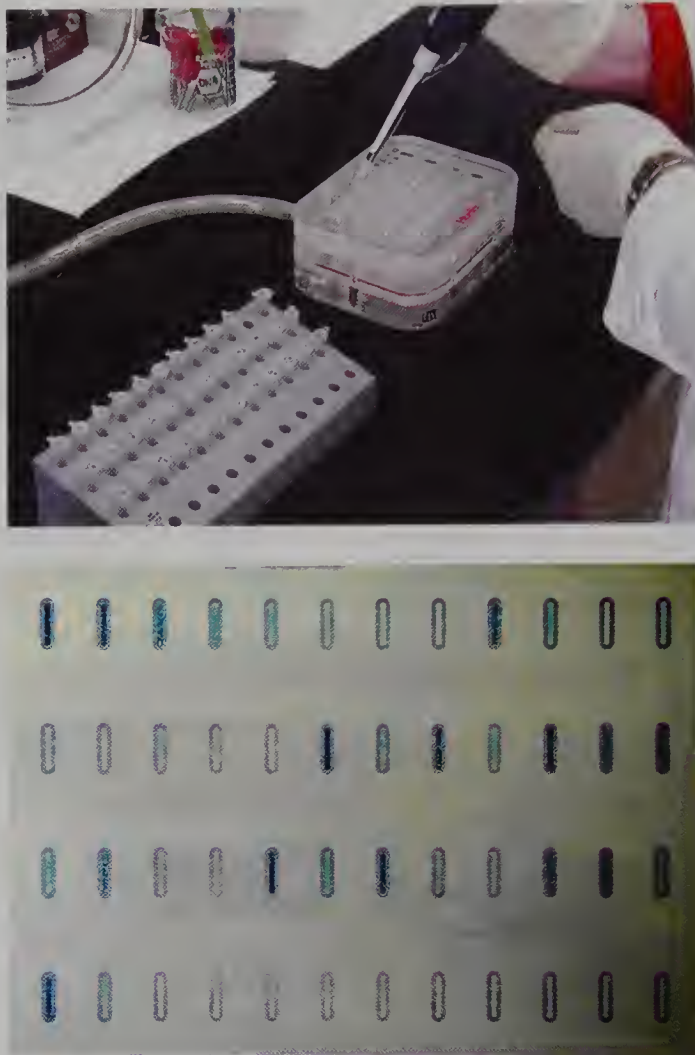
## DNA Quantification

Following the extraction procedure, the amount of isolated DNA must be quantified. Determining the concentration of DNA in a sample extract is essential for the PCR process. Validation experiments have shown that specific concentrations of DNA are required per reaction to achieve optimal results. Three types of quantification methods employed in modern forensic laboratories are (1) slot blot hybridization, (2) chemiluminescent microtiter plate assay, and (3) quantitative PCR (qPCR).

The most common method currently used in forensic laboratories is the slot blot method. A sample of extracted DNA is immobilized on a nylon membrane using a slot blot apparatus equipped with a vacuum source. The DNA extract is loaded into a well of the apparatus and forced through the membrane by suction. DNA standards of known quantity are included in the test with the sample extracts. In a process known as DNA hybridization, a human- and primate-specific DNA probe is introduced to the immobilized DNA and binds it. The amount of DNA is determined through a reaction which causes the DNA to turn into a visible blue band. An alternative to this colorimetric reaction is a process known as chemiluminescence, where chemicals are used that cause DNA to give off a wavelength of energy, which exposes x-ray film similar to the common medical x-ray. The DNA is quantified by comparing the unknown samples with the known DNA standards.

The second method, chemiluminescent microtiter plate assay, can be performed in a variety of manners; however, this discussion will be limited to the Promega AluQuant™ Human DNA Quantitation System. This system has three advantages over the conventional slot blot hybridization method: (1) human specificity, (2) sensitivity, and (3) amenability to robotic automation. AluQuant functions through a series of reactions that produces a precursor (adenosine triphosphate or ATP) that powers a light-emitting reaction. The amount of light emitted is relative to the amount of DNA in the sample and, as with the slot blot hybridization method, the samples are compared to known DNA standards. DNA concentrations are calculated by an instrument known as a luminometer, which measures the amount of light emitted by the samples.

The most sensitive and accurate method of DNA quantification is qPCR. Using real-time PCR (RT-PCR) technology pioneered by Applied Biosystems (ABI), trace

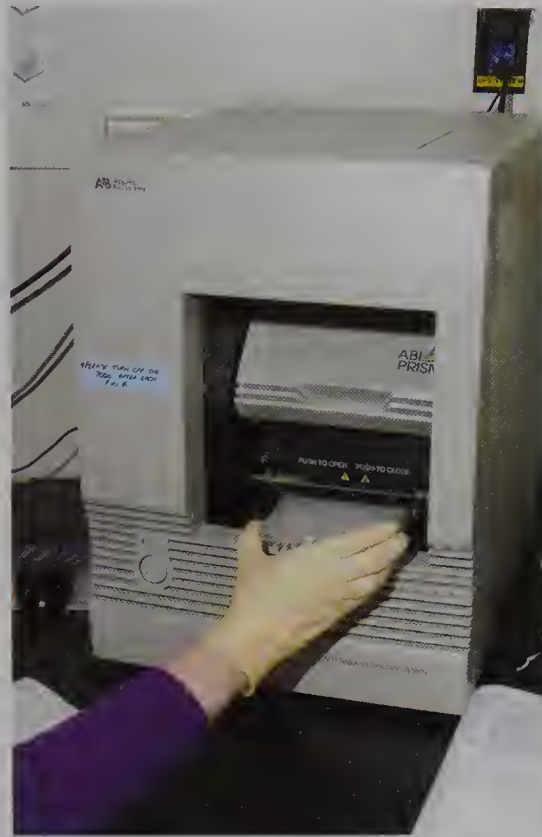


**Figure 16.11** QUANTIBLOT™. The Quantiblot is a procedure to approximate the quantity of DNA present in a sample. Standards are loaded into the top row of the Quantiblot and forensic samples are placed in the rest of the wells. The amount of DNA present in a sample is proportional to the intensity of the color band produced in each sample well relative to the standards. (Courtesy of Fred Drummond, chief of Forensic Sciences, Westchester County, New York, Forensic Laboratory. Photographer: Carlos Morales.)

quantities of DNA can be quantified. Because the system uses sequence-specific probes labeled with fluorescent tags, several regions of DNA can be quantified simultaneously or multiplexed. In one reaction, total genomic DNA, Y-chromosomal DNA, and mtDNA can be quantified because each region of DNA is tagged with a different fluorescent color detected by the RT-PCR instrument. This system has had tremendous impact on the forensic community because it is able to detect male-specific DNA at an increased level of sensitivity as compared with the identification of sperm or semen using the methods of conventional serology.

### **DNA Amplification (Polymerase Chain Reaction)**

PCR was discovered in 1983 by an American chemist named Kerry Mullis, who was awarded a Nobel Prize in 1993. The theory of PCR was derived from the cell's ability to replicate DNA. With this technology, unlimited copies of DNA can be

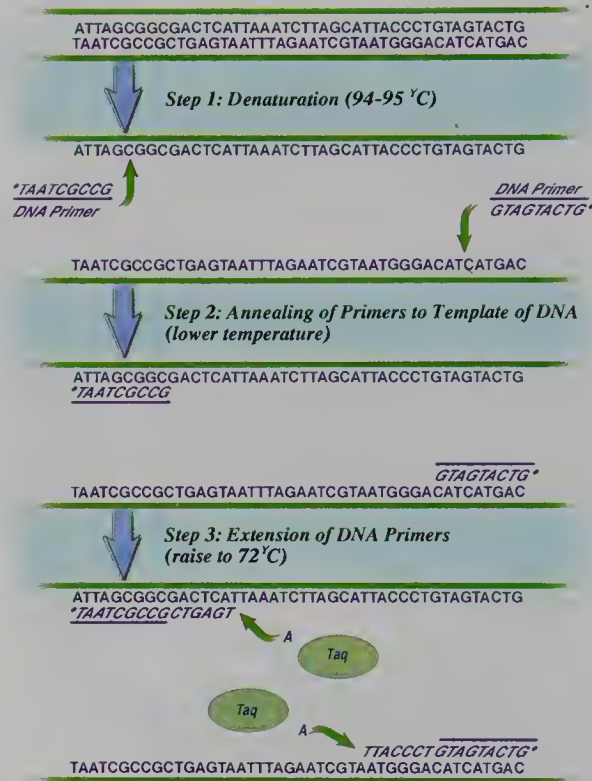


**Figure 16.12 REAL TIME PCR.** “Real time PCR” is a new technique used to determine the quantity of DNA present in a sample relative to a set of standards. It works by amplifying the DNA in each sample with fluorescent primers. The change of fluorescence is recorded by camera and analyzed by a computer. The calculated value is used to determine the amount of amplifiable DNA present in a sample. (Courtesy of Fred Drummond, chief of Forensic Sciences, Westchester County, New York, Forensic Laboratory. Photographer: Keith Mancini.)



**Figure 16.13 THERMAL CYCLER.** The thermal cycler is used to carry out the polymerase chain reaction (PCR) for replication of forensic DNA samples. (Courtesy of Fred Drummond, chief of Forensic Sciences, Westchester County, New York, Forensic Laboratory. Photographer: Keith Mancini.)



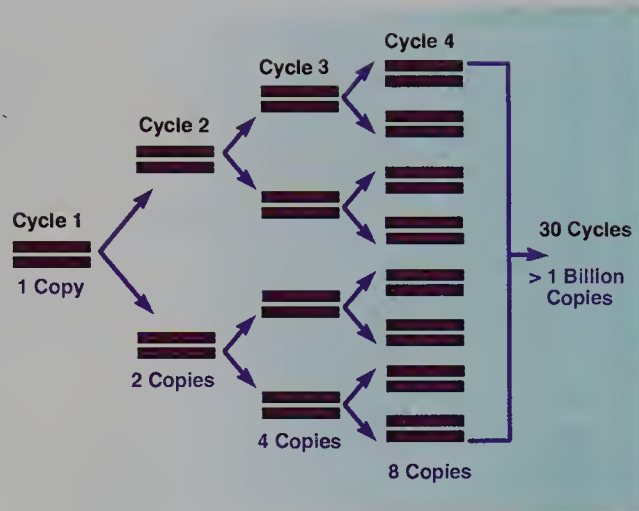


**Figure 16.14 GRAPHIC REPRESENTATION OF THE PCR PROCESS.** One cycle of PCR is represented. DNA is first separated during the denaturation step (step 1) by heating the reaction to 94 to 95°. Now in single-stranded form, DNA primers can bind to the regions of interest on each strand during the annealing step (step 2). Once bound, the primers are extended by *Taq* DNA polymerase (step 3). At this particular phase of extension, DNA polymerase has added six bases to the top strand and seven to the bottom strand and is in the process of adding the next base (A for both strands). The reaction will continue, repeating the three steps of each cycle, for approximately 30 cycles, producing 100 billion copies of the specific region of DNA. (Information by Dr. Pasquale Buffolino, Ph.D., director of Department of Forensic Genetics, Nassau County, New York, Medical Examiner's Office. Figure courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doereport.com.)

created from trace quantities of DNA in the laboratory using an instrument known as a thermal cycler. This breakthrough in technology has revolutionized forensic science and the way in which crimes are investigated and solved.

PCR is a three-step process involving repetitive cycles of heating and cooling of the DNA sample reaction according to a preprogrammed set of temperatures. In a single tube, all of the components required to replicate 100 billion copies of a DNA template are added. The reaction requires isolated DNA; fluorescent-tagged sequence-specific primers, which bind and flank to the DNA of interest; all four nucleotide bases in the form of deoxynucleotide triphosphates (dNTPs); a solution containing salts, which stabilize the reaction; and an enzyme known as *Taq* DNA polymerase, which drives the reaction. Amplification occurs by the following process:

Step 1: *Denaturation*. Prior to the duplication process, double-stranded DNA must be separated into single strands by a process known as denaturation.



**Figure 16.15 SCHEMATIC REPRESENTATION OF THE DNA DUPLICATION PROCESS OF PCR.** Following four cycles of PCR, eight identical copies of the original DNA region are produced. Because DNA is replicated in exponential fashion, cycles five, six, and seven will produce 16, 32, and 64 copies, respectively. At the completion of a 30-cycle reaction, greater than 1 billion copies are duplicated. (Information by Dr. Pasquale Buffolino, Ph.D., director of Department of Forensic Genetics, Nassau County, New York, Medical Examiner's Office. Figure courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doerreport.com.)

Denaturation occurs by heating the DNA sample to a temperature between 94 and 95°C for approximately 45 seconds or longer.

**Step 2: Annealing of primers to template DNA.** Small segments of single-stranded DNA approximately 20 bases in length, known as DNA primers, are constructed to bind specific regions of DNA by cooling the sample to a precalculated temperature. The temperature is crucial to this step because lower than optimal temperatures will result in sequence artifacts and temperatures too high will result in no amplification products.

**Step 3: Extension of DNA primers.** Extension is carried out at an optimal temperature (72 to 78°C) for the duplication of DNA. The reaction is driven by a heat-stable enzyme known as Taq polymerase, which places the correct base into the elongating strand at a rate of approximately 2000 bases per second. Following approximately 30 cycles of denaturation, annealing, and extension, sufficient copies of template DNA are available for the detection of amplification product and the development of DNA profiles.

### Multiplex PCR Analysis

Developing a genetic profile at a single region of DNA would not be sufficient to link individuals to crimes because the probability that multiple individuals share the same genetic profile at a single region is high. Therefore, several regions must be analyzed. To facilitate this, a system known as multiplex PCR analysis is used in forensic casework. Discovered in 1998, multiplex PCR enables the simultaneous amplification of multiple regions of DNA in a single PCR process.<sup>15</sup>

## **STR Multiplex PCR Analysis**

Multiplex PCR analysis of STR DNA is the most commonly used technology in forensic DNA laboratories today. The relatively small size of STR markers, along with the capability of combining several DNA loci into a PCR multiplex, has made them well suited for the analysis of highly degraded DNA samples associated with forensic casework. Several multiplex PCR systems are commercially available to analyze autosomal and Y-chromosomal DNA. The Applied Biosystems (ABI) AmpFLSTR® Cofiler™, AmpFLSTR® Profiler Plus™, and AmpFLSTR® Identifiler™ systems offer the simultaneous amplification of 7, 10, and 15 autosomal STR loci, respectively. These autosomal systems have been designed to support the 13 CODIS specific DNA loci included in the Federal DNA Database (FGA, vWA, CSF1PO, TH01, TPOX, D3S1358, D5S818, D7S820, D8S1179, D13S317, D16S539, D18S51, and D21S11). The Promega Corporation PowerPlex® Y System offers the simultaneous amplification of 12 Y-chromosomal STR loci.

## **Amplification of mtDNA**

Although the process of mtDNA analysis differs from STR DNA analysis, the hypervariable regions of mtDNA must also be amplified from trace quantities of DNA extracted from crime scene samples. Because mtDNA differs in base sequence composition and not in length as STR DNA does, the precise genetic base composition must be determined using a process known as cycle sequencing. Cycle sequencing is performed in the same thermal cycler used for PCR.

## **DNA Detection and Analysis**

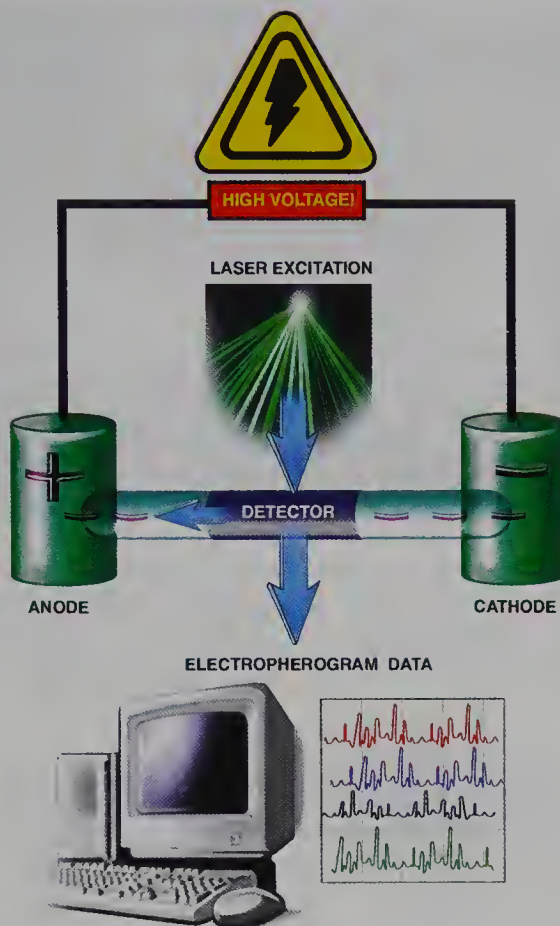
Detection of amplified fragments can be done in a variety of manners; however, the most popular format is capillary electrophoresis (CE). CE is a method capable of separating amplified fragments of DNA by size; smaller fragments migrate faster than larger fragments through a narrow capillary that functions as a “molecular sieve.” An electrical current is applied across the capillary, which causes the negatively charged DNA fragments to migrate toward the anode or positive electrical field. As the fluorescent-labeled fragments migrate through a laser field, they are excited, giving off a specific emission recorded by a camera and sent to a computer workstation used to analyze the data. The CE method for DNA separation is fairly new and relatively simple.

More importantly, the entire procedure is completely automated, beginning from sample injection to result output. Depending upon case-throughput requirements, CE instrumentation is available in single-sample injection or multiple-sample injection formats. The majority of forensic laboratories utilize CE instrumentation manufactured by ABI (ABI Prism Genetic Analyzer series).

## **STR DNA Analysis**

DNA fragment data recorded on the ABI Prism Genetic Analyzer CE series is analyzed using genetic software supplied by ABI. Genetic data are recorded in the





**Figure 16.16 SCHEMATIC REPRESENTATION OF CAPILLARY ELECTROPHORESIS.** Capillary electrophoresis is used to separate DNA fragments based upon their size. An electrical current is applied through a thin tube known as a capillary that acts as a molecular sieve. Negatively charged DNA molecules migrate through the capillary towards the anode (+) with smaller DNA fragments migrating faster than larger fragments. As the fragments move through the detector, their tags are excited by a laser, which causes them to fluoresce. The fluorescent emission is sent to a computer workstation where data are acquired and analyzed. Electronic data are recorded in a form known as an electropherogram. (Information by Dr. Pasquale Buffolino, Ph.D., director of Department of Forensic Genetics, Nassau County, New York, Medical Examiner's Office. Figure courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

form of peaks, which represent the STR repeat length for each fragment. The repeats are determined electronically by comparing the migration of the fragments to internal standards.

The autosomal multiplex systems discussed have the inherent capability of gender typing along with the ability to determine an individual, specific DNA profile at 13 forensically informative regions supported by CODIS. The PowerPlex Y System has the ability to determine a male specific DNA profile at 12 STR regions.

### mtDNA Analysis

mtDNA analysis can also be performed on the ABI Prism Genetic Analyzer; however, the detection of sequence data differs from that for STR data. In this system, each



**Figure 16.17 CAPILLILARY ELECTROPHERSIS UNIT.** Forensic analyst Jennifer Reilly places samples in the ABI Pism 310 capillary electrophoresis (CE) unit. This instrument will analyze fragments of DNA to obtain a genetic profile. (Courtesy of Fred Drummond, chief of Forensic Sciences, Westchester County, New York, Forensic Laboratory. Photographer: Keith Mancini.)

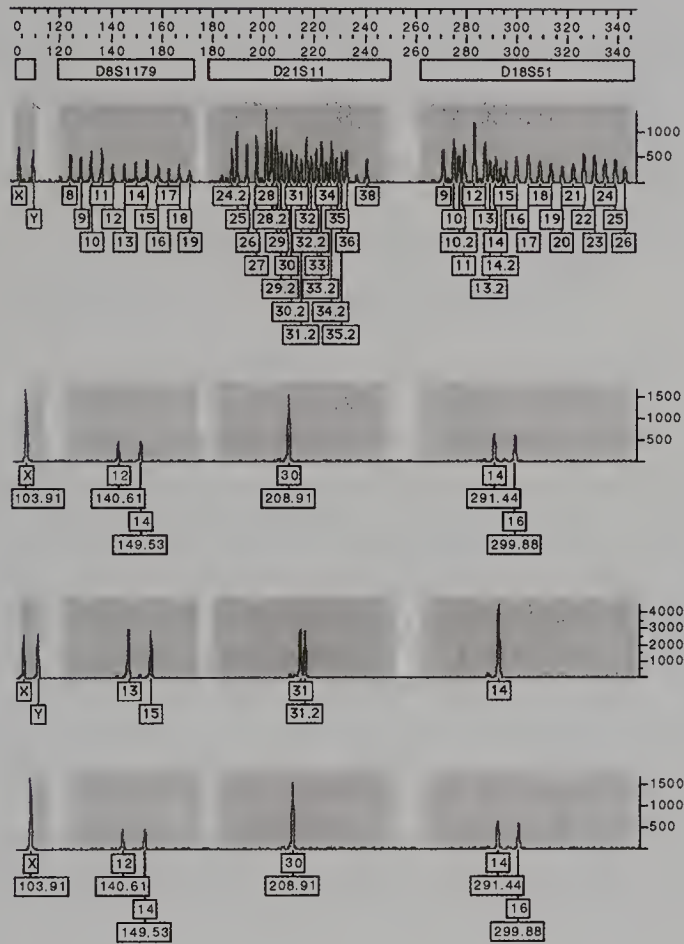
base of mtDNA is recorded as a fluorescent-labeled peak, with each peak representative of the specific base in the fragment of mtDNA. The complete base composition of the mitochondrial region is compared with a mitochondrial reference sequence known as the Cambridge reference sequence,<sup>16</sup> and any differences between this reference and the evidentiary material are recorded with known samples.

## STR DNA Databases

### *Population Statistics*

The statistical significance of a DNA match must be considered because there are two possibilities for a match: (1) the DNA profile from the crime scene sample originated from the suspect; or (2) the DNA profile originated from someone other than the suspect who consequently has the same DNA profile as the suspect. If the profile observed is uncommon within the population, the probability of the first scenario is more likely than the second. If the profile is common within the population, the second scenario is possible, depending upon its frequency of occurrence.

Profile frequencies are calculated using population databases constructed from a random group of individuals categorized according to their ethnicity (e.g., Caucasian, Black, Hispanic, Asian). Profile frequencies for autosomal STRs are expressed in terms of random match probabilities or the chance that some individual other than the included (i.e., the suspect) would possess the same DNA profile. Similar databases exist for Y-chromosomal STRs and mitochondrial DNA; however, frequencies are not calculated the same as for autosomal STR databases. Results are expressed in the number of times a particular haplotype has been observed in the database (e.g., three observances in 100,000 samples searched). Therefore, estimates of haplotype rarity depend upon the size of the haplotype database used.



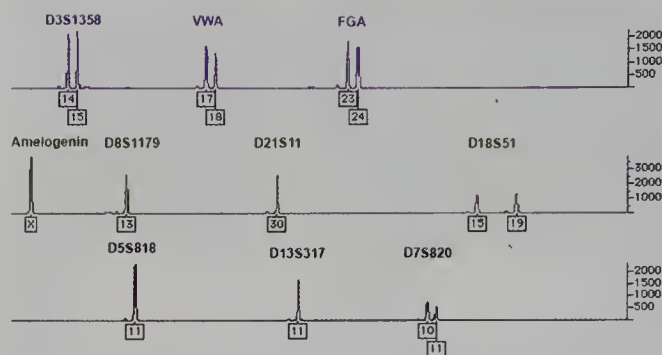
**Figure 16.18 ELECTROPHEROGRAM.** DNA analysis can be used to compare body fluid stains. In this sample, a bloodstain was found on a suspect's shirt. The evidence sample, samples from the victim and suspect, is submitted for DNA analysis. The resultant electropherogram shows that the DNA profile from the blood on the suspect's shirt matches the victim's DNA profile. (Courtesy of Fred Drummond, chief of Forensic Sciences, Westchester County, New York, Forensic Laboratory.)

With the STR systems employed today, population frequencies far greater than the population of the Earth (approximately 6.2 billion people) are calculated. The magnitude of these estimates is such that it is unlikely that two people, excluding identical twins, would possess the same DNA profile. As a result, laboratories have been reporting, with reasonable scientific certainty, that an included individual is definitively the source of a biological sample.<sup>17</sup> This method is commonly referred to as "source attribution."

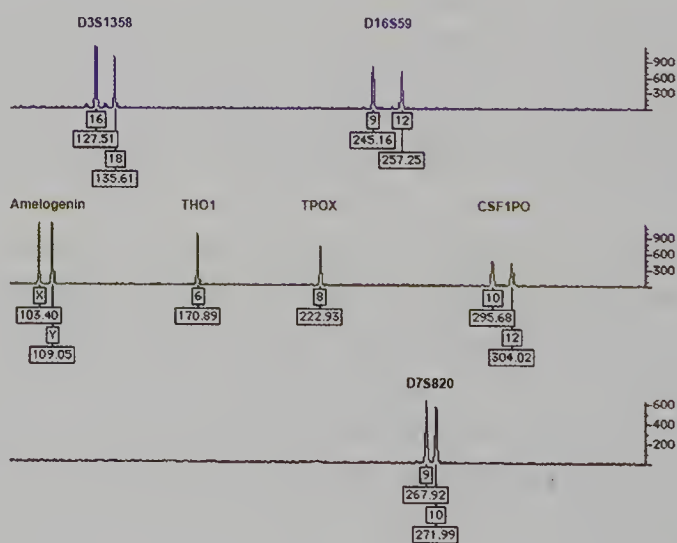
### CODIS

The national DNA database known as the *Combined DNA Index System* (CODIS) began as a 14-state pilot study in 1990. The program expanded nationally as a result of the 1994 DNA Identification Act (Public Law 103 322) giving the FBI legal authority to establish a DNA database for the nation's criminal justice system. Today, all 50 states participate in the CODIS program, which is composed of two main DNA indices: a forensic index that contains DNA profiles developed from crime scene-related evidence and a convicted offender index containing DNA pro-





**Figure 16.19A AmpFLSTR® Profiler Plus™ DNA FRAGMENT ANALYSIS.** Graphic representation of Profiler Plus electropherogram data collected on an ABI 310 Prism Genetic Analyzer and analyzed with ABI GenoTyper™ analysis software. The Profiler Plus multiplex system amplifies ten DNA regions (loci) simultaneously. The name of each region of DNA is specified above its peak data. The peaks are representative of the number of repeat units contained in the amplified STR fragment. Because we inherit one allele from our mothers and one from our fathers, a normal individual has two DNA alleles at any given DNA locus. For example, the individual represented in this electropherogram contains a 14- and 15-repeat fragment in D3S1358 (repeat length represented below each peak "□"). If the individual inherits the same allele from his mother and father (i.e., 13 from mother and 13 from father), a single peak is detected (i.e., D8S1179). The gender of the individual can also be determined from the Profiler Plus amplification system. In this example, the amelogenin locus displays an X chromosome consistent with a female individual. (Courtesy of Dr. Pasquale Buffolino, Ph.D., director of Department of Forensic Genetics, Nassau County, New York, Medical Examiner's Office.)

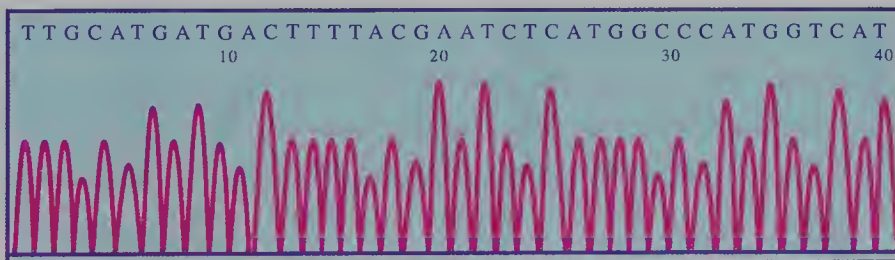


**Figure 16.19B AmpFLSTR® COfiler™ DNA FRAGMENT ANALYSIS.** Graphic representation of COfiler electropherogram data collected on an ABI 310 Prism Genetic Analyzer and analyzed with ABI GenoTyper™ analysis software. The COfiler multiplex system amplifies seven DNA regions (loci) simultaneously. The theoretical basis for this system is identical to the Profiler Plus amplification system. In this example, the amelogenin locus displays an X and Y chromosome consistent with a male individual. As a quality control measure, two regions within this system (D3S1358 and D7S820) overlap with Profiler Plus (refer to Figure 16.8 top). (Courtesy of Dr. Pasquale Buffolino, Ph.D., director of Department of Forensic Genetics, Nassau County, New York, Medical Examiner's Office.)



**Figure 16.19C PowerPlex™ Y System DNA FRAGMENT ANALYSIS.** Graphic representation of PowerPlex Y system electropherogram data collected on an ABI 310 Prism Genetic Analyzer and analyzed with the Promega Corporation PowerTyper™ genotype analysis software. The PowerPlex Y System amplifies 12 male-specific Y STR regions (loci) simultaneously. The peak results are recorded in the same manner as in the ProfilerPlus and Cofiler systems (refer to Figure 16.8). (Courtesy of Dr. Pasquale Buffolino, Ph.D., director of Department of Forensic Genetics, Nassau County, New York, Medical Examiner’s Office.)

**A**



**B**

Cambridge Reference: TTGCATGTTGACTATTACCAATCTCATAGACCATGGTCAT  
 Unknown Skeletal Remains: TTGCATGATGACTTTTACGAATCTCATGGCCCATGGTCAT  
 Sequence Polymorphism: - - - - - A - - - - - T - - - - - G - - - - - G - C - - - - -

**Figure 16.20 MITOCHONDRIAL DNA (mtDNA) SEQUENCE ANALYSIS DATA.** (A) Sequence data corresponding to 40 bases within the region of mtDNA examined. Each peak is representative of a fluorescently labeled base recorded during electrophoresis. (B) Sequence alignment of forensic data (unknown skeletal remains) to the Cambridge Reference Sequence. Results are recorded as differences (polymorphisms) to the reference sequence. (Information by Dr. Pasquale Buffolino, Ph.D., director of Department of Forensic Genetics, Nassau County, New York, Medical Examiner’s Office. Figure courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doereport.com.)

files from qualified convicted offenders. A qualified convicted offender is an individual who has been convicted of a crime in federal, state, and/or local courts where the applicable law permits establishment of a DNA record for the convicted person.

The two indices are searched automatically for matching DNA profiles. The FBI, which funds the program, requires that all participating laboratories utilize the same 13 STR. CODIS is structured as a three-tier hierarchy: a local DNA index system (LDIS), a state DNA index system (SDIS), and a national DNA index system (NDIS). With this approach, each participating laboratory can manage its profiles in accordance with its legal requirements and, at the same time, compare its profiles electronically with other local and state laboratories and the federal laboratory.

### ***National Missing Persons DNA Database***

DNA databases can also be used to determine the identity of a missing person. Ideally, the individual's DNA would be the most practical sample to determine an identity; however, DNA from missing persons is not always available. In these types of cases, familial DNA from parents can be used to identify individuals through DNA. A National Missing Persons DNA Database has been established through CODIS. DNA from unidentified remains is compared with a database of DNA samples given voluntarily by family members to establish genetic links.

### ***The Choice of Analysis***

The method of analysis is determined based upon the type and quality of the evidentiary material encountered and, ultimately, the ability to develop a DNA profile. Samples can be grouped into three categories: (1) nonmixture/high-level DNA, (2) mixtures/high-level DNA, and (3) highly degraded/low-level DNA. Quite often, an experienced scientist can place a sample into one of these specific categories. This ability is critical to the preservation of biological evidence. When this is not possible, the standard flow of evidence processing will dictate the type of analysis required. An example of a case analysis workflow is described in the flow chart in Figure 16.21.

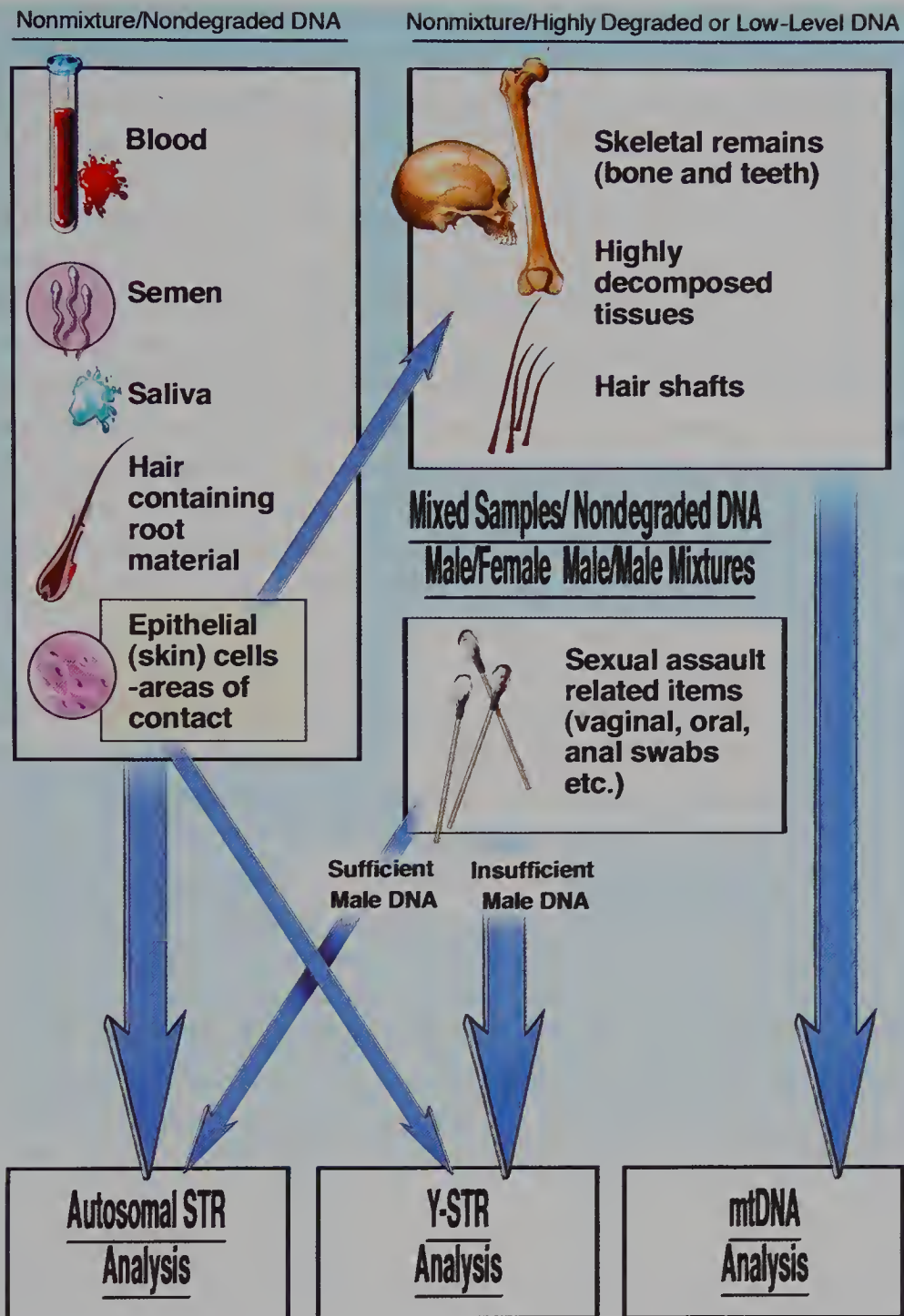
## **Admissibility of DNA Evidence**

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The *Frye* rule<sup>18</sup> is the legal standard of admissibility of evidence for many states. The *Frye* test requires that scientific testimony meet a "general acceptance" standard and that the procedures used to produce scientific evidence to be introduced at trial have gained general acceptance within the relevant scientific community. *Frye* was a case in 1923 involving a homicide where a polygraph test was ruled inadmissible. The court in this case held that

Just when a scientific principle or discovery crosses the line between the experimental and demonstrable stages [is] difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recog-





**Figure 16.21 CASE ANALYSIS FLOW CHART.** The analysis scheduled is ultimately dependent upon the type and quality of evidence encountered. Nonmixture/nondegraded evidence (high-level DNA evidence) is usually analyzed for autosomal STRs. Lower level samples, like samples collected from points of contact, can be considered for Y-STR and mtDNA analysis if they fail to yield a full STR DNA profile. Mixed samples, generally those encountered in sexual assaults, are analyzed for autosomal STRs when sufficient male DNA is available. If the samples encountered contain insufficient amounts of male DNA or if male-male mixtures are involved, Y-STR analysis improves the ability to develop a deducible DNA profile. mtDNA analysis is reserved for nonmixed/highly degraded DNA samples. The inherent capabilities of mtDNA compensate for the degradation and can amplify mtDNA from items such as hair shafts, which are void of nuclear DNA. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

nized, and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs.

In 1993, *Daubert v. Merrell Dow Pharmaceuticals*<sup>19</sup> rejected the *Frye* test as the basis for review of novel scientific evidence. *Daubert* involved a lawsuit against a pharmaceutical company for the antinausea prescription drug Bendectin. The plaintiffs (two children and their parents) alleged that the mother's prenatal ingestion of Bendectin was the cause of her children's birth defects. In *Daubert*, the court concluded that the plaintiff's experts had not based their testimony on experimental data and that there was insufficient cause to show that ingestion of Bendectin was a risk factor of birth defects. As a result of *Daubert*, scientific evidence must be supported by validation to establish the reliability of the test and its results. *Daubert* also granted the trial judge a "gatekeeper" role with respect to the admissibility of scientific evidence. The court in this case held that

The Rules — especially Rule 702 — place appropriate limits on the admissibility of purportedly scientific evidence by assigning to the trial judge the task of ensuring that an expert's testimony both rests on a reliable foundation and is relevant to the task at hand. The reliability standard is established by Rule 702's requirement that an expert's testimony pertain to "scientific...knowledge," since the adjective "scientific" implies a grounding in science's methods and procedures, while the word "knowledge" connotes a body of known facts or of ideas inferred from such facts or accepted as true on good grounds. The Rule's requirement that the testimony "assist the trier of fact to understand the evidence or to determine a fact in issue" goes primarily to relevance by demanding a valid scientific connection to the pertinent inquiry as a precondition to admissibility.

The *Daubert* ruling is based upon an interpretation of the Federal Rules of Evidence (FRE 702, Testimony by Experts) and focuses on the principles and methodology of the science and not the results they generate.

The choice of legal standard of admissibility, *Frye* vs. *Daubert*, depends upon the individual state. The *Frye* test remains the rule in many states; others have adopted *Daubert* and others have rejected both and substituted their own rules for admissibility.

## Laboratory Accreditation

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In 1994, the DNA Identification Act was passed, which resulted in the formation of a DNA Advisory Board (DAB) composed of professionals with expertise in DNA technology, law, and ethics. In 1997, the DAB submitted their recommendations

of quality assurance standards for DNA testing laboratories to the director of the FBI. On October 1, 1998, the FBI director issued the first Quality Assurance Standards for DNA Testing Laboratories. The most recent issue, July 1, 2004, includes standards for convicted-offender DNA databasing laboratories.

The Quality Assurance Working Group of the Scientific Working Group on DNA Analysis Methods (QA-SWGDAM) has been organized to maintain and revise the standards set forth.

Quality assurance (QA) is a system of monitoring, auditing, and testing that ensures scientific accuracy. Quality control (QC) is the program which designs the set of measures taken to assure that accurate results are continuously obtained. Laboratory accreditation is an integral part of a DNA laboratory's QA/QC system. The American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB) is the laboratory-accrediting body in the U.S. The program is voluntary; however, a few states, such as New York, mandate participation. Participation is an opportunity for laboratories to demonstrate that their management, personnel, operational and technical procedures, equipment, and physical facilities meet established standards. Along with the standards set forth by the ASCLD/LAB governing body, the accreditation process incorporates the FBI Quality Assurance Audit standards. Laboratory accreditation status is essential to DNA testing laboratories and all criminal laboratories because it assures excellence and accuracy.

## Forensic DNA Case Studies

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### Victim Identification

DNA profiling has been successfully used in a number of criminal investigations to positively identify the deceased. In one particular case, Lifecodes' scientists were able to confirm that the brain matter found in a missing woman's vehicle belonged to the victim, who was identified through her DNA and the DNA of her parents. Skeletonized remains (bone marrow), body parts, and other materials that contain nucleated cells can be analyzed for DNA and provide authorities with identification. The following case history is based upon a personal interview with Chief John Dotson, Sparks Police Department, Nevada, formerly a major with the Wichita, Kansas, Police Department.

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### Case History: Identification of Remains

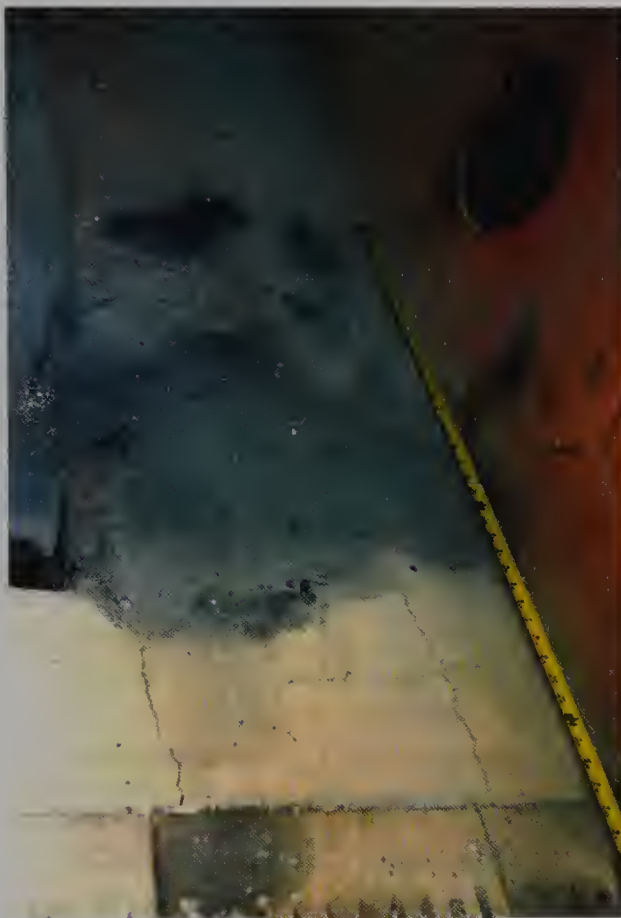
In December of 1987, Wichita homicide detectives encountered a bizarre crime. The suspect in this case had allegedly killed his wife by putting her into a crematorium. Police were alerted to this possible crime by a civilian complainant, who was suspicious of a bucket left in her garage. The police recovered burnt remains consisting of a number of small fragments of bone and burned flesh, which the medical examiner, Dr. William Eckert, determined to be human. A forensic anthropologist was also brought in to assist the police and medical examiner's office in establishing an identity.





**Figure 16.22** CREMATORIUM. Interior view of the crematorium used to cremate the victim alive. (A) The crematorium operating in a normal fashion. (B) The malfunctioning of the crematorium. Note that only one burner is operating. The killer was unaware of the second burner's malfunction. (Courtesy of retired Major John Dotson, Wichita, Kansas, Police Department and now chief in Sparks, Nevada.)

The homicide investigation revealed that the offender thought that he had planned the perfect murder. His reasoning, according to witnesses, was “No body — no crime.” Police learned that he had lured his former wife to a shopping mall on the pretense of shopping together for Christmas presents for their child. At the time, he had been involved in a bitter custody battle over this child with his ex-wife. Somehow, he managed to get his wife to the funeral home, where he was employed as an usher. No one knows whether she was dead or alive, but he somehow managed to place her body into the crematorium and activate the furnace.



**Figure 16.23** CREMATORIUM CRIME SCENE PROCESS. Interior view showing the crime measurements along with the dried blood of the victim. (Courtesy of retired Major John Dotson, Wichita, Kansas, Police Department and now chief in Sparks, Nevada.)



**Figure 16.24** DRIED BLOOD INSIDE CREMATORIUM. An arrow points to the dried blood of the victim on the inside wall of the crematorium. This blood was collected by authorities and submitted to the Lifecodes Corporation, which provided positive identification of the deceased after comparing and matching the dried blood to the whole blood samples of the victim's parents. (Courtesy of retired Major John Dotson, Wichita, Kansas, Police Department and now chief in Sparks, Nevada.)

The crematorium could reach temperatures of 1500°F and it would take approximately 2 1/2 hours to reduce the body to ashes. However, the suspect did not know that one of the burners was not working properly.

He realized that he was running out of time. He was not even authorized to operate the crematorium. The suspect then decided to get the evidence of the burning out of the crematorium and out of the building before his employer found out. He tried to clean up, but was left with a bucket full of cremains. This bucket of cremains was subsequently seized by Wichita police, which resulted in the suspect's arrest. The cremains provided circumstantial evidence of this brutal slaying. In addition, a unique piece of jewelry, which the deceased wore, was found in the catch basket of the crematorium. However, prosecutors wanted more.

The District Attorney's Office decided on establishing the victim's identity beyond the jewelry and anthropological evidence. A partial femur bone, as well as tissue from the pelvis and blood scrapings from the crematorium was found, along with whole-blood samples of the victim's parents.

Lifecodes Corporation extracted DNA from the blood scrapings from the crematorium and they were able to compare this with the DNA from the whole-blood samples of the victim's parents. Identification of the remains was positively established through the DNA-PRINT identification test, which was in actuality a paternity type of testing.

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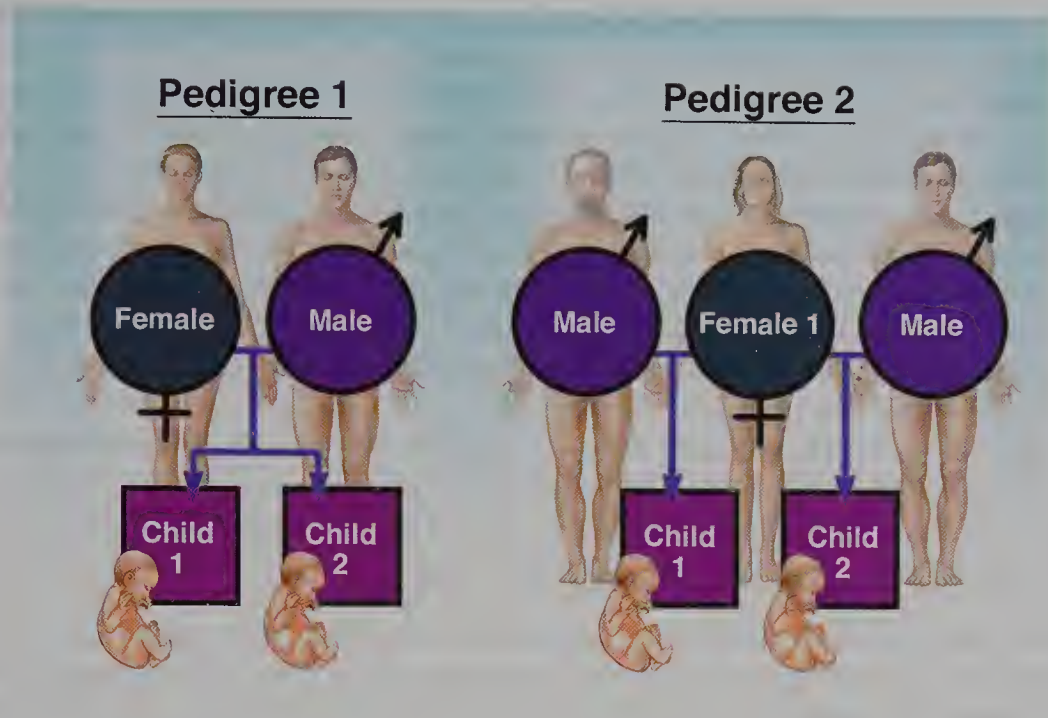
### **Case History: Kinship Analysis (Forensic Maternity)**

On December 26, 2001, a 25-year-old female admitted herself into a local Nassau County, Long Island, New York, hospital emergency room claiming to have given birth to a stillborn child. She arrived carrying a plastic bag that held a shoebox containing the deceased child wrapped in towels. After a thorough examination revealed a full-term male infant, the Nassau County Police Department Homicide Squad was notified by the hospital, spurring a criminal investigation. During questioning of the suspect, she claimed not to have known of her pregnancy, but admitted to delivering the stillborn child on Christmas day and then placing it into a plastic bag and putting it under her bed. She did not seek medical attention until the following day.

An autopsy conducted by the Nassau County Medical Examiner's Office concluded that the child was born full term and its demise occurred postnatal. The cause of death was determined to be postnatal asphyxia from an unattended delivery at home. This was sufficient evidence to rule the manner of death homicide. These findings led to the arrest and conviction of the defendant in May of 2003. Due to a technical error by the trial court in the manner in which a deliberating juror was replaced, the conviction was vacated by the trial court, and a new trial was ordered. The defendant was released on bail pending her retrial.

In preparation for the retrial, the assistant district attorney (ADA) and lead investigator began reinterviewing witnesses acquainted with the defendant. The defendant was employed at a restaurant as a waitress. A coworker recalled her suspicions that the defendant appeared to be pregnant while working at the restaurant during the spring of 2001. In fact, this coworker, who was employed as the establishment's bartender, refused to serve the defendant alcohol due to her suspicion. The defendant was then reported to have taken a 2-week leave of absence in the beginning April 2001 for an ongoing health problem. What the witness found to be unusual was that when the defendant returned to work, she no longer displayed the physical characteristics associated with pregnancy. Following this meeting, the ADA and investigator stopped at a local diner for lunch.





**Figure 16.25 ILLUSTRATION OF SYMBOLIC KINSHIP.** Kinship analysis between the two infants was performed using the symbolic kinship software DNA View.<sup>20</sup> (Figure courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doereport.com.)

During this meeting, one of the most damning pieces of evidence against the defendant was uncovered. The ADA recalled being present at a scene April 26, 2001 where a newborn child was discovered packaged in three plastic bags located in the rear parking lot of a restaurant. This restaurant was located within four blocks of the defendant's former residence. The autopsy conducted on this infant concluded that the cause of death was due to intrauterine fetal demise. The connection between the two cases seemed quite far from a relative coincidence, so the ADA immediately contacted the forensic DNA laboratory.

The request for genetic relatedness between the April 2001 and December 2001 incidents was made in December of 2003. The laboratory had in its possession dried bloodstains prepared from postmortem blood recovered during autopsy and muscle tissue from both infants. Bed sheets recovered from the place of residence where the December 2001 birthing took place were also submitted to the laboratory. What was lacking was a known DNA standard from the defendant, which was required for a direct maternity comparison to the April 2001 infant. Due to the nature of the investigation, the ADA chose not to obtain a known DNA standard from the defendant until there was sufficient genetic evidence to make a connection between the two infants and the presumed mother. Based upon the available evidence, the laboratory proceeded in the following manner: (1) the genetic profiles developed from the infants' blood would be compared for sibling relatedness, and if a genetic link was established, (2) the genetic profile developed from the defendant's blood recovered from the bed sheets would be compared with the April 2001 infant's DNA profile to establish maternity.

Kinship analysis between the two infants was performed using the symbolic kinship software DNA View,<sup>20</sup> asking the question, "Are the two infants full siblings, half siblings, or are they unrelated?" The sibling test resulted in a likelihood ratio which indicated a common mother and a sibling index, which strongly favored half siblings represented in pedigree B. The genetic link was now established between the two infants. With this probative piece of information, the laboratory proceeded to determine the possibility of a maternal link between the defendant and the April 2001 infant. The maternity index proved

maternal relatedness with a 99.9% degree of scientific certainty. Sufficient cause to obtain a DNA standard from the defendant was now established.

In a January 2004 court hearing regarding pretrial issues, the ADA presented the genetic information in his possession. The court ruled that the prosecution would be permitted to introduce evidence of the April 2001 birth to refute the defendant's claim she did not know she was pregnant when she delivered the December 2001 baby. In June 2004, the defendant admitted guilt by stating that she was aware that the child was alive following birth, but regardless of the circumstance, she placed the child in a plastic bag and put it under her bed without seeking medical attention. The defendant pled guilty to murder in the second degree, waived her right to appeal, and is currently serving an indeterminate sentence of 18 years to life.

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### **Case History: Male-Specific Y-STR Analysis**

On June 26, 1998, a once prominent 81-year-old jazz dancer and runway model was found strangled to death in her second-floor Manhattan apartment. The victim, who lived alone with her dog, required the aid of a health care worker because of her declining health. She was discovered following 3 days of unsuccessful attempts at entering the apartment by her aide. With concern for her patient, she notified the building superintendent, who could not gain access to the apartment because the victim had double locked her door. The New York City Police Department Emergency Services Unit was then notified. The first responders gained access into the apartment using the second-floor fire escape that led them through a living room window. A glass top coffee table located beneath this window was found shattered and the entire apartment's contents had been turned over, giving the impression of an apparent burglary.

The victim was found in the bathroom, kneeling face down in the bathtub and wearing a housecoat, underpants pulled down around her ankles, and a fur coat draped over her body. A dog's leash, still wrapped around the victim's neck, had been used to strangle her. The autopsy performed on the victim determined the manner of death to be the result of ligature strangulation. Notable skin slippage, insect activity, and the accounts of the health care worker placed the time of death approximately 3 days prior to the discovery of the victim.

The crime scene investigation provided an abundance of forensic evidence. Investigators were able to lift fingerprints from several areas of the apartment, including prints from significant items; prints were lifted from a jewelry box that apparently had been disturbed during the burglary. A dried secretion on the back of the victim's thigh was recovered along with the fur coat, which contained a possible dried semen stain that had transferred from the victim to the inner lining. Because a sexual assault was suspected, the medical examiner's office used a sexual assault evidence collection kit during the autopsy.

The initial investigative lead developed from the fingerprint evidence identified a suspect within days of the crime through the state automated fingerprint identification system (SAFIS). Case detectives, unable to locate the suspect, questioned his mother, who informed them that she was unaware of his whereabouts and had not seen him for some time. Days later she was able to persuade her son to turn himself in. During his interrogation, the suspect claimed to be unaware of the incident. He claimed to have been standing out in front of the apartment building where he was confronted by a black male carrying a bag filled with women's clothing and jewelry, looking for help selling the items.

When confronted with the fingerprint evidence placing him at the scene, the suspect changed his account. He then claimed to have been asked by the black male to follow him into the apartment through the fire escape and living room window. While in the apart-



ment, he stated that he observed the victim slumped into the bathtub and noticed a white substance on the back of her thigh he believed was semen. He then claimed that the black male individual became extremely excited over the presence of the victim and began to masturbate. When asked if he was ever intimately involved with the victim, the suspect became extremely offended and swore to have never harmed her. He was sympathetic to her because of her age and health and would occasionally help with her groceries; this gave him an alibi for his presence in the apartment. At the conclusion of the interview, the suspect had made a perplexing comment stating that the detectives would never find any individual who witnessed him committing the crime. With some fortune, the district attorney was able to incarcerate the suspect on July 6, 1998 due to a parole violation, allowing the police the legal right to question him regarding the homicide.

At the laboratory, forensic DNA testing was under way. The presence of semen was confirmed on several items, including the fur coat lining. Autosomal STR testing performed on the semen-positive items yielded two types of results: (1) profiles consistent with the victim and (2) negative results. These results could be explained by an overwhelming concentration of female DNA in the mixture of victim and assailant's DNA<sup>21</sup> or an insufficient concentration of sperm cell DNA in nonmixture samples, respectively. The latter has been observed in degraded samples and also in samples contributed by azospermatic assailants.<sup>13</sup>

Based upon the case circumstances, male-specific Y-STR DNA analysis was employed. The male profile developed from the semen recovered from the lining of the fur coat was compared with the DNA profile developed from the suspect and the black male implicated by the suspect. The relative chance or population frequency of the profile was determined to be 1 in 200 male individuals. Though statistically insignificant, this was sufficient evidence to exclude the black male implicated by the suspect while inculcating the suspect as the semen donor.

With these incriminating data, the suspect was questioned once again and asked to explain the presence of his DNA on the victim. His story changed to that of a long-term consensual relationship with the 81-year-old victim. He claimed that on the day of the incident, he had intercourse with the victim and shortly after she drew a bath for herself. While she was in the bathroom, he became so excited they had intercourse once again and that was when he had ejaculated on the back of her thigh. When he left the apartment, the victim was alive and well. Therefore, the black male he had previously implicated must have entered the apartment following his exit and murdered and burglarized the victim. His accounts may have been convincing to him; however, they did not convince a Manhattan jury, which sentenced him on January 24, 2002, for murder in the first and second degrees along with burglary in the second degree. He is currently serving a life sentence without the possibility of parole.

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## Case History: Forensic Mitochondrial DNA Analysis

On July 8, 1985, a plastic surgeon reported his 29-year-old wife missing to the New York City Police Department Missing Person Squad, 1 day after she ran out of their apartment following a domestic dispute. The husband claimed that he and his wife had an argument on the morning of July 7th and that she had left furiously for Central Park at around 11:00 A.M. to sunbathe. He had remained home until 5:30 P.M. waiting for her to return and then left for his parents' house. The following week, several messages were left for the husband, but the case detective did not receive a reply until July 14th. On that day, during a second interview, the husband was asked whether anyone had seen his wife leave the apartment the day she disappeared. He claimed that the doorman had told him that he had seen her



leave shortly after 11:00 A.M. Up to this point, a full investigation had not uncovered a single piece of physical evidence.

On May 21, 1987, a highly decomposed torso wrapped in a brown plastic bag floated up on the shores of Staten Island. The arms had been chopped off and leg bones removed. The x-rays taken of the torso were compared with a chest x-ray of the missing person developed prior to her disappearance at a Long Island, New York, hospital. An abnormality of the spine and rib cage noted in both x-rays led to a positive identification of the victim. The x-rays were then reviewed by an independent expert, who came to the same conclusion.

In September of 1997, the Manhattan District Attorney's Office and New York City Police Department concentrated their efforts in solving the disappearance of this woman, a 12-year-old cold case. The investigation continued with interviews of relatives and close friends of the missing person and her husband. It was determined that there was constant fighting and domestic abuse. The husband would become enraged over menial issues. On one occasion, the husband became so angered when he found his wife smoking a cigarette on the balcony that he strangled her to unconsciousness. The following day, bruise marks resembling fingers were observed on her neck by her employer. This had not been the first time she had been strangled by her husband. Following this incident (and all other prior incidents), the husband begged for her forgiveness and promised that he would never do it again. On November 12, 1983, persuaded by her sister, she filed a complaint with the police department.

The victim's hopes of a sound marriage came to an end around the beginning of 1985 when she began contemplating leaving her husband. Because of the constant abuse, she was frightened that she would be killed during one of his rages. Soon after, the victim received a letter from her psychiatrist warning her that she was in danger from her husband and advising that she separate from him immediately. The victim told her doctor that she intended to use the letter as leverage in obtaining satisfaction during her divorce proceedings. If she did not receive a favorable decision, she was going to tarnish her husband's career with it and threaten to expose allegations of a multimillion dollar insurance fraud involving him and his father. The victim was last seen the afternoon of July 6, when she met with her husband's sister to inform her that she was going to leave him that weekend and was in the process of looking for an apartment.

During the course of the investigation, an overwhelming amount of circumstantial evidence incriminating the husband was uncovered. The most damning piece of evidence was the suspect's conflicting statements regarding the afternoon of July 7, the day his wife was reported missing. On one occasion, the suspect stated that he had waited for his wife in their apartment after she had walked out following their argument and then left for a family birthday party in New Jersey at around 6:00 that same evening. On a second occasion, the suspect claimed to have waited for a few hours and then left for Central Park to find her. During one interview, he claimed to have found nothing, but on a second occasion he claimed to have found a towel and book belonging to the victim.

What the suspect failed to mention was that he was a pilot and on the afternoon of July 7, 1985 he rented a small aircraft from a New Jersey airport between the hours of 4:30 and 7:30 P.M. During this period, the plane's engine was engaged for 1 hour and 56 minutes, giving the suspect sufficient opportunity to fly well over the Atlantic Ocean and dump the victim's body. This conflicted with the suspect's statements; he could not have left for a birthday party at 6:00 P.M. if he was still in flight. With this, the prosecution had sufficient circumstantial evidence to support the crime of homicide.

In 1998, at the time the case was being prepared for grand jury, the forensic laboratory was in the process of validating mitochondrial DNA (mtDNA) testing. Because there had been a confirmed match through x-ray comparisons, a bone sample from the torso was used for a nonprobative case study. Approximately 10 years prior to this, the same sample had been sent out to a private DNA testing laboratory. The results of the nuclear DNA test

were negative and therefore no additional testing was performed based upon the degree of sample degradation. Using mtDNA technology, the laboratory was able to develop an mtDNA profile from the bone sample. When the results were compared with the sister of the victim, the laboratory uncovered a major discrepancy: the mtDNA results excluded the torso as a maternal relative of the victim's sister. Therefore, the torso could not be the missing individual and there must have been a misidentification with the x-ray comparisons. Doubts concerning the exclusion were placated when a private testing laboratory confirmed the results. The potential of a sample mix-up during autopsy was then speculated, but also ruled out by exhumation of the torso and retesting of another section of bone. The misidentification was confirmed through mtDNA testing.

Without any physical evidence, particularly the absence of a body, the case went to trial based upon circumstantial evidence in September of 2000. The prosecution presented sufficient evidence to convince the jury that on July 7, 1985, the suspect killed his wife in a violent rage, dismembered her body, and dumped it over the Atlantic Ocean. On October 24, 2000, the suspect was convicted of murder in the second degree and is currently serving an indeterminate sentence of 20 years to life.

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## Conclusion

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DNA and genetic fingerprinting represent the most important breakthrough in crime detection since the discovery of the fingerprint. DNA technology represents the future of forensic medicine and the experts have only begun to scratch the surface with this technology. It is a powerful tool, which protects the innocent just as surely as it pinpoints the guilty. Genetic identification takes the "gamesmanship" out of the trial — either the defendant committed the crime or he did not.

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Physical evidence is any tangible article, small or large, that tends to prove or disprove a point in question. It may be used to

1. Reconstruct the crime
2. Identify the participants
3. Confirm or discredit an alibi

The proper collection and disposition of physical or trace evidence from the crime scene and the body of the deceased is of utmost importance to the investigation and eventual court presentation. The evidence must have been obtained legally in order for it to be admissible. Therefore, it is imperative that the legal authority to collect the evidence and the proper collection techniques be considered prior to the actual collection of the evidence.\*

## **Procedures for Collection of Evidence**

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In order to be introduced as physical evidence in a trial, an article must

- Be properly identified
- Show a proper chain of custody
- Be material and relevant
- Meet all legal requirements

The crime scene technician or crime scene investigator who is summoned to the scene should have operational supervision over gathering, collection, and marking of evidence for identification. However, the investigator assigned to the case is

\* The techniques of collection presented in this chapter are based on the recommendations and procedures of Dr. Robert C. Shaler. Dr. Shaler, who holds an M.S. and Ph.D. in biochemistry from Pennsylvania State University, is the director of serology for the New York City Medical Examiner's Office. He has lectured at various universities and forensic symposia and has published several articles related to the forensic sciences.

still in charge of the investigation and should be consulted prior to any evidence gathering or crime scene processing.

The proper collection and disposition of evidence will be accomplished if the following guidelines are adhered to:

1. Each piece of evidence should be marked (on the container or item as applicable) to show its original position and location. This information should also be recorded in the investigator's notebook.
2. Each article should be marked distinctively by the searching officer to identify the person who found the particular piece of evidence. In cases of small or fluid specimens, this marking is done on the container.
3. Each item should be described exactly and completely with the corresponding case numbers affixed and the date and time of collection indicated.
4. Each item should be packaged in a separate, clean, and properly sized container to prevent cross-contamination or damage.
5. Each package should be sealed to retain evidence and prevent any unauthorized handling.
6. Each piece of evidence should show proper disposition:
  - a. Police department laboratory
  - b. Property clerk's office
  - c. FBI laboratory
7. Proper records should be kept regarding each piece of evidence showing chain of custody. These records should reflect any movement of the evidence from the point of origin to its final disposition.

**Remember:** Each item should be photographed before it is collected as evidence. These photographs should include a long-range view to show the relationship of the object to its surroundings and a close-range view to show the actual item being collected. (See Chapter 6, "The Crime Scene Photographs.")

## General Types of Evidence

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Physical evidence  
Testimonial evidence  
Documentary evidence  
Behavioral evidence

In practical homicide investigation, each of these general types of evidence becomes crucial in the identification, apprehension, and subsequent prosecution of offenders. However, the investigator should appreciate the nature of physical evidence.

## Classifications of Physical Evidence

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### Class Evidence

Class evidence is that which *cannot* be forensically identified with a specific source to the exclusion of all others. Examples are the non-DNA analysis of

Blood	Soil
Semen	Glass (see Glass as possible individualistic evidence later in this chapter)
Saliva	
Hair	Wood
Fibers	Plant materials
	Animal materials

### Individualistic Evidence

Individualistic evidence is evidence that can be positively and forensically identified with a specific source to the exclusion of all other sources. Examples are

- DNA analysis of body fluids and hair
- Latent prints
- Fracture matches
- Bite marks
- Specific handwriting

## Collection of Specific Types of Evidence

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The homicide investigator is usually confronted with the same general type of evidence in most murder investigations, such as blood, bullets, and fingerprints. The evidence ordinarily falls within three distinct categories: body materials, objects, and impressions.

This text will focus on the practical methods for collection of types of evidence commonly found at the scene of a homicide. The more advanced and detailed methodologies have been purposefully omitted from this section because they are usually beyond the capability of the average investigator and are best performed by crime scene technicians and other experts who have been specially trained in forensic science techniques.\*

\* These advanced methodologies are covered in several comprehensive works on the subject. If you wish for a more in-depth knowledge of evidence collection, consult the more technical textbooks on forensic science. See, for example, Lee, H., T. Palmbach, and M. Miller, *Henry Lee's Crime Scene Handbook*, San Diego, California: Academic Press, 2001; Kirk, P., *Crime Investigation*, 2nd ed., New York: John Wiley & Sons, Inc., 1974; Lee, H., *Crime Scene Investigation*, Taiwan, Republic of China: Central Police University Press, 1994; and Saferstein, R., *Criminalistics: An Introduction to Forensic Science*, 6th ed., Englewood Cliffs, New Jersey: Prentice Hall.



## Body Materials

### *Blood*

#### Blood (Wet)

1. Large amounts or pools:
  - a. Use an eyedropper or hypodermic syringe to collect the fluid and transfer to a sterile container (5 cc is sufficient for testing purposes).
  - b. Transfer immediately to laboratory or refrigerate specimen. However, do not freeze blood.
  - c. In some instances, depending on the jurisdiction regulations, a chemical preservative such as sodium azide or EDTA can be used to prevent blood spoilage.
2. Small amounts of wet blood:
  - a. Use a 100% cotton swab, #8 cotton thread, or gauze pad to collect specimen.
  - b. Allow swab or gauze pad to air dry.
  - c. Place in sterile test tube or other clean container.



**Figure 17.1 POOL OF BLOOD AT CRIME SCENE.** This photo depicts a large pool of blood in the scene. The victim had been shot in the head with a large caliber weapon. Note that the blood has begun to separate, producing a straw-colored serum to the left of the stain. This serum usually appears approximately 20 minutes after the blood has leaked from the wound. (From the author's files.)



**Figure 17.2 CLEAN-UP ATTEMPT.** A clean-up attempt at this homicide scene is evident by the swirling patterns, which obliterated most of the footwear impressions at this scene. A remaining impression is partially visible under the victim's knee and another is visible in the center of the photo. Large bloodstains, drying at the surface only, were disturbed during the clean-up as can be noted at the lower right of the photo. This drying gave investigators a rough time estimate between the homicide and clean-up. (Courtesy of Yonkers, New York, Police Department Crime Scene Unit, Detective Lieutenant Peter Pizzola, commanding officer.)



**Figure 17.3 RECONSTRUCTION — BLOOD PATTERNS.** Sequential evidence such as this barefooted bloodstain trail and blood drip pattern can inform the investigator about events and movement through the scene, aiding in reconstruction of the crime scene. (Courtesy of the Westchester County, New York, Medical Examiner's Office.)



**Figure 17.4 BLOODSTAIN BEING SWABBED AT SCENE.** This photo illustrates the proper method for swabbing a dried bloodstain while processing the crime scene. Note that the ERT is wearing protective clothing to prevent cross contamination. (Courtesy of Detective Mark Czwozniak, Chicago Police Department.)

### Blood Stains (Dry)

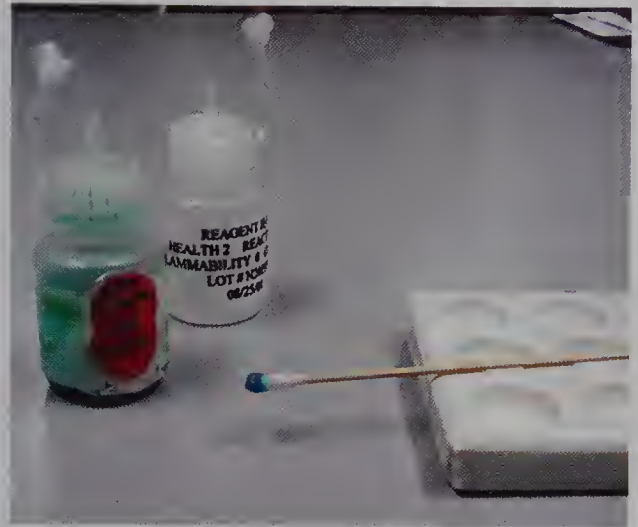
1. Nonporous surface:
  - a. If there is sufficient amount of dry blood, it can be scraped from the surface with a clean razor blade or sterile scalpel. These scrapings should be shaved into a sterile container.
2. Porous surface (fabric, unfinished wood, etc.):
  - a. Collect and submit the article containing the stain to the laboratory as found.
  - b. Wrap in separate and sterile container. If the article is too large or inappropriate to transport, remove a portion of the material containing an adequate amount of the stain for transport to the laboratory for analysis.
3. Traces or smears that cannot be scraped into container:
  - a. Moisten a 100% cotton swab or gauze pad with distilled water. Stain will soften and soak into swab or gauze pad. Also obtain a control sample, which should be forwarded to the lab for analysis with the specimen.
  - b. Allow to air dry.
  - c. Place into a sterile test tube or container for the laboratory.

**Remember: Do not use a swab or other instrument to collect blood from more than one stain. Use separate swabs, razors, scalpels, or other instruments for each separate stain to be sampled. This is to prevent contamination of samples.**





**Figure 17.5A PHENOLPATHLEIN.** Phenolphthalein is a presumptive blood test. The swab is moistened with dionized water. Swab the area of interest with the dampened swab. Add one or two drops of phenolphthalein. Then add one or two drops of hydrogen peroxide. If blood is present, the swab will turn a purple/fuchsia color immediately. (Courtesy of David Rossi, CSI/SCSA, Harris County, Texas, Sheriff's Department.)



**Figure 17.5B LEUCOMALACHITE GREEN (LMG).** Leucomalachite green (LMG) is a colorimetric test used to screen for the presence of blood. The sample is swabbed and the chemical LMG is added to the swab. Next, hydrogen peroxide is applied to the swab. If there is blood present, the swab will turn green, indicating a positive result. No color change indicates a negative result (no blood present). (Courtesy of Fred Drummond, chief of Forensic Sciences, Westchester County, New York, Forensic Laboratory. Photographer: Carlos Morales.)

It is possible that the assailant's blood may also be present. If the same instrument is used to collect all samples, the evidence will be tainted. Furthermore, you should be careful not to touch the surface that has contacted the blood sample because your secretions may contaminate the collected sample (see Chapter 16, "Forensic Application of DNA Analysis").

**Field Test Reagents.** Tests for the presence of blood:

*Phenolphthalin* (Kastel–Meyer). This test is performed by rubbing a cotton swab that has been moistened in a saline solution on the suspected blood stain. A drop of phenolphthalin is added to the swab and then a drop of hydrogen peroxide 3% is added. A positive reaction will turn the swab *pink* to *red* within 15 seconds.

*Leucomalachite green* (LMG). This test is performed the same way as the preceding one. A positive reaction is indicated by a *greenish-blue* color that will appear almost immediately.

*Luminol*. This reagent is sprayed onto the object to be checked. However, it must be viewed in total darkness. A positive reaction will luminesce *violet* within 5 seconds.

*Orthotolidine*. This test is performed by rubbing a cotton swab that has been moistened in a saline solution on the suspected blood stain. A drop of



**Figure 17.6 APPLICATION OF LUMINOL.** (A) The interior of a vehicle used in a homicide prior to the application of luminol. (B) The interior of a vehicle used in a homicide after the application of luminol. Note the bright blue color, which indicates a positive reaction to blood. (Courtesy of Frederick C. Drummond, chief, Westchester County Forensic Science Laboratory, Valhalla, New York.)

orthotolidine is added to the swab and then a drop of hydrogen peroxide 3% is added. A positive reaction is indicated by an intense *blue* color.

*Tetramethylbenzidine* (TMB). This is another in a series of presumptive tests that is specific for blood. TMB is an enhancement reagent. The tetramethylbenzidine reacts with the heme in the blood. Spray the surface lightly two to three times about 10 inches away from the surface. The bloody imprint



**Figure 17.7 APPLICATION OF FLUORESCHEIN.** This photo illustrates the application of fluorescein. The man's hand, which had blood on it, was washed and applied to this cloth. The cloth was then treated with fluorescein. (Courtesy of David Rossi, CSI/SCSA, Harris County, Texas, Sheriff's Department.)

pattern should turn a *greenish-blue*. Overspray may give a very *dark blue* pattern and mask ridge patterns.

*Hemaglow.* This is a protein reactant, which does not ordinarily react with household cleaners like luminol does. Hemaglow also glows more brightly and can be photographed with a flat-plane camera.

*Leucocrystal violet (LCV).* This is a new positive blood identifier that turns permanent *violet* when in contact with blood. Leucocrystal violet can be testified to in court as a blood identifier at the scene without further testing to identify the stain as blood.

*Fluorescein.* The chemical mixture of fluorescein causes a catalytic reaction to occur between the hemoglobin in blood and oxygen. This produces a luminescent stain, which will luminesce in the dark when excited under ALS. The major advantage is that it will continue to luminesce for hours under UV or ALS after the initial application and without additional applications of the reagent.

Tests for the presence of body fluids:

Semen	Acid phosphatase tests
Urine	Amylase tests
Saliva	Creatinine, urea tests
Fecal matter	Urobilinogen
Gastric contents	Gastric acid

**It should be noted that the preceding chemical reagents (LCV and LMG) DO NOT allow for DNA typing when blood is found in small amounts.**





**Figure 17.8 EXAMINATION IN LABORATORY.** A forensic scientist examines evidence. Protective clothing must be worn at all times during evidence examination in order to preserve the evidence and prevent contamination. It also protects the examiner from exposure to any harmful agents. (Courtesy of Fred Drummond, chief of Forensic Sciences, Westchester County, New York, Forensic Laboratory. Photographer: Keith Mancini.)

### ***Semen***

Next to blood, semen is the physiological fluid most commonly discovered at homicide crime scenes. If a sexual assault is suspected, the investigator should carefully examine the body and clothing of the deceased prior to moving the body. If any stains are observed, procedures to collect this evidence should be performed at the scene. Later at autopsy, the medical examiner or coroner will take a vaginal swab or vaginal aspirant to obtain any semen traces from within the vaginal canal. In addition, oral and anal swabs may be taken, if sodomy is suspected, and air dried immediately.

The following techniques should be employed at the scene:

1. Wet stain:
  - a. Swab or wash (by medical examiner if possible).
  - b. Draw the fluid into an eyedropper or hypodermic syringe.
  - c. Place in sterile test tube.



**Figure 17.9 USE OF ALTERNATE LIGHT SOURCE.** This photo illustrates the use of an alternate light source (ALS). The forensic scientist is examining clothing for body fluids not visible under normal lighting conditions. (Courtesy of Fred Drummond, chief of Forensic Sciences, Westchester County, New York, Forensic Laboratory. Photographer: Carlos Morales.)



**Figure 17.10 ACID PHOSPHATASE TEST.** Acid phosphatase (AP) is an enzyme present in various body fluids, but is typically found in high concentrations in semen. A positive result causes a color change in the plate in shades of purple. This photo illustrates a positive finding. (Courtesy of Fred Drummond, chief of Forensic Sciences, Westchester County, New York, Forensic Laboratory. Photographer: Carlos Morales.)



**Figure 17.11 DRIED SEMEN EVIDENCE.** This close-up photo of the vaginal area of a rape-homicide victim discloses traces of dried semen. (See arrow.) Notice the “starchy” appearance. This trace should be gathered using 100% cotton moistened with distilled water, which should be allowed to air dry and then placed in a sterile container for delivery to the laboratory. (From the author’s files.)

- d. Use swab or cotton gauze pad for samples of smaller quantities that are still moist.
- e. Allow to air dry immediately and place in sterile container.
2. Dry stain:
  - a. Dry stain will have a stiff “starchy” texture.
  - b. If it is on clothing, submit the entire article, being careful not to break or contaminate the stained area.
  - c. On body, using 100% cotton gauze pad moistened with distilled water, gently remove stain and place in sterile test tube or container after allowing to air dry.

Sometimes an ultraviolet light or certain wavelengths of an alternate light source (ALS) can be used to locate seminal stains. However, in many instances, a false reading will be obtained due to the “brighteners” used in certain laundry detergents as well as the fact that numerous other items will also fluoresce. *It should also be*





**Figure 17.12 WET SEMEN STAIN.** This offender had masturbated on this victim after strangling and hanging her by the neck. He left wet semen stains on the victim's blouse. (Courtesy of Captain Steve Denton, CID, Spartanburg County, South Carolina, Sheriff's Office.)



**Figure 17.13 CRIME SCENE PHOTO — VICTIM'S PANTIES.** Criminal sexual assault. This photo of the victim's panties was taken with conventional photographic flash. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)

*noted that UV can and does disrupt the structure of DNA.* Caution should be exercised. (See Chapter 16, "Forensic Application of DNA Analysis.")

### ***Urine***

1. Remove by eyedropper, sterile cotton swab, or 100% gauze pad.
2. Place in sterile text tube or other container.
3. If on clothing, the entire article should be submitted.



**Figure 17.14 PHOTO — VICTIM'S PANTIES WITH ALS.** This photo was taken utilizing an alternate light source, which disclosed traces of semen. Note the stains that have fluoresced. Swabs should be taken from the areas that fluoresce and submitted to the laboratory for forensic examination. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)

### *Saliva or Spittle*

1. Remove with eyedropper, sterile cotton swab, or 100% gauze pad.
2. Place in sterile test tube or other clean container after drying.

**Recovery of Saliva and/or Urine.** The methods used in the recovery of saliva samples at a scene are dictated by the nature of the stain and the nature of the surface on which it is found. The surfaces on which such evidence is found might be porous or nonporous.

Porous surfaces such as clothing, unfinished wood, paper, cardboard, and many more fall into this category. Wet body fluids can be absorbed into the materials.

1. Stains (wet or dry) on porous surfaces that can be removed along with ample surface area surrounding the stain should be recovered.
2. Stains on surfaces that can be collected as an entire item should be collected in whole.
3. Wet stains should be allowed to dry before packaging.

#### Nonporous surfaces:

1. Collection of the entire item and removal of a section of the surface bearing the stain along with ample material surrounding the stain are two preferred methods of collection.
2. Nonporous surfaces bearing saliva stains may be susceptible to abrasive removal of the stain materials by any packaging if the stain is not protected.
3. Contamination through handling with uncovered hands or inadvertent rubbing should be avoided.



**Figure 17.15 COLLECTION OF BUCCAL CELLS.** This photo illustrates the proper method for collecting buccal cells from a suspect's mouth. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)

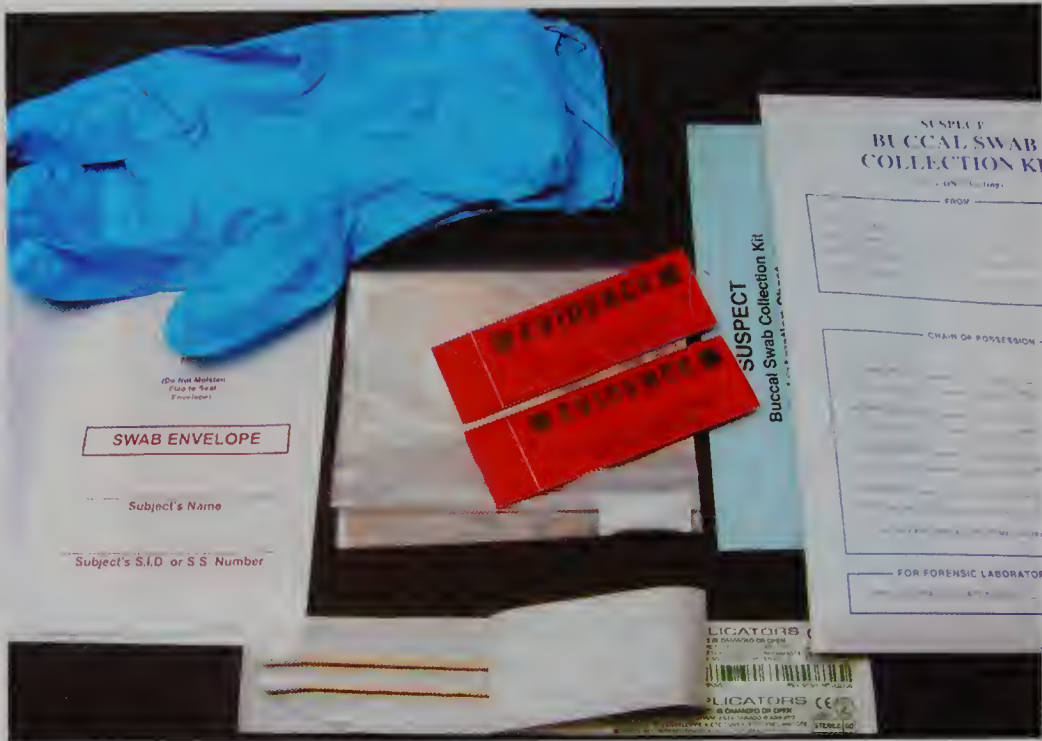
**Remember:** Saliva is more useful to the investigator today because DNA technology has become so advanced through the extreme sensitivity of techniques such as PCR. DNA from epithelial cells present in saliva can be swabbed from the surfaces of the oral cavity of suspects and has, in fact, become the method of choice in screening a number of suspects in an investigation. The swab method of extracting DNA is not as intrusive as taking blood samples and can be easily and quickly analyzed.

I have consulted on many sex-related homicide investigations where there have been a number of possible suspects. I recommend that the authorities consider obtaining buccal cells from as many persons as possible, which may lead to the positive identification of the offender through this nonintrusive method of acquiring a DNA sample. In the BTK case in Wichita, Kansas, the authorities requested persons of interest to submit voluntarily to buccal cell swabbing for the purposes of elimination.

### *Feces*

1. Large amount:
  - a. Remove with a small clean shovel. Allow to air dry.
  - b. Place in sterile container.
2. Small amount:
  - a. Remove with 100% cotton swab or gauze pad moistened with distilled water, then air dry or scrape into container.
  - b. Place in sterile test tube.





**Figure 17.16 BUCCAL CELL COLLECTION KIT.** (Courtesy of Detective Mark Czwozniak, Chicago Police Department.)

### *Vomit*

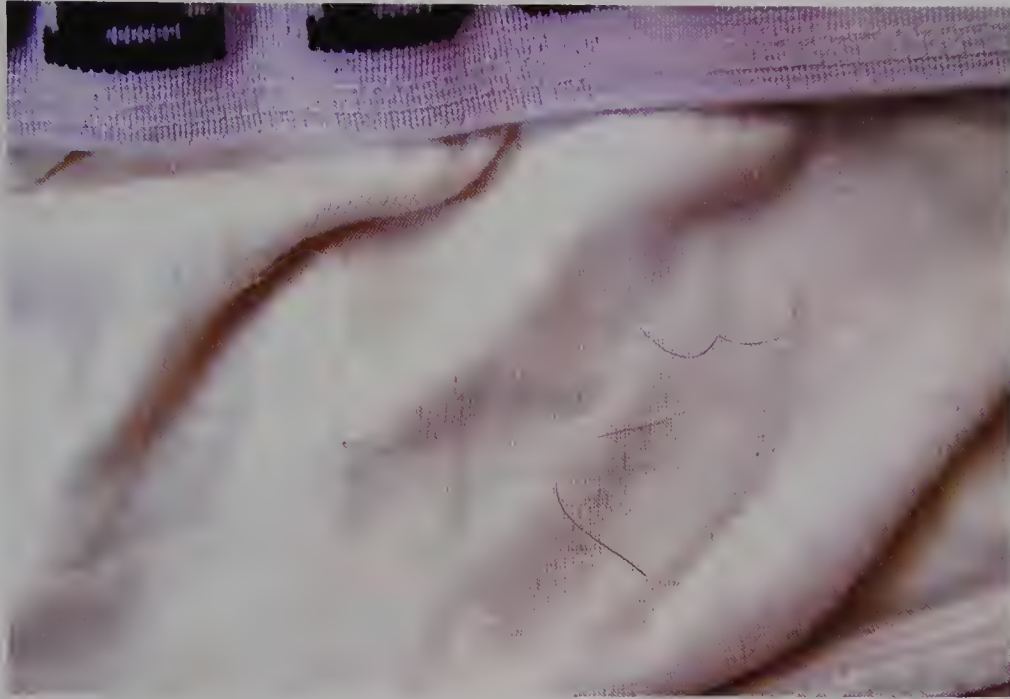
1. Remove with eyedropper or small shovel, depending on amount.
2. Place into sterile container.

### *Tissue*

1. Remove with tweezers.
2. Place in a glass container or sterile test tube.
3. Forward to the medical examiner.

It should be noted that any physiological fluid found at the scene, such as urine, saliva, feces, perspiration, ear wax, or nasal mucus, can be typed into the same grouping as blood providing the material comes from an individual who is a secretor. Secretors make up approximately 80% of the general population. Physiological fluids of these secretors can be blood typed by the serologist. Other genetic factors sometimes can also be identified regardless of secretor status.

**Remember:** DNA/PCR technology provides the possibility of an individualistic comparison to a suspect as well as other genetic factors, which can also be identified regardless of secretor status.



**Figure 17.17 HAIR EVIDENCE ON UNDERPANTS.** This photo depicts various hairs on the suspect's underpants. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)

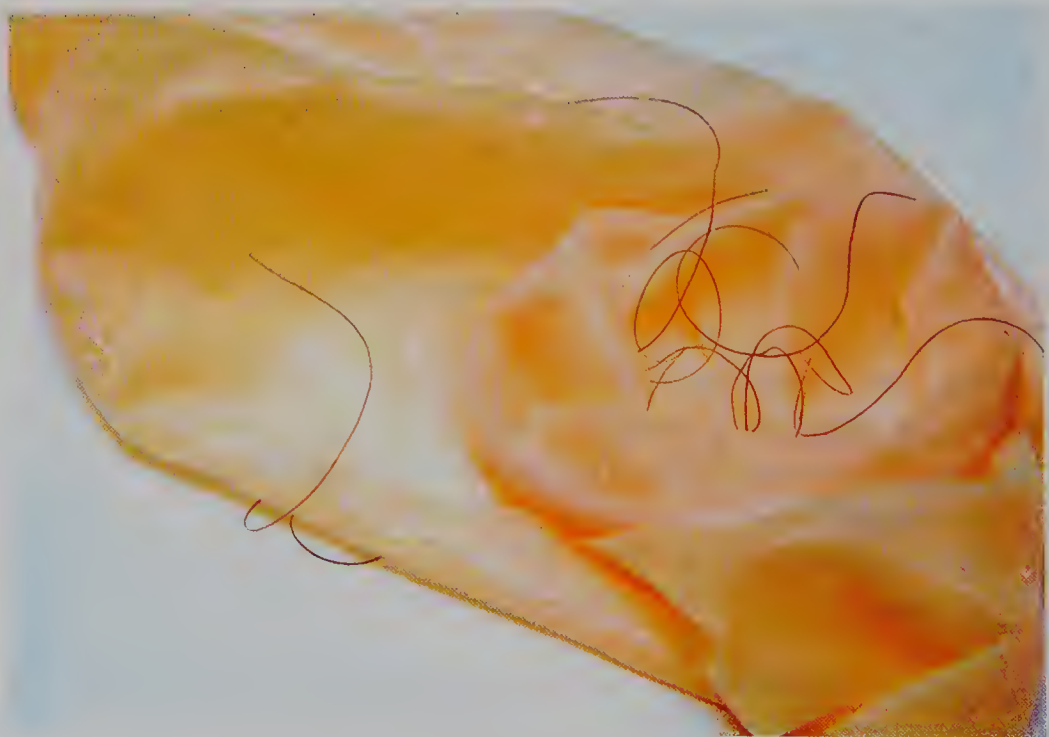
### *Hair*

During crimes of violence, specifically against persons, certain trace materials such as hair or fibers will be transferred between the victim and the perpetrator. These traces may also be left at the scene. Hairs are considered a class characteristic — although they cannot be identified as being absolutely identical to a given suspect's hair, they can be classified as similar to a known sample. In addition, they can be used to exclude a suspect. However, from an investigative point of view, hairs and/or fibers can

1. Help determine the extent of the crime scene
2. Place the perpetrator at the scene of the crime
3. Connect the suspect to the weapon
4. Corroborate statements of witnesses
5. Determine the route to and from the crime scene
6. Be located in any number of areas involved in the homicide:
  - a. The victim
  - b. The crime scene
  - c. The weapon
  - d. A tool
  - e. A vehicle
  - f. An article of clothing
  - g. The suspect



**Figure 17.18 RECOVERY OF HAIR EVIDENCE.** This photo depicts the proper recovery and collection of hair from the suspect's underpants. Note that the ERT is wearing protective gloves and is using tweezers. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)



**Figure 17.19 CONDOM RECOVERED AT CRIME SCENE.** A "dry" condom was recovered at the crime scene. No fluids were present but pubic hairs were discovered inside the partially rolled condom. A few of the pubic hairs contained roots and were submitted for DNA extraction. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)



**Determinations from Hair.**

1. Species — human or animal
2. Race — Caucasoid, Negroid, or Mongoloid (In certain instances, the determination of a combination of racial characteristics can be ascertained.)
3. Location of growth — body area from which the particular hair originated (head, thorax, chest, pubis, etc.)
4. Treatment — dyed, bleached, straightened, etc.
5. How it was removed — pulled, fell out, cut, etc.
6. Disease and/or damage
7. Genetic information: *DNA analysis can link hair to a specific source.* STR DNA analysis can be performed on hair, which could provide the authorities with the genetic fingerprint of the subject (see Chapter 16, “Forensic Application of DNA Analysis”):
  - a. Blood type, from shaft of hair
  - b. Other genetic markers, from roots of pulled hair
  - c. Sex, from roots of pulled hair
8. Traces of drug use:
  - a. Drug molecules circulate in the bloodstream, seep into the hair and stay there. It has been scientifically established that the hair is the body’s garbage can.
  - b. The drug molecules eventually find their way into the strands of hair. Analysis of these hairs using a mass spectrometer can provide authorities with a drug history of the offender.

It is recommended that a sample of hair from various parts of the body be obtained in all homicide cases. Even though hair evidence may not be crucial or known to exist in the early stages of the investigation, it may be discovered later after the body has been buried or destroyed through cremation. Samples should always be taken from various parts by pulling or plucking so as to obtain a piece of the root. If pulling or plucking absolutely cannot be undertaken for some reason, cutting the hair close to the scalp will suffice. An ordinary sampling will comprise approximately 24 to 48 pieces of hair. Hair removed from the head should be taken as follows: front, back, left side, right side, and top. The sample roots should then be air dried.

**Collection of Hairs from the Scene.** Use oblique lighting and/or ALS to scan the surfaces of the crime scene:

1. If hairs or fibers are located, gather by tweezers, being careful not to bend or break.
2. Masking or cellophane tape can be used to gather small fibers or hairs.
3. Place in sterile container and seal. (Folded paper or envelopes may also be used.)

### Conclusions from Hair Samples.

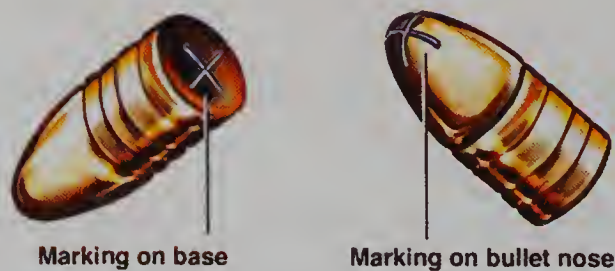
1. Hair did not come from unknown hair source.
2. Hair could have come from known hair source.
3. Hair sampling is too limited for meaningful comparison.
4. No conclusion can be made.

### Objects

#### *Bullets*

When a bullet is fired from a weapon, certain distinctive characteristics are imparted to the bullet by the gun. These markings can be examined through internal ballistics and provide the investigator with certain general information regarding the type of weapon used. In addition, ballistics evidence is highly individualistic, and a fired bullet recovered from the scene can be positively matched with the suspect weapon.

1. Bullets should be collected without damaging or marking the rifling — the series of grooves or lines on the interior surface of the barrel, which cause the bullet to spin and travel forward through the barrel with accuracy. These grooves and lines are transferred to the bullet as it is fired and are used by the ballistics expert to make comparisons.
2. Bullets embedded in doors, trees, walls, etc., should be removed by taking out a portion of the object in which the bullet has become lodged rather than by probing or digging. Digging for the bullet may cause additional marks, which may destroy the ballistics value of the evidence.
3. Recovered bullets should be examined for blood or other materials before packaging.
4. Bullets should be marked on the base or nose.
5. Each bullet should be packaged separately in an appropriate container, preferably one that will prevent any cross-contamination or accidental abrasion of the rifling marks.
6. Package should be marked to show identification and location of discovery.



**Figure 17.20** MARKING BALLISTICS EVIDENCE. Recommended procedure. Mark on the base and nose of the projectile. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

### ***Discharged Casings or Cartridges***

The recovery of discharged shells may indicate the direction and location of the attack as well as how many shots were fired. In addition, certain class characteristics such as make and caliber can be ascertained. Furthermore, if an automatic weapon was used, certain ejector or clip markings may be present.

1. Recovered casings should be marked on the inside wall of the shell by the mouth or, if this is not possible, as near to the opening as possible.
2. Never mark the recovered casing on or near the end, which contains the primer cap, because examination of weapon markings may be destroyed.
3. Always consider the possibility of fingerprints on the sides of these casings and take appropriate methods to preserve them.
4. Package in separate containers with proper documentation.

### ***Shotgun Shells***

1. Plastic or paper shotgun shells should be handled in the same manner as other discharged casings.
2. These items can be marked on the metal side part of the casing.
3. *Never mark on the base of a shell casing.*

### ***Live Cartridges or Rounds of Ammunition***

1. Examine for fingerprint evidence prior to marking.
2. Mark on side of casing.
3. Package, indicating the location of recovered rounds.

### ***Shotgun Wadding***

1. Recover and submit for laboratory examination.
2. Place in a separate container.

### ***Weapons***

1. Photograph and examine for fingerprints.
2. Examine for any serology or other trace evidence.
3. Place in special container, according to size, to protect evidence and prevent handling.
4. Forward to serology or crime lab for further analysis.

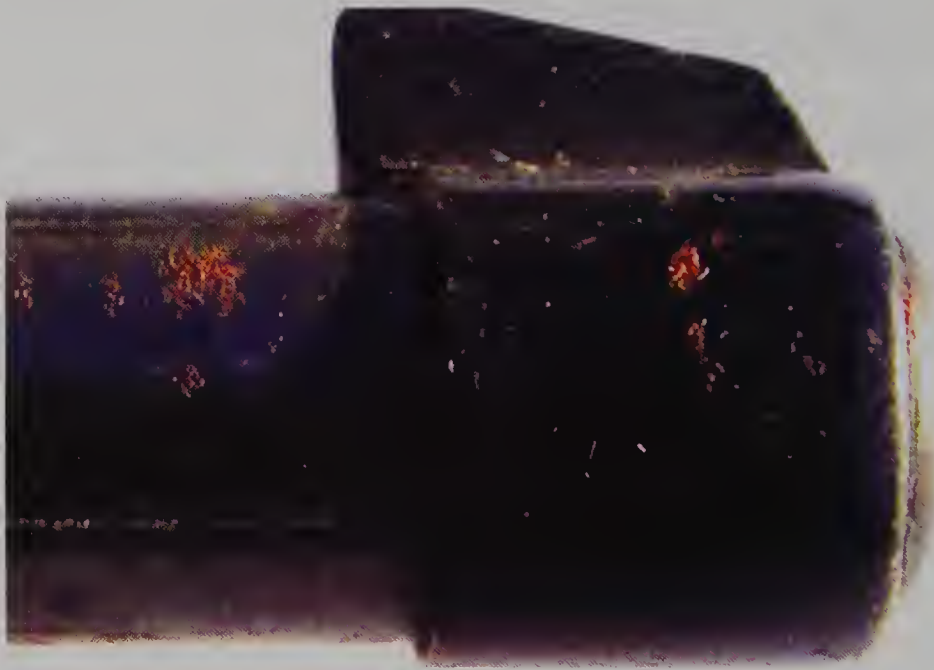
### ***Firearms***

1. Photograph in original position.
2. Examine for fingerprints.





**Figure 17.21 FINGERPRINT ON WEAPON.** (Courtesy of Detective Mark Czworniak, Chicago Police Department.)



**Figure 17.22 CLOSE-UP BLOWBACK ON GUN BARREL.** Death investigation: close up showing blood spatter blowback on revolver muzzle. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)

3. Examine for any serology (e.g., blowback of close-range firing may result in blood, hair, or tissue being transferred to weapon or in barrel of weapon).
4. Upon completion of preliminary examination for the preceding, unload weapon and render it safe before transporting.
5. Package individually in an appropriate container. (In circumstances in which the firearm must be transported for further examination at a proper facility,



**Figure 17.23 POSITIVE COMPARISON — CARTRIDGE CASE.** Positive comparison of two .44 magnum caliber discharged cartridge cases. The individual characteristics of each discharged cartridge case consist of horizontal breech face markings and a unique firing pin indent. (Courtesy of Detective Sergeant Frank Nicolosi and Detective Sergeant Anthony Tota, Westchester County, New York, Police Department's Ballistics Unit.)

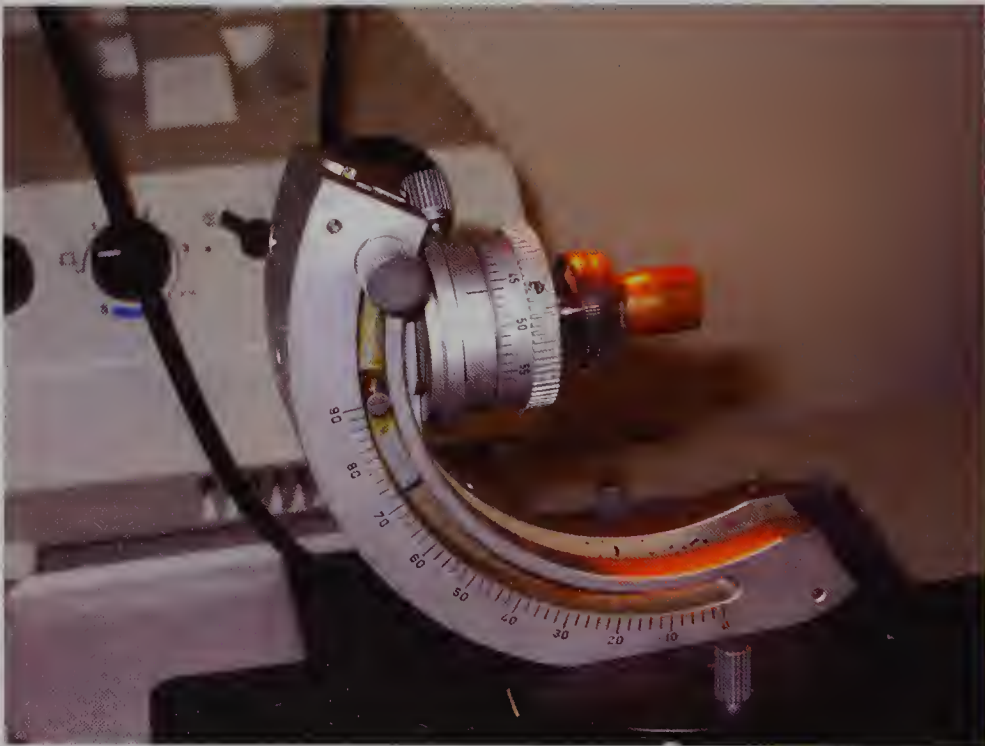
use a cardboard box. Draw a string through the trigger guard and attach this string at either end of the box, leaving the gun in a suspended position. For larger firearms such as rifles or shotguns, cut a notch in each end of the box and lay weapon across container.)

6. Indicate the brand name, model designation, serial numbers, caliber, and number of shots the weapon is capable of firing, e.g., 5- or 6-shot revolver, in reports and on evidence containers. Also indicate the type of finish — nickel plate, etc.
7. All weapons recovered should be marked for identification as soon as possible in the following manner:
  - a. Revolvers — mark on frame, barrel, and cylinder.
  - b. Rifles and shotguns — mark on receiver, bolt, and barrel.
  - c. Semiautomatic weapons — mark receiver (frame), slide, barrel, and any clips.

**Forensic Examination of Firearms and Ballistics.** The Integrated Ballistic Identification System (IBIS) developed by Forensic Technology, Inc. is an image analysis system for acquiring, storing, and analyzing the images of bullets and cartridge



**Figure 17.24 POSITIVE COMPARISON — BULLETS.** Positive comparison of two .45 caliber copper-jacketed bullets. The individual characteristics on each bullet include striations that appear on the land and groove areas. The striae that appear on these bullets are accidental in nature and unique to a particular firearm. (Courtesy of Detective Sergeant Frank Nicolosi and Detective Sergeant Anthony Tota, Westchester County, New York, Police Department's Ballistics Unit.)



**Figure 17.25 MOUNTED .45 CALIBER BULLET.** Right-hand stage of the comparison microscope with .45 caliber copper jacket bullet mounted to the wax holder, ready for examination and comparison. (Courtesy of Detective Sergeant Frank Nicolosi and Detective Sergeant Anthony Tota, Westchester County, New York, Police Department's Ballistics Unit.)





**Figure 17.26 LEICA DMC COMPARISON MICROSCOPE.** Detective Sergeant Frank Nicolosi is using this microscope, which consists of two optically paired microscopes connected to an optical bridge that allows the user to observe two objects simultaneously with the same degree of magnification. (Courtesy of Detective Sergeant Frank Nicolosi and Detective Sergeant Anthony Tota, Westchester County, New York, Police Department's Ballistics Unit.)

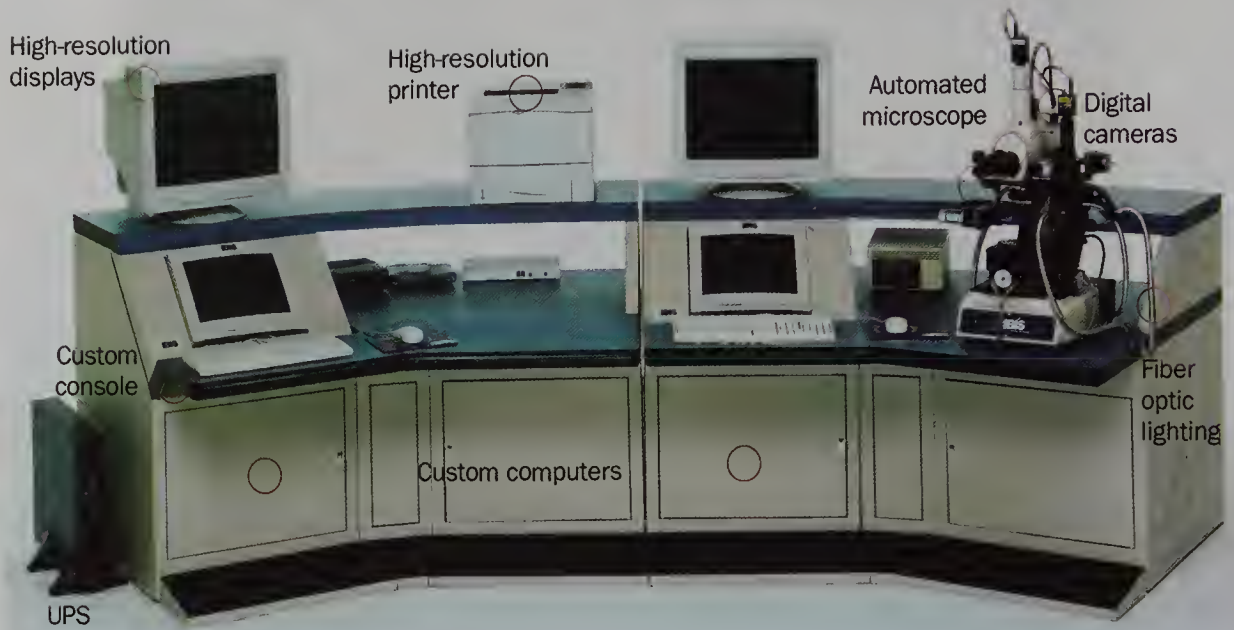
cases. IBIS<sup>®</sup> is Forensic Technology's cornerstone product. The system is composed of two modules:

- BULLETPROOF<sup>®</sup> for bullets
- BRASSCATCHER<sup>®</sup> for cartridge cases

The system captures video images of bullet striations and the markings left on cartridge cases, which produce an electronic "signature" stored in a database. Networking hardware and software allow transfers and comparisons of forensic evidence from different cities and countries.

- Unique characteristics of groove marks can be found on spent bullets.
- Unique characteristics left on cartridge cases are recorded.
- Evidence is read by laser and coded for computer storage.
- Results are entered into the data bank.
- Comparisons with an entire database of fired bullets/cartridges are possible.
- Networking hardware and software allow transfers and comparisons of forensic evidence from different jurisdictions.

BrassTRAX<sup>™</sup> is an automated, desktop cartridge-case acquisition station for collecting digital images of cartridge-case evidence for cataloging and comparison



**Figure 17.27 INTEGRATED BALLISTIC IDENTIFICATION SYSTEM (IBIS).** This photo depicts the IBIS Hub, which comprises a data acquisition station (DAS) networked to a correlation server and signature analysis station (SAS). The DAS enables users to acquire images of bullet and cartridge case evidence using an automated microscope and digital imaging technologies. Images collected by DAS are given a unique “digital signature” and sent to the correlation server for comparison and storage. The correlation server mathematically compares digital signatures from the DAS and ranks them according to the degree of similarity. Correlation results can be reviewed on the SAS. The SAS provides examiners with the ability to view and analyze results from the correlation server. Proprietary software utilized by the SAS enables users to sort and filter massive amounts of ballistics evidence, concentrating on only the most likely matches. (Courtesy of Forensic Technology, Inc., 888/984-4247, [www.forensictechnologyinc.com](http://www.forensictechnologyinc.com).)

within an IBIS correlation server. Because of its simplified design, BrassTRAX can be operated with little or no specialized training. Its advantages include:

- Scalable cartridge-case acquisition stations that can be added to an IBIS hub or data concentrator
- Getting evidence into the analysis process quickly
- Minimal user training and expertise to operate
- Desktop-sized unit
- Efficient local area network and wide area network connections
- Increased automation reduces operator variances

BulletTRAX-3D™ is a bullet-evidence acquisition station that uses the latest in three-dimensional imaging technology. BulletTRAX-3D utilizes a specially designed microscope that can capture a digital image and create a three-dimensional topographic model of the surface of a bullet. This information can then

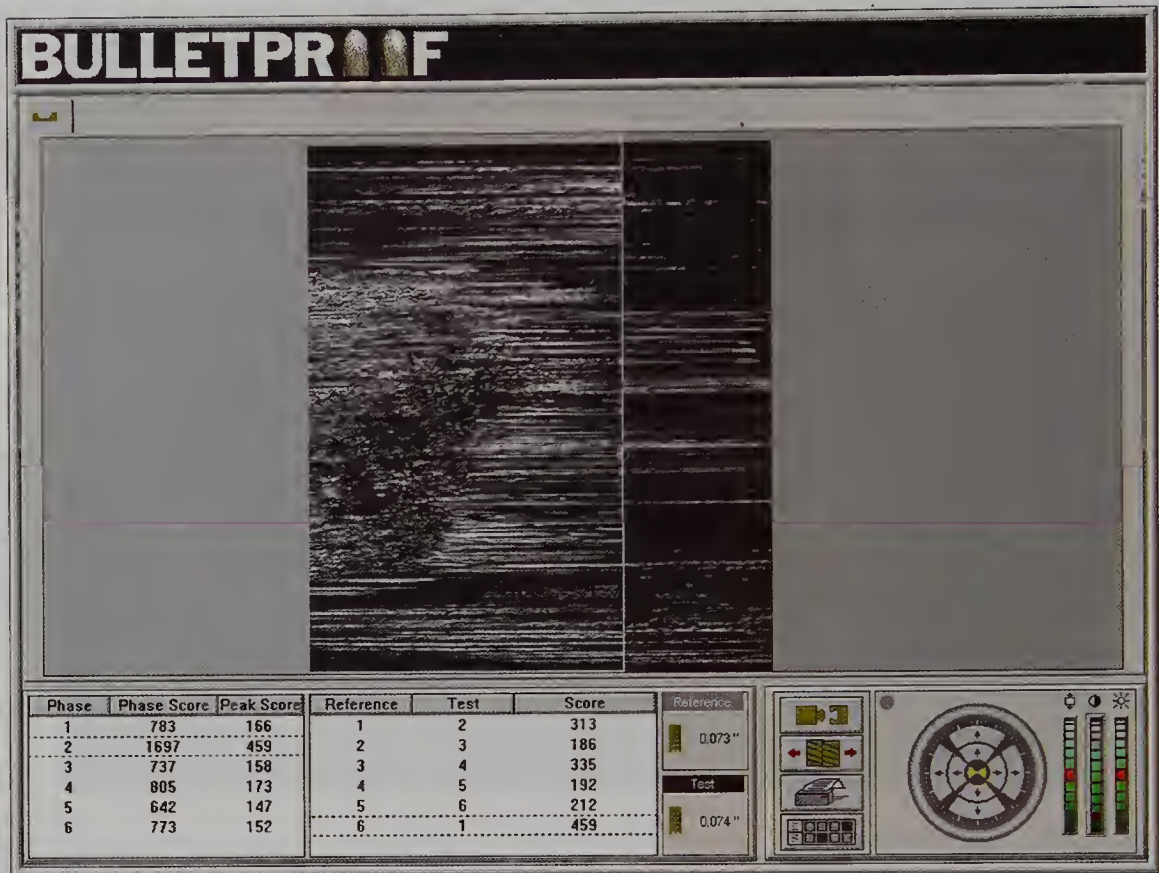


**Figure 17.28 EXAMINATION.** Detective Arthur R. Holzman makes comparisons at IBIS station. (Courtesy of Detective Sergeant Frank Nicolosi and Detective Arthur R. Holzman, Westchester County, New York, Police Department's Ballistics Unit.)



**Figure 17.29 IBIS COMPUTER STATION.** (Courtesy of Detective Sergeant Frank Nicolosi and Detective Arthur R. Holzman, Westchester County, New York, Police Department's Ballistics Unit.)





**Figure 17.30** IBIS BULLETPROOF FOR BULLETS. Screen depicting side-by-side comparison of bullets. (Courtesy of Forensic Technology, Inc., 888/984-4247, [www.forensictechnologyinc.com](http://www.forensictechnologyinc.com).)

be sent to a centralized IBIS correlation server. The advantages of BulletTRAX-3D include:

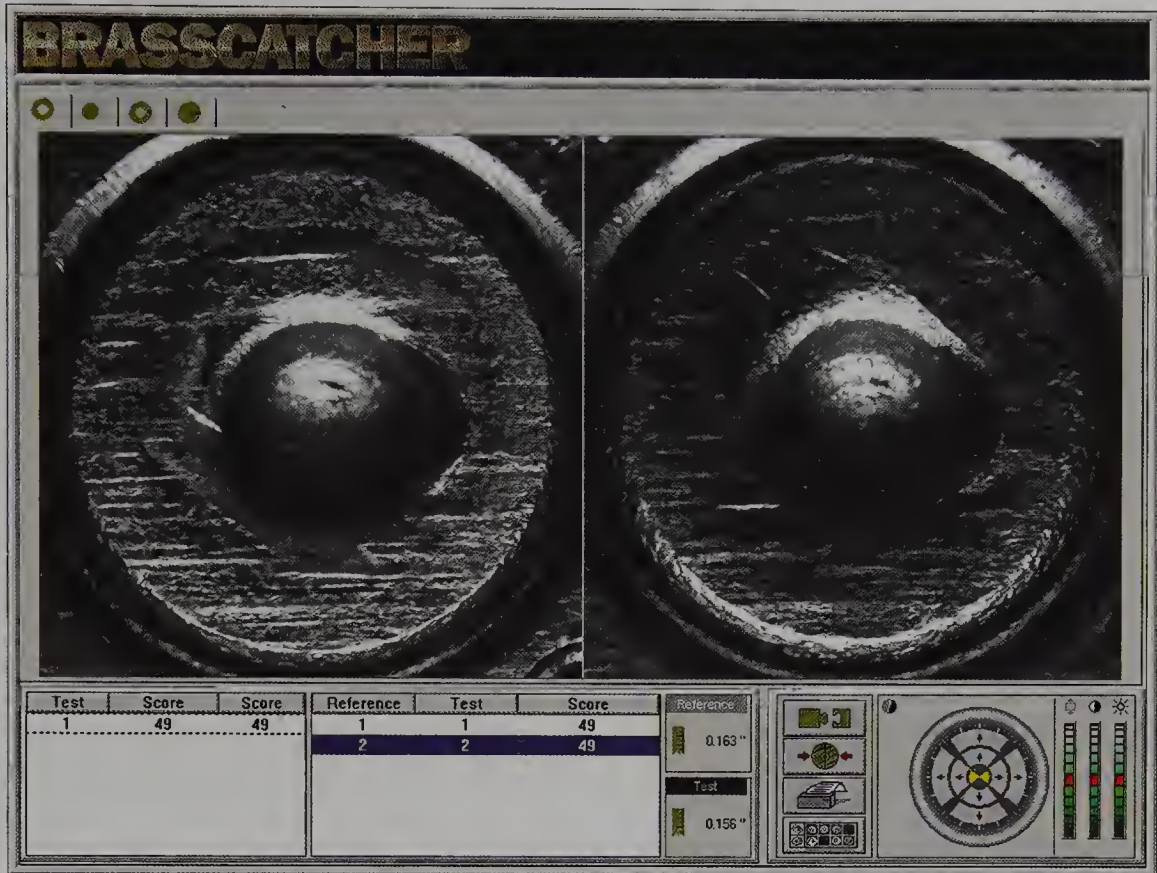
- Ability to take quantitative measurements of a bullet's surface
- Scalable acquisition station that is compatible with other IBIS solutions
- Minimal user training and expertise to operate
- Environmental conditions (light intensity, orientation, type) can be modified after the acquisition process
- Increased correlation accuracy

Forensic Technology, Inc., can be contacted at [www.forensictechnologyinc.com](http://www.forensictechnologyinc.com).

**Gunshot Residue Testing.** See "Gunshot Residue Testing" in Chapter 8.

### ***Fibers***

Fibers, like hairs, may be transferred between the victim and perpetrator and provide the investigator with an additional piece of class evidence which can be subjected to microscopic and microchemical testing. Cross-transfers of fibers between victims and offenders are particularly common in incidents of rape and other physical assault and in homicides committed by strangulation, blunt force



**Figure 17.31 IBIS BRASSCATCHER FOR CARTRIDGE CASE.** Screen depicting side-by-side comparison of cartridge cases. (Courtesy of Forensic Technology, Inc., 888/984-4247, [www.forensictechnologyinc.com](http://www.forensictechnologyinc.com).)

trauma, stabbing, and other means involving close physical contact. Items such as fibers, rope, string, or twine should be collected for examination. Fibers and threads from clothing, blankets, rugs, and other common woven objects also have their unique colorations and patterns that can be identified in meticulous detail during the laboratory process.

1. Examination of fibers will indicate origin as follows:
  - a. Vegetable — e.g., cotton and hemp
  - b. Animal — e.g., wool and mink
  - c. Mineral — e.g., glass wool and asbestos
  - d. Synthetic — e.g., nylon and orlon
2. Examination of fiber evidence will determine whether the fiber is similar to the control sample.
3. Collect fibers as follows:
  - a. Forceps
  - b. Tape
  - c. Vacuum sweeping (note that this is the least desirable method because too many contaminants are also collected)
4. Collecting samples by using sticky side of tape is considered the most practical method.



**Figure 17.32 EXAMINATION FOR TRACE EVIDENCE.** Forensic scientist Daniel Rothenberg examines trace evidence under a stereomicroscope, which provided a three-dimensional image. (Courtesy of Fred Drummond, chief of Forensic Sciences, Westchester County, New York, Forensic Laboratory. Photographer: Keith Mancini.)

Place samples in individual containers from each area gathered, mark appropriately, and forward to the laboratory for examination.

### ***Fabric***

1. Pieces of fabric found at the scene can be examined in a manner similar to fibers to determine:
  - a. Color
  - b. Type of cloth and fiber
  - c. Thread count
  - d. Direction of fiber twist
  - e. Dye
2. Class as well as individual characteristics can be obtained from fragments of fabric when matched by physically fitting the evidence pieces into its source.
3. Reconstruction of an event based upon fiber transfer is possible. (See Figure 17.33A through D.)

### ***Cigarette/Cigar Butts***

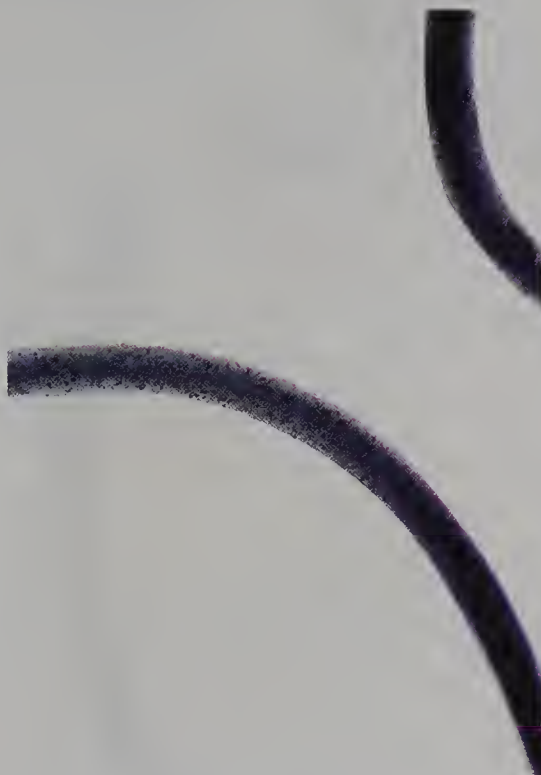
Cigarette or cigar butts found at the crime scene, especially those with filter tips, can be examined by serologists for the determination of blood type and sometimes other genetic factors (e.g., sex) of individuals who are secretors. (Also, see Chapter 16, “Forensic Application of DNA Analysis.”)



(A)



(B)



**Figure 17.33 FIBER EXAMINATION — RECONSTRUCTION.** In this case, a woman and her two children were stabbed to death. A third child was stabbed but survived. The suspect (the woman's boyfriend) was also stabbed. He claimed that he was stabbed when he tried to stop the woman from stabbing her children. He claimed that he wrestled the knife away from the woman and stabbed her in self-defense. (A) Bra from victim #1, which showed tears from knife. (B) Magnified image of exemplar nylon fibers from victim's bra. (C) Shirt from child homicide victim #2. (D) Magnified image of nylon fiber recovered from one of the stab marks in the child victim #2's shirt. This fiber was consistent with the fibers from the bra of victim #1. This showed a sequence of stabbings. Victim #1 was stabbed first and the knife was subsequently used on victim #2. This disproved the suspect's statement. (Courtesy of Fred Drummond, chief of Forensic Sciences, Westchester County, New York, Forensic Laboratory. Photographs courtesy of Ted R. Swartz and Mary M. Eustace. Photographers: Ted Swartz and Keith Mancini.)

*Continued.*

(C)



(D)



Figure 17.33 Continued.



**Figure 17.34 CIGARETTE BUTT AT CRIME SCENE.** This photo shows a partially smoked cigarette butt lying in the snow. The cigarette butt depicts lipstick and has apparently burned out in the snow. Investigators who were searching the area where a body had been found discovered this piece of evidence. In fact, the cigarette's condition was consistent with the time the body had been lying at the location. This victim was discovered shortly after being shot. It is important to note that DNA can be obtained from the saliva transferred to the cigarette. In this case, it matched the victim. (From the author's files.)

1. Collect with forceps or tweezers and ensure dryness.
2. Place into separate containers to prevent contamination.
3. Containers should be appropriately marked.
4. Forward to serology and/or DNA laboratory

### ***Displaced Furniture***

1. Examine for any fingerprints or serology.
2. This can be useful in crime reconstruction.

### ***Soil***

1. Soil on shoes, clothing, tools, weapons, and other objects may be useful in placing a suspect at the scene and providing the investigator with additional evidence. Also, microbiological comparisons in addition to mineral comparisons can be made.
  - a. Color of soil may be distinctive.
  - b. Minerals can be distinctive.
  - c. Bacterial profiles can be distinctive.
  - d. Vegetation (fungal spores, etc.) can be distinctive.
2. Collection of soil samples:
  - a. Collect several samples at the scene from various locations because mineral and organic contents vary within short distances.





**Figure 17.35 SAND ON SUSPECT'S VEHICLE.** The suspect's vehicle revealed sand on the tires and the rocker panel, which matched the sand at the beach where he had buried the body. (Courtesy of Detective Corporal Arthur Clark, East Providence, Rhode Island, Police Department.)



**Figure 17.36 SAND RECOVERED INSIDE SUSPECT'S VEHICLE.** Detectives located sand, fibers, and blood in the trunk of the suspect's car, linking him to the body buried on the beach. (Courtesy of Detective Corporal Arthur Clark, East Providence, Rhode Island, Police Department.)

- b. Gather at least a cupful or handful from each location.
- c. Ensure dryness.
- d. Package in separate containers.
- e. Mark properly for identification and location.

### ***Tools***

Tools suspected of being used in the crime should be examined as follows:



**Figure 17.37 EXAMINATION OF SUPECT'S VEHICLE.** This photo shows the interior of the suspect's minivan. The minivan had been used in a kidnapping and had apparently been cleaned by the suspect. (Courtesy of Fred Drummond, chief of Forensic Sciences, Westchester County, New York, Forensic Laboratory. Photographs courtesy of Kevin MacLaren. Photographer: Keith A. Mancini.)

1. Examine for serology or fingerprints.
2. If the tool contains any serological evidence, it must be carefully packaged to preserve this evidence.
3. If the tool contains traces of certain materials that are to be matched up with known samples, care must be taken so that this material is not rubbed off.
4. The portion of tool to be matched must be protected.
5. Broken tools and/or knives can be fracture matched to provide positive identification.
6. Never try to fit a tool into a tool mark or match broken pieces together.

### ***Vehicles***

1. Photograph and examine for serology.
2. Process for fingerprints.
3. Examine for other items of evidence.
4. Search for weapons.

### ***Clothing***

Each item of clothing collected as evidence should be individually wrapped in order to prevent cross contamination. If the clothing to be collected is wet, it should be air dried before it is packaged. Clothing may provide the investigator with additional evidence as follows:



**Figure 17.38 SUSPECT'S VEHICLE AFTER ALS.** An alternate light source was used to view the interior of the van. Areas of the van fluoresced at 435 nm showing areas of possible cleaning with detergents. (Courtesy of Fred Drummond, chief of Forensic Sciences, Westchester County, New York, Forensic Laboratory. Photographs courtesy of Kevin MacLaren. Photographer: Keith A. Mancini.)

1. Stains on clothing may match stains from the scene, the victim, or the suspect.
2. A suspect's clothing may contain blood similar to the victim's.
3. The victim's clothing may contain saliva and/or seminal fluid from the perpetrator.
4. Hairs or fibers may be present on clothing that match similar hairs or fibers from a particular scene or location or from the victim.
5. Tears or cuts made by the weapon in clothing can be matched to show the position of the victim at the time of the assault.
6. The deposit of gunshot residues on clothing can be analyzed to determine the approximate distance from which the gun was fired.

### ***Documents (Letters, Notes, Papers)***

These items may be examined to ascertain authenticity, locate fingerprints, or determine authorship in suicide cases, or for more advanced techniques such as psycholinguistic examination. (See "Psycholinguistics" in Chapter 20.)

1. The primary consideration in handling this type of evidence is the preservation of any fingerprints that may be on the item.
2. Evidence should be collected by using tweezers or forceps to pick up the paper gently.



3. Each item should be placed in a separate package. A clear or see-through package is best because it will allow the investigator to examine contents without contaminating the document with additional fingerprints.
4. If see-through packages are not available, the object can be photocopied using forceps to place the object on the machine and later to transfer it to the evidence envelope. (This will allow for reading and other examination of content without disturbing evidence value of the original document.)
5. Marking this type of evidence depends on the type of examination to be conducted. In some instances, a mark can be placed on a back corner of the paper. In other instances, just the package into which the document is placed will be marked.
6. Documents should not be folded.
7. Examine for latent prints.
8. Saliva on envelopes can be blood typed and sometimes analyzed for sex origin.

**Examination of Documents.** The examination for latent prints on papers, documents, and other porous materials such as wood proceeds in a series of steps:

*First step:* iodine fuming — reacts with oil or fatty fluids in latent print.

*Second step:* ninhydrin — penetrates material and reacts with amino acids in perspiration. Heat should be applied and print will emerge.

*Third step:* silver nitrate — reacts to salt in the perspiration. The document is then exposed to strong light.

### **Glass**

Glass fragments are often recovered as trace evidence during criminal investigations. Because of the many different types of glasses manufactured, the challenge for the forensic examiner is to uniquely identify and characterize the glass trace evidence material from a crime scene with a high level of certainty that is defensible. Characterization of glass fragments is normally accomplished by measuring the physical and optical properties of density and refractive index.

Examinations conducted on glass and glass fragments using a *refractive index* to prove that the known sample and the evidence glass may have come from a similar source has become more difficult as the range of refractive indices has narrowed within glass subtypes because of advances in glass manufacturing technology. Glasses from the same subtype, which have the same gross elemental composition, can have different trace and ultratrace elemental signatures.

According to Dr. David Baldwin, Ames Laboratory,<sup>1</sup> scientists have investigated the use of elemental analysis techniques, particularly inductively coupled plasma-atomic emission spectrometry and plasma-mass spectrometry, for discrimination or differentiation of glasses within a particular class (e.g., window glass) based on their trace elemental content.

Contact information: (515) 296-6372, MFRC@ameslab.gov.

**Technology Description.**<sup>2</sup> Laser ablation inductively coupled plasma-mass spectrometry is an analysis technique that can differentiate glass fragments, which have similar refractive indices, based on the unique trace elemental signatures of the glass samples. Glass can now be positively and forensically identified with a specific source. Lasers zap the glass fragments, which evaporate the particles into smoke. Then a gas sweeps the particles into hot plasma that allows the examiner to see a unique chemical makeup. The technique is so precise that the glass particles can be traced to a specific manufacturer. Microscopic shards of glass found in a suspect's hair, shoes, or home can be matched to a crime scene.

Additionally, criteria and protocols for the comparison and differentiation of glass fragments from different sources, based on multivariate analysis techniques, have been developed. Laser ablation-ICP-MS is a powerful and versatile technique for determining the elemental composition of a variety of different types of samples.

Furthermore, the direction and sequence of bullet holes through glass can be determined by examination of radial and concentric fractures and may prove important in reconstructing the crime.

Glass should be collected as follows:

1. Small pieces should be placed in a vial or pillbox.
2. Large pieces should be placed in a sturdy cardboard box with proper padding or protection to prevent further breakage during transport.



**Figure 17.39** INSIDE WINDOW — SHOTS FIRED THROUGH GLASS. Multiple homicide scene. Witnesses described two offenders who began shooting through the open doorway of a crowded night club. Evidence collected inside the club indicated that shots had also been fired from inside the club toward the first two shooters. Everyone inside the club denied that shots had been fired from inside. Bullet holes were discovered in the plate glass windows at the front of the club. The inside window depicted in this photograph has a nearly symmetrical hole in the glass. (Courtesy of Detective Mark Czworaniak, Chicago Police Department.)





**Figure 17.40 OUTER WINDOW — SHOTS FIRED THROUGH GLASS.** The outer window has an irregularly shaped hole caused by the bullet beginning to tumble after exiting the inside window — proof that shots were fired from inside the club and out toward the plate glass door. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)

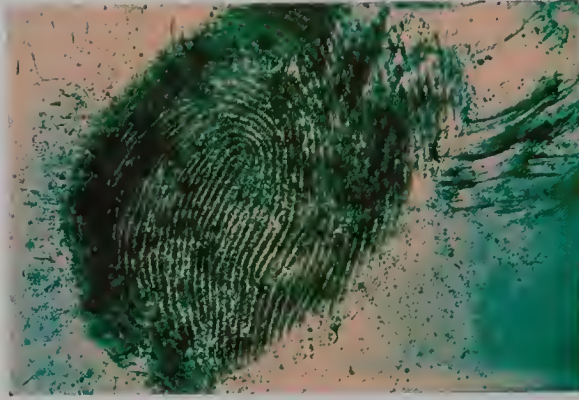
## Impressions

### *Fingerprint Examination*

The most valuable evidence that an investigator can obtain from the homicide crime scene is the fingerprints of the suspect. From an investigative point of view, any crime scene search should include a detailed examination for visible, plastic, and latent prints. It is important to note that the officer performing this function should preserve all developed prints. Even partial prints, which may seem insignificant, may become valuable later when compared with prints taken from a suspect. It should be noted that fingerprint powders do not interfere with serological analyses. However, ninhydrin sprays and other chemical means to make prints visible may interfere with DNA or serology tests. DNA can be obtained from fingerprints, and current technology will soon patent this new extraction technique.

**Automated Fingerprint Identification Systems (AFISs).** Utilization of automated fingerprint identification systems (AFISs) has significantly advanced the ability of law enforcement to identify and apprehend criminals whose prints are in various databases. Several AFIS technologies are in use across the United States, which can be problematic because the investigator may need to submit a questioned latent to more than one AFIS database. However, AFISs have revolutionized the manner in which police departments search latent prints for matches. Entire databases containing hundreds of thousands of fingerprints can be searched





**Figure 17.41 AFIS — LATENT PRINT.** Fingerprints such as this coupled with computerized automated fingerprint identification systems (AFISs) can be a rapid and precise way for the investigator to place an individual at a crime scene or tie two or more events to one offender. (Courtesy of Fred Drummond, Chief of Forensic Sciences, Westchester County, New York, Forensic Laboratory. Photographer: W. Reid Lindsay.)

within minutes. Latent prints recovered from a crime scene can be computer matched to a criminal fingerprint database. The success of these systems is due to the large databases maintained by a number of state law enforcement agencies as well as by the military and other government agencies, which maintain fingerprint databases on all personnel and employees.

**Types of Fingerprints.** Fingerprints are divided into three separate categories: plastic prints, latent prints, and visible prints.

1. *Plastic prints.* These impressions occur when the finger touches or presses against a soft pliable surface such as putty, gum, a newly painted area, the glue on a stamp or envelope, wax, flour, thick dust, soap, grease, tar, resin, or clay. A negative impression of the friction ridge pattern is produced, resulting in a plastic print.
2. *Latent prints.* These prints occur from natural skin secretions such as perspiration. When grease or dirt is mixed with the natural secretions, a stable print may be deposited on the surface. Latent prints, which are not visible, are usually found on objects with smooth or polished surfaces or on paper. The latent print is developed by dusting or chemical process. In some instances, these latent prints can be developed on rougher surfaces by using certain chemical processes.
3. *Visible prints.* These prints occur when the fingers, palms, or feet, which have been contaminated with a foreign substance, come into contact with a clean surface and are pressed onto the surface, leaving a print. The most common type is the dust print. However, substances such as ink, blood, soot, paint, grease, face powders, or oils contaminate the friction ridges of the fingers. When they are pressed against another surface, an image is transferred.



**Figure 17.42 PLASTIC PRINT.** This photo illustrates the “plastic print.” The fingerprint has been photographed with the finger’s impression in clay. (Courtesy of David Rossi, CSI/SCSA, Harris County, Texas, Sheriff’s Department.)



**Figure 17.43 LATENT PRINT.** This print was enhanced with amido black. (Compliments of Sirchie Fingerprint Laboratory, Inc., [www.sirchie.com](http://www.sirchie.com).)



**Figure 17.44 VISIBLE PRINT.** Also referred to as a patent print. This photo illustrates a bloody fingerprint on wooden surface. (Courtesy of David Rossi, CSI/SCSA, Harris County, Texas, Sheriff’s Department.)

**Development of Fingerprints.** The most common and practical method of developing prints at crime scenes is through the “dusting” technique. This is done by dusting or spreading fingerprint powder with a brush over the surface of the object suspected of bearing prints. The choice of the color of the powder to be used depends on the background of the object to be dusted. If the object is dark or black, a light powder is used; conversely, if the object is light or white, a dark or black powder is used. The most common color powders are black, silver, gray, and white. However, fingerprint powders come in many other colors, which can be used to contrast with any background. The brushes available are composed of camel’s hair, feathers, fiberglass, or nylon.

1. A small amount of powder is poured onto a clean piece of paper.
2. The brush is drawn across the powder and then tapped with the finger to remove excess material.
3. The surface of the object to be searched is then lightly brushed by the investigator, who uses curved strokes to locate prints.

The fingerprint powder adheres to the material and forms the latent print, which will first appear as a smudge and will require further treatment before it becomes a distinct print. This is done by brushing the powder parallel to the ridge structure of the print, being careful not to rub the print too hard. After the print is developed, it should be photographed first and then lifted.

Another method of dusting is done with magnetic powders. The Magna-Brush is dipped into the magnetic powder, which then adheres to the magnet in the brush. When the powder, which is actually fine iron filings, is evenly distributed



**Figure 17.45 DUSTING METHOD.** This photo illustrates “dusting” to develop a latent print. (Compliments of Sirchie Fingerprint Laboratory, Inc., [www.sirchie.com](http://www.sirchie.com).)





**Figure 17.46** THE CU-5 POLAROID CAMERA. 1 × 1 camera. (Courtesy of the Polaroid Corporation.)

on the end of the brush, the investigator uses the applicator like any other fingerprint brush. The advantage of this method is that there is no mess or excess powder left on the object. The disadvantage is that the Magna-Brush method cannot be used on ferrous metals and is very expensive. The prints that are photographed and located are lifted in the same manner as those obtained with the regular fingerprint powder.

**Preservation of Fingerprints.** Prints found at the scene of a homicide should be immediately recorded by photography before any attempt is made to “lift” the print. This procedure is recommended in the event lifting is not successful or the print is damaged during attempts to remove it from the item on which it is found.

In addition, photography also makes it easier to introduce the fingerprint evidence into court because parts of the object that contained the print can be seen in the picture. The method of photography used will vary with the expertise of the technician. I recommend that the investigator use the Polaroid Spectra Close-Up kit. Likewise, the CU-5 1 × 1 *fingerprint* camera produced by Polaroid is excellent for photographing fingerprints. Polaroid produces a fixed-focus camera called the CU-5, which is ideal for this type of work.

It should be noted that, in addition to latent fingerprints, *palmar* (palm, wrist) or *plantar* (foot, toe) skin designs may also be found at the scene.

**Remember:** These impressions or prints can also be used to positively identify suspects and should be preserved accordingly.

**Chemical Processes.** In addition to the powders, a series of chemical procedures can be employed to develop latent prints. These are iodine fuming, cyanoacrylate (superglue) fuming, ninhydrin, and silver nitrate. Furthermore, there have been some remarkable results in developing latent prints by use of the laser. Practically

speaking, the average investigator will not be employing these procedures. However, you should be aware of the availability of these methods in the event that further examination of evidence is necessary in order to discover and develop latent print evidence. For further information, see the U.S. Department of Justice, FBI Laboratory Division's "Processing Guide for Developing Latent Prints."

**Pattern Enhancement Reagents.** Sirchie Fingerprint Laboratories, Inc., produces many different enhancement reagents that can be used in the field as well as in the laboratory.



**Figure 17.47** ENHANCEMENT REAGENTS. (Compliments of Sirchie Fingerprint Laboratory, Inc., [www.sirchie.com](http://www.sirchie.com).)

### *Protein Enhancement Reagents*

**Ninhydrin.** Ninhydrin detects trace amounts of amino acids associated with body secretions. The amino acids are transferred with the sweat from the pores of a finger, palm, or sole of the foot. Amino acids are easily absorbed into absorbent and partially absorbent surfaces such as paper, unfinished wood, cardboard, or leather.

**Coomassie brilliant blue (R250).** Coomassie blue is a general protein that works well with bloodstains. It is a more sensitive, general protein stain than crystal violet stains.

**Crystal (gentian) violet.** Crystal violet works exceptionally well on adhesive surfaces such as tapes.

**Amido black.** This is a protein reactant that is sprayed onto the suspected area. Naphthol, the amido black powder, is mixed with glacial acetic acid and methanol. The formula is to mix 2 g naphthol, 100 ml glacial acetic acid, and 900 ml of methanol. The procedure is to set the prints with methanol, then spray the area with amido black. Rinse with 100 ml glacial acetic acid and 900 ml of methanol. Rinse with water. Clean with Clorox.

### *Fatty Acid, Elements, and Compounds Enhancement Reagents*

Iodine fuming

Small particle reagent

Superglue (cyanoacrylate) fuming

Different superglue fuming devices are available for use in the crime scene and the laboratory. Superglue is usually effective on nonporous surfaces. The cyanoacrylate produces visible prints, which can then be dusted with fingerprint powder to further

**Figure 17.48 CYANO-ACRYLATE WAND.** The Cynowand™ is a device that allows the crime scene investigator to process the scene by fuming the area several inches away from the suspect surface and sweeping the wand back and forth. Latent prints can be developed as they are fumed. (Compliments of Sirchie Fingerprint Laboratory, Inc., [www.sirchie.com](http://www.sirchie.com).)







**Figure 17.49** CYANOACRYLATE FUMING CHAMBER. The INSTA-FUME disposable fuming chamber creates an environment that provides crystal clear fuming bags that allow constant monitoring of the fuming process and eliminate clean up. (Compliments of Sirchie Fingerprint Laboratory, Inc., [www.sirchie.com](http://www.sirchie.com).)

enhance the image before photographing and lifting. The most effective method for fuming is to place the object in a fuming chamber. The use of alternate light sources (ALS) in conjunction with the pattern enhancement reagents is an excellent technique for visualizing the ridge patterns.

### ***Tire Tracks and Footprints***

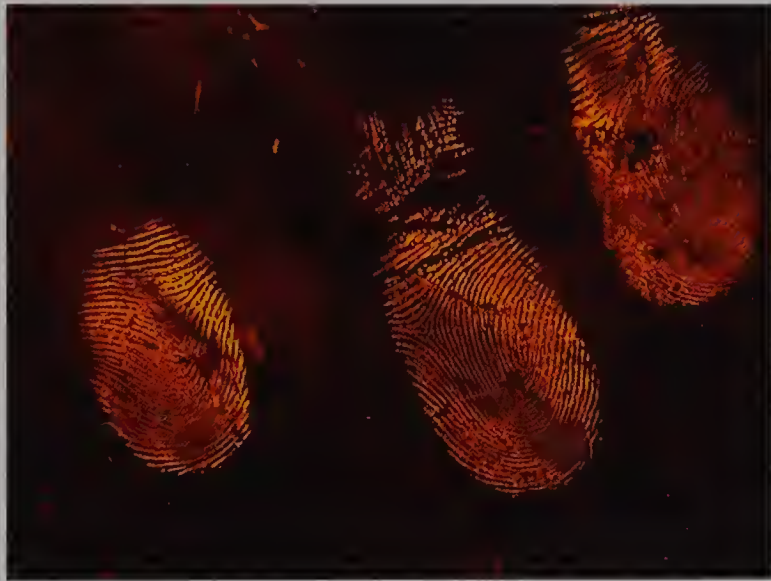
These impressions may be left in various types of material. The footprint is the most common impression left at or near the scene of a crime. A *footprint* is formed when the foot or sole and heel of a shoe becomes contaminated with some foreign substance, such as blood, paint, or dust. A *foot impression* is formed like a tire track, when the foot or tire treads are pressed into some type of moldable material such as dirt, clay, or snow. Any such impression should be preserved and used for comparison with suspects or vehicles. Impressions may be identifiable by wear, damage, characteristic properties, or repair marks.

I recommend William J. Bodziak's textbook, *Footwear Impression Evidence: Detection, Recovery, and Examination*, second edition,<sup>3</sup> as the all-inclusive source for the proper recovery and collection of this type of evidence.

Impressions should be collected in the following manner:



**Figure 17.50A LATENT PRINT — CYANOACRYLATE.** This photo depicts a latent fingerprint on a plastic bag that was developed with super glue and then stained with RAM (rhodamine 6G fluorescent dye) before illumination with UltraLite™ ALS. (Courtesy of CAO Group, Inc., Sandy, Utah.)



**Figure 17.50B ULTRALITE ALS GLUE PRINT.** This photo illustrates the effect of the UltraLite alternate light source using the BMT™ head, viewed through amber glasses and photographed through an amber filter. Extraordinary detail is maintained using this development method. (Courtesy of CAO Group, Inc., Sandy, Utah.)

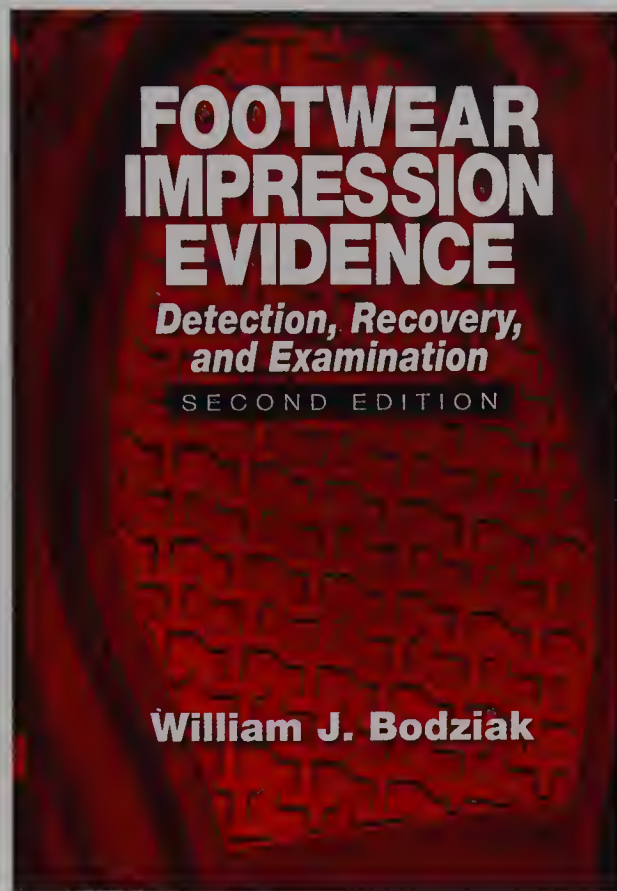
1. Photograph: prior to photography, the impression should be cleaned of all foreign matter. Lighting should be employed so as to enhance the details. A scale of measure should be included in the photo. Then a long-range view and a close-up should be taken.
2. Casting: A casting kit containing the following materials should be available for use at the crime scene:
  - a. Plaster of Paris (5 lb)

**Figure 17.52. DENTAL STONE CASTING.** Dental stone cast of shoe impression. (Courtesy of William J. Bodziak, supervisory special agent [retired], FBI Laboratory Division and author of *Footwear Impression Evidence*.)



**Figure 17.51 SHOE IMPRESSION IN SOIL.** This photo depicts a shoe impression in soil along with scale. (Courtesy of William J. Bodziak, supervisory special agent [retired], FBI Laboratory Division and author of *Footwear Impression Evidence*.)





**Figure 17.53** BODZIAK TEXTBOOK. *Footwear Impression Evidence: Detection, Recovery, and Examination*, second edition, CRC Press, Boca Raton, FL.

- b. Mixing container (flexible for reuse)
  - c. Stirring stick
  - d. Reinforcement material (sticks, wire, etc. to hold form)
  - e. Shellac or plastic spray (to form soft earth or dust)
  - f. Oil spray (to serve as release agent)
3. Preparation for casting:
    - a. Clean out the loose material without disturbing impression.
    - b. Plastic spray to fix soil prior to plaster.
    - c. Build a form around impression to avoid run-off.
    - d. Gently pour plaster of Paris over impression.
    - e. Add reinforcement sticks as form builds.
  4. Preservation of dust prints:
    - a. Photograph first.
    - b. Use a special lifter (black rubber with a sticky surface) placed sticky side down over the impression. Press on the impression and then remove lifter.

**Remember: Do not overlook soil evidence which may later be found on a suspect's shoes.**

In addition to obtaining castings, the investigator should collect soil samples from the location.



(A)



(B)

**Figure 17.54 (A) FOOTWEAR IMPRESSION IN BLOOD.** This photo depicts a piece of tile that contained a footwear impression in blood. **(B) ENHANCED FOOTWEAR IMPRESSION IN BLOOD.** This photo depicts the same tile treated with amido black stain. (Courtesy of William J. Bodziak, supervisory special agent [retired], FBI Laboratory Division and author of *Footwear Impression Evidence*.)





**Figure 17.55 TIRE IMPRESSION.** This photo depicts a 3-foot long cast of a tire impression using dental stone. (Courtesy of William J. Bodziak, supervisory special agent [retired], FBI Laboratory Division and author of *Footwear Impression Evidence*.)



**Figure 17.56 TIRE TRACKS AND SHOEPRINTS IN SNOW.** The track measurements were never measured as they should have been. The perpetrator and victim exited on the passenger side; only the perpetrator re-entered the vehicle and he did so on the driver's side. This is a good example of taking advantage of snow to document and reconstruct crimes. (Courtesy of William J. Bodziak, supervisory special agent [retired], FBI Laboratory Division and author of *Footwear Impression Evidence*.)





**Figure 17.57 TIRE IMPRESSION IN SNOW.** This photo depicts a tire impression in snow. (Courtesy of William J. Bodziak, supervisory special agent [retired], FBI Laboratory Division and author of *Footwear Impression Evidence*.)

### ***Tool Marks***

Tool marks, like footprints and tire tracks, may contain minute imperfections which are unique and can sometimes be microscopically compared with the tool or object in question. It is better if the investigator can remove the object bearing the tool mark. This can be done by removing the surface for submission to the laboratory. In instances where this would be impractical, the tool mark can be cast with a silicone rubber material. To collect tool marks:

1. Photograph (long-shot and close-up with Polaroid Spectra Close-Up kit or CU-5 1 × 1 *finger*print camera produced by Polaroid.
2. Cast with a silicone rubber casting after spraying surface with silicone release agent.

### ***Bite Marks***

Practically speaking, bite marks may be considered as tool marks and are valuable physical evidence. (See “Bite Mark Identification” in Chapter 20.)

## ***Bullet Holes***

1. In walls or furniture, first photograph and then examine trajectory.
2. In garments:
  - a. Photograph.
  - b. Safeguard for examination for powder residue.
  - c. Wrap (do not fold) and place in proper container. Direction of fire can be ascertained by using a color test to determine presence of lead (the Harrison test).

## ***Newly Damaged Areas***

The presence of damaged furniture or other objects, and any other newly damaged areas is indicative of some sort of violence or struggle. Practically speaking, anything that is out of place, damaged, broken, moved, or otherwise suspicious should be documented:

1. Photograph
2. Process for DNA
3. Examine for any serology
4. Process for fingerprints

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A *medicolegal autopsy*, an examination of a body after death, is always required in homicide cases. In this chapter, we will look at the purpose of the autopsy and describe the examination. I have also included a brief section on human anatomy to acquaint the investigator with some basic terminology used by the medical profession.

## The Medical Examiner/Coroner

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The medical examiner's or coroner's office is primarily concerned with the investigation of violent, sudden, unexpected, and suspicious deaths. The procedures used in the official medicolegal investigation of death fall under the supervision of the chief medical examiner or coroner, who is responsible for the evaluation and interpretation of the results of this inquiry. It should be noted that the terms *pathologist*, *coroner*, and *medical examiner* may be, but are not always, synonymous. In some jurisdictions, the coroner is not a physician, but an elected or appointed official responsible for taking legal charge of the body. In other jurisdictions, medical examiners are not pathologists, and pathologists are not necessarily medical examiners.

The recommended standards for a medical examiner system are that the chief medicolegal officer — whether referred to as medical examiner or coroner — be a qualified doctor of medicine who is also a certified pathologist skilled in forensic pathology. In those jurisdictions lacking a forensic pathologist, I recommend that the investigator seek out the services of a pathologist, preferably one with some experience in forensic medicine, and refer this pathologist to the procedures recommended by the National Association of Medical Examiners.<sup>1</sup>

For purposes of this chapter, the term *medical examiner* or *coroner* will be synonymous with forensic pathologist and will refer to the medicolegal authority responsible for conducting the investigation.

The certified pathologist has received advanced training in recognizing and interpreting diseases and injuries in the human body. It is this knowledge that enables the medical examiner/coroner to make significant contributions to the homicide investigation. Practically speaking, forensic experts play an active part in the homicide investigation and should be considered an important part of the



**Figure 18.1** NASSAU COUNTY MEDICAL EXAMINER'S OFFICE. A modern medicolegal facility and state of the art facility in Nassau County, New York, formulated and designed by Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York. (Courtesy of Dr. Lukash.)



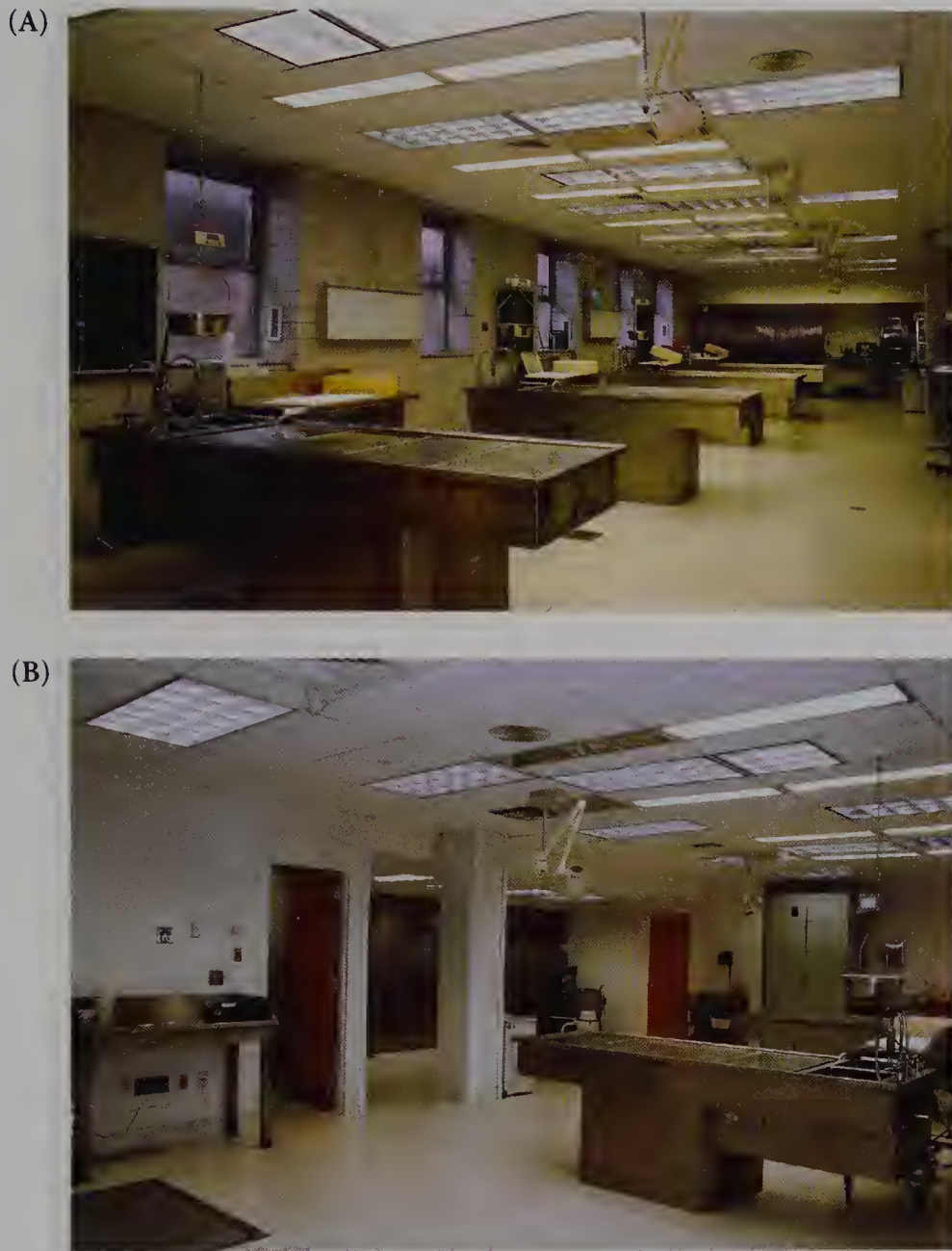
**Figure 18.2** MODERN MEDICOLEGAL FACILITIES — STORAGE. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)

investigative team. If the investigation is to be successful, the homicide detective and the forensic pathologist must work together.

## Investigation of Death

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An autopsy is always required in homicide cases. However, the chief medical examiner or coroner has the authority to investigate and certify any death which falls in the following categories:



**Figure 18.3 MODERN MEDICOLEGAL FACILITIES.** (A) and (B): Autopsy room. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)

Criminal violence

Suicide

Accident

Sudden death when in apparent good health

Deaths under unusual or suspicious circumstances

Abortion (legal or criminal)

Prisoner and inmate deaths or any death while in legal custody

Deaths when the deceased was unattended by a physician

Poisoning

Unclaimed bodies

Diseases constituting a threat to public health





**Figure 18.4 MODERN MEDICOLEGAL FACILITIES.** Photography room illustrating photographic equipment. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)

Disease, injury, or toxic agent resulting from employment  
 Death associated with diagnostic or therapeutic procedures  
 When a body is to be cremated, dissected, or buried at sea  
 When a dead body is brought into a new medicolegal jurisdiction without proper medical certification

The medical examiner takes charge of the body upon notification of death. The medical examiner/coroner or a duly authorized representative should respond to the scene of the homicide to conduct an investigation into the circumstances of death. In order to conduct the investigation properly, he or she must obtain as

OFFICE OF CHIEF MEDICAL EXAMINER  
OF THE CITY OF NEW YORK

IDENTIFICATION OF BODY

STATE OF NEW YORK  
CITY AND COUNTY OF NEW YORK, ss.:  
BOROUGH OF

..... age....., residing at  
.....in the .....  
being duly sworn, deposes and says: That he is a.....  
of the person whose body was found at....., 19 .....,  
and subsequently sent to the Office of Chief Medical Examiner; that deponent has seen the.....  
of said deceased, and has every reason to believe that the body now recorded at the Office of Chief Medical  
Examiner as.....  
is.....who was last seen or heard from by deponent on  
.....

Deponent therefore prays that identification of said deceased person be accepted by the Chief  
Medical Examiner of The City of New York.

Age:..... Sex:..... Color:.....  
Marital Status: .....  
Occupation: .....  
Residence: .....

Sworn to before me this

day of..... X.....

Identified to:.....Death Ctf. issued by:.....Date:.....

Figure 18.5 FAMILY IDENTIFICATION FORM.

2010A-20M-315055(76) 346

Compartment No. ....

OFFICE OF CHIEF MEDICAL EXAMINER  
CITY OF NEW YORK

Police Identification of Body

STATE OF NEW YORK  
CITY AND COUNTY OF NEW YORK, ss  
BOROUGH OF .....

PATROLMAN ..... SHIELD ..... PCT. ....

1. That he was the Patrolman who first saw the body of deceased:

.....  
Name of Deceased M. E. Case No.  
at .....  
Place of Death Date of Death

2. PLACE of OCCURRENCE (State exact location, streets, apt. etc.):

.....  
.....  
Time Date

THAT HE OBTAINED THE FOLLOWING INFORMATION AS TO THE CIRCUMSTANCES OF THE OCCURRENCE:

.....  
.....  
.....

THAT HE IDENTIFIED THE BODY OF THE DECEASED AT THE OFFICE OF THE CHIEF MEDICAL EXAMINER, IN THE PRESENCE OF OR TO:

DRS. ....  
.....  
.....

Sworn to before me this .....  
day of .....  
Time .....

.....  
Signature of Patrolman

Figure 18.6 POLICE IDENTIFICATION FORM.





**Figure 18.7 BODY BEING WEIGHED AND MEASURED PRIOR TO AUTOPSY.** (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



**Figure 18.8 MODERN MEDICOLEGAL FACILITIES.** X-ray machine for examining body prior to autopsy. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)

much information as possible from the homicide investigator at the scene. An investigator fully apprised of all developments of the case should be present later at the autopsy.

In some jurisdictions, only the first officer is required to attend the autopsy and only then to identify the body for the chain of custody. In my opinion, this is not a wise course of action. From an investigative point of view, I recommend that the investigator familiar with the facts of the case be present to brief the pathologist. Many times during the autopsy, questions will arise that only someone who was present at the scene can answer. The investigator present at the crime scene can provide the pathologist with a detailed account of all that transpired from the discovery of the body to the preliminary investigation at the scene and thereby assure that both parties will have the benefit of all available information.

In addition, sometimes certain changes take place in the body during transportation and storage. These changes may be misinterpreted if someone who was present at the scene and observed the body in its original condition is not present at the autopsy to point out these changes. I recall one case in which the deceased's face was flattened, giving the impression that the body had been face down, when in fact the body was on its back when discovered. A heavy piece of furniture placed on the deceased's face by the killer had created this postmortem artifact. The pathologist who performed the autopsy was at first confused by this apparent contradiction. However, because I had been at the scene and observed the body in its original position with the piece of furniture on the face, I was able to explain.

### **Cause, Mechanism, and Manner of Death**

The terms *cause*, *mechanism*, and *manner of death* sometimes prove confusing. The terms are sometimes used interchangeably or inappropriately by persons who have heard them uttered on television or have read them in fictional literature. The appropriate terms and explanations are provided here.

The *cause of death* is any injury or disease that produces a physiological derangement in the body that results in the death of an individual. Examples of causes of death are gunshot wound to the head, stab wound to the chest, blunt force trauma to the head, strangulation, and coronary arteriosclerosis.

*Mechanism of death* is the physiological derangement produced by the cause of death that results in death. Examples are hemorrhage, septicemia, and cardiac arrhythmia. An individual can die of massive hemorrhage produced by a gunshot wound, a stab wound, a malignant tumor, etc. Likewise, a cause of death can result in many possible mechanisms of death such as hemorrhage or peritonitis.

The *manner of death* explains how the death occurred. There are generally four manners of death: homicide, suicide, accidental, and natural. However, the medical examiner has the option of classifying the death as undetermined. This is an important consideration and is used when the medical examiner

cannot state with any degree of medical certainty that the death is a homicide or a suicide. In fact, as a professional murder cop, I would prefer that the classification be left undetermined rather than “locking into” a specific classification. The term *undetermined* actually means that the death cannot be determined without further police and medical investigation. In this textbook, there are clear examples of the application of this principle, especially in equivocal death investigations.

### ***Practical Application of Terminology***

If an individual dies of a massive hemorrhage, this is an example of the *mechanism of death*. If the massive hemorrhage is due to a gunshot wound to the heart, this is the *cause of death*. The *manner of death* would be determined by the circumstances, for example:

Someone shot him — homicide

He shot himself — suicide

The gun fell and discharged — accident

One is not sure what occurred — undetermined

### **Purpose of the Autopsy**

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The purpose of the medicolegal autopsy is to establish the cause of death and make a medical determination of all the other factors which may be involved in the death. The autopsy provides the forensic pathologist with an opportunity to examine the body externally and internally to determine what wounds and injuries were sustained and to determine the cause of death.

In some instances, the cause of death cannot be determined; however, because of the condition of the body and the circumstances surrounding its discovery, the medical examiner will determine that the death should be considered a homicide. The findings of the autopsy will usually determine whether death is the result of a homicide. This is important because some conditions, which are in fact natural, may sometimes suggest homicidal violence. Such cases can present serious problems for the homicide detective.

For example, a person suffering a cerebral hemorrhage may become convulsive, compelling the police to subdue him or her. Actually, the victim may have suffered a subarachnoid hemorrhage due to a spontaneous rupture of a small aneurysm (dilatation of the wall of an artery) in the brain. The spontaneous nature of this condition is unaffected by the fact that the deceased may have been slapped, punched, or otherwise subjected to physical abuse during any minor argument or restraining activity. The hemorrhage may be rapid or slow. If it is slow, the victim usually remains conscious, but may become disturbed or aggressive and cause a commotion. In certain instances, these persons may die while police are attempting to subdue them, prompting the erroneous assumption that the use of force by the



police caused the death. The pathologist's findings during the autopsy will determine that the death was caused by the ruptured aneurysm and not by any physical restraint. Likewise, death from lobar pneumonia is sometimes preceded by delirium or excitement, which may require that police be summoned. This situation may also produce minor injuries totally unrelated to the death.

The death of an alcoholic may at times cause investigators to believe that the death is suspicious or possibly homicidal, based on the general condition of the body. It should be noted that alcoholics may physically deteriorate to a point where they continually fall or cut themselves, resulting in numerous cuts, abrasions, and contusions, which may be fresh or in various stages of healing. Furthermore, such persons are generally untidy and during their delirium may upset furniture, drop things, throw things around, and generally create an appearance of some sort of violent assault, which did not in fact occur.

Investigators should also be aware of the various postmortem changes, as well as the possibility of the presence of postmortem artifacts, which can appear to be wounds or additional injuries on the body. Examples of postmortem artifacts are insect and animal activity and decomposition. Discolorations in the skin may resemble bruises or injuries and may mislead the investigator. All observations at the scene should be recorded in the investigative notes and brought to the attention of the pathologist to assure that he or she can separate antemortem from postmortem conditions.

Conversely, investigators should realize that fatal violence may be inflicted without any external signs of trauma. Poisoning is probably the most obvious type of homicide in which no external wound is present. However, in any number of other circumstances, an injury may not be readily observed, such as a torn spleen from a kick or other trauma to the abdomen, or an asphyxiation where the victim has had a pillow held over the nose and mouth. I remember reading about a series of senior citizen deaths, all of which were thought to have been natural. There was no evidence of a crime, and preliminary medical examination did not reveal any trauma. However, later a suspect was developed after evidence of asphyxia was discovered in a similar case. A review of the other cases by the medical examiner, who ordered the exhumation of certain bodies, and the police, who reopened their investigation, indicated that these "natural" deaths were in fact homicides.

It was later learned that the suspect would enter the bedrooms of the victims and hold a pillow over their faces as they lay in bed, causing suffocation. The suspect would then steal the TV and other small items of value without disturbing the general condition of the scene. In most instances, the bodies had begun to decompose before discovery. Police later located a witness who had observed the suspect leaving the apartment of one of the victims with a TV. Although evidence of this type of trauma could have been identified earlier, the procedures involved in cases of apparent natural death where no suspicion was involved were not sufficient to address this possibility. The jurisdiction involved subsequently changed its policy.



**Figure 18.9** HAMMER ASSAULT — INJURIES TO SCALP. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)

Interestingly, I have been approached often by investigators attending my seminars, who ask me whether a detective should respond to all unattended deaths. Apparently, many police chiefs, who have never been detectives, have attended administrative management classes and have been advised that their agencies could save money and resources by utilizing patrol officers to handle unattended deaths. In my opinion, this is a recipe for disaster. It is imperative that an experienced detective be assigned to investigate all unattended deaths. These deaths could be very well be equivocal in nature or actually be staged crime scenes that would most likely be missed by an inexperienced patrol officer, who is simply preparing an official record or document to facilitate removal of the body.

Determining the mechanism of death obviously requires the expertise of the forensic pathologist. The detective should be constantly aware that things are not always as they appear to be. He or she should keep an open mind, conduct a thorough investigation, and remember that teamwork is essential. Then the two will be able to pool their knowledge to reach a successful conclusion.

### **Investigative Information Provided by the Autopsy**

In addition to supplying the homicide investigator with an official cause of death, the forensic pathologist conducting the autopsy can assist the investigation by answering such questions as:

1. What type of weapon was involved in the death? (A hammer or screwdriver might leave impression-type wounds, for example.)
2. Are the wounds consistent with investigative evidence?



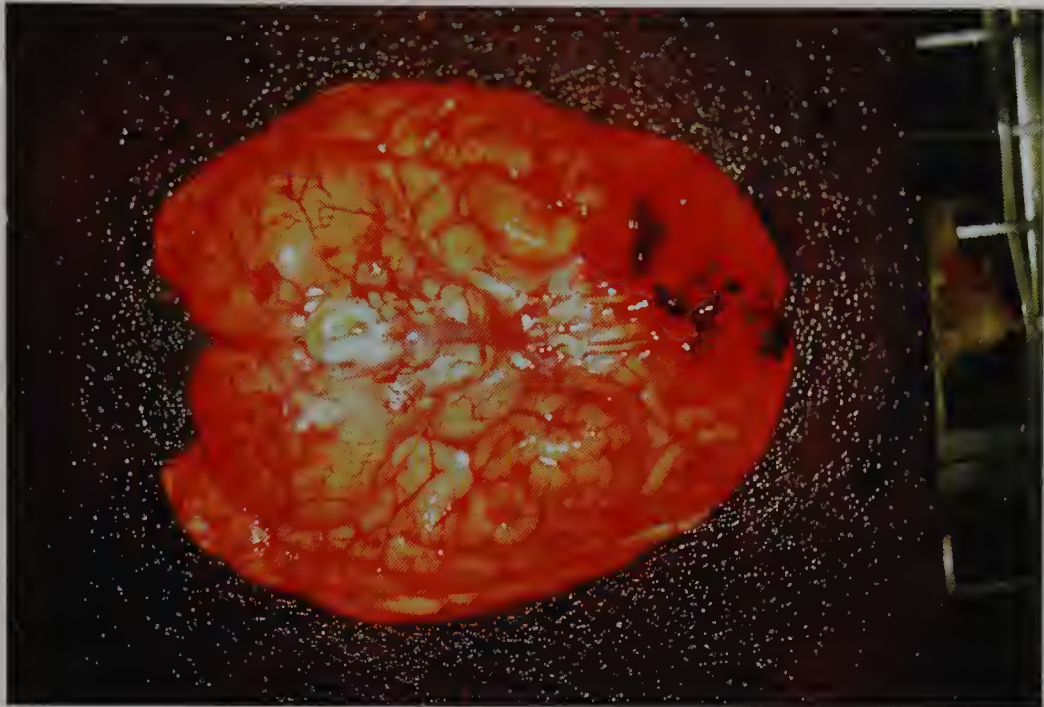


**Figure 18.10 HAMMER ASSAULT — INJURIES TO SKULL.** Pattern impression of hammer head into skull, which will allow for calculations of shape and dimensions of the hammer used in the attack. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



**Figure 18.11 BRAIN WITH HEMORRHAGE.** (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)





**Figure 18.12 CONTRECOUP CONTUSIONS.** Contrecoup contusions occur in the brain directly opposite to the point of impact. They are seen most commonly in the frontal and temporal lobes. Contrecoup contusions are classically associated with falls. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)

3. Which wound was the fatal wound? (When there are numerous gunshot or stab wounds, this determination frequently cannot be made.)
4. Approximately how long could the deceased have lived after the assault (survival time)?
5. How far could the deceased have walked or run?
6. Was the body dragged or dumped?
7. From what direction was the force applied?
8. What was the position of the deceased at the time of injury (sitting, standing, lying down, etc.)?
9. Are the injuries antemortem or postmortem?
10. Is there any evidence of sexual assault (rape or sodomy)?
11. Was the deceased under the influence of drugs?
12. Was the deceased under the influence of alcohol?
13. Are there any foreign objects in the cadaver (bullets, broken blades, fibers, etc.)?
14. Is there any evidence of a struggle (defense wounds, etc.)?
15. What is the estimated time of death?

It is important to note that most initial injuries do not cause immediate death. There is often a “survival interval” during which the person may engage in considerable activity before collapsing and dying. In fact, instances have been documented in which persons who have been severely injured or who have suffered multiple gunshot wounds have performed unusual physical accomplishments. This type of



**Figure 18.13 ILLUSTRATION OF THE CONTRECoup INJURY.** An injury to a part of the body (usually the brain) caused by a blow to the opposite side. [Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).]

activity before death will be readily observable to the trained pathologist, who will be able reasonably to determine the survival time by noting the condition of internal organs and the forms of hemorrhage in the body cavities or stomach of the deceased. For example, hemorrhage into the chest and heart cavities following a penetrating wound usually indicates that the individual survived for only a short time; bleeding into the stomach or lower abdominal tract indicates a longer survival time.



The presence of a wound on a body does not necessarily mean that someone else inflicted the wound. Suicide must always be considered. It is a common error to believe that certain wounds would have been too painful to be self-inflicted.

**Remember: No wound is too painful if the person is determined to take his or her life.**

The pathologist considers the location, size, shape, character, and type of wound before the death is determined a homicide. For wounds to be self-inflicted, the locations must be accessible to the deceased. In most suicides, the instrument of death will be nearby. (However, the absence of a weapon is not conclusive evidence that the death is a homicide.)

The number, type, and location of wounds may also provide information to the investigator. Unusual types of wounds — such as mutilation of the body, removal of private parts, or eyes put out — may offer clues. Secondary wounds or “overkill” injuries may indicate extreme emotion.

The pathologist can ascertain how recent a wound is and which wound caused the death. He or she can also distinguish between wounds produced before and after death. Furthermore, in cases where the body has been out of doors or in water, there will be evidence of feeding by wild animals or postmortem injuries due to marine life or boat propellers, which the investigator might mistakenly interpret as being related to the cause of death. The pathologist also looks for defense wounds; these are usually found on the arms and legs of the victim, particularly between and on the insides of the fingers.

In some instances, the autopsy examination will reveal a specific type of weapon. For example, a piece of the knife blade may break off in a victim’s body. When the barrel of a gun is pressed close to the skin of a victim, it will leave a mark of the barrel.

The investigator can assist the medical examiner by keeping the crime scene under police control until after the autopsy has been completed. This procedure allows for further search in case additional information is discovered during the autopsy and assures admissibility of any additional evidence.

## The Medicolegal Autopsy

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The complete *medicolegal autopsy* or *postmortem examination* involves the following steps:

- Examination of the crime scene
- Identification of the body
- External examination of the body
- Internal examination of the body
- Toxicological examination of body fluids and organs





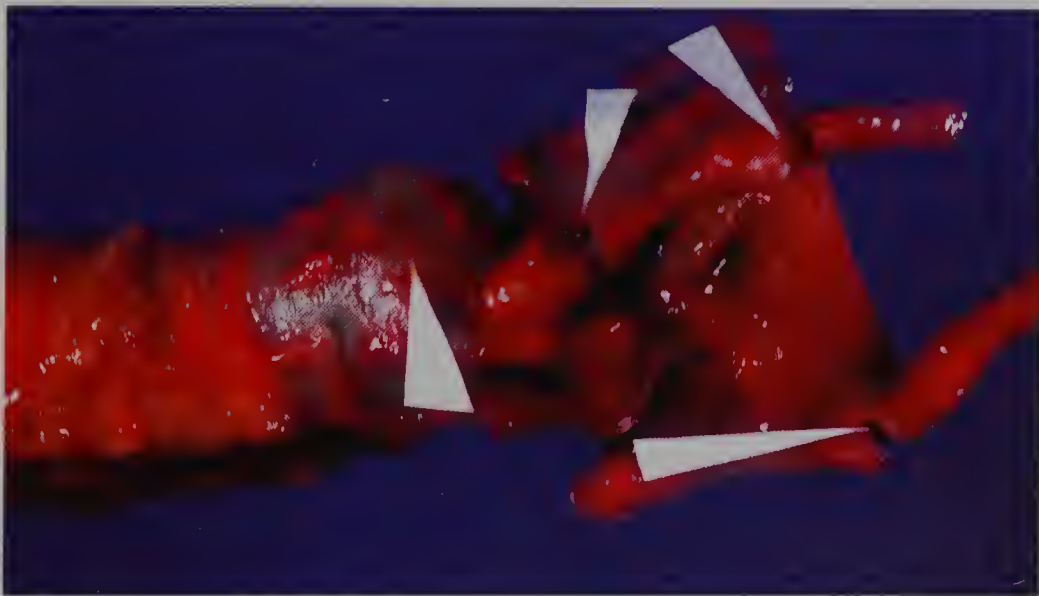
**Figure 18.14 STRANGULATION MARKS ON NECK.** This photo shows evidence of small contusions and fingernail marks on the front of the victim's neck caused by the assailant's fingers compressing the neck. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



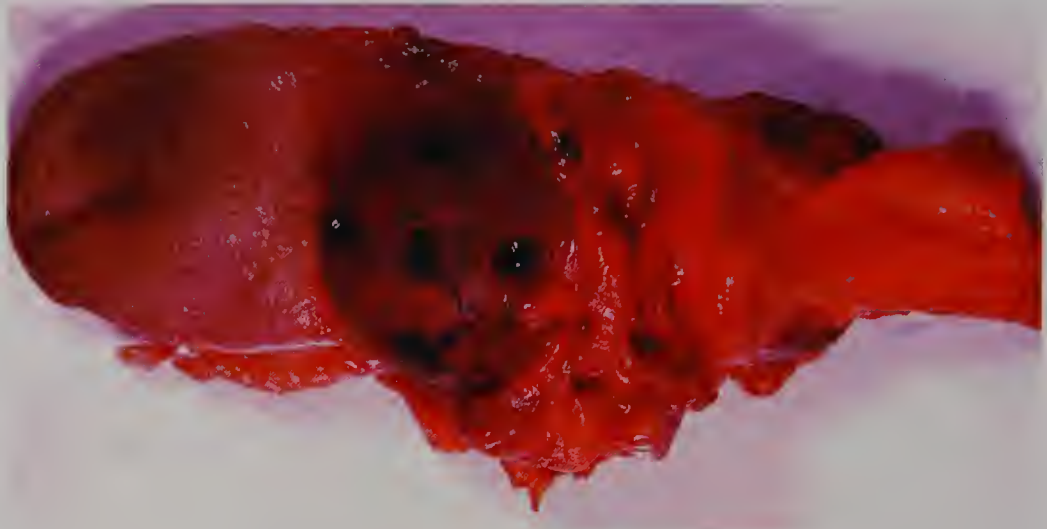
**Figure 18.15 HEMORRHAGE IN EYE.** Hemorrhage in the eye of a victim who was manually strangled. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)



**Figure 18.16 PETECHIAL HEMORRHAGE.** Minute (pin-like) hemorrhages that occur at points beneath the skin, usually observed in conjunctivae (the mucous membrane lining the inner surface of the eyelids and anterior part of the sclera). (Courtesy of William K. Brinkhous, investigator, North Carolina Office of the Chief Medical Examiner, Chapel Hill, North Carolina.)



**Figure 18.17 FRACTURES OF THE CRICOID CARTILAGE.** This photo shows fractures in the ring-shaped cartilage connected to the thyroid cartilage. The larynx, which lies in front of the fourth through sixth cervical vertebrae, is protected only by the skin and thin layer of fibrous connective tissue called the fascia. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



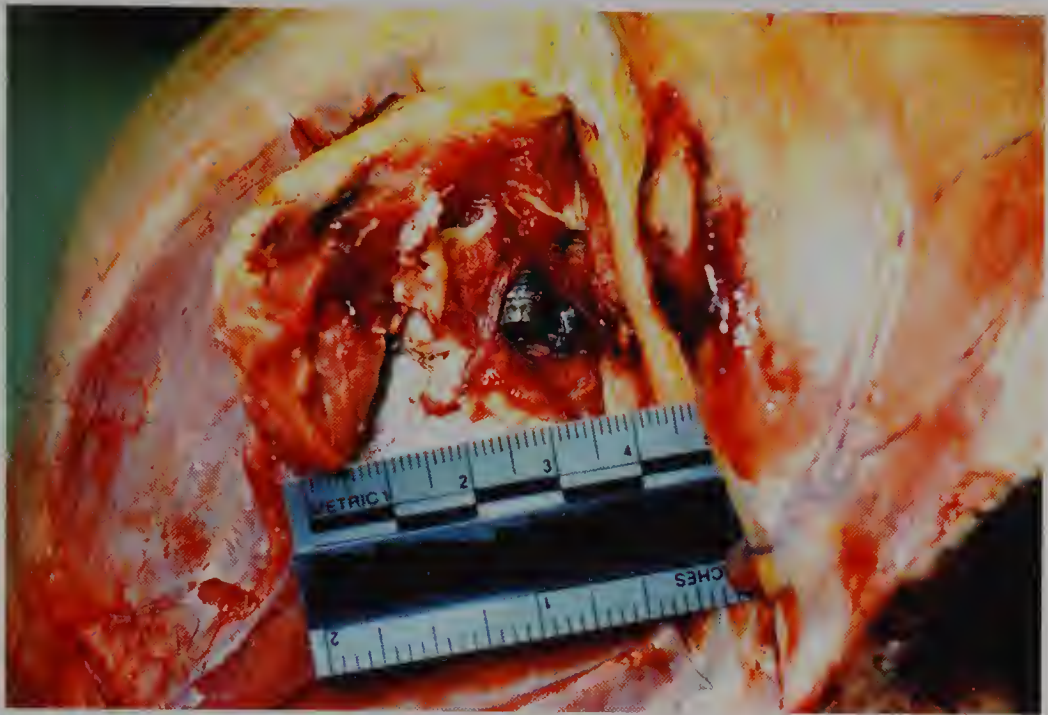
**Figure 18.18 ASPHYXIAL DEATH — OBSTRUCTED AIRWAY.** Child who was playing with tinker toys was found unconscious. He apparently swallowed one of the pieces, which the medical examiner found lodged in the esophagus obstructing the airway. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



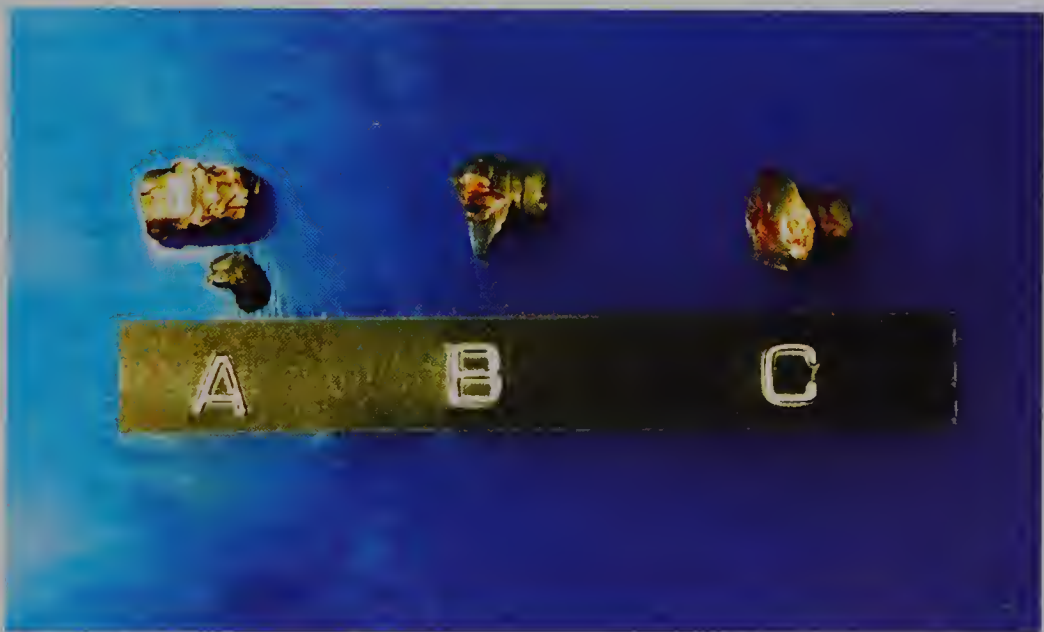
**Figure 18.19A ENTRANCE WOUND.** Entrance wound in a bizarre shooting case. (Courtesy of Detective James M. Yoghourtjiam, crime scene investigator, Racine, Wisconsin, Police Department.)

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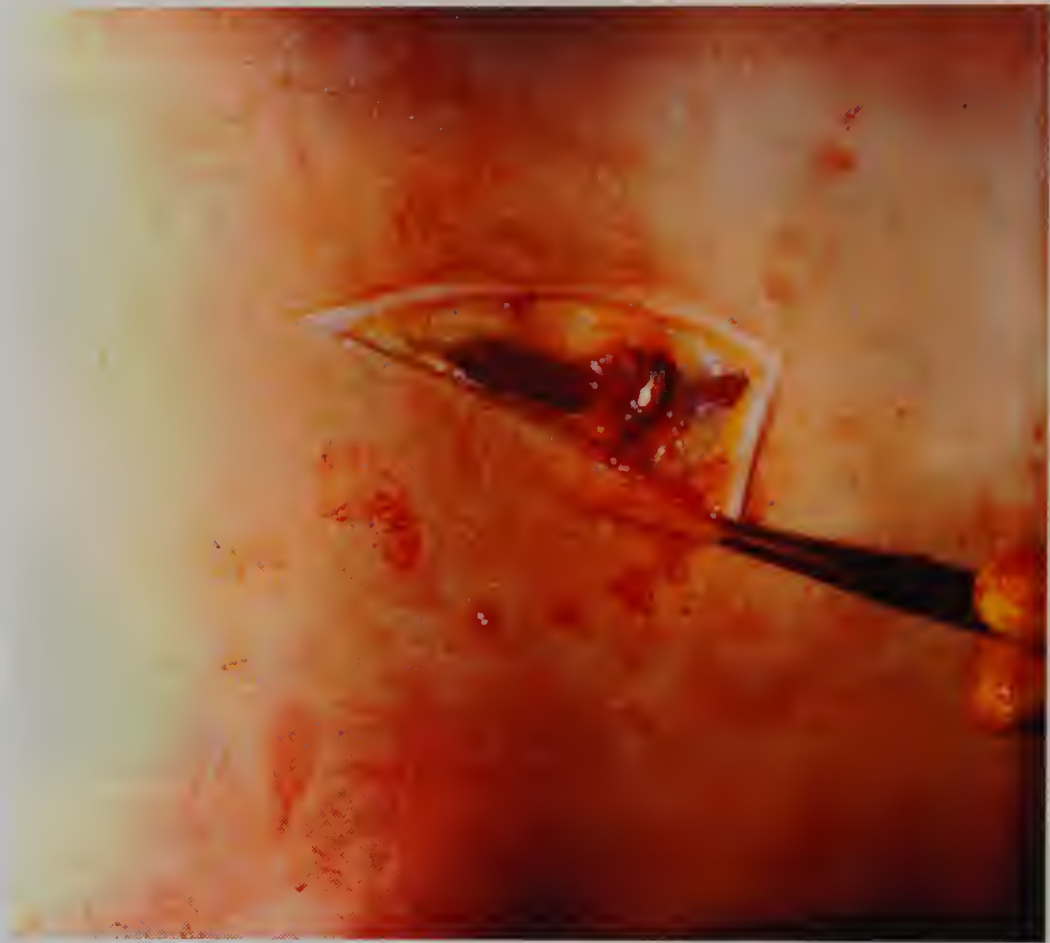




**Figure 18.19B INTERNAL VIEW OF THE SKULL SHOWING THREE BULLETS.** Two bullets had become lodged in the barrel of the revolver. When the third bullet was fired, all three projectiles entered the skull, producing the single entrance wound depicted in Figure 18.19A with three projectiles. (Courtesy of Detective James M. Yoghourtjiam, crime scene investigator, Racine, Wisconsin, Police Department.)



**Figure 18.19C RECOVERED PROJECTILES.** Three recovered projectiles with label. (Courtesy of Detective James M. Yoghourtjiam, crime scene investigator, Racine, Wisconsin, Police Department.)

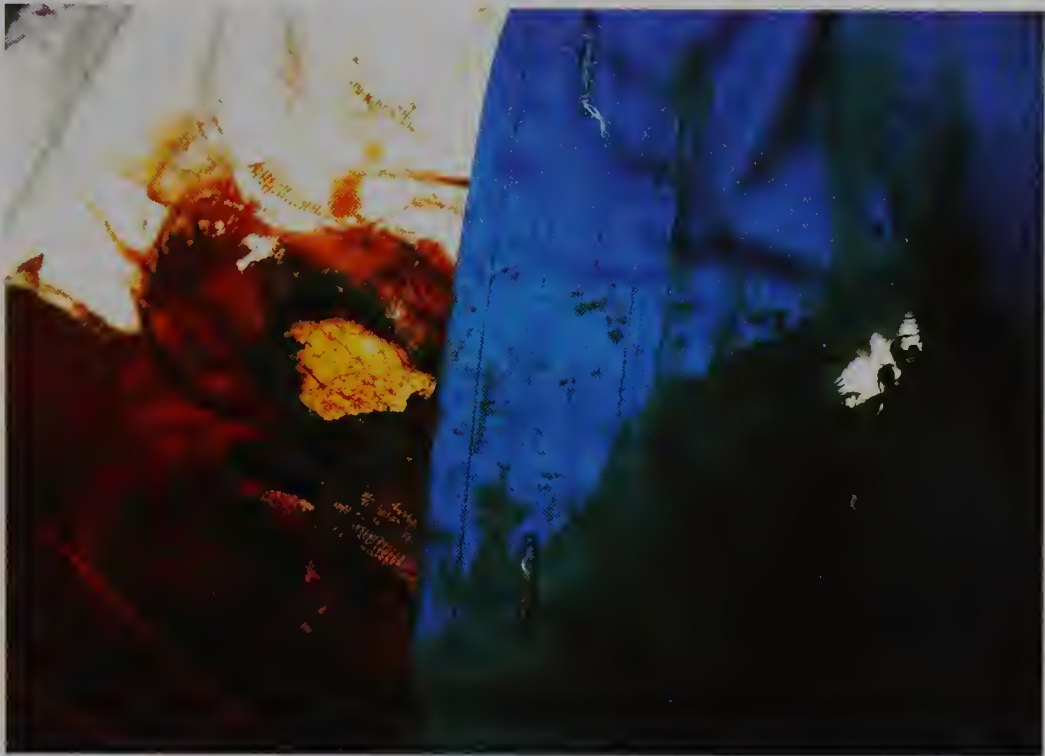


**Figure 18.20 RECOVERY OF A BULLET DURING AUTOPSY.** Observe the pathologist recovering the bullet that had come to rest subcutaneously in the victim's back. The bullet had entered the chest area and traveled through the ribs, heart, and lungs. It was stopped under the skin on the opposite side. (From the author's files.)

The medicolegal autopsy is ordered by the medical examiner or coroner for the purposes of

1. Determining the cause, manner, mechanism, and time of death
2. Recovering, identifying, and preserving evidentiary material
3. Providing interpretation and correlation of facts and circumstances related to death
4. Providing a factual, objective medical report for prosecution and defense
5. Separating natural death from unnatural death for protection of the innocent in suspicious deaths

It is important to note that an autopsy must be complete if it is to be accurate. The basic principle of homicide investigation is "Do it right the first time; you only get one chance." Theoretically, a body can be exhumed for further examination. However, exhumation is costly and usually unnecessary if the examination was complete the first time. There is no excuse for haphazard or short-cut methods to be taken in this crucial investigative step. Once a body has been embalmed and



**Figure 18.21 CLOTHING OF VICTIM OF GUNSHOT WOUND.** Clothing of a victim shot in the left chest in a close contact shooting. The clothing has been arranged by the medical examiner to show the path through the outer shirt and undershirt and into the chest. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)



**Figure 18.22 BULLET WOUND WITH SHIRT RESIDUE.** Close-up view of the gunshot wound into the left chest from Figure 18.21. Note that the rayon shirt material has melted into the wound entrance due to the extreme heat of the muzzle blast. (Courtesy of Dr. Dominick J. DiMaio, former chief medical examiner, City of New York.)





**Figure 18.23 STABBING INJURIES.** This female victim had received multiple stabbing injuries to her chest and arms by her assailant, who was using a serrated edged blade. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



**Figure 18.24 PATTERN INJURY FOR SERRATED KNIFE.** This photo shows a scraping type of injury from one of the weapons. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



**Figure 18.25 WEAPONS USED IN STABBING.** The knives used in the stabbing murder were recovered with the victim's blood still on the blades. The knives were consistent with the pattern of injury on the victim's arm. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)

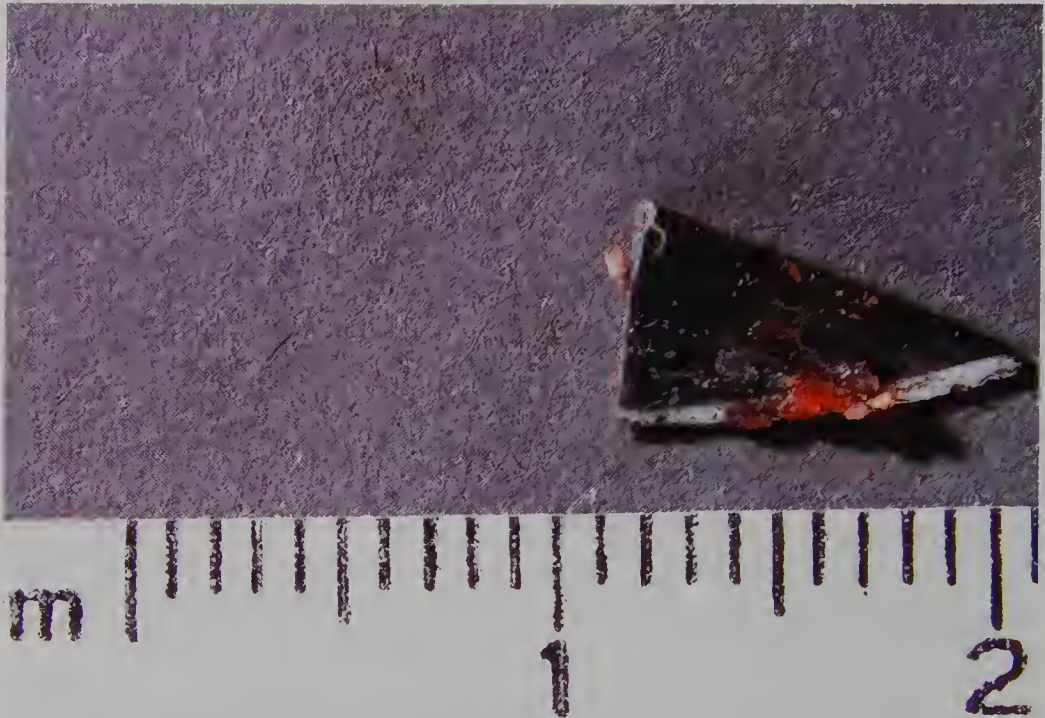


**Figure 18.26 MEDICAL EXAMINER LOCATES A FOREIGN PIECE OF METAL IN VICTIM'S BODY.** (Courtesy of Detective Mark Czwarniak, Chicago Police Department.)

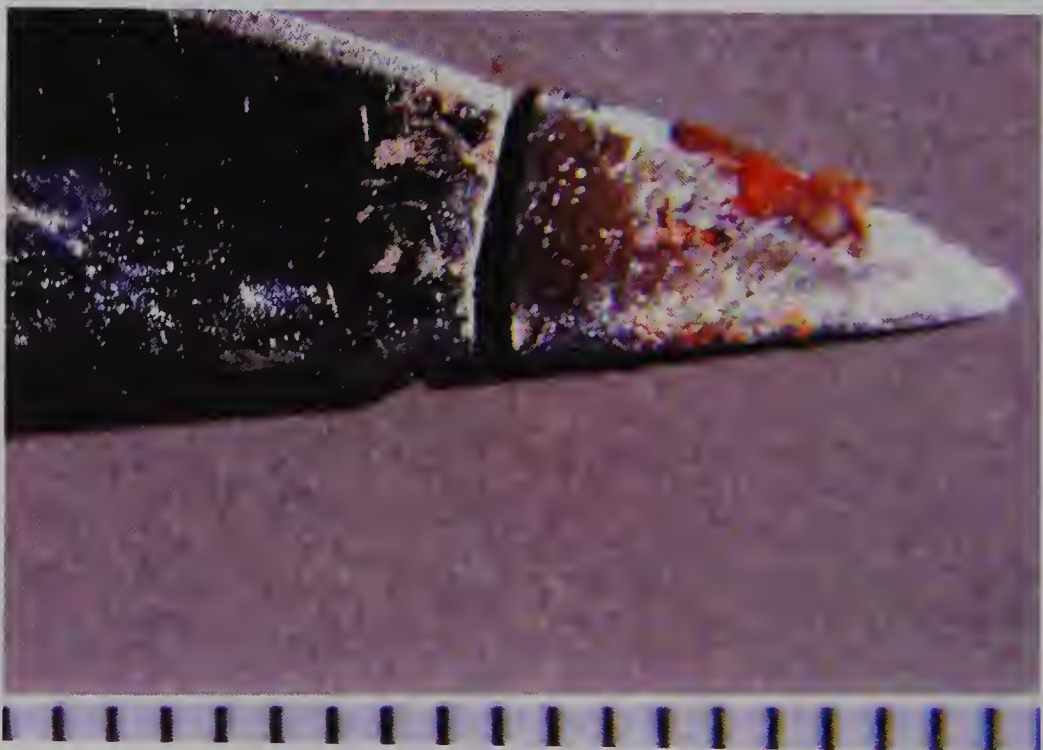
buried, many forms of evidence — especially toxicological and pathological — will be lost forever. Therefore, a systematic routine must be followed in postmortem examinations.

The medicolegal autopsy is much more involved than a general autopsy, which is performed in a hospital. It involves special training, skill, and cooperation between independent organizations, including the police, the prosecutor's office, and specialized personnel such as serologists, toxicologists, anthropologists, and odontologists. Usually, when the autopsy is performed by the pathologist, it is





**Figure 18.27** TIP OF KNIFE BLADE USED TO STAB THE VICTIM WAS RECOVERED IN VICTIM'S CHEST. The use of macro photography to document the trace evidence. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)



**Figure 18.28** FRACTURE MATCH. This photo shows the "fracture match" of the tip of the blade removed from the chest of the victim by the medical examiner to the murder weapon recovered by the police. The only undisputed and conclusive method of identifying a sharp-bladed instrument to the actual stab wound is to recover a piece of the weapon within the wound structure and match it to the murder weapon. (Courtesy of Detective Mark Czworniak, Chicago Police Department.)





**Figure 18.29 PUGILISTIC ATTITUDE.** This photo depicts the position the body assumes as a result of intense heat and fire. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



**Figure 18.30 SOOT IN AIR PASSAGE.** This photo depicts soot in the air passage, indicating that the victim was alive during the fire. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)

impossible to foresee the questions that may arise hours, weeks, or years later. Therefore, if an autopsy is to be done professionally, it must be done completely and all possible information obtained.

**Remember: The purpose of the medicolegal autopsy is more than just to establish cause of death. It involves the determination of all the other factors which may or may not be involved.**

In order to acquaint the investigator with the requirements of the medicolegal autopsy, I have provided the following guidelines based on the National Association of Medical Examiners' *Standards for Inspection and Accreditation of a Modern Medicolegal Investigative System*.

### **Examination of the Crime Scene**

In many jurisdictions, a medical investigator, medical examiner, or coroner will respond to the crime scene to ascertain the essential facts concerning the circumstances of death and make a preliminary examination of the body. Once the body has been identified, the examiner looks for and evaluates any external evidence of trauma. Then a more complete examination of such factors as body heat, lividity, rigor mortis, and decomposition is made to determine the approximate time of death. Often a determination of cause of death will hinge on facts or circumstances derived from an examination of the scene.

However, although cause of death can frequently be determined during the scene investigation, particularly in gunshot or stab wound cases, the exact number of bullet or stab wounds cannot usually be ascertained until the autopsy. This is particularly true in cases where the body is clothed or has been covered with blood or dirt. The medical examiner or coroner takes charge of the body, any clothing on the body, and any article on or near the body that may assist the pathologist in determining cause and manner of death.

The crime scene examination does not end at the location of death. If the medical examiner who was present at the scene will not be performing the autopsy, the information from the crime scene investigation must be conveyed to the pathologist who will conduct the autopsy. The homicide detective who conducted the preliminary police investigation and was present at the crime scene should attend the autopsy and provide the medical examiner or coroner with the following:

1. Description of the circumstances of death
2. Description of the scene of death (Complete notes taken at the scene include a description of the deceased, color of any blood, injuries and wounds observed, etc.)
3. Condition of the body when first discovered (rigor mortis, lividity, temperature, putrefaction, decomposition, maggots or other insect activity, etc.)

4. Statements taken from witnesses and/or suspects
5. Police photographs taken at scene (Polaroid photos should be taken in addition to the usual police photos because they are ready for viewing immediately and can be available at autopsy.)
6. Diagrams and sketches of the crime scene
7. Any weapons or articles found at the scene which relate to the death (knives, guns, other weapons, notes, paper, drugs, etc.)
8. Any questions formulated during the initial phase of the investigation (These may be evaluated in light of the medical evidence found by the pathologist.)

### **Identification of the Body**

The body must be properly identified to the medical examiner. The legal identification of the body is one of the requirements in the chain of custody and is vital to the homicide investigation. In criminal cases, a personal and a police identification must be made directly to the medical examiner. These identifications are made on official affidavits, sworn to in the presence of witnesses, with the time and date affixed, and signed by the person or official making the identification.

The police identification is made by an officer who observed the body at the scene, saw where it was found, or saw where the crime was committed. A personal identification is made by a relative or someone who knew the deceased.

The medical examiner assumes responsibility for the proper identification of the dead body. In homicide cases, all available means of identification should be employed to ascertain the identity of the deceased. The various methods of identification are

Personal identification (next of kin, relatives, friends, etc.)

Fingerprints

Teeth

DNA

Scars and/or surgical procedures (medical records)

Tattoos

Body build

Congenital malformations

Comparison x-rays

Identification of clothing on the body and its contents

Photographs

If the body is badly decomposed or skeletonized, an additional function of the autopsy will be to identify the remains. The pathologist is in the best position to know which additional experts — odontologists, microbiologists, anthropologists, etc. — may be needed.



## **External Examination of the Body**

The date, time, and place of autopsy should be recorded, where and by whom it was performed, and the identity of any witnesses and/or participants. This recording can be done by a stenographer or by mechanical recording equipment.

### ***Preliminary Procedure***

1. The body is examined before the clothing is removed to determine the condition of the clothing and to correlate any tears or other defects with obvious injuries to the body. These observations are then recorded.
2. The clothing, body, and hands of the deceased should be protected from possible contamination prior to the examination. (Hands should have been covered with paper bags at the scene before the body was transported.)
3. Clothing should then be carefully removed by unbuttoning, unzipping, or unhooking, without tearing or cutting. This should be done systematically, and the condition of the clothing including any torn buttons, unbuttoned garments, etc. should be recorded so that any necessary cutting is not confused with any tearing or cutting from the weapon or incident which caused death.
4. Clothing should then be laid out on a table so that a relationship can be established between the wounds on the body and the damages to the clothing. This procedure enables the pathologist to determine the position of the body at the time the wounds were inflicted and to know where to look for external and internal damage.
5. Each item of clothing should be properly marked for identification. (If clothing is wet or bloody, it should be hung to air dry in order to prevent any putrefaction.)

### ***The External Examination***

1. The body is identified for the record and a complete physical description is taken as follows:
  - a. Age
  - b. Height
  - c. Weight
  - d. Sex
  - e. Color of hair and eyes
  - f. State of nutrition
  - g. Muscular development
  - h. Scars
  - i. Tattoos
  - j. Detailed description of teeth (number and general condition)
  - k. Any abnormalities or deformities
  - l. Evidence of any fractures

2. The body should then be carefully washed to remove any dried blood and/or dirt from the surface. (In gunshot cases, the pathologist should record the presence of any smoke or powder residue prior to this washing.)
3. A detailed description of the injuries should then be recorded, noting the number and characteristics such as size, shape, pattern, and location in relation to anatomic landmarks.
4. Photographs should then be taken of the body for identification and to record specific injuries.
  - a. Photographs of injuries should include a scale and an identification number.
  - b. If police have recovered a weapon, this weapon can be photographed alongside the wound. However, the weapon should be held away from the body in order to prevent any contamination of evidence, such as blood or hair being transferred between the body and the weapon.
5. The presence of any bite marks should be noted and these wounds or marks photographed with a 1 × 1 (fingerprint) camera or Polaroid® Spectra Close-Up kit, using a scale and measure along with an identifier label. (If these bite marks were observed prior to the body washing, a saliva swabbing should have been obtained for a possible blood grouping.)
6. X-ray and fluoroscope examination should then be undertaken to
  - a. Locate bullets, broken blades, or other radio-opaque objects
  - b. Document any old or new fractures, anatomic deformities, postsurgical materials such as metal plates, screws, or nails.
  - c. Identify remains where there is no personal identification. (These x-rays can then be held pending the comparison of any antemortem records when and if located.) (*Note:* In all decomposition and child-abuse cases, the remains are x-rayed to document past trauma.)
7. During this external examination, a record is made of any postmortem artifacts, such as:
  - a. Artifacts of decomposition
  - b. Third-party artifacts, e.g., animal or insect activity, emergency medical treatment, deliberate mutilation, or any dismemberment
  - c. Artifacts of storage and/or transportation prior to autopsy
8. The hands, wrists, and arms should be examined for evidence of defense wounds. In addition, in certain types of homicides, the pathologist will clip the fingernails to obtain trace evidence from the deceased's fingers, which may include tissue and blood specimen DNA from the suspect. Hands may also be examined for powder residue by SEM-EDX scanning electronic microscope with atomic absorption analysis.
9. In sex homicides, samples of scalp and pubic hair should be obtained from the body of the deceased. All hair should be plucked to secure the entire hair including the root. The pubic area should first be combed to secure any foreign or loose hairs, which may be compared with the suspect's hair. Other

samples that represent different parts of the body should be obtained. In addition, oral, nasal, vaginal, and anal swabs should be taken for further DNA examination.

### **Internal Examination of the Body**

An internal examination of the head, neck, cervical spine, thorax, abdomen, and genitalia is then performed by the pathologist. The examination records the course of wounds through the various structures, and any evidentiary items such as bullets, pieces of weapons, pellets, and foreign material are preserved. Their particular point of recovery is noted for the record, and each item is labeled for proper identification. The internal examination generally proceeds as follows.

#### ***The Head***

1. The exterior of the scalp is first examined for any injuries hidden by the hair.
2. The eyes and eyelids are then examined for any petechiae in the conjunctivae. (This is a pathological condition caused by asphyxia. Tiny hemorrhages in the form of specks are seen on the mucous membrane lining the inner surface of the eyelids.)
3. The ear canals are then examined for evidence of hemorrhage.
4. The interior of the mouth, lips, and cheeks are examined for evidence of trauma.



**Figure 18.31 CORONAL MASTOID INCISION — HEAD INCISION.** (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



5. The teeth are then examined for any injury or breakage. The pathologist can use a dental chart to identify each tooth, its condition, location of fillings, evidence of injury, etc.
6. A *coronal mastoid incision* is then made across the head. The scalp is pulled back exposing the cranium. The interior of the scalp is examined for any evidence of trauma, and the cranium is examined for fractures. The calvarium is then removed, exposing the dura and the brain.



**Figure 18.32 HEAD INCISION.** (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)

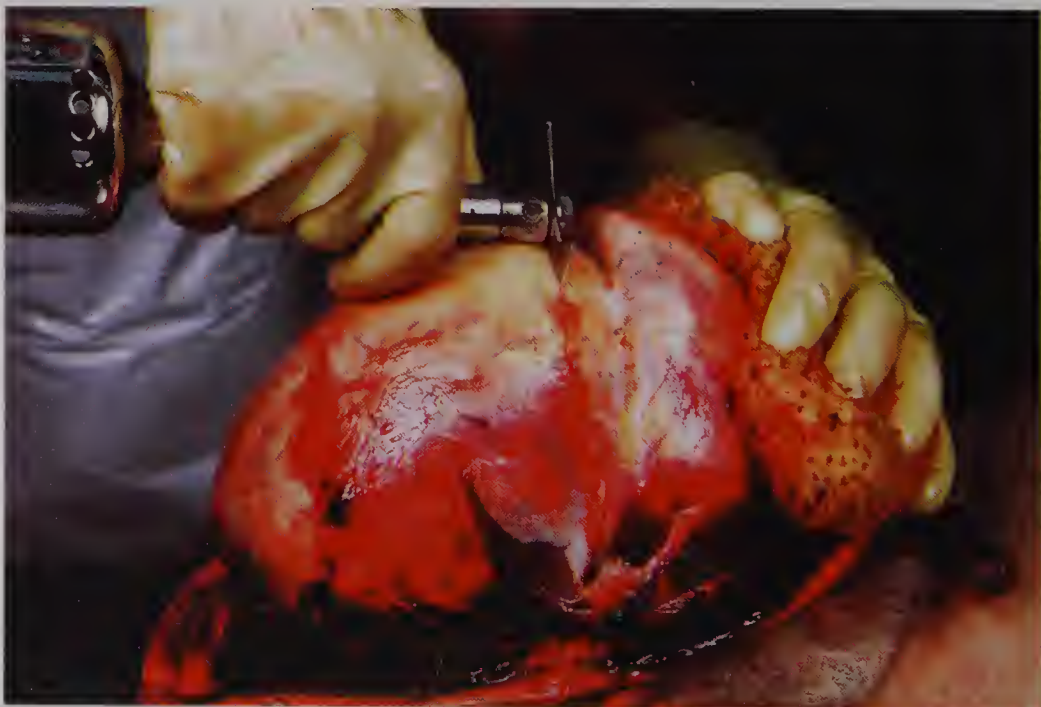


**Figure 18.33 SEPARATING THE SCALP.** (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)

7. The brain is removed and examined for any injury or disease.
8. The brain is weighed.
9. A slice of brain tissue is taken for later examination.
10. The dura is then stripped from the cranial cavity and the interior of the skull is examined for any fractures or injury.

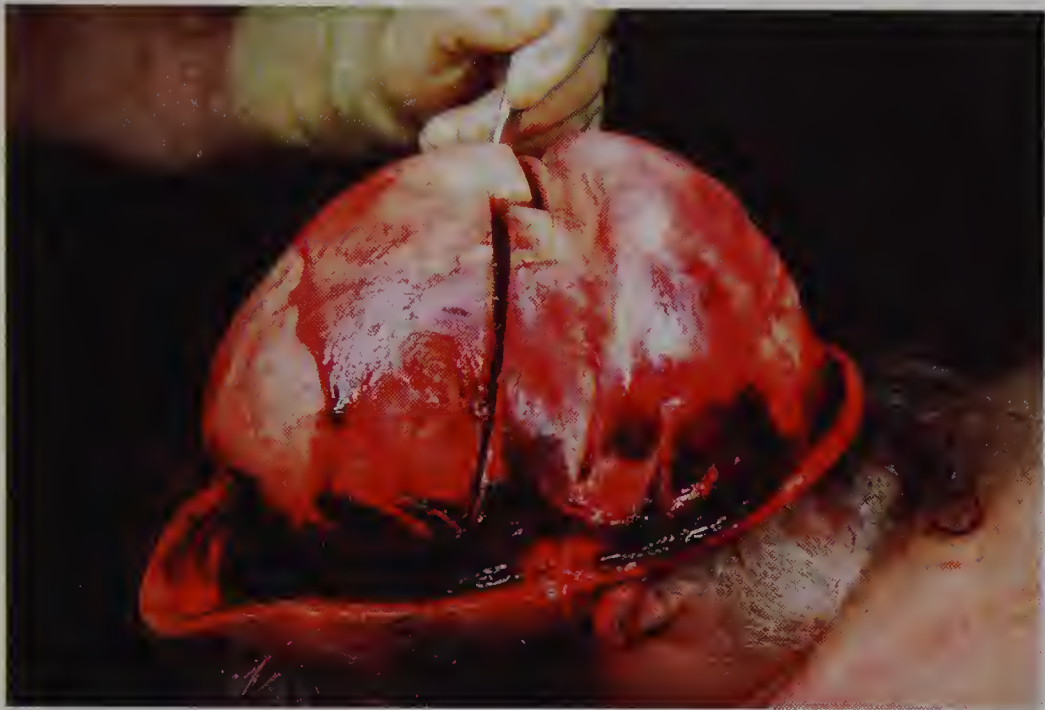


**Figure 18.34 SCALP BROUGHT FORWARD.** The scalp is brought forward to expose the cranium. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



**Figure 18.35 OPENING OF THE SKULL CAVITY.** (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)





**Figure 18.36** OPENING THE SKULL. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



**Figure 18.37** CALVARIUM REMOVED. The calvarium, or top of the skull, is removed, exposing a hemorrhaged brain. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)





**Figure 18.38** BRAIN BEING REMOVED FROM SKULL. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



**Figure 18.39** SKULL CAVITY — BRAIN REMOVED. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)

## *The Chest*

1. An incision is then made across the chest of the subject. This incision is called the *thoracoabdominal incision*, more commonly referred to as the “Y” or primary incision.
2. The chest is then examined for any fractures of ribs, noting their specific anatomic location. In cases where an ambulance crew has attempted resus-



**Figure 18.40** THE THORACOABDOMINAL OR “Y” INCISION. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



**Figure 18.41** THE THORACOABDOMINAL OR “Y” INCISION. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)





**Figure 18.42 CHEST AND RIBS EXPOSED.** (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



**Figure 18.43 REMOVAL OF CHEST PLATE.** (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)

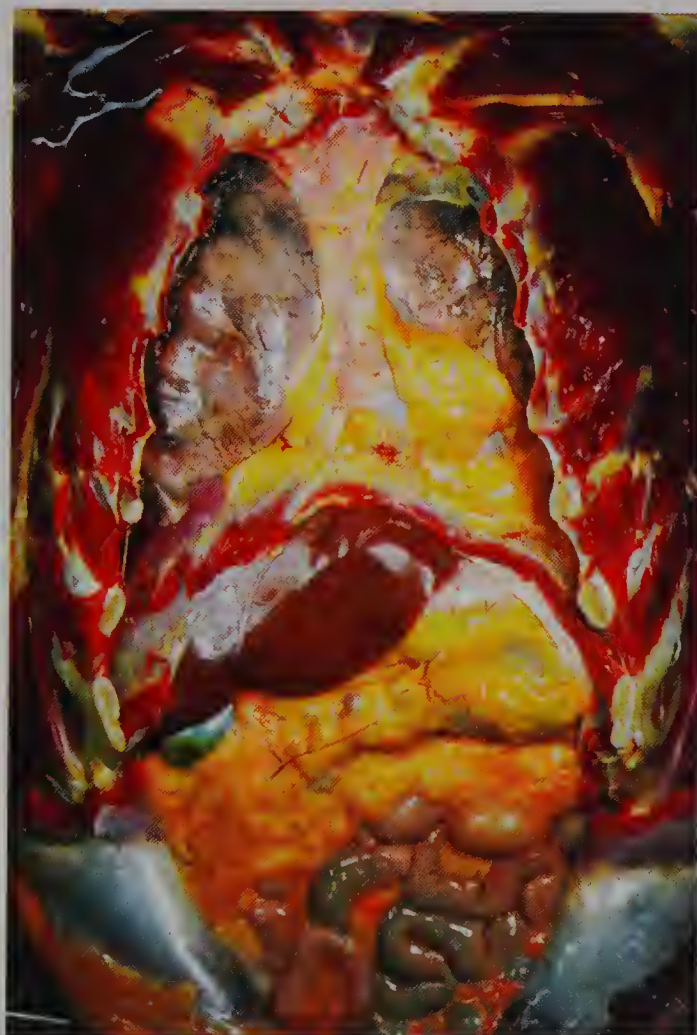
citation, additional injuries to the body may not be properly evaluated if the medical examiner is not given this information. I cannot overemphasize that an investigator assigned to the case should be present during the autopsy so that the pathologist can be briefed about what transpired at the scene.

3. The breast plate is then removed by cutting through the ribs, exposing the heart and lungs for examination.
4. A sample of blood is then taken directly from the heart, after opening the pericardial sac, for determining blood type and for later toxicological examination.





**Figure 18.44 BREAST PLATE REMOVED.** (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



**Figure 18.45 INTERNAL ORGANS EXPOSED FOR AUTOPSY.** (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)



**Figure 18.46 CONTAINERS OF SPECIMENS.** Containers of physiologic fluids and organs to be sent for further toxicologic examination. (Courtesy of Dr. Leslie I. Lukash, former chief medical examiner, Nassau County, New York.)

5. The heart and lungs are then removed, weighed, and examined and a slice of tissue taken for later examination.
6. The quantity of fluids in the pericardial and pleural cavities is measured and recorded.
7. The chest flap is then pulled upward to chin level to examine structures of the neck muscles and organs. Any hemorrhage is noted, and the organs of the neck and throat, including the tongue, are removed for further examination.
8. Signs of asphyxia are noted within these structures and the upper chest and in the pericardium and pleurae.
9. The tongue is then examined by lateral dissection for any evidence of trauma. (In many instances, the deceased will bite his or her tongue during strangulation.)
10. The interior of the chest is then examined for any trauma or other injuries along the cervical and thoracic spine.

### *The Abdomen*

1. The abdomen is examined, noting the positions and condition of the organs.
2. The course of injuries is traced and recorded before any organs are removed.
3. All fluids in this cavity are measured and recorded.

4. Each separate organ is weighed and dissected for later toxicological examination after it has been examined for any projectiles. In addition, a section of the intestines is kept for testing.
5. Stomach contents are measured and recorded and a sample kept for toxicology.
6. The fluid in the gall bladder is kept intact for testing.

### ***The Pelvic Cavity***

1. The external and internal genitalia are examined for evidence of foreign matter and injury.
2. In sex homicides, vaginal and anal swabs are taken (oral swabs should also be obtained).
3. The urinary bladder is removed and the fluid measured and kept for toxicological examination.

### **The Protocol**

The *protocol* is the official report of the autopsy by the medical examiner or coroner. It may be dictated to a stenographer or recorded into a mechanical recorder for later transcription. The preparation of this report is the responsibility of the chief medical examiner or coroner. The protocol or autopsy report reflects the entire examination, negative and positive, and gives the official cause of death expressed in acceptable terminology. It contains the following information:

1. External examination
  - a. Description of the clothing
  - b. Description of the body
2. Evidence of injury
  - a. External
  - b. Internal
3. Central nervous system (head and brain)
4. Internal examination — cardiovascular system, pulmonary system, GI (gastrointestinal) system, stomach, small and large intestines, etc.
5. Anatomical findings
6. Toxicological findings
7. Opinion

The medical examiner at the end of this protocol then reports the official diagnosis of the cause of death. Today, many pathologists use a prepared autopsy form that not only guides the procedure but also assures the completion of the autopsy. If death is determined to be the result of homicide, the pathologist will indicate this by placing the word “homicidal” on the protocol. The opinion will then be expressed in simple, understandable English, avoiding medical terminology



and indicating the nature of the injury which caused death and any major complicating factors. For example:

It is my opinion that John Smith, a 30-year-old male, died as a result of a gunshot wound to the chest. The bullet, a .38-caliber which was recovered from the body, passed through the right lung and heart causing massive internal hemorrhage. No other injuries or significant natural disease process was found at the time of autopsy.

The value of the diagnosis and protocol from an investigative point of view is that they provide a factual and medical opinion of the death. This can then be used to determine whether the facts and evidence gathered during the homicide investigation are consistent with the cause of death as determined by the medical examiner.

### Summary

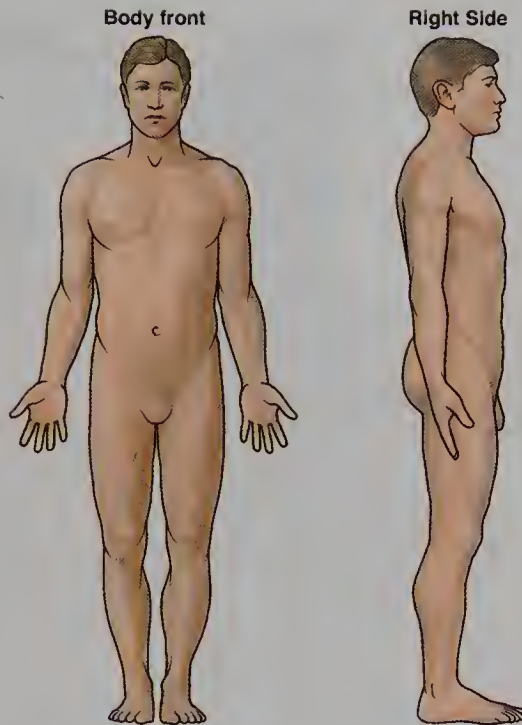
The success of the medical examination and the homicide investigation is assured when mutual cooperation exists between the pathologist and the homicide investigator. Teamwork is essential in this phase of the duties and responsibilities so that all parties can benefit from one another's contributions and expertise in the professional investigation of homicide.

### Human Anatomy

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In order to provide some basic reference material and understanding of the terminology used in medicolegal investigations, I have included this section on human anatomy.<sup>2,3</sup> Investigators are not expected to have the medical knowledge of a forensic pathologist. However, they should have a working knowledge of anatomical terminology in order to communicate intelligently with the pathologist and comprehend the final autopsy report. Furthermore, an understanding of the fundamental structures of the human body and the location of vital organs and bones can enable the investigator to make intelligent observations at the scene.

The word *anatomy* is derived from two Greek words, which mean literally "to cut apart." Through usage, it has come to mean the study of the structure of the body, describing the size, shape, composition, and relative positions of the organs and various parts of the body. In order to describe the structures within the body, medical terminology employs a number of "points of reference," which assist in visualizing each organ's position within the human body. For example, to describe the heart's position, it is necessary to detail what is above, below, to the right and left, and in front and back of it, and where all these positions are located in reference to easily identified points on the outside of the body. In order for these points of reference to be meaningful, there must be a set position of the body known as *anatomical position*.



**Figure 18.47 ANATOMICAL POSITION.** (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

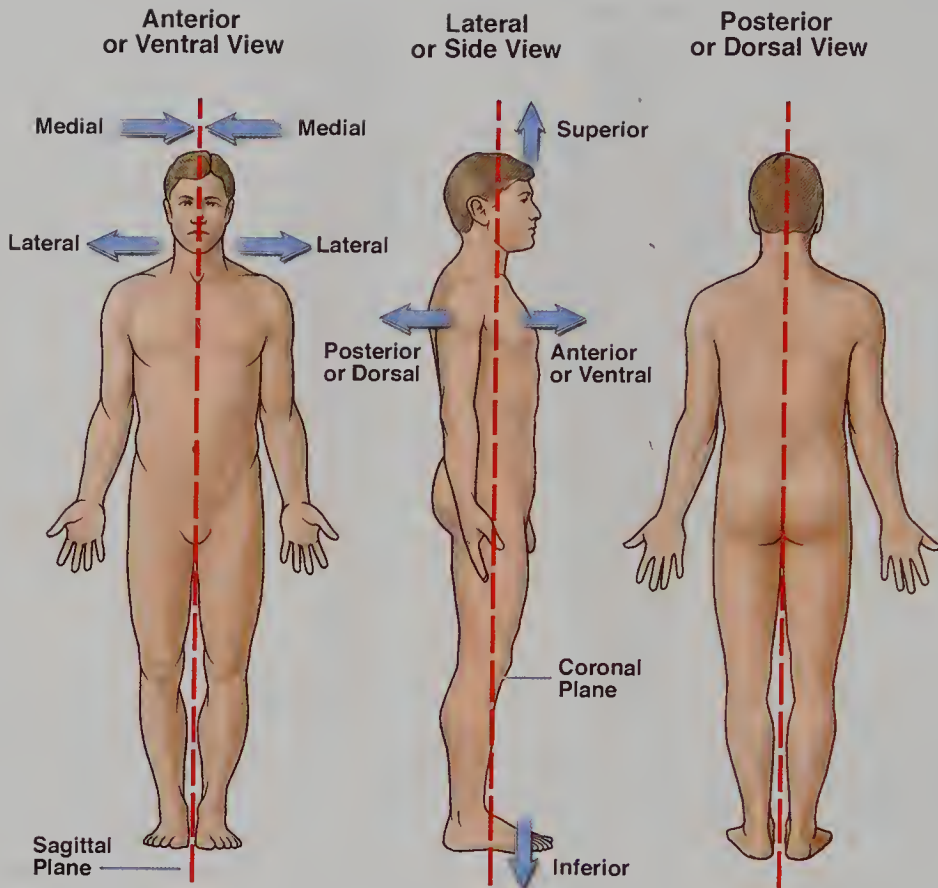
All terminology used in describing the body and its parts is based on this anatomical position, which is that of the body standing erect, arms at the sides, with the palms facing forward and the thumbs to the outside.

Therefore, when studying anatomical plates, such as the figures presented in this section, the right side of the body will be on the left side of the drawing, and the left side of the body will be on the right side of the drawing, as they are when you are looking at a person facing you.

### Directional Terms

These are the terms used in anatomy to describe the position of a particular organ in relation to other organs;

1. *Superior* indicates direction toward the head end or upper part of the body. Hence, the lungs are *superior* to the liver.
2. *Inferior* indicates direction further away from the head end of the body or toward the lower part of the body. Hence, the intestines are *inferior* to the stomach.
3. *Anterior (ventral)* indicates the front or belly side of the body. Hence, the toes are *anterior* or *ventral*.
4. *Posterior (dorsal)* indicates the back side of the body. Hence, the heels are *posterior* or *dorsal*.
5. *Proximal* indicates nearer to a point of reference, usually the center of the body. Hence, the shoulder is *proximal* to the elbow.



**Figure 18.48 DIRECTIONAL TERMS.** (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

6. *Distal* indicates farther away from the center of the body. Hence, the elbow is *distal* to the shoulder.
7. *Medial* indicates closer to the midline of the body. Hence, the little finger is *medial* in anatomical position.
8. *Lateral* indicates toward the side of the body or away from the midline. Hence, the thumb is *lateral* in anatomical position.
9. *Sagittal plane* is an imaginary line dividing the body into a right and left portion.
10. *Coronal plane* is an imaginary line dividing the body into a front and back portion.

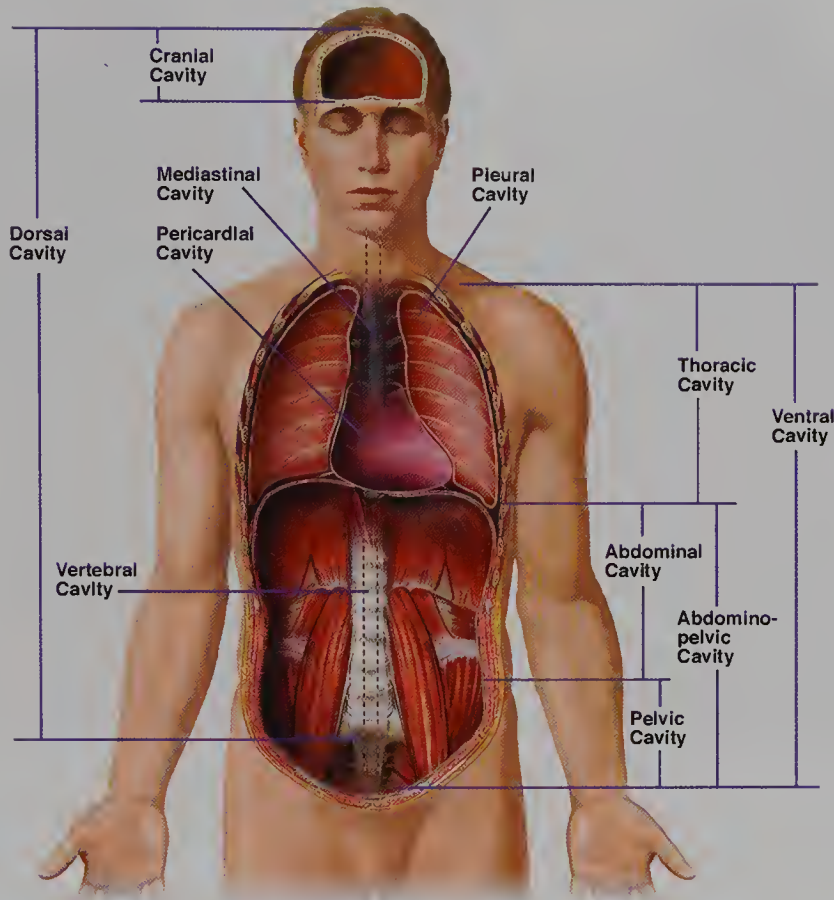
## Body Cavities

The body is divided into two large cavities called the *dorsal* (back) and *ventral* (front) cavities, which are then subdivided into smaller sections.

### *Dorsal Cavity*

This cavity is subdivided into the *cranial* and *vertebral* cavities:





**Figure 18.49 BODY CAVITIES.** (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

1. The *cranial cavity* is formed by the skull and contains the brain and the pituitary gland.
2. The *vertebral cavity* is contained within the vertebral column and houses the spinal cord.

### ***Ventral Cavity***

This cavity is subdivided into two major sections, the *thoracic cavity* and the *abdomino-pelvic cavity*. These two sections are divided by the diaphragm and then subdivided into additional cavities as follows:

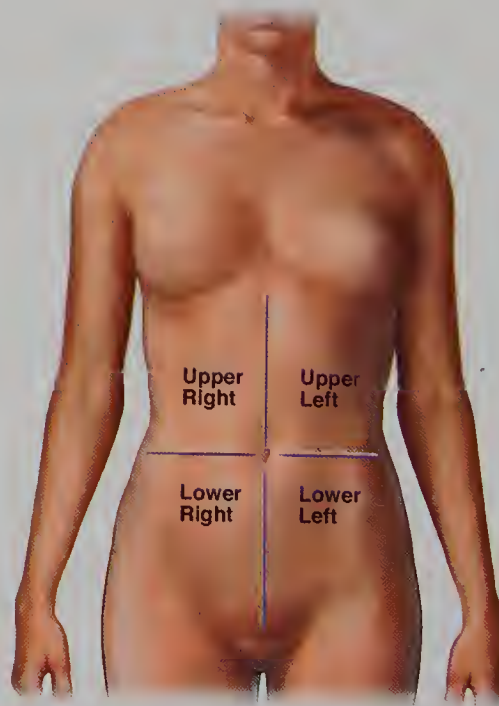
1. *Thoracic cavity*: this is the portion above the diaphragm and contains the following cavities:
  - a. Two *pleural cavities*: these contain the two lungs.
  - b. *Pericardial cavity*: this contains the heart.
  - c. *Mediastinal* or *interpleural cavity*: this contains everything located in the thoracic cavity other than the heart and lungs, including the trachea, bronchi, esophagus, etc.

2. *Abdominopelvic cavity*: this is the portion below the diaphragm and contains two sections:
  - a. *Abdominal cavity*: the upper portion of the abdominopelvic cavity. It contains the stomach, liver, gallbladder, spleen, pancreas, and most of the large and small intestines. The kidneys, ureters, and adrenal glands lie deep in the cavity.
  - b. *Pelvic cavity*: the lower portion of the abdominopelvic cavity, which begins roughly on a line with the iliac crests and ends at the inferior end of the abdominopelvic cavity. It contains the urinary bladder, the sex organs, and part of the small and large intestines.

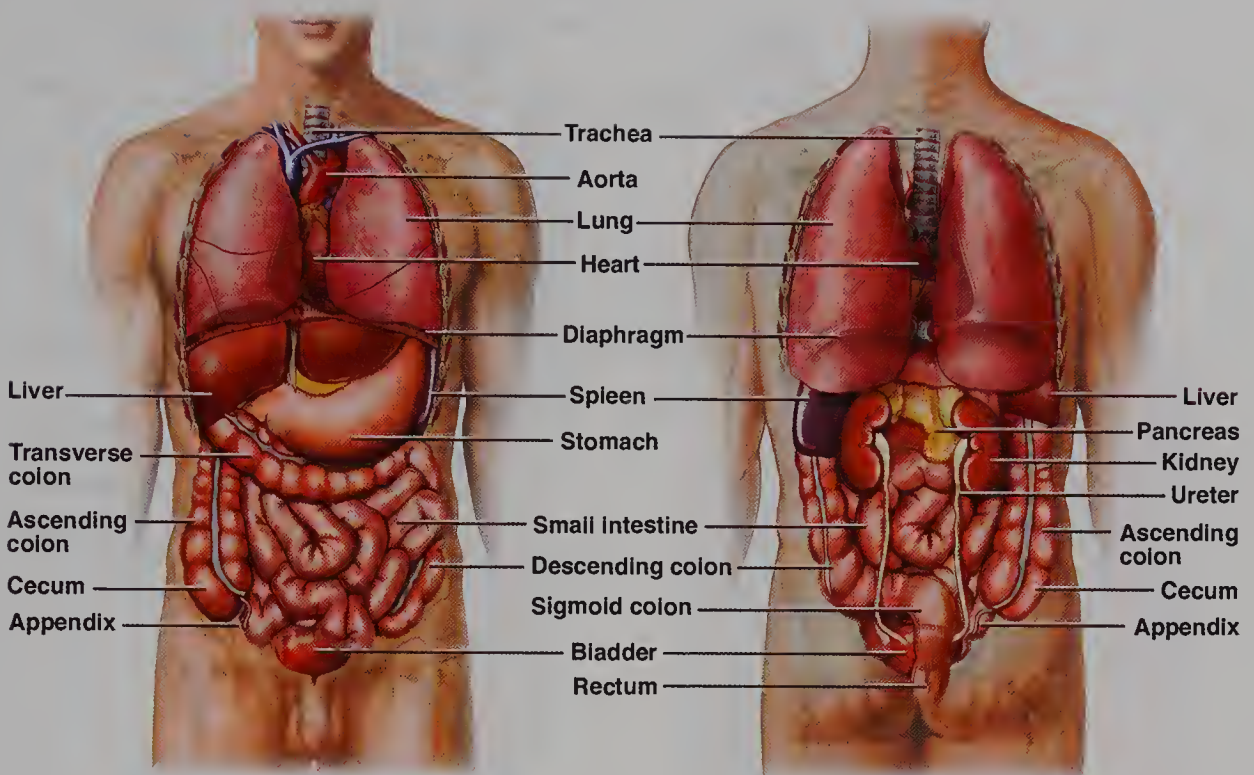
## Quadrants

There are additional points of reference to locate precisely the organs in the abdominopelvic cavity because the cavity is large and contains several organs. The medical description divides the cavity into four *quadrants*:

1. The *upper right quadrant* contains part of the small intestine, the descending duodenum; the upper ascending colon; most of the liver, gallbladder, and bile ducts; head of pancreas; right adrenal gland; right kidney; and upper part of right ureter.
2. The *lower right quadrant* contains the lower ascending colon, cecum, appendix, lower right ureter, terminal ileum, part of urinary bladder, and sex organs.



**Figure 18.50** QUADRANTS. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)



**Figure 18.51 ANTERIOR AND POSTERIOR VIEWS OF THE THORACIC AND ABDOMINAL CAVITIES.** (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

3. *Upper left quadrant* contains the ascending part of duodenum, upper descending colon, left half of transverse colon, spleen, small part of liver, left adrenal gland, left kidney, and upper part of left ureter.
4. *Lower left quadrant:* contains descending colon, small intestine (part of ileum), lower part of left ureter, part of urinary bladder, and sex organs.

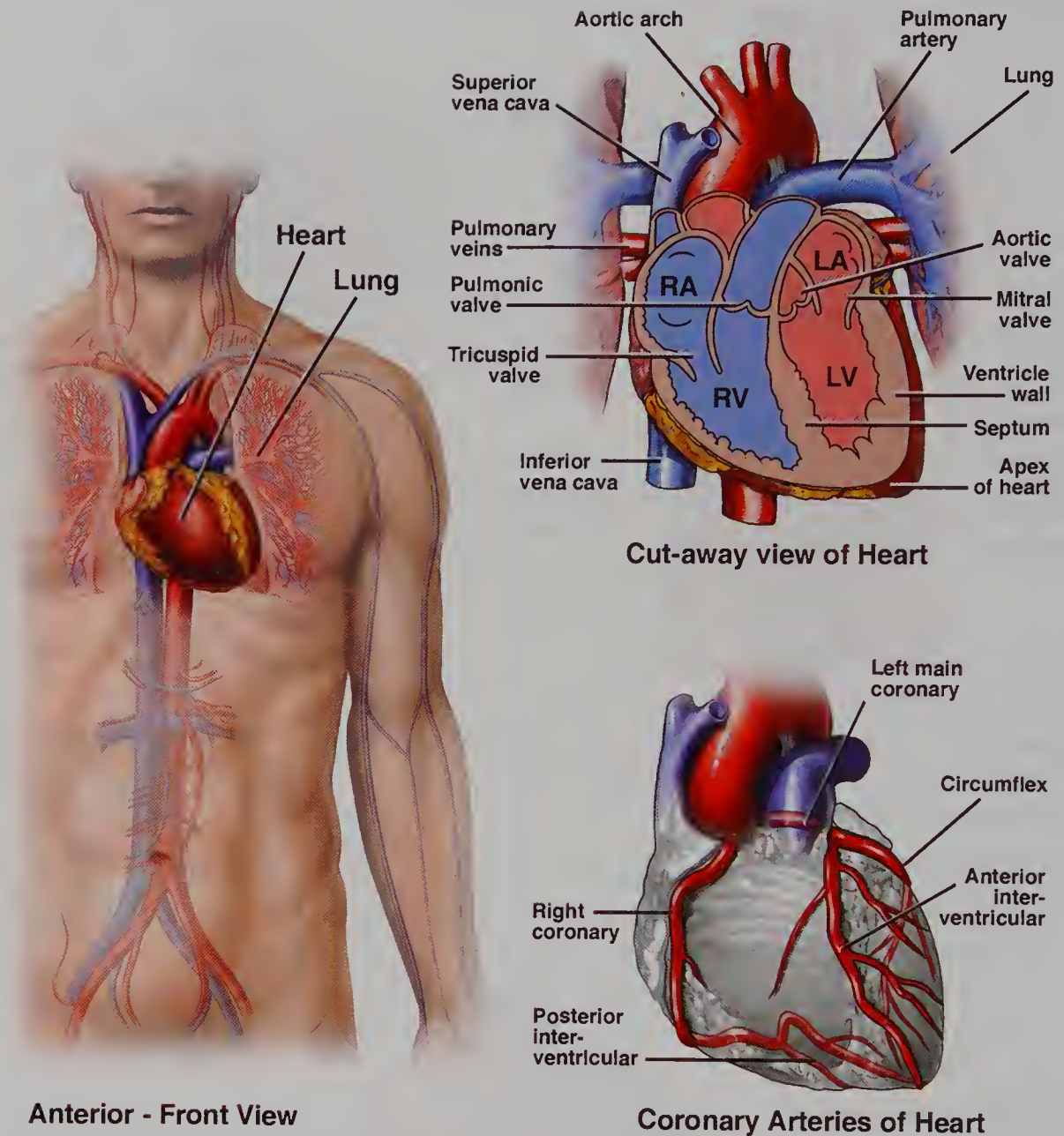
## The Skeletal System

The *skeletal system* consists of all of the bones in the body. The skeleton provides support, protects certain body organs beneath the bones, and serves as a system of connection for the muscles and ligaments. Practically speaking, it is not necessary for the homicide detective to understand the make-up, development, or detailed structure of the bones. However, the investigator should have some basic knowledge of the anatomical location of certain major bones in the human body, such as the *long bones* of the arms and legs, the *humerus*, *ulna*, *radius*, *femur*, *tibia*, and *fibula*. In addition, the location of the *clavicle*, *scapula*, *sternum*, *vertebral column*, *ribs*, *pelvis*, and *patella* may be useful in visualizing a specific portion of the body.

## The Heart

The heart is basically a pump that maintains the circulation of blood throughout the human body. It is about the size of a man's fist and is located in the pericardial cavity between the lungs, posterior to the sternum, lying about two-thirds to the





Anterior - Front View

Coronary Arteries of Heart

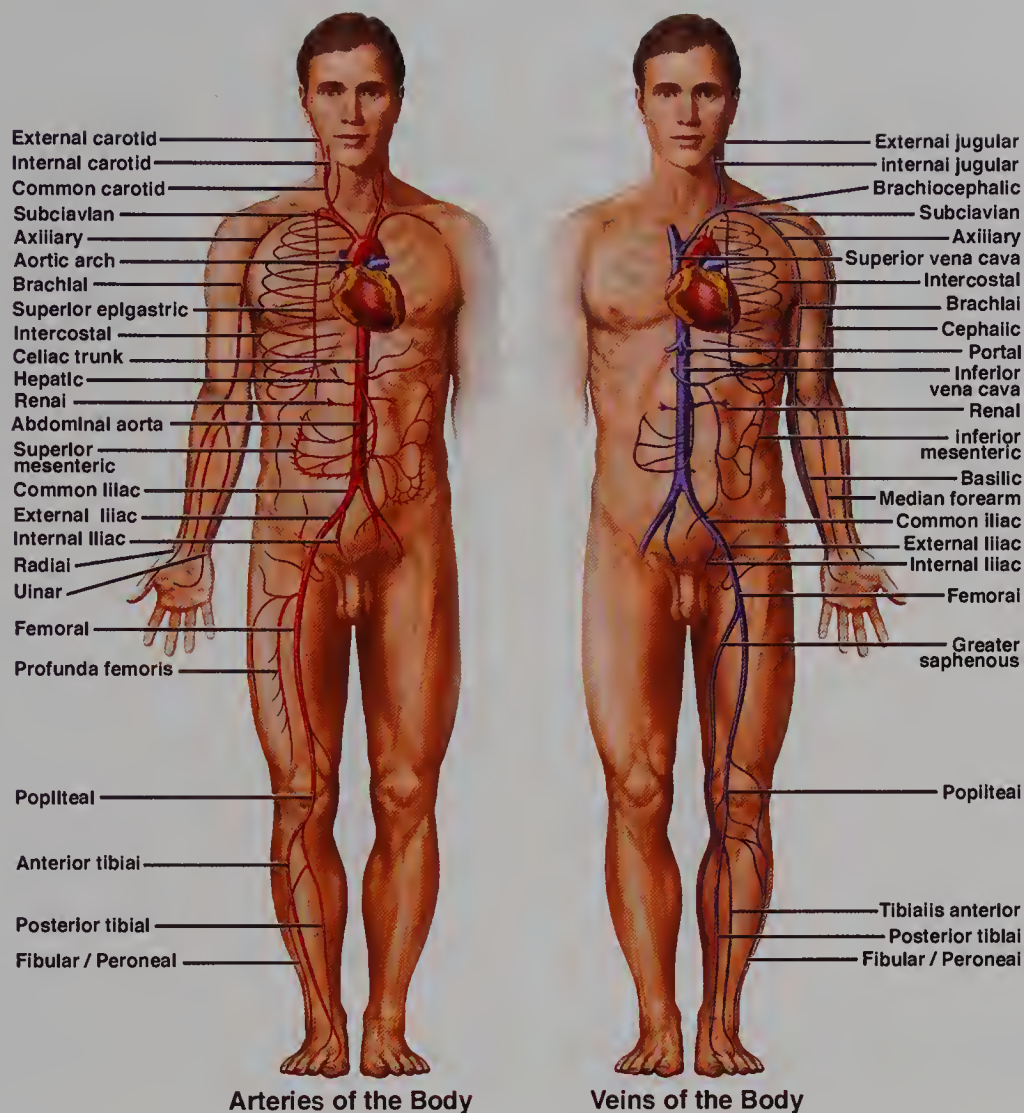
**Figure 18.52 THE HEART ANATOMY.** (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

left of midline. The heart is divided into four chambers. The upper two chambers are called *atria* and the lower two chambers are called *ventricles*.

The heart is the major organ of the cardiovascular system. The pumping action maintains the circulation of blood to and from the heart through a series of blood vessels:

1. *Arteries* carry blood away from the heart.
2. *Veins* carry blood to the heart.
3. *Capillaries* connect arteries and veins.

The purpose of circulation is to bring the deoxygenated blood from various parts of the body through the veins to the lungs for purification. The oxygenated



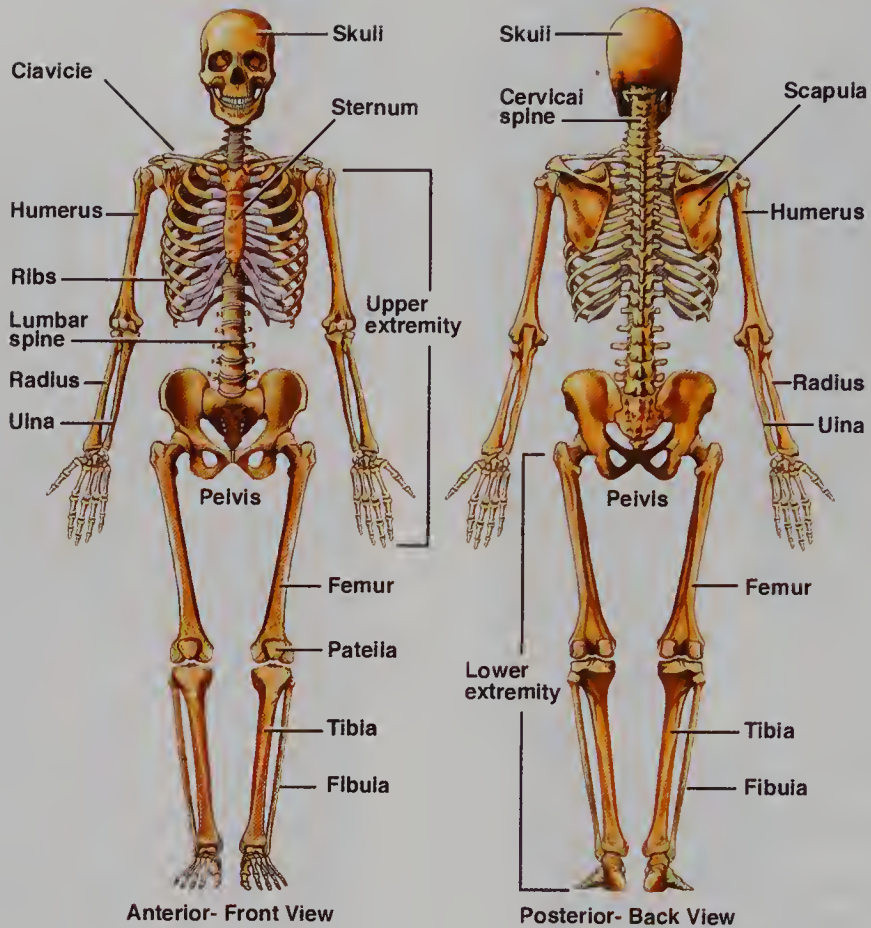
**Figure 18.53 THE CIRCULATORY SYSTEM — ARTERIES AND VEINS.** (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doereport.com.)

blood is then returned to the heart from the lungs for circulation to the body through the arteries.

It is not necessary for the investigator to have an in-depth knowledge of the workings of the heart and cardiovascular system. However, he or she may want to be familiar with the general location of the heart and the major veins and arteries in order to appreciate the trauma or damage that can be done to the body if one of these major blood vessels is injured. The following table lists the major arteries and veins for reference purposes.

Arteries		Veins	
Carotid	Femoral	Jugular	Femoral
Subclavian	Brachial	Subclavian	Brachial
Aorta	Ulnar	Superior vena cava	Ulnar
Abdominal aorta	Radial	Inferior vena cava	Radial
Iliac		Iliac	





**Figure 18.54 BONES OF THE SKELETON.** (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

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# The News Media in Homicide Investigations

# 19



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The O.J. Simpson story, which captivated the nation, created news story coverage of a murder event without precedent. Consequently, there was a news media “feeding frenzy” for Simpson stories. It seemingly did not matter what kind of story was published, as long as it had an O.J. Simpson angle. New stories about the evidence in the case, alleged statements of O.J. Simpson, police opinions, legal opinions, prosecutor’s option of seeking the death penalty, the private lives of all concerned, etc. turned this particular event into a nationwide soap opera. In my opinion, every rule in this book as well as the “fair trial free press principles” was violated with the “news leaks,” details, and revelations provided in the media regarding the *People v. Simpson*. I likened it to a large snowball careening down the side of a snow-filled mountain. As this snowball of information and misinformation gained in complexity, intensity, and speed, it became an avalanche. Anyone and everyone remotely attached to or involved in the O.J. Simpson debacle was crushed or had their reputations smashed in its wake. According to a Sunday *New York Daily News* article dated January 1, 1995,

In the 10 days before O.J. Simpson was picked up for questioning in the murder of his wife, Nicole Brown Simpson, and her friend Ron Goldman, there were exactly eight references [to O.J. Simpson].... In the 10 days after the murder, there were 1769 references to Simpson in those same papers.... More than 30,000 articles and countless TV shows later, the opening statements haven’t taken place. (pp. 2, 3)

It is not my intention to criticize or blame the media, the police, or anyone else involved in this infamous case. However, it occurs in every high-profile case. The thirst of the public for “inside details” of any heinous crime coupled with the competition of the various networks is exacerbated by the mass communications capabilities of the media worldwide. Whether the focus is on the Jon Benet Ramsey case or the Laci Peterson case, the bottom line is that there will never be news coverage of a sensational murder case without tribulations. I also believe that the



information in this chapter presents a more reasonable alternative than what we have been exposed to in these types of cases.

A free press serves the public by supplying needed information, stimulating thought, and providing a medium for expression. An informed public is essential to the maintenance of a free society, and the public is entitled to be informed on topics of public interest. Crime, especially homicide, is always a subject for public concern and interest. Therefore, law enforcement officials can and should expect news media people to be present, make inquiries, and actively pursue the event.

The purpose of this chapter is to act as a guide in fostering better relations between the police investigative team and the news media in homicide investigations. To make better relations possible, I advocate mutual cooperation and understanding of each other's goals. Members of the news media can be a tremendous asset in a homicide investigation or an equally staggering liability. Realistically, their impact usually falls between these two extremes.

Throughout the United States, law enforcement agencies and the news media are in daily contact. The days of "no comment" by the police to the media have been replaced by a more open and candid dialogue between the police and the media. Therefore, there needs to be a thoughtful policy of police-media relationships which provides for the integrity of the investigation and the proper dissemination of information to the public.

## **Establishing a News Media Policy**

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Today, most large police departments and law enforcement agencies maintain a public information office staffed by designated public information officers or news media representatives to handle requests for information. These public information officers act as spokesmen for the department and maintain regular liaison with the media. In addition, most departments have established guidelines for the release of information by the members in the field to representatives of the media.

In homicide investigations, however, there must be a tighter control over the news release, justified by the legal considerations and the strategic aspects of the case. The public information officer should be kept advised of any such incidents and is responsible for notifying the media that police are investigating a homicide. However, all subsequent information and news releases from the department during the investigative stage should come from the detective supervisor or his equivalent in other agencies who is in charge of the investigation at the scene.

Generally, local media will be more responsive than national to a request for cooperation because they are more sympathetic to local needs and sentiments. Likewise, representatives of major media organizations with whom you have previously dealt will usually cooperate with you as long as they know they will be provided with information and given a statement from the investigator in charge. The trick is to engage in as much give-and-take as you can without compromising the case. However, as the newsworthiness of an event increases, out-of-town report-

ers or representatives of the wire services, radio, and television may become involved in gathering news, and this usually creates a strain.

The competitive nature of multimedia coverage usually presents law enforcement officers with problems with which they are ill equipped to deal. Too often, no previous thought has been given to how to handle a media-worthy situation. Suddenly, you are surrounded with an army of reporters seeking details of interest, ferreting out “new” information, and interviewing witnesses, family, and anyone they feel might give them an edge over another news team. Photographers will be attempting to obtain photos of the body, the suspect, the scene of the crime, the investigators, and so on. Obviously, these media people will be “doing their own thing” without any consideration of the investigative needs of the case and the legal impact involved, not to mention consideration for the family. This is where planning comes into the picture. An intelligent news media policy will take into consideration the legal, strategic, and humanitarian aspects of the case and at the same time provide for the comprehensive release of news to the media.

Any policy instituted by a police department should provide guidelines for preserving the delicate balance between a free press and a fair trial when disseminating information. Most states and the federal government have provisions that are intended to promote accuracy and fairness in the release of information. The “Fair Trial Free Press Principles and Guidelines for the State of New York” (reproduced in full here) are provided as a model.

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### **Fair Trial Free Press Principles and Guidelines for the State of New York**

Freedom of the press is guaranteed by the First Amendment of the Constitution of the United States. The right to a speedy and public trial by an impartial jury is guaranteed in criminal cases by the Sixth Amendment. The New York State bar, bench, law enforcement agencies, and news media, as represented by the organizations that have signed this document, recognize and uphold these guarantees and grant them equal validity.

They also recognize the right of the public in a democratic society to be informed about crime, law enforcement, and the administration of justice, and the right, in general, to have trials openly conducted.

While the news media recognize the responsibility of the judge to preserve order in the court and seek the ends of justice by all those means available to him, decisions about handling the news rest with the editors who, in the exercise of news judgments, should remember that:

1. An accused person is presumed innocent until proven guilty.
2. Accused persons and civil litigants are entitled to be judged in an atmosphere free from passion, prejudice, and sensationalism.
3. Readers, listeners, and viewers are potential jurors.
4. No one's reputation should be injured needlessly.

The proper administration of justice is the concern of the judiciary, bar, the prosecution, law enforcement personnel, news media, and the public. None should relinquish its share in that concern. None should condone injustices on the ground that they are infrequent.

1. When and after an arrest is made, the following information should be made available for publication:
  - a. The accused's name, age, residence, employment, marital status, and similar background information.
  - b. The substance or text of the charge such as a complaint indictment, information, and, where appropriate, the identity of the complainant.
  - c. The identity of the investigating and arresting agency and length of the investigation.
  - d. The circumstances immediately surrounding the arrest, including the time and place of arrest, resistance, pursuit, possession and use of weapons, and description of items seized at the time of arrest.
2. The release of certain types of information by law enforcement personnel, the bench, and bar and the publication of this information by news media may tend to create dangers of prejudice without serving a significant law enforcement or public interest function. Therefore, all concerned should be aware of the dangers of prejudice in making pretrial disclosure of the following:
  - a. Statements as to the character or reputation of an accused person or prospective witness.
  - b. Admissions, confessions, or the contents of a statement or alibi attributable to an accused person.
  - c. The performance or results of tests or the refusal of the accused to take a test.
  - d. Statements concerning the credibility or anticipated testimony of prospective witnesses.
  - e. The possibility of a plea of guilty to the offense charged or to a lesser offense, or other disposition.
  - f. Opinions concerning evidence or argument in the case, whether or not it is anticipated that such evidence or argument will be used at trial.
3. Prior criminal charges and convictions are matters of public record and are available to the news media. Police, corrections, and other law enforcement agencies should make such information available to the news media on request. The public disclosure of this information by the news may be highly prejudicial without any significant addition to the public's need to be informed. The publication of such information should be carefully considered by the news media.
4. Law enforcement and court personnel should NOT prevent the photographing of defendants when they are in public places outside the courtroom. They should neither encourage nor discourage pictures or televising, but *they should not pose the accused*.
5. Photographs of a suspect may be released by law enforcement personnel provided a valid law enforcement function is served thereby. It is proper to disclose such information as may be necessary to enlist public assistance in apprehending fugitives from justice. Such disclosure may include photographs as well as records or prior arrests and convictions.

The preceding guidelines are those which address themselves to the law enforcement function. A separate set of guidelines is recommended for cases involving juveniles. Generally speaking, the following information should NOT be given to the press:

1. The names of children under 16 years of age who are charged with a crime or are complainants in a criminal proceeding; and
  2. The identity of a victim of a sex crime.
-



There are exceptions to the preceding guidelines. For instance, on August 1, 2002, in the early morning hours, a convicted felon named Roy Ratliff abducted two teenage girls, 16 and 17 years of age. During their 12-hour ordeal, the two girls were sexually assaulted by their assailant and were minutes away from being killed when rescued by sheriff's deputies, who shot and killed Ratliff when he pointed a gun at them.

The girls were rescued as a result of an Amber Alert, during which time their names were broadcast all over the media. After the rescue, the authorities learned that both young women had been raped and sexually assaulted. The news media and the police found themselves in a dilemma. Technically speaking, the two young women were sex-crime victims. However, they were also kidnap victims whose names were released to the media via the Amber Alert plan to publicize the kidnapping instantly and enlist community assistance in the statewide search.

In homicide cases, witnesses and others involved in the investigation should be cautioned not to speak to the press. However, it should be noted that the only persons whom police can effectively isolate from the media are suspects. It is utterly impossible to prevent others from speaking to reporters. If their disclosures present legal or other problems, you must be prepared to request cooperation from the media to withhold certain information in the interests of justice.

**Remember: The best way to promote good media relations is through preparation and communication.**

### **Building a Relationship with the News Media**

The relationship between the news media representative and the homicide spokesman usually starts off in a somewhat adversarial setting. The news reporter will be attempting to uncover facts of the investigation to obtain a better story, and the homicide spokespersons will be trying their best to keep certain strategic information out of the hands of the press.

How the police and the media deal with any given contact generally determines the ultimate associations because a good relationship is usually the product of many individual contacts over a span of time. It is during these contacts that these persons get to know one another and learn to respect each other's professional position. For instance, I would not expect a news representative to kill a story detrimental to the police and, likewise, a news person should not be insulted because an officer does not go along with an "off-the-record" request for information which might jeopardize the police investigation.

Professional homicide-news media relationships are usually built upon past experiences which have been mutually successful to both parties.

It also helps for each party to understand the other's pressures, particularly those relating to *time*. A murder investigation may take anywhere from a few hours to several days, weeks, or months. The news media representative, on the other hand, must complete his or her initial coverage of the event prior to a deadline,

which may amount to only hours or minutes. This is where a strain may set in between the two groups. A story, which might rate front-page coverage prior to today's deadline, might tomorrow rate only a paragraph inside. A potential lead item on the "Eleven O'Clock News" that evening may not even be considered the following day. Time is of the essence to newspeople because other newsworthy events are taking place, deadlines must be met, and the space for newsprint and the time for broadcasts are tightly constrained.

By the same token, time is of the essence to the homicide supervisor and detectives who are conducting the investigation. A tremendous amount of information is generated in a very short period of time at the homicide crime scene. Furthermore, many investigative duties must be performed and steps taken before valuable evidence is lost and suspects can be identified. The homicide spokesman cannot be expected to drop everything and engage in a news conference, and the reporter should not expect the police to disclose information prematurely in the early stages of the case so that he or she can get a better story.

In addition, news media people should resist the temptation to become part of the event. They should realize that their selection of news sources and the questions they ask may not only affect the story, but also strain police-media relations by creating issues that jeopardize the homicide case. Practically speaking, a little flexibility and common sense in most cases will ultimately benefit the news media and the police. Frictions can be minimized, issues put in proper perspective, and goals attained through mutual cooperation.

The homicide supervisor at the scene should be aware of media needs and, without neglecting investigative duties, direct that a notification of the homicide be given to the public information officer along with some basic facts. In the event that there is no public information officer, the homicide supervisor can still encourage cooperation by providing for notifications to local media so that they may cover the story. This notification and subsequent release of information to the media will encourage cooperation and set the tone for future good relations.

Contacts between the homicide spokesman and the news media representatives are not limited to the formal news conference during a homicide investigation. Informal meetings reinforce relationships and encourage cooperation. It is usually during these informal exchanges that certain barriers to communication and misunderstandings can be discussed and eliminated. I have found from my experience that the more frequent the meetings are, the more candid the dialogue is.

When reporters and police have been in daily contact over a period of time, they can come to a mutual understanding whereby both groups can benefit. This relationship, however, should never be abused because any breach of trust on the part of either party may destroy in an instant a relationship which took years to develop.

News media people who handle crime stories pride themselves on their ability to develop sources of information within any police agency. Similarly, homicide officials should also strive to develop sources and relationships within the media which are mutually beneficial and serve an intelligent investigative end. If the homi-



cide spokesman has developed a good rapport with certain news media representatives, he or she may be able to obtain news coverage that can benefit an investigation for a case which ordinarily would not be considered newsworthy enough.

Sometimes, a case which must be kept “under wraps” comes to the attention of the news media through other sources. If an effective and cooperative relationship exists between the media and the agency, a request to withhold the story pending some investigative consideration will usually be granted. However, the agency cannot expect the news media to cover up an otherwise newsworthy event. Practically speaking, when you take the media into your confidence on a particularly sensitive case, you will have to rely on their good intentions and judgment not to compromise the investigation or prematurely release information to the public. However, by taking them into your confidence, you have effectively made them part of the team and psychologically have set the tone for a cooperative venture.

I can recall many cases over the years to which the media had access and, upon conferring with the chief investigator, delayed release to give police the opportunity to perform a specific investigative step.

The key word in building relationships is *credibility* — the law enforcement representative and the news media person must be honest with each other if this relationship is to survive. If each can come to rely on the other’s credibility, tested by time, a compatible arrangement can evolve between the police and the press.

I remember a particularly sensational murder case in which a news reporter purposely ignored a request by the police to withhold certain information. This official request was made when it had become apparent that the reporter had become aware of certain confidential information through a series of leaks. In fact, the chief investigator had personally asked this reporter not to print this information. Instead, this reporter published a blow-by-blow description of every piece of physical evidence and detail of the murder investigation. This caused irreparable damage to the investigation, created additional legal problems, and embarrassed the police officials involved. Needless to say, such an obvious violation of trust destroyed not only this reporter’s credibility with the agency concerned, but also all future contacts between the news media and police officials in this jurisdiction. The agency subsequently changed its policy for dealing with the news media and has drastically curtailed the release of information to the press.

Hopefully, such situations as described here are the exception, not the rule. However, law enforcement personnel must be aware of such possibilities and take appropriate measures to prevent disclosures which may adversely affect the outcome of a case.

## **Homicide News Release Policy**

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The indiscriminate release of information in a homicide investigation is an invitation to disaster. An erroneous or improper statement can damage the confidentiality



of the investigation, the future prosecution, the reputation of the department, the rights of the accused, or the sensibilities of the family of the victim. Therefore, I have provided the following guidelines for officers to follow in the dissemination of information to the news media:

1. During the investigative stage, all information from the police department should come from one person only. Generally, this person should be the detective supervisor, the chief investigator, or some other ranking officer, who has been designated in advance. The reason for this restriction should be obvious. The person in charge of the investigation is familiar with all phases and will be aware of which items can or cannot be released because of legal or investigative reasons.
2. Designating one person to handle news releases allows reporters an opportunity to obtain information about the case without interfering with operations at the scene. More importantly, however, it precludes the possibility of having conflicting information emanating from members of the same department. This tight control is necessary, and all members of the department must abide by this rule if its purposes are not to be defeated.
3. Officers at the scene can and should expect news reporters to be present. It is a mistake to treat the news media rudely or shut them off entirely. Frequently, they can be exceedingly helpful in uncovering information valuable to the case. Officers on the scene or wherever any investigative activity is taking place may be approached and asked to comment on the investigation. All they need do is explain that the department will make information available to the media through the person designated for this function "to assure equal treatment and accurate information." The homicide investigator is expected to act as a professional and should handle each media contact in a manner which encourages cooperation.
4. The detective supervisor or designated police spokesman should confer with the medical examiner and the prosecutor in these early stages so as to avoid any confusion or embarrassment from conflicting or inappropriate releases being issued by the various officers. During the preliminary activities, only the police agency charged with the responsibility of conducting the homicide investigation should be making any official news-release statements. Later, after the autopsy, the medical examiner and/or coroner may elect to make an appropriate statement as to cause of death. However, all initial statements as to investigative inquiry, discovery of a body, or arrest of suspected persons lies within the jurisdiction of the police.

During the prosecutorial stage, beginning with the suspect's arraignment, all information about the case should come from the office of the prosecutor. Practically speaking, this thin line of jurisdictional prerogative can often result in conflict or embarrassment, particularly in sensational murder cases. The appropriate source to make the news release is determined

by the expertise and authority of the agency concerned, whether investigatory, medical, or prosecutorial.

5. When releasing details of the homicide investigation, do not furnish the name of the deceased until there has been an acceptable identification and the next of kin have been notified. In some instances, the media will have been able to ascertain the identity from police radio transmissions, teletype alarms, bystanders, witnesses, etc. In these cases, a request should be made that they withhold this information pending official notification to the family. Generally, such a request will be complied with. However, in keeping with the theme of mutual cooperation, the media should be advised when the police have notified next of kin so that they may properly file the story.
6. In cases where the perpetrator has not been arrested and the investigation for suspects is continuing, it is imperative that certain information be withheld. During the course of a murder investigation, news items appearing in the press may be helpful or harmful, depending on what *preparation* has been given to what is said. One of the classic means of establishing the veracity of a confession is to have the suspect give information which only the perpetrator could know. The more sensational the case is, the more the likelihood of persons coming forward with false information or even confessions. Obviously, it is always wise to withhold certain information from the media. This will preserve the integrity of the investigation.
7. When talking to the media, do not permit yourself to be maneuvered into a situation where you theorize or speculate, where you make predictions, or where you give personal opinions about the case. Statements such as, "We expect to have the suspect in custody within the next 24 hours" have come back to haunt many an officer foolish enough to make that prediction. Such a personal observation can do nothing to assist the investigation and may, in fact, become a liability later. The investigator is a fact finder, open to all possibilities. When asked, "Is it possible... Could he have... Have you ruled out...," the most practical approach is merely to state, "At this time, we are keeping all of our options open, and we would rather not speculate on any specific possibility."
8. Never pose for photographs at the scene or when transporting the suspect. Posed photographs can create the wrong impression with the public and can create legal problems during the prosecution. If the press is able to take photos outside the crime scene area of the investigators as they carry out their duties at the scene, there should not be any problems. However, officers should be cognizant of their presence and maintain a professional demeanor.
9. If the news release is a taped interview which will be aired on television or radio, the police spokesman should be aware that whatever he or she says will be recorded. It is best to prepare by writing out, prior to the interview, a brief narrative account of the event, being careful to withhold information which might adversely affect the case. Prior to the actual taping, the news

media people will usually go over your release and ask certain questions. This is done for their benefit so that they can get a “feel” for the case. Practically speaking, this preliminary question-and-answer session can benefit both parties. The questions asked during this preliminary conference are basically the same questions which the reporter will be asking you on tape, so you will have an idea of the types of questions to which you will be responding.

If you cannot answer a particular question for legal or strategic reasons, explain this to the news media people and set the ground rules. It is important to note that the entire interview will usually not be broadcast but will be edited to fit into an allotted amount of time. Therefore, to be sure that the interview gives the complete coverage you desire, stick to short and concise sentences.

Sometimes a reporter will try to force an issue by waiting for the television lights to go on and the camera to start rolling and then purposely ask a question which you had previously indicated you could not answer. At this point, without hesitation, look directly into the camera and state, “Excuse me, Mr. or Ms. So-and-So, I told you before we went on camera that it would be improper for me to respond to that question.” I am pretty sure you will not be bothered by that kind of question again. However, more importantly, you will have maintained control over the interview and not compromised the investigation.

10. The news media provide an excellent vehicle for making appeals to the public for information. I have found that media personnel will usually make a special effort to assist law enforcement officials in requesting public assistance in a homicide investigation. For example, an unidentified body may be found whose physical qualities or possessions and clothing can be described. An appeal can be made through the media to ascertain whether anyone recognizes the description with a request to call police with any information. A general appeal can also be made to anyone with information on a specifically heinous crime to obtain citizen involvement, thereby reaching persons not readily available through ordinary investigative means. It is usually a good idea to stress that callers can remain anonymous, if they desire, and that the information will remain confidential.

## Offering Rewards

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A question often arises regarding rewards and what role the police should play. The offering of rewards usually results in additional unproductive investigative time as police check out vague tips which offer no help with the investigation. However, there is always the possibility that someone will come forward with useful information. It is usually better not to discourage the offer of a reward, even though it means more wasted effort. If the police reject the offer, they risk criticism for not



doing everything possible to find the murderer. However, two stipulations should be made in connection with any reward offer: (1) no law enforcement officer is eligible to receive it; and (2) any information must be given directly to the police.

## **Handling the News Media at the Scene**

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News media people at the scene should be advised that any information will come from the homicide supervisor and not the officers who are working on the case. News media people usually learn about the homicide through police radio transmissions. All police press rooms monitor the police communications system, and most media organizations maintain similarly equipped mobile units that will respond to the scene.

In some instances, these reporters will arrive before the investigators. First officers who are maintaining lines at the scene should tactfully explain to these media representatives that information will be made available to them as soon as possible by the homicide commander. Point out that it would be unfair to make information available to some members of the press which would not be equally available to all others. I have seen some police officers handle this situation quite tactfully, but others have embarrassed me by their ignorance or rudeness. In any event, most news media people who have dealt with the police before can appreciate the emergency nature of this preliminary phase of the homicide investigation, and they realize that any information must come from a ranking official. If a good, consistent homicide news-release policy is in place, the media will usually cooperate.

It should be noted that members of the news media have a right to be present at the scene and perform their task of gathering information. However, this right does not include interfering with the police investigation or entering restricted areas, such as the crime scene, where valuable evidence may be lost or destroyed.

In homicide cases, police lines are usually established to prevent unauthorized persons from entering the scene. In most instances, news media people authorized to cross police lines to cover stories will be allowed entry. This entry is permissible as long as it does not interfere with police operations, jeopardize the integrity of the scene, or create a hazard. Witnesses or suspects being detained must be kept away from the media. However, the press should generally be permitted to report or photograph anything they observe while legally present at an emergency scene. When publication of specific items would interfere with the investigation or place witnesses, suspects, or others in jeopardy, the homicide official in charge should advise the reporters and their editors of the consequences of publication and request their cooperation. If some member of the media is pushy or overzealous and threatens the security of the scene or interferes with the police operation, merely exercise intelligent police procedure and physically remove him or her from the crime scene just as you would any other unauthorized person.

In homicide cases, especially in the preliminary stages of the investigation at the scene, uniformed officers and detectives assigned to the case are usually in

possession of information which must be withheld from the general public — for example, the identity of the deceased prior to notification of next of kin. News media people who have responded to the murder scene are anxious to obtain as much information as possible to cover the story. Usually, they will question bystanders and others at the scene in order to get a feel for the story and probably will ask any officers present for information about the case. These officers must keep in mind that certain disclosures may harm the investigation, subvert justice, or infringe on individual rights to privacy. The professional response to such inquiry is simply to refer these reporters to the detective supervisor.

The more sensational murder cases and those involving well-known persons or celebrities result in a more aggressive style of reporting, as the various representatives from different news organizations strive to meet deadlines or “outscoop” each other. In situations like these, various pressures will escalate and strain relationships. The highest degree of cooperation between the police and the media will be necessary in order to reduce this pressure and neutralize these strains before they get out of hand.

There must be a policy as to what kind of information is given and who is to release it. Only one person should make the press release. If the release represents the formal position of the department, the public information officer should perform the duty. If the release is a news briefing of an active investigation, the homicide supervisor, who has been kept up to date on the investigation, is in the best position to determine what information can and cannot be released. This eliminates the possibility of two or more detectives independently releasing conflicting details or facts. News items given by others working on the case are usually a source of trouble because jealousies can be created and information which embarrasses other phases of the investigation may result.

Generally, the chances for a successful outcome of the investigation are improved by being completely candid with the press. If the press is aware of what information should not be prematurely released and is kept informed of developments, it will be more receptive to investigative requests. If every minute detail of the crime appears in the local paper, it will be impossible to determine the truthfulness of a statement by the suspect later.

**Remember: Always withhold certain details of the crime that only the murderer and the police can know.**

In connection with photographs, the police should neither discourage nor encourage reporters from taking pictures of a suspect.

**Remember: Prisoners should never be posed or allowed to make statements to the press.**

However, if suspects or prisoners are in a public place, news media people are allowed to take pictures, just as they are allowed to take pictures of officers at the

scene performing their duties. The identity of the suspect prior to arrest should not ordinarily be made public unless, in the opinion of the homicide supervisor, such information is necessary to assist in the apprehension of a suspect or warn the public of a possible danger. Photographs should likewise be released only if they serve a valid purpose, such as identifying a victim or enlisting public assistance in finding a fugitive suspect.

From an investigative point of view, I would advise you to be very careful in making any predictions about solution or arrest, regardless of what your prospects appear to be at the moment. I remember one particular case, which involved a shoot-out in a local social club. Although we had a double homicide on our hands, we had been able to determine within hours the identity of the shooter. I must admit it was very tempting to tell the press that we knew who did it and that we would be making an arrest imminently. The two victims had been innocent of any involvement in the shooting and were merely patrons in the club who had been caught in a cross-fire. The resultant community concern and subsequent media attention added to the pressure for immediate action.

However, my gut feeling was based on knowledge of the “players,” so I merely indicated the basic facts — two were dead, apparently the innocent victims of a shooting between two groups, and police were investigating to determine the person or persons responsible. Later, I was glad to have taken this route. The suspect was not apprehended for 3 months and then only after a tremendous amount of time and effort.

At-the-scene news releases can be just as effective as the formal news release if you maintain your composure and control.

**Remember: Know what you are going to say and how you are going to say it.**

Before you speak, consider the following:

1. Will the release cause the suspect to flee?
2. What information should be held for future interrogation?
3. Does the information you are releasing hinder the investigation?
4. Is the information released consistent with department policy?

## **Preparing the News Release**

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The news release in homicide investigations should be personally prepared by the homicide supervisor or by the public information officer after consulting the homicide official. As mentioned earlier, the homicide commander is in the best position to know what can and cannot be released in any given case.

A basic principle to keep in mind is that the news release is an investigative tool representing the official police position in the investigation. Therefore, any news



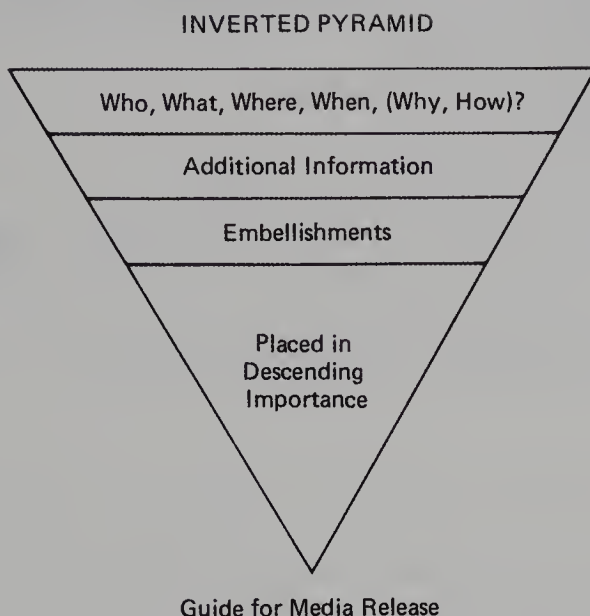
release and subsequent news media coverage should be included in the official case folder because it is a public record and may ultimately affect the outcome of the investigation. The news release should be written in a clear and comprehensible manner and its organization and style should be simple and direct.

The acronym NEOTWY — *when, where, who, what, how, and why* — should be considered when preparing the news release, and the following items should be included in the release:

1. The date and time of the homicide (Avoid reference to military time and express the time in civilian hours — for example, 9:30 P.M. instead of 2130 hours.)
2. The exact location of the homicide
3. The name of the deceased, if proper notification has been made to next of kin, and the deceased person's residence
4. The type of homicide (gunshot, stabbing, etc.)
5. The facts of the preliminary investigation, including a summary of how the homicide occurred and the present status of the case
6. The motive, if known
7. If any arrests have been made, the name, address, and age of the suspects, including nicknames and background information
8. The exact charge or charges (This refers to the charge under which the suspect was arrested. If other charges are possible, simply state, "additional charges pending.")
9. Place of the arrest and facts and circumstances surrounding it
10. Officers involved in the investigation

There are different methods for constructing the news release. One method recommended by journalists and students of communication is the "inverted pyramid" (see Figure 19.1). Charles W. Steinmetz, who was an instructor at the FBI Academy and an expert in the area of mass media and effective communication, told me that the inverted pyramid is effective because it meets police requirements and can help avoid a distorted or rewritten story. Place the facts in a diminishing order of importance, with the most important facts at the top, or beginning, of the release and the lesser facts in order of descending importance. This allows for shortening the article by a newspaper without changing the official facts of the release.

The length of the release depends on how much information the agency wishes to make available in any given homicide. I recommend that the spokesman first write out a narrative description of the event before making any official release. Then he or she can review the statement and eliminate information which might hinder the investigation. An example of a completed release is as follows:



**Figure 19.1 THE INVERTED PYRAMID.**

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I am (name of official) of (name of agency). On (date and time), the body of a (male or female) identified as (name) was found at (location). (He or she) had been (shot, stabbed, etc.). Investigation revealed that the deceased had been killed during (robbery, etc.). At this time, the investigation (is continuing, indicates, etc.).

or

An arrest has been effected in connection with this investigation. The suspect is identified as (name, age, address, nickname, etc.). (He or she) was arrested at (location) and has been charged with (charges). (Relationship of victim to suspect is optional.) The officers assigned to this investigation are (names).

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Of course, each department should design a format suited to its particular needs.

### Handling Questions During News Conferences

If the murder case is a sensational type of homicide or there is a considerable amount of public interest in the investigation, the agency will usually hold a news conference when it releases the information. During these news conferences, certain “loaded” questions may be asked by the media representative. The best course for the homicide spokesman to follow is to give straightforward and honest answers to such questions within the framework of his or her investigative priorities. The following suggestions are provided as a guide:

1. Repeat each question to the group. This will allow you to clear the question in your mind and bide time, and allow the group to hear the question.

2. Avoid the original questioner, instead directing your response to the group.
3. Avoid a one-to-one exchange.
4. Keep your answers short and concise.
5. Rephrase unclear questions.
6. Have the question repeated if it is unclear.
7. Defuse and depersonalize antagonistic questions.
8. If you do not know the answer or cannot answer the question because of some legal or strategic reason, say so.
9. Do not theorize, speculate, or make predictions.

## Conclusion

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The homicide official who recognizes and understands the role of the news media and follows the principles and guidelines discussed in this chapter will better be able to deal with press inquiries and news releases as they relate to homicide investigations.

Sooner or later, every community will experience a murder case which arouses widespread attention. The results can be catastrophic if no thought has been given to how to deal with this situation. The subsequent pressure of the media blitz as reporters try to get the best story for their particular news agency mandates that a sensible news release policy be in place. Although the police will not be able to manipulate the media, they can use the news release as a tool in performing certain functions. For instance, the release of certain information may stimulate the investigation, but withholding certain facts guarantees that only the police and the killer are aware of them. Good relations between the media and the police will keep pressures at a minimum.

Police agencies must strive to protect the rights of the victim's family, the rights of the accused, and the right to knowledge of society in general. Sometimes, under the pressure of major media organizations, this is not always possible. However, somewhere between the right of freedom of the press — as guaranteed in the First Amendment — and the rights of the accused — as specified in the Sixth Amendment — exists a delicate balance. It can be maintained if there are cooperation and good faith between the news media and the law enforcement agency.

## Selected Reading

Geberth, V.J. *Practical Homicide Investigation: Tactics, Procedures, and Forensic Techniques*, 3rd ed. Boca Raton, FL: CRC Press, 1996.





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The purpose of this chapter is to familiarize homicide detectives with the availability of certain technical and psychological tools that can be utilized in professional investigations. Practically speaking, these techniques may be limited to specific cases. However, they are viable adjuncts to the investigation and may provide additional facts, information, and identification of suspects. In order to acquaint detectives with these investigative methodologies, I have provided information, case histories, and recommendations for the following techniques:

- Bite-mark identification
- Hypnosis
- Latent prints on human skin
- Polygraph
- Psycholinguistics
- Psychics
- Munchausen syndrome by proxy (MSBP)
- Homicide involving the theft of a fetus
- Stalkers
- VICAP, statewide and regional information systems

## **Bite-Mark Identification**

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The purpose of this section is to acquaint investigators with practical information and procedures which can be employed in the investigation of homicides involving bite-mark evidence. Bite marks are usually found in cases involving extremely emotional and violent episodes such as child abuse, felonious assault, sexual assault, and sex-related homicides. According to forensic odontologist, Dr. Kevin M. Dugan, D.D.S., "In order for investigators to utilize this evidence, they must first be able to recognize the existence of this type of wound and then be able to properly collect this evidence from the bite mark area" (personal communication). (Note: a bite mark will have a C-shaped or ovoid appearance with individual marks

showing the presence of teeth. I have included various photos of bite-marks here to assist investigators in making this observation.)

Forensic odontology, which is the use of dentistry in legal matters, has become a highly important and technically complex area because a medicolegal investigation of bite-mark evidence has proved to be successful in many noteworthy cases. One of the more prominent cases which helped forensic odontology to receive recognition and acclaim was the Theodore Bundy case in Florida. Bundy, who has since been executed by the State of Florida, was convicted for murder. The prosecution used forensic dentistry to link Bundy to the bite marks he had inflicted on his victims during a sexual rampage and murder at the Chi Omega Sorority dorm. The forensic odontologist testified with reasonable medical and dental certainty at the trial that the defendant, Ted Bundy, had inflicted the bite marks.

The homicide detective will obviously need the expertise of a forensic odontologist to interpret this type of evidence. Here, we will look at certain basic steps which investigators must employ at the scene in order to assist the odontologist in his evaluations.

### **The Bite Mark**

Practically speaking, the bite mark should be viewed as an additional piece of evidence which may be utilized to identify a suspect. The teeth are actually used by people as “tools,” and in the simplest terms, tooth marks are tool marks. It has been well documented that owing to such factors as size, shape, wear, rotations, restorations, fillings, loss of certain teeth, and accidental characteristics such as breakage and injury, no two sets of teeth are exactly alike. The relative positions of the teeth, their width, and the distance between them, together with ridges on the edges of the teeth and grooves on the back or front, vary for different individuals. These factors provide the forensic odontologist with specific and characteristic information about the person who has inflicted the bite mark and can be used to include or exclude a suspect.

Generally, tooth marks come from the front teeth in the upper and lower jaws. The type of impression varies with the age of the individual. For example, children and young people have ridges on the lower edges of their front teeth, and persons over 20 years of age generally have front teeth which are smoother.

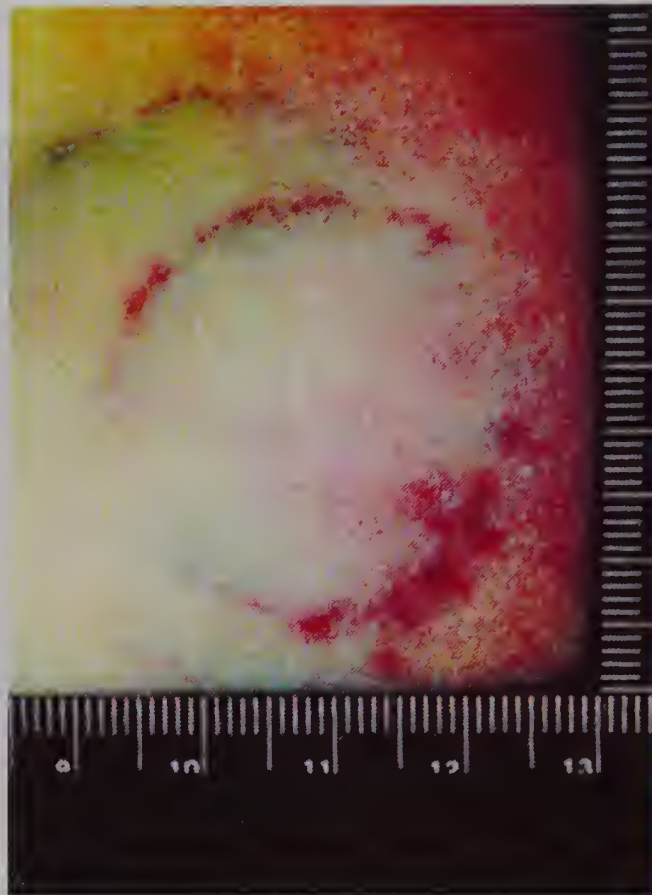
Bite mark identification is not limited to skin. Teeth leave impressions or scraping marks in the form of bite marks in chewing gum, cheese, fruit, chocolate, Styrofoam cups, cardboard, and other similar materials. The discovery of a piece of discarded chewing gum at the scene of a homicide should certainly be considered a significant find. Its value is not only in its distinctive bite-mark impressions, but also in its ability to yield additional information through a serological test to determine the blood grouping as well as DNA analysis of the suspect who chewed the gum.

Forensic odontologists examine the bite marks found on the skin of a victim or suspect. The musculature of the lips, tongue, and cheeks and the mental state



**Figure 20.1 BITE MARK.** (Left) This photo depicts bite mark evidence. A man in his mid-40s was murdered in his home. During the struggle, one of the assailants had bitten into the man's left shoulder. **CLOSE-UP OF BITE MARK.** (Right) This is a close-up photograph of the bite mark. The mark depicts a lot of individuality of the assailant's maxillary teeth as well as the mandibular. The subject pled guilty when confronted with the odontology evidence. (Courtesy of Kevin M. Dugan, D.D.S., forensic odontologist.)





**Figure 20.2 BITE MARK ON CHILD.** Child abuse case. This 3-year-old child has bite marks showing a maxillary mark twice. The mother had inflicted the bite mark on the child. (Courtesy of Kevin M. Dugan, D.D.S., forensic odontologist.)



**Figure 20.3 BITE MARKS FROM A SADISTIC BREAST ASSAULT.** Multiple bite marks were inflicted upon the breast of the victim, who survived an attack by a serial killer. (Courtesy of Lt. Frank P. Del Prete, Bergen County, New Jersey, Prosecutor's Office.)



**Figure 20.4 FORENSIC PHOTOGRAPH.** Photograph of bite-mark wound with ruler in place to show actual size. (Courtesy of Dr. Arthur D. Goldman, forensic odontologist.)

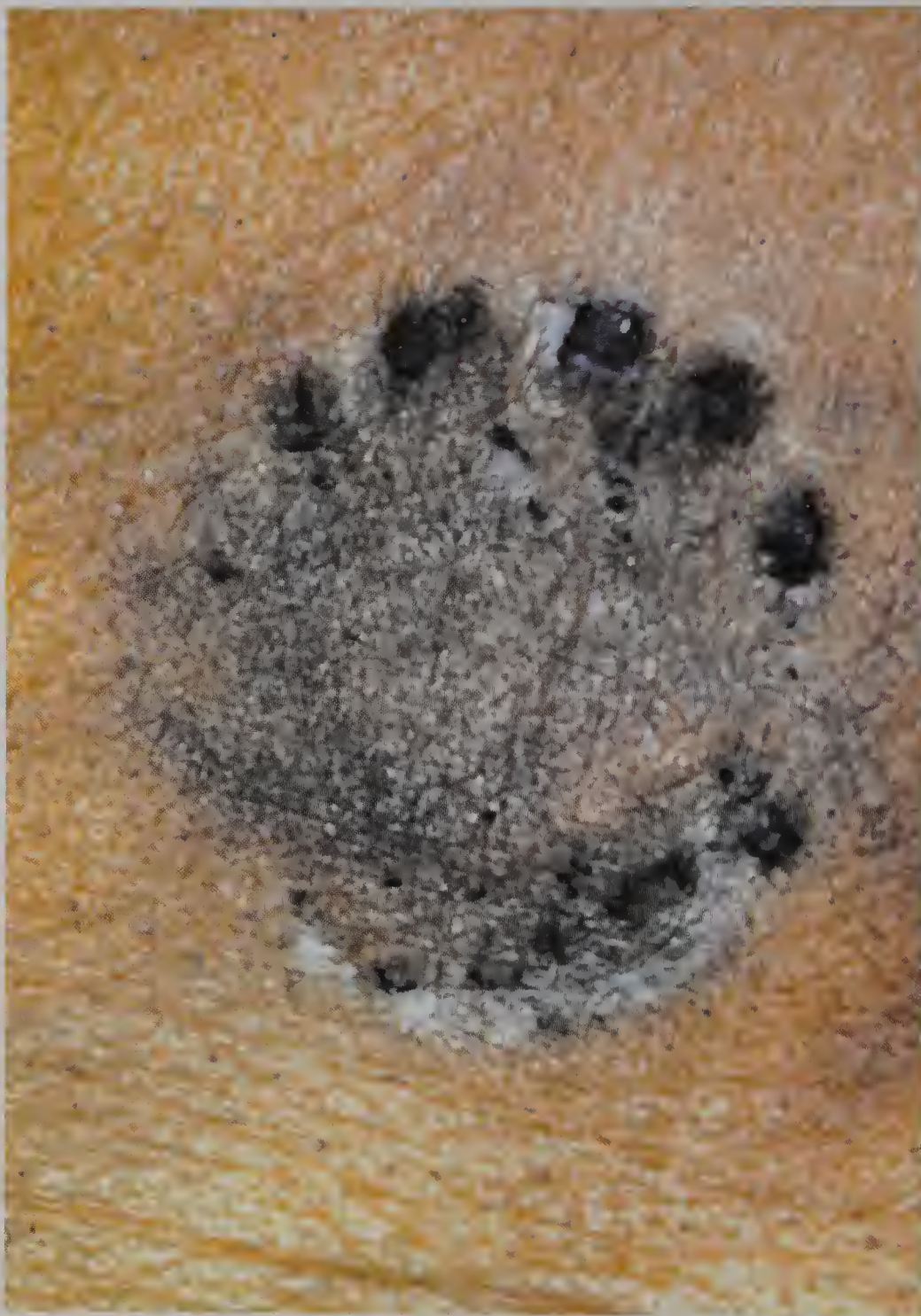
of the biter seem to play a role in the infliction of the tooth-mark pattern on the skin. The skin contributes to the bite mark in that it is elastic, yielding, and variable from body area to body area and from body to body. Most bite marks are found in the following types of homicides: (1) the homicide victim involved in sexual activity around the time of death and (2) the battered-child homicide victim. Sexually oriented homicides can be homosexual or heterosexual and may involve voluntary sexual activity or forcible attack. Child victims may be battered children or children murdered by other children in a single homicide assault.

### **Collection of Bite-Mark Evidence at the Scene**

The proper handling of bite-mark evidence begins at the scene of the crime, where the homicide investigator must initiate procedures to ensure that it is not destroyed or lost. The best course of action is to secure photographs of the bite-mark wounds. If the material is other than skin, consideration must be given to casting the object. Bite marks are usually found in materials which cannot be kept for long periods of time; once the materials have dried up or decomposed, the bite mark's appearance will change drastically and be of no value to the odontologist. It is therefore imperative to obtain photographs or casts of the bite mark before the material begins to change. Even if an object is to be cast, the bite mark should first be photographed in case the casting goes wrong.

These first photographs are usually taken by the police photographer at the scene, followed by medical examiner photographs taken at autopsy. I recommend that the investigator take photos of any pattern of injury he or she observes on the body while at the scene, giving special attention to any ovoid-shaped wounds or



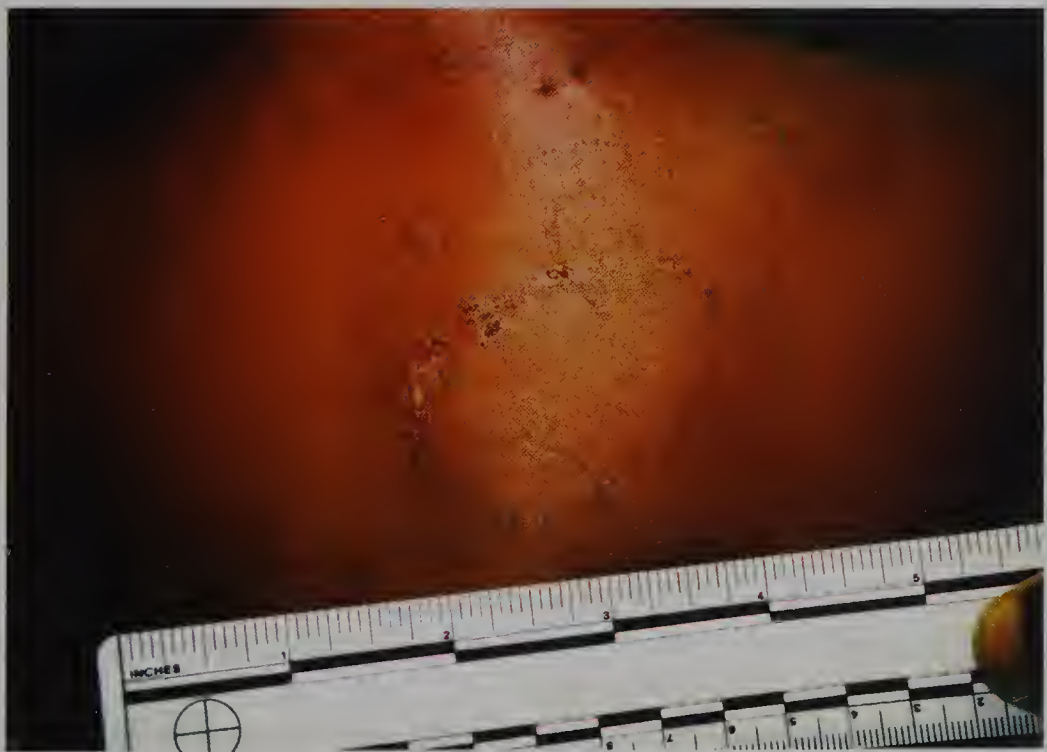


**Figure 20.5** BITE MARK. (Courtesy of Kevin M. Dugan, D.D.S., forensic odontologist.)

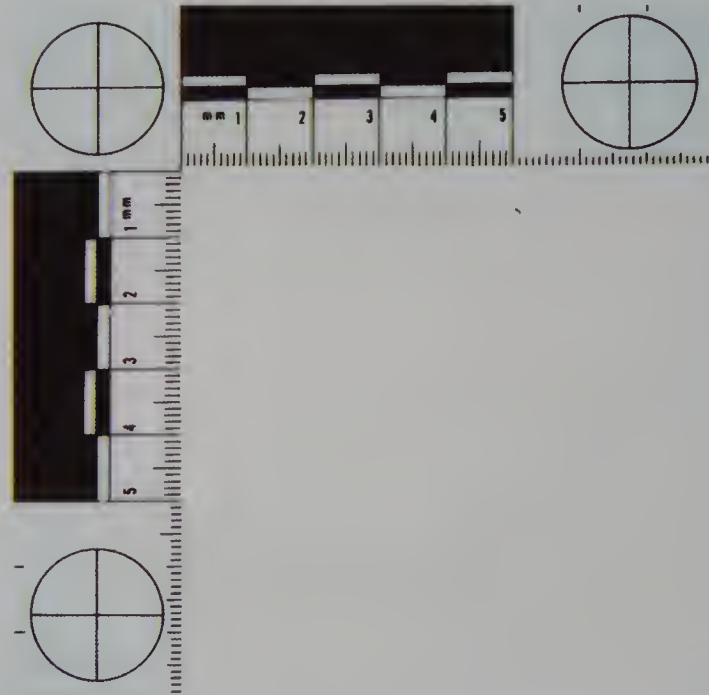




**Figure 20.6** SUSPECT'S TEETH. (Courtesy of Kevin M. Dugan, D.D.S., forensic odontologist.)



**Figure 20.7** MONTH-OLD BITE MARK. The deceased was attacked during a homosexual assault. This is a month-old bite mark. Several bite marks of different ages were on the victim. Attacks ranged over a 6-month period of time, which was verified by the various stages of healing. (Courtesy of Kevin M. Dugan, D.D.S., forensic odontologist.)



**Figure 20.8 RULER.** Example of the type of ruler that should be used to photograph wound structures.

marks, which are less than 2 inches in diameter. According to Dr. Dugan, there are two rules to remember:

1. Do *not* touch a suspected bite mark.
2. Get photographs as quickly as possible with a measuring device present, preferably with an American Board of Forensic Odontologists (ABFO) ruler.

It is very possible that these initial photographs may be the best and only opportunity to secure good quality photos of your evidence. Many good bite marks have been lost due to mishandling by investigators, emergency personnel, and autopsy technicians.

The following procedures at the crime scene are recommended.

### ***Photographs of the Bite-Mark Wound***

1. The best type of camera to use is the Polaroid® Spectra Close-Up kit. Likewise, the CU-5 1 × 1 *fingerprint* camera produced by Polaroid is excellent for photographing bite marks because these cameras provide a 1 × 1 exposure or life-size photo of the wound.
2. Use a rule of measure in the photo to document size. The rule used should not be white in color because white is not conducive to enhancement. The best ruler to use is the ABFO.
3. Use oblique lighting to enhance the bite mark.
4. Provide for an anatomical landmark in the photo.



**Figure 20.9** SUBCUTANEOUS VIEW OF BITE MARK TISSUE REFLECTED. (Courtesy of Kevin M. Dugan, D.D.S., forensic odontologist.)

5. Take photos in black-and-white and in color.
6. Take an overall photo and a close-up of each wound.
7. Do not discard any “bad” shots; save all negatives and photos. They are evidence.

### ***Saliva Washings***

1. Take saliva washings of the bite-mark area for DNA analysis, blood grouping, and/or serological examination.
2. Washing should be done with distilled water and 100% cotton. Start at the periphery and work inward; use a separate swab for each bite mark. (If no distilled water is available, use tap water, but take a control sample for examination.)
3. Air dry each swab.
4. Place each swab in a separate container, preferably a sterile test tube.
5. Take a saliva swab from the victim for control.
6. Take a controlled swab from an area of the body other than the bite mark.
7. Label each sample; keep items separate.

**Remember:** Always keep track of the chain of custody.

### **Interpretation of the Bite-Mark Evidence**

The interpretation of the bite mark requires the forensic odontologist to consider at least four factors:



1. The teeth of the biter
2. Distortion
3. The mental state of the biter at the time the bite was inflicted
4. The portion of the body upon which the bite was inflicted

Bite marks have been found almost everywhere on the body. However, certain patterns are most prominent in particular kinds of cases. For example, homosexual cases often involve bite marks of the back, arms, shoulders, axillae (armpits, face, penis, and scrotum of the victim). Heterosexual cases usually involve the breasts and thighs. Battered children most often have randomly placed bite marks on the cheeks, back, and sides. However, bite marks on battered children have also been found on the abdomen, scrotum, and buttocks. In child cases, the biting seems to be done in a rapid, random, and enraged manner, leaving tissue laceration, diffuse areas, and poor detail, as opposed to sexually associated bite marks, which are usually inflicted in a slow and sadistic manner and result in excellent detail.

Factors such as size and shape are helpful in establishing whether the bite mark was inflicted by a human being or an animal. If the bite mark is human, the time at which it was inflicted (antemortem or postmortem), tissue reaction of the surrounding area, and position of the body when found are all taken into consideration by the odontologist.

### **Examination of the Bite Mark**

The examination of the bite mark by a forensic odontologist can generally provide the investigator with sufficient information to rapidly include or exclude a suspect in a particular investigation. For instance, in a case involving a battered child, only a limited number of persons would have the opportunity to bite and murder the child. The suspect in such cases might include one or two adults (the mother and/or father) and siblings. On the basis of the size of the arch, the forensic odontologist can usually determine whether the attacker was an adult or a child. In addition, there may be enough individual characteristics (wear, missing teeth, dental restorations, rotations, arch form, etc.) to exclude all but the perpetrator of the bite.

The forensic examination includes the following procedures:

1. Saliva washings are made of the area for DNA and blood groupings (using 100% cotton dampened in distilled water).
2. Photographs of the bite mark are taken:
  - a. 1 × 1 camera fingerprint type model
  - b. Black-and-white and color photographs
  - c. Rule of measure
  - d. Anatomical landmark
3. Dental casts of possible suspects are examined. Models of the teeth of all suspects, which will subsequently be used for comparisons, are taken only by informed consent or by court order. The models are made by the forensic



**Figure 20.10 DOG ATTACK CASE.** The body of a 9-year-old child attacked by a pack of Rottweillers and Doberman pinchers. The parents had eight dogs and their neighbors had nine dogs. The question as to which dogs had inflicted the bites was attempted. However, the mauling and mutilation precluded the ability to determine exactly which dogs had done the biting. Models were taken from all dogs involved for comparison. It was determined that approximately nine of the dogs had actually bitten into the child. All of the dogs were put to sleep. There were various lawsuits and criminal charges. (Courtesy of Kevin M. Dugan, D.D.S., forensic odontologist.)

odontologist or another licensed dentist. This varies from case to case and from court order to court order. All models, however, are made according to accepted dental standards and labeled for evidentiary purposes.

4. Comparisons are made of the life-size photographs of the bite marks with bite marks made in wax by the suspect or by models of the suspect's teeth. An excellent computer program is now used to remove photographic distortion and compare the bite mark and the suspect's dentition.
5. A report is prepared indicating whether the bite marks are or are not consistent with the teeth of the suspect.

### Summary

The application of forensic odontology to bite-mark identification and matching DNA as well as serological groups with saliva washings of the suspected bite mark

are two viable investigative techniques which can provide the investigator with the necessary evidence to present a case for prosecution.

Bite-mark identification has been recognized by the superior courts of several jurisdictions in noteworthy homicide trials. It is my opinion that this excellent investigative technique should be utilized in every case of homicide involving bite marks. Even in cases that have a confession or other evidence linking the suspect to the crime, bite-mark evidence should still be obtained and submitted to the forensic odontologist. There is no such thing as “enough evidence” in homicide prosecution. Remember the O.J. Simpson case?

**Remember: Bite-mark identification represents individual characteristic evidence, which can positively identify a suspect.**

## Hypnosis

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The purpose of this section is to acquaint the homicide detective with the utilization of hypnosis in murder investigations.\* In addition, there is a discussion of psychodynamics, the science pertaining to motives and other causative factors in mental life, and how these factors can affect the outcome of an investigation.

### What Is Hypnosis?

The word *hypnosis* is derived from the Greek word *hypnos*, which means “sleep.” However, the person under hypnosis is not really asleep but is aware of his or her surroundings. Hypnosis may be defined as “an altered state of consciousness involving focused attention, heightened awareness, and concentration.”<sup>1</sup> The person in a hypnotic state can increase his or her capacity to restructure events by reorganizing his or her usual perceptions of things.

### *Psychodynamics*

In order to comprehend how hypnosis works, it is useful to understand the systems of the mind referred to as the conscious, preconscious, and unconscious. The conscious consists of the thoughts, feelings, and actions of which we are aware. The preconscious includes mental activity that we can be aware of if we attend to it. It will receive and remember those impressions classified as “safe,” i.e., that have passed the screening of the ego’s defenses. According to Lieutenant Byrnes, these defenses ward off that which is dangerous and harmful to the ego. The unconscious contains all the rest of our memories, including the “unsafe” ones, which are not available for recall. This is why witnesses to very traumatic crime situations such

\* The technical data on hypnosis are based on materials and information provided by Lieutenant Timothy P. Byrnes (now retired), former commanding officer of the New York City Police Department’s Hypnosis Unit.



as homicides are often unable to recall what they have seen. The investigator should be aware that this is not a deliberate effort on the part of these individuals to frustrate the investigation. They may very well not recall seeing the details of the incident in the trauma situation.

The unconscious consists of approximately seven-eighths of the brain. It not only receives repressed material that has been blocked by the defenses and classified as “harmful,” but also stores impulses which were conscious and preconscious at one time. Furthermore, it is alert to responses on a 24-hour basis. It never sleeps. It records every stimulus regardless of the condition of the conscious of the individual. Thus, in spite of intoxication or trauma, accurate records are received and recorded by the senses and stored in the subconscious.

### **Value to the Investigator**

Hypnosis offers the homicide investigator a means of obtaining additional information, and its application in certain murder investigations has been very effective. Hypnosis has been used to enable people to recall names, places, or details, including the actual verbalizations, which took place during the crime. In addition, in many cases persons under hypnosis have described vehicles, including make, model, color, and complete license number.

When a person is hypnotized, the conscious mind is somewhat subdued. This allows the subconscious to become a little more active. When the hypnotist talks to the person under hypnosis, the subconscious mind is more acceptable to what it is told and governs the body accordingly. In other words, a person in a hypnotic state is prone to the suggestions of the hypnotist, who acts as a guide. Thus, hypnosis and other related techniques designed to remove trauma may enable the subject to recall that which was stored in the subconscious and relate this information to the hypnotist in a clear and concise fashion.

### **Shortcomings of Hypnosis**

Hypnosis has some shortcomings, which should be understood by the investigator prior to using this technique:

1. People can lie while under hypnosis. Although it is not policy to routinely explain this to the subject to be hypnotized, it should be noted that if the investigator seeks to know whether or not the subject is telling the truth, the polygraph should be employed. Hypnosis is not truth serum.
2. People see and remember things in various manners. Recollection may be colored by previous experience. Therefore, memory of numbers, letters, or phrases can be jumbled or mistakenly affiliated with previous associations.
3. The investigator must be vigilant about confabulation, whereby the mind fills in memory gaps with imagined or distorted information.

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## Case History

The following case history is typical of those handled by the New York City Police Department's Hypnosis Unit.

An investigator called the unit and stated that he had reached a dead end in his investigation. He remarked that he had only one witness, who had looked out a window after the shooting. This witness was very quiet in nature but told police that the auto in which the suspect had fled was brown, and he was able to supply one number of the license plate. At a prehypnosis introduction, then-Sergeant Byrnes noticed that the subject wore heavy, dark glasses that covered his eyes and part of his face. He spoke very little and nodded his yes and no answers, rather than saying them.

In conforming with legal parameters, the hypnotist was given limited information — only the subject's name, that he was a college graduate who lived alone, and that he had looked out the window after the shooting.

During the prehypnosis interview, the subject again only nodded when asked questions. Finally, when asked to relate the incident that he had witnessed, he replied slowly and with some difficulty. He suffered from a nervous condition of stammering, which was in fact totally out of character for this young educated individual. Apparently he was conscious of this condition and chose not to speak at length in order to avoid making the condition known to others.

When the subject was under hypnosis, Byrnes asked him to remove his glasses and thereby shed a defense mechanism. The subject did so and the session proceeded without incident until the discussion finally returned to the date and time in question. At that point, to the amazement of the sergeant and the investigator, the subject began to relate the details of the incident rapidly without even a trace of stammering. In addition, he provided the entire license plate number (explaining how he remembered the numbers in his method of association), the type of vehicle, the conversation that he had heard immediately after the shooting, the description of the suspect, his route of travel, the fact that he had stopped and had a conversation with another person on a distant corner, and the fact that another person was present and had voiced his horror about the shooting (thereby supplying an additional witness to the crime).

As a direct result, the investigator was able to continue his investigation and eventually independently verify the veracity of the statements made by the subject under hypnosis. The result was an indictment for murder. Lieutenant Byrnes adds as a postscript that the subject of the hypnosis, immediately after the session, returned to his previous stammering condition.

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## Summary

Practically speaking, most law enforcement agencies using hypnosis have found this technique to be quite successful. It should be noted, however, that hypnosis is not the final answer. Any information obtained through this method must be independently corroborated by further investigation. From an investigative point of view, hypnosis may provide the police with additional facts and information and should be viewed as an additional investigative tool.

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## Latent Prints on Human Skin

Forensic science has made some recent advances in the area of latent print development from human skin. The development of latent prints on human skin can

be extremely valuable in homicide investigations and other crimes in which the perpetrator has touched the victim. Some of the methods used are simple and inexpensive, while other more advanced techniques require the use of a laser and other sophisticated equipment. The techniques presented in this section will be limited to those simple and practical methods which the average investigator can employ at the scene.

Practically speaking, many of the methods used to obtain fingerprints from human skin may not be effective in all instances. In the laboratory, these methods have proven successful; yet, under field conditions, the ability to obtain human fingerprints is rare. However, their application should be encouraged because fingerprints represent the ultimate piece of physical evidence in any criminal investigation. In homicide cases, their presence takes on an added value because the victim, who is deceased, will never be able to “point the finger” at the suspect.

### **General Considerations**

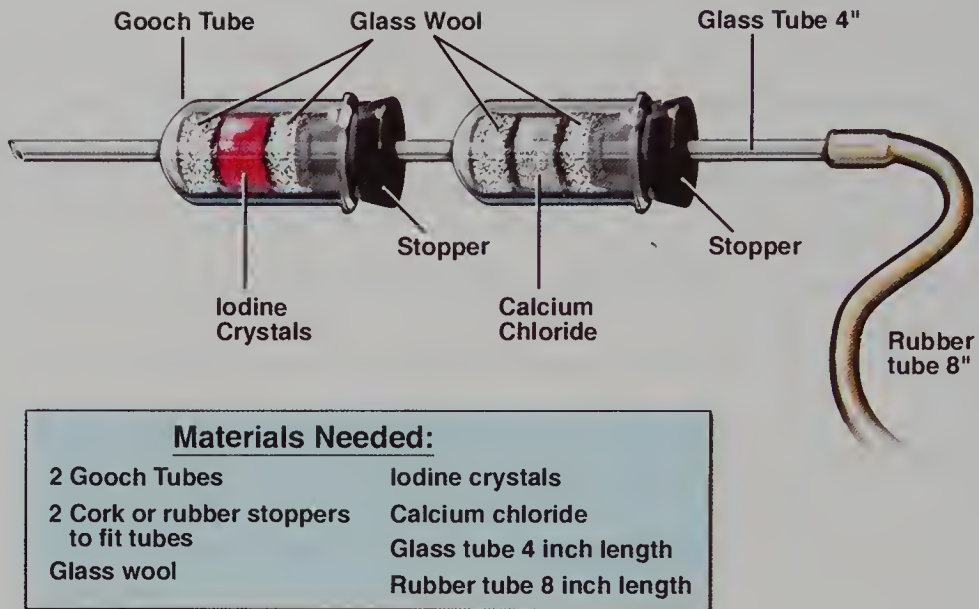
Experiments conducted in developing latent prints on human skin indicate that fingerprints on living skin seem to last for approximately 1 to 1 1/2 hours. In dead-body cases, it is recommended that these procedures be employed as soon as possible. The state of the skin and atmospheric conditions will affect results. The ideal temperature is between 60 and 75°F.

### ***Procedures***

1. The Kromekote lift technique or unexposed Polaroid film method involves the use of the following equipment:
  - a. Fiberglass filament brush
  - b. Black fingerprint powder
  - c. Kromekote cards (15 × 7)\*
  - d. Unexposed Polaroid film can be substituted for Kromekote. The Kromekote card or unexposed Polaroid film is placed over the area of the skin where the suspected latent print is located, and pressure is applied to the card or film piece for approximately 3 seconds. The card or film is then carefully removed and dusted with the black fingerprint powder to develop the print, which was transferred onto the card or film. The latent print obtained will be a mirror image of a normal print and can be reversed through photography.
2. The Magna-Brush and powder direct to the skin method may be employed in the absence of Kromekote or unexposed Polaroid film, or in addition to the preceding procedure. The following equipment is necessary:
  - a. Magna-Brush with magnetic powders

\* The cards are similar to photographic paper, with a very high gloss. Various companies manufacture these materials. Also, you can use unexposed Polaroid film.





**Figure 20.11 THE IODINE GUN.** (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

- b. Fiberglass filament brush with volcanic powders. The powder is applied directly to the skin. The use of volcanic or magnetic powders depends on the condition of the skin. When the skin is dry, you may obtain better results with the magnetic powder. If a print is developed, it should first be photographed using a  $1 \times 1$  fingerprint camera. It is then lifted in conventional fashion, using cellophane “lifting” tape. Certain areas of the body will usually yield latent prints because these areas are usually touched by the perpetrator — for example,
  - i. Upper arms of the victim
  - ii. Areas directly behind the ear and ear lobe
  - iii. Inner thighs directly below the crotch area (sex cases)
  - iv. Heels and skin around the ankles (body dragged)
  - v. The neck area
  - vi. Wrists
3. The equipment needed for the iodine–silver transfer method\* is as follows:
  - a. Conventional iodine fuming gun
  - b. A number of silver sheets approximately  $2 \times 2$  inches. These silver sheets should be between 0.005 and 0.010 inches thick in order to conform to the skin surface. These sheets can be cleaned with whiting or silver polish and may be reused.
  - c. A strong light (photo floodlight is ideal).

The four basic steps in the iodine–silver transfer process are as follows:

\* The description is based on FBI research. Robert J. Hazen and Clarence Philips were supervising specialists assigned to the FBI Training Division in Quantico, Virginia, who published an article in the *FBI Police Instructor's Bulletin*, 1976.

1. Fume the skin tissue with vapor from the iodine gun.
2. Press the silver plate directly onto the skin, covering the area where the latent prints are believed to be.
3. Remove the silver plate.
4. Expose the silver plate to the strong light.

It should be noted that the prints on the silver sheets are laterally inverted, i.e., the left side of the print on the silver sheet corresponds to the right side of the original print. In order to reproduce the position correctly, it will be necessary when preparing prints on the negative to place the glossy side of the negative next to the emulsion side of the printing paper.\*

## Fingerprint from Human Skin Using the Magna-Brush Technique

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### Case History

On May 7, 1982, the Peel Regional Police Force Identification Bureau became involved in an extremely gruesome murder case. (See Chapter 21 for reference.)\*\* The victim had been badly battered, sexually assaulted, and otherwise perversely attacked. She was found on her back with clothing partially removed, exposing her upper and lower body. The police felt that she must have been handled by the offender and began an examination of the body at the scene with this in mind. Detective Sergeant Geoff Hancock, Inspector Mike Metcalf, and Inspector Frank Fernandes (now deceased) were the identification officers who conducted this portion of the investigation. Initial examination was performed at the scene using the Kromekote technique; however, a limited supply of Kromekote paper yielding negative results made it necessary to go on to another technique.

At this point, the body was removed to the local morgue and prior to removal, the ambulance attendants and hospital pathologists were advised not to store the body in any refrigerated area and to ensure that none of the exposed skin areas was handled. An examination of the body for latent fingerprints was begun within an hour's time at the morgue. From this experience, it can be recommended that a good quality portable light source be used to do this type of examination, using a large hand-held magnifying glass.

The officers had received information of a technique used successfully by the police in Miami, Florida, during their investigation of the "Spa Murders." They had also used the Kromekote technique and when this was unsuccessful, progressed to the Magna-Brush powder technique. The identification officers decided to implement the Magna-Brush technique, using MacDonnell Magna Jet Black Powder.

It appeared at the scene that the legs of the deceased had been forced apart. Her jeans had been pulled down around her ankles so the areas of the legs we felt would have been handled were the inner knee and thigh areas. When this area of skin was dusted with the Magna-Brush powder, two areas revealed evidence of ridge detail when examined using the large hand-held magnifying glass. They were both on the inner knee areas. The officers photographed this ridge detail so that a proper examination could be made. The photog-

\* Further information on this technique can be obtained by writing to the Law Enforcement Arts Research Unit, FBI Training Division, Quantico, Virginia, 22135.

\*\* The author acknowledges the Peel Regional Police Department, Brampton, Ontario, Canada, specifically Inspector Rod Piukkala for providing this information relative to the preceding procedures used to recover latent print evidence from a human body.

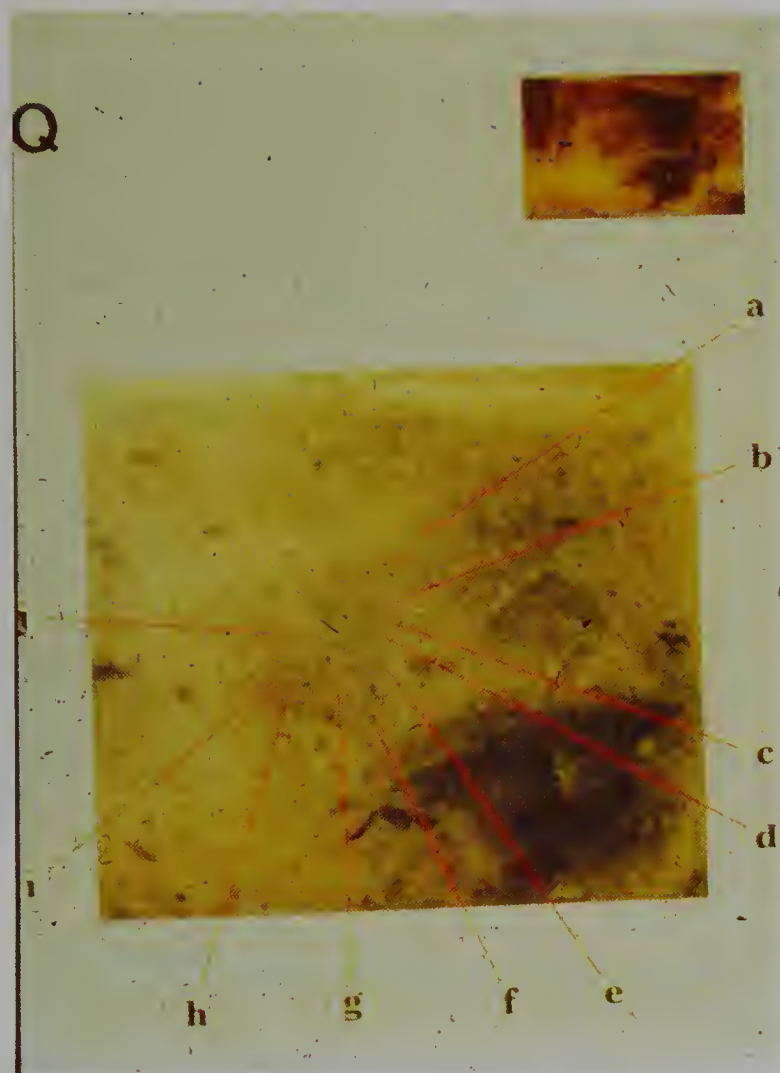


**Figure 20.12 CRIME SCENE PHOTO.** Victim of lust murder found posed and propped at the crime scene, indicating postmortem activities by the offender. (Courtesy of Inspector Rod Piukkala. Photos taken by the Peel Regional Police Force, Brampton, Ontario, Canada.)



**Figure 20.13 BODY AFTER MAGNA-BRUSHING.** Identification officers decided to implement the Magna-Brush technique, using MacDonell Magna Jet Black Powder. (Courtesy of Inspector Rod Piukkala. Photos taken by the Peel Regional Police Force, Brampton, Ontario, Canada.)



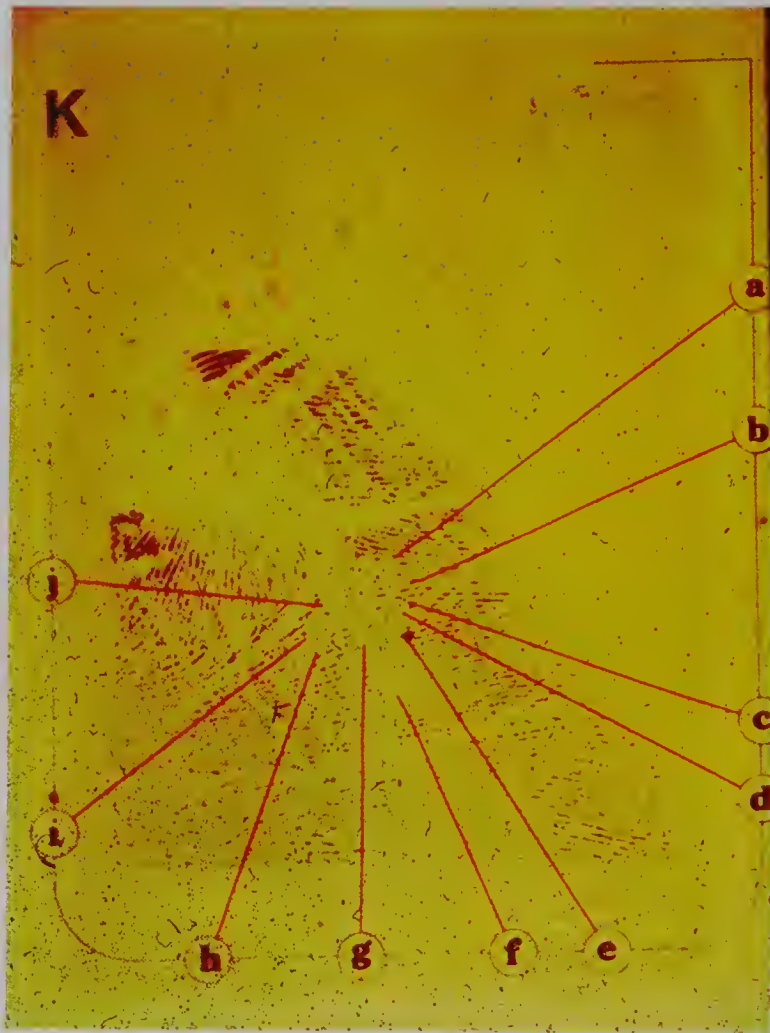


**Figure 20.14 PRINT EVIDENCE FROM SKIN.** Two areas revealed evidence of ridge detail when examined using the large hand-held magnifying glass. They were both on the inner knee areas. The officers photographed this ridge detail so that a proper examination could be made. (Courtesy of Inspector Rod Piukkala. Photos taken by the Peel Regional Police Force, Brampton, Ontario, Canada.)

raphy of the ridge detail proved to be the most critical part of the fingerprint examination. A 120 camera was used, with a good quality, heavy tripod, initially using a Polaroid back, using Type 665 P/N film. The Polaroid film did not clearly reveal the ridge detail; however, it provided a good idea as to the best angle to position the lights — in this case, a single head electronic flash unit. This angle was achieved only through trial and error. To ensure correct lighting, the recommendation is that perhaps several varied light angles be used.

During the subsequent photography, the officers also used Kodak Tri-X black and white 120 film. However, they did not reveal the ridge detail as seen under magnification because of the lack of tonal separation. The black-and-white print tended to mask the ridge detail because of light reflecting on the natural skin creases. Kodak VPS 120 was also used as well as Kodak slide film in 35 mm format.

When the color proofs were completed, a different story unfolded. The ridge detail originally seen at the morgue was quite visible on the color proofs because of the tonal separation. An identification was made shortly thereafter from the Kodak VPS 120 proofs. Although lacking a little in contrast and bearing a slight colorcast, the ridge detail, which was from the area of the suspect's palm, was positively identified. The color slide photos also taken at the morgue revealed sufficient detail for examination as well. Perhaps the



**Figure 20.15 COMPARISON WITH AN INKED IMPRESSION.** An identification was made from the area of the suspect's palm. He was positively identified. (Courtesy of Inspector Rod Piukkala. Photos taken by the Peel Regional Police Force, Brampton, Ontario, Canada.)

colorcasts and low contrast can be corrected by attempting to print out the cast and trying Kodacolor 120 instead of the VPS 120.

To summarize briefly the technique used, it should be noted again that the following steps should be taken:

1. Advise ambulance and hospital personnel not to handle any areas of exposed skin.
2. Do not refrigerate the body.
3. If any ridges appear as a result of applying the Magna-Brush powder, using a good light and magnifying glass, make sure that several angles of lighting are used to achieve optimum results. If possible, make an attempt to process the film prior to the start of the autopsy to ensure that you have the best lit photograph of the latent on the skin. If this is not possible, ensure that an adequate number of photographs are taken.
4. If possible, use Tungsten lighting when photographing the latent print. This should prove to be a more versatile light source than electronic flash. The latent print can be lighted and viewed directly through the ground glass on larger format cameras and should yield better results.
5. Use Kodak VPS film and also Kodacolor. If attempts are successful and a colorcast is evident, attempt to print it out during the print processing to increase contrast.





**Figure 20.16 LATENT PRINT ON VICTIM'S FOREARM.** Two suspects had beaten the victim about the face and had stabbed him numerous times in the abdomen. The arrest was based on lifting a latent palm print of one of the suspects from the arm of the victim using Amido Black with a methanol alcohol rinse. (Courtesy of Detective Rheta Conley.)

This was the first time in the history of fingerprinting in Canada that the fingerprint of an accused on skin had been identified using this technique.

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## Polygraph Examinations

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The purpose of this section is to familiarize the homicide investigator with the utilization in homicide investigations of the *polygraph* or, as it is more commonly referred to, the lie detector.\*

Basically, the polygraph examination uses mechanical and electronic instrumentation to graphically record the physiological changes that take place in persons questioned under controlled conditions. Changes in cardiovascular activity, respiratory activity, and galvanic skin reflex are recorded on a moving chart as the examiner asks the subject specific questions. These charts are then evaluated to determine whether the person's answers were truthful, untruthful, or inconclusive.

Although polygraph results are generally inadmissible in a court of law unless an agreement and stipulation by counsel is obtained, the test can be very useful to

\* The information and technical data presented here were provided by retired Detective Donald F. Sullivan of the New York City Police Department.



the investigators during a homicide investigation. For example, during the early stages of the investigation when the number of suspects is large, the polygraph can be used to eliminate certain suspects so that investigative resources can be employed more productively.

The proper and intelligent utilization of the polygraph coupled with the ability and expertise of the polygraph examiner may be able to do what the deceased cannot: “point the investigation in the right direction.”

### **The Examination**

The polygraph is always a supplement to a good field investigation and never a substitute for it. Often the results of a polygraph examination will be only as good as the information developed by field investigation. The polygraphist should be consulted at the early stages of the investigation as to the feasibility of using the polygraph in the investigation; it should never be used as a last resort.

Polygraphs are conducted on a strictly voluntary basis. The subject cannot be forced into taking an examination, and the examination cannot be rushed. A properly conducted polygraph test lasts approximately 2 hours or more depending on the circumstances of the case.

A polygraph examination has four phases:

*First phase — pretest interview.* The polygraphist learns about the subject’s medical history, physical condition, and psychological background. The pretest interview determines whether the subject is capable of taking the examination.

*Second phase — explanation of how the polygraph works.* During this phase, the polygraphist discusses the crime with the subject, and he has the subject explain what he knows, if anything, about the crime. The polygraphist is looking for any changes in the subject’s original statement given to the investigator.

*Third phase — preparation of test questions.* The subject is aware of the questions to be asked and there are no surprise questions. If the subject objects to one of the questions, the question is changed or eliminated.

*Fourth phase — the actual testing.* After the examination, the polygraphist analyzes the charts and then renders one of three opinions: truthful, lying, or inconclusive. It must be noted that re-examinations are necessary in some cases.

### **Possible Subjects for Polygraph Examinations**

The majority of examinations are conducted with suspects. If suspects are to be questioned, they should be advised of their rights prior to testing. If the suspect has an attorney, the polygraphist should have the attorney witness the waiver.

Informants may also be tested to ascertain that the information being supplied to the investigator is correct. Witnesses may be tested for the same reason, as well as to see whether they are withholding any other details pertinent to the crime.

### ***Subjects That Cannot Be Tested***

Persons with physical disabilities, such as a serious heart condition (verified by a doctor), should not be tested, nor should pregnant women.

### ***Investigator's Duties prior to the Examination***

The investigator should provide the polygraphist with correct and adequate case facts and not withhold anything from him or her. Remember that homicide investigation requires a teamwork approach. The polygraphist and the investigator must work together in order to be successful.

The polygraphist must know the subject's history. The investigator should provide the polygraphist with the following information:

1. Prior record, especially any arrests or investigations for a similar crime
2. Possible motive for committing the crime
3. Religion and how faithful
4. Financial status
5. Anything else the investigator can think of that might be of value to the polygraphist to get an insight into the subject

The subject should be properly prepared for the examination. Like other physical evidence, he or she should be handled with care so that the examination can be done properly.

The investigator should find out why this person initially decided to take the test and the person's attitude toward it. The investigator should never assume the subject's truthfulness based solely on the fact that the subject agrees to take an examination. Any police polygraphist will show you cases of confirmed liars who are willing to take a polygraph examination.

Needless to say, certain information about the crime should always be withheld from all parties, including the news media, prior to the examination. The investigator should take the polygraphist into his or her confidence and inform the examiner of facts that only the one who committed the crime or who was present when the crime was committed would know — for example, how the person was killed, where the entry was made, what weapon was used, what items were stolen or removed from the scene, or unusual facts about the crime, such as sex mutilation or tying up of the victim.

### ***Polygraph Procedures***

The polygraphist usually has the final decision as to who can be tested, when the examination will begin, and whether the examination will continue.

Never use the polygraph as a bluff. The subject should only be asked if he is willing to take an examination when the investigator fully intends to have the subject examined.

The polygraphist is responsible for the issues to be covered in the examination. The exact wording of all test questions on the examination should be decided by

the investigator and the polygraphist after conferral with each other regarding the facts of the case. Only one crime will be covered during the examination. If the subject is suspected of committing other crimes, then separate examinations should be conducted at later dates.

The polygraph examination should be conducted, if possible, first thing in the morning after the subject has had a night's sleep. On the day of the examination, the investigator should not interrogate the subject. When a person agrees to the polygraph, the investigators should cease all interrogation until after completion of the examination.

### **Summary**

The polygraph is an investigative aid and a supplement to a good field investigation. The homicide detective should be encouraged to use this tool and to discuss its capabilities with the polygraphist who will conduct the examination. The polygraph examination is not admissible in a court of law; however, statements made to a polygraphist are admissible. The polygraph represents an extremely valuable technique in homicide investigation when employed by a competent technician working as a member of the investigative team.

### **Psycholinguistics**

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The purpose of this section is to acquaint the investigator with psycholinguistic analysis and explain how this technique can be used to obtain information on the origin, background, and psychology of a homicide suspect who communicates with the authorities. The communication can be verbal or written.\*

#### **What Is Psycholinguistic Analysis?**

Psycholinguistic analysis is a sophisticated method of examining the spoken or written communication for clues as to origins, background, and psychology of the speaker or writer. Every sentence, phrase, syllable, word, pause, and comma is automatically scanned by computer for what it can reveal about the person who has communicated the message. These messages can also establish the author's identity by comparison with other messages whose authors are known. Psycholinguistic analysis combines the two disciplines of psychology and linguistics to provide an understanding of the type of personality who has originated the communication as well as a strategy for dealing with such persons. Although the primary purpose of the program, initiated by Professor Miron, was to analyze threats in connection with terrorist activities, psycholinguistics can provide the

\* The material presented here is based on documents and information supplied by the FBI and in personal interviews that I had with Dr. Murray S. Miron, a professor at Syracuse University. Dr. Miron has performed extensive research in the area of psycholinguistics.



homicide detective with an effective investigative tool to identify certain suspects who taunt police with verbal or written communications.

## Methodology

Upon receipt of the message or communication, the psycholinguistic expert enters the information into a computer by means of a terminal keyboard. The computer then scans the message and assigns each word to a set of categories which research has identified as important in the characterization of a threat. In addition, the computer tabulates occurrences of such things as punctuation, speech hesitations, misspellings, and sentence structure.

The computer used to analyze a wide range of threats over the years has established what is referred to as a “threat dictionary.” This threat dictionary has continued to grow in size and comprehensiveness, comprising more than 350 categories representing more than 250,000 words. These threats range from suicide notes to terrorist communications, including hoaxes and threats, which have actually been carried out. Furthermore, the computer stores over 15 million words gathered from analyses of ordinary spoken and written English. Any unusual usages or word occurrences which differ from these stored data are flagged by the computer for closer analysis. By weighing the vocabulary usages of an author or speaker against the usage employed by the average speaker, the psycholinguistic expert can derive a set of “signature” words unique to an individual that can be expected to match across differing communications.

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## Case History

The following case history represents the sort of information that psycholinguistic techniques can provide to law enforcement.

Prepared from communications received from an unidentified subject (UNSUB) who threatened a flight from New York to Geneva, Switzerland, Dr. Miron drew several conclusions. On the basis of psycholinguistic analyses, he judged that the UNSUB was a German-born male of at least 50 years of age who had immigrated to the United States as an adult and had resided in this country for at least 20 years. Furthermore, the analyses indicated that the UNSUB had probably written previous messages to prominent officials in the United States and Germany. Perhaps most revealing was the conclusion that the perpetrator’s personality compelled him to leave clues as to his identity in the message. At the conclusion of the extortion message, there was a series of three-digit code numbers which seemed to correspond to the fictitious name of the group UNSUB claimed he directed. The following code appeared at the end of the message:

Sig: 604 247 945 305 734 430  
915 837 907 Reciprocal Relief  
Alliance for Peace, Justice and  
Freedom Everywhere

Each of the nine code groups appears to correspond to the nine words of the group name. No words are duplicated in the group name or in the three-digit code groups.

However, if the code groups are rearranged so that each group is written as a column of numbers, the code would look as follows:

```
6 2 9 3 7 4 9 8 9
0 4 4 0 3 3 1 3 0
4 7 5 5 4 0 5 7 7
```

When arranged in this way, the first three code numbers, 6 2 9, correspond to the alphabet letters of FBI. Using a standard coding device, which employs a displacement key for the remaining text, the next code groups translate as "IM" followed by two initials repeated twice. Together the translation would read "FBI, I'm JK JK." A search of the names of the passengers on the flight revealed that one of the travelers matched the profile description and part of the initials of the deciphered code. Search of the records revealed that this passenger had written and signed his name to a series of similar messages written in 1969. Subsequent psycholinguistic comparisons established that these earlier messages were written by the same suspect. After this identification, the psycholinguistic tools were then used to suggest methods for conducting the interview with the suspect. Using the clues gleaned from the messages as to the personality of the suspect, specific stratagems for approaching him were devised. These involved predictions as to how the subject would react and whether or not he might contemplate suicide or escape.

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### **Psycholinguistics as an Investigative Tool**

One of the more dramatic applications of psycholinguistic methods by Dr. Miron took place during the Patricia Hearst case. Soon after the first of the tape recordings sent by the Symbionese Liberation Army (SLA) had been received by the authorities, Dr. Miron prepared a series of reports for the FBI. He described the individual calling himself "Cinque" as one who fit the known background of Donald DeFreeze. Perhaps more important, these reports predicted that Patricia Hearst would join the SLA and commit some criminal acts with them. The analyses further indicated that DeFreeze and his followers were suicidal and that they would undoubtedly die in a final shootout with the authorities rather than surrender.

Practically speaking, the use of this technique in the investigation of homicide is limited to those occasions when the murderer chooses to communicate with or taunt the police with his messages. However, when such communications are received during a murder investigation, psycholinguistic analysis can be invaluable in providing authorities with an insight into the personality type of the suspect.

The "Son of Sam" case in New York City is a good example of the type of homicide case in which psycholinguistics has been used. In this particular investigation, the killer, David Berkowitz, who called himself the "Son of Sam," roamed through the streets seeking out young couples and then gunning them down with a .44-caliber revolver. In a series of cryptic messages, which he sent to a local newspaper, he claimed that he was acting under instructions communicated to him by a neighbor's dog.

Early in the investigation, the psycholinguistic method drew a profile of this killer that later turned out to fit the subject closely. Despite the fact that several

eyewitness reports had indicated that the killer was in his mid-30s (Berkowitz had a receding hairline), the psycholinguistic profile based on the written communications correctly placed the killer's age between 20 and 25. As an indication of just how detailed such a profile can be, even though it is based upon only what the perpetrator may choose to write or say, Dr. Miron's profile of Berkowitz included the information that the killer was of average height and overweight (he was both), that his mother was dead or separated from the family (Berkowitz had been adopted and his adoptive mother had died when he was 14), that his father was ill or aged (he was retired), and that Berkowitz would continue to attack young attractive women until caught and when finally caught would surrender meekly to the authorities, as he eventually did.

According to Dr. Miron, a typical psycholinguistic profile consists of three sections. First, and most important from the standpoint of the homicide investigator, is a demographic profile of the author of the communication which attempts to identify the author's age, sex, birthplace, and other details that can be gleaned from the communication. Second, the profile presents such aspects of the psychology of the author as his or her motivations, personality, and pathology, if any. Finally, the profile provides an assessment of the determination and capabilities of the writer to carry out the threatened or claimed actions.

### **Utilizing Psycholinguistic Analysis**

Requests for psycholinguistic analysis should be made through the Technical Evaluation Unit (TEU) of the FBI. The request can be made through the local FBI field office covering the jurisdiction requesting this service or can be sent direct to the following address:

Federal Bureau of Investigation H.Q.  
Technical Evaluation Unit  
FBI Laboratory Division  
J. Edgar Hoover Building  
10th and Pennsylvania Ave.  
Washington, D.C. 20535

A request for psycholinguistic analysis should include reference to any previous communications or correspondence submitted to the laboratory in the case, and the facts concerning the violation insofar as they pertain to the specific laboratory examination. (For further information, refer to Chapter 17, "Collection of Evidence.")

### **Summary**

This method of investigation has been utilized in a number of more current investigations, including the "BTK" case in Kansas. Its adaptability to homicide investigation is limited to those cases in which some form of communication takes



place. The investigator should be aware of its limitations and not assume that psycholinguistics can replace traditional homicide investigation procedures. However, psycholinguistic analysis has proven to be a valuable investigative tool in cases where it has been used. In homicide cases, psycholinguistics has been used in just about every major investigation, from the “Alphabet Bomber” to the “Zodiac and Zebra Killing.”

## Psychics

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The professional homicide detective uses many tools in the investigation to assist in the retrieval of information, some of which may be inaccessible through ordinary methods. A somewhat sensational and often controversial practice is the use of psychics. The purpose of this section is to provide the investigator with information on the use of a psychic in homicide investigations.\*

Practically speaking, police officers are naturally skeptical of psychics and psychic phenomena. However, from an investigative point of view, anything that has proven to be successful in one investigation should certainly be considered in other cases. It should be noted that information provided by the psychic may not always be accurate and in some instances may have no value to the investigation. However, this should not discourage authorities from using a psychic, especially in homicide cases where information is limited. The use of a psychic can be considered as an additional investigative aid.

### What Is a Psychic?

A psychic is a person who is especially sensitive to nonphysical forces of life energy. According to Noreen Renier, a psychic is a person who learns to control a portion of the brain, which is not generally used, in order to see and feel things which the average person cannot experience.

### Police and Psychics

The agency that decides to utilize the psychic in a particular investigation should first establish the authenticity of the psychic by routine inquiry. Generally speaking, the decision to use a psychic is based on a report of a successful investigation attributed to psychic phenomena. This report may appear in a local newspaper or come about by word of mouth. Official contact and interagency communication will usually indicate whether the psychic was of any investigative value.

From an investigative point of view, the best way to avoid being taken in by a phony psychic is in the proper handling and control of this person. For example, having read a newspaper account of the crime, many self-proclaimed psychics

\* The information presented in this section is based on research of specific cases, personal interviews, and correspondence with several psychics, including Ms. Noreen Renier, a psychic and recognized authority on the phenomena of extrasensory perception. Ms. Renier has worked with various police agencies, including the FBI on homicide cases and other criminal investigations. Web site: [www.noreenrenier.com](http://www.noreenrenier.com).

merely feed back information to the police which is already a matter of public record. These frauds may have access to information on the case through family members or “official leaks,” which gives the impression that they have some psychic knowledge of events.

It should be noted that the police should not be telling the psychic. The psychic should be telling the police. Once the agency decides to employ the services of the psychic, all information supplied about the case to the psychic and all information provided by the psychic should flow through one contact officer, in order to maintain proper control. In addition, certain facts should be purposely withheld from the psychic in order to maintain the integrity of the investigation and assure that the information provided by the psychic is genuine and not the result of the police investigation. All conversations relative to the psychic investigation should be taped.

This is extremely important because psychics can generate a tremendous amount of information in a short span of time. Also, this information is often in the form of disjointed impressions. An investigator cannot be expected to take notes accurately and formulate questions intelligently in the face of such voluminous information. Later, the tape can be analyzed by other investigators for accuracy and follow-up, and additional questions can be formulated. Furthermore, the tape serves as a control and documentation of the information exchanged.

## **Summary**

Empirical research into psychic phenomena has been limited, and no “hard” research data are available to indicate an accurate percentage of cases materially aided by the use of psychic phenomena. However, investigatively speaking, documentation of successes has been sufficient to merit the consideration of this technique on a case-by-case basis.

If a law enforcement agency is interested in utilizing a psychic, the agency can contact The American Society for Psychological Research (ASPR) to ascertain whether it has any information about a particular psychic. The ASPR is a respected and conservative organization involved in the study of this phenomenon. Ms. Patrice Keane is the executive director and can be contacted at 5 West 73rd Street, New York, NY 10023. The telephone number is (212) 799-5050 and the Web site is <http://www.aspr.com>.

Police investigators should be cognizant of the utilization of psychic phenomena in criminal investigations. In any event, I neither encourage nor discourage the use of psychics in homicide investigations.

## **Munchausen Syndrome by Proxy**

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### **Introduction**

The purpose of this section is to alert investigators to the phenomena of Munchausen syndrome by proxy (MSBP), which is a form of child abuse whereby the

parent or adult caregiver deliberately simulates or causes medical distress in a child in order to gain attention, praise, or the sympathy of others.

The result of this behavior on the part of the parent or caregiver can be fatal to the child and a number of cases of infanticide have been documented as due to this behavior. The author is aware of a case in New York state, in which a woman killed eight of her nine children between 1972 and 1985; however, most of the deaths were attributed to sudden infant death syndrome (SIDS). As each of her children died from what was perceived to be some unexplained illness, she was afforded the sympathy of friends, neighbors, and the medical staff of the hospital. Today, the motivations in this case could have been attributed to *Munchausen syndrome by proxy*.

Actually, this disorder is similar to the diagnosis of Munchausen syndrome, which is *self-inflicted*. The individual creates physical symptoms which result in multiple hospitalizations and medical testing. However, in the Munchausen syndrome by proxy (MSBP) scenario, the physical symptomology and medical disorders are persistently fabricated or physically induced in the child by the perpetrating parent or caregiver. MSBP has two distinct categories, referred to as “simulation or mild form” and “production or severe form.”

Simulation occurs when the offender fabricates a history for a nonexistent illness or condition in a child. For example, the offender reports blood in her child’s urine. However, the offender has pricked her finger and inserted her own blood into the sample. The offender may report an undocumented history of fevers in the child. These alleged fevers are not witnessed by anyone. The fevers may appear as notations on hospital charts, which have been entered on the chart by the offender (*there have been MSBP cases involving chart tampering*). In some cases, offenders may actually condition victims to believe that they are ill and they will act accordingly.

Production is the intentional inducement of injury to create signs and symptoms of an illness. In documented cases, offenders have deliberately suffocated children to cause apnea and respiratory distress necessitating resuscitation. Other offenders administer nonauthorized medications or poisons to produce symptoms which necessitate painful emergency procedures as well as a series of medical testing.

Current research indicates that this behavior provides the perpetrating parent with psychological and emotional benefits ranging from a comforting, nurturing medical environment and sympathy to feelings of power and control.

### **Munchausen Syndrome — History and Application**

Munchausen syndrome disorder is found in the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (DSM-IV, 1994). It is listed within “Factitious Disorder with Predominantly Physical Signs and Symptoms” (300.19).<sup>2</sup> It was named after Karl Fredich von Munchausen, a German baron who had fought with the Russian cavalry in the Russo–Turkish wars. Upon his return, he amused and



regaled his friends with preposterous and highly unlikely tales of his exploits. One of his associates published a collection of these outlandish tales, which added to the baron's fame.<sup>3</sup>

The baron's name and fame were rekindled in 1951 when an English physician, Dr. Richard Asher, described a psychiatric disorder whereby adults gave "dramatic and untruthful" physical histories along with the presentation of seemingly acute illnesses that were ultimately found to be false. Because of the completely factitious nature of these medical histories, the disorder, Munchausen syndrome, was named after the baron.<sup>4</sup>

### **Munchausen Syndrome by Proxy — History and Application**

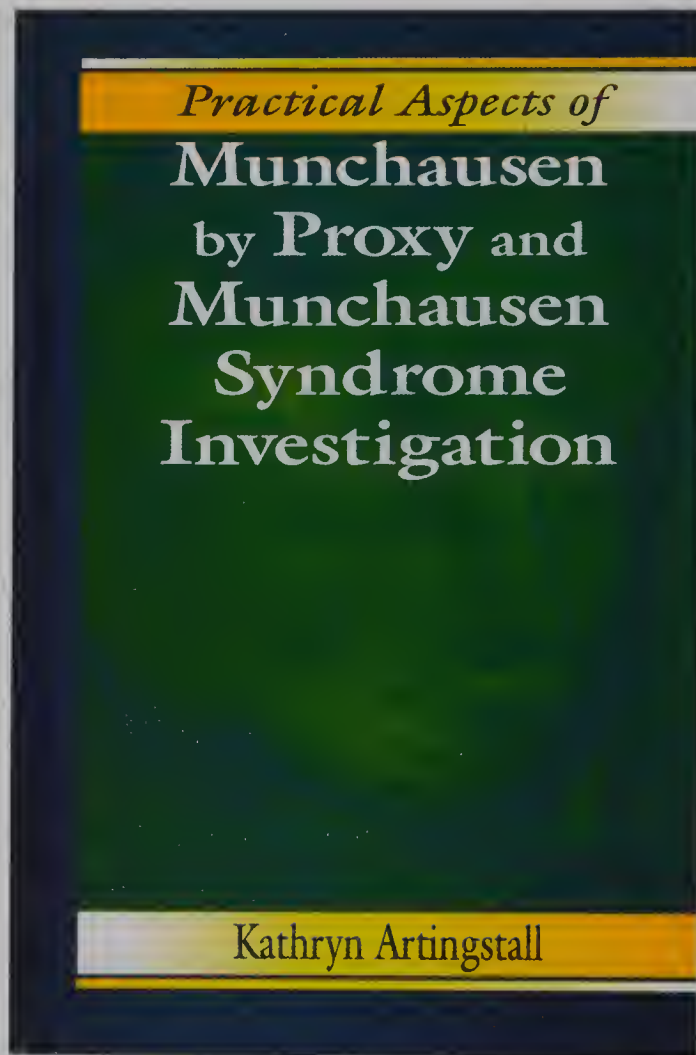
*DSM-IV* references this disorder under "Factitious Disorder Not Otherwise Specified" (300.19). This category includes disorders with factitious symptoms that do not meet the criteria for factitious disorder. An example is factitious disorder by proxy. *DSM-IV* states that "the essential feature is the deliberate production or feigning of physical or psychological signs or symptoms in another person who is under the individual's care. Typically the victim is a young child and the perpetrator is the child's mother."<sup>2</sup>

According to an article in the June 1992 issue of *FBI Law Enforcement Bulletin*,<sup>5</sup> "the term *Munchausen syndrome by proxy (MSBP)* was coined in a 1976 report describing four children who were so severely abused, they were dwarfed."<sup>6</sup> Dr. Boros and Special Agent Brubaker, who are considered experts in MSBP, present a number of cases that they encountered in Minnesota. In these cases, the perpetrators were male and female, with the female parent most often involved.

According to an article in the January 1993 issue of *Social Work* magazine,<sup>4</sup> Dr. Roy Meadow was one of the first physicians to articulate this disorder as a diagnosis. In 1977, Dr. Meadow described a case involving a 6-year-old girl who had recurrent bloody urine.<sup>7</sup> The child was subjected to repeated tests and hospitalizations before the doctors realized that this condition had been produced by the child's mother.<sup>4</sup>

In each of the cases in which a diagnosis of MSBP was made, the victim was a child and the perpetrator was a parent or parent substitute. The mother or female caretaker is reported as the perpetrator in almost all research and cases in literature (Jones et al., 1986).<sup>8</sup> Mercer and Perdue state that

The mother or female caretaker is typically described as cooperative, pleasant to deal with, generally bright, appreciative of staff, involved in the child's care, and medically knowledgeable. The mother may even have a background of working in a health facility. Many of the mothers are



**Figure 20.17** ARTINGSTALL TEXTBOOK. (Courtesy of Detective [retired] Rheta Conley, Gastonia Police Department, Gastonia, North Carolina.)

reported to have features of Munchausen syndrome and in some cases their physical complaints are similar to those assigned to the child.<sup>4</sup>

I interviewed Detective Kathryn Artingstall of the Orlando, Florida, Police Department, who is a recognized law enforcement authority on the subject of MSBP. She published one of the first law enforcement articles on this subject in the December 1991 issue of *FBI Law Enforcement Bulletin*. Artingstall has also published a textbook in my series entitled *Practical Aspects of Munchausen by Proxy and Munchausen Syndrome Investigation*, which I recommend.<sup>9</sup>

Detective Artingstall states that even though most of the research and case histories indicate that the mother is the most likely perpetrator, the *offender profile* has now been expanded to fathers and other family members such as grandparents, aunts, uncles, and other siblings and even nonrelated individuals associated directly or indirectly with the care of the victim. In fact, there are documented cases of babysitters who have been praised for heroism for saving the life of a child. Subsequent incidents and/or investigation has revealed that the babysitter was actually the perpetrator of the emergency or distress in the child.

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## Case History — Examples

On January 5, 1993, NBC aired a documentary on Munchausen syndrome by proxy on *Dateline NBC*. The program focused on this relatively new form of child abuse and its lethal potentiality. It featured a mother convicted of assault in connection with the asphyxiation of her son. The son had a reported history of 18 trips to emergency rooms of hospitals in three different states. In fact, the little boy's sister had died and was the reported victim of SIDS. She had also been to emergency rooms approximately 20 times and resuscitated before she was murdered.

On the same program, viewers were shown a videotape of a mother suffocating her daughter. The woman, who was suspected of Munchausen syndrome by proxy by the medical staff, did not know that the hospital had placed a hidden camera in her child's hospital room. The mother is observed holding the child in her arms. She very carefully removes a plastic wrap from her pocketbook and places it over the face of her daughter. As she does this, she is looking towards the door to make sure no one sees her. The child is observed struggling for air for approximately 38 seconds and then falls unconscious. The mother then runs for the doctor to report that her child is not breathing. The mother was convicted of the murder of her daughter, but the case was overturned. She was retried and convicted in 1996 and received 40 years in prison.

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## The Investigative Response

In most instances, the police will not be initially involved with the investigation. Mental health, social workers, and hospital personnel are usually in the best position to assess this behavior. However, when a child dies or authorities are brought in by child protective services, the police investigator should be aware of this phenomenon and the necessity of a team approach to this event. This is best accomplished by having an awareness of the dynamics of Munchausen syndrome by proxy as explained within this chapter and the necessity for complete cooperation between the medical staff and law enforcement.

### *Team Approach*

According to Detective Artingstall,

When law enforcement officials are contacted concerning suspected cases of [MSBP], it is critical to use a multidisciplinary approach to the case. Medical staff, child protection teams, social services personnel, and hospital administrators, as well as prosecutors and law enforcement personnel, should assist in the investigation. There is no other type of investigation that requires an understanding and protocol between agencies to the degree required in M[S]BP investigations.<sup>9</sup>

In-depth documentation and review of medical records will be needed, as well as a compilation of family social history, especially as it relates to any other



deaths and/or injuries. Often, an extensive and confusing medical history extends across jurisdictions.

### ***Collection of Evidence***

Detective Artingstall states,

The most common method for securing evidence is by the suspect/victim seclusion test. Simply stated, the suspected offender is secluded from the sole presence of the victim for a period of time. If the child's symptoms cease or dissipate when removed from the sole presence of the suspect and then reappear when again reunited, the inference of MSBP is significantly strengthened.

A particularly effective manner of obtaining evidence in these types of cases is the use of a concealed camera as depicted on the *Dateline NBC* documentary on Munchausen syndrome by proxy. Video surveillance has proven to be most effective in these cases especially when confronting the accused parent. However, this tactic may also increase the risk factor to the victim. Allowing the suspect access to the victim, even while under surveillance, does present the possibility of further harm to him or her.

In addition, placing video cameras in hospital rooms will not only require the cooperation and assistance of hospital administration and medical personnel but also may require the necessity for a court order. The early involvement of prosecutors is especially advantageous in MSBP cases when it comes to making the necessary legal determinations for covert video surveillance. In any event, investigators should consult their legal advisors to determine the appropriate applicable statutes in their particular jurisdiction. Application of this tactic requires medical safeguards to protect the child as well as sufficient personnel to document and preserve the legal aspects of the event properly.

#### **Table 20.1 Help for Investigators**

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Investigators assigned to work child abuse cases should investigate cases of MSBP as they do similar cases of abuse. In general, however, when confronted with possible cases of MSBP, investigators should

- Review the victim's medical records to determine condition and illness.
  - Determine from contact with medical personnel the reporting parent's concerns and reactions to the child's medical treatment.
  - Compile a complete history of the family to determine previous involvement with law enforcement agencies, medical facilities, and social and child protection services.
  - Compile a detailed social history of the family, including deaths, injuries, and illnesses.
  - Interview family members, neighbors, and babysitters.
  - Use video surveillance in the hospital in accordance with state law.
  - Use a search warrant for the family's residence when collecting evidence of the assaults.
- 

Source: Reprinted from the *FBI Law Enforcement Bulletin*, June, 1992.

**Table 20.2 Munchausen Syndrome by Proxy Warning Signs**

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- Illness which is unexplained, prolonged, and so extraordinary that experienced doctors state they have never seen anything like it
  - Repeat hospitalizations and extensive medical tests without achieving a diagnosis
  - Symptoms and signs that do not make medical sense
  - Persistent failure of the victim to respond to therapy
  - Signs and symptoms that dissipate when the victim is removed from the suspected offender
  - Mothers who do not seem worried about their children's illnesses and are constantly at the child's side while in the hospital
  - Mothers who have an unusually close relationship with the medical staff
  - Families that have other children labeled as SIDS children
  - Mothers with previous medical or nursing experience that often give a history of the same type of illness as the child
  - A parent that welcomes medical test of the child, even if painful
  - Attempts to convince the staff that the child is still ill, when advised that the child will be released from the hospital
  - A "model family" that normally would be above suspicion
  - A caretaker with a previous history of Munchausen syndrome
  - A caretaker that adamantly refuses to accept the suggestion that the diagnosis is nonmedical
- 

Source: Adapted from Meadow, R., *Archives of Diseases in Childhood*, 57, 1982; Guandolo, V. *Pediatrics*, 75(3), March, 1985, and Boros, S. et al., Children's Hospital of St. Paul, 1991.

### **Interviewing the Munchausen Syndrome–Related Offender\***

Persons who are known to participate or are suspected of participating in child abuse as defined within the MSBP or Munchausen syndrome cases may have different reactions to specific investigative questioning techniques employed for the purpose of truth determination. Many factors, including unknown components, influence the manner in which a person accused of perpetrating MSBP or Munchausen syndrome may react. Although individual reactions to various direct and indirect questioning cannot be cemented into a specifically formatted protocol for offender interviews, commonalities in many of these interviews and empirical research provide a suggested guideline. This guideline must remain flexible as the interviewer attempts to enter the imaginary realm created by the offender.

In order to conduct these types of interviews, the detective must possess an understanding of human behavior and be able to anticipate the most common defense reactions of persons accused of child abuse through MSBP. This knowledge will provide the interviewer with the necessary skills to engage the offender in communication and dialogue that eventually overcome the sophisticated explanations and the highly polished lying skills observed in MSBP offenders.

Historically, interviewers of known or suspected Munchausen syndrome or MSBP perpetrators have generally been unsuccessful in gaining admissions of guilt from offenders. It has been theorized that at times the offender has been so immersed in the sequence of lies that led to the interview that he or she has deemed

\* The information on interviewing MSBP subjects was obtained from my interview of Detective Kathryn Artingstall. This information can also be found in her textbook, *Practical Aspects of Munchausen by Proxy and Munchausen Syndrome Investigation*.

lies as reality and seemingly believes the deceptions to be true or genuine in origin and/or simply chooses not to reveal the truth due to the magnitude of the crime or personal impact that such a disclosure would elicit. Subsequently, interviewers have been tasked with the responsibility of attempting to point out reality to an offender whose reality base may have been altered to accommodate the deception, or they will find themselves interviewing pathological liars who refuse to admit truth and put an end to the deceptions.

Offenders of MSBP have exhibited intense emotions during interviews, e.g., crying or anger. The interviewer should expect these exhibitions by a person accused of perpetration of Munchausen syndrome or MSBP. The exhibition of these emotions, while appearing genuine, is actually a calculated mechanism to escape the exposure to reality which the interviewer is attempting to impose upon the offender. This evasive technique has been observed to be flowing as if regulated by a faucet switch, which is turned off as quickly as it is turned on. In MSBP interviews, it is common for an offender to appear to react with very intense emotions in the presence of the interviewer and then immediately become calm when the interviewer leaves the room, unless the offender knows or suspects that he or she is being observed while alone.

The necessary skills possessed by the offender of Munchausen syndrome or MSBP to further deceptive acts are generally well rehearsed. If the offender has never been approached by an interviewer regarding the possible existence of Munchausen syndrome fabrication or MSBP abuse, then the abilities of the offender to refute accusations during the interview may be significantly lessened. Most cases, however, do not fit into this category and it is probable that the offender will have had time to prepare statements which may question the interviewer's hypothesis of Munchausen syndrome-related acts. It is not uncommon for offenders to answer questions with questions and offer alternative reasoning for alleged acts. It could be expected for an offender to be versed in the area of Munchausen syndrome or MSBP, to make open-ended statements that cannot be proven or disproved, and to verbalize this status to the interviewer. The manipulative skill which the offenders normally direct toward the professionals they encounter may be redirected toward the interviewer. The ability of the offender to maintain deception is often displayed in the interview forum.

The repetitiveness of Munchausen syndrome-related actions may provide an avenue for the offender to "detach" from the actual abusive action inflicted upon the victim and hide the reality of the self-imposed role of "child abuser" (MSBP) or "victim" (Munchausen syndrome) deep within his or her mind. This mechanism of outward denial may be engaged to allow for the self-preservation of the offender. For example, the horror and shame caused by the deliberate infliction of harm onto one's child would be a difficult reality to recognize openly and maintain a "normal" lifestyle above the suspicion of family members or health care professionals.

Offenders deemed "great pretenders" may lie to themselves about parental worthiness and may subconsciously believe that they are not responsible for the



MSBP abusive actions upon their children or upon themselves. With the detachment of responsibility may come the ability to hide from the reality of what is actually happening during each instance of MSBP infliction-aggravated child abuse and to perpetuate the fantasy created. The determination of whether the offender subconsciously detaches from the Munchausen syndrome actions or merely chooses not to disclose those actions of abuse, which are clearly remembered, may remain an unknown factor within the interview. In either hypothesis, if conscious acceptance of the offender's role in self-victimization (Munchausen cases) or induced harm (MSBP cases) is not attained during the interview, then a confession and disclosure regarding offender responsibility may not be obtained.

When a Munchausen-related offender is confronted, the interviewer should recognize the dynamics of denial in the offender's mind. The key to obtaining an admission of guilt may rest with the ability of the offender to accept the reality of what he or she has done. When presented with overwhelming evidence of the abuse, which could be gathered via video surveillance and/or victim/offender separation tests, the offender is not likely to accept responsibility readily for the act. Reality may not be enough to persuade the offender to tell the truth regarding the MSBP offense. Lying is a way of life for the offender, and it is unrealistic to expect explicitly truthful statements to flow readily without incentive.

When an MSBP or Munchausen syndrome offender is confronted and realizes that he or she has been exposed, extreme elements of fear and shame may be present. These *combined elements* may serve to seal the offender's ability to "come clean" unless an "out" is presented. The stance taken by the interviewer is critical in the final outcome of the interview. If the interviewer is nonjudgmental and appears genuinely empathic to the offender, the avenue for dialogue should remain open.

An effective interview tool is the offender's love for the MSBP child victim. Most offenders will not be able to explain why they committed acts of MSBP, especially with child victims, and will profess their genuine love for their child. By subtly suggesting that the offender has the opportunity to help the MSBP victim and quite possibly reverse permanent damage to the child by now telling the truth, the interviewer may cause the offender to see that the opportunity to redeem himself is present. Only the offender may know how the child was victimized and, by disclosing this information, may enable the doctors to correctly treat and save the victim. How the victim will view the offender in the future may very well be determined by the willingness of the offender to help the victim by disclosing the facts to the interviewer. If the love of the offender for the victim is strong enough, then he may find the strength to place the child before himself. In cases of self-inflicted injury commonly seen in Munchausen syndrome cases, the strategy of the offender's family love, especially if children are accessible, may again provide the avenue to obtaining a confession.

Interviewers of Munchausen or MSBP offenders should be aware that Munchausen syndrome-related tendencies may become multigenerational MSBP abuse. This possibility should be explained to the suspected offender of Munchausen syn-

drome. The interviewer can then point out to the offender how this situation might provide an opportunity for the offender and the interviewer to “work together” to intervene and halt the cycle of abuse in which the offender has been “caught up,” thereby providing an “out” for the offender, which may facilitate disclosure.

If a point is reached within the interview when the offender comes close to admitting the reality of the situation and thereby the false allegation or MSBP act, the interviewer should expect the offender to attempt a retreat. This retreat may manifest itself in the direct refusal of the offender to answer any further questions or the offender threatening to end the interview if the current line of questioning does not stop. Although this manipulative technique may test the patience of the interviewer, it may be best to retreat momentarily from the current line of questioning and then revisit the issues in another form later during the interview. This action would allow the offender to feel in control of the interview, although in reality the offender is now being manipulated by the interviewer, who will possess the ability to approach the issue in an alternate manner during a time chosen by the interviewer.

The offender’s fear of losing the child should not be addressed during the interview because it appears to be one of the primary blocks to obtaining a confession in MSBP cases. The interviewer may choose to address the need of the offender to admit wrong doing before treatment could begin, which could ultimately lead to a normalized relationship between the offender and the MSBP victim in the future. Care should be exercised to omit promissory statements of reunification because the likelihood that a child victim will be placed into protective custody is high. This almost certain separation of an offender from the child proxy should be minimized during the interview. If the offender chooses to make admissions regarding MSBP or Munchausen syndrome, in addition to losing the avenue of attention afforded during the Munchausen syndrome-related incidents, the offender may realize that personal freedom or custody of the children is an issue.

It appears that a Munchausen syndrome offender’s biological family network may play an intricate supportive role, although the offender may deny that spouses are supportive. It appears that the offender’s deception often includes the spouse, who may outwardly defend and/or support the offender’s allegation of victimization or the offender’s lack of knowledge regarding the origin of a proxy’s ailments. It appears that a large deviation in the amount of active supportive involvement in the care of a proxy target victim occurs between the offender and the offender’s spouse. It is unknown whether the offender’s spouse may routinely have personal doubts about the allegations of Munchausen syndrome or MSBP victimization. This information may only be discovered if the spouse is interviewed in seclusion from the offender. Evidence alluding to the guilt of the offender and rationalization of the probable reality of the allegations may not be enough to convince the offender’s spouse of guilt. Interviewers should remember that the offender’s spouse has had the greatest personal access to the offender and therefore has probably been the most highly entrenched in the offender’s twists of reality. It would be common for the offender’s spouse initially to be in a state of denial, followed by anger.



When a confession is elicited from the offender, it is important to recognize that the admission of responsibility for the Munchausen-related act may come as a shock to the offender because of the ingrained denial within the offender's mind. When the offender faces the reality of what he or she has done, suicidal tendencies may be prevalent once shock subsides. Interviewers should be aware of this tendency and take necessary measures to protect the offender from himself or herself once responsibility is assumed.

For the perpetrators of MSBP, it appears that the personal benefits of bestowed attention, and often systems of rewards, outweigh the natural instinct that most caretakers have ingrained in them to protect their children. The MSBP perpetrators can effectively push maternal or paternal feelings aside at will to allow themselves the ability to offend and then reinstate the masquerade of a doting parent whose life centers around an ill child whom no one can apparently heal properly.

Perpetrators of Munchausen syndrome also seem to possess the chameleon ability to shift between self-abuser and alleged victim and continue an often long series of false allegations of various victimizations. For the offender of Munchausen syndrome, it appears that the ability to grasp the focused attention afforded victims of crime outweighs the inconvenience or personal injury often associated with this form of factitious crime victimization.

Case reports of MSBP victimizations verify the belief that MSBP attacks are premeditated and carefully executed acts of covert child abuse performed with the precision of a professional. The production or simulation of MSBP is rarely caught firsthand by medical personnel without a carefully devised plan. The most common methods of detection have proven to be through video surveillance or suspect/victim separation documentation.

Cases of MSBP are difficult to understand because unlike direct physical or sexual abuse of children, the abuse which the victim endures is not always clearly evident. The injury is frequently perpetrated through the actions of persons that are almost historically held above suspicion, such as the mother. Medical professionals who act in good faith in the treatment of an apparently sick individual become unwilling instruments of medical abuse because of the direct actions of the MSBP offender. The mission of medical personnel is to search out the cause of a person's illness and relieve the problem. They unwittingly become the vehicle which the MSBP perpetrator uses to maximize the desired effect of attention and self-worth derived from the MSBP act or deception that the perpetrator has created within the victim. When an interviewer is confronted with the possibility of an MSBP case, he or she must search deeper and perhaps more diligently than in other types of child abuse cases in order to find the hidden abusive causes endemic in this form of child abuse. The root causes are normally masked in the separate world of hospitalization and medicine.

The interviewer must therefore re-evaluate the perhaps ingrained opinion of what constitutes abuse and be open-minded enough to explore the possibilities that exist strongly in these types of cases.



**Remember: Things are not always what they appear to be, and *no one* is beyond suspicion.**

In most cases of MSBP, there is a marked absence of other forms of abuse such as direct physical injury or sexual assault. The victims are not routinely brought to the attention of the authorities as in cases of physical or sexual abuse victims. Serial victimizations by known or suspected Munchausen syndrome offenders require that law enforcement become familiar with the dynamics of Munchausen syndrome. The ability of an interviewer to elicit truthful responses ultimately rests with his or her knowledge, understanding, and experience with this phenomenon.

### Summary

The potential for death as well as life-threatening physical damage makes this particular disorder a genuine cause for concern for the medical profession and law enforcement. From an investigative perspective, Munchausen syndrome by proxy (MSBP) should be considered as a possible motive in any questionable or unexplained death of a child, especially when the death occurs under the circumstances presented in this section.

MSBP victims are commonly referred through intuitive medical personnel or citizens or family members that have been educated regarding MSBP as a form of child abuse. In some instances, the reporter may have a higher understanding of the MSBP concept than the agency to which it is reported and become frustrated with a department's reaction to the allegation. It is imperative that law enforcement be aware of this variant form of child abuse. The ever increasing numbers of cases reported and the public's education about MSBP — once thought to be rare — require that law enforcement be prepared to confront this public health issue.

It should be noted that a failure to understand the dynamics of MSBP could very well allow previously committed homicides of children in a Munchausen syndrome by proxy environment to remain undetected.

## Homicides Involving Theft of a Fetus

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### Introduction

Murders of pregnant women to obtain their unborn babies are brutal and savage crimes. The offender literally cuts the fetus from the victim mother's womb in a bizarre replication of a Cesarean section procedure. This type of homicide is statistically rare, but not without precedent. In an article published in 2002 by the American Academy of Forensic Sciences entitled, "Newborn Kidnapping by Cesarean Section,"<sup>10</sup> Burgess et al. present six cases as reference in the clinical identification of a new category of personal cause homicide for *The Crime Classification Manual*.

**Table 20.3 Attacks on Pregnant Women to Obtain Fetus since 1987**

No.	Perpetrator	Victim	Date	City, State
1	Darcie Pierce, WF, 19	Cindy Ray	7/23/1987	Albuquerque, NM
2	Jacqueline Williams, BF, 28; Fedell Caffey, BM, 22 (coconspirator); Lavern Ward, BM, 24 (coconspirator)	Deborah Evans, WF, 28; Debra Evans, WF, 10; Joshua Evans, WM, 7	11/16/1995	Addison, IL (DuPage County)
3	Felicia Scott, F, 29	Carenthia Curry, BF, 17	1/31/1996	Tuscaloosa, AL
4	Josephina Saldana, HF, 40	Margartia Flores, HF, 40	9/14/1998	Fresno, CA
5	Michelle Bica, WF, 39	Theresa Andrews, WF, 23	9/27/2000	Ravenna, OH
6	Effie Goodson, WF, 37	Carolyn Simpson, WF, 21	12/22/2003	Okemah, OK
7	Lisa Montgomery, WF, 36	Bobbie Jo Stinnett, WF, 23	12/16/2004	Skidmore, MO
8	Katie Smith, WF, 22 (killed by the victim mother)	Sarah Brady, WF, 26	2/10/2005	Ft. Mitchell, KY
9	Peggy Jo Conner, WF, 38 (killed by the victim mother)	Valerie Oskin, WF, 30	10/12/2005	Kittanning, PA

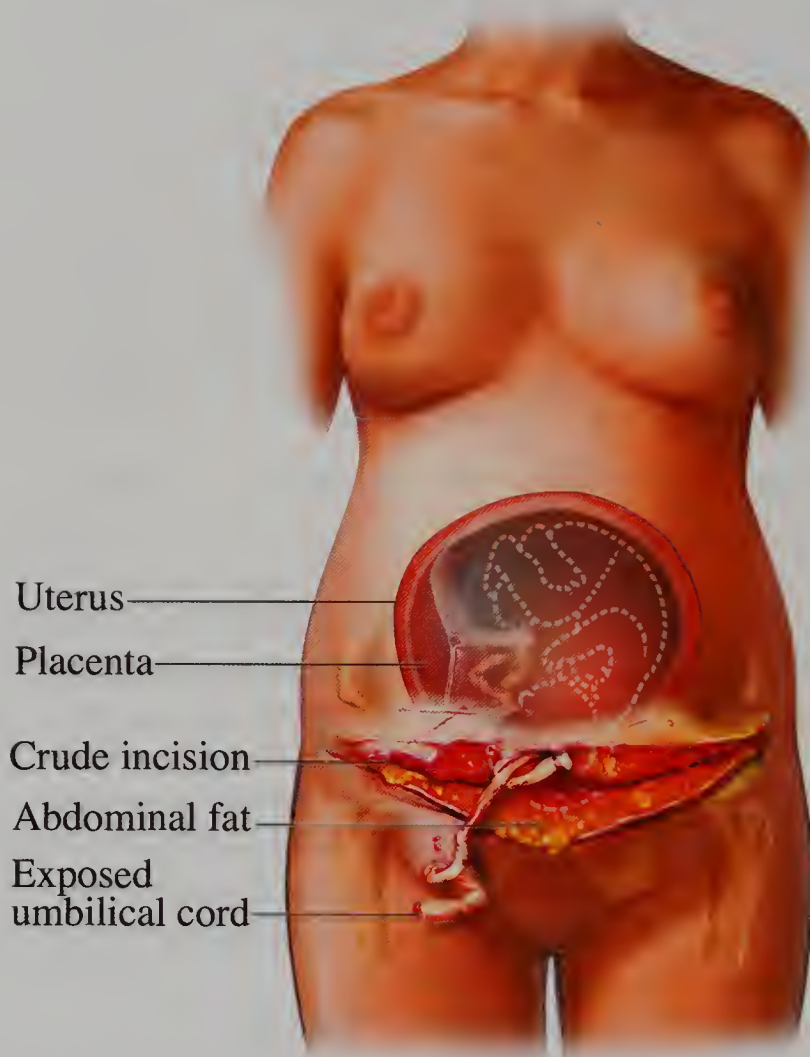
The author prefers not to use the clinical term *Cesarean section* because it connotes a medical procedure as opposed to the depravity and evil demonstrated by offenders who kill a victim mother for her unborn child. A *Cesarean section* is a surgical procedure in which the abdomen and uterus are incised and a baby is delivered transabdominally.<sup>11</sup> The procedure is normally performed when conditions exist in which a vaginal delivery might be hazardous to the mother and/or infant. The well-being of mother and child is taken into consideration during a Cesarean section. Obviously, an offender who commits such a reprehensible crime is not concerned about the victim mother.

According to Cathy Nahirny, administrative manager at the National Center for Missing and Exploited Children, “Cesarean kidnappings represent a small fraction of the 232 infant abductions by nonfamily members since 1983 according to the center’s records.”<sup>12</sup> Nahirny provided the author with a listing entitled, “Infant Abductions Where Infant Cut from Mother’s Womb,” which listed seven homicides and one theft of an infant after birth.

According to the National Center for Missing and Exploited Children, nine attacks on pregnant women have taken place since 1987 (Table 20.3). There have been at least three assaults on an expectant mother for her child since 2003. Seven of the nine pregnant women were murdered during the attack. Seven of the nine babies survived.<sup>13</sup>

### **Infant Abductions — Infant Cut from Mother’s Womb**

The author based this study on seven documented cases of homicide in which the offenders killed a pregnant woman, described as a victim mother, for the purpose of obtaining the victim mother’s fetus. Also included are two attempted thefts of a fetus in which the victim mother survived. These are included in addition to the seven homicides in Table 20.3 for a total of nine cases.



**Figure 20.18 FETUS REMOVAL.** This figure illustrates how an offender can cut across the abdomen to remove the fetus from the victim mother. (Courtesy of Medical Legal Art illustration, copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

### *Case 1*

Perpetrator: Darcie Pierce, white female, 19 years old

Date of homicide: 7/23/1987

City and state: Albuquerque, New Mexico

Victim: Cindy Ray

Child: Amelia Ray

Location: Outside a clinic

Motive: Offender was unable to conceive. She was faking pregnancy and had previously faked pregnancy. She was in an “overdue” state and needed to produce a child.

Method: Threatened the victim with a fake gun. Strangled her into unconsciousness and then used her car keys to remove the child from the womb.





**Figure 20.19 VICTIM WOUNDS.** This photo depicts the victim's abdomen. She had been shot in the back of her head. She suffered multiple stabbings into the neck with stab and incised wounds. The victim also had defensive wounds on her hands and arms. In addition, there was a foot-long gash across her abdomen from where the perpetrators removed the fetus. (Courtesy of Pete Siekmann, coroner, DuPage County, Illinois.)

**Synopsis.** The married offender approached an 8 months' pregnant woman named Cindy Ray as she left a prenatal clinic at Kirkland Air Force Base. Pierce threatened the victim with a toy gun, forced her into a car, and drove to her home where she had surgical instruments and medical books. However, the suspect's husband was at the house. The offender then drove Ray to an isolated location where she strangled the mother into unconsciousness. Pierce tied Cindy Ray to a tree and cut open the victim's abdomen with her car keys and delivered a baby girl. She left the victim to bleed to death. She was arrested after she reported that she had delivered a baby. She was taken to a local hospital where an examination revealed that she had not delivered a baby and authorities were notified.<sup>14</sup>

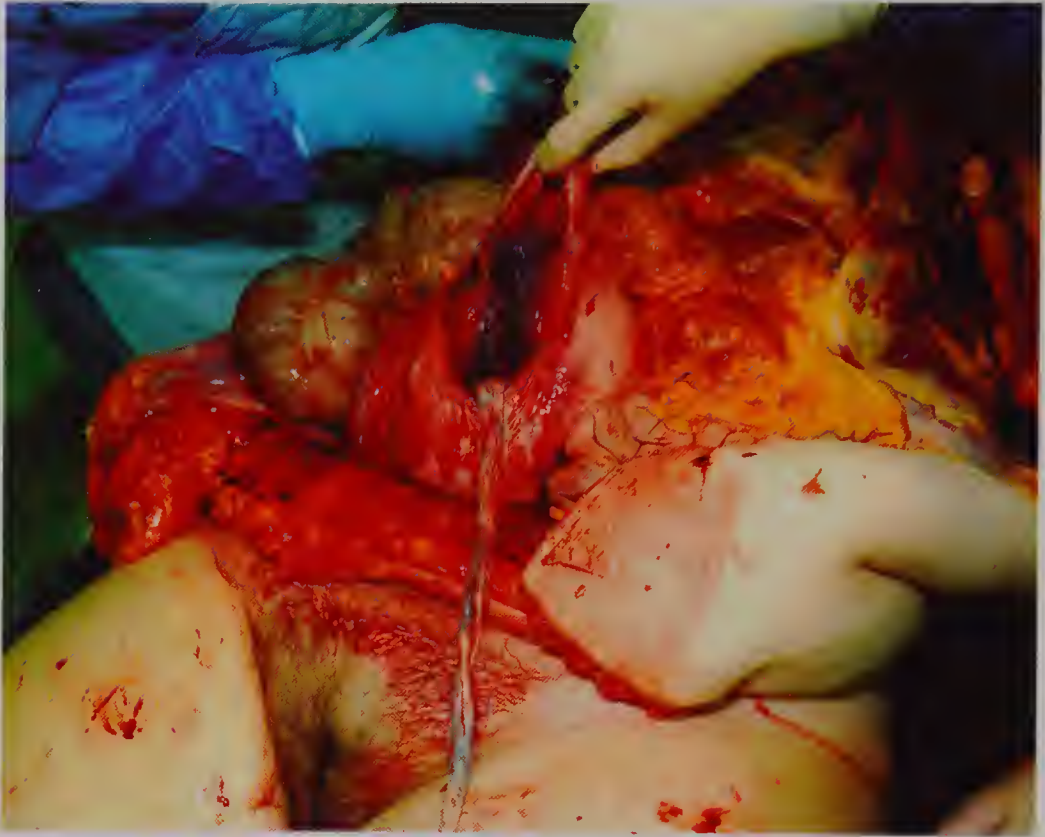
### **Case 2**

Perpetrators: Jacqueline Williams, black female, 28 years old; Fedell Caffey, black male, 22 years old; Lavern Ward, black male, 24 years old

Date of homicide: 11/16/1995

City and state: Addison, Illinois

Victims: Debra Evans, white female, 28 years old; Samantha Evans, white female, 10 years old; Joshua Evans, white male, 7 years old



**Figure 20.20** AUTOPSY PHOTOGRAPH OF VICTIM-MOTHER. Enlarged uterus with part of the placenta and the umbilical cord still attached. The fetus was literally ripped from the mother's womb after her abdomen was sliced open. (Courtesy of Pete Siekman, coroner, DuPage County, Illinois.)

Child: Elijah Evans

Location: Victim's apartment

Motive: Williams had been faking pregnancy to coincide with the victim's pregnancy. Her boyfriend wanted a light-skinned child. Williams was acquainted with victim mother and knew her to be pregnant with a mixed-race child. The offender had a baby shower at a relative's house.

Method: The victim was shot in the head. The perpetrators used a pair of scissors or a knife to remove the child.

**Synopsis.** Jacqueline Williams, her boyfriend Fedell Caffey, and her cousin Lavern Ward went to the victim mother's apartment. The victim mother was the ex-girlfriend of one of the abductors (Ward). She had already had a child by him named Jordan who was 19 months old. According to statements made by Williams, Caffey shot the victim mother in the head; Caffey and Ward then stabbed her 10-year-old daughter Samantha to death and proceeded to stab the victim mother. The three assailants then participated in a crude caesarean section (using scissors or a knife) and removed the child from his mother's womb. They cleaned up the baby and took that child, plus Joshua, the 7-year-old son of the victim mother, and left the home. They left 19-month-old Jordan at the apartment with the bodies of his mother and sister. Although Joshua was originally spared when his mom and



**Figure 20.21 VICTIM'S PLACENTA.** The mother suffered from polyhydramnios — a condition in which the mother carries an excessive amount of amniotic fluid. That excess fluid may have saved the little infant. Miraculously, the infant did not sustain so much as a bruise during the violent attack on the mother and the brutal extraction. This was because the placenta was low and in back of the uterus. The excess amniotic fluid protected the fetus. However, in order for the baby to have survived this extraction unharmed, the process had to have occurred quickly. (Courtesy of Pete Siekmann, coroner, DuPage County, Illinois.)

sister were butchered in their apartment, his abductors decided he knew too much and had to die. They first tried poisoning him with iodine. When that did not work, they strangled him. He was then stabbed to death. They dumped his body 10 miles from the scene of the original crime.<sup>15</sup>

People from the community, who were outraged by the crime, came forward and identified Jacqueline Williams and her associates as those responsible. The baby was recovered alive and well in Williams' apartment.<sup>15</sup>

### *Case 3*

Perpetrator: Felicia Scott, black female, 29 years old

Date of homicide: 1/31/1996

City and state: Tuscaloosa, Alabama

Victim: Carenthia Curry, black female, 17 years old

Child: Kristy Nicole Curry

Location: Victim's home

Motive: Scott wanted to give her common-law husband a baby. She had had a hysterectomy 2 years prior. She was faking pregnancy and had told her husband and family that she was pregnant.



**Method:** The victim mother was shot in the head and her abdomen sliced open. The body was stuffed into a plastic garbage can and disposed of at the bottom of a ravine.

**Synopsis.** Felicia Scott initiated the abduction at the victim's home. Scott and the victim mother were friends. The victim mother and the abductor had plans to go out to dinner at approximately 6:00 P.M. on January 31, 1996. When the victim mother did not return home by the next day, the family reported her as missing on February 1. The abductor returned home in the early morning hours of 2/1/96 and told her husband that she had had her baby and that she needed to get to Birmingham to see her doctor. On 3/14/96, the victim mother's body was located at the bottom of a 50-foot ravine approximately 60 miles northwest of Tuscaloosa, near Birmingham, stuffed into a plastic garbage can sealed with duct tape. The victim mother's abdomen had been sliced open and she had been shot repeatedly in the head.<sup>14</sup>

#### **Case 4**

**Perpetrator:** Josephina Sonia Saldana, Hispanic female, 40 years old

**Date of homicide:** 9/14/1998

**City and state:** Fresno, California

**Victim:** Margartia Flores, Hispanic female, 40 years old

**Child:** Doraelia Flores

**Location:** Taken from victim's home

**Motive:** Saldana claimed she had had a miscarriage. However she was sterile.

**Method:** The mother's body was found cut up in pieces in the trash in Tijuana, Mexico.

**Synopsis.** Saldana abducted the victim mother from her home. She had called the victim mother a few days earlier and offered her family gifts of free baby furniture and a 1-year supply of diapers. Saldana went to the victim's home on the day of the abduction and told the victim mother that they needed to go to the warehouse to collect the gifts. The victim mother was 8 1/2 months' pregnant with her sixth child. When the victim mother did not return by 3:00 P.M., the family called the police. The next day, 9/15/98, Saldana showed up at Valley Children's Hospital with a dead fetus. She claimed she had given birth to the child in her car. She was subsequently arrested and found guilty. While she was in prison, she hanged herself.<sup>14</sup>

#### **Case 5**

**Perpetrator:** Michelle Bica, white female, 39 years old

**Date of homicide:** 9/27/2000

**City and state:** Ravenna, Ohio

**Victim:** Theresa Andrews, white female, 23 years old

Child: Oscar Gavin Andrews

Location: The offender's home

Motive: Bica was faking pregnancy and had convinced her husband and family that she was pregnant. She had had a miscarriage in 1999.

Method: The offender shot the victim mother in back, cut open her abdomen with a large knife, and removed the fetus. She buried the body in the garage. (See the Case History following Case 9.)

## Case 6

Perpetrator: Effie Goodson, white female, 37 years old

Date of homicide: 12/22/2003

City and state: Okemah, Oklahoma

Victim: Carolyn Simpson, white female, 21 years old

Child: Baby Boy Simpson

Location: The offender offered the victim mother a ride from the casino. Homicide location is unknown.

Motive: Goodson was faking pregnancy. She had told her husband, family, and friends she was pregnant with a baby boy due in October 2003. She then provided a number of explanations why she had not yet delivered by the October due date. She had had a baby shower and prepared a room with items for a newborn.

Method: The victim mother was shot in the head. Her abdomen had been sliced open with an unknown instrument.

**Synopsis.** Goodson was a patron of the casino where the victim mother was employed. They had been introduced to each other by a mutual acquaintance about 1 month prior to the incident. On the night of 12/22/03, video cameras at the casino captured the image of the victim mother and the suspect departing the building at approximately 11:00 P.M. Apparently, the abductor had offered to give the victim mother a ride home and also provide her with some baby clothes for a girl because the offender was "expecting a boy child." The victim mother never arrived home from work and her husband reported her as missing on 12/23/03. At approximately 4:00 A.M. on 12/23/03, the suspect and her husband arrived by ambulance at the Emergency Department of Holdenville General Hospital (no birthing unit at this hospital) with a very small, unresponsive infant. Staff determined that the infant (approximately 6 months' gestation) was deceased. The medical status of the alleged mother proved that she had not recently delivered a baby and law enforcement was notified.

On Friday, 12/26/2003, hunters found the victim's body in a ditch about 20 miles south of Okemah (approximately 2 miles from where the abductor used to live). The victim mother had been shot once in the head (small caliber) and her abdomen had been cut open with an undetermined sharp object. Investigation revealed that Goodson reportedly was jealous of her stepdaughter (who had given

birth recently) and wanted to have her own baby. She was later found incompetent to stand trial.<sup>16</sup>

### *Case 7*

Perpetrator: Lisa Montgomery, white female, 36 years old

Date of homicide: 12/16/2004

City and state: Skidmore, Missouri

Victim: Bobbie Jo Stinnett, white female, 23 years old

Child: Victoria Jo Stinnett

Location: Victim's home

Motive: Montgomery had told her husband and others that she was pregnant with twins. Her ex-husband reported that she had had a tubal ligation 14 years earlier.

Method: The offender strangled the victim mother and then cut the fetus from her womb.

**Synopsis.** Montgomery took the baby from the victim's home. The victim mother was 8 months' pregnant at the time of the incident. She and her husband bred rat terrier dogs and had a Web site. At approximately 2:30 P.M., the victim mother cut short a telephone call with her mother indicating that the person she was expecting (to buy a dog) was at her door. Her mother arrived at her daughter's home about 1 hour later and found the victim mother lying in a pool of blood, the fetus cut from her womb. Multiple law enforcement agencies worked on the case and the victim's computer was carefully examined. Investigators were able to trace some e-mail communications the victim had with the abductor. Montgomery eventually confessed to strangling the victim mother and cutting the baby from her womb. The abductor and victim mother were casual acquaintances, and both had attended the same dog show in April, 2004, in Abilene, Texas.<sup>17-19</sup>

### **Attempted Theft of Fetus Offender Killed by Victim Mother**

#### *Case 8*

Perpetrator: Katie Smith, white female, 22 years old

Attempted homicide: 2/10/2005

City and state: Ft. Mitchell, Kentucky

Victim: Sarah Brady, white female, 26 years old

Child: McKaila Grace Hatton, born 3/16/05

Location: Offender's apartment

Motive: Smith had faked her pregnancy. She had a hospital bag packed and ready as if she were going to deliver. She wore maternity clothing.

Method: The offender attempted to stab the victim mother, who fought back.



**Synopsis.** Kate Smith had lured the victim mother to Smith's apartment on the pretense of giving her a baby present from Babies R Us registry online, which had been mistakenly delivered to the Smith residence in Ft. Mitchell. The apartment was outfitted with surgical tools and a fully stocked nursery. Smith attacked the victim mother in an attempt to extract her unborn child by Cesarean section. The woman fought back and fatally stabbed her attacker.<sup>13,20</sup>

## **Attempt Theft of Fetus — Offender Arrested**

### **Case 9**

Perpetrator: Peggy Jo Conner, white female, 38 years old

Attempted homicide: 10/12/2005

City and state: Kittanning, Pennsylvania

Victim: Valerie Oskin, white female, 30 years old

Child: Unnamed at time of incident, born 10/12/05

Location: Victim's trailer home

Motive: Offender had faked her pregnancy. She also had shown her live-in a sonogram and convinced him she was pregnant.

Method: Hit victim over head with baseball bat and was prepared to remove fetus by cutting across the victim's abdomen with a razor knife.

**Synopsis.** Peggy Jo Conner, who had purported to be pregnant, bashed her 8-month pregnant neighbor Valerie Oskin over the head with a baseball bat. She then put the badly beaten Oskin in her car along with Oskin's 7-year-old son. She dropped the boy off at a relative's house and drove the victim 15 miles to a remote wooded area. The victim had been cut across her abdomen over an old Caesarean scar with a razor knife. A teenager who came upon the scene saw Conner kneeling next to the pregnant victim who was lying on the ground. Conner told the boy that everything was all right and they did not need any help. The boy informed his father and the police were called. Investigators found a bassinet, a baby swing and other baby-related items in Conner's trailer home. Conner had convinced her live-in partner that she was pregnant even showing him a sonogram.<sup>24,25</sup>

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## **Case History**

On September 27, 2000, 23-year-old Theresa Andrews, who was 9 months' pregnant, literally disappeared without a trace. Her husband reported her missing to the Ravenna Police Department.

The husband, Jonathon, told police that on Wednesday morning Theresa told him that she received a call at home from a person inquiring about a Jeep the Andrews were selling. He stated that Teresa paged him at work and he told her to be careful showing the Jeep. He also stated that he told her not to take a test drive, just get the person's I.D. and give him or

her the keys. He said that when he called home at noon, no one answered. Jonathon stated that when he got home from work at about 4:30 P.M., his front door was unlocked and Theresa was missing along with the Jeep that was for sale. Theresa's purse, cell phone, and other personal items were left behind. Jonathon first called his relatives and then called the police.

*Police Response.* Police officers immediately secured the scene and requested detective response. The police conducted an initial search of the residence *after* requesting the husband's permission. Police immediately had an APB broadcast for the Jeep.

*The Detectives.* Detective Greg Francis interviewed the husband, who told him about the call that his wife had received. Additional investigators contacted and questioned family members. Theresa's parents, who were vacationing in North Carolina, returned home. The interviews of family members indicated that Theresa and Jonathon were a happily married couple and very excited about the birth of their first child.

An initial search of the residence did not reveal any signs of a struggle or that Theresa had been forced from the house. Everything seemed to be in place. Theresa's pocketbook with all of her identification was found in her residence. On the end table were a glass of juice and a pudding cup that was half-eaten, suggesting that Theresa had suddenly departed the residence.

At this stage of the investigation, The Ravenna Police Department was handling the case as an abduction or involuntary leaving. The FBI was contacted for assistance. The Andrews family also hired private investigators to assist police.

At approximately 6:00 P.M., an officer located the Jeep in a county parking lot southwest of and 200 feet behind the Andrews' house. The keys were missing. Jonathon and Theresa had cleaned and vacuumed the Jeep the day before to make it more attractive for sale. It was spotless.

The Jeep was towed into the station house for crime scene processing. There were not any visible signs of a struggle or violence. However, the keys were missing and someone would have had to drive it to the location where it was found.

*Investigation.* A major case was initiated with Detective Sergeant Bob Cooper and Detectives Francis and Lisa Blough. At this stage of the investigation, the police were attempting to eliminate family members as suspects. Detectives were operating under the assumption that whoever called Theresa about selling the Jeep on Wednesday morning was probably responsible for her disappearance.

On Thursday morning, Detective Francis had a subpoena sent to Ameritech for a phone trace on the call that was made to Theresa at 9:18 A.M. on Wednesday, September 27. The process of tracing the phone call to the Andrews home was complicated because the call had come from a phone issued by another carrier. The address of origin was not readily available and a security expert was brought in to assist in the trace.

On Thursday afternoon, Jonathon was asked to take a polygraph exam at the request of authorities to eliminate him as a suspect.

All hospitals, clinics and even hotels and motels in the area were checked and leaflets with Theresa's picture were distributed throughout the state.

*Break in the Case.* The Ravenna Police were advised that the phone call was successfully traced to a cell phone. It took telephone security people 5 days to trace that particular call. The subscriber was a Thomas Bica, who lived just two blocks from the Andrews residence.

Investigators went to the residence and interviewed 39-year-old Michelle Bica, the wife of the subscriber, Thomas. Michelle was visibly nervous and gave detectives the explanation that the cell phone in question had been stolen from her in a Wal-Mart. When asked about a second call made that same day from the same cell phone, she identified the number as that of the family doctor and the call was from another phone.

Michelle was asked about her activities on the day that Theresa Andrews had vanished. Michelle told them that she had been to a car dealer in the morning looking at cars and

that she had delivered a baby boy that afternoon. She then told the detectives that the cell phone she had used was the cell phone in her car. Michelle then led the detectives to the garage door, which was padlocked, began going through papers, and showed them another cell phone. She then relocked the door in the presence of the detectives.

As the police were interviewing Michelle, her husband, a corrections officer at the county jail came home. Michelle, who was a large-framed woman, claimed she had given birth to a baby boy. She told police she had the baby on Wednesday, September 27, the same day that Theresa had disappeared.

Michelle, who was quite obese, (5 ft, 3 in., 200 lb) had convinced her husband over the last 9 months that she was pregnant. She told a bizarre tale of how her water broke and that she had called her doctor, who sent an ambulance to her house. She claimed to have been at an Akron Hospital but, because of an infectious woman there, she was sent to another facility and then she and the baby were released.

Michelle and her husband celebrated the birth of their son, "Mickey," on Thursday, September 28.

The husband was interviewed and he stated that his wife Michelle had called him at the county jail to tell him that she had delivered a baby boy. He left work 15 minutes early.

Two investigators were detailed to keep the Bica residence under surveillance as other investigators checked on Michelle's story. They ascertained that she had not been to the Akron hospital or to any other medical facility. The family doctor told police he conducted a well baby exam for Michelle on September 29 and she told him she had delivered the baby at a hospital in Ravenna. Michelle Bica became the primary suspect in the disappearance of Theresa Andrews.

Investigators returned to the Bica residence at 9:00 P.M. that Monday evening to confront Michelle. When the detectives arrived at the Bica home, they observed that the house was dark and the lights were off. Suddenly, they heard a gunshot. The upstairs lights came on in various rooms and a male voice could be heard screaming, "Michelle, Michelle." Tom Bica called 911 and reported that his wife had just shot herself. The police ordered Tom to exit the residence.

Michelle's body was located in an upstairs bedroom. She had committed suicide by shooting herself in the mouth with a .22 caliber gun. The body was observed on the floor. The bedroom door had been forced open. Michelle Bica, knowing that the police had figured out her deception, put a .22 caliber pistol into her mouth and committed suicide.

Police searched the house and found the 7 lb, 8 oz newborn infant in a second-story nursery. The newborn baby was safe and asleep in its crib and in good health. The child was placed in the custody of the Portage County Family services.

Subsequent DNA tests proved that the child was, in fact, the son of Theresa and Jonathan Andrews. Jonathon and his newborn son were reunited after a brief stay at the hospital to assure that the infant was in good condition and had not received any internal injuries during such a traumatic birth.

Thomas Bica was transported to the Ravenna police station where he was questioned for 10 hours and given a polygraph test before being released into the custody of his parents. He denied any knowledge of the disappearance of Theresa Andrews or her unborn child. Bica was convinced that the newborn baby was his.

Bica was questioned several times thereafter and given additional polygraph tests by different operators. It was determined that he was naïve and had no knowledge of the murder and the taking of the baby. Thomas had no explanation why his wife would take her life.

The police learned from Thomas that Michelle had ordered a large quantity of gravel for their driveway and garage. Thomas told them that he and Michelle had spread the gravel in the driveway and garage 2 days after Theresa had vanished.



*The Crime Scene.* Detectives immediately advised investigators at the suicide scene that Theresa's body was possibly buried somewhere at the Bica home. A search warrant was obtained. Detectives examined Michelle's pocketbook. Inside the pocketbook were the keys to the Andrews' Jeep.

Detectives discovered dried blood under the dryer in the laundry room. This was the location where the victim mother had been shot and had her fetus cut from her womb. Michelle Bica had told her husband that she had given birth in the laundry room. She told him that she had cleaned most of it up and there had been a strong smell of disinfectant. The dried blood under the clothes dryer was matched to Theresa Andrews through DNA analysis.

Investigators searched the driveway and found a trail of blood leading from the house to the garage. Inside the garage was evidence of a recent excavation. In the garage under the car was a shallow grave where the body of Theresa Andrews had been buried. Beneath the gravel, under a piece of plywood, the authorities discovered Theresa's body. The detectives also recovered a knife in the gravesite, which the medical examiner later ruled was the knife used to slash open the abdomen of the victim to remove her child from the womb.



**Figure 20.22 RECOVERY OF VICTIM'S BODY.** The police learned that the suspect had ordered a large quantity of gravel for the driveway and garage. Investigators searched the driveway and found a trail of blood leading from the house to the garage. Inside the garage, there was evidence of a recent excavation. In the garage under the car was a shallow grave where the body of Theresa Andrews had been buried. (Courtesy of Chief Randall McCoy and Detective Sergeant Bob Cooper, Ravenna, Ohio, Police Department.)



**Figure 20.23 RECOVERY OF WEAPON USED TO EXTRACT FETUS.** Beneath the gravel under a piece of plywood, the authorities also recovered a knife in the gravesite, which the medical examiner later ruled was the knife used to slash open the abdomen of the victim to remove her child from the womb. (Courtesy of Chief Randall McCoy and Detective Sergeant Bob Cooper, Ravenna, Ohio, Police Department.)

*Medical Examination.* The medical examiner ruled the cause of death to be a bullet wound from a .22 caliber gun, which had entered the victim's left upper back penetrating the left lung and heart. A foot-long horizontal cut had been made across the victim's abdomen to facilitate the removal of the fetus. Michelle Bica used this same gun to commit suicide.

*Motive.* Michelle Bica had spent months convincing everyone, including her husband, family, and neighbors, that she was pregnant. She gave neighbors updates on her sonograms and set up a baby monitor in the kitchen. She and Thomas toured Akron General Medical Center's maternity unit and even made plans for the baby's christening as she stalked Theresa.

She called Thomas at work at 2:30 P.M. and told him she had delivered a baby boy whom she had named "Mickey." Thomas was so excited he began handing out cigars. Over the next few days, neighbors streamed in to see the newborn. One neighbor remembered Michelle expressing concern for the missing Theresa and stating, "You just can't trust anybody no more."

When Jonathon Andrews saw Michelle Bica's photo on the TV news, he was shocked when he realized he recognized her. In mid-September, he and Theresa had spoken to an older couple, also expecting, in the baby aisle of a nearby Wal-Mart. Theresa had confided that her baby was due in 3 weeks. The couples compared addresses, remarking on how close they lived to one another. Jon said they seemed like a nice couple. Theresa had even





**Figure 20.24 AUTOPSY PHOTOGRAPH.** The medical examiner ruled the cause of death to be a bullet wound from a .22 caliber gun, which had entered the victim's left upper back penetrating the left lung and heart. A foot-long horizontal cut had been made across the victim's abdomen to facilitate the removal of the fetus. The incision and extraction of the fetus had to have been done within 10 minutes before all of the oxygen was drained from the uterine blood supply. (Courtesy of Chief Randall McCoy and Detective Sergeant Bob Cooper, Ravenna, Ohio, Police Department.)

told her mom how friendly people in Ravenna were: "People even stop you in Wal-Mart to talk to you."

*Michelle now knew where she could get her baby. Teresa was the target.*

Michelle had already begun stalking Theresa for her baby. Using the For Sale sign in the rear window of the Jeep as her entrée, she went to the Andrews' home. Somehow, she was able to lure the pregnant victim mother to her house, where Teresa was murdered for her unborn baby.

*How the Fetus Survived.* Doctors opined that the foot-long incision would have to have been made shortly after the gunshot to Theresa's back in order for the fetus to have survived. Dr. Marcial stated, "This was a well-planned affair." Dr. Marcial told reporters that he had delivered thousands of babies when he was a family practitioner and he could not have done it that fast. The incision and extraction of the fetus had to have been done within 10 minutes before all of the oxygen was drained from the uterine blood supply. A time line was constructed from witness statements and it was determined that this event occurred between 10:00 A.M. and 12:00 noon.<sup>21</sup>

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## Investigative Assessment and Analysis

### *The Offender Profiles*

In each of the seven homicides as well as the two attempted murder cases, the primary offender was a female 19 to 40 years of age acting alone. The exception was Case 2 involving Jacqueline Williams, who was accompanied by her boyfriend and male cousin, who assisted in the murders.



All of the offenders had faked their pregnancies, convincing family and friends that they were about to give birth. Four of the women were unable to conceive, two offenders had had hysterectomies, and one offender had had tubal ligations. The offenders, who had put on weight, had dressed in maternity clothing. Some of the offenders had made preparations for their “newborn,” including setting up nurseries, visiting the hospital, and showing “their” sonograms.

The offenders had preselected and stalked their victims. Stalking incidents indicate obsessions on the part of the offenders, manifested through a persistent and intense preoccupation with the victim or target. Historically, stalkers are usually male offenders known to the victim and, in most instances, involve former lovers, boyfriends, or spouses. However, it should be noted that some stalkers are complete strangers to the target. These stalkers can be men or women. In cases such as these, the stalker is *invariably a woman* with a fixation on obtaining the victim mother’s baby.

In some cases, the offenders had met the victim mother through casual introduction, engaging the victim by befriending her or offering advice, assistance, and/or gifts. The offenders were able to manipulate their victims by conning them until they were ready to attack. The exception was Darcie Pierce, who was desperate and “overdue” in her faked pregnancy. She confronted her victim at gunpoint (fake gun) to abduct her and steal the fetus. Although she had surgical instruments at home, she could not take the victim mother there because her husband was at home. She used her car keys to open the victim mother’s abdomen to extract the fetus.

Four of the seven offenders went to their respective victims’ homes to initiate the homicide. Two of the offenders took the victim mother to an isolated location. In Case 5, the offender was able to con the victim mother back to the offender’s home to be killed. In Case 8 (an attempt case), the offender even had the surgical tools ready to extract the woman’s fetus. In Case 9, the offender went to the victim’s trailer home to initiate the crime and then transported the victim to a rural location. Six of the seven victim mothers were killed before the fetus was cut from the womb. One victim was left to bleed to death.

Five of the seven babies survived. Two of the offenders who claimed to have given birth brought the two dead fetuses to the hospital. One of the infants was of approximately 6 months’ gestation. In the two attempt cases, the babies survived, even though in Case 9 the offender had already cut open the victim’s abdomen. A Cesarean procedure was performed at the hospital and both mother and child were saved.

### ***Offender Motive***

In the seven cases that I reviewed, the primary motivation underlying these murderous acts were to sustain a relationship with a male partner by providing him with a child. Six of the women had convinced their significant others that they were pregnant. In Case 4, the motive is not clear. In Case 8 (attempt), it appears that the offender was just obsessed with becoming a mother. The offender did not have a significant male in her life; she had convinced family, friends, and coworkers that she was about to give birth. She carried around a book filled with snapshots of her looking pregnant. She had a nursery stocked with baby items and a hospital bag packed and ready as

if she were about to deliver a child. In Case 9 the offender had convinced her male companion that she was in fact pregnant and had shown him sonograms.

Burgess et al. propose that another motivation is to fulfill a childbearing and delivery fantasy. "The female abductors, in essence, become a mother by proxy by acting out a fantasy of them delivering a baby." Burgess et al. present that the abductors in their six-case study "decided to do something physical to get the baby."<sup>10</sup>

From an investigative standpoint, this suggests that the motivation involves some significant planning and preparation. The cases that I have cited here clearly represent organized and criminal behavior. The psychopathology of these offenders may very well encompass some form of delusional thinking but not to the point of insanity. The women offenders in this study were fully conscious of their actions and intentions. They chose to kill the victim mother for her unborn child to fulfill a narcissistic need. The offenders then disposed of the victim mother to effectively cover up their crime and avoid detection. In my opinion, this psychopathology is more consistent with psychopathy than psychosis.

## **Abduction Investigative Strategies**

### ***Police Response***

The initial police response to a *report of a missing pregnant woman* must include immediate notification to detectives and an APB broadcast description of the victim mother. Research on this type of offense indicates that the offender will most likely accomplish this crime within less than 2 hours of the abduction. In fact, the author recommends an Amber Alert type of response, which will actively inform the media and the community of this event. An attempt should be made to obtain assistance from federal authorities early in the investigation.

### ***Detective Response***

Detectives should immediately begin a neighborhood canvass to ascertain whether the victim mother had been seen in the company of another pregnant women. In most of these cases, the offender has initiated some sort of casual relationship with her potential target. It is not unlikely that the offender has visited or interacted with the victim mother on prior occasions. The canvass may provide the investigators with offender descriptions, license plate numbers, and other identification information. An attempt should be made to obtain assistance from federal authorities early in the investigation.

### ***Additional Information***

The value of transmitting this information in an Amber Alert format is that people who may have had suspicions about a friend or neighbor purporting to be pregnant and would not have thought of notifying the police might now have a different frame of reference. In the cases that I reviewed, there was always someone (usually another woman) who had expressed doubt about the offender's alleged pregnancy or the sudden appearance of a newborn. Interviews with investigators who had been involved with these types of cases validate this assumption.

In five of the cases, (Cases 1, 3, 4, 5, and 6), the offenders disposed of or hid the body of the victim mother. In two cases (Cases 2 and 7), the body was left at the scene. In three cases where the body was disposed of or hidden, the offenders showed up at a hospital. Two offenders (Cases 4 and 6) arrived with the dead fetuses, claiming to have given birth. The other offender (Case 1) showed up at the hospital with a live baby for assessment. In the two attempts (Cases 8 and 9) we don't know what the final disposition of the victim's body would have been because the crimes were interrupted before the murders and thefts of the fetus could be completed.

Subsequent hospital examination revealed that the offender women had not given birth. Authorities were notified and the offenders were arrested. The live child was properly identified through DNA and returned to the biological father. The bodies of the three victims were recovered during the criminal investigation.

Two of the offenders (Cases 3 and 5) continued the charade until police investigators caught up with them. Offender Scott managed to elude authorities for 8 days as she presented the baby as her own. She was arrested and the baby was returned to the victim mother's family. Offender Bica "played" mother for 5 days, during which time she showed off her new baby to friends and neighbors. Bica shot herself when the authorities came to her residence to arrest her. The newborn was reunited with the biological father after DNA testing.

## Summary

These crimes are unimaginably evil. They devastate the surviving families of the victim mother and horrify the general public. In my opinion, the infants that do survive such a traumatic birth are truly miracle babies. However, these cases are not without precedent. There are unique behavioral profiles to these offenders. I have provided here examples of their motivations, manipulations, and preparation for their crimes, including victim selection and modus operandi, to serve as a frame of reference in the investigation of these types of incidents.

## Stalkers

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### Introduction

This section focuses on the phenomenon of stalking. I present specific types of stalkers and identify experts and organizations which can assist in intervention strategies. In addition, I will provide information on anti-stalker legislation, which provides law enforcement with the necessary legal tools to protect society from the terror of this type of offender.

### Stalkers

A stalker is someone who intentionally and repeatedly follows, attempts to contact, harasses, and/or intimidates another person, whom I refer to as "the target." A stalker usually follows the target to his or her home, school, place of employment,



business, or any other location. Stalkers often intimidate their victims through unsolicited and intrusive communications or by engaging in conduct which is threatening or indicates that the stalker intends to injure the person or property of the target. This includes sexual assault and/or bodily harm. Stalking incidents indicate an obsession on the part of the offender, which is manifested through a persistent and intense preoccupation with the victim or target.

Historically, stalkers are usually males known to the victim and, in most instances, involve former lovers, boyfriends, or spouses. However, it should be noted that there are also stalkers who are complete strangers to the target. These stalkers can be men or women who have a delusional fixation on the victim.

In either event, the stalker represents a significant law enforcement problem. The police may be keenly aware of the potentially lethal nature of the stalking activities, but are often prevented from taking any action or arresting the offender due to legal technicalities.

### **Orders of Protection**

The traditional response of the criminal justice system to threats posed by stalking has been to issue “orders of protection” or “restraining orders.” Court orders require that the respondent and/or defendant stay away from a person or premises, or refrain from verbal or physical abuse. If the person named on the order is proven to have violated the instructions, he or she can be held in contempt.

In some instances, court orders may prove to be effective deterrents. Cases of this nature usually involve normal and rational respondents who remain away from the petitioners in order to avoid any further legal problems. However, in most instances, these court orders prove absolutely useless. I have investigated hundreds of cases where women who had obtained orders of protection were beaten, knifed, sexually assaulted, and killed. The court order directs the other partner to stay away from the petitioner and refrain from any further harassment. The man becomes enraged with his loss of control and the attempt by the woman to break the relationship and engages in various acts of harassment, which include stalking, threats, assault, or other subtle forms of “psychological warfare.”

In one particular case, the offender quite graphically indicated his contempt for the order of protection and the criminal justice system. He had stabbed his wife to death after ripping up the court order. When I arrived at the crime scene, I observed the woman’s body lying on the floor with the shredded court order knifed into her chest.

In fact, at one point in my career, so many victims under orders of protection were being killed that we came to refer to the court orders as “orders of illusion.” These documents gave the victim the illusion of being protected but were virtually unenforceable.

### **Anti-Stalker Legislation**

Anti-stalker legislation appears to be a logical and workable solution. This type of legislation provides law enforcement authorities with the statutory tools they



**Figure 20.25 STALKER VICTIM.** This victim was accosted in her sleep by an assailant who had been stalking her and her roommate. When her roommate left on Spring Break, the killer gained access to the young woman's apartment. He blindfolded her and secured her hands and arms with bindings. (Courtesy of Investigator Tom Jordan, State College Police Department, State College, Pennsylvania.)



**Figure 20.26 STABBING INJURIES.** The victim was multiply stabbed in the chest and breast by her assailant, who became enraged when she defecated out of fear. His original intent was to rape her. He cleaned the blood off her chest and then covered the stab wounds. The face of the victim was also covered with the bed cover, which had been removed when the body was found. (Courtesy of Investigator Tom Jordan, State College Police Department, State College, Pennsylvania.)



**Figure 20.27 THE VICTIM'S BODY POSED FOR VIEWING.** The killer then posed the body spreading her legs open to expose the vaginal area. Police reconstruction indicated that he had previously watched the victim from an empty apartment across from where the victim lived. He then went back to this location to view the nude and sexually positioned body of his victim. (Courtesy of Investigator Tom Jordan, State College Police Department, State College, Pennsylvania.)

require to protect victims from inappropriate and unwanted contact. Anti-stalker laws are aimed at halting patterns of threats and harassment that often precede violent acts of assault, rape, and murder.

In 1990, the State of California passed the first anti-stalking law. This legislation was the direct result of the murder of five young women within a 6-week period. All but one had sought help in vain. As of November 1999, all 50 states' legislatures, the District of Columbia, Guam, the Virgin Islands, and the federal government had enacted laws making stalking a crime. In 1996, a federal law was enacted to prohibit stalkers from traveling across a state line in pursuit of their victims. This legislation enabled federal prosecution in instances where the interstate feature of a stalking case created additional challenges to effective state investigation and prosecution of such crimes.<sup>23</sup>

The anti-stalker laws specifically define conduct considered threatening and intimidating and place the onus on the stalker to prove that he or she did not intend to harass or frighten the victim. The crime is elevated from misdemeanor to felony status based upon the issuance of an injunction or restraining order. In addition, the felony degree is also elevated based upon the seriousness of the violation or threat.



The overall effectiveness of anti-stalker laws, however, still remains with the courts. In order for these laws to be effective, the judges must take them seriously. Their legal responsibility must be guided primarily by the nature of the act and the seriousness of the threat and they must be willing to properly sentence and restrain offenders who stalk.

## Types of Stalkers

Clinically speaking, stalkers can be divided into two specific types of personalities. The psychopathic personality is fully aware of the criminality of his actions; the psychotic personality may be suffering from a psychosis and/or have been diagnosed as having a specific disorder. The motivations for stalking range from power and control scenarios to bizarre obsessive delusions including infatuation fantasies.

### *The Psychopathic Personality Stalker*

This type of stalker is invariably a male offender and represents the larger population of stalkers. He comes from an abusive home and dysfunctional family where violence was the normal way to settle disputes. The offender and the offender's mother were subjects of domestic violence. He is basically a control freak who is easily stressed and frustrated and cannot take responsibility for his actions.

This type of offender insists on male dominance. He will also exhibit a hyper-macho exterior in order to hide feelings of inferiority. He is an abusive personality who harbors hostility against women. However, if the woman attempts to separate or end this abusive relationship, this type of offender will respond with violence.

The stalker with the psychopathic personality is the most common type of stalker. This offender may have had a relationship terminated because of his abuse and then refuses to accept the termination. Abusive men frequently wage psychological warfare against their victims in shrewd, untraceable ways. They destroy and vandalize property, send packages or deliveries, poison and kill pets, phone anonymous threats, and engage in various other forms of harassment.

The male abuser engages in stalking because he has lost his control over the target (a former girlfriend or wife). The stalking puts him back into control. He is motivated by the perverse psychology of *"If I can't have you, then no one can have you!"*

According to Ruth Micklem, codirector of Virginians against Domestic Violence, "Nearly one third of all women killed in America are murdered by their husbands or boyfriends and as many as 90% of them have been stalked" (*Newsweek*, July 13, 1992).

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## Case History

April, a young woman who had divorced her abusive husband, secured a family court order of protection because the ex-husband, Anthony, continued to harass her. The police could



**Figure 20.28 STALKING VICTIM FOUND INSIDE HER APARTMENT — BODY POSED BY KILLER.** The victim recognized her assailant at the front door and mistakenly admitted him. He attacked her with a knife. The victim was then raped and sodomized. The investigation revealed that he had repeatedly attempted to make contact with her by leaving notes on her car and showing up at her apartment. (Courtesy of Detective Sergeant Alan Patton, Grand Prairie, Texas, Police Department. Photo by Evidence Technician Don Swanz.)

not arrest Anthony when April reported that he had cut her phone lines and slashed her tires because there were no witnesses. Her ex-husband was finally arrested when police caught him breaking into his ex-wife's house.

However, the judge released Anthony on \$25 bail and the harassment grew worse. The next incident was almost fatal. Anthony, who had managed to gain entry into April's house, ambushed April from a closet with a sawed-off .22 rifle and a knife. He repeatedly cut and stabbed her with the hunting knife rupturing her lung and liver. Anthony was arrested and charged with attempted murder. April remained hospitalized for over a month with her injuries.

Anthony was held on \$25,000 bail despite pleas by the district attorney for higher bail and the seriousness of the charges; 8 months later, Anthony's family bailed him out. The police and district attorney feared for April's safety and installed a sophisticated intrusion alarm in her house. In addition, the police provided her with a hand-held electronic device to signal police in an emergency.

Within 2 months of his release, Anthony, who had been ordered to stay away from April, began to engage in further harassment. April informed the police and the district attorney's office. The district attorney tried to secure higher bail, but the judge refused citing that the purpose of bail was only to secure the defendant's presence for trial.

The next incident was fatal. April was gunned down in front of her home by Anthony, who fled the scene and then committed suicide.

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**Figure 20.29 DEFENSE WOUNDS.** The victim suffered multiple defense wounds as she tried to fight off her attacker. (Courtesy of Detective Sergeant Alan Patton, Grand Prairie, Texas, Police Department. Photo by Evidence Technician Don Swanz.)



**Figure 20.30 BLOOD ON FEET.** This indicates that the victim had run through her own blood as she attempted to escape the killer. (Courtesy of Detective Sergeant Alan Patton, Grand Prairie, Texas, Police Department. Photo by Evidence Technician Don Swanz.)





**Figure 20.31 MULTIPLE STABBING.** The victim had been stabbed 113 times in her chest and breast area. She also had numerous defense wounds on her hands and arms. The killer then manipulated her body to engage in sexual assault. Observe the blood dripping from her wounds, indicating that the body has been turned over. This is a classic “lust murder.” (Courtesy of Detective Sergeant Alan Patton, Grand Prairie, Texas, Police Department. Photo by Evidence Technician Don Swanz.)

### *The Psychotic Personality Stalker*

This type of stalker can be a male or a female who becomes obsessed and/or preoccupied with one or more systematized delusions. Many of these stalkers do in fact have a diagnosable mental disorder, i.e., paranoia, schizophrenia, bipolar (affective disorder–manic-depressive), etc. They suffer from a delusional fixation in that they become obsessed with the target. The target is usually a stranger. However, these types of stalkers have been known to target coworkers, neighbors, and even acquaintances. They attempt to contact the target, thus making him or her aware of their existence or presence through a series of activities such as telephone calls, letters, gifts, visits, and surveillance.

A subtype of the psychotic personality stalker is found in the diagnosis of erotomania. In the erotomaniac type, “the central theme of an erotic delusion is that one is loved by another.”<sup>2</sup> In erotomania, the male or female stalker is a stranger who believes that the victim, usually someone famous or rich, is in love with him or her. The targets are usually persons of higher social status than the stalker, e.g., actors, actresses, or other public figures.

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## Case History — Delusional Fixation

Kathleen began receiving telephone calls from a male, who identified himself as a classmate. The phone calls became quite strange. The next contact was made by following her and then threatening to kill her boyfriend. The offender was finally arrested in possession of a semi-automatic weapon, a knife, and handcuffs. He was given psychiatric evaluation and released.

Three months later, the same offender was caught watching Kathleen's parents' home. The police were notified and the offender was again arrested. Once again, he had a semi-automatic weapon and ammunition, a knife, a pair of handcuffs, and, this time, a police scanner. He confessed that he was going to kidnap her and bring her into the mountains. This time the offender got a year in a mental hospital. Kathleen obtained a restraining order.

However, 3 years later, the offender again entered her life. While she was walking down the beach, she saw him coming towards her with a .357 magnum. She managed to escape to her beach house, where she called the police. The offender was able to elude the police, but he called her house. The next day he was captured. However, because the gun did not have a firing pin, he was charged only with a misdemeanor.

The offender received 60 days for violation of the restraining order and was given 3 years' probation. Two years later the same offender began to communicate with her again. He staked out her house, set off her alarm system, and made several phone calls to the frightened young woman. He was finally arrested for five counts of violation of a restraining order. The maximum sentence he could have received was 5 years; instead, he got 4 months.

Five months later, the offender confronted Kathleen in the kitchen of her home. He had a knife and a gun. She kept the offender talking. While they were talking, the phone rang. It was Kathleen's mother, who realized that something was wrong. Kathleen's mom called the police. The police were waiting when the offender exited the house with Kathleen.

The offender was charged with several counts, including attempted kidnapping. His maximum sentence could have been 16 years. Instead, once again, the offender was able to plea-bargain it down to 8 years.

At the sentencing, Kathleen told the judge that the experts had advised her that this offender's fixation was not curable and that when he was released he would be back. The offender nodded his head in agreement.

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## Case History — Delusional Fixation and Erotomania

In May of 1991, the family of a 10-year-old girl whom I will refer to as Judy began to experience an unsettling series of events. At first, these events seemed cute and harmless. The family was finding gifts and notes on their front porch addressed to Judy. The family at first thought that it might be some little boy from Judy's fourth-grade class. However, the messages and the gifts became more and more bizarre as the stalker pursued his delusion that he and the 10-year-old Judy were destined for one another.

The family called the police several times due to the series of strange events. In one note the writer stated, "I saw you with the boy down the street, Judy, you slut." In another note, the writer referred to his fantasy of living on a desert island with Judy and that he had been watching Judy since she was 7 years old.

In October 1991, the family left for a vacation in order to get away from these strange events. While they were gone, someone broke into their house. When the family returned, they noticed that someone had gone through their telephone book and the page with the phone number of Judy's grandmother was open.



The next event involved a man calling the grandmother at 3:00 A.M. rambling on about how someday he and Judy would be in heaven together. The police were notified about the burglary and the phone calls. In addition, the family began to ask their neighbors for help. One of the neighbors recalled seeing a man staying at the home of a woman in the area. She recalled that the man had given her 12-year-old foster daughter a rosebush and when the man saw the girl playing with another neighborhood boy, he ripped the bush out of the ground.

The police were notified and questioned the woman with whom the man was staying. She denied that there was a man living with her. The police obtained a search warrant and found a 24-year-old man hiding upstairs. He was arrested for burglary.

While he was in jail, Judy began receiving signed letters from the offender. The courts decided to release the suspect with a warning and have him sent to a different town where he would be set up with a job. The family voiced their concern about the letters and their daughter's safety.

The court issued a restraining order against the defendant. His first day out, the family found a note from him on their front porch. The suspect was rearrested but continued to send "love" and "hate" letters to Judy. He would write about waiting 10 years for Judy. He also wrote that he wanted her "pure" and that he would not have sex with her until their honeymoon. This suspect has since been ordered by the courts to cease and desist.

However, the offender is due for release. In the words of the family, "He gains his freedom; we lose ours."

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The important point to note in these two cases is that the offenders, despite the law enforcement intervention, continued to pursue their targets. These types of stalkers have a permanent and unshakable delusional system accompanied by a preservation of clear and orderly thinking. On the surface, they present as normal or sane when not pursuing their target. Others may even keep their delusions a secret and hide their fixation from family, friends, or coworkers.

It is not enough to arrest these types of offenders. They need to be vigorously prosecuted and jailed. New anti-stalker laws provide the basis for such prosecution.

### **Erotomania Involving Obsessed Fans and Stalkers**

In 1989, an obsessed fan named Robert Bardo killed actress Rebecca Schaefer. Subsequent investigation revealed that Bardo had been communicating with and stalking Schaeffer for 2 years. Bardo had fantasized and dreamed of someday marrying the former star of the short-lived "My Sister Sam" TV series. He actually believed that there was a relationship between him and Rebecca Schaefer.

In 1982, actress Theresa Saldana survived a vicious knife attack by a stalker named Arthur Jackson, who believed that he had a "divine mission" to kill her and take her to heaven.

David Letterman, Johnny Carson, Michael J. Fox, and Olivia Newton-John are just a few of the famous celebrities who have been stalked by fanatical and obsessed fans. According to the experts on celebrity stalking, literally thousands of dangerous and obsessed fans stalk and are capable of violence.

Gavin deBecker of Los Angeles is the nation's acknowledged expert on star stalking and the assessment of threats to public figures. His firm, Gavin DeBecker,



Inc., is located in Studio City, California (818) 505-0177 (<http://www.gavindebecker.com/home.cfm>). The firm maintains an extensive library of threat communications and provides computer analysis, monitoring of potential stalkers, and protection services for a number of celebrities and VIPs. DeBecker's firm has been selected to develop threat assessment systems for:

- State police agencies protecting ten governors
- 25 University police departments
- United States Supreme Court police
- United States Marshals service
- United States Capitol police
- Defense Intelligence Agency
- Central Intelligence Agency

Gavin deBecker devised a computer program that analyzes “inappropriate communications” and rates the relative degree of hazard posed by their authors. The system focuses on what deBecker refers to as preincident indicators, or PINS. The MOSAIC system keeps track of these PINS, communications, and potential threats.

MOSAIC II, an updated version, has been adopted by the California State Police, who are responsible for providing security for state government and elected officials. The contact person and liaison for MOSAIC is available for consultation to other law enforcement agencies at (916) 322-3337.

### **Law Enforcement Response to Stalker Incidents**

Traditionally, law enforcement and the criminal justice system have been ill equipped to deal with the stalker. The orders of protection and restraining orders meant to protect victims from unwanted contact have proven to be ineffective in stalker cases. In cases where stalkers communicate with their victims, the police are powerless to take any action unless the communications involve a threat.

Stalkers basically conduct a form of “psychological warfare” against their targets using methods which, ordinarily, do not in and by themselves necessitate or provide for police intervention. However, with all states now implementing anti-stalker legislation, the police and the criminal justice system have been provided with some legal ammunition and tools helpful to thwart the stalker.

In California, the first state to pass such legislation, the City of Los Angeles Police Department established an anti-stalker squad, officially called a Threat Management Unit. The unit was established due to the increasing number of complaints and stalking incidents involving celebrities and other prominent people within the L.A. area.

According to their studies, they have placed the stalkers into three categories: (1) 9.5% — erotomania: the stalker falsely believes that the target, usually someone famous or rich, is in love with the stalker; (2) 43% — love obsession: the stalker is a stranger to the target but is obsessed and mounts a campaign of harassment to make the target aware of the stalker's existence; and (3) 47% — simple obsession:

the stalker, usually a male, knows the target as an ex-spouse, ex-lover, or former boss and begins a campaign of harassment.

Park Dietz, M.D., Ph.D., a forensic psychiatrist and nationally renowned consultant to law enforcement agencies, including the FBI, conducted the research and major study of the phenomenon of stalking public figures. According to Dr. Dietz,

We have disproved the myth that only threats count. Nearly everyone makes the mistake of assuming that unless there is a threat, you can safely ignore “nut mail,” “kook calls,” and weird visitors. This false assumption is the source of more misguided policy and decision-making than any other error in this field. ([www.parkdietzassociates.com](http://www.parkdietzassociates.com))

Dr. Dietz states that “all threats should be recorded, reported, and assessed — and so should all other frightening, weird, or troublesome communications and visits, whether they contain threats or not.” He says,

The difficult decision is evaluating the offender in enough depth from his communications and witness accounts to know whether ultimately it will help or hurt the victim for law enforcement to interview the offender, arrest him for a misdemeanor, or otherwise make him aware that a report has been made. Where a solid felony arrest is possible, the victim is much more likely to gain meaningful protection.<sup>24</sup>

Dr. Dietz is president of Threat Assessment Group, Inc., located in Newport Beach, California. His organization can be accessed at (949) 723-2220. This organization was created to analyze threat communications and provide consultation to law enforcement agencies, corporations, and media figures. This group also analyzes and assesses dangerousness of personnel and/or consumers to prevent workplace violence and cope with threatened tampering or sabotage. They have trained more than 10,000 senior managers in over 500 companies, including many of the largest ([www.taginc.com](http://www.taginc.com).)

The law enforcement response to these recommendations should be to encourage victims to make police reports of the incidents and have the victim document any harassment. These records can then serve as a basis for future actions by the police, prosecutors, courts, or psychiatrists who need such documentation to achieve maximum results from arrest or commitment.

## Summary

Anti-stalker legislation affording felony charges provides law enforcement authorities with the statutory tools they need to protect victims from inappropriate and unwanted contact. However, many states classify stalking as a misdemeanor. Laws alone cannot protect victims from stalkers. The frightening reality of the stalker is

in the complexity of his or her delusions, motivations, and objectives. Even the experts cannot agree on totally effective interventions.

The information provided in this section is intended to assist investigators by providing the psychopathology and symptomology of stalkers and their potential for violence as well as by furnishing information on viable resources available.

## **VICAP, Statewide and Regional Information Systems**

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For many years, police investigators working in different jurisdictions on similar cases have worked independently of one another. They did not have access to the information available elsewhere that could speed and enhance investigations in their jurisdiction. For example, although investigators knew that similar crimes were being committed in jurisdictions across the country, they sometimes had difficulty finding out what types of victims had been singled out, what methods of operation had been repeatedly used, or which suspects were under investigation.

In addition to lack of information, some violent crimes are so unusual, bizarre, and vicious that they are only rarely encountered by detectives working in smaller agencies. Serial violent criminals often transcend boundaries as they travel from city to city and state to state. The crimes of these highly transient criminals are sometimes never linked together.

In 1981, Pierce Brooks, a retired chief of police and former homicide commander of the Los Angeles Police Department, introduced a system designed to identify serial murderers. This system was called VICAP, an acronym for Violent Criminal Apprehension Program. It was designed to collect, collate, and analyze all aspects of an investigation using the latest computer and communications technology. This event represented an introduction to a new era.

In 1984, an interagency transfer of funds from the National Institute of Justice to the FBI formally established the National Center for the Analysis of Violent Crime. The VICAP concept of Pierce Brooks was conceptually merged within the National Center for the Analysis of Violent Crime (NCAVC) based at the FBI Academy in Quantico, Virginia.

The main concept of the system was to bring together the fragmented law enforcement efforts from around the country so that they could be consolidated into one national resource center. These services were to be available to the entire law enforcement community. The Brooks concept represented a down-to-earth practical method of accessing information on a nationwide basis — a system which would provide agencies across the United States with the necessary information to conduct investigations.

According to the December 1986 issue of the *FBI Law Enforcement Bulletin*, “The goal of VICAP is to provide all law enforcement agencies reporting similar pattern violent crimes with the information necessary to initiate a coordinated multiagency investigation which will lead to the expeditious identification and apprehension of the offender responsible for the crimes.” However, the immediate problem from an



investigative perspective was that, unlike the National Crime Information Center (NCIC), this program did not allow local law enforcement agencies to access the information sent into the NCAVC files. Thus, an excellent concept, which originally provided for open access and good communication between agencies, was encumbered with the addition of an FBI conduit of analysis and research.

This recognized problem was supposed to be addressed by VICAP, which would act as a resource center and a national clearinghouse with the result that law enforcement efforts would be conducted in a coordinated fashion. The NCAVC is capable of comparing and analyzing every VICAP report submitted in the United States as well as providing local law enforcement with the identity of the individual investigator and department conducting that inquiry. However, accessing this information continues to be a problem because the request still has to go through the FBI.

### **The Violent Criminal Apprehension Program — VICAP**

This system to identify serial murders was introduced to the FBI by Pierce Brooks, a retired chief of police and former homicide commander of the Los Angeles Police Department.

This VICAP system, an acronym for Violent Criminal Apprehension Program, was designed to collect, collate, and analyze all aspects of an investigation using the latest computer and communications technology. It provides a national clearinghouse for unsolved violent crimes. A staff of VICAP analysts and investigative case specialists review unsolved violent crimes such as homicides, rapes, child molestations, and arsons, which are submitted by law enforcement agencies on a VICAP form. The VICAP goal has been to centralize all active and unsolved homicide investigations in which mutilation, dismemberment, torture, or violent sexual trauma was involved.

Currently, cases which meet the following criteria are accepted by VICAP:

1. Solved or unsolved homicides or attempts, especially those that involve an abduction; are apparently random, motiveless, or sexually oriented; or are known or suspected to be part of a series
2. Missing persons, where the circumstances indicate a strong possibility of foul play and the victim is still missing
3. Unidentified dead bodies where the manner of death is known or suspected to be homicide

### **Profiling and Consultation Program**

The NCAVC's Profiling and Consultation Program provides law enforcement agencies consultation with and opinions of experienced criminal personality profilers. It conducts careful and detailed analysis of violent crimes on a case-by-case basis in order to construct *criminal personality profiles* of the unknown offenders. Consultation is furnished on serial and exceptional cases and also includes case planning strategies, developing probable cause for search warrants, personality assessments,

interviewing techniques, coaching prosecutors of violent criminals, and “on-site” major case analysis, consultation, and training, which falls under the training division of NCAVC.

The overall goal of the NCAVC is to develop a sophisticated and comprehensive knowledge-based computer system that will assist law enforcement. Eventually, detectives who are working on a murder, rape, arson, or sexual mutilation case will be able to obtain assistance through a nationwide computer network. The expert-based computer system under development will allow the NCAVC to

1. Eliminate useless investigative paths, which historically have proven fruitless in profiling and identifying the offender.
2. Preserve and recall knowledge of similar cases, criminal personality profiles, and research studies.
3. Display the hierarchy of complex criminal network problems from the general to specific level.
4. Develop and use decision rules, which accelerate computation time as well as allow the investigator to understand the problem better.
5. Receive advice and consultation from the expert system on new and existing cases based upon prior knowledge captured by the system.
6. Preserve information in an active form as a knowledge base, rather than as a mere passive listing of facts and figures.
7. Train novices to think as an experienced crime profiler would.
8. Create and preserve in an active environment a system that is not subject to human failings, will respond to constant streams of data, and can generalize large bodies of knowledge.

### **The Regional Organized Crime Information Center**

The Regional Organized Crime Information Center (ROCIC) is one of six projects, called Regional Information Sharing Systems (RISS), which were formed to help local, state, and federal law enforcement agencies track and apprehend traveling criminals. ROCIC developed the *HUMP* system to serve as a foundation of a national clearinghouse on unsolved *homicide/unidentified body* and *missing person* cases in which the suspect, known or unknown, may travel and operate multijurisdictionally.

The information is submitted to ROCIC on a homicide/unidentified body and missing person (HUMP) report card and entered into a database. The ROCIC computer then analyzes and collates the information to identify any possible matches and trends on a national basis. Any case that shares certain key similarities with another case or cases in the database is further analyzed and each submitting agency is notified of the possible match so that its investigators can *compare notes* and *exchange information* about their respective cases.

Since its inception, the HUMP system has proven successful in identifying related and potentially related cases across the country and in providing new leads and a direct line of communication between investigators.

The advantage of the HUMP system over the VICAP system is that it allows for immediate access by telephone and requires only a 1-page report as opposed to a 15-page report for a VICAP analysis. In addition, ROCIC puts the inquiring investigator directly in touch with his counterpart on the related case.

### ***Submission of Cases***

The investigator simply fills out a HUMP card. In addition to the information on the card, ROCIC requests a short narrative on the back of the card or on a separate sheet of paper. ROCIC will accept telephone inquiries at 1-800-238-7985 or through FAX at 1-800-366-3658. The Web site is at <http://www.rocic.com>. Mail the card to

Regional Organized Crime Information Center  
545 Marriott Drive, Suite 850  
Nashville, TN 37214

## **The Homicide Investigation and Tracking System**

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Washington State's Homicide Investigation and Tracking System (HITS) relies on law enforcement agencies voluntarily to submit information to HITS investigators on murders, attempted murders, missing persons cases in which foul play is suspected, unidentified persons believed to be murder victims, and predatory sex offenses.

Detectives conducting investigations need methods and tools that will help them do their jobs as effectively and efficiently as possible. Ready access to information about the crimes being investigated is one of their needs. This information is crucial in order to develop good leads and, in turn, to solve the case.

Dr. Robert D. Keppel, Ph.D., who started the program in Washington State, developed HITS. HITS is helping investigators work better by allowing them *access* via computer to a wide range of information about serious crimes and to resources that can help solve them. Basically, HITS is a murder and sexual assault investigation system that collects, collates, and analyzes the salient characteristics of all murders and predatory sexual offenses in the states of Washington and Oregon.

Ironically, the National Institute of Justice (NIJ), the research arm of the Department of Justice, played a key role in the development of this project. This same organization encouraged Pierce Brooks in the 1970s to pursue VICAP, which was originally designed to provide local law enforcement access. Interestingly, HITS complements federal research and programs against violent crime because the system generates a VICAP report, which is sent to the National Center for the Analysis of Violent Crime. VICAP staff can then determine whether similar pattern characteristics exist among the individual cases in the VICAP system.

HITS provides three major services to law enforcement agencies. First, it supplies information related to a murder or predatory sexual assault case, including the following:



- Incidents with similar characteristics involving murder, attempted murder, suspected murder, or predatory sexual assault and persons missing as a result of suspected foul play
- Evidence, victimology, offender characteristics, offender's method of operation, associates, geographic location of the case, weapons, and vehicles
- Identification of known murderers and sex offenders living in a particular community

Second, HITS permits analysis of murder cases to identify:

- Factors that may help solve a particular murder case
- Possible links between a single victim, offender, or case and other incidents of violence
- Verification of statements provided by informants, offenders, or both, in which the information relating to an alleged murder is incomplete or questionable

Third, HITS provides investigators with the following resources:

- Names of experts who can assist with a murder or sexual assault investigation
- Advice and technical assistance on the various steps to be followed in a murder or sexual assault investigation

Prior to HITS' use in Washington State, the only way to obtain this type of crime information was through time-consuming, labor-intensive personal visits, interviews, telephone calls, teletypes, faxes, and letters. By filling out a simple form that takes less than 30 minutes, investigators save countless hours on the phone or on their feet searching for information that the HITS system locates for them. More importantly, HITS provides investigators with that important two-way communication.

HITS was founded on the premise that information plays a critical role in solving homicides. The key to solving crimes and making arrests is to understand *how much* and *what kind* of information is available and *how to organize* it to make it more accessible and useful. Because of the need to collect and collate violent crime information, HITS investigator/analysts work very closely with police detectives to provide assistance in their cases.

For further information on HITS, contact HITS Unit/Criminal Division, Washington State Attorney General's Office, 2000 Bank of California Center, 900 4th Avenue, Seattle, WA 98164 or call 1-800-345-2793.

In my opinion as an expert in homicide investigations, the most viable alternative to VICAP is a series of statewide or regional systems, which compile all serious crimes such as rape, murder, and gang-related crime into integrated databases that provide ready access to local law enforcement. In addition, any missing

persons cases where the circumstances indicate that they are missing under suspicious circumstances, as well as information about unidentified bodies where the manner of death is known or suspected to be homicidal in nature, should be entered into the system.

## Acknowledgments

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I acknowledge the Peel Regional Police Department, Brampton, Ontario, Canada, specifically Inspector Rod Piukkala for providing this information relative to the procedures used to recover latent print evidence from a human body.

I wish to acknowledge the contribution of retired Detective Donald Sullivan, who has conducted over 500 forensic polygraph examinations and participated in many homicide investigations. He is a graduate of the National Training Center of Polygraph Science, vice president of the New York State Polygraph Association, research editor for the *Journal of Polygraph Science*, and lecturer and instructor in the field of polygraph examinations.

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# Investigative Assessment: Criminal Personality Profiling

# 21



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The purpose of this chapter is to provide the criminal investigator with practical information on the application of criminal personality profiling to the homicide investigation.

## Introduction

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The applications of clinical criteria and abnormal psychology to the investigative process are an integral part of criminal personality profiling and have been universally recognized and accepted as genuine and legitimate investigative techniques. Detectives and criminal investigators routinely employ these techniques in their investigation of violent crime on a case-by-case basis. From a practical standpoint, there are only so many ways to kill and only so many stories to tell as an offender attempts to explain the killings. After a while, a distinct pattern emerges, which encompasses a series of clusters of behavioral information and specific typologies of offenders. For example, human behavior is repetitive. *Certain actions* engaged in at the scene by *certain types of personalities* will tend to repeat themselves. In the assessment of these types of personalities, the FBI behavioral science researchers have identified two specific types: organized and disorganized. In this chapter, I will define these two types and provide a generic profile for each of them. Practically speaking, there will generally be a *combination* of profile characteristics and crime scene differences between organized and disorganized offenders.

I have provided you with worksheet tables (see Table 21.1 and Table 21.2), which list the characteristics of the organized and disorganized offender and crime scene dynamics in a column format. You can then identify the column with the most elements that appear similar to your case. This will suggest the type of offender with whom you may be dealing. I then direct you to the two generic profiles that appear under “The Organized Offender” and “The Disorganized Offender” sections.

This information will provide the experienced investigator with a frame of reference to apply to the investigative analysis of a specific type of crime or type of offender. The forensic evidence coupled with the actions of the offender in the

scene and the specific activities he engaged in with his victim allows for the interpretation of “the signature” aspect and the ability to link events as referenced by “the linkage concept.”

Clinically speaking, there is a behavioral distinctiveness in human sexuality. This unique aspect of our sexual arousal and response system accounts for why individuals differ in their sexual behaviors and engage in a specific series of behavioral patterns. In sex-related criminal incidents, the offender is oftentimes subconsciously “acting out” a sexually significant behavioral pattern, which reflects the underlying personality, lifestyle, and developmental experiences of the offender. (p. 756)<sup>1</sup>

The investigative goal is to interpret these actions and behaviors of the offender and then translate these psychodynamics into investigative reality.

## History of Profiling

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Profiling is not an entirely new concept. During World War II, the Office of Strategic Services (OSS) employed a psychiatrist, William Langer, to profile Adolf Hitler.<sup>2</sup> Furthermore, as I will explain, such cases as the “Boston Strangler” and the “Mad Bomber” of New York City were similarly profiled by a psychiatrist in the 1950s and 1960s.

Traditionally, however, psychiatrists and psychologists entered into an analysis of a crime only after the suspect was in custody. Their evaluations were usually aimed at determining whether the suspect was “sane” at the time he or she committed the offense.

An exception to this traditional role took place during the late 1950s and early 1960s when Dr. James A. Brussel, a New York City psychiatrist, provided law enforcement authorities with valuable information on such sensational cases as the Mad Bomber of New York City and the Boston Strangler of Boston, Massachusetts. In other important investigations he “profiled,” the suspect based on the psychodynamics of an event and the psychiatric “clues” he deduced from the crimes he examined.

In the Mad Bomber case, police authorities asked Dr. Brussel to provide them with his professional opinion. Dr. Brussel reviewed the huge case file, the photographs, and a number of letters that the suspect had mailed over a 16-year period. Without engaging in what best can be described as a lot of psychoanalytic double talk, he simply rendered the following opinion: “Look for a heavy man. Middle aged. Foreign born. Roman Catholic. Single. Lives with a brother or sister.” He also added: “...when you find him, chances are he’ll be wearing a double-breasted suit. Buttoned.” (p. 46)<sup>3</sup>

On January 20, 1957, police arrested George Metesky and charged him with being the infamous Mad Bomber. He was exactly as described by Dr. Brussel. When he was taken into custody, he was even wearing a double-breasted suit.

In April, 1964, Dr. Brussel was again invited into a major police investigation. A group of physicians and psychiatrists were brought together in Boston in connection with the Boston Strangler cases, which had occurred between June 14, 1962, and January 4, 1964. The official name of the group was the Medical–Psychiatric Committee. There had been 11 sex-related murders in the Boston area (later this total would be amended to 13), and all investigative efforts to identify the person or persons responsible had failed. The circumstances of the deaths seemed to indicate that two stranglers were involved. The committee members based this opinion on the fact that the first group of stranglings involved older women, and the second group involved the stranglings of younger women. Also, the psychosexual activity in both sets of killings differed. Dr. Brussel, however, did not agree with the committee. He maintained that one man was responsible. The killings mysteriously stopped and the committee was eventually disbanded. However, in November, 1964, a man identified as Albert DeSalvo came to the attention of authorities. He was ultimately identified as the Boston Strangler. He “fit” the profile that Dr. Brussel had provided to the police. (pp. 136–162)<sup>3</sup>

Dr. Brussel’s ability to interpret bizarre behaviors and then translate this psychiatric knowledge into investigative realities proved to be an extremely effective tactic. He had his unique method of applying psychiatric principles in reverse with a blend of science and intuition. Dr. Brussel also applied the results of studies by the late Ernst Kretschmer, a German psychiatrist who demonstrated that a person’s physical build is often associated with a certain type of personality and, in the event of psychiatric illness, with a particular disorder, e.g., 85% of paranoiacs have an “athletic” body type. (p. 33)<sup>3</sup> According to Kretschmer, “a schizophrenic would most likely be asthenic in build — thin, small framed, and angular, but a paranoid schizophrenic with strong paranoid features would most likely have the well-proportioned build of a paranoiac.” (p. 117)<sup>3</sup>

The Son of Sam case, which occurred in New York City over a period of 13 months during 1976 to 1977, also enlisted the active involvement of psychiatry and psychology in the investigation. The police were attempting to identify a “madman” who shot young couples as they sat in parked autos at various locations within the city. The New York City Police Department sought the assistance of these forensic experts in an attempt to assess the personality of this serial killer. In addition, Dr. Murray S. Miron, a professor at Syracuse University, performed a *psycholinguistic* analysis of the communications sent by Son of Sam to local newspapers. This profile turned out to “fit” the suspect closely. (See “Psycholinguistics” in Chapter 20.)

### **Application of Abnormal Psychology**

Professional investigators soon realized that the application of clinical criteria and abnormal psychology to the investigative process and the participation of psychiatrists and psychologists with the necessary experience and background to assist the police were practical and logical procedures in specific criminal investigations.





**Figure 21.1 LUST MURDER VICTIM.** This photo depicts the body of a lust murder victim, who was killed elsewhere and then brought to this location and placed in this degrading position by the offender. The offender engaged in postmortem mutilation. (Left side of photo) The offender then scalped the victim and hung her hair on some debris at the scene. He also removed her breasts and eviscerated the victim's body. (From the author's files.)

Use of profiles and criminal investigative analysis are now an integral part of the investigative process.

Criminal investigative analysis has proven to be beneficial to law enforcement and has provided homicide detectives with a viable, successful investigative tool in pinpointing potential suspects in certain types of murder cases.

In 1981, Pierce Brooks, a retired chief of police and former homicide commander of the Los Angeles Police Department introduced a system designed to identify serial murderers. This system was called VICAP, an acronym for Violent Criminal Apprehension Program. It was designed to collect, collate, and analyze all aspects of an investigation using the latest computer and communications technology.

The combined success of the Psychological Profiling Program and the VICAP concept consequently produced Congressional legislation establishing a National Center for the Analysis of Violent Crime (NCAVC) in July 1984.<sup>4</sup> NCAVC is based at the FBI Academy in Quantico, Virginia, under the Critical Incident Response Group (CIRG). It combines investigative and operational support functions, research, and training in order to provide assistance, without charge, to federal, state, local, and foreign law enforcement agencies investigating unusual or repetitive violent crimes.

Experienced FBI special agents and other professionals who make up the NCAVC staff provide advice and support in a variety of investigative matters and other law enforcement-related functions. Typical cases for which NCAVC services are requested include child abduction or mysterious disappearance of children,

serial murders, single homicides, serial rapes, extortions, threats, kidnappings, product tampering, arsons and bombings, weapons of mass destruction, public corruption, and domestic and international terrorism.

Requests for NCAVC services are typically facilitated through NCAVC coordinators assigned to each FBI field office. NCAVC presently consists of the following units:

- Behavioral analysis units (BAUs)
  - Terrorism and threat analysis
  - Crimes against adults
  - Crimes against children
- Violent Criminal Apprehension Program (VICAP)

Law enforcement can submit investigations of mass, serial, and sensational homicides, as well as sex crimes and other specified investigations, to a central location for analysis and identification of similar crime patterns which may exist in other jurisdictions and possibly be related.

BAU assistance to law enforcement agencies is provided through *criminal investigative analysis*, which is a process of reviewing crimes from behavioral and investigative perspectives. It involves reviewing and assessing the facts of a criminal act and interpreting offender behavior and interaction with the victim, as exhibited during the commission of the crime or as displayed in the crime scene. BAU staff conduct detailed analyses of crimes for the purpose of providing one or more of the following services: crime analysis, investigative suggestions, profiles of unknown offenders, threat analysis, critical incident analysis, interview strategies, major case management, search warrant assistance, prosecution and trial strategies, and expert testimony.

With the cooperation of the FBI, I researched this particular investigative technique by examining certain cases profiled by the Behavioral Science Unit, in order to present a practical understanding of criminal personality profiling. In addition, I have included personal interviews with Supervisory Special Agent William Hagmaier, now retired, and retired Supervisory Agent Robert K. Ressler, who was the commander of the original profiling project. They provided the case history and technical information, which has been enhanced with current publications, cited here.

### **Criminal Personality Profile**

A criminal personality profile is an educated attempt to provide investigative agencies with specific information as to the type of individual who would have committed a certain crime. It involves the preparation of a biographical sketch based upon information taken from the crime scene and victimology, which is then integrated with known psychological theory. The profile can be a valuable tool in identifying and pinpointing suspects; however, it must be noted that the profile has its limitations. It should be used in conjunction with the sound investigative techniques ordinarily employed at the scene of a homicide.<sup>1</sup>



### ***The Purpose of the Profile***

The objective of criminal profiling is to provide the investigator with a personality composite of the unknown suspect(s) that will aid in apprehension. By studying the crime scene from a psychological standpoint, the criminal psychologist is able to identify and interpret certain items of evidence at the scene, which provide clues to the personality type of the individual or individuals who have committed the crime. Certain clues at a crime scene, by their very nature, do not lend themselves to ordinary collection techniques, for example, the emotions of rage, hate, love, fear, and irrationality. According to professional profilers, there is nothing mystical about their work; the procedures they use are well founded in sociological and psychological roots.

### ***When Profiling Can Be Productive***

Criminal personality profiling is usually productive in crimes in which an unknown subject has demonstrated some form of psychopathology in his crime, for example: sadistic torture in sexual assault, evisceration, postmortem slashing and cutting, motiveless fire-setting, lust and mutilation murders, ritualistic crimes, and rapes.

Practically speaking, in any crime in which available evidence indicates a mental, emotional, or personality aberration by an unknown perpetrator, the criminal personality profile can be instrumental in providing the investigator with information that narrows down the leads. The behavioral characteristics of the perpetrator as evidenced in the crime scene — not the offense per se — determine the degree of suitability of the case for profiling.

According to Ressler, formerly of the FBI,

All people have personality traits that can be more or less identified. However, an abnormal person becomes more ritualized, displaying a distinct pattern to his behavior. Many times, the behavior and personality are reflected in the crime scene in the same manner that furnishings in a home reflect the character of the owner.”<sup>5</sup>

In certain instances, agents of the Criminal Personality Profiling and Consultation section have been able to supply police with such details as approximate height, weight, body type, age, general occupation, and family environment of an unknown suspect. Such a description is based on their initial examination of the scene, using crime scene photos, and preliminary information concerning the crime provided by the requesting agency. *However, as an expert in homicide, I must caution you that viewing crime scene photographs without making a personal visit to the crime scene to get a “feel” for the area may prove to be very embarrassing. In addition, other considerations may not be readily discernible to persons unfamiliar with the geographical areas, local customs, or unique patterns of behavior endemic to an area. Whenever I perform an investigative assessment of a case, I make it a point to visit the crime scene and conduct personal interviews with the assigned investigators, who many times*



*have already “profiled” possible suspects, based on their expertise and knowledge of their jurisdiction.*

The following case history of a series of particularly bizarre homicides shows how criminal profiling can be of value in an investigation. This case, known as “The Vampire Killer” case, concerns an individual identified as Richard Trenton Chase. Chase, who may have also committed additional homicides, was conclusively linked to the murders of six individuals; five of whom were killed in one week. This case history information was provided by Lieutenant Ray Biondi, commanding officer of the Homicide Bureau of the Sacramento County, California, Sheriff’s Department.<sup>6</sup>

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### **Case History — Disorganized Offender**

The first known murder occurred on December 29, 1977. A 51-year-old man who had exited his house to retrieve groceries from his car in the driveway was shot once in the chest with a .22 caliber automatic. The man’s wife, who was about to follow him out the door, heard two shots. Neighbors also reported hearing shots as a car drive off. The authorities had neither suspects nor motive for the murder. They did, however, have a comparable bullet from the victim’s body as well as a shell casing found in the street. The police were perplexed by this murder, which was apparently random and motiveless, and they certainly did not have any suspects. Unknown to police, an individual named Richard Chase was responsible for this crime.

On the morning of January 23, 1978, Chase was roaming around the same neighborhood looking for another victim. He attempted a burglary at one house but the woman, who was home, saw him and called the police. Richard left before they arrived. Less than a half-hour later, he was almost caught by another homeowner, who interrupted him as he was burglarizing the owner’s home. The man chased the culprit but lost him in the neighborhood. However, he got a good description, which he provided to the police. Richard had stolen approximately \$16, a pair of binoculars, and a dagger. In addition, while in the home, Richard urinated on an open drawer of undergarments and had defecated on a bed in the master bedroom.

Richard’s next stop was a supermarket. He brought along his rubber gloves and his .22 caliber semiautomatic gun. He had gone home to change his clothes after the burglary. This time, he wore his orange jacket. He ran into a woman he had known in high school. She at first did not recognize him until he asked her if she had a friend named Kurt who had been killed in a motorcycle accident. She was concerned by this man’s appearance. He was unkempt, his hands were dirty, and there was yellow crust around his lips. She remembered that this stranger had been a classmate in high school, and he was asking her about an incident that had occurred 10 years earlier when her boyfriend was killed. Richard tried to make conversation and even asked the young woman for a ride. She decided to try to get away from him by getting into line and making a purchase. However, he took an orange juice off the shelf and got in line right behind her. As soon she paid for her groceries, she ran from the store and jumped into her car. The stranger was running after her. She took off in her vehicle and left him standing in the parking lot. Shortly thereafter, Richard killed his next victim.

Later that same Monday, a man returned home from work, entered his home, and discovered the body of his 22-year-old wife sprawled dead on the bedroom floor. She had been shot as she walked out her front door carrying some garbage bags. The killer then



**Figure 21.2 BODY MULTILATED BY THE VAMPIRE KILLER.** This eviscerated body is one of the female victims of Richard Trenton Chase, the "Vampire Killer," who was positively linked to six murders. He fit the category of a disorganized serial killer. (Courtesy of retired Lt. Ray Biondi, commanding officer Homicide Bureau, Sacramento, California, Sheriff's Department.)

executed her by shooting her in the head. He then dragged her into the rear bedroom where he savagely mutilated her body. The victim's blouse had been pulled up over her chest, her pants forced down to her ankles, and fecal matter (later determined to be human) had been placed into her mouth. The killer, using steak knives taken from the kitchen, had opened up the midsection of his victim and removed her intestines. He then stabbed her through her left nipple. He smeared her blood over his own face and licked his fingers. He then smeared the blood along the inner thighs of the victim. In addition, the victim's blood had apparently been scooped out of her body cavity with a paper cup, which had been discarded at the scene. Investigators found various ringlets corresponding to the diameter of this cup on the floor next to the body. Later it was determined that the killer had drunk the woman's blood. Certain body parts were taken from the scene along with several steak knives.

The Sacramento sheriff's detectives were completely baffled by this strange and vicious homicide and readily admitted to never having encountered such a bizarre crime. According to Ray Biondi, investigators recognized that this murder could be related to the homicide which had occurred a month earlier. There were some compelling reasons to believe that these two murders were linked. Primarily, the attacks had occurred in the same residential area. Both victims were attacked in "blitz-style" confrontations. Both victims had been shot with a .22 caliber automatic and similar shell casings had been recovered at





**Figure 21.3 EVIDENCE OF ANTHROPOPHAGY — RINGLETS OF BLOOD.** In this crime-scene photograph, you can see the ringlet of blood from the cup that the killer used to drink the victim’s blood. (Courtesy of retired Lt. Ray Biondi, commanding officer, Homicide Bureau, Sacramento, California, Sheriff’s Department.)

both scenes. On the other hand, the activity in the most recent case was totally bizarre, compared with the “execution-type” attack on the male victim.

To add to this mystery, the next day, within the same neighborhood, a young store clerk was executed while on his knees in a cold storage box. Ballistics later indicated that the weapon used in this case was a .38 caliber. This case was eventually determined to be an unrelated event. However, one can imagine how this case complicated an already confusing series of events.

Sheriff’s detectives relied heavily upon standard investigative techniques. The neighborhood was thoroughly canvassed for information. The investigators learned that there had been a burglary on the same block as the murder. The burglar had defecated on the bed in the master bedroom. According to Biondi, “We were sure the burglary was related to the murder, we just could not establish the ‘why.’” He and his fellow detectives began to look into some possible psychological motivations in an effort to establish the “why.”

In the middle of that same week, sheriff’s investigators learned that a Labrador puppy had been shot to death in the owner’s back yard within this same neighborhood. Biondi arranged for an autopsy on the dog in order to recover the projectile.

Meanwhile, homicide investigators were performing the traditional routine “spade” work of interviewing the husband who had discovered his wife’s body, checking old boy-friends of the deceased, and looking into friends and associates of the victim. It was during this victimology phase that investigators were served another curve ball. A former girlfriend of the deceased’s husband was extremely jealous of their marriage. When she had originally learned that the deceased had become pregnant, she had reportedly remarked to friends that she would like to kill the deceased and cut out the baby. Needless to say, this information certainly added to an already bizarre chain of events.

The investigation into Monday’s murder had hardly begun when later that same week, five blocks away, another even more grisly discovery was made. On Friday, January 27, 1978, Sacramento sheriff’s deputies were called to a residence within the same general area





**Figure 21.4 SEXUAL MUTILATION — EVISCERATION.** This female victim of lust murder has been eviscerated. The killer then engaged in anthropophagy, which is the consumption of human blood and flesh to achieve sexual pleasure and satisfaction. (Courtesy of retired Lt. Ray Biondi, commanding officer, Homicide Bureau, Sacramento, California, Sheriff's Department.)

on a report of a multiple murder. A woman had gone to visit her next-door neighbor, opened the door to her friend's house, and discovered the whole family murdered. The dead woman, who was 36 years of age, had been shot three times and had been eviscerated. Her 52-year-old boyfriend, who had been visiting, had died of gunshot wounds to the head; the woman's 6-year-old boy had been shot dead. A 22-month-old baby, whom the woman was babysitting, was missing from a bloodstained crib. Once again, the victim of the evisceration was female.

In this case, there was evidence of anal sodomy and indications that the killer had stabbed at her rectum with one of the knives. The killer also cut one of her eyes out of the socket with a kitchen knife. This knife had been taken from the first crime scene and left behind by the killer. It had been used to mutilate this victim as in the first case; there was evidence of *anthropophagy* (consumption of the victim's flesh or blood). An examination of the woman's body revealed that certain body organs had been removed. In addition, a piece of rubber glove was found in the body cavity. (Later, sheriff's detectives would learn that the killer wore these gloves because he believed he was performing surgery.) When the detectives searched the house, they discovered that the bathtub was filled with bloody water as well as brain matter, feces, and pieces of human entrails. The female victim's hair was soaking wet. Evidence at the scene indicated that she had probably just finished taking a bath when the offender confronted her and proceeded to execute everyone in the house.

When the killer did leave, he took the infant's body with him. He also took the male victim's wallet and car, which was found abandoned late Friday evening about a mile from the scene.

At this point in the investigation, it was quite evident to investigators that a single individual, who was obviously quite disturbed, was committing this series of murders. Ray Biondi was given the full resources of the Sacramento County Sheriff's Detective Division. Investigators assessed that the person responsible for these crimes came from within the geographical area of incident.

Sheriff's detectives "profiled" their suspect to be a white male (the area was primarily white and the canvass had also indicated that a white male stranger had committed the burglary in the area). The suspect would be in his 20s (males of this age commit most of the crimes). The suspect was probably schizophrenic (based upon the cutting, probing of the bodies in what detectives perceived to be curiosity). The suspect might have recently been released from a mental institution. (This was based on the fact that these bizarre crimes had suddenly occurred within a short span of time within one area.) The suspect seemed unconcerned about being apprehended, based upon the daylight attacks as well as the apparent lack of effort to hide the crimes or evidence. He was a loner type of individual and unmarried (based on who could live with a "wacko" like this). If the suspect did work, it would be a menial job at best. The suspect probably lived within the 1-mile circle due to the fact that the crimes were committed within the area as well as the fact that the stolen car was recovered in a parking lot of a building complex within the area.

According to Biondi, "This profile generally suggested that investigators were looking for a psychotic individual who lived and/or worked in the neighborhood and was committing the crimes and murders on impulse or opportunity."

Ray Biondi and Sergeant Don Habecker established an investigative plan, which would focus the probe. Because all of the murders as well as the bizarre incidents had occurred within a 1-mile radius, a large circle encompassing this radius was drawn on a map of the area. An extensive canvass operation was initiated. The entire investigative effort was effectively concentrated on these locations within the circle. In addition, detectives continued their inquiries at the present crime scene as well as the location where the stolen auto was later recovered. The stolen vehicle was put under 24-hour police surveillance Friday evening.

A supervisor was put in charge of the canvass, with explicit instructions to assure that each and every person within this circle be interviewed and asked whether any strangers or suspicious persons had been observed in the area.

The following day, Saturday, Biondi received information about a witness who had talked to an individual identified as Richard Chase. This civilian witness had seen Richard in a supermarket parking lot behind the residence of the first female victim on the day of the murder. Richard had asked this witness, whom he knew from high school, for a ride. The witness declined due to the fact that Richard was unkempt and acting really weirdly. Biondi assigned the Chase lead to three general-assignment detectives for follow-up investigation.

The three detectives, Ken Baker, Wayne Irey, and Bill Roberts, contacted the building manager of the apartment complex where Chase lived. The manager told the detectives about dogs and cats missing from the buildings within the complex. The manager and the detectives went to Chase's apartment and knocked on the door. Unknown to them, other detectives already had attempted to interview the occupant of this apartment with negative results. The manager opened the door to an unoccupied apartment next door. Through an interior wall, Detective Baker could hear movement inside Chase's apartment. As Detective Roberts returned with the manager to his office and called Biondi, detectives Baker and Irey staked out the suspect's apartment. The suspect suddenly came running out of the apartment carrying a box, which contained bloody rags, fast-food containers with blood and other body parts enclosed, and other evidence of the crimes.

When the detectives searched him, they found a gun in a shoulder holster. This was the same .22-caliber automatic he had used to kill his victims. The apartment revealed extensive evidence of the murders, including three blenders containing blood and human entrails. A diaper from the missing baby was also found in the apartment. (The baby's body was found 3 months later in a mummified condition, drained of blood, and beheaded.) Dried blood was caked on the suspect's mouth and hands, and additional evidence indicated that he had cooked, eaten, and drunk his victims' blood and body parts. In the refrigerator was



a can containing brain matter. The remaining steak knives, which he had taken from the residence of the first victim, were found in the suspect's apartment.

According to the suspect, the reason for his vampire-like activity and grisly behavior was that flying saucers were drying up his blood through some sort of radiation and he had to replenish his supply in order to survive. The suspect was eventually convicted. However, while awaiting appeal, he committed suicide or accidentally overdosed on medication he had secreted in his cell trying to cure his imaginary illness.

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According to Lt. Biondi, this series of bizarre murders enabled the investigators to utilize some of the information they had received during an FBI Homicide School he had attended in 1976. The instructor was Special Agent Russell Vorpagle, who had presented a segment on the "Psychology of Murder." Biondi stated, "The training that I and the other detectives in our homicide detail received from this school greatly influenced the tactics we took when the Chase murders were occurring."<sup>6</sup>

Ray Biondi finally published his account of this case in the book *Dracula Killer*. He stated:

This case is often lectured about and documented in textbooks and other training material as a classic case in psychological profiling. Usually the facts are massaged or omitted to illustrate how the case was solved by the sole use of a psychological profile. I believe in any training that may provide another tool to the homicide detective. However, the practical use of this training is very limited. The danger in the belief of psychological profiling is that it may cause an investigation to focus away from the true killer. The intention of this book is to correct the misconception that complex murder cases are solved solely on the basis of a psychological profile.<sup>7</sup>

### **Factors That Can Be Determined by a Criminal Personality Profile**

1. Age
2. Sex
3. Race
4. Marital status/adjustment
5. Intelligence
6. Scholastic achievement/adjustment
7. Lifestyle
8. Rearing environment
9. Social adjustment
10. Personality style/characteristics
11. Demeanor
12. Appearance and grooming
13. Emotional adjustment
14. Evidence of mental decompensation
15. Pathological behavioral characteristics



16. Employment/occupational history and adjustment
17. Work habits
18. Residency in relation to crime scene
19. Socioeconomic status
20. Sexual adjustment
21. Type of sexual perversion or disturbance (if applicable)
22. Motive

### **The Investigative Approach to Profiling**

The criminal personality profile is based upon a good crime scene examination and adequate information supplied to the profiler. In order to facilitate this process, certain investigative steps must be taken at the scene by the detective:

1. The complete documentation of events: photographs (black-and-white and color) and/or videotape as well as crime scene sketches should be accomplished prior to any other police procedures at the scene.
2. A careful and complete search should be conducted for any forensic materials and other evidence that might provide a clue to the identity of the killer.

Furthermore, an extensive and thorough investigation of the victim's background must be undertaken in order for the profiler to appraise the type of suspect for which police should be looking. *Assessing the victimology of the deceased is standard operating procedure for any good homicide investigator. Many times the detective ends up learning more about the deceased than the victim knew about himself.* From the perspective of the profiler, however, the victim's background information takes on an added value as the profiler seeks a behavioral pattern or scenario upon which to build his or her hypothesis.

The following items are necessary to create a profile:

- I. Photographs (the larger the photo is, the better, and the photos should focus on the depth and extent of the wounds)
  - A. Complete photographs of the crime scene
  - B. Color photos of the victim
  - C. Photos of body positioning, different angles
  - D. If residence is involved, photos of other rooms, including a crime scene sketch which depicts the entire scene and floor plan of the residence
  - E. Photo of the area to include aerial shot to show relationship of body placement to the area so that the profiler can get a feel for the area
- II. Neighborhood and complex
  - A. Racial, ethnic, and social data
- III. Medical examiner's report (autopsy protocol)
  - A. Photos to show full extent of damage to body
    1. Stabs, cuts (number of)
    2. Gunshots

3. Bruises
4. Lividity
- B. Toxicology reports
  1. Drugs, alcohol
  2. Sperm present, sperm in anus, hair cut off, bits and pieces of hair, and oral swabs of mouth for semen
- C. Are wounds postmortem?
- D. Feelings of the medical examiner, which are not committed to the report
- IV. Map of the victim's travels prior to death
  - A. Place employed
  - B. Residence
  - C. Where last seen
  - D. Crime scene location
- V. Complete investigation report of the incident
  - A. Standard report of date, time, location, etc.
  - B. Weapon used if known
  - C. Investigative officer's reconstruction of the sequence of events
  - D. Detailed interviews of witnesses
- VI. Background of the victim
  - A. Age
  - B. Sex
  - C. Race
  - D. Physical description (including dress at time of incident)
  - E. Marital status/adjustment
  - F. Intelligence, scholastic achievement/adjustment
  - G. Lifestyle (recent changes)
  - H. Personality style/characteristics
  - I. Demeanor
  - J. Residency (former and present) in relation to the crime scene
  - K. Sexual adjustment
  - L. Occupation (former and present)
  - M. Reputation at home and work
  - N. Medical history (physical and mental)
  - O. Fears
  - P. Personal habits
  - Q. Use of alcohol or drugs/social habits
  - R. Hobbies
  - S. Friends and enemies
  - T. Recent court action

In addition to providing a criminal personality profile of an unknown suspect based upon an analysis of the crime scene, the Behavioral Science Unit profilers of

the National Center for the Analysis of Violent Crime can also make an assessment of possible suspects based on an evaluation of certain background information supplied by local police on a specific suspect.

The following information should be obtained on the individual to be profiled:

1. Name
2. Age
3. Sex
4. Race
5. Height and weight
6. Marital status; ages and sex of children; recent births; is wife pregnant?
7. Education level
8. Socioeconomic status
9. History (criminal record or psychiatric problems)
10. Physical abnormalities and/or defects (e.g., acne, speech impediment, obese, walks with a limp)
11. Residence (condition of, etc.)
12. Automobile (color, how maintained)
13. Behavior (describe any recent change)
14. Mannerisms and personality traits
15. Employment (recently laid off? skills associated with job)
16. Day or night person
17. User of drugs or alcohol (recent increase?)
18. Dress (sloppy or neat, type of clothing)
19. Known to carry, collect, or display weapons? (what type?)
20. Rigid vs. flexible personality
21. Prior military experience (branch of service)

### **Investigative Assessment — The Profiling Process**

According to Ressler et al.,

The process used by the profiler is quite similar to that used by clinicians to make a diagnosis and treatment plan: data is collected, the situation reconstructed, hypotheses are formulated, a profile developed and tested, and the results reported back. The profilers combine brainstorming, intuition, and educated guesswork with prior experience in similar case scenarios to arrive at hypothetical formulations. (p. 135)<sup>8</sup>

Basically, a homicide detective follows these steps at the crime scene. The detective gathers information, attempts to reconstruct the incident, develops a theory about the incident, and then assesses these data to see whether the theory is consistent with the facts of the case. The investigators brainstorm the case during the investigative critique. They use their intuition, follow hunches, and make



educated guesses based upon their extensive personal experience in homicide investigation.

**In fact, an effective homicide detective is usually someone who has taken his experience and enhanced it with knowledge, flexibility, and common sense.**

## Clinical Considerations and Descriptions of Behavior

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### The Psychopathic Personality

“A person, whose behavior is largely amoral and asocial, who is characterized by irresponsibility, lack of remorse or shame, perverse or impulsive (oftentimes criminal) behavior, and other serious personality defects.” (p. 1147)<sup>9</sup>

Psychopathic characteristics include:

- Complete disregard for community standards of behavior
- Apparent absence of guilt feelings
- Failure to learn by punishment
- Desire for immediate satisfaction
- Continuous sexual experimentation
- Usually an extrovert
- Can go “in” and “out” of feelings
- Undue dependence on others<sup>10</sup>

The classification of *the organized offender* is based on the clinical definition of Antisocial Personality Disorder (301.7) as referenced in *DSM-IV*. “The essential feature of Antisocial Personality Disorder (APD) is a pervasive pattern of disregard for, and violation of, the rights of others that begins in childhood or early adolescence and continues into adulthood.” (p. 645)<sup>11</sup> The terms *psychopathy* and *sociopathy* have also been used interchangeably to describe this type of behavior. However, according to Dr. Robert Hare, Ph.D., there is a distinctive difference between them.<sup>8,12</sup>

Dr. Hervey Cleckley was one of the first clinicians to do an in-depth study of the psychopathic personality. In his textbook, *The Mask of Sanity*,<sup>14</sup> Dr. Cleckley describes the psychopath in terms of his actions and his apparent intentions. In fact, *The Mask of Sanity* has influenced and provided the clinical framework for much of the scientific research on psychopathy.

Cleckley lists the 16 characteristics of the psychopath as:

1. Superficial charm and good “intelligence”
2. Absence of delusions and other signs of irrational thinking
3. Absence of “nervousness” or psychoneurotic manifestations
4. Unreliability
5. Untruthfulness and insincerity
6. Lack of remorse or shame

7. Inadequately motivated antisocial behavior
8. Poor judgment and failure to learn by experience
9. Pathologic egocentricity and incapacity for love
10. General poverty in major affective reactions
11. Specific loss of insight
12. Unresponsiveness in general interpersonal relations
13. Fantastic and uninviting behavior with (alcoholic) drink and sometimes without
14. Suicide rarely carried out
15. Sex life impersonal, trivial, and poorly integrated
16. Failure to follow any life plan<sup>14</sup>

Dr. Robert Hare, the author of *Without Conscience: The Disturbing World of the Psychopaths among Us*, has emerged as the preeminent authority and foremost expert in the area of psychopathy. He developed and perfected the Psychopathy Checklist and the Psychopathy Checklist-Revised (PCL-R) which has become the standard instrument for researchers and clinicians worldwide. In my opinion, the PCL-R has proven to be the most perceptive development in the application of clinical psychology to the investigative process. Hare's Psychopathy Checklist is a clinical tool for professional interpretation of the actions and behaviors of the psychopath that has provided a measure of the assessment of dangerousness of individuals who meet the criteria of psychopath.

#### Key Symptoms of Psychopathy

Emotional/Interpersonal	Social Deviance
Glib and superficial	Impulsive
Egocentric and grandiose	Poor behavior controls
Lack of remorse or guilt	Need for excitement
Lack of empathy	Lack of responsibility
Deceitful and manipulative	Early behavior problems
Shallow emotions	Adult antisocial behaviors <sup>12</sup>

Psychopaths, who are grandiose, arrogant, callous, dominant, superficial, and manipulative, cannot form strong emotional bonds with others and demonstrate a lack of guilt or conscience. They are irresponsible and impulsive and cannot appreciate the pain and suffering they inflict on others. This explains why they can torture and mutilate another human being without the least concern. I find this perspective consistent with observable data and applicable to the investigative process. Dr. Hare's work best represents the point of view and definition of psychopathy as expressed in this chapter.

#### Psychotic Personality (The Psychosis)

The classification of *the disorganized offender* is based on the clinical definition of a brief psychotic disorder (298.8) as referenced in *DSM-IV*. The psychotic personality suffers from a "psychosis," which is a major mental disorder in which the personality is very seriously *disorganized* and contact with reality is usually impaired.<sup>9</sup>

Psychotic characteristics:

Loner type of personality

Generally remains isolated or secluded

Uncomfortable around people

Lacks interpersonal skills<sup>10</sup>

A psychosis is defined in *DSM-IV* as a brief psychotic disorder (*DSM-IV* 298.8) This disturbance involves the sudden onset of at least one of the following positive psychotic symptoms:

Delusions

Hallucinations

Disorganized speech (incoherence, fragmented speech)

Inappropriate response

Strange mannerisms<sup>11</sup>

This type of reaction is usually associated with a stressor of some intensity. Sex is certainly considered a stressor of significant magnitude. The *inadequate* individual experiencing such a stressor coupled with an engram (mind picture) of a particular sadistic fantasy is certainly capable of “acting out” a bizarre sexual assault. The very nature of a sexual deviant engram is that it is substitutive for normal sexuality. It is often reinforced with masturbatory activities, which become compulsive patterns. The behavior and activities of this individual acting out his fantasy during a sexual crime could very well be described as “psychotic.” From an investigative perspective, we would refer to such an event as “disorganized.” The offender might possibly have a clinical diagnosis; however, the murder event could very well be the result of a temporary psychosis involving a sexual stressor. In any event, the crime scene presentation is significantly different from that of the “organized” offender.

### **Sexual Sadism (302.84 *DSM-IV*)**

According to *DSM-IV*, sexual sadism is a paraphilia. Paraphilias are sexual deviations marked by persistent sexual arousal patterns in which unusual objects, rituals, or situations are required for sexual gratification. They are understood to reflect a psychosexual disorder in which the preferred or exclusive means of sexual gratification is deviant. The essential feature in sexual sadism is that the individual derives sexual excitement from the infliction of psychological or physical suffering (including humiliation) of the victim. Sadistic fantasies or acts may involve activities that indicate the dominance of the person over his victim (e.g., forcing the victim to crawl or keeping the victim in a cage) or restraint, blindfolding, paddling, spanking, whipping, pinching, beating, burning, electrical shocks, rape, cutting or stabbing, strangulation, torture, mutilation, or killing.<sup>11</sup>



(A)



(B)



**Figure 21.5 SADISTIC INJURIES INFLICTED ON VICTIMS BY SERIAL KILLER.** These photos illustrate the sadistic sexual torture that the serial killer inflicted on his victims. In photos A, B, and C, the victim suffered breast assault with vice-grips and a paddling on the buttocks. The killer then pinched her nose closed with a pair of pliers. Photo D shows the third victim, who had suffered a severe paddling. The killer also took the blade of his knife and inflicted the incised wounds on her buttocks and legs. (Courtesy of retired Captain George O'Haggerty, New Castle County, Delaware, Department of Public Safety.)

*Continued.*

(C)



(D)



Figure 21.5 Continued.

According to *DSM-IV*, this is a chronic condition and a progressive disorder. “When sexual sadism is severe, and especially when it is associated with antisocial personality disorder, individuals with sexual sadism may seriously injure or kill their victims.” (p. 530)<sup>11</sup>

Among the number of paraphilias discussed in Dr. J. Paul DeRiver’s often cited work, *Crime and the Sexual Psychopath*, is lust murder.<sup>15</sup> DeRiver speaks of sadism as a compelling element in some lust murders; in others, arousal is not derived from the infliction of pain and suffering of the victim but rather from the act of

killing. In this latter case, however, as with necrophiles, DeRiver recognizes that even though the offender may not witness any prolonged degree of suffering on the part of the victim, he is likely to call “upon his imagination and fancy to supply him with the necessary engrams to satisfy his craving for his depravity.”<sup>15</sup>

This is not unlike lust murderers who torture victims before killing them and then recall “an after-image (engram) of the sensation produced by the physical torture and mutilation, extending beyond time and space.”<sup>15</sup> The sadistic scenario is thus conjured in the imagination, be it a recreation of the actual crime scene or the product of fantasy. In each instance, lust murders are viewed as behaviors of sadistic sexual psychopaths. This is the type of offender who tortures and kills for sexual gratification and characterizes the *prototypical* serial killer, whom we refer to as “organized.”

*However, it must be understood that “disorganized” offenders are also capable of similar behavior and engage in sadistic activities with their victims as well.*

Sexual sadism is frequently associated with sex-related murders. Most of the offenders involved in this activity are organized offenders, who plan their crimes and seek out specific victims. The disorganized offender, who reacts to a circumstance of opportunity without a specific plan, is rarely able to repeatedly escape apprehension.

### **Psychopathic Sexual Sadists**

According to Vetter,<sup>16</sup> serial murderers are almost routinely characterized in media accounts and much legal documentation as “psychopaths” or “sociopaths,” which he notes are terms superseded by the diagnostic category “antisocial personality disorder” by the psychiatric community in its 1968 revision of the American Psychiatric Association’s *Diagnostic and Statistical Manual of Mental Disorders (DSM)*.

Cartel<sup>17</sup> outlines the crime patterns, biographies, detection, and case processing of 21 serial killings. He notes that in addition to the apparent lack of guilt or compassion for their victims, serial murderers claim to experience euphoria during their murders. These observations are consistent with the aforementioned aspects of antisocial personality disorder. The intense arousal is derived from the torture and/or killing of victims, which Lunde identifies as sexual sadism, “a deviation characterized by torture and/or killing and mutilation of other persons in order to achieve sexual gratification.”<sup>18</sup> A reading of Brittain’s work<sup>19</sup> on the sadistic murderer reveals that such individuals are unconcerned with the moral implications of their brutality. They are excited by the sight of suffering and helplessness of their victims, whom they experience as objects. They usually kill by strangulation, apparently because of the total control over the victim that this method offers them.

Because it appears that a substantial proportion of male serial murderers violate their victims sexually, it is important to examine the role sexual behavior has in the killings. In the broader arena of sexual aggression — not limited to serial murder — clinical studies of sexually aggressive men have shown sadism as a dominant feature of their sexual arousal patterns. Dietz, like Brittain before him, contends



that the paraphilia most frequently associated with sex murders is sadism. In fact, Dietz states, "While every serial killer is mentally disordered, nearly all are psychopathic sexual sadists, and few, if any, are psychotic. Psychotic offenders rarely have the wherewithal repeatedly to escape apprehension."<sup>20</sup>

Meloy describes Theodore Bundy as "a contemporary sexual psychopath."<sup>21</sup> Moreover, he speaks of other sexually psychopathic serial murderers and entertains the contention by Lunde, among others, that there is a temporal coupling of erotic stimulation and violence in the childhood histories of what they call sexually psychopathic serial murderers.

I use the term *psychopathic sexual sadist* to define the psychopathology of a specific group of offenders, who have a dual diagnosis of psychopathy as defined by the studies of Dr. Robert Hare<sup>12,22,23</sup> as well as the references to antisocial personality disorder and sexual sadism as defined in *DSM-IV* (1994). I suggest that the dual diagnosis of *psychopathic sexual sadism* best describes offenders who obtain intense sexual arousal while violating their victims and engage in sexually sadistic activities including torture, mutilation, and/or killing to achieve sexual gratification. In my opinion, psychopathy coupled with sexual sadism and evidence of deviant sexual arousal clearly indicates dangerousness and the potential for recidivism. For a more complete discussion of this dynamic, I recommend Chapter 14 in the textbook, *Sex-Related Homicide and Death Investigation: Practical and Clinical Perspectives*.<sup>24</sup>

## Crime Scene and Profile: Characteristics of Organized and Disorganized Murderers

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The organized and disorganized dichotomy devised by the FBI's Behavioral Science Unit is a description of criminal offender typologies. The information presented here as it relates to the phenomena of organized and disorganized offenders is based upon the studies and research of the FBI's Behavioral Science Unit, personal interviews with members of this unit, research in the field, and my experience with these types of cases. The terms *organized* and *disorganized* are excellent descriptions of human behaviors as they relate to the characteristics of sex-related murderers. ***It is important to note, however, that a combination of organized and disorganized behaviors may be evidenced in a crime scene, which in effect presents a "mixed" personality profile. In my opinion, most events consist of a mix of organized and disorganized traits.*** (See Table 21.1 and Table 21.2.)

These are not clinical classifications, but they are based upon recognized psychological definitions and clinical diagnoses. The organized offender can be compared to the person suffering from an *antisocial personality disorder*. (However, I use the terms psychopath and psychopathy because they are more meaningful in the descriptive characteristics of this specific type of offender.) The disorganized offender presents behaviors, which may evince indications of a psychosis, such as schizophrenic disorders and/or paranoid diagnosis.

**Table 21.1 Profile Characteristics of Organized and Disorganized Murders**

Organized	Disorganized
Average to above average intelligence	Below average intelligence
Socially competent	Socially inadequate
Skilled work preferred	Unskilled work
Sexually competent	Sexually incompetent
High birth order status	Low birth order status
Father's work/stable	Father's work/unstable
Inconsistent childhood discipline	Harsh discipline as child
Controlled mood during crime	Anxious mood during crime
Use of alcohol with crime	Minimal use of alcohol
Precipitating situational stress	Minimal situational stress
Living with partner	Living alone
Mobility with car in good condition	Lives/works near crime scene
Follows crime in news media	Minimal interest in news media
May change jobs or leave town	Significant behavior change (drug/alcohol abuse, religiosity, etc.)

Source: Reprinted from the *FBI Law Enforcement Bulletin*, August 1985.

**Table 21.2 Crime Scene Differences between Organized and Disorganized Murders**

Organized	Disorganized
Planned offense	Spontaneous offense
Victim a targeted stranger	Victim/location known
Personalizes victim	Depersonalizes victim
Controlled conversation	Minimal conversation
Crime scene reflects overall control	Crime scene random and sloppy
Demands submissive victim	Sudden violence to victim
Restraints used	Minimal use of restraints
Aggressive acts prior to death	Sexual acts after death
Body hidden	Body left in view
Weapon/evidence absent	Evidence/weapon often present
Transports victim or body	Body left at death scene

Source: Reprinted from the *FBI Law Enforcement Bulletin*, August 1985.

The following organized and disorganized profiles are examples of investigative assessment. These profiles, however, do not provide for local geography, demography, sociology, ethnic make-up, forensics, victimology, or special considerations unique to the local area.

The investigator is advised that these generic profiles are provided as a basic investigative tool for the purposes of focusing investigative resources on specific classifications of personality early in the investigation. (A more comprehensive criminal personality profile can be obtained through VICAP at the National Center for the Analysis of Violent Crime, Behavioral Science Unit, FBI Academy, Quantico, Virginia, 22135.)

Note how Table 21.1 and Table 21.2 compare with these clinical descriptions. However, it should be noted that the organized/disorganized classifications go into

much more investigative detail. The expertise of the criminal profiler rests in his or her ability to identify the clusters of information, which demonstrate the psychopathology of the event and provide an insight into the behavioral make-up of the offender.

### The Organized Offender

**Age:** This offender is approximately the same age as his victim. The mean or average age is usually under 35 years old. However, the age range is from 18 to 45 years of age.

**Sex:** Male

**Race:** He is usually the same race as the victim. However, the investigator should consider local ethnic make-up, victimology, geography, customs, culture, and other considerations unique to the area of the offense, especially in prostitute murders.

**Marital status:** He is married or living with a partner. This type of offender is sexually competent and usually has a significant female in his relationship.

**Education/intelligence level:** This offender is of normal to superior intelligence. He is also street-wise. He has completed high school and may have some college experience. However, in school he was a disciplinary problem. He was known as a troublemaker due to his senseless and aggressive acts against others. He would be considered academically an underachiever.

**Socioeconomic level:** This offender is middle class.

**Mental health history:** None

**Physical characteristics:** He is usually well-built and tends to take good care of himself.

**Residence:** He lives some distance from the crime scene. (The exception to this is in the first offense — many times, it is close to home.) Lives in a middle-class rental. Takes good care of his residence. Married or may be living with a significant female in his life.

**Automobile:** It is a middle-class vehicle. It may be a sedan or possibly a station wagon. The auto may be dark in color and may resemble local police cars. This vehicle will be clean and well maintained. In the event that you believe your offender to be in his early 20s, expect him to drive a red or black “muscle” or macho type vehicle. Expect the offender to have a similarly colored vehicle if a pick-up truck is a masculine status symbol in the area of investigation.

**Employment:** This offender has the ability to handle almost any type of employment. However, he tends to seek jobs that project a “macho” image. Some examples include truck driver, bartender, construction worker, cowboy, security guard, police officer, firearm, paramedic, gunsmith, demolition worker, or possibly a job which brings the offender into contact with bloodshed and death. His work record will be sporadic. He may have a reputation for walking off the job or being fired for unsatisfactory perfor-





**Figure 21.6 SERIAL KILLING.** This female victim was sadistically tortured and killed. Note that the body is partially clothed, but has been arranged so as to expose the breasts and vagina. This homicide was the first in a series of killings by a sadistic sexual psychopath. The body had been purposefully displayed by the offender. (Courtesy of Delaware State Police.)

mance. His job is usually some distance from the crime scene. However, the crime scene may be along the route he takes to and from his place of employment.

**Military history:** He volunteered in the Army or Marines. He may have been discharged under other than honorable conditions. While in the service, he was a disciplinary problem, AWOL, fights, etc.

**Arrest record:** Arrests have been for interpersonal violence, sex offenses. He may have a poor driving record with DWI arrests as well as traffic violations including parking tickets, which have not been paid. The interpersonal violence arrests, if any, will involve sadistic acts and/or beatings beyond the normal “fist fight,” which indicate extreme cruelty and violence. He likes to “hurt” those with whom he is angry and probably planned his assaults with this objective in mind.

### *General Behavior Characteristics*

1. This type of person fits well in society. Contemporary in style.
2. He is a gregarious, out-going person — seemingly the type of person with whom you might want to be friends. However, you soon realize that this out-going person is actually a self-centered individual who cares only about himself. His social nature is actually a facade.
3. He is a good talker, socially competent with good interpersonal skills. He uses these skills in a manipulative manner and usually gets his way with people.



**Figure 21.7 SERIAL KILLING — ORGANIZED OFFENDER.** This is the second victim of the same serial killer. This offense took place approximately 6 months later. She also has been sadistically tortured and killed. However, note the progression of the offense. Sexual sadism is recognized as a progressive disorder. The injuries to this victim were even more severe than those of the first victim. She is totally nude and there is evidence of severe breast assault as well as additional injuries of torture, including paddling. The body has been provocatively displayed in a public area by the killer for the purposes of “shock value.” There were a total of five female victims. (Courtesy of retired Captain George O’Haggerty, New Castle County, Delaware, Department of Public Safety.) *Author’s note:* These offenses, which occurred 6 months apart, took place under the jurisdiction of two separate law enforcement agencies: New Castle County and the Delaware State Police. Early in the case, I was invited to review the investigation with the respective lead detectives, who had immediately recognized the murders as the work of a possible serial killer. Due to the cooperation and intelligent exchange of information among investigators and between the agencies involved, this case was effectively and successfully cleared.

4. He is irresponsible and indifferent to the welfare of society. He only cares about himself and does not think anything of hurting others.
5. He can be described as a ladies’ man; he is known to frequent bars and lounges noted for large numbers of female patrons.
6. He dresses well, wears designer clothes, and is style conscious.
7. He dates frequently with many different women. He has multiple sex partners and is known to brag about his sexual conquests.
8. He is methodical and cunning. He plans his crimes and selects his victims. He selects the site and is known to research his craft.
9. He travels frequently and cruises seeking the right victim. He is known for his mobility and drives a car in good condition. He lives some distance from the actual crime scene. (Note: the exception to this is usually in the first incident, which often is close to the offender’s home or place of work.)
10. Acquaintances know him to have a violent temper and usually try to avoid becoming involved in any arguments with him out of fear or a desire to keep the peace.





**Figure 21.8 SERIAL KILLING — ORGANIZED OFFENDER.** This was the third victim of the serial killer. Her body was dumped into the Chesapeake–Delaware Canal. The killer became aware that the authorities had linked these series of killings through blue carpet fibers recovered from the bodies of the first two victims. An inappropriate news release by someone in the FBI alerted the suspect, who began dumping the bodies in water to eliminate the blue carpet fiber evidence. (Courtesy of retired Captain George O’Haggerty, New Castle County, Delaware, Department of Public Safety.)

11. When insulted or threatened, he will respond with violence — if not immediately, within a very short time. He externalizes his anger and is known to hold a grudge. *This person cannot accept criticism.*
12. He is a “pathological liar” who makes promises he has no intention of keeping and cannot be relied upon to keep his word.
13. He does not meet his financial obligations.
14. He feels no guilt or remorse for his actions. He is an amoral person, who usually blames his troubles on others.
15. He is a “chameleon” personality who leads a *compartmentalized lifestyle*.
16. He does not alter his behavior as a result of punishment. He fails to learn from his mistakes and will often repeat the same offense. When he gets caught, he will say he is sorry. However, what he really means is that he is sorry he got caught.
17. He is a consummate actor. He can play any role he desires. He has the ability to go in and out of feelings, cry real tears, evoke sympathy, and manipulate people’s feelings.
18. He has a history of physical and/or sexual abuse by a female parent or parent figure. This is important information for the structuring of any interviews



of this type personality. (*This type may react to “cycle of abuse” syndrome to explain his crimes.*)

19. The triad is three significant components which form a pattern of behaviors among offenders involved in lust murders and serial killings. These activities include childhood cruelty to animals (for this type of offender, the severe cruelty involves sadistic acts, e.g., disemboweling the family cat), childhood fire setting (for this type of offender, the arson causes damage), and childhood bed wetting or enuresis. These three factors can be used to predict violent behavior, such as antisocial personality disorder.
20. He has high birth order status and may be a first-born son.
21. Childhood discipline was inconsistent.
22. His father's work is known to be stable.
23. This offender may select a victim who resembles a significant female in his life or choose victims of similar appearance, occupation, or lifestyle.
24. He selects victims he can *control* and *dominate*. This type of offender demands a submissive victim.
25. The crime scene will reflect controlled rage. Restraints will have been used. Items such as ropes, chains, tape, belts, pieces of the victim's clothing, gags, handcuffs, and/or blindfolds may be evident.
26. This type of offender will possess a “murder kit,” which will consist of weapons and/or restraints brought to and taken from the scene.
27. There will be evidence of torture, rape, and aggressive acts prior to death. This includes sexual experimentation with live victims.
28. This offender collects “trophy” of his victims as opposed to souvenirs, which are items taken by the *disorganized* type of offender. The trophies may be in the form of costume jewelry or other personal items of the deceased. The *organized* offender has been known to present such items to significant females in his life as a gift, which actually serves as a psychological remembrance of the event and provides the offender with a continuance of the fantasy.
29. He follows the news media and may keep news clippings of the event. He reads the daily newspapers, listens to the radio, and watches T.V. in order to judge the extent of the police investigation. This type of offender concentrates and focuses on police statements.
30. He may communicate with authorities. Sometimes this type of offender likes to bait the police with information or he may communicate through the media. This type of activity on the part of the offender has as its objective the continuation of the fantasy. It also serves to reinforce the offender's feeling of superiority over the police. This type of offender is encouraged by the apparent inability of the police to solve the crime and takes great pleasure in designing his communications to frustrate and confuse the authorities.

*It should be noted that this type of offender can be stressed through the effective utilization of “proactive techniques.” Any subsequent news releases by the agency should be designed with this purpose in mind.*

31. This type of offender may hang around establishments frequented by the police for the purposes of overhearing some shop talk about the crime. He is usually thought of as a police buff or friendly nuisance.
32. He is angry or depressed before the crime.
33. Precipitating situational stressors include problems with money, work, or women prior to the crime.
34. This type of offender may exhibit a fascination with firearms, guns, explosives, etc.
35. He will transport the victim or body.
36. This type of offender will usually conceal the body to hide it from authorities. The exception is the organized offender who wishes to make a statement by blatantly displaying the body for shock value.
37. This offender many times has a collection of S&M pornography and shows an avid interest in torture, sadistic fantasies, and bondage materials. Also, some research indicates a propensity for detective types of magazines which describe particularly brutal sex crimes and the police investigation techniques. In some instances, the crime scene and the activities engaged in by the offender will be similar to specific sadistic acts as portrayed in the pornographic materials collected by the offender. This is important investigative information, especially when considering the search warrant application.
38. This type of offender, who is focusing on the media as well as assessing the police investigation, may change jobs or leave town after a homicide if he feels threatened.
39. He has also been known to involve himself in the police investigation by providing information to authorities or participating in searches for the body.

**Remember: The organized offender plans the crime, selects the site, stalks the victim, and researches his craft. He needs to be in control, especially during the crime. Use this against him.<sup>1</sup>**

### **Ted Bundy: Serial Killer — Offender Profile**

On January 24, 1989, convicted murderer and serial killer Theodore Robert Bundy was finally executed in Florida’s electric chair for the 1978 abduction and murder of 12-year-old Kimberly Diane Leach, the last of his many victims.

Ted Bundy, who has been described as charming, charismatic, intelligent, and articulate, was in fact a *classic organized offender*, who killed over 30 young women in various jurisdictions of the northwestern United States and Florida between 1973



**Figure 21.9 TED BUNDY SHORTLY BEFORE EXECUTION.** Ted Bundy (right) is giving a statement to now retired Supervisory Special Agent William Hagmaier (left) of the FBI. This photo, taken on January 23, 1989, is one of the last photos taken of this infamous serial killer, who was responsible for the deaths of over 30 young women (see interview). (Courtesy of Supervisory Special Agent William Hagmaier, FBI.)

and 1978. He was finally apprehended after a crude, murderous, and animal-like rampage in Florida where he killed two college coeds at the Chi Omega sorority house, left three others for dead, and 2 weeks later ravaged and killed young Kimberly Leach.

Clinically speaking, Ted Bundy was a sexual psychopath who enjoyed killing women in the context of expressing his sadistic sexual fantasies. Obsessed with the idea of total possession of his victims, Ted Bundy killed with impunity until the end, when he regressed into the classic disorganized offender.

In death, the activities and revelations of Ted Bundy will continue to be analyzed as psychiatrists, psychologists, and other behavioral scientists theorize about and attempt to explain the rationale behind this modern day horror. A number of books and articles have been written about Bundy that provide interesting information about his life and his murderous activities.

*The Only Living Witness* (1989 updated version)<sup>26</sup> by Stephen Michaud and Hugh Aynesworth provides an excellent insight into the mind of Ted Bundy, the serial killer, as Bundy relates to the authors, in the third person, how such an offender might think. However, the most dramatic disclosures, which finally revealed the “entity” of Ted Bundy, took place on death row in Florida State Prison during the final hours of Bundy’s life in January 1989. The following information relative to Ted Bundy was provided to me during a personal interview with Supervisory Special Agent Bill Hagmaier on November 20, 1989, and updated in March 1995, and May 2005.<sup>27</sup>

### ***Offender Profile Program***

William Hagmaier, now a retired Supervisory Special Agent, was assigned to the FBI’s Behavioral Science Unit at Quantico, Virginia. He first met Theodore Bundy



as part of the FBI's efforts to gain a better understanding of serial killers and their crimes. Hagmaier became Bundy's official contact with the FBI and maintained intermittent correspondence with the serial killer who, although he refused to admit any guilt, never denied his involvement in the crimes.

### ***Background***

At 41 years of age at the time of the interview, Hagmaier was just a year younger than Ted Bundy. Over a period of some 4 years, Hagmaier visited Bundy at Florida State Prison on a number of occasions. They began to exchange letters and greeting cards regularly. As they got to know each other, they established a relationship based on mutual understanding and trust.

Bundy, according to Hagmaier, perceived himself as very intellectual. He liked to challenge the system and to play mind games. According to Hagmaier,

Bundy even told me that he had tested my motives. However, I was totally honest with him. I even told him I thought he deserved the full penalty of the law for what he had done. I think it became clear to him after a while that I wasn't trying to judge him. I wasn't trying to get any new evidence on him, I wasn't writing a book or trying to profit from him. What I wanted from him was information on the thinking of serial killers.

In life, Ted Bundy became the subject of interest to many writers and clinicians as they attempted to recreate and present the motivations and machinations of such a sophisticated serial killer. It flattered his ego that so many psychiatrists, psychologists, reporters, and writers were interested in interviewing him. As he stated to Hagmaier, "It became almost like an acting role. The more the actor acts in a role, the better he becomes at it, the more he is apt to feel comfortable in it, to be able to do things spontaneously."

Eventually, Bundy began to communicate more freely with Hagmaier. A former law school student, Ted Bundy apparently enjoyed sharing his insights into criminal investigations. In fact, according to Hagmaier, Bundy would provide him with his insights into other murders across the country. Hagmaier stated, "Those he chose to discuss were somewhat similar to his crimes and his insights were very good."<sup>27</sup>

Bundy indicated to the FBI agent that he trusted him. He even told Hagmaier that if he ever decided to be totally candid about his activities, he would ask for him to be there. In the last few days before his execution, Bundy, who had maintained his innocence throughout the appeals process, made a last-ditch effort to prolong his life by offering to provide authorities with additional information and confessions on open homicide cases. At Bundy's request, Agent Hagmaier was contacted and requested to participate in the negotiations.

In fact, Bill Hagmaier was the only law enforcement person that Ted Bundy would see alone, and he insisted that Hagmaier be present when he was interviewed

by other investigators. It was during these last 4 days before execution that Bundy confessed to the murders of over 30 young women and girls.

Hagmaier sat through each of the confessions, which consisted of 11 murders in Washington, three in Colorado, eight in Utah, three in Florida, two in Idaho, two in Oregon, and one in California.

Supervisory Special Agent Hagmaier was directly responsible for obtaining the confessions and facilitating the opportunity for law enforcement officials to meet with Ted Bundy during the week prior to his execution.

### ***Investigative Analysis***

According to Hagmaier, Bundy's attacks on women centered around control and total domination. Bundy wanted his victims to be totally submissive and, in some instances, performed necrophilia shortly after killing them. Hagmaier stated that most of the murders that Bundy told him about were planned with the exception of five or six, which were committed impulsively. In fact, his first killing was an impulsive act of displaced aggression. Bundy's plans involved sadistic fantasies with a combination of sex and violence featuring a dominant male and a submissive and terrified female. All of his victims were raped, traumatized, and then killed.

The victim would be directed to act in a certain way or dress in a certain way thereby affording Bundy a firsthand "experience" of his fantasy. In fact, some of his victims were discovered in clothes they had never previously worn and the bodies indicated that their hair had been washed and fresh fingernail polish had been applied to their fingernails. According to Hagmaier, Bundy admitted that he had his victims recreate the covers of detective magazines or scenes from "slasher" movies for him. Sometimes, he took Polaroid snapshots of the young women during these sessions and kept them as souvenirs. "When you work hard to do something right," he confided to Hagmaier, "you don't want to forget it." Also, Bundy confirmed for Hagmaier a horror that other investigators had long suspected. On the day that he kidnapped Janice Ott and Denise Naslund from Lake Sammamish, he kept both alive for a while. One had to watch the other die.

According to Hagmaier, Bundy would first select a disposal site. He would then plan on targeting a specific type of victim by age, physical appearance, dress, etc. Hagmaier said that Bundy "thought of himself as a predator. He liked the hunt as much as the kill, and he selected what he called "worthy prey," which he described as attractive, intelligent young women with good backgrounds." Hagmaier added, "It was the thrill of the hunt and the challenge. It was competitive for him in a heinous way."

Bundy would approach his victims and make verbal contact while faking an injury. He would have his arm in a sling or would be using crutches while he asked for help. Ironically, Bundy had picked up this technique while participating in a psychology course designed to examine whether people would be more trusting if a person asking for help appeared disabled, wearing a cast or using crutches. During his "official" mode, Bundy would pretend to be a police officer when approaching

potential victims. In fact, he had tried to abduct a young woman named Carol DaRonch in Salt Lake City while posing as a plainclothes police officer.

Bundy told Hagmaier that he usually was drinking before his homicidal hunts. He would kill his victims by ligature strangulation as he was having sex with them and then later dispose of their bodies at a preselected burial site. In his official confessions, Bundy told how he strangled his victims with lengths of rope, sometimes even as he raped them. After killing, he said, he beheaded at least a dozen of the corpses with hacksaws. Sometimes he cut off the hands as well.

Bundy told Hagmaier of the spiritual oneness he achieved with his victims:

*You feel the last bit of breath leaving their body. You're looking into their eyes. A person in that situation is God! You then possess them and they shall forever be a part of you. And the grounds where you kill them or leave them become sacred to you, and you will always be drawn back to them.<sup>27</sup>*

Hagmaier said, "Bundy could never understand why people couldn't accept the fact that he killed because he wanted to kill. He did it of his own volition. Although he chose the time, the place, and method, people were always looking for some mysterious reason for his motivation."<sup>27</sup>

Instead, Bundy had a conscious, detailed plan to kill. He selected the burial site beforehand, he selected a location where he could act upon his fantasy, he stalked a specific type of victim, and then he acted upon his sadistic fantasies dehumanizing the victim. This organized offender was able consciously to keep his heinous criminal behavior separate from his day-to-day "normal" life. According to Hagmaier, "Bundy had an uncanny ability to compartmentalize. He could actually disassociate himself from these brutal and sadistic crimes."<sup>27</sup>

### ***Postcrime Behavior***

According to Hagmaier, Bundy concentrated and focused upon police statements about the crimes and adjusted his activities accordingly. In fact, he revealed that his success at avoiding apprehension was directly attributable to the inappropriate and revealing press releases made by certain police authorities during the investigation as well as the obvious failure of police agencies to cooperate with one another and share information relative to their cases. Bundy returned to certain burial sites available to him and was able to assess the police investigation as well as change the crime scene. This often was based upon the news media information, which had been provided by the authorities. He engaged in dismemberment and decapitation to preclude identification of the bodies.

Hagmaier said that Bundy also engaged in necrophilia with the corpses of some of his victims. The dissection of the bodies was for the purposes of transportation and/or making the crime appear to have a different modus operandi. In some instances, he carried the heads around with him for days. Bundy told Hagmaier that he had as many as four heads of his victims at home with him at one time.



He had even incinerated one of the heads of his victims in his girlfriend's fireplace. He buried some of his victims, placed others in the water, and spread the remains of his victims between burial sites.

Bundy was extremely conscious of the value of forensic evidence and took pains to assure that he had left no traces behind. He told Hagmaier that on one occasion, he had steam-cleaned his car three times to assure that no evidence would be available for authorities. This included cleaning the car inside and out and even changing the car's upholstery.

Ironically, one of the most crucial pieces of evidence introduced at Bundy's trial was forensic evidence in the form of bite marks upon one of the Chi Omega coeds. Despite his clever attempts to avoid detection, Ted Bundy apparently was not aware of the then relatively new technique of forensic odontology. In fact, the Bundy case firmly established the use of forensic dentistry in future murder trials across the United States.

### ***Conclusion***

I have provided this section on Special Agent Hagmaier's interview of Ted Bundy because Bundy represented the epitome of the serial killer. He was an organized offender with a psychopathic personality that enabled him to manipulate people and systems right to the very end. In my professional opinion as an expert in homicide investigation, the information relative to the inappropriate news releases, as well as law enforcement agencies' inability to cooperate with one another, should be considered by law enforcement professionals as an investigative precaution.

### ***Additional Information on Ted Bundy***

In the summer of 1995, Dr. Robert Kepple, Ph.D., who was the chief criminal investigator for the Washington State Attorney General's Office authored a book entitled, *The Riverman: Ted Bundy and I Hunt for the Green River Killer*.<sup>28</sup> The book was based upon Bob Kepple's experiences with the original Ted Bundy killings in Washington State as well as a number of other serial murder cases, upon which Kepple was requested to consult. The focus of the book was Ted Bundy, who offered to assist authorities in the infamous "Green River" serial murder case investigation and the subsequent conversations between Ted Bundy and Bob Kepple. This book provided readers with a valuable resource of information about serial killers and the exploitive nature of a man like Ted Bundy, who attempted to manipulate an entire criminal justice system.

On November 30, 2001, 52-year-old Gary Leon Ridgway was arrested for the murders of 16-year-old Opal Charmaine Mills, 31-year-old Marcia Faye Chapman, 17-year-old Cynthia Jean Hinds, and 21-year-old Carol Christensen. The authorities were able to match Ridgway's DNA to that found on three of the victims. The fourth victim was matched through circumstantial evidence. In March 2001, the laboratory began testing the evidence. The lab was using short tandem repeat testing, or STR, which only became available in 1997. In September 2001, The

Washington State Crime Lab was able to match Ridgway to three of the murder victims based on a buccal cell sample taken from Ridgway in 1987.<sup>29</sup>

In 2005, Keppel revised and updated his book<sup>30</sup> with the details and confessions of Gary Leon Ridgway, the infamous “Green River Killer.” Some interesting points of reference within the book are listed briefly as follows:

- Ted Bundy was reading voraciously from detective magazines and books, gaining valuable information about how police investigators perform their duties (p. 41).
- Bundy would move around the body parts of his victims in order to confuse authorities and escape detection (p. 34).
- Disinformation is probably the best way to lure a serial killer out into the open because serial killers carefully read the newspaper accounts of their crimes (p. 84).
- Serial killers often change their M.O. during a series of killings for a variety of reasons, one of which is to throw investigators off track (p. 149).
- In serial murder cases, usually the first and the last cases are most revealing about the suspect (p. 171).
- Experience in serial murder cases has shown that the highest investigative priority must be given to isolating, as accurately as possible, the dates and times victims were last seen and to delineating their activity patterns up to the times of their disappearances (p. 174).
- Ted Bundy revealed his expertise as a serial killer hunter by explaining to Keppel that Bundy’s preferred strategy for catching the Green River Killer would be to put a newly discovered dump site under surveillance. Bundy explained that the “Riverman” (as he referred to the Green River Killer) would be someone who had a sensitivity to and knowledge of the “scene”: the lifestyle, habits, movements, hangouts, and likes and dislikes of the women he was hunting from the time he started pursuing his victims. Bundy hinted that the Riverman would be part of that “scene” (p. 203).
- Bundy told Keppel that the Riverman had come to know his class of victims and their lifestyles in an intimate way that allowed him to manipulate and lure them to him (p. 204).
- The serial killer does not want to get caught, so he will make changes in his behavior to stay ahead of investigators and avoid publicity (p. 244).
- Leaving a victim nude is the best way to leave the least amount of evidence — no fibers, hairs, etc. (p. 301). The serial killer wants to make sure the authorities are deprived of any evidence. He has read enough detective magazines and newspapers to realize that clothing may provide the police with clues (p. 320).
- Another way of disposing of the clothes according to Bundy was simply to throw items out of the car as he was driving along. His rationale was that

trash is picked along the highway all the time. He also suggested burning the clothes or burying them (p. 321).

- Regarding the interview of serial killers, Keppel's book indicates some of the following information:
  - Bundy emphasized the urgency of immediately interviewing any suspected serial killer as soon as possible before his denial sets in (p. 330).

**Author's note: If the serial killer is caught in the act, such as Joel Rifkin, who was apprehended by New York State troopers with a body in the back of his truck, he will usually be so overwhelmed that he will make statements. In the Rifkin case, authorities were provided with statements linking the suspect to 18 serial murders. Likewise in the BTK case, when the Wichita homicide and KBI agents surrounded Dennis Rader and took him by complete surprise, he was overwhelmed and authorities were able to obtain valuable statements from their suspect.**

- The serial killer has the advantage in an interview situation because only he knows all the facts of the murder. Thus, the savvy serial killer knows when the police are fishing for details and need him to make the case (p. 331).
- Bundy suggested that the detective needs to display an active interest in or a fascination for murder. However, he felt that some crimes were so embarrassing that he could not even talk about them. Ted Bundy talked about how some murders are O.K. and others are too bad to talk about. He referred to these emotional attachments to victims as the killers' soft spots (p. 336).
- The art of interviewing a serial killer was clearly to interview without being judgmental (p. 339).
- Ted Bundy explained why one category of serial killers was willing to confess. Their murdering careers are short in duration and they are called short-term serial killers. They had not had the time to strengthen their psychological framework in order to build up barriers of denial and need for self-preservation, which takes years to accomplish (p. 342).
- Interviewing someone and allowing him to respond in the third person may open lines of communication (p. 350).
- During the hours immediately after the killing, the serial killer is extremely vulnerable to detection (p. 420).<sup>30</sup>

In Bob Keppel's revised book,<sup>30</sup> it is interesting to note that Bundy's profile and predictions about the Green River Killer were quite accurate. I have excerpted some information from Keppel's book as well as newspaper reports and public records regarding some of the significant investigative considerations provided by Gary Ridgeway as he made a deal to spare his life when he confessed to 48 of the Green River killings.



### *Investigative Considerations*

- Ridgway called his quest to kill as many prostitutes as possible a career.
- Ridgway told police that he killed about 60 women — so many that he could not keep track of faces, names, or even where he discarded the bodies.
- Ridgway chose prostitutes because he thought they would not be missed.
- He often left the bodies arranged in clusters — groups of three or four — and used landmarks to remember the locations.
- Sometimes he would return to the sites to bury or hide the bodies better and or to have sex with the corpses.
- Ridgway enjoyed taunting the police with false clues such as the pyramid shaped stones he inserted into the body.
- In one case, he put sausage, trout, and a wine bottle on a woman's body.
- Leaving cigarette butts, chewing gum, and other random items was done to confuse and frustrate the police.
- He also cut the victims' fingernails if they had scratched him so there would not be any DNA evidence.
- Ridgway brought the skeletal remains of two women to a suburb of Portland and left them there in an effort to baffle the task force.
- He would take the victims' jewelry and leave it in the ladies' room at his job. Ridgway got a thrill thinking about his female coworkers wearing the dead women's jewelry.

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### **John Robinson Serial Murder Case — Organized Offender**

John Robinson was a serial killer responsible for the murders of eight young women in Kansas and Missouri. Robinson was also a psychopathic sexual sadist who killed many of his victims, whom he met via the Internet, to fulfill his lust as a self-proclaimed “slave master.” In my opinion, Robinson is the “poster boy” for psychopathy, with his superficial charm and insincerity, his lack of remorse and shame, accompanied by a malignant narcissism.

The investigation, which led to the arrest and prosecution of this psychopath, began with a missing person's case. On March 27, 2000, the Overland Park, Kansas, Police Department notified Lenexa police that a 27-year-old woman named Suzette had been reported missing by her family in Michigan. Suzette had reportedly traveled to Lenexa, Kansas, to take employment with a person named John Robinson who resided in Olathe, Kansas.<sup>25</sup>

Overland Park detectives advised Lenexa police that John Robinson was a 56-year-old ex-con with an extensive financial crimes record dating back to the 1970s and had served jail time on two Johnson County cases.

Detectives also learned that Robinson had been considered a possible suspect in three other missing persons' cases involving young women in 1984, 1985, and 1987. However, in each of those cases, the police investigation into the missing persons had not been vigorously pursued because the families and friends had received letters and correspondence from the women, indicating that everything was fine, after they had been reported missing.

## Overland Park Police Information

- Detectives in Overland Park were well aware of the many scams of John Robinson. They had worked with the FBI in the 1980s relocating a woman who had almost become a potential murder victim. However, they lacked evidence to make an arrest.
- They also worked with a parole officer, who managed to get Robinson's parole revoked, although the revocation was later rescinded.
- When Robinson went to jail, his criminal activities ended for several years.
- The missing persons' cases were relegated to the back burners.
- However, Overland Park immediately realized the significance of the missing persons' cases when Suzette was reported missing.

## Missing Persons' Cases

1. Paula was 19 years old when she was reported missing on September 1, 1984. The case remained unsolved and the police were unable to locate her or develop any evidence of foul play. The missing person's case was still on file in Overland Park. John Robinson's name had come up during the investigation as a possible suspect. However, there was no further evidence.
2. Lisa was also 19 years old when she and her 5-month-old baby, Tiffany, went missing January 11, 1985. The case remained unsolved and the police were unable to locate her or her baby or develop any evidence of foul play. John Robinson's name had also come up during this investigation as someone of interest.
3. Catherine was 27 years old when she was reported missing on June 15, 1987. This case also remained unsolved. The police, who had been advised that her family received two letters from her after she had disappeared, closed the case. Catherine had come to Overland Park to answer an ad for an executive secretary. A "Mr. Dawson" put her up in a local hotel. The family discovered later that Mr. Dawson was actually John Robinson.

## Lenexa Police Investigation

The Lenexa police decided on a task force approach, which would include Overland Park and their Special Investigations Section for surveillance work. Initially, it was thought that Suzette might still be alive. The team concentrated on other occupants of the hotel, associates of Robinson, and the possibility of someone else's involvement. A decision was made *not to contact* Robinson or talk to anyone who might provide information to him. Retrospectively speaking, this was the best decision the task force could have made.

## Tactics

- The investigation began with background checks into Robinson and his activities as well as the victimology of Suzette.
- Surveillance of Robinson was conducted with "Rent-a-Wreck" cars, which were traded off every few days to provide cover.
- Detectives collected Robinson's trash from outside his mobile home. At night, a detective would seize the trash. During the daytime, a detective would ride the trash truck.
- During the investigation, several different persons were "trashed" by the task force.

## Background Information

Lenexa Police learned through their initial contacts about Suzette's involvement in BDSM, (bondage, discipline and sadomasochism). Lenexa police, who had examined Suzette's e-mail



**Figure 21.10 ROBINSON VICTIM IN BDSM PHOTO.** This photo depicts what Robinson was doing to his female “slaves.” This was one of hundreds of images that Robinson had on his computers, which were presented in courts as evidence against him and enabled the authorities to identify additional victims. (Courtesy of Detective Sergeant Rick Roth, Lenexa, Kansas, Police Department.)

account, became aware of several contacts between Suzette and two Canadian women, who also were into the BDSM scene and had befriended Suzette in the past. These women later became crucial sources of information as they assisted the detectives by maintaining e-mail correspondence with Robinson, who was unaware that police were monitoring his activities.

The first couple of weeks brought several positive developments in the “trashing” operations. It was discovered that Robinson had three storage lockers: one in Olathe, close to his residence, and two others in Raymore, Missouri, outside Kansas City. To keep it a secret from his wife, one of the Raymore lockers did not have her name on the lease and was paid for in cash. Cameras and VHS recorders were placed on all three sites. The manager advised police that the unit was rented in the name of Beverly, supposedly John’s sister. Robinson had advised the manager not to send him any billings because he would drop by and pay as needed.

### Investigative Information

- Numerous financial papers enabled police to secure credit card and bank statements.
- On March 1, Robinson had checked out Suzette from the Guesthouse hotel and paid the bill by credit card.
- A mailer receipt from Robinson to a woman in California was found in the trash. The California address was where the postmarked letters from Suzette were originating.

### Internet Information

The Canadian women who had befriended Suzette were contacted by Robinson, who first pretended to Suzette. The Canadian women kept up their correspondence to assist the



Lenexa investigators. Robinson identified himself to one as Jim Turner and as Thomas Anthony Thomas to the other. They also taped their conversations with Robinson.

### **Additional Information**

Lenexa detectives “trashed” Robinson for 2 months and had him under constant surveillance. During this time they learned that Robinson maintained another liaison with a mistress in a duplex in Overland Park. The detectives also followed him when he brought other women to town for his pleasure. Detectives were able to get rooms next door and across the hall from Robinson. The surveillance photographs and overheard conversations proved valuable to the investigation.

### **Robinson, the “Slave Master”**

The police investigation indicated that not only was John Robinson a conman but he fancied himself a “slave master.” During the course of the investigation, authorities would become amazed at his ability to lead several different lives. Robinson, who was married, also continued meeting his mistress, Barbara, at the duplex in Overland Park and continually set up meetings with other women on the Internet who were willing participants in BDSM. Robinson would send them “slave contracts.”

*The slave contract.* The investigators were able to secure a copy of the “slave contract”:

I, \_\_\_\_\_, by my signature and initials on these pages do hereby pledge and give myself as a slave to my MASTER who will hold this contract as his proof of his personal ownership of me.

I pledge my MASTER my complete obedience and will never question his decisions or commands. I hereby offer my MASTER my entire body to use as he wishes for his personal sexual pleasure.

I beg my MASTER to use my breasts and nipples, asshole and pussy, and mouth to serve his needs. I offer myself in this contract knowing that my MASTER will sexually use my body on demand, will discipline me whenever and however he desires, and will punish me as he deems necessary.

As his personal slave, I will follow all rules established by my MASTER and have written each rule as directed by my MASTER. These written rules are hereby made as part of this contract. In addition, I will follow these specific rules:

1. I will always be obedient to my MASTER.
2. I will maintain my body, legs, underarms, and pussy totally shaved at all times.
3. I will contact my MASTER daily before 9:00 A.M. as directed, reaffirm my submission to his dominance, and pledge my body for his personal use.
4. I will not discuss my relationship with my MASTER with others.
5. I will not have physical contact of any kind with anyone but my MASTER.
6. I will maintain a journal in which I will write daily anything I wish to communicate to my MASTER, including my feelings, emotions, concerns, and affection
7. I will at all times maintain my body so that it is ready to be used by my MASTER for his pleasure.
8. I will accept any training my MASTER determines necessary to make me a better and more worthy slave. I understand that my MASTER will provide me with a “safe word” to use and that when I use this word, he will immediately discontinue whatever physical discipline I am receiving. I pledge that I will use this “safe word” with caution and never abuse the privilege.

9. Each day I will kneel in the submissive position I have been taught by my MASTER and beg him to use me for his pleasure.
10. I will complete whatever task my MASTER directs and will train my body as directed by my MASTER.
11. I understand that my MASTER may change or add new rules at any time he desires.
12. From the moment I sign this contract I understand that I am the property of my MASTER and he may do with me what he wishes.

(Following the 12 specific rules was a four-paragraph reaffirmation statement, which was then signed with date of birth and the slave's social security number):

I hereby offer myself willingly and freely to my MASTER as his personal slave. I beg my MASTER to use my body and punish as he desires. I fully understand that my MASTER will at times bind me and inflict pain upon me as training or punishment and I beg him to do this.

I accept the entire responsibility of being a willing slave to my MASTER. I understand that from this day forward I will be owned absolutely by my MASTER and that as his slave I have no rights whatsoever. I further acknowledge that this contract may only be terminated by my MASTER.

I willingly sign this contract and beg my MASTER to accept me as his slave and from this date and for long as he wishes to keep me.

I hereby acknowledge by my signature below and as directed have placed my initials on each page of this contract as confirmation that I have completely examined this document and fully comprehend and agree to abide by all of the conditions set forth herein.

I offer this contract to my MASTER of my own free will and beg my MASTER to accept me as his personal slut, whore, and slave.

### ***Vickie***

"Vickie" was an attractive, blond psychologist from Texas. She had a Master's degree in counseling and a Ph.D. in clinical psychology. She also had an interest in BDSM. She had posted an ad on a BDSM Web site indicating her desire for a strong male who would be her dominant. Robinson, posing as "JR," began exchanging e-mails and phone calls with Vickie during which time he indicated that he was a prominent businessman and would assist her in getting placement with one of his many doctor and psychologist friends. They agreed to meet. JR wired her \$100 and she drove to Kansas City.

### ***Jeanna***

Robinson had made arrangements for another woman named "Jeanna" to come to Kansas. She was unemployed and had placed an ad on the Internet seeking a job and relationship as a submissive. Robinson, using the name Jim Turner, responded and sent his Internet photos along with a "slave contract." They had a sexual encounter at the motel after she was beaten and punished for not assuming the position. She was supposed to be naked and kneeling for him. Robinson had asked for her social security number for the employment he was going to provide her. She provided him with a false set of numbers. Robinson gave her \$100 and told her to return to Texas, close her accounts, and prepare to return to Kansas.

### **Investigative Break**

Jeanna had become concerned and was feeling angry and humiliated by the abuse she received from "Turner." She contacted management and requested the name of the man



**Figure 21.11 SEX TOYS TAKEN FROM “SLAVE.”** This photo depicts the sex toys that Robinson took from one of his slaves. (Courtesy of Detective Sergeant Rick Roth, Lenexa, Kansas, Police Department.)

who had checked her into the motel and was informed that his name was not Turner but Robinson. She was visibly upset. The clerk called detectives to advise them of this incident and shortly thereafter the “slave” called police. Two detectives dressed in uniform and responded to the hotel to interview the woman. Robinson’s house of cards was about to crumble. Jeanna would become a crucial state’s witness. She was debriefed by detectives and relocated to a safe house in case Robinson returned to the motel. The task force now had a live witness who could describe how Robinson lured his victims into sexual torture and dependency before killing them.

### Second Investigative Break

The task force received a telephone call from another “slave” wishing to file charges against Robinson. It was Vickie, the woman who had been under observation on April 23 at the Extended Stay hotel in room 120. She told police that she had been a victim of battery and theft and that Robinson had taken her sex toys.

### Investigative Status in May 2001

The task force monitoring Robinson now had two chargeable incidents involving him, but neither case related to the missing Suzette. The wiretap indicated that another woman was



coming into town from Kentucky to meet Robinson. During the 2-week wiretap, several conversations with his slaves or potential slaves were overheard, but once again no information on Suzette surfaced. In one conversation with the Canadian women, Robinson made some incriminating statements, but certainly not enough to charge him with her disappearance.

## **Tactical Decision**

- Detectives were following Robinson as he visited his mistress as well as three other women at various motels
- At the same time, he was trying to convince a 14-year-old mother of a 1-month-old baby and another young mother of a 7-year-old daughter to come and be his mistresses.
- At this point in the investigation, there was a high level of anxiety surrounding the safety of all potential victims.
- With potentially five different women and two children involved, it was decided that the task force could not safely control the situation.
- The decision was made to arrest Robinson for theft and battery as well as to execute a series of search warrants.

## **The Arrest and Execution of Search Warrants**

On June 2, 2000, Robinson was contacted at his home as officers surrounded the trailer court. The detectives advised him that a complaint had been made against him and that they also had a search warrant. The usual glib and grandiose Robinson was visibly nervous as the police told him that two of his “slaves” had lodged battery and a theft complaints against him.

Detectives found a wealth of evidence in his home. Most of the evidence was contained in his five computers. Forensic computer experts were brought in to assist in extracting the information. The analysis of Robinson’s computers was instrumental in linking the various murders and crimes that Robinson had perpetrated over the years. Detectives also recovered some items during the search that were tied to the Overland Park missing women. However, nothing found in the home led directly to the disappearance of Suzette.

Robinson’s computer images revealed his intense interest in sadomasochism. He also had computer images of his bound victims. Detectives also found a number of books that Robinson used in his various con man schemes as he purported to be different people. Task force detectives then searched his storage locker. Inside the storage locker were numerous items belonging to the missing Suzette.

## **Search of the Kansas Storage Locker**

- Detectives began locating pictures and documents of the missing women from the 1980s.
- As the detectives continued the search, they recovered sex toys, slave contracts, envelopes addressed to the missing women’s relatives, and blank sheets of paper signed with the names of the missing women.
- In the briefcase, the detectives found sealed envelopes addressed to Suzette’s relatives that had future dates written when the envelope would be posted.
- These dates corresponded to birthdays, anniversaries, etc.
- In addition to these items, the detectives discovered Suzette’s birth certificate and other personal items.
- Robinson had also taken a videotape of Suzette.
- Inside the suitcase, the authorities discovered evidence which eventually led to the identification of four additional homicide victims. Eventually they would be identified as Isabella, Sheila and her daughter Debbie, and Beverly.



**Figure 21.12 KANSAS STORAGE LOCKER.** This photo depicts the inside of the Kansas storage locker where Robinson kept the property of Suzette. Inside this locker the detectives found a treasure trove of information, including information about the additional victims of the serial killer. (Courtesy of Detective Sergeant Rick Roth, Lenexa, Kansas, Police Department.)



**Figure 21.13 THE LINN COUNTY FARM.** The search-and-rescue dog teams led authorities to these barrels near a shed. When detectives opened the barrels, they discovered the remains of two of Robinson's victims. (Courtesy of Detective Sergeant Rick Roth, Lenexa, Kansas, Police Department.)





**Figure 21.14 DECOMPOSING BODY OF VICTIM.** This photo depicts the remains of one of the missing persons. The body was subsequently identified as Suzette. (Courtesy of Detective Sergeant Rick Roth, Lenexa, Kansas, Police Department.)

### **The Linn County Search**

On June 3, detectives went to Robinson's 17-acre farm with three search-and-rescue dog teams. The dog teams then systematically searched the grounds and led investigators to some barrels near a shed. When the two barrels were opened, detectives discovered two decomposing bodies. The first body was that of Suzette and the second body was identified as Isabella. Suzette had been found with an additional murder victim.

### **Raymore, Missouri, Storage Unit**

Task force detectives discovered three covered barrels wrapped in plastic with kitty litter around the base. Technicians opened one barrel and found a shoe on top with a foot attached to it. The initial reaction was that the bodies of the three missing women from Overland had been found. However, the detectives realized that Robinson did not have the Raymore locker in the 1980s. Detectives suddenly had that "gut" feeling that the body count had just gone up. These additional victims were identified as Sheila, Debbie, and Beverly.

### ***Sheila and Debbie***

Sheila and her daughter, Debbie, left Colorado in the spring of 1994 to go to Kansas to meet a man named "John." Sheila had told her friends that she met John on the Internet and he offered to take care of her and Debbie. Sheila and her husband had taken good care of their daughter; however, her husband had died in 1991. They received monthly Social Security checks of \$1016, but Sheila needed more money to care for Debbie. When John heard about their problems and their monthly checks, he insisted they come to Kansas. Sheila had asked her neighbor to keep track of her mail, which included Debbie's disability check. After Sheila and Debbie disappeared, their mail was forwarded to a mail room in Olathe, Kansas. The mailbox was rented to a James Turner. Robinson had picked up the checks at that location since 1994.





**Figure 21.15** DECOMPOSING BODY IN BARREL. The second body discovered on the Linn County property was identified as Isabella, who had also been reported missing. (Courtesy of Detective Sergeant Rick Roth, Lenexa, Kansas, Police Department.)



**Figure 21.16** RAYMORE, MISSOURI, BARRELS. This photo shows an investigator processing barrels at the Raymore, Missouri, storage locker. Detectives found three additional bodies at this location. (Courtesy of Detective Sergeant Rick Roth, Lenexa, Kansas, Police Department.)

## ***Beverly***

Beverly, who worked at Western Missouri Correctional Center, was married to a doctor at the facility. Beverly worked at the prison library and met John Robinson while he was an inmate and incarcerated. They became romantically involved. When Robinson left prison, he offered her employment at Hydro-Gro. In 1994, Beverly divorced her husband and left for Kansas. Beverly and Robinson filed corporation papers for Hydro-Gro listing Beverly as president and “James Turner” as secretary. John had rented a box at the mail room in Olathe. Beverly’s ex-husband mailed the monthly \$1000 alimony checks to this location and John received them. Beverly had signed blank pieces of paper for letters that appeared to come from Europe and were mailed to her friends, who did not see or hear from her after 1994.

## **Task Force Investigation Revelations**

- The checks that Robinson received from Sheila and Debbie and Beverly amounted to \$97,748. He bilked the government out of \$105,320.30 for an alleged disability.
- There was considerable financial gain in these crimes.
- Investigators retrieved the letters sent to Beverly’s relatives and recovered Robinson’s DNA.
- Robinson had had one of his mistresses, who spent considerable time overseas, mail these letters as a favor for his daughter.
- This was the same M.O. he used with Suzette. Letters had been sent from California and Mexico to Suzette’s family.
- Robinson also used the mother of a maintenance man who worked at the trailer court to send from Mexico letters which Robinson gave him.

## **Bizarre Twist in the Case**

Detectives were advised to look into the adoption of a little girl by Robinson’s brother Donald in 1985. Donald and his wife were unable to have children and asked his brother John if he could help in the search. John asked his brother for \$2000 up-front money to be paid to an attorney in Kansas City. In January, 1985, John called his brother and stated that he had a little girl for them.

Robinson had killed Lisa for her baby, Tiffany, so he could sell the child to his brother and make an additional fee for arranging the adoption. Donald Robinson had given his brother John an additional \$7000 for the adoption and lawyer’s fees. Donald never met the lawyer; Robinson handled everything

At the time of Robinson’s arrest, Tiffany was a 15-year-old teenager who had been named Heather Robinson by her adopted family. DNA analysis and footprints revealed her to be Tiffany. Apparently, John had duped his sister-in-law and his brother into believing the adoption was legitimate; they were innocent pawns in one of his financial schemes.

In order for John Robinson to find the “right” baby for his brother, he created the scam of putting up single women with newborns at local hotels. That was how he gained access to Lisa and Tiffany. John was looking for a white baby. However, in order to satisfy the requirements of various agencies, he was required to take in black females as well.

## **Disposition**

John Robinson was charged with the murders of Lisa, Suzette, and Isabella in Johnson County, Kansas. He was charged with the thefts and batteries of the two women from Texas, which broke the case. Robinson was not charged in the disappearances of Paula and

Catherine due to lack of evidence. He was also charged in Cass County, Missouri, with the murders of Beverly, Sheila, and Debbie. He went to trial in Kansas in 2002 and was convicted of the deaths. He received the death penalty.

In October 2003, John Robinson admitted to the Missouri murders of Beverly, Sheila, and her 16-year-old daughter Debbie to avoid the death penalty. Robinson also admitted killing two women in the 1980s whose bodies were never found. Those women were identified as Paula and Catherine. The remains of Lisa have never been found. John Robinson received a sentence of life in prison without parole for each count.

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### ***Acknowledgments***

For their contributions to this information and materials for this particular case in this textbook, I wish to acknowledge the following members of Lenexa, Kansas, Police Department: Chief Ellen Hanson, Captain John Meier and Detective Sergeant Rick Roth, along with Detective Jack Boyer, Detective Dave Brown, Detective Perry Meyers, Detective Dawn Layman, Detective Rick Dugan, and Detective Brad Hill; the following members of the Overland Park, Kansas, Police Department: Captain Keith O'Neal and Detective Greg Wilson, along with Sergeant Joe Reed, Detective Mike Jacobson (computer forensics), Detective Scott Weiler, and Detective B.J. Hohnholt. I also wish to acknowledge the excellent prosecution work performed by District Attorney Paul Morrison and Assistant District Attorney Sara Welch. In addition, I want to acknowledge the assistance and help I received from two very close friends in the Kansas Bureau of Investigation: Director Larry Welch and Assistant Director Larry Thomas.

### **The Disorganized Offender**

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**Age:** These offenders range in age from 16 to their late 30s. The age of the victim does not matter to the offender. The selected victim is simply a victim of opportunity who happens to be at the wrong place at the wrong time. Research indicates that many of these offenders experience their acting-out phase between the ages of 17 and 25.

**Sex:** Male

**Race:** The offender is usually the same race as the victim. However, the investigator should consider the local ethnic make-up of the area, victimology, geography, customs, culture, and other considerations unique to the area of offense, especially in prostitute murders.

**Marital status:** He is single.

**Education/intelligence level:** He is a high school drop-out or has possibly attended community college. His intelligence is below average. He is considered a marginal student.

**Socioeconomic level:** He is lower to middle class.

**Mental health history:** This type of offender may have some history of mental disorders or have been treated for depression as an outpatient. If he did



receive any professional help, he may have been classified as exhibiting schizoid behavior.

**Physical characteristics:** He is thin, possibly with acne or some physical malady that contributes to an appearance different from that of the general population.

**Residence:** He lives close to the area of the crime scene, usually alone in a rental property or with his parents or a significantly older female relative.

**Automobile:** Generally, this type of offender usually does not own a vehicle. However, if he does, it will be an older model that looks junky inside and out. The investigator should consider his area of jurisdiction. If the area is rural, expect the offender to have an older type of vehicle, with a messy interior and not well maintained. If the area is within an urban setting, the offender will probably not own a car.

**Employment:** This type of offender may not be employed. If he is, he will most likely seek out unskilled work. His job will be a simple or menial one, requiring little contact with the public, e.g., dishwasher, bus boy, janitor, maintenance man, stock boy.

**Military history:** He probably has none. If he was in the military, it was probably in the army and he may have been discharged as unsuitable.

**Arrest record:** His arrests have been for voyeurism, fetish thefts, burglary, exhibitionism, and other nuisance offenses.

## General Behavior Characteristics

1. This offender is someone who has a societal aversion. He rejects society, which he feels has rejected him, and is considered socially inadequate.
2. A loner, he becomes secluded and isolated. He is quiet and withdrawn and might be considered a recluse.
3. An underachiever, he has a poor self-image and his clothes are dirty and messy.
4. He has poor personal hygiene habits.
5. His acquaintances consider him weird or odd. He may have delusional ideas and seems strange in appearance and behavior. He is the "little Johnny Weird" of the neighborhood.
6. He internalizes hurt, anger, and fear.
7. He is sexually incompetent and may never have had a sexual experience with someone of the opposite sex. He does not date; interpersonal relationships are difficult for this subject.
8. This offender is heavily into solo sex-related activities (substitute sex). Voyeurism, exhibitionism, panty thefts, autoerotic activities, sadistic fantasies, pornography, and masturbation are used to compensate for his lack of interpersonal relationships.
9. He is nocturnal, a night person.
10. He has no close personal friends.



**Figure 21.17 LUST MURDER — DISORGANIZED OFFENDER.** The woman, who was walking her dog on the beach, became a victim of a “blitz-style” type of attack by a disorganized offender, who used a machete in the attack. (From the author’s files.)

11. This offender usually lives alone or with a significantly older female relative.
12. He has low birth order status.
13. His father’s work is known to be unstable.
14. This offender experienced harsh discipline as a child.
15. During crime, his mood is anxious.
16. He makes minimal use of alcohol.
17. He has minimal interest in the news media.
18. This type of offender lacks the cunning of the organized offender.
19. He commits the crime in a frenzied, blitz-style of attack, attempting to silence the victim quickly, usually with blunt-force trauma. Sudden violence to the victim and death follow quickly.
20. His is a spontaneous offense. The crime scene is tightly clustered. The weapon is usually one of opportunity and evidence will usually be found. The weapon may be present and the body left at the location of assault.
21. The crime scene will be random and sloppy. There may be evidence of blood smearing on perpetrator, the victim, or surface areas at the scene, as well as uncontrolled stabbing or slashing.



**Figure 21.18 POSTMORTEM MUTILATION.** The offender then eviscerated the woman and engaged in postmortem mutilation. He removed organs from the woman's body and threw them into the sea, according to a witness who was on a boat off shore. (From the author's files.)

22. There may be depersonalization of the victim, with extreme assault to the face.
23. Postmortem bite marks to breasts, buttocks, neck, thighs, and abdomen may be present.
24. Postmortem dissection of the body may be inflicted, which is exploratory in nature. Investigators may find mutilation of the body and evidence of anthropophagy, the consumption of the victim's flesh and blood.
25. Sexual acts may be performed with the body: insertion of foreign objects into the anal or vaginal cavities; masturbation upon the victim or her clothing; ejaculation into stab wounds; and sexual experimentation. *Usually there is no penis penetration of the body by this type of offender.*
26. The crime scene may be isolated, but no real effort is made to hide or conceal the body. *The crime scene will be in proximity to the offender's residence or place of employment.*
27. The body may be positioned by the offender for some symbolic purpose.
28. There may be evidence of ritualism. This type of offender may be expressing some sort of psychosexual need in the symbolic positioning of the body or



in some ritualistic aspect of the crime scene. Because this offender is known to be extensively involved in pornography and solo sex-related activities, it would be good investigative technique to record this psychological aspect of the crime scene. Later, this information may serve as the basis for a search warrant of the suspect's home.

29. This type of offender may take a *souvenir*, which can be an object or article of clothing taken as a remembrance. In some instances, the souvenir may even be a body part. *This type of offender has been known to return souvenirs to the gravesite or the crime scene.*
30. This type of offender has been known to undergo a significant behavior change after the crime — drug and/or alcohol abuse, religiosity, etc.<sup>1</sup>

This list can be utilized by the investigator in making assessment relative to the type of personality that may be involved in a particular investigation.

## **Criminal Personality Profiling — The Signature Aspect in Criminal Investigation**

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*The signature aspect of a violent criminal offender is a unique and integral part of the offender's behavior. This signature component refers to the psychodynamics, which are the mental and emotional processes underlying human behavior and its motivations.*<sup>31</sup>

Essentially, our human sexuality is established during our psychosexual development through conditioning and experience. Healthy and unhealthy sexual behaviors are learned behaviors in which the individual develops a perception of what is sexually stimulating and satisfying.

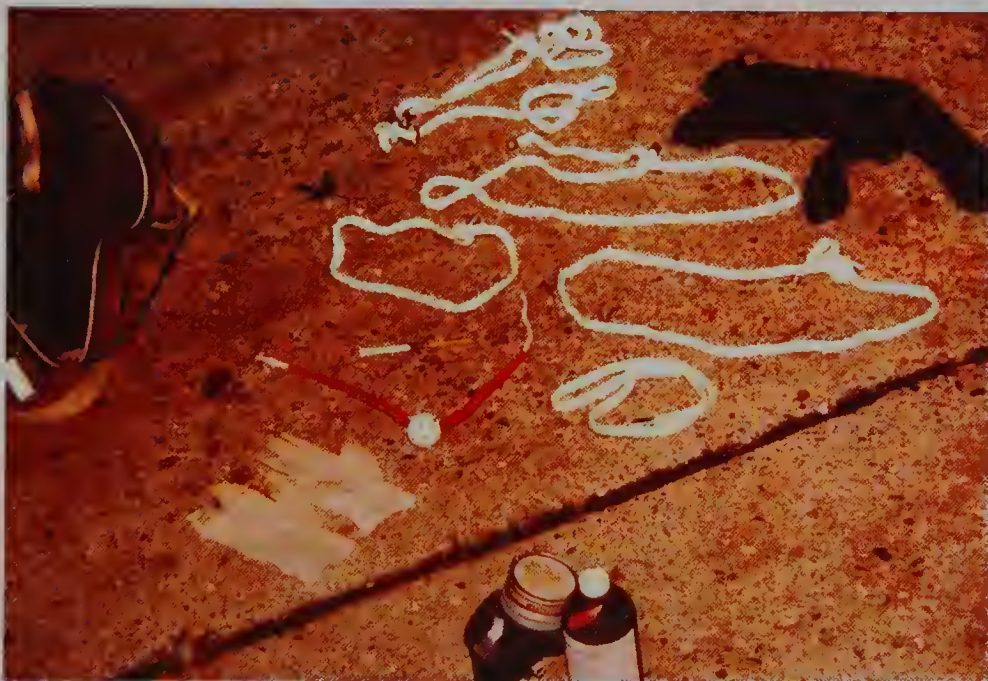
### **Clinical Perspective**

Clinically speaking, there is a behavioral distinctiveness in human sexuality. This unique aspect of our sexual arousal and response system accounts for why individuals differ in their sexual behaviors and engage in a specific series of behavioral patterns. In sex-related criminal incidents, the offender is often subconsciously “acting out” a sexually significant behavioral pattern which reflects his underlying personality, lifestyle, and developmental experiences.

Dr. John Money refers to the “lovemap” as “a developmental representation or template in the mind and in the brain depicting the idealized lover and the idealized program of sexueroetic activity projected in imagery or actually engaged in with that lover.”<sup>32</sup> These are related to the natural human development of the individual and are influenced by biological aspects as well as the environment: nature and nurture. According to Dr. Money, “Like a native language, a person's lovemap also bears the mark of his own unique individuality, or accent...it is usually quite specific as to details of the physiognomy, build, race, color of the ideal lover, not to mention temperament, manner, and so on.”<sup>29</sup> The lovemaps may be extremely detailed in specifying certain



**Figure 21.19 EXAMPLE OF PARAPHILIA MANIFESTED IN A CRIME SCENE.** This serial killer, who had a background of fetish burglaries and paraphiliac attraction to women's high heel shoes, propped his victim with these red shoes taken from her closet and then posed her in the crime scene. (Courtesy of retired Detective Dale Foote, Bellevue, Washington Police Department.)



**Figure 21.20 MURDER KIT.** This photograph depicts the typical contents of a rape or murder kit. The masked offender had gained entry into the bedroom of a young woman while she was asleep. The contents of his "kit" were as follows: a camcorder with an X-rated porno tape, black nylon stockings and "fishnet" stockings, a pair of gloves, a bottle of chloroform with mask, a syringe containing acepromazine (a horse tranquilizer), a bondage gag, two clothes pins, and a number of pretied ropes with slip knots. (Courtesy of retired Chief Thomas G. Witten, Sugarcreek Township, Ohio, Police Department.)



characteristics which take precedence over others, such as an attraction to thighs, buttocks, bosom, torso, face, teeth, eye color, hair, skin, weight, height, and so on.<sup>32</sup>

Sexual deviation occurs when these lovemap patterns become derailed. Child molesters, rapists, deviant murderers, and others with peculiar erotic interests are an example of this phenomenon. The formulation of sexual deviance can usually be traced to aberrant erotic development — for example, strict antisexual upbringing, sexual abuse of a child between the ages of 5 and 8 by the primary caregiver, overexposure to sexually stimulating behaviors, and/or inappropriate and pathological family dynamics. According to Money,

Paraphilias are a mental template or lovemap that in response to neglect, suppression, or traumatization of its normophilic formation, has developed with distortions, namely, omissions, displacements, and inclusions that would otherwise have no place in it. A paraphilia permits sexueroetic arousal, genital performance, and orgasm to take place, but only under the aegis, in fantasy or live performance, of the special substitute imagery of the paraphilia.<sup>32</sup>

These derailed lovmeps are the precursor for sexual deviance and, in the case of the serial killer, the “game plan” for murder.

Human behavior, although unpredictable, is often repetitive. Research has indicated that certain actions engaged in at the homicide crime scene by certain types of personalities will be repeated in other homicide investigations. The homicide detective who has enhanced his experience with a comprehension of the psychodynamics of human behavior will be able to develop a base of knowledge that can be applied to the review of similar cases.

### **Investigative Perspective**

From an investigative perspective, it is important to note that an offender’s modus operandi (M.O.), or method of doing things, is a learned behavior and tends to remain consistent. However, these types of behaviors are developed over time and change as offenders gain experience, build confidence, or become involved with the criminal justice system. The “signature” component may also change to some degree. However, the change usually involves a progression of violence and sexual mutilation, which is consistent with the paraphilia sexual sadism seen in lust murders.

The M.O. involves actions necessary to accomplish the activity while the signature aspect represents the underlying emotional “needs” of the offender. These needs or, as Money would refer to them, “lovemaps” usually present as behaviors and actions that go beyond those necessary to accomplish the crime. When dealing with an offender who is a sexual sadist, one can expect to see a progression of violence as the series evolves.

Understanding and recognizing the modus operandi and the signature aspect of the event can enable the professional investigator to link events in a series. The combination of M.O. and signature provides the investigator with identifiable patterns. In





**Figure 21.21 SIGNATURE POSING.** This photograph illustrates a “signature-type” posing. This is one in a series of open serial murder homicides. This victim was not raped because she was menstruating. However, the offender had a specific signature. He would rape and sodomize his victims and then hang them by their neck in the crime scene using ligatures that came from the scene. (Courtesy of Captain Steve Denton, CID, Spartanburg County, South Carolina, Sheriff’s Office.)

my experience, most offenders are likely to use the same M.O., which has been successful for them in the past. It is a human behavior trait that often is overlooked in the heat of a major case investigation. This does not mean that a serial killer will not change his M.O. However, the signature component remains constant.

### Linkage Blindness

*Linkage blindness* is defined as an investigative failure to recognize a pattern which links one crime with another crime in a series of cases through victimology, geographic region or area of events, the “signature” of the offender, similar M.O., and a review of autopsy protocols.<sup>31</sup>

### Investigative Application of the “Signature” Aspect

When an offender displays behavior within the crime scene and engages in activities which go beyond those necessary to accomplish the act, he is revealing his *signature*. These significant personality identifiers occur when an offender repeatedly engages

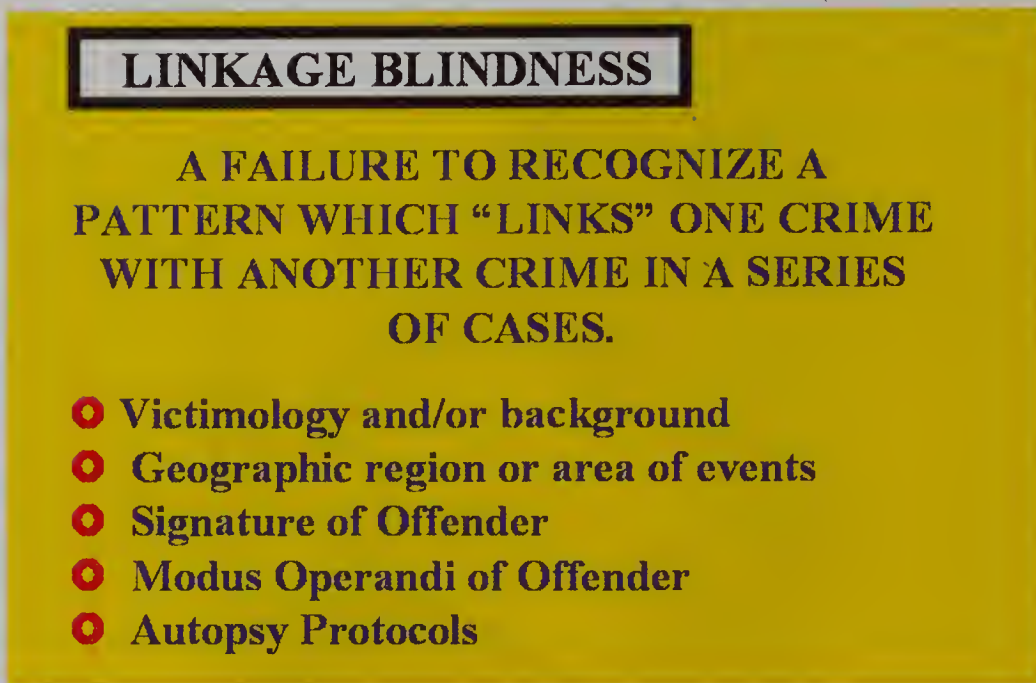


Figure 21.22 LINE DRAWING — LINKAGE BLINDNESS. (From the author’s files.)

in a specific order of sexual activity, uses a specific type of binding, injures and/or inflicts similar types of injuries, displays the body for shock value, tortures and mutilates his victim, and engages in some form of ritualistic behavior.

In the “Vampire Killer” case, which appears earlier in the chapter, the killer was targeting young women whom he would eviscerate. Investigation revealed that the offender was removing blood and body parts from his victims. The sexual motivations were obvious in the mutilations. The other activities engaged in by the offender were so absurd and bizarre that authorities were immediately able to link the incidents. However, the motivation underlying this series of crimes appeared totally irrational. The offender, who was seemingly unconcerned about apprehension, left an abundance of physical evidence at his crime scenes. The detectives properly focused their investigation on someone who would be described as a psychotic or *disorganized* individual.

One of the most common signatures is that of the psychopathic sexual sadist, who involves himself in complete domination of the victim. I have reviewed and consulted on a number of serial murder cases that have revealed this signature aspect of the crime.

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## Case History

Timothy Spencer, who was responsible for the sexual murders of four women, was a cat burglar and rapist who stalked his victims. He was able to enter their homes while they were asleep.

On September 19, 1987, the body of a 35-year-old woman was found dead in the bedroom of her first-floor apartment in Richmond, Virginia. She had been strangled to death and there was evidence of sexual activity at the scene.



**Figure 21.23 SIGNATURE ELEMENT IN A SERIES OF STRANGULATIONS.** This victim was found face down with her hands tied behind her back and a ligature around her neck. Four other female victims were found similarly bound and positioned face down in the crime scene. (Courtesy of retired Detective Joseph Horgas, Arlington, Virginia, Police Department.)

On October 3, 1987, 2 weeks later, a 32-year-old female physician was found dead in a second-floor bedroom closet in her home in Richmond, Virginia. She also had been strangled, and there was also evidence of sexual activity at the scene.

Police investigation indicated that in both cases the murderer had entered the homes of the women by cutting a screen and climbing through an open window. In the first murder scene, police recovered semen samples from the bedding of the victim. In the second murder scene, the killer left semen on the victim's slip.

On November 22, 1987, a 15-year-old woman was found dead in her parents' apartment in Chesterfield County, which is just south of Richmond city limits. The killer had entered her bedroom through a window as the family was asleep. The victim had been strangled, her hands were tied behind her back, and once again, there was evidence of sexual activity at the crime scene.

Nine days later and over 100 miles away in Northern Virginia another rape–homicide was being investigated by the Arlington County Police. On December 1, 1987, a 44-year-old woman was found dead on her bed on the second floor of her two-story home in Arlington County in Northern Virginia. She had been strangled and there was evidence that she had been raped. Police recovered semen from the victim's nightgown and a sleeping bag at the crime scene.

In each of the cases, the offender made sure that the victims, who were married or had a relationship, were home alone when he attacked. He exerted total control over these victims and spent considerable time in their homes. His behavior with the victims and his actions in the crime scene indicated that he was a classic sexual psychopath.

The DNA evidence in this series of rapes and murders was crucial because it forensically linked the cases. However, the DNA analysis also enabled prosecutors to pass the legal test for signature crimes, meaning enough similarities existed to believe that the crimes were committed by the same person.



In each of the incidents, the women had been raped and sodomized by their attacker after he had accosted them in their sleep. Each victim had been strangled to death with a ligature. Each of the victims was found face down and had been similarly bound with her hands tied behind her back. This signature-crime tactic was used in each of the subsequent prosecutions as well as the penalty phase hearings on each of the convictions.<sup>33</sup>

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## Case History

A series of murders occurred within Washington State in 1990. The murders began in Bellevue, Washington, in June and ended within King County in September. Initially, authorities were not aware of the linkage of these cases, due to a delay in the analysis of pubic hair evidence retrieved from the first two crime scenes. In addition, the authorities were misdirected with the emergence of a more viable suspect in the second murder investigation. However, when the evidence analysis of the hair had been completed and the initial suspect in the second case was eliminated, the authorities were presented with a classic signature-type series of events.

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It is important to note that in the real world of conducting an active homicide investigation, we do not have the luxury of retrospective knowledge. Many alleged “experts” who criticize police investigations are “smart” after the fact, when *all* of the information is finally available for review. When you examine this case chronologically and assess the information that authorities had at the time they were conducting their inquiry, you can understand how these cases were not initially linked.

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## Case Number 1

The first victim was a 27-year-old white female, whose nude body was discovered in the parking lot of a restaurant. Her body was found face up, lying on her back with her legs crossed at the ankles. Her face was partially covered with a lid from a plastic cup, which covered blunt-force injuries to her head. There was also evidence along with scratch marks on the side of her neck that her necklace had been used as a ligature. In addition, there were postmortem drag marks on the high points of her body, indicating that she had been dragged. The assailant had posed the victim’s body with the victim’s hands crossed on her chest with a pine cone beneath her fingers. The police recovered foreign pubic hairs on and near the body. The medical examination revealed that she had been vaginally raped and anally sodomized with an unknown object.

Her clothing was missing along with any identification. As a result, her identity remained unknown until June 27, 1990, when she was identified as a missing person from Redmond, Washington. She had last been seen in the early morning hours of June 20 at a popular bar and restaurant. Her car was later located in the parking lot of the establishment, and her pocketbook was discovered in the restaurant’s lost and found.<sup>34</sup>

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## Signature Aspect

The body of a nude female, who had been sexually assaulted (raped and anally sodomized with an object), was posed with a prop (the pine cone) beneath her



**Figure 21.24 SIGNATURE ASPECT — VICTIM NUMBER 1.** This victim, who had been raped and anally sodomized with a foreign object, was posed and propped by the killer for the purposes of “shock value.” This murder was the first in a series of brutal sex-related homicides that escalated in violence as the killer progressed. (Courtesy of Detective Marv Skeen, formerly with the Bellevue, Washington, Police Department, and now with the State Attorney General’s Office in Washington State.)

hands. The body had been positioned so that the victim was lying on her back, face up, thereby exposing her breasts and genitalia. Semen and sperm were recovered along with unknown foreign pubic hairs. This pointed toward an organized offender, who was able to “con” the victim away from a safe area. She was raped at one location and then disposed of at another location. Her body was displayed for shock value and her clothing was taken to hinder identification.

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## Case Number 2

The next case also occurred within the city of Bellevue. On August 9, 1990, the body of a 32-year-old white female was discovered in her bedroom by her 13-year-old daughter. The victim’s nude body had been displayed on the bed with a pillow over her head. The barrel of a shotgun had been inserted into the victim’s vagina. The body was totally nude except for a pair of red high-heel shoes, which had been placed upon her feet by the offender. The body had been positioned so that whoever walked into the room would be confronted with this grotesque sight. There was evidence of blunt-force trauma to the head and manual strangulation. Although there was no evidence of vaginal rape or sodomy, there were foreign pubic hairs found on the mattress and the rug in the victim’s bedroom. Two expensive rings were missing from the hands of the victim.<sup>35</sup>

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**Figure 21.25 SIGNATURE ASPECT — VICTIM NUMBER 2.** This victim was found in the bedroom of her home with a shotgun placed into her vagina. She also had been posed and propped for shock value. The injuries on this victim were much more extensive than those of victim number 1 and there was evidence that the offender had spent an inordinate amount of time with the victim. (Courtesy of retired Detective Dale Foote, Bellevue, Washington, Police Department.)

### *Signature Aspect*

The body of a nude female, who had been sexually assaulted (the victim was nude, object inserted into vagina, foreign pubic hairs), was found in her residence. There was no evidence of forced entry. The body had been displayed and then posed with props (insertion of the shotgun into the vagina and the red high-heel shoes on her feet). Foreign pubic hairs were retrieved from the crime scene. The offender had managed to enter her home, assault and kill her, and then spend a considerable amount of time in the crime scene as he engaged in unknown conduct with the body. The body was face up, exposing her breasts and genitalia, and posed for shock value. The injuries to this woman's head were more extensive and the posing more degrading than for victim number 1. Two expensive rings were stolen from the victim's hand.

However, in this case, the police had good reason to suspect a former boyfriend, who made an excellent suspect due to his activities prior to the murder. In addition, when the police attempted to question him, he hired an attorney, who refused to discuss the case with the authorities. The pubic hair from the first case as well as the present case was not analyzed until September. In fact, this case, as presented to authorities, appeared to be a classic interpersonal violence-oriented type dispute and assault.





**Figure 21.26 SIGNATURE ASPECT — VICTIM NUMBER 3.** This victim was also found in the bedroom of her residence. She also had been posed and propped for shock value. The injuries were much more extensive than those of victims number 1 and 2, and there was evidence that the offender had spent an inordinate amount of time with the victim. In addition to the extensive head injuries, the killer engaged in “piquerism” with the victim’s body, inflicting approximately 241 postmortem stab wounds throughout her body, which indicated a progression of violence. (Courtesy of Detective Larry Petersen, King County Police Department, Seattle, Washington.)

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### Case Number 3

The next case took place within King County. The body of the 24-year-old white female victim was discovered in her bedroom on September 3, 1990. Her nude body had been positioned under the bed covers with a pillow covering her face. There was a vibrator placed in the victim’s mouth and next to her head was a book entitled *More of the Joys of Sex*. There was also evidence of blunt-force trauma to the victim’s head. When the police removed the bed covers, they saw that the body had been placed spread-eagle on her back, with a series of postmortem slashings and stabbings. The victim’s body was face up, thereby exposing her breasts and genitalia. Crime scene technicians recovered a foreign pubic hair, which was adhered to one of her stab wounds. There was evidence that the offender had spent considerable time in the crime scene. The cause of death was blunt-force trauma to her head.

However, the offender felt the need to inflict over 241 postmortem stab wounds throughout the victim’s body. There were frontal wounds into the side of the victim’s neck, into her chest, breasts, abdomen, and upper thighs. There were a series of dorsal wounds into the back and buttocks and along both legs. Even the bottom of the victim’s feet bore evidence of this piquerism. An expensive ring was missing from the victim’s finger.<sup>36</sup>

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### *Signature Aspect*

The body of a nude female, who had been sexually assaulted (nude victim, piquerism, foreign pubic hairs), was found in her residence. There was no evidence of



**Figure 21.27 PIQUERISM.** Postmortem stab wounds throughout the body. Sexual inclinations to stab, pierce, or cut. Obtaining a sexual gratification from the shedding of blood, tearing of flesh, and/or observing such pain and suffering of a victim who is being subjected to this activity. (Courtesy of Detective Larry Petersen, King County Police Department, Seattle, Washington.)

forced entry. The body had been sexually displayed and then posed with props (insertion of the vibrator in the victim's mouth and the book, *More of the Joys of Sex*, placed next to her head). A foreign pubic hair was recovered from her body. The offender had managed to enter her home, assault and kill her, and then spend a considerable amount of time at the crime scene. The infliction of over 240 postmortem wounds throughout the body took a considerable amount of time. The offender had degraded the victim in death and had posed the body for shock value. The injuries to this woman's head were much more extensive and the posing, with the vibrator in her mouth, more degrading than for victim number 2. A ring was stolen from the victim's hand.

### The Suspect

The suspect was a 33-year-old black male. He was a known burglar who as an adolescent had a history of fetish burglaries and other nuisance offenses. He was developed as a suspect when he was found in possession of a gun that had been taken from a residence near the last homicide. The pubic hairs recovered from each of the crime scenes were Negroid in origin and were found to match the suspect. The subject, who was a police buff, was fascinated with police work. He had police scanners and told people he worked for the police and the FBI. He was also fascinated with serial murder cases and reportedly was well read on the Ted Bundy and Green River cases. He followed the news stories very closely and had cut them out of the paper as well as the photographs of the victims. He would compare them

to each other and ridicule the police techniques. He had stated to a friend that “the only way the police will catch the killer is with trace evidence.”

## **Evidence**

Each of the victims had Negroid hairs on or near her body. The semen and sperm found on the first victim were matched to the suspect through DNA. The police located a vehicle used to transport the first victim and discovered blood in the front seat cushion. This blood matched the blood of the first victim through DNA analysis. Police located a witness who identified one of the rings stolen from the second victim. The suspect had tried to sell the ring to the witness. The ring stolen from the last victim was traced back to the suspect.

## ***Signature Aspect of the Crimes***

Each murder was sexually motivated. Each of the victims was discovered totally nude. Each victim’s body had been positioned face up to expose the breasts and genitalia. Each victim had been posed and/or positioned after death with props and/or objects inserted in or placed near or on her body. It was apparent that the killer spent a considerable amount of time with each of the victims and engaged in activities well beyond those necessary to kill the victims. In fact, a classic progression of violence was inflicted on each new victim. The cause of death for each of the victims was blunt-force trauma. In each case, trophies had been taken from the victims, e.g., clothing, rings, jewelry. Each crime scene revealed Negroid pubic hairs, suggesting a black offender.

## ***Practical Examples of Signature Activity***<sup>24</sup>

It should be noted that the possible examples of signature activity are incalculable because it is based on an offender’s fantasies, which could encompass just about anything. However, I have listed some examples based upon the cases with which I have been involved in my capacity as a homicide consultant:

- An offender slowly cuts the clothes from his victim’s body.
- An offender rips or tears the clothes from the victim’s body.
- An offender makes the victim remove her clothing.
- An offender uses the victim’s undergarments to bind her.
- An offender exercises “total control” over his victim.
- The offender binds his victim in an explicit manner, e.g., hogties, slip knots, noose, ligature around the neck.
- An offender uses a specific type of binding material, e.g., rope, duct tape, adhesive tape, parachute cord, hemp, wire, electric cord, nautical rope. This can also have significance as to employment.
- An offender gags and blindfolds his victim.
- An offender rapes his victim while her hands are tied behind her back.
- An offender binds his victim nude.



- An offender engages in postmortem binding.
- An offender engages in sexual assault with the bound victim.
- An offender follows a sequence of sexual assault activity with the victim, e.g., anal assault followed by forced fellatio and then rape.
- An offender dresses his victim in clothing or undergarments that he brought to the scene and/or do not belong to the victim.
- An offender brings along sex toys or instrument to use on the victim.
- An offender masturbates on his victim's body
- An offender brings petroleum jelly to use in his sexual assault.
- An offender poses the body in a specific manner, e.g., nude, legs spread, buttock raised, face down, face up, in a sleeping position, covered, re-dressed.
- An offender stalks a specific type of victim.
- An offender engages in antemortem mutilation and torture.
- An offender engages in postmortem mutilation.
- An offender engages in necrophilia.
- An offender engages in anthropophagy (consumption of blood and/or flesh).
- An offender removes body parts, e.g., breast, nipples, vulva, penis, buttock, hands, feet, head, scalp.
- An offender displays the victim's body parts for shock value.
- An offender places the body parts of his victim into the mouth or a cavity of the body, e.g., stuffing the severed breast into the mouth of the victim, jamming the severed penis down the neck of the decapitated victim.
- An offender props the body with some item from the scene or with something he brought to the event. Any posing, propping, or insertion of objects into the sexual orifices or portions of the body is considered signature.
- An offender multiply stabs his victim in sexual areas, e.g. breasts, buttock, chest, genitalia, overkill types of injuries.
- An offender uses a certain method to kill his victims (strangulation, blunt-force trauma, stabbing, shooting, drowning, electrocution, burying the victim alive, etc.).
- An offender targets a female victim with a child. Because of her child, the victim will cooperate with his demands.
- An offender climbs into the victims' beds as they sleep, takes them by surprise, and attacks them in their beds.
- An offender manually strangles his victim.
- An offender uses ligature in his strangulations, e.g., rope, clothing, or something he brought to the scene.
- An offender shoots his victims in specific areas, e.g., head, chest.
- An offender uses a specific type of weapon.
- An offender uses blunt-force trauma to the head or engages in savage beating of his victims.
- The offender engages in "play bondage" with a willing partner and when the victim is helpless and vulnerable, the offender engages in physical torture.

- The offender shows a videotape or plays an audiotape of his last victim, which indicates what is going to happen to his current victim.
- The offender keeps his victim as a prisoner or “sex slave.” He keeps the victim in a cage or place where the victim is restrained, such as a coffin-like box.

### **Conclusion**

The homicide detective who has enhanced his experience with a comprehension of the psychodynamics of human behavior will be able to develop a base of knowledge which can be applied to the review of similar cases. The ability to “read” the crime scene and recognize the “signature” of an offender can be extremely instrumental in the investigative process.

**Remember: A sexual fantasy is a fantasy and, as such, cannot become a reality. However, the harder one tries to duplicate or reproduce the fantasy, the more specific the “signature” is.**

### **Geographic Profiling**

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*Geographic profiling* is a sociological concept which scrutinizes and analyzes an offender’s activity within a specific geographic area. This application of theory was first promulgated by Rossmo.<sup>37,38</sup> The concept is based on the fact that *we as human beings are creatures of habit*. We repeat those actions and things that are familiar and comfortable to us. Rossmo refers to what he defines as “mental maps,” which are a cognitive image of our spatial surroundings based upon our daily activities and experiences. These activities occur in areas around our home, workplace, recreation sites, shopping districts, etc., causing those neighborhoods to become known and familiar. Connecting these centers of activity are various routes, which we choose in our daily travel. According to Rossmo, these familiar sites, areas, paths, and routes influence our mental maps.

Consider the first time you took an automobile trip on your vacation. I am sure that you probably planned the trip, taking a map showing you the best course as well as the identification of certain locations at which you could stay along the route. Perhaps you enjoyed the location and decided to go back the following year. I am sure that you still made preparations and planned out the trip. However, this second time you probably knew where you would stay, and you probably chose the same location because it was familiar. Also, you probably used the same rest stops and gas stations along the way. In addition, you really did not need to refer to the map as often as the first time.

If you returned the following year, you probably did not even need the map because your route of travel had become memorized; landmarks were easily recognized and this led to your comfort and reassurance. Basically, you developed a mental map of this scenario, which provided you with a feeling of comfort.

Offenders behave in a similar fashion as they cruise for victims or search for places to dispose of bodies. The direct and alternative routes that offenders select reflect their “mental maps.” The areas of home, work, shopping, and recreation make up comfort zones, which allow predatory offenders to cruise and commit their crimes under a psychological blanket of protection. The same psychological reassurance that you experienced in your repeat travels also applies to the criminal and his travels.

*The predator has a zone of behavioral activity.* This zone contains activity sites, offense locations, and the connecting paths between them.

Dayton Leroy Rogers, who was responsible for the murders of eight women in the Portland, Oregon, area, was a prime example of this type of offender: a predator who operated within a specific zone of behavioral activity. Rogers would cruise the streets of Portland’s “red light” district looking for prey. He would solicit the women for sex and entice them into his pick-up truck. He would then drive along preselected and secluded routes out of town toward the mountains and the Molalla Forest in Oregon. Once he had gotten his victims into the truck, which was a comfort zone, he would demonstrate his power over them in a series of sexual bondage and torture scenarios. His victims would be killed in a brutal and horrific manner. He would then dispose of their nude and mutilated bodies within the confines of the Molalla Forest. In fact, authorities eventually found the remains of seven young women in this forest. The offender had been familiar with the Molalla Forest for years and had grown comfortable within this location.

The Molalla Forest represented his *primary* comfort zone. This was a location where he could dispose of his victim’s bodies and return again and again. He not only could dump new victims, but also could savor his conquests. The Molalla Forest became a “totem place,” a location that afforded him the opportunity to relive the events and fantasize about his earlier kills. The routes to and from the forest as well as the streets of Portland, where he picked up his potential victims, represented his geographical comfort zones.<sup>39</sup>

Geography plays an important role in the offender’s selection of “suitable” victims. Suitability depends on the “rightness” of the place. Is the area appropriate for predation? Is it familiar? Does it possess a feeling of comfort? Does it contain sufficient and suitable victims? Is the risk of apprehension low? Are there sufficient escape routes?

### **Investigative Elements to Consider in Geographic Profiling**

- Crime location type
- Arterial roads and highways
- Physical and psychological boundaries
- Land use (residential, commercial, industrial, parkland)
- Neighborhood demographics
- Routine activities of victims
- Displacement<sup>40</sup>



## Investigative Elements in the Criminal Case Assessment Process

- Crime scene similarities
- Traditional investigative techniques
- Linkage analysis
- Psychological profiling
- Geographic profiling
- New investigative strategies<sup>40</sup>

## Types of Crime Locations

- Encounter location
- Attack location
- Crime location
- Victim disposal location
- Vehicle dump location<sup>40</sup>

See the text, *Geographic Profiling*, written by D.K. Rossmo.<sup>38</sup>

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## Case History — Organized Offender and Psychopathic Sexual Sadist

The following case history concerns a serial killer who operated within New York City and Bergen County, New Jersey. He is a classic organized offender, who could be clinically defined as a psychopathic sexual sadist. In addition, the “signature” element of these events ultimately linked these crimes. This case history includes information from a personal interview of Lt. Frank Del Prete, Bergen County Prosecutor’s Office.<sup>41</sup>

New York City homicide detectives first became involved in this serial murder investigation when the bodies of two women were discovered in the Travelodge Motor Inn on West 42nd Street. The Fire Department had responded to this location to extinguish a fire in one of the motel rooms. In the room were the nude and mutilated bodies of the two young women. Their heads and hands had been removed almost surgically, according to the pathologist, who confirmed that both women had been sexually abused and physically tortured.

This investigation became known as the “Mid-Town Torso Case.” It was believed that both women were prostitutes who had somehow been lured to the room. A check of the hotel register indicated that this room had been occupied for 3 days by an unknown white male, who gave a fictitious address in New Jersey. Radiological tests on the bones of the victims revealed one woman to be in her early 20s and the other was estimated to be approximately 16 years of age. The newspapers printed everything they could lay their hands on, including how the police were attempting to identify the young women by dressing mannequins with the clothing recovered at the murder scene.

There were stories on the progress of the investigation including stories on “Johns” who had been arrested for abusing prostitutes. The newspapers also reported on the efforts by the police in the area to come up with information. Approximately 1 month later, the body of one of the victims was identified as a high-priced prostitute who worked the Atlantic City–New York City set. Despite this break, the investigation was still going nowhere.



**Figure 21.28 MID-TOWN TORSO CASE — SERIAL KILLINGS.** In these figures, you see the mutilated bodies of two women found in a midtown hotel. Both women had been sadistically tortured over a period of days. Note the linear torture marks on the body in the bottom figure. Also note that the heads as well as the hands have been severed from the bodies. The mutilation in this particular circumstance was purposeful and performed by the killer so as to prevent authorities from identifying the victims. The killer then set the room on fire before leaving the hotel. (From the author's files.)



**Figure 21.29 VICTIM OF SERIAL MURDER — NEW JERSEY.** A female victim of the same serial killer in the New York City cases was found beneath a bed in a New Jersey motel. This victim had been tortured and sexually abused. There is breast assault as well as bondage activity (handcuffs) in the crime scene. Note the linear lines of torture on the body. (Courtesy of Lt. Francis P. Del Prete, Bergen County, New Jersey, Prosecutor's Office.)

Four months later, in Hasbrouck Heights in Bergen County, New Jersey, the nude body of a 19-year-old woman was found in the Quality Inn Motel by a maid, who was cleaning the room. This victim was identified through fingerprints as a prostitute who was originally from Miami, Florida, but was now working the streets of New York City. She had been tortured and sexually abused. In fact, the killer had left behind a pair of handcuffs, which had been used to bind the victim. Her body bore evidence of bondage-type injuries and nipple and breast assault, as well as superficial torture-type cuttings to the skin.

The Bergen County Prosecutor's Office took over this investigation. They got their first break when a partial latent fingerprint was discovered on the handcuffs that the killer had left on the body. Although the New Jersey authorities conducted interviews in New York City and conferred with New York City police, this case was not considered related to the Mid-Town Torso case because of the different M.O. and crime scene information.

Eleven days after the Bergen County homicide, the Fire Department once again summoned New York City police to a hotel room fire, where a nude and mutilated body had been discovered. New York City homicide detectives immediately linked this death to the Mid-Town Torso case. However, this time the killer did not remove the victim's head and hands. Instead, the killer removed both of the woman's breasts, which he left on the headboard of the bed. Once again, there was evidence of bondage and torture. This victim, like the one who had been identified in the Mid-Town Torso case, was a high-class prostitute who ordinarily would not be operating out of this type of premises. This time, no clothing was left behind for police to analyze. Had the killer been focusing on the news reports? The New York City police still had no viable leads.





**Figure 21.30 SERIAL KILLER'S VICTIM.** In this photo, we see the victim of the same serial killer found in another New York City hotel. This victim had also been tortured and sexually abused. The offender had removed the breasts of the victim and placed them on the bed headboard to shock the police. He did attempt to change his modus operandi from the other New York City cases. However, once again, the offender set the room on fire. New York City authorities immediately linked this killing to the midtown case. He was finally caught on his next attempt in New Jersey. (From the author's files.)

One week after the New York City case and approximately 3 weeks since the discovery of the body at the Quality Inn Motel in Hasbrouck Heights, police once again were called to the motel. This time, Hasbrouck Heights police were responding to cries for help coming from one of the rooms.

A white male, 33 years of age and identified as Richard Cottingham, was arrested by police as he attempted to flee from the motel. An 18-year-old prostitute from New York City was found in the room. She had been bound with handcuffs and sadistically tortured by Cottingham. Her screams for help had been heard by the motel staff, who immediately called police. Cottingham tried to talk his way out of the assault by stating he had "paid for this service from a prostitute" and that he was not trying to kill her. He feigned cooperation, readily admitting to sadomasochistic activities with the prostitute but steadfastly denying any involvement with the 3-week-old murder. However, Bergen County detectives were convinced that they had just apprehended a killer. The New Jersey officials secured a search warrant for Cottingham's house in Lodi, New Jersey.

Police were shocked to discover that Cottingham maintained a private room that even his wife was not allowed to enter. It became known as the "Trophy Room." Cottingham would take souvenirs from his victims, which are referred to as trophies. In this room was the crucial evidence linking Cottingham to the New Jersey and New York City homicides. In addition to the murders, he also became the primary suspect in a series of abductions and rapes of New York City prostitutes who had been drugged and then brought to New Jersey motels, where he would torture and sexually abuse them.

The latent print on the handcuffs was matched to Richard Cottingham. The evidence recovered in the Trophy Room became the basis of the New York City investigation and the victims of the abductions and sex torture were able to identify Cottingham in the subsequent line-ups conducted by Bergen County Prosecutor's detectives.

Bergen County detectives were convinced that Cottingham had killed before in New Jersey. In fact, 3 years earlier, the body of a beautiful 27-year-old nurse had been found in the parking lot of the Quality Inn Motel in Hasbrouck Heights. She had died of asphyxiation from a gag as she was being abducted. Ironically, this victim had been a neighbor of Cottingham when he lived in Little Ferry, New Jersey.

Her body bore some similar wounds to those of the other victims. There were enough similarities to convince the prosecutor, Dennis Calo, to seek an additional murder charge against Richard Cottingham. This case subsequently became known as the “Signature Case,” when Dennis Calo was able to convince the court that the modus operandi in respect to the cases was so unique and so novel as to be personal to Cottingham. He was eventually convicted of the New Jersey murders and rapes and is currently serving several lifetime prison sentences in Trenton State Prison.

Cottingham displayed the following traits, which are considered classic organized offender traits. His behavior and the activities with his victims are consistent with *DSM-IV* criteria found in the clinical definition of antisocial personality disorder and sexual sadism. He is a classic *psychopathic sexual sadist*.

- He selected each of his victims for the purpose of sexual and psychosexual gratification.
- He became sexually excited by the suffering of his victims.
- He was methodical and cunning and planned his offense. He had his “murder kit” and props, which he used on his victims.
- He maintained control over his victims — handcuffs, restraints, tape across mouths, etc.
- He was excited by the cruelty of the acts.
- He had an extensive collection of S&M pornography, which displayed his avid interest in sadistic fantasies, torture, and bondage paraphernalia.
- He demanded submission from his victims, engaged in sexual experimentation, and degraded his victims.
- He engaged in mutilation for the purposes of hindering identification in the Mid-Town Torso case. He removed the breasts of the other victim for shock value.
- There was a distinctive lack of evidence at most of his crime scenes. He used fire to destroy evidence in two of the cases.
- He followed the news media accounts, changed his M.O. accordingly, and changed his location.
- He took souvenirs from his victims. In the case of organized offenders, these become “trophies” of their conquests.
- He lived some distance from his crime scenes and his victims were targeted strangers, except in the nurse killing, which may have been his first murder.
- He led a compartmentalized lifestyle. He was married with three children and had a home in New Jersey.
- He worked in Manhattan and maintained a separate lifestyle in New York City. He had two girlfriends in the city, each of whom was unaware of the other.
- He was involved with prostitutes, whom he would date or abduct and rape. He was also torturing and killing certain prostitutes in between his other activities.

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## Case History — Mixed Personality

An interesting illustration of the classic “mixed” personality was provided to me by the Peel Regional Police Force in Brampton, Ontario, Canada. I had the opportunity to interview Inspector Rod Piukkala, who provided the following case information on a particularly



brutal lust murder.<sup>42</sup> This case presented the authorities with an “organized” and “disorganized” scenario and provides an exquisite example of why we in law enforcement must be cautious in our assessments of typology in the application of psychology to the crime.

The suspect, who was 17 years of age at the time of the offense, worked as a shipping clerk in a local factory. His victim was a 16-year-old high school student. She had just left her boyfriend’s house and was waiting for a bus when the suspect pulled up and offered her a ride. The victim accepted the ride after the suspect got out of his vehicle and opened the rear door for her. He was able to verbalize her into his vehicle and take her to an isolated location, where he sodomized and raped her. This type of activity is appropriately described as *organized*. However, what followed were the activities of a classic *lust murder* committed by a *disorganized offender*.

The suspect provided police with the following confession. He stated that he had pulled into the back of the 600 Group (a factory) and then put the car into park. He stated:

I then lunged at her over the front seat real quick. I was beside her and I started to grab her tit. I reached over and put my hands under her knees and pulled them up onto the seat so she was laying on the seat. I told her to take her pants down and she did. I spread her legs and licked her vagina. Then I took my pants down and got up on her and screwed her. After I ejaculated I said that’s it and she asked if she could sit up in the front seat. I said sure and then said hold on a second and I grabbed her belt loop so she wouldn’t run away...While we were walking I said I had a present for her...I reached into the car through the open window and grabbed a brick from the floor. I looked at her and then hit her with the brick over the left eye. She screamed “oh no” just before I hit her with the brick and then sort of screamed in pain. I hit her one or two more times on the side of the head and then she fell down. Then I saw a bigger brick, so I put the small one down and then picked up the bigger one and hit her in the head about seven times. Then she screamed and said, “Don’t strangle me.” Then I looked over and seen the board and picked it up and put it on her throat and applied pressure. I released it after about a minute and she sucked some air in and she was still breathing so I saw another board that was longer so I got it and held the end against her throat and stood up and leaned my weight on it. I did this for about 2 or 3 minutes. Then I let up and threw the board away and I grabbed her by the feet and dragged her over to the field.

I was dragging her by her pant leg and when I got over there I noticed her clothes were pulled up around her shoulders. Her breasts were exposed and I could see her lighter and a safety pin. I leaned over and bit her right nipple, then I got the lighter and I pulled her jeans off to her ankles and I ripped her panties off and just tossed them aside. I used the lighter and singed her pubic hair. Then I picked up the safety pin and put it through her left nipple. Then put the lighter to her right breast. I spotted a piece of wood with a nail in it and I put the board with the nail in it on her chest and hit it with my hand and drove the nail into her chest. I did this between five and seven times. Then I saw this big brick about 3 feet away and I picked it up and dropped it on her chest. I did this probably seven or eight times. She was still quivering at this time so I put the board with the nail under her neck with the nail up and pushed her head on it. Then I pulled the lumber jacket over her head and I got the big brick beside her head and then flipped it over her head. I stood up and urinated on her and then I left. Oh, I forgot one thing, I remember the moon shining





**Figure 21.31 LUST MURDER.** These photographs depict the position in which the body was placed for discovery by the police. The body had been posed after death in a manner to degrade the victim. The offender who had raped and killed the young girl then engaged in deviant postmortem activities with the corpse. (Courtesy of Inspector Rod Piukkala. Photos taken by the Peel Regional Police Force, Brampton, Ontario, Canada.)

on her necklace, which was around her neck but was broken. I took it off and put it in my pocket and the lighter too. I walked over to the car and picked up the small brick and put it on the floor of the front seat. I got in the car and drove home. I got home about 12:20 (midnight) and I went right to sleep.

The next day I got up about 6:00 A.M. and went to work between 7 and 7:30. On my way to work I drove [past the location where the murder was committed

to get the name of the company]. When I got to work, I phoned information and got the name and telephone number of the company. I wrote it down on a piece of paper. I wrote out this piece of paper [indicating the evidence on the desk] as soon as I got to work. At 10:20 I phoned the 600 Group and spoke to a secretary and told her there's a body out back, she's been killed, call the proper authorities. I told her my name was Fred Baker. I called back to see if the police had got there yet. I said, "This is Fred, have the police arrived yet?" The third time I called a man answered and I hung up. I called back again and said, "The future's uncertain, the end is always near. And you're gonna die too." I hung up the phone then. I made another call a little bit later and I was trying to scare them, I had seen it in the movies. I said three sticks of dynamite set for 3 minutes. I think I said a couple of doors up. Then I hung up and called back about a minute and a half later and said, "Minute and a half to go." Then I called up *Mississauga News* and the receptionist put me through to [name of the reporter]. I told him the girl's name was Darlene that she was 17 to 19...At lunchtime I walked down the road and noticed the police cars at 600 Group. I asked one of the reporters what happened and he said there's a murder but there's not much information. I turned around and went back to work.

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### **Investigative Considerations**

The suspect's statement included information that he had gotten the victim's name from the newspapers and placed calls to the victim's relatives. He also called her school to inquire about the funeral. In addition, he called the cemetery and got the location of the plot. He also wrote a four-page letter to the police, which graphically described the murder and events leading up to the death of the young victim.

The letter, which taunted the police and warned of other murders, was delivered along with the victim's necklace and her cigarette lighter to a library with instructions to phone the police. (See Table 21.1 and Table 21.2 in this chapter. Note that there are a number of organized and disorganized characteristics in combination with one another that represent the suspect as well as the activities at the crime scene.)

### **The Police Investigation**

Peel Regional Police Homicide Inspectors Rod Piukkala and D'Arcy Honer were assigned to investigate the case. Detective Sergeant Geoff Hancock, Inspector Mike Metcalf, and Inspector Frank Fernandes (now deceased) were assigned the identification duties in connection with this case. (See "Latent Prints on Human Skin" in Chapter 20.)

The deceased's head was covered with a 66-pound block. Her sweater and bra were pulled up, fully exposing her breasts. Her jeans were rolled down to her ankles exposing her genitalia and her legs were positioned in a spread-eagled manner. The officers observed a safety pin inserted into her left nipple as well as several scratches and bite marks on her breast. They also observed burn marks on her breast and pubic area. There were several puncture marks on her neck and chest



along with deep lacerations on the top and sides of her skull. The board with the nail protruding was located beneath her skull. The crime scene search revealed a number of bloodstains and drag marks leading towards the body along with a smaller bloody building block. The identification officers were able to “lift” palm prints from the inner thigh of the deceased, which later matched those of the suspect Dobson. (See “Latent Prints from Human Skin” in Chapter 20.) In addition, a forensic odontologist was able to match the suspect’s dentition to the bite marks inflicted on the victim’s breast.

The suspect, David Dobson, was identified early as a result of the telephone calls to the 600 Group. The authorities had requested Bell Canada to install tracing equipment on the company’s line. As a result, the calls were traced to another factory about a block away. The authorities also learned that someone, who was later discovered to be the suspect, had made two additional calls to the *Mississauga News*. The owner of the factory where the calls originated was requested by police to listen to a tape recording of the suspect. The owner identified David Dobson. Court-approved audio and video surveillance was immediately commenced on the subject. Tape recordings of the subject were also played for the secretaries of the 600 Group and the *Mississauga News* as well as for the reporter.

The following day, an employee at the plant where Dobson worked located a piece of paper with the telephone numbers of the 600 Group and the *Mississauga News* on Dobson’s desk. A further search of the plant by Detective Sergeant Hancock and Inspectors Piukkala and Honer revealed a piece of paper with the phrase “the future’s uncertain, the end is always near” taped to the wall above Dobson’s work bench. The phone numbers for the 600 Group and the *Mississauga News* were again observed on another piece of paper.

On Monday, the subject was shown a newspaper account of the murder by a fellow employee, who was acting under the direction of investigators. He immediately opened the paper to the appropriate page and began to read aloud to the other employees. The subject then proceeded to cut both stories from the paper and place them in his wallet. Upon his arrest, these articles were still in his wallet.

The subject was also monitored making telephone calls to people listed in the telephone book with the same last name as the deceased. In addition, authorities were able to document him calling the deceased’s school requesting information about the funeral. The authorities then recorded him calling the cemetery requesting the location of the plot.

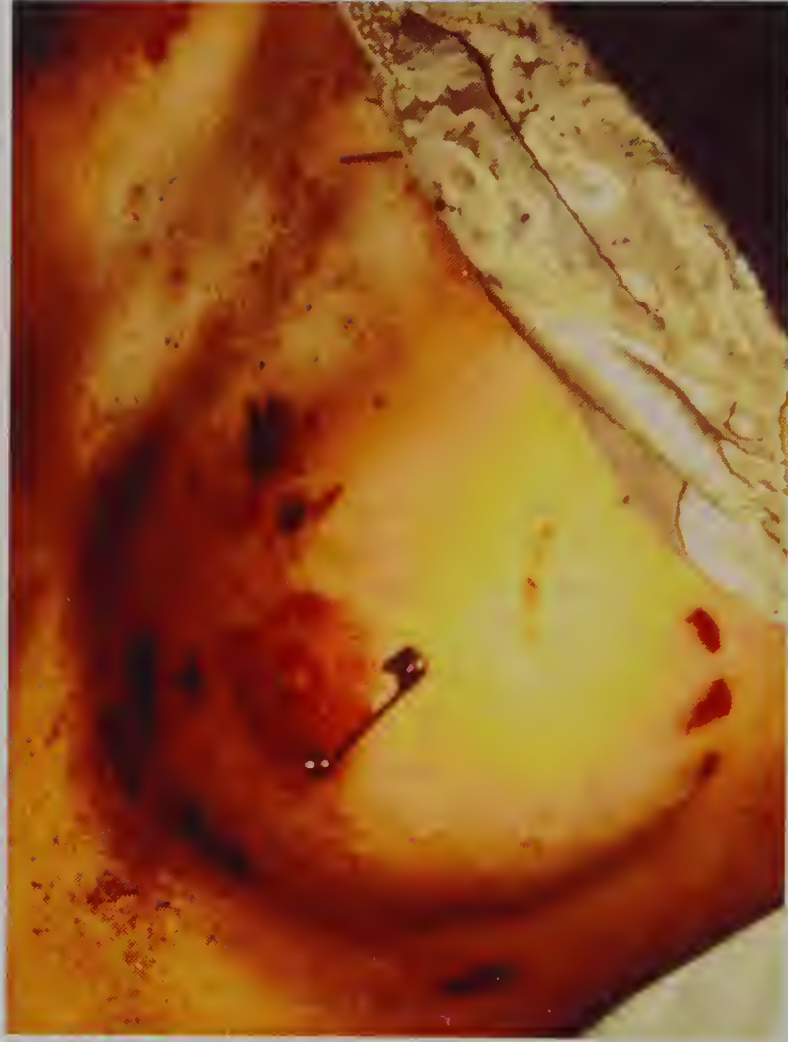
Later that same day the surveillance officers observed him delivering a package to the Mississauga Library. This package was a four-page letter addressed to Inspector (now deputy chief) Wingate detailing what had transpired on May 6 and included several taunting messages to the police. In the envelope were the victim’s necklace and her cigarette lighter.

On May 12, the subject was arrested by Inspectors Honer and Piukkala. Dobson subsequently provided the officers with a complete verbal and written account of the murder. He also provided handwriting, voice, dental impressions, and physical





(A)



(B)

**Figure 21.32 POSTMORTEM ACTIVITIES.** (A) The offender engaged in deviant activities with the corpse. There were bite marks on the victim's breasts, nail punctures of her neck and chest, and deep lacerations on the top and sides of her skull, as well as burn marks to the breast and pubis. The offender also urinated on the corpse. (B) Shows a safety pin, which the offender used to pierce the victim's left nipple. (Courtesy of Inspector Rod Piukkala. Photos taken by the Peel Regional Police Force, Brampton, Ontario, Canada.)

specimen samples, which were matched to the crime. His palm prints were matched to the latent prints taken from the victim's legs. The bloody brick that he used to strike the victim in the face was found on the front floor of his car.

David Dobson was convicted of first-degree murder and is serving life in prison with a minimum of 25 years ordered by the court before he will be eligible for parole application.

## A Psychology of Evil

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The behaviors of the subjects referenced within this chapter can appropriately be described as psychopathic sexual sadism.<sup>43</sup> For the purposes of discussion, I have defined this behavior as a "psychology of evil."<sup>24,44</sup>

Human evil is too complex to be studied from a single framework of reference. In an attempt to understand the psychopathology of evil behavior, scientists use specific models. The medical model remains one of the most useful vehicles for understanding mental illness. Often, scientists must embrace multiple models in order to gain a clearer understanding.

In psychology there are the biological model, the psychological model, the sociological or environmental model, the sociobiological model, the Freudian model, the behavioral model, the existential model, and others. In the study of sexual homicide, the motivational model<sup>15</sup> provides an excellent vehicle for the analysis of serial murder behaviors.

## A Model for a Psychology of Evil

Dr. M. Scott Peck, author of *People of the Lie*,<sup>45</sup> considered various possible factors in the genesis of human evil. He based his study on clinical histories and focused his hypothesis on the general population.

According to Peck, "Although we do not yet have a body of scientific knowledge about human evil worthy of being dignified by the term 'psychology,' behavioral scientists have laid a foundation that makes development of such a psychology possible..."<sup>45</sup> Peck goes on to describe the contributions of Sigmund Freud and Carl Gustave Jung. He suggests that "...a psychology of evil must be a religious psychology"<sup>45</sup> and recommends a theological model for analyzing and studying evil.

Peck discusses evil and sin, which are obviously not referenced in clinical literature. Yet, his integration of the clinical with the theological encompassing the concept of free will and narcissism provides an excellent example of the psychopathology of evil, which may contribute to law enforcement's understanding of the phenomenon of serial murder.

According to Peck, Erich Fromm was the first and only scientist to identify clearly an evil personality type. Fromm, who wrote the book, *The Heart of Man: Its Genius for Good and Evil*,<sup>46</sup> saw the genesis of evil as a developmental process: "We are not created evil or forced to be evil, but we become evil slowly over a period of time through a long series of choices."<sup>45</sup>

According to Peck, however, Fromm's analysis of evil does not seem to take into account the tremendous forces that tend to shape the being during early developmental processes. However, it should also be noted that not everyone who is subjected to a dysfunctional environment becomes evil and this is because we have free will.

If we apply free will and freedom of choice to the serial killer's murderous and sadistic activities, we are suddenly confronted by the reality of an evil human predator — an evil entity who has made a conscious decision to kill — someone who, as Fromm suggests, has made a choice between good and evil.

Peck, in his hypothesis of evil, presents a particular pathologic variant that Erich Fromm called "malignant narcissism":

Malignant narcissism is characterized by an unsubmitted will. All adults who are mentally healthy submit themselves one way or another to something higher than themselves, be it God or truth or love or some other ideal.... In summary, to a greater or lesser degree, all mentally healthy individuals submit themselves to the demands of their own conscience. Not so the evil, however. In the conflict between their guilt and their will, it is the guilt that must go and the will that must win.<sup>45</sup>

The serial murderer is extremely selfish and narcissistic. His goal is power and sexual gratification. An evil person is characteristically hedonistic and feels superior to other human beings. Despite any intrapsychic conflict between guilt and his ability to exercise his free will, the serial murderer opts for free will and chooses to do evil. I therefore propose that serial murder is representative of a *psychology of evil*.

What is important from an investigative perspective is that when you are dealing with someone who is a psychopathic sexual sadist, you are in effect dealing with a psychology of evil. This is certainly not a clinical definition, but should serve to alert the professional investigator to the thinking patterns and the potential of such an individual.

If we apply the Freudian concepts of the id, the ego, and the superego to the serial murderer, we gain some additional psychological insight into the psyche of the offender. Sigmund Freud proposed that the id was the source of instinctual drives, which are constructive and destructive:

The id is completely selfish and concerned only with immediate gratification of instinctual needs without reference to reality or moral considerations. The id operates on what is called the *pleasure principle*. The id however, cannot undertake the actions needed to meet instinctual demands. The id needs the ego, which mediates between the demands of the id and the realities of the external world. The basic function of the ego is to meet id demands, but in such a way as to ensure the well-being and survival of the individual. This requires reason and other



intellectual resources in dealing with the external world, as well as the exercise of control over id demands and is referred to as the reality principle. Freud viewed id demands, especially sexual and aggressive strivings, as inherently in conflict with rules and prohibitions imposed by society.

The superego is an outgrowth of learning the taboos and moral values of society. The superego is essentially what we refer to as *conscience* and is *concerned with right and wrong*. As the superego develops, it becomes an additional inner control system that copes with the uninhibited desires of the id.<sup>10</sup>

In the case of a serial murderer, his inner police officer or conscience is absent or off-duty. The serial murderer kills in order to satisfy his lust or id impulses. However, he is also quite devious and clever. He is aware of the criminality of his actions and will not commit a murder when an external police officer is watching because his ego will work to assure his well-being in what has been described as the reality principle.

According to Markman and Bosco, the primary ingredient missing from the sociopath's psyche is conscience:

That is, perhaps, the most significant characteristic of a sociopath, because it allows full and violent expression without significant hesitation, guilt, shame, or remorse. Sociopaths are unable to learn from experience or punishment, and they frequently get in trouble with the law.... Sociopaths are hedonistic, emotionally immature, selfish, impulsive, and devious. Their goals are often primitive, and usually are centered on power and pleasure. Sociopaths tend to consider other people only as objects to be exploited, avoided, or neutralized.<sup>47</sup>

Psychopathy, sociopathy, and antisocial personality disorder are not generally classified as a mental illness *per se*, but rather as a disorder of character.

A sociopath knows right from wrong — he simply doesn't care. He lacks the internal prohibitions, or conscience, that keep most of us from giving full expression to our most primitive and sometimes violent impulses. He will be self-indulgent, narcissistic, and not concerned about the rights and feelings of other people, who will be treated as objects to be manipulated, exploited, avoided or destroyed.<sup>47</sup>

“When sexual sadism is severe, and especially when it is associated with antisocial personality disorder, individuals with sexual sadism may seriously injure or kill their victims.”<sup>11</sup> This type of killer never stops killing. In my opinion as an

expert in homicide investigation, there is no cure for the psychopathic sexual sadist except life in prison or death.

Murders committed by serial killers who are psychopathic sexual sadists transcend human understanding. The subhuman aspects of these killings coupled with the atrocities visited upon the victims manifest an appetite for violence and sexual mutilation that have people referring to the killers as animals. Yet, animals do not rape, sodomize, torture, and mutilate their prey. They kill for biological survival. Serial murderers, on the other hand, are evil predators who kill for pleasure and their vile sexual perversion. They are able to operate in an emotionally detached manner because they totally lack any empathy for their victims. In my opinion, the definitions of conduct provided in the clinical diagnoses of antisocial personality disorder and sexual sadism are insufficient to define such behaviors. The enormity of such malevolence exceeds these and remains incomprehensible without a concept of a *psychology of evil*.<sup>44</sup>

## Conclusion

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Criminal profiling can be a valuable investigative tool in identifying and pinpointing potential suspects in certain types of murder cases. The VICAP Program as well as the additional knowledge-based systems being developed offers law enforcement exciting new capabilities. However, criminal personality profiling cannot replace sound investigative techniques or eliminate the need for *experienced homicide investigators*. It should be noted that knowledge-based systems, as well as criminal profiles, are *only* investigative tools.

Practically speaking, these tools are meaningless unless the primary and basic investigative function of information gathering, through crime scene process, interviews, and interrogation, and the medicolegal autopsy are effectively accomplished.

I would like to close this section with an investigative precaution, which I came across in my research:

Investigators...should gain enough insight into scientific psychology to see how unreliable and unsuitable psychological evidence from character is in criminal detection, and how rarely and cautiously it should be used.<sup>48</sup>

My years of homicide investigation experience in the field have taught me a valuable lesson. The theories and strategies involved in the application of criminal profiling techniques to a homicide investigation are subject to the realities of human behavior, which is at best an unpredictable commodity. Although I am an advocate of criminal personality profiling, I also advise against “putting all of your *investigative eggs* into a psychological basket.”

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## Equivocal Death Investigations

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*Equivocal death investigations are those inquiries that are open to interpretation. There may be two or more meanings and the case may present as a homicide or a suicide, depending upon the circumstances. The facts are purposefully vague or misleading, as in the case of a staged crime scene, or the death is suspicious or questionable based upon what is presented to the authorities. The deaths may resemble homicides or suicides, accidents or naturals. They are open to interpretation pending further information of the facts, the victimology, and the circumstances of the event.<sup>1</sup>*

In Chapter 1, we discussed the “staged crime scene” and how *staging is a conscious criminal action on the part of an offender to thwart an investigation.*

**Remember: Things are not always what they appear to be.**

In staged crime scenes, the presentation of the homicide victim and the manipulation of the crime scene by a clever offender could make the death appear to be a suicide. I have investigated many such cases and the truth of the matter is that, initially, the cases *did* look like suicides.

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## Initiating the Investigation

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In order to investigate an equivocal death properly, the detective must avail himself or herself of all of the information obtainable by conducting a thorough and in-depth *victimology*, as we discussed in Chapter 1. Furthermore, the investigator must conduct the necessary forensic examinations to establish and ascertain the facts of the case. This includes examination of the weapons for any latent evidence as well as ballistics and testing of the firearms in order to reconstruct and evaluate the event. In addition, there must be a thorough medicolegal analysis and opinion provided by a forensic pathologist. Teamwork requires and dictates that a forensic pathologist be consulted regarding cause, mechanism, and manner of death. The

number, type, location, and lethality of wounds will be paramount in establishing whether the injuries were self-inflicted or homicidal in nature.

In this chapter, I present four different death scenarios as case history examples of equivocal death investigation. In two of the events, the perpetrators involved staged the scene to make the death appear to be a suicide. In both instances, due to a faulty police investigation, the offenders were not charged with murder. The other cases I present are classic equivocal death situations in which different medical and investigative opinions are rendered as to the manner of death of the victim. This type of an equivocal death case should have been ruled “undetermined” because neither party could demonstrate with any degree of medical certainty that the death was in fact a homicide or a suicide.

## **Case Number 1: An Equivocal Death and Staged Crime Scene — Making a Homicide Appear to Be a Suicide**

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### **Introduction**

I acted as a consultant in a wrongful death suit brought against an insurance company by surviving relatives of a male who allegedly had committed suicide. The insurance company had refused to pay the beneficiaries based on the police determination of suicide. My review of the crime scene photographs and circumstances of the death of this young man indicated that the young man had, in fact, not committed suicide. The authorities had been misled into believing the case was a suicide because the scene had been staged. I completed the investigative assessment, which forced the insurance company to pay the plaintiffs. The authorities then tried to justify their error by insisting that the case was a suicide despite evidence and circumstances to the contrary.

### **The Crime Scene**

The victim’s body was discovered after a neighbor became suspicious about the manner in which the young man’s car was parked at his trailer home. The neighbor had noticed the car on Tuesday but did not become concerned until Wednesday morning, when he noticed that the car was still parked in the same location. He went to the front door and heard loud music playing from inside, which was not customary for the young man, who should have been at work. The neighbor contacted the young man’s mother and together they entered the unlocked rear door.

When they opened the door, they saw a human brain on the floor. The victim was discovered lying on his back across his bed with a semiautomatic Remington .308 model 742 rifle between his legs, suggesting that he had shot himself in the head with the weapon. The butt of the rifle was lying against a mirror, which had been removed from the wall during refurbishing.

*It should be noted that this weapon has a tremendous kickback — the mirror should have been shattered.*



**Figure 22.1 VICTIM LYING ON BED.** Murder made to appear to be a suicide. The victim was discovered lying on his back across his bed with a .308 rifle between his legs, suggesting that he had shot himself in the head with the weapon. His head is pointing towards the south with his feet to the north. (From the author's files.)

There was a large amount of blood and brain matter found in the room where the deceased was discovered. The entire top of the victim's head was blown away. The rifle belonged to the deceased. There was an open box of Remington .308 ammunition for the gun found in the premises with six cartridges missing from the box. There were two bullet holes in the roof of the victim's trailer, suggesting that two shots had been fired upward towards the ceiling and the police recovered two spent shell casings in the bedroom next to the victim's feet. *It should be noted that the Remington .308 model 742 rifle ejects from the right, usually 10 to 12 feet. The shell casings would not have landed at the victim's feet.*

There appeared to be velocity blood spatter going into a closet in the bedroom. However, there is no reference to this fact and apparently the authorities never processed this nor looked into the closet. According to the police report, "the rest of the trailer was observed and there were no signs of a struggle." Based on their preliminary observations, the police agency wrongfully assumed that the victim had shot himself twice in the head with this high-powered rifle. The case was classified as a suicide.

### **The Police Investigation**

A review of the police reports by the consultant revealed a careless and perfunctory investigation totaling a mere eight pages of police reports, four of which were vouchers. The police did not attempt to locate the fired rounds; they did not test or examine the firearm; no ballistics reports were prepared; no gunshot residue (GSR) testing was





**Figure 22.2 VICTIM LYING ON BED.** The hallway of the victim's residence. You can observe his feet hanging off the bed in the bedroom. (From the author's files.)



**Figure 22.3 VICTIM'S BRAIN AT REAR DOOR.** His brain is found lying by the back door, which is northeast of his position. (From the author's files.)

done on the victim to ascertain whether he had fired the weapon; and no attempt was made to reconstruct the event. The police did not process the crime scene for fingerprints. They did not determine the trajectory or the velocity blood spatter and did not recover pieces of the victim's skull, which were later found embedded in the bedroom closet wall by a crime scene cleaning company hired by the family to clean the trailer. The police failed to conduct a background check or victimology. The police and coroner *assumed* that the death was a suicide. A local hospital pathologist (not a forensic pathologist) conducted an autopsy and determined that the cause of death was a gunshot wound to the head and ruled the death a suicide. However, the hospital pathologist could not even determine the location of the entrance wound.

### **The Autopsy**

The hospital pathologist wrote in his report,

CAUSE OF DEATH: gunshot wound of the skull and brain. SUICIDAL. The entire upper half of the skull completely absent secondary to gunshot wound of skull. From the outline of the remainder of the skull cavity, the entrance wound appears to be from left to right and upward. Examination of mouth discloses upper and lower natural teeth in excellent dental care.

It should be noted that a forensic pathologist would have instructed the police to bring any pieces of the skull recovered at the crime scene and then glued these pieces of skull together in order to determine the exact location of the entrance wound. *This was another major error in the death investigation.*

Without further police investigation into the facts surrounding the death and a reconstruction of the crime scene, these observations could be misleading. The investigative reality is that each factor must be brought to its ultimate conclusion. I believe that the authorities made the mistake of assuming that the death of the young man was suicide based on their preliminary observations of the crime scene and as a result subsequently failed to take each factor to its ultimate conclusion.

### **Consultative Analysis**

#### ***Investigative Considerations***

- Many suicide deaths are preceded by verbal threat of self-destruction and other indications of despondency.
- In some instances, these threats are made to people of whom the deceased thinks highly or whom he respects.
- In other instances, the sudden change in behavior is shown by subtle actions, such as increasing life insurance, giving away prized possessions, speaking of life in the past tense, or abuse of alcohol or drugs.
- These behaviors are termed “warning signs” and present the investigator with a base of inquiry that can support a hypothesis of possible suicide.

My investigation did not reveal anything that would fit a suicide profile. In fact, in over 300 interviews conducted by a private detective hired by the family, *not one* person described the deceased as depressed or suicidal; to the contrary, they described him as upbeat and excited about his fiancé's planned arrival and their upcoming marriage.

### **Suicides Involving Long-Barrel Firearms — Rifles and Shotguns**

- The victim usually selects the forehead, followed by the temple, the mouth, or under the chin.
- The temple shots are usually consistent with the handedness of the victim. In other words, if the victim was right-handed, the wound will be found in the right temple.
- The victim was right-handed. The wound, according to the pathologist, was to the left temple.
- For the victim to place the barrel of the Remington semiautomatic .308 model 742 to his left temple would have been extremely awkward, if not impossible.

In suicide cases where long-barrel weapons are fired into the head of the victim, the ceiling and walls are usually blood spattered due to the velocity of weapon and ammunition. I have included a photo of the ceiling in this alleged suicide along with a photo depicting what the ceiling should look like when one fires a high-powered weapon into one's head.

### ***Victimology***

My analysis of the facts indicated that the deceased had made short- and long-term plans, which is not consistent with a person intending to commit suicide. During the week preceding his death, he had gone out with friends, attended a birthday party for his sister, and purchased groceries for the upcoming week. On Monday of the week he was killed, he was at work. According to his supervisor, he was in good spirits. In addition, he had even paid his union dues 3 months in advance. He was expecting a visit from his fiancé and was refurbishing his mobile home. He had built a new deck on the back, purchased paint and wallpaper, and arranged with a neighbor to borrow tools to redo his kitchen cabinets. His long-term plans included an application for a loan and a trip to Alabama to clear some property in the fall.

### **Investigative Issues**

Interviews of the friends and relatives of the deceased were conducted and disclosed that certain property and money were missing from the deceased man's trailer when he was discovered dead. A number of persons stated that the deceased was known to keep at least \$1000 cash in his mobile home. According to the police report, only \$2.50 was found in the victim's pockets. Also, according to another relative who





**Figure 22.4 CEILING IN VICTIM'S BEDROOM.** Ceiling in the victim's bedroom directly above the body. If this event had transpired as presented, the ceiling would be splattered with blood and brain matter. Furthermore, if you look closely, those defects in the ceiling are actually from a muzzle blast, as if someone had pointed the gun towards the ceiling and fired off two rounds. (From the author's files.)



**Figure 22.5 CEILING IN SUICIDE CASE.** This photo illustrates what a ceiling would look like in a suicide involving long barrel and/or shotgun case. In this photo, the victim's dental plate has been driven into the ceiling along with the blood and brain matter. (Courtesy of Captain Christopher Barrow, Middletown, Connecticut, Police Department.)



**Figure 22.6 SUICIDE INVOLVING HIGH-VELOCITY FIREARM.** This photo illustrates the appearance of an indoor crime scene involving a high-velocity weapon. The man had placed the shotgun into his mouth. Note that the entire mouth and major portion of the victim's skull area are absent secondary to gunshot wound of the mouth. (Courtesy of Detective Mark Reynolds, Harris County, Texas, Sheriff's Department.)

had reconciled the decedent's accounts after the funeral, the victim had made a withdrawal of \$200 cash from an ATM machine; this was unaccounted for and missing from the trailer. A neighbor stopped by the trailer because of his suspicion that "something wasn't right." He observed that the victim's car doors were unlocked and the keys were in the ignition. This was unusual behavior for the deceased. Later, police would recover the deceased man's empty wallet from the floor of the car. The door to the trailer was unlocked and the stereo was blasting. The thermostat was set up as high as it could go. The deceased reportedly never had the thermostat above 65°.

According to family members, the victim's radar detector, which the deceased always kept on the sun visor in his car, was missing, as was a pouch of tools from the rear seat. In addition, a gold calculator with the deceased man's initials inscribed, which the victim had gotten as a gift for participating in a wedding, was missing from the trailer. This gold calculator was later found in a local pawnshop.

### **Critique of Police Investigation**

It was apparent that a detailed examination of the crime scene, including processing of the crime scene and weapon for fingerprints, was not undertaken. The authorities failed to pursue and evaluate the crucial information supplied by the reporting witnesses and next of kin regarding money and items missing. The police were not interested in the information that the deceased never had his thermostat set over 65°. The background information of the deceased regarding his motivation

apparently was not taken into consideration in determining whether the facts of the case were consistent with their theory of suicide. A retired investigator from the area stated, "It is not uncommon for a weapon to discharge twice during suicide due to a reflex action." Not to be outdone, a captain with the Sheriff's Department had the audacity to state the same thing: "It is not uncommon for a weapon to discharge twice due to reflex action." Later, when confronted with our forensic reports, they came up with another explanation: they said the second bullet was a hesitation shot.

The police agency then advised the insurance company that there had been a suicide note which, according to their policy, they gave to the mother. I responded to that issue in a separate correspondence by writing:

In my opinion, the absence of any reference to a suicide note in the original police investigation and subsequent Insurance Company investigation creates a serious doubt as to its existence. The fervent denial of the deceased's mother that she was ever shown this alleged note creates a serious credibility issue relative to the existence of such a suicide note.

If in fact there was a suicide note found at the scene and the investigators did not document its presence and seize the note as evidence, they are even more incompetent than I first imagined.

The presence of a suicide note is of crucial importance in the classification of death as a suicide:

- Suicide notes are supposed to be taken as evidence.
- The presence of the note should be documented in the police reports.
- The note should be collected in a manner that will preserve fingerprints.
- The police investigator is supposed to obtain a handwriting exemplar of the deceased in life to determine whether the note is genuine.
- This is accomplished by having an examination conducted of the known handwritings of the deceased in life (the exemplar) with the actual suicide note to ascertain authenticity.
- The note is supposed to be submitted to the medical examiner/coroner after laboratory processing.

### **Forensic Pathologist Report**

I requested my friend and mentor, Dr. Dominick J. DiMaio, a former chief medical examiner and forensic consultant, to review the hospital pathologist's report and the facts of the case. He prepared an addendum to my report as follows:

In my 45 years of experience in forensic pathology, I have never seen a brain travel the distance the victim's brain is alleged to have been dis-



persed. From the bed area, to the front of the bed and then make a right turn down the hallway to the rear door. Secondly, a second rifle shot from a reflex action has never been reported in any forensic journal. Thirdly, how is it possible for this victim to retain control of the rifle and produce a second rifle shot by reflex action? In my expert opinion, I would not classify it as suicide.

### **Evaluation of the Weapon and the Wound Structure**

- Wounds of the brain from high-velocity rifles such as the Remington .308 model 742 are extremely devastating and produce a bursting rupture of the head.
- It would have been physiologically and neurologically impossible for the deceased to have fired two rounds into his head with this type of weapon.
- In addition, the discharge of a .308 would have pulled the gun out of the deceased's hands and sent the rifle flying in the opposite direction.
- The gun would not be conveniently sitting between the deceased's legs with the barrel pointed toward the head.
- The mirror would have most likely been damaged.

### **Response to Insurance Company Medical Expert**

The insurance company hired a forensic expert to refute our finding suggesting that the death was a suicide and that the victim had shot himself twice through the mouth. My response:

In my opinion, the analysis provided in the insurance company report, which suggests a self-inflicted gunshot wound to the mouth, is erroneous and inconsistent with the known facts of this investigation. Furthermore, the report conveniently disregards the most important issue in this particular case. What was the *intention* of the deceased to take his life? Where is the victimology?

- The determination that it was a gunshot wound to the mouth is in direct conflict with the hospital pathologist's report that the victim's teeth were in excellent shape and his mouth and pallet intact.
- The victim was right-handed. The pathologist's report says the entry was to the left side of head.
- The cleaning service reported finding part of the scalp and a piece of skull bone embedded in the wood paneling in the back of the closet and that there was a through and through bullet hole in the rear wall of the closet.
- This is *not* consistent with firing a shot from left to right and upwards towards the ceiling.



**Figure 22.7 CLOSE-UP VICTIM'S HEAD AND MOUTH.** This photograph depicts the gunshot wound to the victim's head. Note that the victim's mouth and teeth are intact. If, in fact, the decedent had fired this high-velocity weapon into his mouth, it would have been blown out along with the palate and teeth. (From the author's files.)



**Figure 22.8 SUICIDE — HIGH-POWERED RIFLE.** This photograph illustrates the devastating effect of a high-powered weapon placed into the mouth of a suicide victim. Note the destruction from the blast of the weapon. The teeth and mouth have been destroyed. (Courtesy of retired Detective John DeGuilio, Crime Scene Unit, New York City Police Department.)

In my opinion, this would not be consistent with the deceased sitting on the edge of the bed in an upright position and firing a shot upward through his mouth. In order for the major portion of the brain to get to the rear door, it would have had to have traveled in the opposite direction of the other blood and biological materials. In addition, it would have had to have made a right-hand turn out the doorway of the bedroom and then travel down the hallway, a distance of approximately 8 feet, before landing at the back door. We found this to be forensically impossible.

### **Opinion**

In my opinion as an expert in homicide and death investigations, the inquiry into the death of the deceased was perfunctory and inadequate according to the recognized standards of professional death investigation. Numerous investigative errors and serious omissions occurred in this investigation as well as an obvious failure to support the classification of suicide forensically with evidential facts. It was readily apparent that this particular crime scene had been staged. The victim's death was in fact suspicious and not consistent with suicide.

## **Case Number 2: An Equivocal Death Investigation with Staged Crime Scene Death Classified as Undetermined Manner**

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### **Introduction**

I consulted on a case in which an 11-year-old female was found hanging from her bedpost by a chain connected to a dog collar around her neck. The police and prosecutor's office deemed the case a suicide. Professional forensic investigation concluded that this death was more consistent with homicide than suicide.

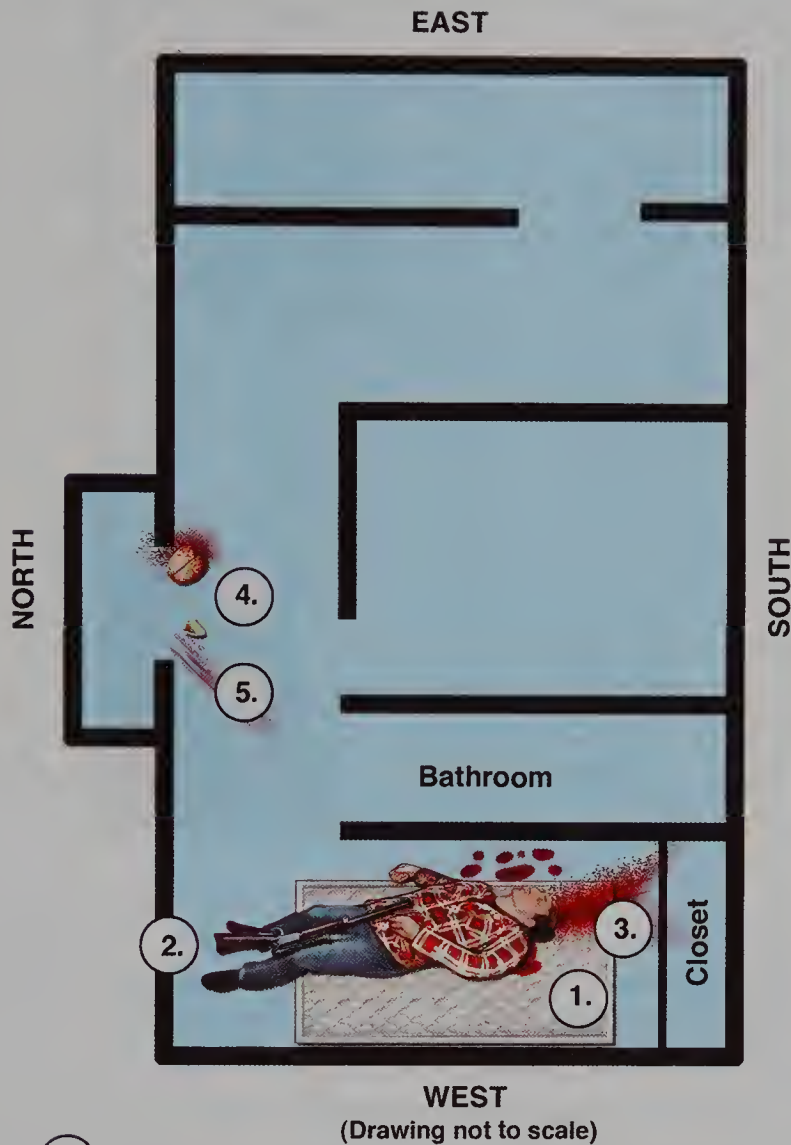
The district attorney wanted the medical examiner to classify the death a suicide because it "fit" the prosecutorial theory. The medical examiner refused this request and classified the suspicious death as undetermined. Three of four forensic experts who reviewed the case for the Medical Examiner's Office agreed that the case was highly suspicious. My opinion was that this case was a staged crime scene.

### **The Initial Police Investigation**

The initial police investigation focused on the incident as a possible suicide. The mother informed the first officer that her daughter had apparently hanged herself. The first officer immediately ran upstairs with the arriving paramedics and observed the victim, who was hanging from a bedpost in the bedroom. The victim was cold to the touch and showed obvious signs of death and was pronounced dead at 1306 hours. The first officer immediately notified detectives to respond and conducted preliminary inquiries.

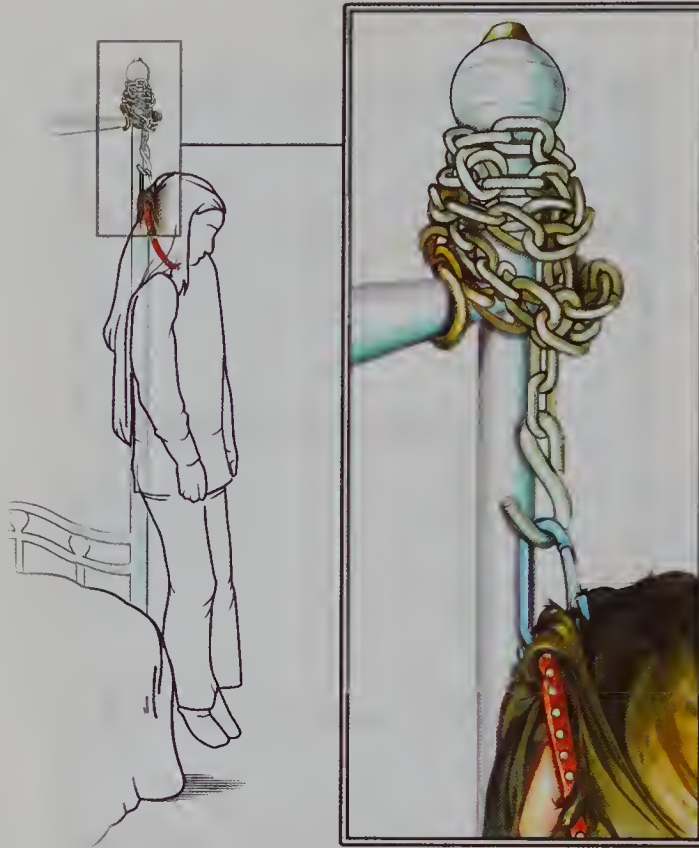
The mother told the officer that she had been downstairs babysitting her other children and a neighbor's child. The last she knew, her daughter was upstairs





- (Drawing not to scale)
1. The body
  2. The Remington .308 semi-automatic rifle
  3. The velocity blood going into the closet (South)
  4. The brain going in the opposite direction (North) and turning down the hallway (East)
  5. A piece of the calvarium

**Figure 22.9 STAGED CRIME SCENE.** Murder made to appear to be a suicide. The victim was discovered lying on his back across his bed with a .308 rifle between his legs, suggesting that he had shot himself in the head with the weapon. His head is pointing towards the south with his feet to the north. The illustration depicts the victim's feet hanging off the bed in the bedroom. His brain is found lying by the back door, which is northeast of his position. In order for the brain to have arrived at the place of discovery, it would have to have traveled in the opposite direction of the suggested direction of velocity, made a right turn down the hallway, and landed by the back door. This situation is obviously forensically impossible. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, www.doereport.com.)



**Figure 22.10 MEDICAL ART — CRIME SCENE RECREATION.** This medical legal art recreation illustrates the victim hanging from the bedpost in the crime scene when police arrived. It also depicts the ligature. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

playing. The victim was the oldest of five children, who were all home schooled. The mother also ran a day care center out of her home, where she babysat other church members' children.

### Initial Detective Investigation

The detectives interviewed the mother and father separately to obtain some preliminary information. The mother was emphatic that she had never seen that chain in the house. The father stated that the chain was used to secure the family dog they used to have and he had noticed the chain “floating around the house” over the past couple of weeks. He claimed to have seen the metal chain on the bed before. The father was requested to come to the police station for a follow-up interview. He gave an extensive statement indicating that the victim had a bad habit of tying up her toys, usually stuffed animals, and hanging them by the neck from the canopy of her bed.

The father stated, “This was an accident; we have nothing to cover up.” When asked why he would make such a statement, he stated, “No reason. When you have done nothing, you have nothing to hide.” The detective asked the father whether

he would be willing to take a polygraph to assist in the investigation. The father repeated, "If you have done nothing, you have nothing to hide."

### **Initial Medical Examiner Investigation**

Forensic investigators interviewed the father, a 46-year-old white male and his wife, a 33-year-old white female. The parents stated that they were Christians, very strong in their faith, belonged to an evangelical church, attended services regularly, and were close to their pastor. The father ran a warehouse business from his home and showed his merchandise by appointment. The parents agreed that their 11-year-old daughter was well adjusted and did not show any evidence of depression.

When the investigator asked both parents whether they had ever seen their daughter hang her stuffed animals from her bedpost with a dog collar, they both stated, "No." When the ME's investigator asked them if they had ever discussed sex and sexuality with their daughter, the father put his head down, covered his forehead and eyes with his hand, and did not answer any questions on this topic. The mother stated she was going to bring up the subject of menstruation with her daughter the last time that she had had her own period but then never got around to discussing it. The mother then stated, "*If there is one good thing to come out of this, at least she will never have to have a period.*" This was spontaneous and an odd comment to make.

### **Autopsy Findings**

A board-certified forensic pathologist conducted the medicolegal autopsy. There was evidence of acute vaginal and anal injuries due to acute sexual abuse. A sexual assault kit was completed as well as consultation with clinical colleagues from the Child Advocacy Center. These injuries were felt to be consistent with attempted vaginal penetration, with clear evidence of penetrating trauma to the anus.

The ligature groove mark on the victim's neck was quite pronounced and matched the configuration of the dog collar, which was secured around the deceased's neck. There was also an imprint of the rabies tag, which was attached to the dog collar, visible on the girl's neck. The ligature mark canted upward in the rear of the neck consistent with the hanging position of the body.

### **The Follow-Up Medical Examiner Investigation**

While the father was at the police station, the mother was at the medical examiner's office, first speaking with forensic investigators and a detective and then with the medical examiner. The mother received a cell phone call from her husband. Following the phone call, the mother stated that she remembered that her husband had found two tampons in the daughter's room. The mother did not broach the subject with the daughter because she did not want to embarrass her. The mother was emphatic about the accidental nature of the daughter's death, insisting that the girl suffocated while she was playing. The mother told the medical examiner that



she had read her daughter's diary and there was not anything in it that concerned her. She also said that she had not been able to find the diary since then. The mother then explained how her daughter had certain household duties, such as dishes, vacuuming, and babysitting.

When the mother was informed that the decedent had sustained sexual injuries (though not the specifics of the trauma), she immediately stated that "*this was still not a reason to believe that 'the girl' committed suicide.*" This was a strange statement from the mother.

The mother then received a cell phone call from her husband, who asked if he could join the meeting at the medical examiner's office. Both parents then wanted to know whether the injuries could have been self-inflicted. When the pathologist explained that the injuries were consistent with sexual assault, the father became visibly nervous and put his head in his hands

### **The Follow-Up Police Investigation**

Eventually, the father was rescheduled and took the polygraph test at the police station. He failed the polygraph test on questions concerning his knowledge of the death of his daughter:

Do you know for sure how your daughter died?

Did you murder your daughter?

Are you now withholding any pertinent information about your daughter's death from the police?

When the father was informed that he had failed the polygraph test, he provided a detailed confession to the rape and sodomy of his daughter.

However, the detective who was interrogating the father regarding the sexual assault unwittingly provided the suspect with a way out when he stated, "*I then told [the father] that because he did this, his daughter was not able to handle it and this was why she hung herself.*" This was a major error. The father made no further admissions concerning the death.

The mother was never given a polygraph examination. She provided the alibi for her husband by stating that her husband was out of the house when the daughter died. She actually testified to the grand jury under oath that she saw her daughter alive after the father left for work. The father worked out of his home but maintained a warehouse where he stored his inventory. So he would take calls at home and then meet customers at the warehouse. The mother was never charged.

### **Investigative Assessment and Analysis**

#### ***Initial Response***

The initial police response was professional and in accordance with recognized emergency response procedures. The police and paramedics examined the body

and properly confirmed death and left the body in its original position for detective investigation.

The detective sergeant properly instructed his detectives to interview the mother and father separately to obtain some preliminary information. There was proper documentation by first responders, which revealed discrepancies in the times that certain events had occurred according to the parents. The detectives properly requested the father to take a polygraph examination. However, the parents' accounts continued to change as the investigators requested clarification and attempted to establish a time line.

### ***Review of the Police and Medical Examiner Investigators' Reports***

Both parents provided conflicting information about certain elements in the crime scene. These contradictions continued throughout the reports:

1. The mother never saw the chain that was attached to the bedpost in the house. However, the father reported that he had seen the chain "floating around the house."
2. The mother was "fairly certain" she saw the decedent after the father had left the house for work at 11:40 A.M.
3. The father initially told the sergeant that he was the last one to see his daughter alive.
4. The father identified the chain as coming off one of his trucks. He then provided an alternative explanation and said that the chain was for his dog.

RED FLAG. In my opinion, this chain would be too heavy to be used as a dog chain. This is a commercial type of chain used to move heavy objects.

5. The father told one detective that he came home from his bike ride, took a nap for 20 minutes, and then showered. In the other statements, he stated that he came home from the bike ride, took a shower, and then napped.
6. The father said that he remembered his daughter hanging her stuffed animals from the canopy. However, the mother stated that she did not remember her daughter hanging her toys from the canopy.
7. The father said that he had seen his daughter wearing the dog collar "dozens of times." The mother said she had only seen her daughter wearing the dog collar once.

It is obvious that there was collusion on the part of the mother and father to confuse and mislead the police with their contradictory and inconsistent accounts.

### ***The Ligature***

The ligature consisted of a red colored leather dog collar with a metal rabies tag attached to the collar around the neck with a blue carabiner attached to the back of the dog collar. This carabiner was hooked to an "S" hook attached to a thick



**Figure 22.11 MEDICAL LEGAL ART DEPICTION.** This drawing depicts the ligature wrapped around the bedpost, which indicates an intricate design and sophistication. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

rusty metal chain, which had been wrapped several times around the top of the bedpost and secured by another “S” hook to the frame so that it would not slip down the bedpost.

A review of the crime scene and medical examiner photographs demonstrated an intricate connection, too sophisticated for this young girl to have configured such a design. Also, if she were able to handle this heavy rusty chain, then there would be rust on her hands, which was not found.

### ***Victimology***

As mentioned in Chapter 1 and earlier in this chapter, victimology is one of the most important factors in evaluating whether an individual could be considered a candidate for suicide. A review of the police and medical investigator’s reports certainly *did not* indicate any depression or inclination on the part of the victim to take her life. Investigators interviewed four close friends of the decedent. None of these friends or their parents thought that the young girl was suicidal.

### **Conclusion**

In my consultative report prepared for the Medical Examiner’s Office, I concluded that the death of this 11-year-old child was more consistent with homicide than with suicide and that the scene had been staged to mislead the authorities or redirect the investigation.

I based this conclusion on an investigative assessment and analysis of the materials available for review. There were a number of contradictory statements made by the parents, which the police investigators failed to pursue. Early in the investigation, “red flags” emerged which should have alerted the detectives to the obvious collusion on



the part of the mother and father to confuse and mislead the police with their contradictory and inconsistent accounts:

- *Red flag.* Why did the mother not attempt to take her daughter down from the ligature?
- *Red flag.* The ligature was too sophisticated for an 11-year-old to have configured.
- *Red flag.* Analysis of the 911 call indicated subterfuge by the mother.
- *Red flag.* The father called the mother on her cell phone as she was on the phone with the 911 operator calling for help. The father stated that he “got a feeling” to call home.
- *Red flag.* There was a history of inappropriate sexual activities with the father’s second wife’s little girl.
- *Red flag.* Early statements by the father: “This was an accident; we have nothing to cover up” and “If you have done nothing, you have nothing to hide.”
- *Missed opportunity.* A review of the cell phone records would have indicated any communications between the father and mother prior to the 911 call.
- *Missed opportunity.* Documentation by first responders revealed discrepancies in the times that certain events had occurred according to the parents. The parents should have been confronted early and both considered suspect by their actions.
- *Missed opportunity.* When the father failed the polygraph test, it was for murder not sexual assault. The detective should have pursued this line of questioning. Instead, the detective provided this clever suspect with a way out: “I then told [the father] that because he did this, his daughter was not able to handle it and this was why she hung herself.” This was a major investigative error.
- *Missed opportunity.* The sexual aspect of the crime was the “hard part” for the father to admit. The confession to murder could have been obtained if the investigator had pursued the initial basis for the polygraph. The father failed the pretest questions as they related to murder.
- *Missed opportunity.* Detectives did not request the mother to take a polygraph test. The mother should also have been considered equally culpable in lieu of her inappropriate actions and misleading statements during the investigation.

The judge ruled that the manner of the 11-year-old’s death was *not* admissible. The father was eventually convicted of rape and sodomy and sentenced to 50 years in prison.

### Case Number 3: An Equivocal Death — Homicide or Suicide?

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#### Introduction

I consulted on an extremely controversial case involving the classification of death of 38-year-old Captain Gordon Hess, a National Guard company commander, who

was on active reserve duty at Fort Knox, Kentucky. The victim had been stabbed multiple times through his clothing. The U.S. Army CID classified the death as a suicide. The family of Captain Hess disagreed with their findings and requested an outside investigation.

### **Case Facts**

On Wednesday, March 4, 1998, at approximately 0810 hours, the body of Captain Gordon Hess was found in a ravine on a military base. Captain Hess, a 38-year-old white male, was a National Guard company commander on active reserve duty at Fort Knox, Kentucky. A search party had been assigned to locate the missing captain, who had been reported missing by his company commander. While the team was searching the ravine, they came upon his body. The captain was lying face down in the creek, which contained about an inch of bloody water. The soldiers rolled the body over so that Captain Hess's head and shoulders were out of the water and up on the bank. The captain's face was purple, and the body appeared stiff. There was blood on Captain Hess's physical training gray sweat top over his chest area and a small hole through Captain Hess's top about center mass around the breastbone area.

The soldiers lifted the body out of the ravine and placed it on the bank and covered Captain Hess's head and upper chest with his field jacket. According to the witnesses report, no one else touched the body. Captain Hess's arms were clenched up towards his chest and his body was lying straight out in the bottom of the ravine. There were a total of four soldiers. Not one ever saw a knife or any weapon at the scene. However, the Army later provided crime scene photos showing a Leatherman knife at the scene, which was covered with a large oak leaf.

### **U.S. Army Autopsy Report Case# ME98-006**

The AIFP pathologist, Dr. Peter Schilke, classified the manner of death as suicide. He listed six injuries to the neck consisting of stab and incised wounds, which in his opinion were superficial with no injury to vital structures of the neck. He listed 26 stab wounds.

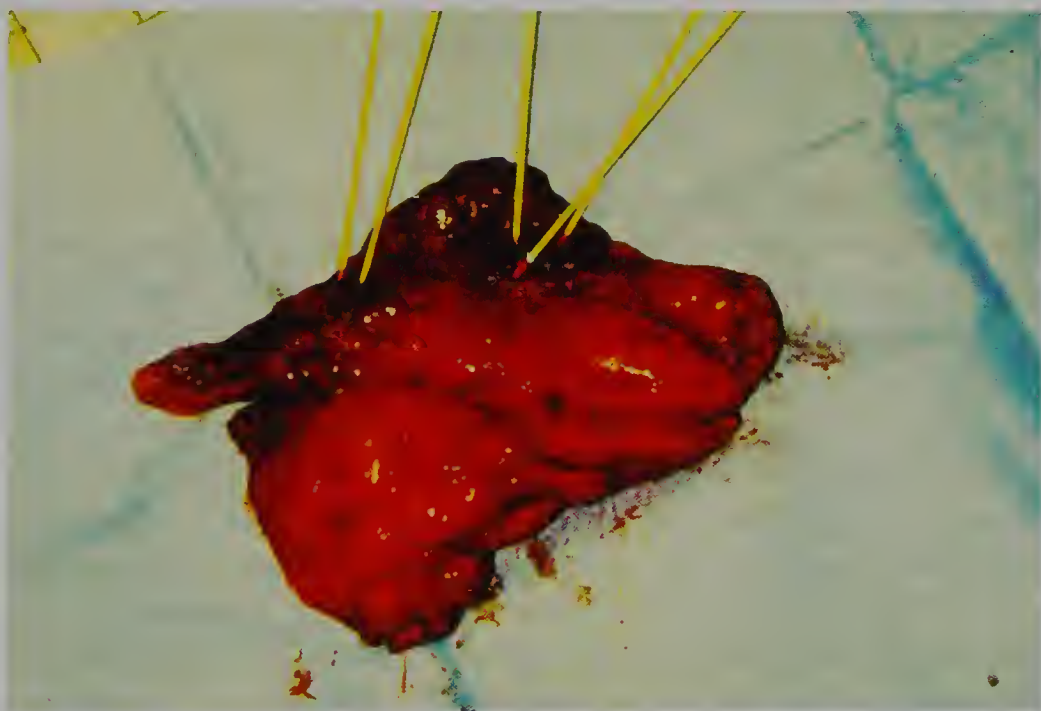
Two stab wounds were made to the right chest, one of which extended 3 in. downward with superficial incision of the right lobe of the liver. Dr. Schilke also listed 18 stab wounds to the left chest and left of the anterior midline. There were two stab wounds to the heart, which penetrated the anterior left ventricle of the heart, and four that penetrated the left upper lobe of the lungs.<sup>2</sup>

The AIFP pathologist based his determination of suicide on the following:

- The cutting wounds to the neck were superficial.
- The stabbing wounds into the chest were depicted as hesitation marks.
- He noted the lack of defensive wounds to the arms or hands of the victim.
- The victim's wallet containing cash was found at the crime scene.



**Figure 22.12 CRIME SCENE PHOTOGRAPH.** This photo shows the ravine where the victim's body was discovered. It was reportedly under the ledge. The photo also depicts a partially opened Leatherman tool as well as blood from the victim. However, there are no fingerprints of the victim on the Leatherman tool. (Courtesy of the office of Charles DeAngelo, Esq., attorney representing the Hess family.)



**Figure 22.13 MEDICAL EXAMINER PHOTO OF LUNGS.** This photo depicts five probes into the left upper lobe of the lungs — not four, as was reported in the AFIP autopsy protocol. (Courtesy of the office of Charles DeAngelo, Esq., attorney representing the Hess family.)





**Figure 22.14 MEDICAL EXAMINER PHOTO OF HEART.** This photo depicts two probes indicating the two stab wounds of the heart, which penetrated the anterior left ventricle of the heart. (Courtesy of the office of Charles DeAngelo, Esq., attorney representing the Hess family.)

- The Leatherman tool, which was found proximate to the body, was determined by the pathologist to be the instrument used to inflict the injuries.
- The pathologist also stated that no evidence of a struggle was found at the scene.
- The pathologist acknowledged an injury to the decedent's finger and noted five postmortem abrasions on the decedent's forehead.

### **USACID Position**

It was the opinion of the Army CID investigators that Captain Hess had committed suicide because he was unhappy over a fratricide incident during a SIMTAC exercise, which is a computer-generated simulation training program. The CID interviews of personnel apparently followed the premise that Captain Hess was depressed and shaken by his failure in the exercise and therefore a candidate for suicide.

### **Second Medicolegal Examination Requested by Family**

Sung-ook Baik, M.D., a forensic pathologist from Buffalo, New York, conducted a second autopsy. Dr. Baik's opinion was that the cause of death was multiple stab wounds in the neck, left chest, and right chest involving the heart, left lung, liver, and left second rib with hemopericardium and left hemothorax. He classified the death as homicide.<sup>3</sup>

### **Investigative Assessment and Analysis**

I have investigated many suicide investigations where victims had self-inflicted multiple stab wounds.

- The number of wounds is not the basis for a determination of suicide or homicide.
- It is the lethality and configuration of the wounds that must be considered.
- An in-depth investigation into the victimology of the deceased must be undertaken.
- The circumstances of the event and dynamics surrounding the incident must be considered.
- All of the investigative reports and crime scene and autopsy photographs are necessary to assess and evaluate the death effectively.

I recommended an independent review of the AFIP autopsy report and Dr. Baik's medicolegal examination be conducted by Dr. Dominick J. DiMaio, a highly respected and world-renowned forensic pathologist. Dr. DiMaio was the former chief medical examiner for the city of New York, whose credentials are impeccable. The doctor agreed to review the autopsy reports and provide medicolegal services.

I reviewed the military reports and conducted interviews of witnesses and personnel that the USACID had documented. There were approximately 130 persons interviewed. Only one person had mentioned suicide and his reference to suicide was made in a joking manner. In fact, many of the persons I interviewed stated that their comments had been taken out of context to fit the "suicide" finding.

I met with a National Guard major who was reportedly investigating the death of Captain Hess from the National Guard's perspective. The major provided me with copies of the crime scene and autopsy photographs along with some further investigative reports.

I ascertained from interviews that the initial responding units felt that the death was a homicide. Another source close to the investigation stated that within 2 hours into the case, CID agents were ready to declare the incident a suicide. According to this source, it was the MACOM commander who made the decision to classify the death as a suicide.

According to sources present during the early stages of the investigation, the crime scene was completely compromised and contaminated by the additional emergency service personnel who responded to the scene as well as various Army commanders who were present. Military police responded and attempted to establish a crime scene, but the initial responders and others who had been present had already contaminated the scene with their boot- and footprints.

In fact, in one photograph I reviewed, one can see a coffee container sitting on a rock next to where the body was placed. *Within 2 days, the U.S. Army command ordered 2 tons of dirt to be dumped on the crime scene by front loader.* This was ostensibly done to prevent the spread of any biohazard from Captain Hess's blood. This action completely destroyed the opportunity to reconstruct the crime scene or perform any soil evaluations for comparison with Captain Hess's boots and clothing to any possible suspects. I had never heard of such a procedure as dumping 2 tons of dirt over a crime scene to prevent biohazards from airborne pathogens such as blood.

## **NYS Medicolegal Analysis Conducted for the National Guard**

The author recommended that the National Guard major have the New York State Medical Examiner's Office review the AFIP autopsy. Captain Hess was on active duty for the New York National Guard when he died; therefore, the NYS Medical Examiner's Office would be available as a resource for consultation and review. Dr. Barbara Wolf, a forensic pathologist for the New York State Police at the time, concluded that

It is my opinion, to a reasonable degree of medical certainty and in agreement with the opinion of Dr. Schilke, that the cause of Captain Hess's death was multiple stab and incised wounds to the neck and chest. However, it is further my opinion, based upon the materials available for review, that *the manner of death is not suicidal*. It is therefore my opinion that the manner of death of Captain Hess's death is homicidal.<sup>4</sup>

## **Preliminary Consultative Reports**

In his expert opinion, Dr. DiMaio concluded, with a reasonable degree of medical certainty, that the AFIP pathologists had presented insufficient medical evidence to state with a reasonable degree of medical certainty that Gordon Hess's death was due to suicide. I also submitted a preliminary report making specific reference to the lack of hesitation wounds coupled with the lethality of the injuries suffered by Captain Hess. In fact, in the absence of drugs, alcohol, or psychosis, I had never seen this many self-inflicted stab wounds in a suicide without the presence of hesitation wounds.

## **USACID Follow-Up**

The military investigators had compiled a 1300-page document with investigative reports, which included a blood splatter expert who had provided an interpretation of the bloodstain patterns of the clothing worn by Captain Hess. However, this report was not prepared until 9 months later and was subject to interpretation. The Army included a report from a chief psychologist for Naval Investigative Services, who submitted his clinical investigative review of the facts of the Gordon Hess case.<sup>5</sup>

In this "psychological autopsy," Dr. Gelles wrote that "...there appears to have been a tragic series of events...that led to a rapid regression and loss of control for Captain Hess.... His status and role as a military officer and commander was critical to his identity.... His image of himself as a leader and commander shattered."<sup>4</sup> Dr. Gelles concluded with the following statement:

There is some evidence in this case to suggest that Captain Hess was agitated and distressed, unable to tolerate the stress of continued training, in combination with his own self-perceived failings. He subsequently self-inflicted numerous lethal and non-lethal stab wounds using his Leather-



man tool to his neck and torso resulting in death, either to relieve his stress or punish himself.<sup>5</sup>

USACID engaged the services of an outside consultant, who provided his analysis of the case. This consultant was a former military policeman with a fellowship in Forensic Medicine from the U.S. Armed Forces Institute of Pathology and Ph.D. candidate in the Department of Sociology. He concluded that the death was a suicide. This consultant referred to a research paper, “Patterns in Sharp Force Fatalities — a Comprehensive Forensic Medical Study: Part 2. Suicidal Sharp Force Injury in the Stockholm Area 1972–1984.”<sup>6</sup> The study was based on a study of 89 cases of sharp-force suicides in the Stockholm area of Sweden from 1972 to 1984. In this study, 71 of the 89 cases examined had hesitation wounds. In 18 of the cases, there were no hesitation wounds.

The Army cited this report as further evidence that Captain Hess had committed suicide because the author stressed that the victim’s body had no hesitation wounds. *Ironically, when contacted by CBS 60 Minutes, Dr. Karlsson, who authored the paper, agreed with our medical experts that the death was more consistent with homicide than suicide.*

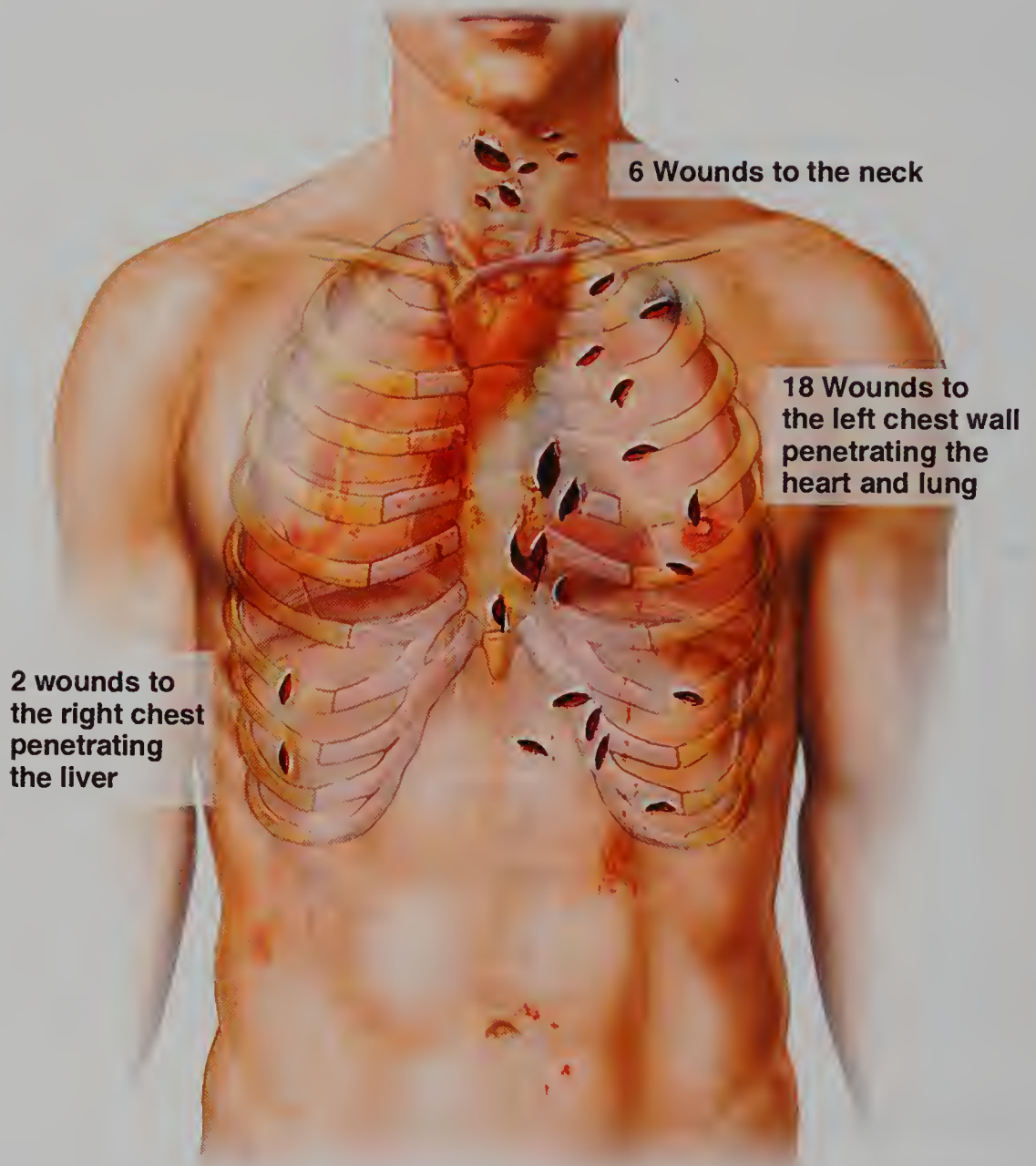
In the Karlsson report, one of the conclusions of the study was that “according to our series, more than one stab wound piercing the left cardiac ventricle is uncommon in sharp-force suicide. This may be due to an immediately incapacitating effect of one such injury, which precludes further self-destructive activity.”<sup>6</sup>

I believed that the psychological autopsy was flawed because the examiner disregarded any family input. A psychological autopsy must be prepared concurrent with the event, before any predisposition. In the Hess case, it was not prepared for almost a year and the conclusions were based strictly on the military’s interpretation of the event. The blood splatter information was of no value, considering that Captain Hess’s clothing had been wet and blood soaked when his body was discovered face down in the water. The report was not prepared until 9 months later and was subject to subjective interpretation.

### **Medical Significance of the Wound Structures**

The major area of dispute continued to be the medicolegal interpretation of the wounds. The medical question was whether a person could have caused such multiple deep potentially fatal injuries in a suicide, with lack of any hesitation wounds or injuries. This equivocal death became a classic medical examiner investigation.

I proposed a consensus of medical opinion from additional forensic pathologists. The additional medical experts who reviewed this case — Dr. Leslie Lukash, chief medical examiner, Nassau County, New York, and Dr. Halbert E. Fillinger, forensic pathologist — were renowned and respected in the field of forensic pathology. They reviewed our findings and concurred with our analysis, stating that the manner of death was more consistent with homicide than suicide and that they would have ruled the cause of death as undetermined.<sup>7,8</sup>



**Figure 22.15 MEDICAL LEGAL ART DEPICTION.** This drawing illustrates the extent of the lethal injuries to the victim's neck and torso, which are more consistent with homicide than suicide. (Courtesy of Medical Legal Art. Illustration copyright 2005, Medical Legal Art, [www.doereport.com](http://www.doereport.com).)

## Review of Medicolegal Findings

- The AFIP pathologist failed to document the wounds properly and as a result prepared a confusing autopsy protocol that did not account for all of the injuries.
- The AFIP pathologist reported that the victim had suffered two fatal wounds to the heart and that the four wounds had penetrated the left lung.
- The consultants reviewed the autopsy photographs from the AIFP Pathologist and noted five probes in the lung indicating five penetrating wounds, *not* four as cataloged in the original autopsy report.
- The medical experts who reviewed the AFIP report disputed the findings that there were hesitation wounds inflicted on the victim's chest.
- There were *no* hesitation marks on the victim's body.
- The AIFP pathologist stated that an injury or wound on Captain Hess's index finger was pre-existing or inconsequential to the event and was not a stab wound.
- The AIFP pathologist never explained the five tan 1/8-in. postmortem abrasions to the forehead or the three 1/8-in. abrasions around Captain Hess's left eye.
- I contended that the wound to the decedent's hand was in fact a defensive wound that he had received during a struggle involving a sharp-edged instrument.
- I argued that the postmortem abrasions noted on the decedent's head were caused when the captain's body was rolled into the rocky ravine.
- The medical experts who reviewed the AFIP agreed with the cause of death, which was not in dispute. It was the manner of death. The location, appearance, and configuration were more likely to have been produced by a homicidal attack.
- The medical experts disagreed that the Leatherman tool with the 2 1/2-in. blade could have penetrated to a depth of 3 in. and perforated bone. Many of the wounds were inflicted through the intercostal space (see diagram).
- One of the stab wounds had a "Y" shaped configuration. According to the medical experts this implied a relative motion between the assailant and the victim or a twisting of the knife or superimposing of two stab wounds, which is inconsistent with suicide.
- The multiple stabbing and incised wounds into the victim's neck indicated more than one direction of cutting, which is inconsistent with self-inflicted wounds.
- Multiple wounds had penetrated vital structures and were therefore potentially fatal wounds. Although it is not uncommon for multiple self-inflicted sharp force injuries to be seen in suicidal deaths, such cases are not associated with multiple deep, potentially fatal injuries, but with multiple superficial injuries and a single fatal injury.



- The chest wounds, which penetrated the chest and abdominal cavities, resulted in two penetrating stab wounds of the heart, which pierced the anterior left ventricle of the heart and five that penetrated the left upper lobe of the lungs. These were lethal wounds and *not consistent* with suicide.

## Final Report

Dr. DiMaio took issue with Dr. Schilke's description of the neck wounds as superficial.<sup>9</sup> He stated that the wounds that Dr. Schilke described as superficial were neither superficial nor hesitation type incised wounds. Dr. DiMaio described each wound and concluded that

The stab wound tracks that commingled and penetrated the left lung and ventricle were definitely lethal wounds. The wounds of the right lower anterior chest were potential lethal wounds. The order in which the above stab wounds and the others were inflicted is purely speculative. However, what is not speculative is that these wounds are not suicidal wounds. These wounds are consistent with homicidal wounds.<sup>9</sup>

Dr. DiMaio and I referenced the *victimology* and history of the deceased based upon personal interviews of fellow guardsmen, friends, and coworkers and upon materials provided by counsel. We concluded that Gordon Hess did not match any suicide profile that we had ever encountered in our collective suicide investigations. In summation, Dr DiMaio stated, "In conclusion: the cause of death is obvious. It is my expert opinion that the manner of death is homicidal, by unknown person."<sup>9</sup>

## Conclusion

The medical experts and I produced a consensus of medical opinion as well as investigative concurrence among other experts who reviewed this case. In our opinion, these injuries and wounds were obviously not self-inflicted. In fact, not one of our experts had experienced a case with this many self-inflicted stab wounds without some evidence of hesitation marks on the victim. In the absence of drugs, intoxication, or psychosis, a death like that of Gordon Hess would more properly be classified as homicide. We all concurred that Captain Gordon Hess's death was highly suspicious and was not consistent with the military's finding of suicide.

## Opinion

We also agreed that this type of an equivocal death case should have been ruled "undetermined" because neither party could demonstrate with any degree of *medical certainty* that the death was in fact a homicide or a suicide.

## Case Number 4: Staged Crime Scene — Homicide or Suicide?

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I remember one specific case to which I responded that had been initially reported to the police as a suicide. The reporting witness, the common-law husband, was a recent graduate of the John Jay School of Criminal Justice in New York City. He had taken various law enforcement courses as part of his study and therefore was keenly aware of police procedures and response protocols for the New York City Police Department. At the time of this event, he was awaiting appointment to the police department. The immediate problem for investigators was that the patrol sergeant had not even initiated crime scene protection because he had accepted the initial report of “suicide” as fact.

When I arrived at the scene, there was mass pandemonium as family members ran through the apartment crying and screaming. The husband, who was seemingly distraught, stated to the responding police officers that he had left his apartment in the early morning hours at approximately 7:00 A.M. to take a subway to the unemployment center in Manhattan because he wanted to assure that he would have a legitimate job when the police department hired him. He stated that he returned to the apartment about 9:45 A.M. and heard a baby crying. He called his wife’s name but she did not answer. He stated that, as he ran through the apartment, he discovered his wife submerged in the tub. He stated that he had pulled the body from the tub and had attempted mouth-to-mouth resuscitation. The husband told the uniform officers that he then called his brother’s house for help and asked his brother to call the police. The 911 call had originated from the brother’s apartment. His other calls resulted in family members streaming to the victim’s apartment to console him and that created much confusion.

The husband told the patrol sergeant that his wife had been despondent since the recent birth of their baby and that she had probably committed suicide by drowning herself in the tub after taking an overdose of pills, which the doctor had prescribed to her. Police officers at the scene had recovered a half-empty prescription bottle next to the victim’s body, which the husband had stated was his wife’s prescription for depression.

The general condition of the scene and the statements of the husband seemed to indicate the possibility of suicide. I observed the nude body of a young woman lying on the floor next to the tub in the bathroom. The tub was half full of water, and the body was still wet, as though it had been submerged in the tub.

I requested the patrol sergeant to clear the bathroom area and requested family members to remain in the living room area. I then directed my detective to interview the husband and obtain a statement. As I examined the body, I noticed a slight bruising and erythema in the neck area. The husband had explained that, upon finding his wife submerged in the tub, he had attempted to resuscitate her and had held her by the throat to force air into her lungs. However, when I opened the eyelids of the deceased and examined the conjunctivae, I observed the presence of petechial hemorrhages and was immediately convinced that the death was, in fact, homicidal and not suicidal, as the husband claimed.



**Figure 22.16 STAGED CRIME SCENE.** Position of the victim's body when police arrived. The common-law husband had indicated that he had removed his wife's body from the tub and given her mouth-to-mouth resuscitation. (From the author's files.)

**Remember:** The presence of petechial hemorrhages is presumptive evidence of strangulation or throttling consistent with homicide or assault. The key word is *presumptive* — not *absolute* — because petechial hemorrhages can also be present in additional pathologies.

I ordered the patrol sergeant to clear the entire apartment and requested a crime scene unit to respond. In the interim, the local investigator had taken a statement from the husband and was satisfied that the death was a suicide. I advised the investigator, who was not a homicide detective, of my findings and directed him to take the husband to the police station for a formal statement relative to the suicide because the husband was technically a witness. I wanted the husband-suspect out of the crime scene and away from our inquiry (investigative tactic). I then requested the patrol sergeant to provide me with the names of family members who were in the apartment at the time of the incident. I learned that the occupants were the husband, the wife, an 8-year-old female, a 3-year-old child, and newborn. I learned that the 8-year-old was in school and had left that apartment at 8:25 A.M. The husband stated he had left at 7:00 a.m, which meant that the 3-year-old and newborn would have been in the apartment alone with their mother.





**Figure 22.17** CLOSE-UP VICTIM'S NECK. Examination of the victim's neck area indicated a slight bruising and erythema consistent with manual strangulation. (From the author's files.)

Additional detectives arrived at the scene to conduct the crime scene investigation and obtain statements from potential witnesses. I went to the school with a female relative of the victim to interview the 8-year-old. It was during this interview that I ascertained that the husband was lying when he stated he left the apartment at 7:00 A.M. His 8-year-old daughter stated that he was at the apartment when she left for school at 8:25 A.M.

Later, we learned that the husband had been yelling and fighting with his wife. During the argument, he grabbed her by the neck and strangled her. What he did not realize was that his 3-year-old daughter was watching him as he killed her mother. I had one of my Spanish-speaking detectives interview the little girl in the presence of a family member. In Spanish, she described what she had seen happen in the bathroom.

In order to cover up his crime, the husband had filled the tub with water, removed his wife's clothing, and placed her in the tub. He held her under the water to simulate the drowning. He then removed her body and placed it on the floor next to the tub. In fact, he had even placed the half-empty bottle of pills next to her body to show to the responding police.

The husband was confronted with the facts of the case as well as with my observations, which indicated he had in fact murdered his wife. At first he denied that he had killed his wife. However, I strategically indicated to him that his 3-year-old daughter would be called as a witness to the Grand Jury to testify as to what she saw. Obviously, 3-year-old children would not be permissible witnesses. How-



**Figure 22.18 EXAMINATION OF VICTIM'S EYES.** Evidence of petechial hemorrhage in the conjunctivae. Petechiae as well as an injury to sclera are observed in victim's eye. (From the author's files.)

ever, using a Practical Homicide® tactic, I was able to trick the suspect into making a self-serving statement. Of course, his statement was different from the little girl's observation because he attempted to make his role one of self-defense. It did not really matter. The case was properly classified as homicide.

It should be noted that the autopsy would have readily revealed that the death was due to manual strangulation. However, the offender, who was looking to "buy time" and get the body out of the apartment, certainly would have evoked his right to counsel the next day when confronted with the autopsy results. In addition, we never would have had an opportunity to interview the children because they too would have been under the protection of the husband's defense attorney. The observation of petechial hemorrhages at the scene gave the investigators a head start on their murder investigation. They made further inquiries of the facts and circumstances at the scene and gathered additional evidence. When the suspect was eventually confronted with this evidence, he made a full confession to the police.

### **Conclusion**

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and get the body out of the apartment, certainly would have evoked his right to counsel the next day when confronted with the autopsy results. In addition, we never would have had an opportunity to interview the children, because they, too, would have been under the protection of the husband's defense attorney. The observation of petechial hemorrhages at the scene gave the investigators a headstart on their murder investigation. They made further inquiries of the facts and circumstances at the scene and gathered additional evidence. When the suspect was eventually confronted with this evidence, he made a full confession to the police.

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## Introduction

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The purpose of this chapter is to provide an effective and practical investigative strategy for the investigation of drug-related homicides. Drug-related homicides are defined as murders which occur as a direct result of the use, sale, and distribution of narcotics and other illegal drugs.

In my opinion as an expert in homicide investigation, the classification of drug-related homicides can be further divided into four specific categories: drug hits, which represent the largest percentage of drug-related homicide and take into account the killing of undercover police officers involved in narcotics enforcement; interpersonal violence drug disputes; the murder of innocent bystanders; and drug assassinations.

Although each of these categories involves violence and criminal enterprise, the cause, reason, and intentions for the murderer present authorities with additional investigative options and considerations. These categories are listed numerically based on their frequency of occurrence:

1. *Drug hits.* These are premeditated murders intended to eliminate competition or enforce control over the members of the cartel or drug group. The victim might have been murdered because he or she provided information to authorities or may have been a potential witness in a drug prosecution and was considered a risk to the drug group. Murders which occur during “drug rip-offs” are also considered drug hits.
2. *Interpersonal drug disputes.* These are homicides that occur spontaneously, usually without any premeditation. These murders take place during drug-related disputes and interpersonal violence scenarios among and between persons who are under the influence of drugs and/or are involved in illicit drug activity.
3. *Killing of innocent bystanders in drug-related homicides.* Drug-related homicides also include the murders of innocent civilians and bystanders who are

caught in a crossfire or hit by random shots fired between rival gangs or participants during drug-related disputes. The number of civilian casualties, especially within the inner cities, has drastically increased with the proliferation of drugs and the high-powered weaponry utilized by drug dealers.

4. *Drug assassinations.* These are premeditated murders directed toward government officials, law enforcement personnel, and civilians. The attacks are actually a form of terrorism and are intended to discourage active drug enforcement policies and/or create the impression that the drug groups or cartels are as powerful as authorities. Drug assassinations rarely occur in the United States. However, American authorities and government officials operating and traveling within countries which operate as home bases for some of the major drug cartels are certainly potential targets of an assassination as the United States continues to put pressure on these drug-producing countries in the “war on drugs.”

On February 26, 1988, New York City Police Officer Edward Byrne was literally assassinated by members of a drug cartel while guarding the home of a drug witness. The subsequent homicide investigation in the Byrne case revealed that the police officer was killed on the orders of a jailed drug lord. The offender ordered the murder because he wanted revenge on the police. The drug dealer had been previously prosecuted and incarcerated on another unrelated narcotics case.

The author recommends that the reader see one of the books in my *Practical Aspects of Criminal and Forensic Investigation* series entitled *Global Drug Enforcement: Practical Investigative Techniques*,<sup>1</sup> by Gregory D. Lee. This text deals with the fundamentals of drug investigation (narcotic buy operations, undercover operations, handling confidential informants, etc.) as well as the more complex drug investigations encompassing conspiracy, intelligence gathering, clandestine laboratories, and the nexus between drugs and terrorism.

## **The Drug-Related Murder: The Investigative Dilemma**

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Drug-related homicides are difficult homicides to solve because of the nature of the incident. In most instances, the murder is a premeditated act. The actual motive for the killing is not readily apparent except that criminal enterprise or drugs may be involved. (The exception to this scenario is sudden and violent confrontations between persons involved with drugs and/or the murder of innocent civilians.) Therefore, the police investigation actually becomes a two-pronged inquiry. The police must first investigate the homicide case and then concentrate their investigative efforts on the narcotics aspects of the case. Actually, these types of cases create at least twice the workload of a routine murder investigation and may further be complicated by interjurisdictional considerations. In addition, drug-related homicide incidents within the United States have drastically increased, which further depletes law enforcement resources.



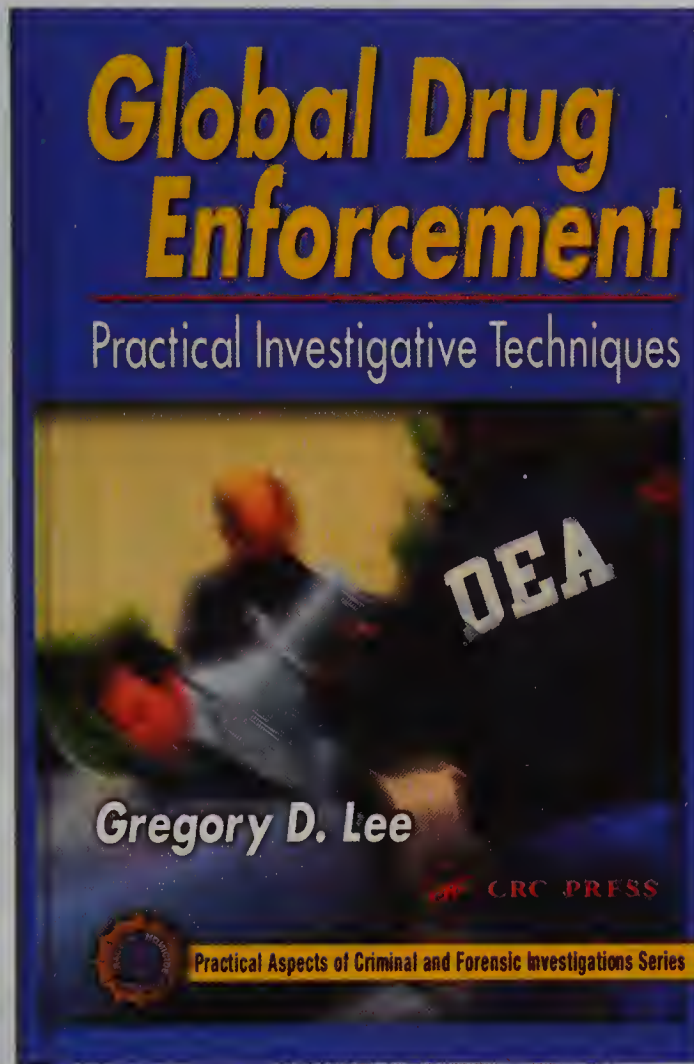


Figure 23.1 COVER OF TEXTBOOK.

In some jurisdictions, drug-related murders account for 50 to 60% of the homicide investigations. Jurisdictions that police large urban areas have traditionally encountered high levels of violence and drug-related criminal activity. The clearance rate for murder within these jurisdictions has been appalling due to the overwhelming workload, lack of personnel, and the absence of an effective strategy for dealing with drug-related murder investigations.

### The Drug-Related Murder and the Investigative Reality

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Investigatively speaking, most drug-related homicides are eventually solved through intelligence and/or informant information. Witnesses in homicide investigations are generally reluctant to get involved. In my opinion, this reluctance turns into active resistance during drug-related murder investigations. The only exception is in the murder of police officers and innocent civilians.

Therefore, the police must concentrate their efforts on obtaining information through gathering criminal intelligence. Intelligence information is usually developed through an independent police narcotics operation, which may evolve within



**Figure 23.2 DRUG “HIT” AND RANSACK.** This photo depicts a standard “execution” type of drug hit. The victim’s hands were secured behind his back. A pillow was used to muffle the sounds of the shots into his head. The body was not discovered for several days and you can see the flies on the body along with the maggot activity. (From the author’s files.)



**Figure 23.3 INTERIOR OF VICTIM’S APARTMENT.** This photo depicts the ransacking of the victim’s apartment as the “hit men” searched for drugs and money. Everything in the apartment was turned inside out and upside down as the killers went through the place like Attila and the Huns. (From the author’s files.)



the police department or through outside agencies, such as the DEA, ATF, U.S. Customs, or the FBI.

This intelligence may be in the form of court-approved wiretaps or electronic eavesdropping warrants employed during a narcotics investigation, the execution of search warrants, or through routine debriefings of informants and/or persons arrested for drug violations. Informant information is the most valuable source of inside knowledge about any criminal enterprise. It may be motivated by any number of factors, including financial reward, fear, revenge, or court consideration in a pending criminal action.

## The Three-Phase Strategy

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Practically speaking, authorities should implement an enforcement strategy that addresses three distinct phases of the drug-related murder investigation:

- Phase 1* — the application of procedural and forensic techniques as well as investigative resources to the homicide crime scene and murder investigation
- Phase 2* — the evaluation of intelligence resources with the objective of cultivating reliable sources whose information can be effectively corroborated with the information developed at the homicide crime scene
- Phase 3* — the implementation of crime clearance procedures, which enable authorities to clear a case successfully without an arrest by utilizing “exceptional means”

The rationale of a *three-phase* strategy is based upon the premise that most drug-related homicides are the direct result of an on-going criminal enterprise. The solvability of each case depends upon the factual information, which can be developed at the time of the event, coupled with current informational intelligence relative to the specific drug operation involved in the murder event.

The ability of authorities to develop and maintain current intelligence sources and reliable informants is prerequisite to the successful investigation and/or resolution of drug-related murders.

### Phase 1 — The Homicide Crime Scene

The process of the homicide crime scene is without a doubt the most important phase of any murder investigation. However, in drug-related homicide investigations, the crime scene process takes on an additional significance. In this phase of the investigation, it is absolutely imperative to document each and every aspect of the event effectively, with the objective of establishing a basis for future corroboration. The police authorities must first attempt to establish the investigative facts of the case based upon the dynamics of the event as well as the circumstances under which the person was killed. The investigation usually starts at the point where the body was originally found. This is the primary crime scene. This





**Figure 23.4 DUMP JOB — DRUG HIT.** This body has been transported from the place of occurrence to an outdoor dumpsite. It is apparent that the killers used bed clothing, probably from the scene, to carry the body from the location of the “hit.” (From the author’s files.)



**Figure 23.5 INTERPERSONAL VIOLENCE — DRUG DISPUTE.** Drug-related homicide predicated on an interpersonal dispute between the dealer and the victim in a city park. (From the author’s files.)

presents authorities with two possibilities. Was the deceased killed at the location of discovery or was the body dumped at the location?

This is an important consideration because it will focus the investigation and determine the scope of the crime scene process. If the homicide is a “dump job,” there may be two or more crime scenes — e.g., the location where the assault and murder took place and a possible vehicle used to transport the body. Obviously, authorities will not have access to these areas during the initial inquiry. However, as the investigation unfolds, additional scenes may be discovered. These scenes and areas should be processed as soon as possible in order to obtain additional evidence and information. If the person was killed at the location of discovery — in the street or in an apartment — the crime scene process may result in the retrieval of additional evidence as well as additional informational sources.

Personal papers, personal effects, telephone records, correspondence, address books, etc., and any property which may aid in the murder investigation should be seized by detectives for later perusal and disposition. This information will assist in any interviews of family members and friends and may reveal a possible motive. The identification and victimology of the deceased become an extremely important starting point for the subsequent police investigation. If the murder took place at the point of discovery, the identification of the victim is usually established early due to witness identification or personal papers and information sources at the crime scene. If the homicide was a “dump job,” then the identification may be delayed pending fingerprint analysis, DNA testing, or subsequent notification through a missing person’s report.

During phase 1 of the investigation, authorities should also attempt to ascertain the motive and specific category of the murder, drug hit, interpersonal drug dispute, murder of innocent bystander, or drug assassination. Each category will suggest an investigative option.

In any event, the crime scene process should focus on body position, wound structures, ballistics, blood, clothing, trace evidence, and informational resources, which represent the tangibles and collectables in drug-related homicides. It should be noted that any subsequent prosecution under state or federal conspiracy laws and/or implementation of exceptional clearance procedures will require the independent corroborative information developed during the phase 1 operations.

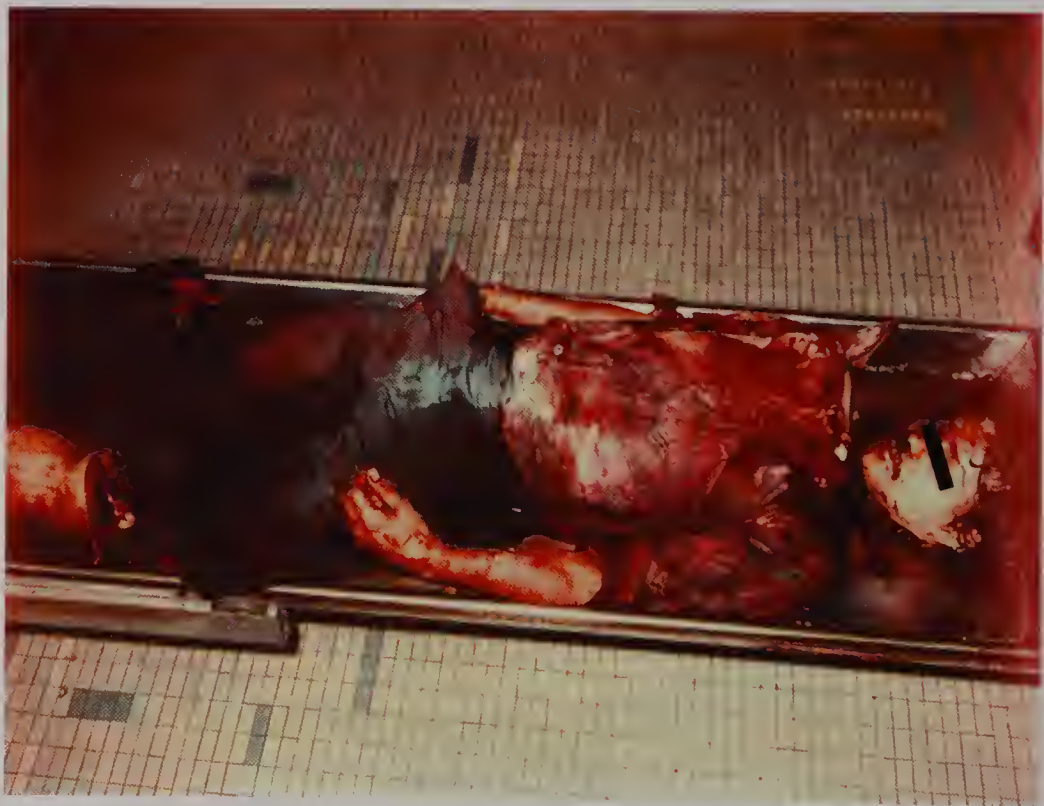
## **Phase 2 — The Application of Drug Intelligence**

In this phase of the murder investigation, authorities should direct their resources toward developing intelligence information as it relates to the murder. The objective is to establish the identity of the members and structure of the drug cartel or operation so as to focus on motivations and possible suspects involved. Drug operations and key players within criminal organizations may change. Arrests, prosecutions, murder, and any number of factors may have an impact on specific individuals or groups; however, the illegal activity remains the same.



**Table 23.1 Drug Categories and Investigative Options**

Category	Investigative Options
Drug hit	Intelligence information Narcotics buy operation Buy and bust operation Informant information
Interpersonal drug disputes	Buy and bust operation Informant information Narcotics buy operation
Murder of innocent bystanders	Reward money Crime Stoppers program Use of news media and press Community activists Buy and bust operation Informant information
Drug assassinations	Intelligence operations Electronic eavesdropping Narcotics buy operations Reward money — Crime Stoppers Use of news media and press



**Figure 23.6 DRUG VIOLENCE.** This photo illustrates the level of violence involved in drug murders. This victim and his associate were tortured to death by chain saw and the body parts were dumped at a remote location. This is a morgue photo. The two victims, who had worked for a major drug dealer as “enforcers,” had gone into business together. Instead of retrieving the drugs and money for their boss after killing the errant dealers, they kept the money and sold the drugs. (From the author’s files.)





**Figure 23.7 DRUG MURDER.** This victim was beaten and tortured before he was shot in the head, stuffed in a 55-gal drum, and dumped. (From the author's files.)

Criminal enterprise maintains its continuity through adjusting operations and recruiting new members to engage in criminal conduct on an on-going basis. This generates a tremendous amount of strategic and tactical intelligence information. This intelligence information, which is used by narcotics officers to identify, target, and penetrate drug operations and arrest offenders, can also be utilized by the homicide investigator to investigate the murder inquiry.

In my opinion as an expert in homicide investigation, each drug-related homicide should be analyzed and assessed in conjunction with available drug intelligence information for the purposes of identifying and targeting specific offenders involved in the homicide investigation. In fact, in jurisdictions that experience a high percentage of drug-related murders, I recommend that the homicide division maintain within the command an intelligence operation team.

I maintained a special "homicide–narcotics team" within the 7th Homicide Zone of the New York City Police Department. We had been experiencing an inordinate amount of drug-related homicides within our zone. We attributed this increase to a series of drug wars involving different ethnic groups; 65 to 70% of the 200 homicides which occurred in this zone were drug related. This zone encompassed an area of approximately 3 square miles in the South Bronx. Our clearance



**Figure 23.8 DRUG "HIT" AND "DUMP."** This individual was tortured at one location and then dumped in a city park. He had stolen some "product" from his organization and was killed. He was left at this location as a "message" to anyone else in the crew who had similar ideas. (From the author's files.)



**Figure 23.9 EXECUTION SHOT.** The victim was shot in the head at the dump location rather than at the drug apartment where he had been tortured. The spent round and shell casing were recovered at the scene. The drug dealers did not want to risk someone hearing the shot fired in the apartment house. (From the author's files.)





**Figure 23.10 VICTIM HOG-TIED.** The victim had been hog-tied with handcuffs on both ankles as well as both wrists, which were then tied together with wire. (From the author's files.)

rates were down to 40% and the body count was steadily increasing. As a direct result of implementing our special homicide–narcotics team, our drug intelligence network expanded and our arrest clearance rate was increased to 75%.

I recommend that the team should include narcotics officers, who are familiar with drug operations, as well as homicide detectives, who have experience with career criminals.

There should be a sufficient number of personnel to engage effectively in reactive and proactive operations. The mission of this team is to develop pertinent information on drug-related homicides through investigation, analysis, and assessment. This is accomplished through independent “street-level” enforcement action, debriefings of confidential informants, and the exchange of intelligence information with other law enforcement agencies. It requires establishing intelligence liaisons with narcotics enforcement units as well as outside agencies involved in the investigation of narcotics violations with the objective of establishing an effective intelligence network. Many offenders who are arrested are willing to make deals. They elect to cooperate with authorities to avoid extended jail time. This presents the homicide detective with an effective strategy for developing criminal informants for the drug-related homicide investigation:

1. Specific offenders who have been identified as witnesses in the drug slaying can be targeted for a “narcotics buy operation” in order to force their cooperation in the murder case; or





**Figure 23.11A TRACE EVIDENCE.** Closer examination of the victim's body revealed that a piece of vegetation had become caught in the crook of the victim's knee as he was being transported. (From the author's files.)



**Figure 23.11B TRACE EVIDENCE PROVIDED WITNESS.** The vegetation was actually a flower, which grew on a hill behind the location where the victim's body had been dumped. The original hypothesis was that the victim had been brought to the location by car and carried down the sidewalk. However, the trace evidence suggested a different direction and path. I sent detectives up a wooded hill behind the crime scene. They located similar vegetation along a dirt path, which led to a street behind the hill and the crime scene. We focused our canvass on this location and located a witness. He had seen the two suspects leaving the area in a car and provided us with a description. (From the author's files.)

2. A particular neighborhood can be targeted for a “buy and bust” operation with the objective of snaring potential witnesses to the drug slaying. In some instances, authorities at the homicide crime scene may be provided with bonus information in the form of elaborate records of drug deals.

I have been involved in a number of drug-related homicide investigations in which the records and ledgers we seized contained code names of other dealers and customers, dates and quantities of drugs sold, and financial transactions of specific drug operations. This information can be provided to narcotics officers to assist in their operations as well as to target potential witnesses in the drug-related homicide investigation. It is important to note that the intelligence aspects of the drug-related homicide investigation require mutual law enforcement cooperation between and among the different units and agencies involved in narcotics investigations.

### Phase 3 — Crime Clearance Procedures

Homicides are usually considered solved or closed when the offender has been arrested and charged with the murder. However, homicides can also be effectively cleared utilizing “exceptional clearance.”



**Figure 23.12 HOMICIDE LINKED.** This body had been wrapped up with bed clothing after being bound with wire. It had been put into a cardboard box and driven in a stolen vehicle to a dumpsite. The car’s transmission conked out and the killers left the car with the body in the trunk. When we unwrapped the body, we found a handcuff key in the bedding. This key matched a pair of handcuffs on a body dropped at another location. (From the author’s files.)





**Figure 23.13 DRUG KIDNAPPING AND RANSOM CASE.** This victim was kidnapped and held for ransom by feuding drug dealers. He was executed when the two groups could not agree on the ransom. Note the wound structures (multiple stabbing into back), which suggest an overkill pattern. The stabber was a homosexual who also inflicted postmortem stab wounds on the man's genitals. This information led us to a recently released convict with a reputation as a homosexual sadist, who was known to be an "enforcer" for a drug gang. (From the author's files.)

Exceptional clearance procedures enable authorities to clear a case successfully without an actual arrest. This method of crime clearance requires an agency to document the following information:

1. The identity of the offender is known, and
2. The exact location of the offender is known, and
3. There is sufficient information to support an arrest and prosecution, but
4. Some reason beyond police control prevents the arrest of the offender.

The specific reasons which explain "beyond police control" must be documented within the report closing the case by exceptional means. An example of beyond police control in a homicide case would be the verified death of the perpetrator through an unrelated homicide or by official state execution. I was involved in a number of drug-related homicide investigations during my 23 years in the New



York City Police Department. Often during a homicide investigation, we were able to identify a specific suspect and establish sufficient probable cause for arrest only to have this suspect become a victim of another drug-related murder. By utilizing exceptional means to close cases, our agency was able to sustain sufficient homicide clearance. Ironically, drug-related homicides, which are difficult cases to solve, are particularly amenable to exceptional means clearance due to the continuity and violent nature of drug criminal enterprise. However, in order to use this method of crime clearance effectively, the agency must invest the necessary time and resources in phase 1 and phase 2 of the drug-related homicide investigation.

## Conclusion

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The analytical process of classifying each drug-related homicide into one of four categories and then applying the three-phase enforcement strategy to the investigation enables the detective to establish priorities and maximize his or her investigative efforts. Upon the completion of phase 1 operations, the homicide investigation can be inactivated or pursued, depending on whether further information can be developed in phase 2 operations. This strategy allows investigators to concentrate their efforts on the cases that are most amenable to clearance. However, in order for this strategy to be effective, police agencies must implement a persistent and aggressive law enforcement policy as it relates to narcotics violations. The strategic and tactical intelligence generated through this continuous narcotics enforcement will provide the informational basis for the successful investigation of drug-related homicides.

## Reference

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# Practical Homicide Investigation: Supervision and Management of the Homicide Investigation

# 24



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The purpose of this chapter is to provide the homicide supervisor with practical and specific considerations for formulating management objectives in the investigation of homicide. Practically speaking, the administrative policies and procedures employed by police agencies are usually determined on a jurisdiction-to-jurisdiction basis. Therefore, I cannot and will not attempt to present an all-inclusive management technique applicable to all law enforcement agencies. However, it should be noted that certain basic principles of homicide investigation, along with interagency responsibility, can be proceduralized into police department guidelines that contribute to the proper and intelligent handling of murder cases.

## Management Policy

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Two basic principles of homicide investigation are documentation and preservation. In order to ensure that these principles are accomplished, there must be an established management policy that gives direction to the investigative unit. Management is necessary to assure that the preliminary investigation and initial actions taken at the scene, as well as the total investigative effort, have been properly documented and that any evidence recovered has been properly handled and preserved.

The effective and professional investigation of homicide is the responsibility of the entire police organization and not just the individual investigator assigned to the case. Hence, efficient coordination of activities and procedures critical to the processing of the case is needed. Some of these activities are the collection of evidence, procedural tactics, duties of patrol officers at the scene, preparation of official forms and required reports, overtime allowance, case-officer responsibility, confidential informant funds, allocation of police department equipment, supervisor's duties, and notifications. These activities must be properly managed in order to bring the entire organization into play to effect the successful conclusion of the case.



However, the intelligent management of homicide investigations must provide for flexibility and common sense. Therefore, any system implemented to direct and manage murder cases should be realistic and allow for policy variations at the point of execution.

All members of the police department can contribute to the process of crime solving. Whether it is the operator in the communication division who initially takes the call and elicits additional information from the person reporting the crime or the officer in the patrol car who responds to the scene and detains a key witness or suspect, the fact remains that patrol officers and investigators must be willing to work together toward a common goal — solving the homicide.

Therefore, the duties of detectives and the activities of patrol officers must be integrated to complement one another, and the management policy should stress the principle of teamwork.

### **Police Department Policy**

Each police department must establish guidelines and procedures that will allow the organization to function efficiently within its jurisdictional purview. Homicide investigations, however, present additional management considerations because two distinctively unique operational divisions are involved. For example, the investigation of homicide is usually initiated by the patrol division, which operates under patrol guidelines. The patrol division, in turn, notifies the investigative division, which operates under investigative guidelines. Upon their arrival, investigators assume responsibility of the case and take over the investigation from patrol officers, possibly directing uniformed officers and additional police units at the scene, as required by the investigation.

**Police department policy must provide for the efficient coordination of these various units by the investigator assigned to the case or the detective supervisor, if present, in order to maintain control over the homicide investigation.**

In addition, any policy established by the police department must meet the legal requirements of, and be compatible with, the responsibilities of other agencies. For example, the offices of the district attorney, state's attorney, or solicitor have a specific responsibility for the ultimate prosecution of the case, and the medical examiner's or coroner's office has the legal responsibility for determination of the cause of death. Because each of these organizations is required by law to conduct independent investigations into the facts and circumstances of death, police department policy will need to make a provision for mutual cooperation and exchange of information.

### **Criminal Investigation Management**

The structure of the department and how it is organized to perform investigative functions include selection and training of personnel for investigative assignment, management of investigative personnel, and the designated units responsible for conducting criminal investigations.

## Specialization, Generalization, or Rotation

### How are members selected for assignment to investigations?

Is someone within the police department's hierarchy trying to create some sort of "rainbow coalition" that fails to recognize the need for qualified personnel without regard to sex, race, creed, or color? This is unacceptable in staffing a professional homicide unit.

### What type and quality of training are afforded the members?

Is the training level provided to members sufficient for the assignment or does the department allow the new investigator simply to feel his or her way around the assignment? Are outside sources utilized for more advanced in-service training? Are members encouraged to attend training sessions within and outside the agency?

### Are specialization, generalization, or rotation assignments utilized?

In my opinion, specialization for homicide assignment is the ideal situation if the agency can justify specialists for the workload. Even in agencies where the workload is not sufficient for full-time homicide specialists, a select few are generally chosen to investigate the homicide cases. Medical professionals specialize due to the enormous amount of knowledge and information required to practice specific medical techniques. Likewise, in homicide investigation, where the practitioner is required to be knowledgeable in law enforcement, medicolegal procedures and wound structures, human behavior, evidence collection and preservation, interview and interrogation techniques, crime scene processing, management of resources, photography, court testimony, interagency cooperation, and a number of other more subtle considerations, one can readily understand the need for specialization and continuing education in this type of assignment.

Generalization is certainly acceptable for smaller departments that do not have a substantial caseload. However, specialized training in homicide investigation should be implemented within the investigative division to assure that members are provided with the necessary skills to perform their inquiries.

Detective rotation is the process in which patrol officers are brought into an investigative unit and advised at the time of their assignment to this position that they will be rotated from that assignment back to patrol after a specified period (usually 2 years).

Detective rotation was first introduced as a process to augment the capabilities of investigative divisions by providing cross training to all members of the department. The premise was that there would be a cadre of potential investigative resources to replace detectives who were promoted or soon to be retired. *The engineers of this counterproductive subterfuge tried to justify their attack on traditional detective operations by stating that they were creating opportunities for patrol officers*



*to expand their careers.* These officials conveniently disregarded the careers of veteran and seasoned detectives, who had dedicated their lives to the investigative career path. Rotation undermined the investigative strength of experience and knowledge which, evidently, was a threat to certain police administrators. It soon became apparent that rotation was blatantly punitive because these administrators used rotation as an excuse to remove senior detectives and reassign them back to patrol. The folks responsible for this debacle are police officials with personal agendas who absolutely have no understanding or appreciation of the investigative mission. They continue to be outspoken critics of the detective concept. These liberal police administrators, whom I refer to as “the police intelligentsia,” are folks such as Patrick Murphy, Lee Brown, Joseph McNamara, and a host of other alleged experts. Interestingly, none of them has ever been qualified as, promoted to, or performed as a detective.

In fact, it was Patrick Murphy who was the catalyst behind the infamous Rand study of the 1980s. The study was designed to show how patrol could perform the investigative functions, thereby eliminating the need for a large investigative division. The Rand study was a failure *then* and rotation is a failure *now*.

Originally, the rotation concept was designed for the hotel industry. It is a service industry concept that provides for the cross training of employees. Rotation allows for the effective staffing by hotel management in day-to-day operations. Employees in various capacities are trained to assume different positions to allow for uninterrupted and continuous service.

*Criminal investigation is not a service industry.* It is an essential and highly specialized function. Practically speaking, it takes at least 1 year for an officer to become somewhat familiar with investigation procedures and approximately 2 years before the officer effectively contributes to the operation.

Criminal investigation requires specialized skills and training. In addition to operating special pieces of equipment proficiently, the detectives are required to learn effective interview and interrogation techniques, crime scene processing, evidence handling, report writing, and documentation as well as proper court presentation of findings.

Needless to say, periodically transferring these experienced investigators back to patrol not only is demoralizing to the members of the agency but also is counterproductive to the professional investigative process. *Time and experience are the best resources for the continuing education necessary in developing a proficient investigator.*

The skills that are eventually developed by an investigator need to be constantly applied in order for the agency to benefit from permanent assignment. For instance, sending a member to an interview and interrogation school and then *not* having that member utilize and practice the learned skills is *not* cost effective. Rotation does not allow for career growth and actually frustrates professional ambition. Officers who are to be rotated out become disheartened and do not want to leave their investigative assignment. Another point: “Why bother to learn all of this



information if I'm going to be leaving soon?" They feel they are being demoted. It does not matter that their performance was superior while they were assigned to investigations because *now* it is time to be rotated. Eventually, they will lose any skills they developed because, when they go back to patrol, they do not get an opportunity to use them.

From an administrative perspective, I would be concerned about the costs of training newly assigned officers only to have to retrain their replacements. This certainly is not cost effective. More importantly, the community, which depends upon their police department to solve crime, is done a disservice. Officers who are transferred out of investigative assignment leave behind active cases. This creates additional work because the newly assigned investigator must become familiar with someone else's case and introduce himself or herself to the original complainants, reinterview people, and attempt to pick up where his or her predecessor left off. Not only are investigations disrupted but also the cases often remain unresolved.

It is interesting to note that most of the police chiefs who support detective rotation are somehow associated with the "police intelligentsia" club. This small cadre of chiefs of police obtain appointments in various cities across the United States. They flit from jurisdiction to jurisdiction, like butterflies, as they attempt to lengthen their respective resumes and "pollinate" their agendas into several departments. The appointments are usually based on recommendations from their mentors.

Traditionally, the detective division poses their greatest threat. When these newly appointed chiefs come into the department with their *community policing, rotation, and decentralization* agendas, the detective division presents the most compelling and logical arguments against these concepts. Detectives have a wealth of information about people, systems, and politics. Ultimately, the detective function exposes these administrators for the phonies they are as they flit off for the next target.

If there ever were an argument against detective rotation, Boulder City, Colorado, certainly has made a compelling case in its handling of the Jon Benet Ramsey investigation. Chief Kolby, who stated on national television that his claim to fame, ironically, was being "Lee Brown-trained," is a staunch proponent of rotation. In fact, he mandated that every 2 years, Boulder police personnel assigned to investigations were to be routinely transferred back to patrol. Furthermore, the city of Boulder did not have a full-time crime scene technician within the police department. This case remains unresolved. Needless to say, rotation did not work.

I have 40 years of practical police experience. Most of my career was spent in investigative assignment as a supervisor and commander of investigations, specifically homicide. I have investigated, supervised, and consulted on over 8000 death investigations. Every case that I consult on or review provides me with new insight into criminal investigation — *and I am still learning*. Based on my experience and these professional affiliations, I can state unequivocally: "Agencies that have rotated their personnel or decentralized their homicide units have lost their most valuable commodities: experience, knowledge, and continuity."

Many major case investigations are successfully completed by a combination of brainstorming, intuition, and educated guesswork. The expertise developed by detectives is based upon extensive experience in the field and a familiarity with a large number of cases. *Experienced* detectives, who have recognized a particular modus operandi from a case in the past or a perpetrator's distinctive signature, have solved innumerable cases. This experience, coupled with knowledge and continuity within the detective division, assures successful investigations and that crimes will be solved and consequently instills the confidence of the community in its police.

As a former police commander, I feel that it is the responsibility of the commanding officer of detectives to assure that only the most qualified and experienced detectives perform within the investigative unit. In order for personnel to attain this level of expertise, they must have years and years of practical experience coupled with formal education, training schools, and seminars. It is a very fine blend of theory and practice that enables investigators to function as professionals.

All efforts must be made to assure the community that the police can protect them and that crime will be solved. In order to accomplish this, chiefs of police should require an efficient and effective investigative division within their departments. Most police chiefs realize the need for an experienced detective division and support this concept. Most states attorneys want experienced detectives to have investigated the case to assure that the evidence presented in court is competent and relevant and has been properly retrieved. The prosecutors rely on detectives whose credibility with a jury is enhanced with an accomplished and extensive background. The only folks who seem to be at odds with common sense and logic are the "police intelligentsia," who obviously have a different agenda.

What is the primary mission of a department's investigative division? Is it the identification and apprehension of the offender and solving the crime or is it rotating police personnel to create career opportunities for patrol officers? *You be the judge.*

### **How are supervisors selected for investigative assignment?**

Are qualified members from within the department's investigative units selected for assignment as supervisors or commanding officers within detective commands or does the policy of your department erroneously dictate that when an investigator is promoted, he or she must first go back to a uniform assignment for some sort of "cleansing"? This policy has also proven to be a failure that has adversely affected the overall success of the investigation sections.

The inexperienced supervisor fails to delegate routine matters properly and involves himself or herself in operations rather than in the supervision of operations. Time and time again, I have observed the transfers of Internal Affairs or Office of Professional Standards types assigned to command investigative units. Obviously, such assignments have been designed to enhance their careers, but



usually prove to be disastrous. In reality, these types of personalities are anal retentive and ill equipped to deal with the unpredictable nature of investigations work and cannot properly supervise detectives. They have difficulty making critical decisions and a tendency to micromanage operations. They do not have an understanding of the mission of the homicide investigator and are often too arrogant to ask anyone for advice.

Their usual response as to whether they are capable to run a homicide squad is, "Our department provides training to allow us to go into any assignment just as in corporate America." Ironically, they would not last 5 minutes in corporate America because they would be judged by the bottom line, or the ultimate results of their supervision. However, the "Peter principle" is alive and well in the civil service world. Not only can their incompetence be rewarded and careers flourish, but also they still manage to get paid every 2 weeks because they are on an unofficial form of welfare, which is the government's "dime."

*Case management* relates directly to the processes involved in monitoring the progress of an investigation. This begins with the initial report or officer-initiated police action and continues through all phases of the investigation until the case is closed.

### **What administrative procedures have been implemented to provide for the proper documentation of the case and preservation of evidence?**

The official police report and the major case folder are extremely important instruments. The documentation of events as well as the official police response to the investigation forms the basis for the prosecution. The path from arrest to conviction is fraught with technical and legal booby traps. Hence, intelligent case management, which takes into account the reality of discovery vs. documentation, is needed.

Investigatively speaking, proper case management should require pertinent official documentation of the facts of the case and not police administrative matters, i.e., supervisory reviews, case recommendations, meal times, travel to and from, roll call assignments, and DARs (daily activity reports). This type of information does not belong in the major case folder. However, rest assured, some individual who has never been involved in a major case criminal trial or investigation will attempt to "enhance" the operation with some administrative obstacle.

My advice is to assure him that he will be receiving a subpoena later requiring him to testify in court if his procedure is implemented. That should be sufficient to correct the situation.

### **Major Pitfalls to Practical Homicide Case Management**

1. *Inappropriate departmental policy and/or procedures regarding investigative strategies.* These are usually based upon bureaucratic, political, and/or personal considerations not related to the primary objective, which should be solving the case.



2. *Inappropriate interference by high-ranking officials.* Police commissioners, chiefs of police, sheriffs, majors, and/or colonels are supposed to be police administrators, not detectives or squad commanders. The immediate mission of the detective supervisor is to provide coordination to investigative personnel. High-ranking officials are supposed to communicate their orders and directions through the squad commander. This is referred to as the chain of command, and it is necessary to maintain order and responsibility. Therefore, high-ranking officials should not be communicating orders directly to officers and definitely should not be involved in operational processes such as interrogating suspects and other tactical procedures best left to the detectives. Too many times, I have seen chiefs of police and others in command positions interfere in an investigation by interjecting themselves or their opinions into an investigation.
3. *Interagency rivalry.* Practically speaking, a working relationship must be established among police, prosecutors, and medical examiners/coroners based upon cooperation, trust, and respect. The police and the prosecution should complement one another, and both should feel at ease in giving and receiving advice from each other during the investigation.

**There is no room for interagency rivalry in professional homicide investigation. Law enforcement agencies with dual responsibility for the investigation of sudden and unexplained deaths must reach an accord as to ultimate case *responsibility* among the state, county, and local jurisdictions involved.**

The best way to accomplish this cooperative venture is through continued personal contact and understanding of each other's roles and duties. Each of these three official agencies of inquiry has specific responsibilities and duties that may at times overlap. This overlap is where a misunderstanding can sometimes take place, especially in the more sensational murder cases where there is an inordinate amount of pressure, with requests for day-to-day progress reports coupled with requests by the news media for a story.

Professionally speaking, the duties of each agency involved in the investigation of homicide will be determined by tradition and by law. However, policies should be instituted within each organization that transcend individual positions and address the common goal or objective. Courtesy and tact are always helpful in interagency dealings. Basically, the duties of each agency are as follows:

1. The ultimate responsibility for the investigation of crime rests with the law enforcement agency. The chief law enforcement official within any community is the chief of police, the sheriff, or the police commissioner and his or her designated representatives.
2. The district attorney, state's attorney, or solicitor, in turn, is responsible for the ultimate prosecution of the crime and should be kept aware of all de-

velopments of the police investigations. He or she is responsible for all legal investigative operations such as search warrants, arrest warrants, and grand jury presentations.

3. The medical examiner/coroner is responsible for the determination of cause, manner, and mode of death and should be apprised of all developments of the police investigation.

Practically speaking, a little flexibility and common sense by the representatives of each of these agencies will ultimately benefit all concerned and eliminate any misunderstanding.

### **Procedures for Effective Management and Supervision of Homicide Investigation**

The management and supervision of the homicide investigation can be separated into five specific segments listed below. The case preparation for court and prosecution and any subsequent case analysis are separate prosecutorial and administrative functions, which do not apply to the following practical homicide investigation supervision techniques. The first three segments are presented as a checklist, and the remaining segments follow the list in an expanded form.

1. Supervising the preliminary investigation at the scene
2. Directing specific investigative duties
3. Supervising the homicide crime scene search
4. Providing for the effective documentation of events
5. Conducting the investigative conference

### **Supervisor's Homicide Checklist**

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#### **Supervising the Preliminary Investigation at the Scene**

- Initial receipt of information. It is imperative that the supervisor, upon being notified that detectives are requested to respond to a possible homicide, record the following information:
  - Date and time received
  - How initial report was received
  - Name of person making report (this includes police officers)
  - Complete details

At this point, the homicide supervisor responds directly with investigators in their unit or responds in his or her unit. I recommend that the supervisor take his or her unit to the scene.

- Assign a member to maintain communications within the command. This member's responsibility will be to make follow-up notifications, record checks

and requests for special services, as well as take requests from the command post at the crime scene. This assignment becomes critical in major case investigations when overhead commands attempt to assess the investigation.

- Duties upon arrival at the scene:
  - Record the exact time of arrival.
  - Record the exact address.
  - Record police units present.
  - Confer with detectives at the scene. Ascertain that an investigator is assigned to the case. If an investigator has not been officially assigned as *case officer*, do so immediately.
  - Confer with uniform supervisor and establish cooperation.
  - Confer with first officer — obtain a quick briefing.
  - Make a visual inspection of the crime scene and victim. Have the first officer or detective escort you in order to get a feel for the case and establish perimeters.
  - Solicit any opinions and/or theories from police personnel at the scene. Evaluate these with your observations.
  - Determine any investigative needs — make assignments as necessary. Establish your authority by providing any manpower and equipment.
  - Implement an assignment sheet. Record assignments and know who is performing which assignment to assist in the coordination effort.

**The supervisor's notebook becomes a log detailing exactly who has which assignment. This enables the supervisor to assign members properly and record exactly what has transpired at the crime scene. As members report back, the supervisor jots down a brief paragraph detailing their activities. Later, this notebook can be used to conduct the investigative critique and designate responsibility for the subsequent written reports.**

- Initiate an investigative canvass. The investigative canvass is simply a door-to-door inquiry or roadblock operation in order to obtain information and/or locate witnesses.

**The supervisor should assign a sufficient number of officers to effectively cover the area to be canvassed. I recommend assigning a supervisor to coordinate the canvass and instructing members to use canvass questionnaires and canvass control sheets for effective follow-up surveys.**

- Victim removal to hospital. If the victim has been removed to a hospital, assign a patrol unit or detective to respond to the hospital to assure proper evidence-collection procedures (re: clothing, ID papers, etc.) are undertaken. In addition, there may be an opportunity to obtain a dying declaration.



- Transmittal of alarms. Ascertain what alarms have been transmitted. Review alarms for appropriate information and consider updating them based on information developed at the scene.
- Dissemination of information. Provide for the dissemination of information to all units and personnel involved in the investigation. Keep the command post and investigators informed of all relative and current information as it becomes available.
- Handling curious onlookers. Utilize patrol officers to maintain police lines and instruct detectives to use courtesy and tact in dealing with people at the scene.
  - Assign members in street clothes to “work the crowd” to obtain any overheard information and direct bilingual officers to mingle with bystanders, etc. (depending upon circumstances).
  - Direct that photos be taken of the crowd.
- Interview of ambulance personnel. Direct that ambulance or EMS personnel be interviewed if they arrived before police relative to their activities at the scene as well as any persons they may have seen or things they may have overheard.

### **Directing Specific Investigative Duties**

- The suspect is in custody.
  - Establish the probable cause for arrest.
  - Determine the scope of the preliminary investigation.
  - Ascertain the location of any evidence.
  - Advise detectives to instruct patrol officers to document their observations (re: any overheard comments, statements, and any information provided by informants and/or witnesses).
- Interview and interrogate the suspect in custody.
  - Direct investigators to document their Miranda warnings.
  - If the suspect is cooperative, have detectives take a preliminary statement at the scene, which can be used to assist in the recovery of any evidence, etc.
- Formal interrogation is best undertaken at the station house.
  - Direct that no one interfere with an investigator who is in the process of taking a statement from a suspect.

**The cardinal rule of interrogation: Never intrude on an interview of a suspect. This includes supervisors.**

- Examination of a suspect for evidence.
  - Advise investigators to document by photography and sketch any scratches, bruises, injuries, etc., observed on the suspect.

- Advise transporting officers to be aware of evidential considerations. (Do *not* allow the suspect to wash.)
- Dying declarations. Anytime you have a seriously injured victim, an effort should be made to obtain a dying declaration.
  - Direct investigators to respond to the hospital, obtain a witness if possible, and attempt to obtain a statement from the injured victim.

**Actually, the exact sequence of questions has no set guidelines. Basically, you want to establish that the victim is competent, lucid, and does believe that he or she is about to die.**

- Evaluation of a suspect's demeanor and/or mental capacity.
  - Direct detectives to document the suspect's demeanor and/or mental capacity from the time of arrest to arraignment. This procedure is necessary to prepare against a possible *diminished capacity defense*.

### Supervising Homicide Crime Scene Search

Supervision of the investigation conducted at the scene is a *separate* and *distinct* function. Ideally, a crime scene investigator or an evidence technician should be assigned to conduct the search. I recommend that departments select and train a sufficient number of investigators for this extremely important function.

**People have come to expect that evidence of a crime will be found and retrieved by police investigators at the scenes of crimes. The CSI effect, along with other television productions, has created the perception that evidence is *always* found at crime scenes. *This may not be true in all instances.* Often agencies do not put enough emphasis on this phase of the investigation, opting instead for something less time consuming, e.g., a confession. *Make sure you do a proper search.***

The purpose of the crime scene search is to obtain evidence. The function of the supervisor is to document and preserve the event. Practically speaking, if there is any possibility that any evidence you are about to seize for use in a homicide prosecution requires a search warrant, it is your job as the *supervisor* to assure that this warrant is obtained. Supervisors should also be aware of the warrant exceptions: emergency, plain view, consent, and search of persons after arrest.

Practically speaking, any method of search can be used, depending on the size, location, and complexity of the scene, as long as the search is *systematic* and *complete*.

The scope of the search is usually determined by a theory or hypothesis arrived at by the detective supervisor and investigators based upon their initial observations of the scene. This *theory*, which is provisional, is based upon simple assumptions of how and why the homicide occurred.

**Remember: Anything and everything can be evidence.**

The primary responsibility is the isolation and protection of the crime scene. The objective is to establish the *corpus delicti* and the identity of the criminal.

- Preliminary steps:
  - Upon arrival, ascertain boundaries. Do not move blindly into an area (confer before moving).
  - Decide how to approach the crime scene and paths of entry and exit (confer with first officer, etc.).
  - Use the initial survey (escort by first officer) to develop a mental image.
  - Ascertain whether any fragile evidence is present (assure collection).
  - Prior to any crime scene search, direct that photographs and crime scene sketches be made.
- The supervisory hypothesis. The supervisory hypothesis is as follows. You ask yourself what happened. You keep an open mind; do not be influenced by the original report, the police call, or initial statements. Note all the information. Make your determination based upon the total information available. Was the death caused by homicide, suicide, accident, or natural causes? The answer to this question is based upon the facts, crime scene, statements, and physical evidence supporting this explanation.

**Remember: Things are not always as they appear to be. Do not be afraid to change your mind. Any hypothesis is only provisional at best.**

- Examination of the body at the scene:
  - Direct that all photographs and sketches be completed before examining the body.
  - Direct that a complete description of the body as well as clothing be obtained.
  - Portions of the body which were not accessible prior to the photos can now be examined and photographed.
  - Direct a complete examination of the body, note wounds, and direct that this information be recorded.
- Release of the body. This decision is critical. Once the body is released from the scene, *no additional* procedures can be undertaken — i.e., photos, etc.
  - Direct that the body be wrapped in a clean white sheet before being placed in a body bag.
- Examining an outdoor crime scene. Direct the following:
  - Rope off the largest area.
  - Establish a path of entry and exit.
  - Conduct examination as soon as possible (before losing daylight or experiencing weather changes).



- Direct that the surrounding area be searched.
- If weather changes suddenly — order that evidence be collected immediately.
- Examining an outdoor scene at night. Under ordinary circumstances, an outdoor scene should not be searched during nighttime hours — this is common sense. Direct the following:
  - Safeguard and secure the area.
  - Direct that photographs be taken before body is moved.
  - Safeguard the body against additional damage in transport.

**The search should be postponed until daylight because it is utterly impossible to discover or detect minute traces of evidence under nighttime conditions. Weather changes the rule. *Under no circumstances should the crime scene and/or body be left unguarded and unprotected until daylight hours.* Assign sufficient coverage for the purposes of “chain of custody.”**

- Release of the crime scene. This decision is also critical. Practically speaking, the authorities should hold onto the scene as long as possible. There may be a need for additional photos or information may reveal the need to collect additional materials, an additional search may be necessary, etc.

**Before releasing the crime scene, consider: a good defense attorney will visit the crime scene to judge the extent of the police investigation. He or she will be alert to areas that were or were not processed.**

- Recommended procedure:
  - Direct that all materials used to process the scene be placed in a receptacle that can be taken from the scene when the police leave.
  - Direct members to make sure that all police equipment has been secured and removed from the premises before release.

## **Providing for the Effective Documentation of Events**

### ***Case Management***

Practically speaking, case management is the official documentation of events and should be an extension of good investigative techniques. Investigatively speaking, the most perturbing problem in relation to management is that all too often the “designers” of case management have no conception of what constitutes the proper and intelligent documentation of a criminal investigation. It is quite apparent to the experienced detective and supervisor that these designers have never investigated a case in their careers and certainly never have had to testify in court. Otherwise, they would not perpetrate some of the nonsense I have seen mandated



**Figure 24.1** THE AUTHOR TAKES NOTES WHILE HE IS BRIEFED BY ONE OF HIS DETECTIVES AT THE SCENE OF A DRUG-RELATED MULTIPLE HOMICIDE IN THE SOUTH BRONX. Detective First Grade Andrew Lugo (now retired) from Bronx Homicide is pointing out the rear of the location from which shots were heard by a possible witness. This briefing will determine the focus of the subsequent neighborhood canvass. Throughout the early stages of a homicide investigation, the supervisor engages in a number of these on-scene briefings from the detectives working the case in order to assess and manage the investigation properly. (Courtesy of *New York Daily News*. Photographer: John Pedin.)

in various investigative units. Some tips on the intelligent documentation process in a criminal investigation follow.

### ***Documentation***

**Note Taking.** Practically speaking, no one, no matter how many homicides he or she has investigated, can know for sure at the beginning just which witness, suspect, feature, or piece of physical or trace evidence will be important. Therefore, note taking is of the utmost importance in homicide investigations. The investigator's notebook will eventually accumulate vast amounts of information, which may later be instrumental in proving or disproving a specific point or fact in question.

Because note taking is essential to any good homicide investigation, it is imperative that investigative notes be comprehensive, accurate, and reflective of a proper chronological time frame. In fact, on each separate notation, the investigator should record the time and date of the event. These notes must be preserved for later review and/or admission into evidence.

**Official Reports.** The official police report is the tool used by the criminal investigator to document the findings of his investigative actions. It is the principal source used by the courts, the defense, the district attorney's office, and the police

department to evaluate the thoroughness of an investigation and the ability of the reporting detective. A thorough field investigation, accompanied by an accurate and readable report, reflects professionalism and underlies success. A good report starts with an organized approach to the investigation. A new steno pad should be used for each homicide case, and the information available at the start of the homicide investigation should be immediately recorded. Three basic steps are involved: (1) collecting the information, (2) collating the information and organizing the notes, and (3) writing the report.

1. *Collecting the information.* A good report requires a good field investigation. No amount of rhetoric or literary expertise can disguise the fact that an investigator has failed to conduct a thorough investigation. In fact, even a good investigation may look haphazard if the report is not properly prepared or written. The investigator should
  - a. Gather and record as much information as possible while conducting the investigation, e.g., time of initial report, who notified you, condition of the body when you arrived, who was present.
  - b. Record the facts in a clear and logical order. Remember that your notes are subject to subpoena during trial; therefore, you should be able to read and interpret them at a later date.
  - c. When collecting the information, make a clear distinction among hearsay, opinions, and facts.
  - d. Keep your notes on file with the case folder. If you are transferred or otherwise unavailable, the detective assigned to your case will be aware of your investigative efforts.
2. *Collating the information and organizing the notes*
  - a. Review completely the information obtained during the investigation, including any information obtained by other investigators at the scene, such as interviews, names, and canvass results. The value of this procedure is twofold:
    1. It enables the investigator to prepare a better report.
    2. It highlights future steps that may be required in the investigation.
  - b. All the information gathered during the investigation cannot possibly be put in the report, so the detective must decide what is appropriate and needs to be included. The official report must be a complete and true account of what has transpired, whether favorable or not to the suspect, victim, or witness. Hence, the investigator should attempt to include all the facts necessary to present a candid account to the reader.
  - c. Organize the material in a logical order so that it can be understood by anyone who reads it.
  - d. Include all the investigative steps that were taken with their results, positive and negative.



COMPLAINT: Homicide	METHOD: gun	DATE: 6/22/06
VICTIM: Mary Smith F/B/18	HOMICIDE: 6/22/2006	
SUBJECT: Response to the scene		
<ol style="list-style-type: none"><li>1. On the above date at 2205 hours, the undersigned officer was informed by Police Officer Moffett 48th Pct. that there was a homicide at 637 Jefferson Place. 4th floor landing.</li><li>2. Lieutenant Commander Geberth and Detective Lugo 7th Homicide Zone responded and arrived at 2215 hours.</li><li>3. The deceased identified as Mary Smith F/B/18 yrs. old, address 1392 Crotona Park No. Apt. 6D Tel#998-0000 was lying face up on the 4th floor landing, dressed in brown coat, blue sweater, blue shirt, gray pants, rust-colored boots, and a type of blue kerchief on her head. It appeared that she was shot in the right chest area.</li><li>4. Attendant O'Grady #1721 Jacobi Hospital Ambulance #237 pronounced the victim DOA at 2230 hours.</li><li>5. The deceased's cousin Sarah Brown 1679 Franklin Avenue Apt. 3B Tel#783-0000 was present and identified the body.</li></ol>		

**Figure 24.2 THE RESPONSE REPORT.**

- e. Occasionally, it helps to compose a rough draft on scrap paper first, in order to get an idea how the finished report will look and read.
3. *Writing the report.* If you have collected and organized your material as discussed, the actual writing of the report is relatively simple.
  - a. The information must be accurate and complete.
  - b. The language should be clear and concise.
  - c. The entire report should be as brief as possible, yet still contain the necessary information.

Figure 24.2 is an example of an official report referred to as a “response report.” This report is required by the New York City Police Department’s Detective Bureau to show receipt of the homicide investigation.

The structure and process of homicide report writing are flexible and usually vary with the length of the investigation and the number of investigators involved. If, for example, the perpetrator has been arrested on the scene or shortly after the commission of the crime or discovery of the body, the assigned detective will be able to assemble all the facts from his notes and type them into a unified, complete, and well-structured report. Usually, this can be accomplished shortly after the initial chaos that is characteristic at homicide crime scenes. In these cases, the report serves primarily as a record of details of the crime, the subsequent investigation, and the apprehension. Normally, such rapidly cleared cases present no major problems; however, the investigator must be careful that he does not leave out any significant facts or treat the report too lightly.

On the other hand, in a large-scale continuing investigation involving a relatively large number of investigators, reports must be filed on a daily basis to expedite

the indexing of the vast amount of information being gathered, thereby making the information available to the various investigators when needed. Some of the investigators may be from different units. This varied mass of reports can create a problem in terms of format, structure, and readability of the whole report when finally collated. The prosecutor, and possibly some other investigator who may be assigned to the investigation at some future time, will have to decipher these reports (which are, in effect, reports of numerous separate investigations into distinct phases of the case) and be able to relate them to the entire case.

In order to clarify these voluminous reports and provide for uniformity, the report filed for each new facet of an investigation should begin with an assignment paragraph, which sets forth:

1. The date and time of the assignment
2. The rank, name, shield number (if any), and the command of the person who made the assignment
3. Full details as to the source and nature of the lead, if there is such
4. The objective of the investigation — whether it arises in the normal course of investigative routine or because of the particular needs of the investigation

Without these explanatory “pegs,” a long report can possibly degenerate into a meaningless mass of disjointed interviews. An example of a proper format is Figure 24.3.

The report will now continue with the results of the investigation in chronological order, until that particular avenue of inquiry is exhausted or abandoned due to more pressing priorities. When the investigation of one lead produces another, the report of the investigation should continue in a chronological fashion. If, for some reason, abandoned lines of inquiry are resumed in the future, the assignment paragraph should clearly reflect that fact and refer to the earlier reports. Each new line of inquiry or new phase of an investigation should begin on a new page. This will ease the grouping of similar leads and investigative processes so that the final report will have a logical arrangement.

**ASSIGNMENT:** At 2115 hours, Thursday, August 18, 2006, the undersigned and Detective Andrew Lugo were assigned by Lieutenant Commander Geberth, Bronx Homicide Squad, to investigate a lead that was received by P. O. Henion, shield #2107, Communications Division. Henion, on duty at Communications Division on Thursday, August 18, 1995 at 2040 hours, received a call as follows: “The man you are looking for in the cop killing works as a bag packer at the Triple A Supermarket on Jerome Avenue.” The voice appeared to be that of a male Hispanic. There was no further conversation and no other identifying information. Triple A Supermarket: the undersigned and Detective Lugo present at...

**Figure 24.3** AN EXAMPLE OF REPORT WRITING INVOLVING EXPLANATORY “PEGS.”

When the final report is correlated, it should be arranged with the main portion of the investigation appearing first, followed by a grouping of reports on the results of neighborhood canvassing, grouping of leads checked under appropriate subtitles, and so on. The final report, whether short or long, should begin with a resume or summary of the case. This summary will enable the reader to relate to the overall picture as he or she goes through the case.

In a large-scale investigation, investigators are generally too busy the first day to type any formal reports, with the exception of brief official reports, such as the response report. At this stage, investigators should take copious notes, while orally keeping the chief investigator informed of developments. This should be a two-way communication so that the investigators can better evaluate any information they receive.

The chief investigator at this phase of the investigation should appoint someone to act as recorder, who will list any assignments that are given out with the names and commands of the investigators assigned, to fix responsibility for each report and prevent duplication of effort. I recommend a logbook as a running chronological record. The first entries in this log can be taken from the assignment sheets used at the scene of the crime. At this stage of the investigation, the command post should be moved to the station house and all activities in connection with the case should originate and be directed from this central location. The command post at the crime scene or place of occurrence is temporary and used only initially during emergency operations.

Once the emergency or crime scene work is complete, the operations center should be at a police facility where the necessary equipment and resources are available within a secure building. If, by the second day, an arrest has not been made or perpetrators identified and the department has involved numerous investigators, formal typed records should be filed at the conclusion of each investigator's tour. Needless to say, this will require typewriters, supplies, and space to accommodate the number of personnel involved. It helps to avoid confusion if the newly assigned and regular investigators are thoroughly briefed on what is required from them.

### **First Day of Investigation**

Supervisor checklist:

- Implement assignment sheet and assign a recorder to the command post.
  - List all assignments of personnel at the scene.
  - Indicate individual assignments by name, rank, and command.
- Chief investigator keeps track of various assignments in his notebook — usually, a brief paragraph relating to results obtained, facts of interviews, results of canvass, evidence recovered, etc.
- Implement major case forms (delegate recorder to issue as members arrive at crime scene): checklists, assignment sheets, canvass questionnaires, interview reports, investigative plans, witness forms, canvass control sheets, and lead sheets.



Homicide #192		CASE NO. <u>392</u> COMPLAINT NO. <u>7881</u> PCT. <u>52</u> DATE OF OCC. <u>12/14/06</u> DATE OPENED <u>Same</u>
VICTIM	<u>John W. Doe</u> <u>M/W/ 38 Yrs. old</u>	
TIME	<u>2230 Hrs</u> DATE <u>December 14, 2006</u>	
PLACE OF OCCURRENCE	<u>3335 Webster Avenue</u>	
METHOD	<u>Gunshot</u>	
COMPLAINT NO.	<u>7881</u> PCT. <u>52</u>	
DET. ASSIGNED	<u>Det. Vernon A. Geberth</u>	
DET. ASSISTING	<u>Det. Andrew Lugo</u>	
FIRST OFFICER	<u>Police Officer Tim Henion</u>	
PHOTO	<u>Det. Charles Carway</u>	
FORENSIC	<u>Det. Arne Roussine</u>	
LAB.	<u>Dr. Shaler</u>	
BALLISTICS	<u>Det. Sgt. Scaringe</u>	
M.E.	<u>Di Maio</u>	
A.D.A.	<u>Kelly</u>	

Figure 24.4 THE CASE FOLDER.

## Indexing the Homicide Investigation

As the volume of daily reports grows, the amount of information becomes unmanageable without an effective indexing procedure.

Index cards should be prepared for names of all persons that arise in an investigation, locations or premises mentioned, vehicles, license plate numbers, or other such categories as may be required in a particular investigation. An investigator should be assigned to type and file the index cards that will be required, according to the following procedure.

Daily reports should be reviewed and signed by the supervising officer or chief investigator. They should be prepared in duplicate. The original is handled per

department requirements; the duplicate is given to the index officer for processing. On the case folder copies of the report, the officer who prepares the report will underline in red all names, addresses, vehicles, plate numbers, phone numbers, and any other information that the chief investigator decides is necessary. The case folder copies of the reports are filed chronologically and numbered consecutively with the response report as number 1.

The index officer then prepares an index card for each name, address, etc. The name cards will be filed alphabetically by last name. If only a first name or nickname appears, it will be filed according to the single name. Name cards will be cross-referenced with location cards, vehicle cards, etc., when applicable.

Each card will list the case number, a brief summary of the information, and a reference to the original report by listing the consecutive number from the case folder copy. Below is an example of such an index card:

JONES, HOWARD A.	HOMICIDE #78/89
1368 Bathgate Avenue	
Apt. 3D Bronx	Report #37
Name found in wallet of deceased	

A quick glance at the index card indicates that the name Howard Jones was in the deceased's wallet. As other information relative to Jones surfaces, it can be added to the card with a reference to the original report. If further information is required, the investigator can refer back to the report by number.

The location cards can be filed according to any plan, e.g., alphabetically by name of the street, then in numerical house number order. When necessary, a category can be prepared for different towns or communities, or by borough or county.

The vehicle cards can be filed alphabetically by make, year, etc., and license plates can be filed alphabetically or numerically.

Before the index officer prepares an index card for any red-lined name, location, etc., he will first consult the existing file to determine whether any such information has previously appeared. When a card already exists, that information should be brought to the attention of the chief investigator and other investigators concerned. The index officer then adds the new information to the existing card, with the number of the corresponding report from the case folder. This system of calling "hits" to the attention of the investigators minimizes the possibility of important information being lost or delayed in a mass of uncatalogued information.

**A number of excellent computer programs can facilitate this process and I recommend that agencies take advantage of computer technology. However, although computerized systems are much more effective, I still recommend "hard copy" in any investigation as well as implementing this index system as a backup.**

<u>INVESTIGATIVE PLAN</u>		PART 1
Assigned Supervisor _____	Date Received _____	
Supervisor _____	Complaint # _____	Precinct _____
	Case # _____	Command _____
<u>ACTIVITY CHECKLIST</u>	<u>REMARKS</u>	
Weapon Used <input type="checkbox"/>	_____	
Vehicle Used <input type="checkbox"/>	_____	
Injury Involved <input type="checkbox"/>	_____	
Canvass Conducted <input type="checkbox"/>	_____	
Crime Scene Searched <input type="checkbox"/>	_____	
Evidence Obtained <input type="checkbox"/>	_____	
Print Kit Used <input type="checkbox"/>	_____	
Polaroid Camera Used <input type="checkbox"/>	_____	
Forensic Notified <input type="checkbox"/>	_____	
Reporting P. O. Interviewed <input type="checkbox"/>	_____	
Alarm Transmitted <input type="checkbox"/>	Date _____	
Wanted Card Forwarded <input type="checkbox"/>	Date _____	
Visit to B.C.I. <input type="checkbox"/>	Date _____	
View Photos at Command <input type="checkbox"/>	Date _____	
-----		
Additional Activity and/or comments:		

Figure 24.5 THE INVESTIGATIVE PLAN.



The index officer becomes a valuable aid in the investigation, especially when he becomes meticulously aware of each phase of the case. He or she should attend all conferences and freely contribute to all discussions of the case. Even when typing and filing are insufficient to keep the index officer busy, he or she should remain with the investigation until it is cleared, if possible. The index officer can be used to fill in on teams where a partner may be sick or in court, can be assigned to investigations that can be handled by one man on a part-time basis, and can use his remaining time to attend to typing and filing.

**News Clipping File.** Investigators should maintain a file of news clippings relating to the crime. These clippings may prove important later if a suspect admits to an intimate knowledge of the crime which he or she claims to have perpetrated. A news file on the case will assist the police in determining the veracity of any statements. In addition, investigators should be aware of what information has been released by the press so that they can make proper investigative decisions.

The index officer can also be assigned to clip and file all newspaper clippings about the case. This file can be expanded to include recordings of any television newscasts on videotape. In larger departments with a more sophisticated taping system, a number of news stations can be monitored at the same time and the newscasts videotaped for the investigative unit's library. I have been involved in a number of major cases during the past few years that received an inordinate amount of news coverage. It was to our advantage to have copies of the TV coverage during the investigation as well as later for court purposes.

Good press-relations policy can come in handy. If the agency and the news media are cooperating, the news media people will make available to the law enforcement agency any publications relating to the case. This will eliminate the possibility of missing any printed item in the local papers. (See Chapter 19, "The News Media in Homicide Investigations.")

I remember one case in which we had requested the local newspapers to print a story on a gang-style execution in an attempt to identify the deceased. Because the story was carried in a number of different newspapers, we missed one of the articles for the file. Later, we developed two suspects who claimed to have read of the death in a certain paper. This was approximately 3 weeks after the original story. Because the paper involved and the news person were generally cooperative with the police, and the police cooperative with them, the reporter had someone research the files and find the particular article involved. We were then able to evaluate the alibi properly.

### **Conducting the Investigative Conference**

The investigative conference is one of the most important phases of any well-run homicide investigation. The conference need not be a formal gathering back at the station house. In fact, the investigative conference takes place during and after each



7th HOMICIDE ZONE				
COMPLAINT # _____				
CASE # _____				
NAME OF DECEASED		DATE & TIME OF OCCURRENCE	PLACE OF OCCURRENCE	
DATE	DET. ASSIGNED	ASSIGNMENT	REPORTS	FOLLOW UP

**Figure 24.7 ASSIGNMENT SHEET.** All assignments are recorded on this running sheet in order to fix responsibility for certain jobs.



INTERVIEW REPORT			
			Case # _____
Date: _____	Day: _____	Time Start: _____	Time Finished _____
Location and Room # of Interview: _____			
Name of Person Interviewed: _____			
Address: _____		Date of Birth: _____	
B # _____	Marital Status: _____	Wife/Husband Name: _____	
Address of Wife/Husband: _____			
Where Employed: _____	Employer: _____	Position: _____	
Telephone: _____	Ext.: _____		
Children's Names _____	Age _____	School _____	
Previous Arrests:	Date	Jurisdiction	Charge
			Disposition
Present at Interview: _____			
A.D.A.: _____		Bureau: _____	
Investigator: _____	Command: _____	Shield # _____	
Name of Attorney: _____		Address: _____	
Others Present at Interview: _____			
_____			
Advised of Rights:	Yes/No	N/A	By: _____
<u>Interview:</u>			

**Figure 24.8 INTERVIEW REPORT.** This form is used as a preliminary interview form at the scene. A more extensive report appears in Chapter 4.

of the other four phases. The conference is directed by the chief investigator at each critical point of the investigation. The object is to assess the investigation by gaining an overall synopsis. Each member and/or team relates their progress and ideas; everyone is kept abreast of all developments, and there is a general discussion. The daily investigative conference, which is somewhat different and usually takes place at the station house, attempts to assess the entire investigation on a daily basis.

In my opinion, the investigative critique should be used as a guide by the experienced members to conduct the homicide investigation.

### **Investigation of Police-Related Shootings (OIS/Use of Deadly Force Incidents)**

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Law enforcement officers, in their capacity as the guardians of law, are authorized to be armed with a firearm to protect themselves and others against the immediate threat of death or serious bodily injury. This authority is also extended to apprehend a fleeing felon who has committed a violent crime, e.g., an armed robbery, murder, or serious felonious assault, and whose escape presents a substantial risk of death or serious bodily injury to others.

Police-related shooting incidents (OIS [officer involved shooting]/use of deadly force incidents) involve the discharge of a firearm by a sworn officer in the performance of duty which results in injury or death. The investigation of these matters can have far-reaching consequences for all parties involved. The outcome may involve criminal as well as civil litigation, not to mention the psychological trauma inherent on the part of the officer. I know because I have been there.

The necessary and appropriate use of this authority is an awesome responsibility. The decision to use deadly force is based on the circumstances as presented at the time of incident. The final determination of justification, however, is based on law.

Police administrators must establish fair and appropriate guidelines within their respective departments for the use of deadly physical force, which instill public confidence by assuring official accountability. Commensurate with this formulation of policy relative to the justifiable use of force, however, should be a mandate not to place the law enforcement officer unduly in an unnecessary position of any danger or harm. The justification for the use of deadly physical force is usually decided on a case-by-case basis within the context of the law and interests of society.

Therefore, it is not my intent to argue the necessity for the use of deadly physical force by police officials for the protection of others and the general public or the legal basis of any justification defense. Instead, the purpose of this section is to provide practical guidelines to the investigator charged with the responsibility of conducting an official investigation in connection with a police-related shooting that results in death.

The official police investigation usually concentrates on the issue of whether the officer acted within the agency guidelines. The determination is based upon the law as it relates to the “justifiable use of force,” ethics, good judgment, and

departmental policies established within the agency. I acknowledge that there may be variances in the law and that case management and/or investigative techniques are usually determined on a jurisdiction-to-jurisdiction basis.

However, in situations where a death has occurred in connection with a police-related shooting incident, I personally recommend that a homicide investigation take precedence over any type of internal investigations inquiry. An internal investigation can always be conducted after the homicide probe.

The late Pierce R. Brooks recommended that an incident case book be prepared for each fatal shooting incident. The initial officer-involved shooting report and the information added as an addendum become the *incident case book*. The addendum includes:

- All scene diagrams
- Other related reports
- Supplemental reports
- Transcribed or lengthy statements
- Medical examiner's protocol
- EMT/hospital treatment reports
- Lab reports
- Evidence reports
- Suspect's criminal record
- Photos
- News clips
- Review Board decision
- Other pertinent information

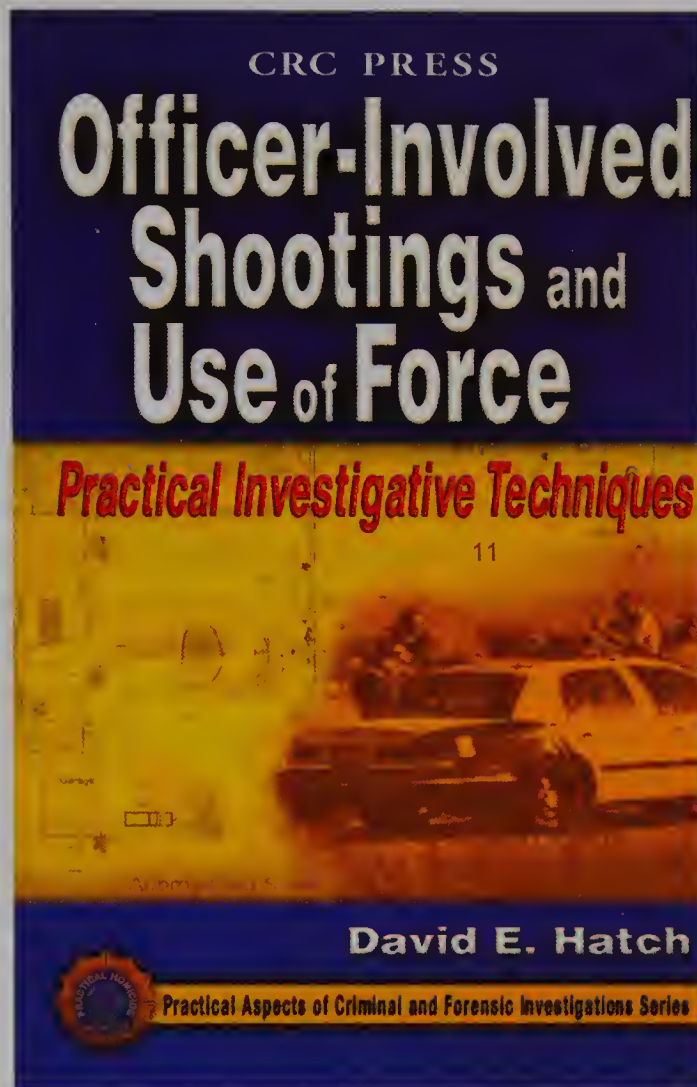
## **Protocol**

I have incorporated the suggestions and protocols recommended by David E. Hatch of the Las Vegas Metropolitan Police Department and the author of *Officer-Involved Shootings and the Use of Force: Practical Investigative Techniques*.<sup>1,2</sup> Detective Hatch has investigated officer-involved shootings for 20 years and has become a nationally renowned authority on this subject, which is why I commissioned Detective Hatch to produce a book for my Practical Aspects of Criminal and Forensic Investigations series.

### ***I. Introduction***

The purpose of the protocol is to focus primarily on the investigative responsibilities of OIS/use of deadly force incidents. The seriousness of an OIS cannot be overstated; nothing can have more impact on an agency's reputation and the involved employee's career than a use of deadly force incident. These investigations result in extensive media coverage, public scrutiny, and possible civil litigation. Conflicting reports and premature press releases containing inaccurate unconfirmed information are the greatest causes of public distrust and related problems. The investigation of these events must be thorough, impartial, and totally documented to ensure that no serious allegations of cover up or improper handling of the investigation can be made.





**Figure 24.9** *OFFICER-INVOLVED SHOOTINGS AND THE USE OF FORCE: PRACTICAL INVESTIGATIVE TECHNIQUES.*

## ***II. Assigning Investigative Responsibility***

Investigative responsibility depends on the resources and the expertise available to an agency. Responsibility for conducting the investigation is of paramount importance.

Larger police agencies usually assign the responsibility to their Crimes against Persons/Homicide sections. Smaller agencies should consider forming multiagency task forces to investigate shootings within their respective jurisdictions.

*Internal Affairs units should not be considered for investigative responsibility.* A use of deadly force incident is not by definition an internal investigation; it is a very public event and subject to public scrutiny. A trained investigator can reconstruct a scene and evaluate the facts of an incident in the same manner that he or she conducts a homicide investigation. The investigative unit assigned to conduct these investigations must determine the following:

- Did this use of deadly force meet the standards of existing state law?**
- Was this use of deadly force within department policy?**

Therefore, the agency must conduct a criminal investigation and administrative review.

### ***III. Investigation of OIS/Use of Deadly Force Incident***

#### **A. Supervisory responsibilities**

1. Upon being made aware of an OIS, the investigative supervisor should contact on-scene supervisory personnel or the senior officer at the scene to be briefed (via cellular phone or land line) as to the nature of this incident, allowing the supervisor to assign teams to the scene, hospital, detective bureau, etc.
2. Confirm that all notifications have been made — for example, crime scene units, duty captain and/or supervisors, chiefs, and sheriffs.
3. Determine whether additional staffing is needed to accomplish investigative goals.
4. Upon arrival at the scene, determine whether it is a static or dynamic scene and at what point the OIS investigators will assume control of entire scene and investigation.
5. Coordinate a briefing by on-scene personnel with investigators as to what is known of the incident at that time, location of the employee involved, witnesses, and steps taken to secure the scene, including any area where the scene was disturbed due to emergency or exigent circumstances. Secure dispatch tapes of the entire incident, including all incoming calls and radio traffic for follow-up investigative purposes.
6. Ensure that a public information officer (PIO) or supervisor of administrative rank sets up a command post/media staging area and that no press release is made until sufficient information is available to ensure accuracy of information.
7. Coordinate investigation at the scene and office to keep everyone apprised of information as it becomes available, including police broadcasts for additional suspects, etc.

#### **B. Incident scene investigator**

1. Identify the employee involved.
2. Identify any witnesses, civilian and department members, and ensure that they are at a secure location and separated if possible.
3. Ensure that the employee involved is removed from public and press scrutiny and confirm that a union/peer representative is en route to his or her location. (*Depending on your agency's policies, the officer/employee should have trauma counselors or peer representatives to act as support for him or her during this extremely stressful period.*)
4. Determine the boundaries of the scene if possible and ensure that the entire area is secured. A double scene approach is preferable (taped inner scene and barricaded or taped much larger outer scene to keep media and nonessential personnel away from forensic evidence).

5. When investigators, crime scene personnel, and a supervisor of administrative rank have arrived, request that the employee involved or an employee witness accompany the investigative personnel through the scene describing briefly how the OIS occurred. This provides investigators with the opportunity to determine the parameters of and information about the scene so that they can organize the shooting scene investigation.

**Remember: A walk-through of the scene is of critical importance and should be completed by the officer/employee, if possible, or by an employee who witnessed the incident. It does not require actually walking through the scene, risking the contamination of evidence; it merely requires that the employee stand at a location where he or she can point to critical areas and describe the incident. Do not videotape! The employee's ability to recall the incidents in proper order may be affected by the extreme stress caused by the trauma of this shooting; the chance of inaccurate chain of events could create unnecessary civil liabilities.**

- It is advisable to photograph the employees involved at the scene to show how they were attired at the time of the incident — plainclothes, uniform, visible police identification, caps or jackets with police logos, etc.
  - It is not necessary to disarm the employee at the scene unless it is necessary for investigative purposes. Impounding the weapon and countdown of ammunition should be out of public view.
  - The employee can surrender the weapon at the station when he or she is issued a temporary duty weapon.
  - Depending on circumstances of the incident, it may be necessary to impound the employee's gear and clothing for forensic analysis.
6. Arrange to have witnesses and employees involved transported to a location where they can be interviewed and taped statements obtained. Assign personnel to care specifically for these witnesses and ensure that their needs are addressed (phone calls, comfort, restrooms, etc.).
  7. All interviews should be taped; the location of each witness in relationship to the shooting scene should be documented due to witnesses seeing different things from different locations.

#### **IV. Interview of Employees Involved**

**Never allow the employee involved to dictate his or her report.**

The natural tendency to concentrate on the incident and not on the entire event requires that a statement be obtained and a total interview be conducted.

- The employee involved should be interviewed and notes taken after all other witnesses are interviewed. The employee should then be released to crisis counselors and placed on administrative leave by his or her supervisor.



- Within 48 hours of the employee's actually using deadly force a formal taped statement should be scheduled in the presence of his or her immediate supervisor, union representative, or attorney.
- Employees involved in traumatic events should be allowed time after their initial interview to calm down and gather their thoughts before a taped interview. This is established policy in many major police agencies.
- The trauma of the incident can cause the employee to forget the order in which the events occurred and critical portions of the OIS. Given time to think, he or she will describe his or her actions and those of the suspect in detail.
- The immediate supervisor of the employee involved shares a vicarious liability for his or her subordinates' actions; therefore, he or she should be directly involved in the interview process and aware of follow-up investigative findings.

### ***V. Taped Interview of Employees Involved***

Due to the unique nature of each use of deadly force incident, it is virtually impossible to make a list of questions that would be all inclusive. However, an investigator should allow the interviewee to describe in his or her own words how the armed confrontation occurred and then conduct an interview that covers all areas of the incident, including state of mind of the officer involved at time of the actual use of deadly force.

**Remember: It is not necessary to Mirandize or provide Garrity (administrative) types of warnings in the investigative stages of a use of force investigation. Garrity warnings provide transactual immunity. Miranda warnings are custodial in nature (see Glossary).**

### ***VI. Follow-Up Investigation***

- After completing the scene investigation and interviews of employees involved, along with any other police and civilian witnesses, it may be advisable to arrange for a videotaped walk-through with the employees involved to be used in use of force boards and inquest types of reviews.
- OIS investigations are quite similar to homicide investigations and, depending on the circumstances of each incident, similar investigative steps should be taken.
  - Examples: check adjacent businesses for witnesses; review incoming dispatch tapes for any persons reporting via cell phones; check area for any camera-equipped ATMs or store surveillance cameras; return to area at same approximate time of incident and log license numbers to contact anyone who may travel through the area at the same time each day; set up informational roadblocks and pass out printed material concerning the OIS for public assistance; canvass neighborhood; media releases. Copy the video media coverage and watch for unknown witnesses that may

talk to the reporters and not the police. If the media filmed any portion of the incident, ask them for any raw unaired footage.

**Remember: Approximately two-thirds of all households have video cameras, so always look for individuals that may sell these tapes to the media; be prepared to subpoena the original video.**

## *VII. Background Investigation*

- Suspect and witnesses:
  - Do a complete background investigation on all suspects and parties involved, including the relationship, if any, of the witnesses to the participants.
- Employee:
  - Obtain a copy of the involved employee's training history and duty assignments and attach them to his or her statements.
  - If the employee involved has worked for other police agencies, make sure his or her work history/experience is properly documented.
  - Has the employee been involved in other OIS/use of force incidents? Dispositions?

## *VIII. Preparation of Investigative Report*

A comprehensive report, which depicts the entire event, is of critical importance.

### A. Preparation:

1. Upon obtaining transcribed copies of all taped statements, communications tapes, and crime scene and investigative reports authored by other units, review all reports and complete a Use of Force Investigation — Administrative Report form.

### B. Chronological narrative:

1. Document location of occurrence, and date and time of incident.
2. Identify employees involved, including witness employees.
3. Describe the type and nature of deadly force used.
4. Describe the scene, including background areas (field of fire, lighting conditions, etc.).
5. Describe the employee's duty assignment (plainclothes, uniform, unmarked or marked police vehicles).
6. Identify weapons involved by make, model, serial number, and caliber.
7. Confirm that the weapon was duty, off duty, or back-up.
8. Confirm that the weapon was departmentally issued or authorized and that ammunition used was also authorized or issued ammo.

### C. Deceased or living suspect?

1. Identify any and all suspects involved in this incident, including the following:

- a. Complete physical description
  - b. Prior criminal history
  - c. Parole or probation status
  - d. Known associates (possible witnesses)
  - e. If deceased, autopsy/cause of death
  - f. If injured, describe injuries including hospital and attending physician information
  - g. If charged, detail charges pending prosecution
- D. Witnesses
1. Describe all witnesses and provide a brief summary of what they observed:
    - a. Name, address, and telephone number
    - b. Complete physical description, DOB, SSN
    - c. Witnesses' locations at time of incident and their observations
    - d. Their relationship, if any, to any of the participants

### ***IX. Conclusion***

Any agency reviewing its present use of force policies should remember that a written policy detailing how and when the use of force is authorized should not be confused with investigative guidelines in the investigation of these events. In my capacity as homicide commander, I have investigated officer-involved shootings. Based on my experience, I recommend that an established protocol be followed when investigating OIS incidents to assure consistency and total objectivity in the documentation of the facts of the case. I recommend *Officer-Involved Shootings and the Use of Force: Practical Investigative Techniques*, by David E. Hatch,<sup>2</sup> for a more comprehensive analysis of this subject.

### ***Checklist***

Interviews of employees involved in use of deadly force incidents as participants and witnesses:

- Date, time, and location of incident; location of interview and names of all persons present
- Officer/employee involved: full name, age, rank, duty assignment, and agency (if applicable)
- Background/biographical information. This area should cover the employee's background:
  - Duty assignment, date of employment, previous experience, and specialized training
- Weapon used: make, caliber, department issue or authorized, magazine capacity (whether the weapon was fully loaded, date of last range qualification with this weapon)
- Ammunition used: department issue or authorized, caliber, manufacturer, description (hollow point, full metal jacket, etc.)



- Duty status of employee involved: on duty, off duty, duty hours, days off, last shift worked, and hours worked
- Dress: uniform, plainclothes, whether badge was displayed, where on the body badge was located
  - Was the employee wearing his/her ballistic vest?
  - Was the employee wearing any type of jacket, cap, or special assignment type of uniform with police identification on it? Tactical unit, etc.
- Identification: Did the employee identify himself or herself as a police officer prior to the use of deadly force? How many times? How loudly?
  - If the employee was in uniform, could the suspect see him or her?
  - Was it necessary for the employee to verbally identify himself or herself?
  - Did the employee have time to identify himself or herself?
- Have the employee describe the following in chronological order:
  - What crime/incident led to this armed confrontation/use of deadly force?
  - What were the elements of the crime as known to this employee?
    - Was this a crime in progress, a suspicious situation, or an event initiated by the employee (field observation, traffic stop, etc.)?
    - What were the suspect's actions, demeanor, prior to the incident (erratic, under influence of drugs, alcohol, etc.)?
    - Was the suspect armed? (Describe weapon, where it was — on body or in hand.)
    - What was the aggression level? (Have the employee describe the act that caused him or her to react with deadly force.)

**Take notes during this portion of the interview and be prepared to ask very direct questions; remember that officers involved in these very traumatic incidents have a tendency to go from “I responded” to “I shot” — leaving out crucial details that only a thorough interview will cover.**

**Be prepared to ask questions about lighting conditions, back drop, distance, state of mind. (Was the officer in fear of his or her life or the life of another? Did the officer feel that he or she had any option other than the use of deadly force?)**

- Was the employee acting on authority of a warrant (search/arrest)?
  - What was the probable cause?
  - Was the employee acting on orders (tactical situation where force is ordered, barricaded suspect hostage rescue, etc.)?

**Remember: No two use-of-force/OIS situations are the same; this interview format is merely a guide to areas of concern that should be addressed when interviewing employees/officers involved in a very stressful situation. These employees may not remember in exact detail**

**how this incident occurred. As a result, the initial interview will usually require follow-up questioning. Always have the employee review his or her statement at a later date to ensure its accuracy. If the employee wishes to correct or add additional information to the statement, have it attached in the form of an addendum to the previous statement; do not delete or change the initial statement in any manner.**

**The trauma and stress of this violent act should be considered during all interviews of employees and civilian witnesses.**

## **Apprehension of Homicide Fugitives**

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When I was the commander of Bronx Homicide, I initiated an apprehension unit within the command that focused on known perpetrators who had become fugitives. The members of this unit were selected based on their expertise in conducting covert surveillance as well as their contacts and abilities to access information from various agencies and different confidential sources. The investigative strategy in having a specialized apprehension team within the Homicide Squad was that pursuing known fugitives was a full-time, 24-hour-a-day job, which required the assigned members to be available on short notice to make apprehensions.

The members of this unit developed extensive background information on their subjects. They knew them, their girlfriends and wives, and their known associates, as well as their haunts and habits. This was important information which not only facilitated apprehensions but also minimized some of the hazards in connection with fugitive arrest situations.

This consistently effective operation was disrupted when an arrogant chief, who reportedly did not appreciate detective expertise, refused to allow a specific fugitive case to be assigned to the apprehension team under my command. This suspect had been identified as the perpetrator of a quadruple homicide and should have been assigned to our apprehension unit. The chief's rationale was that homicide detectives considered themselves elitists. He felt that the local detective squad should handle the apprehension even though they did not have the resources. Needless to say, the results were devastating. Six New York City Police officers were shot in an abortive attempt to apprehend this fugitive, who managed to escape. Thank God, these officers were not killed as a result of this pompous blunder.

In any event, I ultimately had the pleasure of leading my detectives on a subsequent raid, which resulted in the apprehension of this murder suspect and would-be cop killer. Incidentally, the subject was located and apprehended using the very same tactics and procedures employed on all of the other cases handled by our apprehension team.

Detective Second Grade John Tierney, who was one of my top investigators in the apprehension team, provided the information in the next section on apprehending fugitives.

## Use of Wanted Posters

The strategic placement of wanted posters at locations frequented by prisoners and informants who come into the police station has proven to be successful. Wanted posters displayed at prisoner processing areas, fingerprint board locations, and outside holding cells in police stations are seen by persons who may have information and are looking to exchange that information for consideration on their cases. Likewise, these posters can also be displayed at courthouses, parole and probation offices, debriefing rooms, and any other place where someone who might be interested in striking a deal might be tempted to come forth with information on the whereabouts of the wanted fugitive.

## Distribution of Photographs and Information Flyers to Patrol

Patrol officers represent the eyes and ears of the police department. They are out there 24 hours a day, 7 days a week. Most patrol officers are eager to apprehend a wanted felon, especially a homicide fugitive. By distributing color photographs of wanted subjects along with informational flyers on the subject's known locations and activities, the patrol force becomes an additional resource to be employed in apprehensions.

## Cell Phones

Cell phones are a mandatory item for apprehension teams who are actively pursuing a fugitive. According to Detective Tierney, "It's always better to have the bad guy come out the door than to have the good guys go through the door and put themselves at risk." Detective Tierney recommends a telephone ruse be employed to assist in the apprehension of the fugitive. The apprehension team should try to obtain the cell phone numbers of their subjects as well as the subjects' associates. If the subject is located indoors and the arrest team is in position with a view of the subject's door, two tactics have proven to be successful:

1. Have someone call the subject on his cell phone (preferably a female) and/or call the location and ask for the subject and arrange a meeting, or call to determine whether he is at home. This tactic is not foolproof, but it minimizes the chance of blowing the operation by alerting the fugitive or someone else at the location that you know where he lives. If he is not home, you can always return at a later time or another day when the subject is home and answers the phone.
2. When you are sure that the wanted subject is at a specific location, have someone call his cell phone from a nondisclosed recipient or unregistered cell phone or simply employ the \*67 option, which most carriers have provided customers to avoid caller ID. Using "street talk," tell the subject, "The cops are coming. Get out now while you can." According to Tierney, "Nine out of ten times, the subject will come running out the door."



Obtain a subpoena for the subject's cell phone records to ascertain locations from which he is making his calls or set up a trace-surveillance to apprehend him when he is on the phone.

## Pagers

Many times investigators will discover that the wanted subjects have beepers, which they use to conduct business and remain a few steps ahead of the police. According to Detective Tierney, although you can request subscriber information, many of the subjects do not use their real names or provide fictitious information to the company. Tierney recommends the following tactics using a police "undercover phone":

1. When you obtain the wanted subject's pager number, *beep* him to the *undercover phone number* at your office, which should be equipped with caller I.D. This will give you the number he used to call you. If the bad guy has a block on his phone, which most bad guys do, go to Step 2.
2. Page the bad guy to the *undercover phone number*. When he calls back, there is a code you can hit, e.g., \*57 (you need to check with your local phone company to ascertain the proper code in your area). After speaking to him and telling him you did not page him, punch in the code. You will get a recording from the phone company stating that your call has been successfully trapped and the number to call for further information. In most situations, the phone company will provide you with the location from which the call was made. It is good practice to have an assistant district attorney on standby for a subpoena to be faxed. (*I recommend that you confer with your local prosecutor or state's attorney because certain states have different legislation regarding telephone number interceptions.*)
3. If you have an indication of the area from which the subject is calling, have surveillance units available in that area ready to respond to the location when the phone company provides you with the address.

## Planning the Apprehension

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### Assessment of Physical Hazards

The purpose of this section is to stress the importance of safety and eliminate risk hazards to members of the apprehension team. Carefully consider whether the hazard factor may be above the acceptable level before proceeding with any tactical plan. Consider

- Time of the day or night
- Type of location (high rise, private house, multiple dwelling, drug location, schools in area, type of neighborhood, traffic conditions)

- Firearms involved
- Vehicle pursuits — consideration
- Requesting assistance of other specialized units

### ***The Tactical Plan***

- Research your subject. Develop extensive background information on your subject. Know the fugitives' associates as well as their haunts and habits. Know your subjects' history, the areas they frequent, their social activities, past criminal activity, driving, and summons activity.
- Conduct reconnaissance of the subjects' location. Know the physical layout of the location (locked front doors, rear exits, fire-escapes, rear yards, security, alarms, dog, etc.). Conduct roof-top surveys.
- Consider the best method of approach to the location to minimize hazards and provide an element of surprise.

### **The Tactical Operation**

#### ***Notification to Central Communications by Land Line***

- Prior to enforcement action, the citywide or local police communications division should be advised by telephone of the planned raid in the event that someone calls 911 to report activities. *Do not use the radio to alert communications. Subjects are known to monitor police frequencies.*

#### ***Hospital***

- Designate a hospital and a route for *emergency* response.

#### ***Personnel***

- Whenever practical in enforcement operations, members should wear recognizable *police identification*, i.e., police jackets, uniforms, etc.
- Ample personnel should be assigned.
- All members of the apprehension team (uniform and plainclothes) should familiarize themselves with other assigned members.
- Bullet-proof vests should be worn at *all* times.

#### ***Briefing***

- Work as a team. All members should be apprised of *all* information about the subject. Keeping information about the subject private can result in the subject's escape or injury to your fellow officers.

- Prior to enforcement operations, conduct a meeting with *all* members assigned to the operation to discuss:
  - Personnel assigned and each specific duty
  - Equipment
  - Set-up locations
  - Targeted locations
  - Execution tactics
  - Potential hazards

### ***Equipment***

- Determine the type of equipment necessary for the operation — *types of weapons to be used, tear gas, percussion grenades.*
- Ensure that *all* portable radios are charged and have extra charged batteries. Handcuffs should be carried by *all* members of the team. Flashlights should also be available during the enforcement operation. *All* vehicles should have full tanks of gas prior to the start of the operation.
- Cell phones

### **Cold Case Investigations**

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The term *cold case* is applied to investigations which are not being actively investigated and remain unsolved due to any number of reasons. The most common reason is the lack of information, which is the life-blood of any good investigation. These cases are temporarily shelved because of this lack of information and follow-up leads, as well as lack of known physical evidence, eyewitness identification, or other case solvability factors.

In the past decade, decreasing crime rates and advances in forensic technology have combined to allow some law enforcement agencies the opportunity to reinvestigate older, previously investigated but unsolved homicides. Many of these stem from the rapid increases in the homicide rates that occurred in the 1980s and early 1990s. Forensic developments in the past two decades have enabled investigators in many law enforcement agencies nationwide to reexamine unsolved homicide cases suspended because the technology was not available or there was a lack of information.

Recent headline cases such as the “Green River Killer” or “BTK,” as well as cases that date back to the 1940s and 1950s, have captured the attention of the media. These cases have been dubbed by the media and public as “cold case” homicides; groups of investigators dedicated to this facet of homicide investigation have become known as “cold case squads.”

These cold case investigations have resulted in some new investigative techniques, which address forensics as well as multidisciplinary concepts. Advances in forensics, including DNA and automated fingerprint identification systems (AFIS)



as well as the additional knowledge-based systems, have afforded investigators the unprecedented opportunity to be able to revisit these cases and develop new physical evidence.

**However, from my perspective, all real murder cops are cold-case detectives. I do not know of any genuine homicide detective who does not sincerely want to solve his or her case by pursuing any and all information, especially the newer forensic techniques.**

Remember the case from New Rochelle in “Investigative Strategy” in Chapter 14? That case was reopened twice as we attempted to obtain justice for the family.

I commissioned my friend and colleague Richard Walton, an investigator in a district attorney’s office in California who has researched cold case investigations extensively, to prepare a comprehensive textbook for my series. Walton earned his doctorate degree in education; the title of his dissertation was “The Identification of Solvability Factors in Cold Case Homicide Investigation.” His textbook, *Cold Case Homicide Investigation: Practical Investigative Techniques*, is an excellent resource that serves as a practical investigation guide for those engaged in the mission of solving unsolved homicide cases.

Although the investigation of cold case homicides encompasses many of the techniques outlined in *Practical Homicide Investigation*, a number of factors have an impact on the successful conclusion of these types of cases. In the years since a case was suspended, witnesses and suspects, as well as the original officers, experts, and others involved in the investigation, may no longer be available. Physical evidence and files may have become contaminated or misplaced and the factors of time and memory need to be considered in reviving the investigation.

*Cold Case Homicide Investigation: Practical Investigative Techniques* addresses these issues as well as initial case retrieval, crime scene reconstruction, evidence reconstruction, updated forensic methodologies, identification techniques, and the dynamics of changing relationships.

## Conclusion

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Management and supervision of a homicide investigation are unique in their comparison to other police management operations. The management of day-to-day patrol operations and administrative functions can be proceduralized because of their routine and repetitive nature. In fact, management and supervision of many police operations are interchangeable and allow for supervisory reassignment and career growth within the organization. The supervisor’s experience with the function is not considered a prerequisite for assignment.

This rationale is based on the theories of police administrators, whom I refer to as “the police intelligentsia.” They believe that “police managers” should not participate operationally in the function. Instead, these managers should be taught

to rely strictly upon the written rules and procedures of the organization. This, they believe, will assure operational uniformity.

Generally speaking, this strict and rigid bureaucratic control does not allow for on-site common sense and the flexibility necessary in a practical homicide investigation. These administratively oriented rules eventually become insular and effectively relieve the manager of the on-line supervisory responsibility commensurate with the direction of operations.

Investigatively speaking, the intelligent management and supervision of homicide investigations requires a different approach that takes into account the unpredictable aspects of a murder investigation. There are rules, procedures, and established policies that give direction and coordination to the function, as well as guidelines implemented for specific investigative actions.

In homicide investigation, the on-scene supervisor directs and coordinates a team effort based upon established policies. However, as a manager, he or she is given the authority to allow for variations of the guidelines to occur when needed at the point of execution. This flexibility is based upon necessity and common sense.

The supervision and management function requires the supervisor to participate actively in the investigation. This does not mean “playing detective” and/or jumping into the operational aspects, such as interrogation of suspects, searching the crime scene, collecting and/or handling evidence, or interviewing prospective witnesses. Active participation means sharing an interest in the investigation, intelligently directing activities, and utilizing the investigative critiques to establish priorities properly. In addition, active participation enables the supervisor to assess the case and provide the necessary resources to his people so that they may effectively investigate the case.

The supervisor of homicide should ideally have a homicide or an investigative background because experience is a prime asset. This does not mean that a supervisor who lacks a homicide or investigative background cannot effectively supervise investigations. However, it does suggest a need for learning the investigative processes involved. Even for the experienced supervisor, managing investigations is an on-going educational process. Remember: you are never too smart to learn.

## **Epilogue**

As far as homicide detectives are concerned, there are two types of homicide: one in which the suspect is caught quickly and the other the unsolved homicide. In New York City, the former are referred to as “ground balls” and the latter are appropriately called “mysteries.” Mystery or ground ball, the fact remains that you are dealing with the ultimate crime — murder. Whether you have the killer in cuffs or the case is a who-done-it-and-ran, the investigation should remain the same. Each case must be properly managed and the investigation must be thorough and complete. This is what professional homicide investigation is all about.

Homicide investigation is a profound duty. As an officer entrusted with such a duty, it is incumbent upon you to develop an understanding of the dynamics and

principles of professional homicide investigation. Practical homicide investigation suggests that “things be done right the first time” and “knowledge is power” — knowledge that has been enhanced with experience, flexibility, and common sense.

Practitioners must be prepared to use tactics, procedures, and forensic techniques in their pursuit of the truth and then to follow the course of events and the facts as they are developed to their ultimate conclusion.

Death investigation constitutes a heavy responsibility, and as such, let no person deter you from the truth and your personal commitment to see that justice is done — not only for the deceased, but also for the surviving family. Remember: “We work for God.”<sup>®</sup>

## References

1. Hatch, D. Personal interview, June 30, 2005.
2. Hatch, D.E. *Officer-Involved Shootings and the Use of Force: Practical Investigative Techniques*. Boca Raton, FL: CRC Press, 2002.





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# Glossary

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**Abdomen** — Portion of the body between the thorax (chest area) and pelvic area.

**Abdominal cavity** — Contains the stomach, liver, gallbladder, spleen, pancreas, and most of the large and small intestines. The kidneys, ureters, and adrenal glands lie deep in the cavity.

**Abdomino-pelvic cavity** — Portion of the ventral cavity below the diaphragm consisting of the abdominal cavity and the pelvic cavity.

**Abortion** — Uterus empties prematurely. Criminal abortion is willful production of a woman's miscarriage by drugs, instruments, or any other means not authorized by law.

**Abrasion** — An injury to the skin in which the superficial epithelial layer of the skin (the epidermis) is removed due to friction against a rough surface with resultant scraping away of the superficial portions of the epidermis; wearing away of the skin in small shreds by friction.

**Abrasion collar** — The circular perforation and blackening effect on the edges of the skin as the bullet passes through the skin.

**Accident** — An unforeseen occurrence, especially one of an injurious character.

**Acid phosphatase** — An enzyme found in the kidneys, serum, semen, and prostate gland. Acid phosphatase is found in high concentrations in semen. It is most useful as an indicator of recent sexual intercourse.

**Acute** — Sharp or severe.

**Adhesions** — Places where the tissue adheres to the skin, normally found at previous operation scars.

**Adhesive lifter** — Any variety of adhesive-coated materials or tapes used to lift fingerprints or footwear impressions. Adhesive lifts are primarily used to lift powdered impressions from nonporous surfaces

**Adipocere** — Waxy, soap-like substance formed during the decomposition of animal bodies buried in moist places. It consists principally of insoluble salts of fatty acids. Also called "grave wax." Composed of oleic, palmitic, and stearic acids.

**Adrenals** — Either of two secretory organs perched atop the kidneys. Each consists of two parts: the cortex and the medulla, which secrete hormones.

**AIDS** — Acquired immune deficiency syndrome (HTLV-3). A disease involving a defect in cell-mediated immunity. Usually transmitted through sexual contact or exposure to contaminated blood.

**Airborne pathogens** — Infectious disease-causing microorganisms, which may be present in biological fluids.

**Allele** — Alternative forms of a gene, e.g., an allele for blue eyes.

**Alternate light source (ALS)** — Produces a high-intensity light in the visible light spectrum. The wavelengths of light range from ultraviolet to infrared. Different wavelengths can be used to facilitate the recovery of microscopic evidence not ordinarily detectable by the naked eye, such as latent prints, hairs, fibers, blood, and other body fluids.

**Ambient temperature** — The temperature of the air circulating around the crime scene.

**Amnesia** — Lack or loss of memory, especially for past experiences.

**Anal intercourse** — Insertion of one partner's penis into another partner's rectum.

**Anatomy** — Study of the structure of the human body.

**Anemia** — Insufficient oxygen-carrying capacity of the blood.

**Anesthetics** — A group of drugs capable of producing localized or general loss of sensation. Examples: (1) chloroform, a heavy, colorless liquid with a characteristic odor and taste; and (2) ether, a colorless volatile liquid with penetrating odor.

**Aneurysm** — A sac formed by the dilation of the walls of an artery or a vein and filled with blood.

**Angina** — Spasmodic pain.

**Angina pectoris** — Spasmodic pain in chest caused by sudden decrease of blood supply to the heart muscle.

**Anoxia** — Total oxygen deprivation.

**Antemortem** — Before death.

**Anterior** — (Ventral) The front. Indicates the front or belly side of the body; the toes are anterior or ventral.

**Antitoxin** — A substance found in the blood serum and in other body fluids which is specifically antagonistic to some particular toxin.

**Anus** — The distal end and outlet of the alimentary canal.



**Aorta** — The great trunk artery, which carries blood from the heart to be distributed by branch arteries throughout the body.

**Aortic valve** — A valve in the heart between the left ventricle and the aorta.

**Arachnoid membrane** — Thin covering of the brain and spinal cord.

**Areola** — The pigmented ring around the nipple of the breast.

**Arrhythmia** — Any deviation from the normal pattern of the heartbeat.

**Arsenic** — A medicinal and poisonous element; a brittle, lustrous, graying solid, with garlic odor.

**Artery** — Any one of the vessels through which the blood passes from the heart to the various parts of the body.

**ASHD (arteriosclerotic heart disease)** — Hardening of the arteries; frequent in old age and resulting from the accumulation of fat in the arteries.

**Asphyxia** — The end stage of significant interference with the exchange of oxygen and carbon dioxide, as in suffocation.

**Aspiration** — Breathing or drawing in of a substance into the respiratory tract, blocking same. Aspiration of vomitus: breathing or drawing vomitus into the respiratory tract, blocking same.

**Asthma** — Wheezing and coughing, usually caused by allergies affecting the bronchi or air passages to the lungs.

**Atomized blood** — Patterns of blood that appear as a fine mist on a surface.

**Atrium of the heart** — One of the two upper chambers of the heart. The right atrium receives deoxygenated blood from the superior vena cava, the inferior vena cava, and the coronary sinus. The left atrium receives oxygenated blood from the pulmonary veins. Blood is emptied into the ventricles from the atria during diastole.

**Auto** — A combining form meaning self.

**Autoeroticism** — Arousal and satisfaction of sexual emotion within or by oneself through fantasy and/or genital stimulation.

**Autolysis** — The breakdown of cells and organs from the aseptic chemical process caused by intracellular enzymes.

**Autopsy** — The internal examination of the body after death.

**Autoradiograph** — The autoradiograph or AUTORAD is the final product in a DNA probe. The nylon membrane, which has been probed by the radioactive marker, is placed against a piece of x-ray film and exposed for several days. Black bands appear where the radioactive probes stick to the fragments.

**Autosadism** — Sexual gratification through self-inflicted pain.

**Avulsion** — The separation, by tearing, of any part of the body from the whole.

**B.A.C. (body alcohol content)** — Refers to the percentage of alcohol in the body.

**Barbiturates** — Depressant medicines prescribed by doctors; common in suicide by overdose.

**Bases** — The chemical units (adenine, thymine, guanine, and cytosine, in humans) whose order in DNA molecules governs the genetic code.

**Bestiality** — Use of animals for sexual arousal (includes intercourse with animals as well as training the animal to lick or rub the human partner). This sexual disorder is clinically referenced in *DSM-IV* as *zoophilia*.

**Biliary tract** — Of or pertaining to bile or gall bladder and its ducts, which transport bile.

**Biohazard bag** — A plastic bag with the biohazard logo or insignia imprinted on it. All items exposed to blood or biological fluids that may contain contamination from diseases such as HIV, hepatitis, and or other viruses should be placed in this type of receptacle for proper disposal at an approved biohazard site.

**Biological fluids** — Blood, semen, saliva, vaginal fluid, urine, mucous, perspiration, etc.

**Bitch** — In prison slang, a feminine looking woman who is used sexually, as “insertee,” by tougher females. In gay male slang, a general term of abuse for a gay male.

**Bladder** — A membranous sac serving as a receptacle for secretions. The urinary bladder.

**Blow back** — Minute particles of blood and tissue found in and/or on the barrel, the cylinder, or trigger guard of a weapon when the weapon has been in contact with the victim’s skin. Blow back is generally associated with gunshot wounds when the weapon is placed tightly to the head or other portion of the body, especially in “contact” types of wounds.

**Bondage** — A masochistic involvement with ligatures, restraints, blindfolds, gags, hoods, or restrictive containers. In autoerotic episodes, these restraints may vary from the very simple to very complex and bizarre.

**Bottom man** — The homosexual male who receives the fist of the “top man” during a “fisting,” or the insertee (passive partner) in anal intercourse.

**Bradycardia** — Abnormally slow heartbeat. Cardiac output is decreased, causing faintness, dizziness, and chest pains.

**Bruise** — Bluish swelling of blood beneath the skin.

**Bull** — In prison slang, a tough female who plays the dominant sexual role.

- Bull dyke** — A lesbian who adopts masculine manners as well as wears men's clothing.
- Bullet track** — The path of the bullet or projectile as it passes through the body.
- Burking** — Mechanical asphyxia plus smothering that is homicidal in nature. Murder by suffocating so as to leave the body unmarked. (William Burke was executed in Edinburgh in 1829. He and an accomplice would supply bodies for anatomical dissection. They would get an individual intoxicated and Burke would sit on the victim's chest while the mouth and nose were covered.)
- Butch** — A homosexual male or female who is masculine in looks and manner.
- Cadaveric spasm** — Stiffening and rigidity of a single group of muscles occurring immediately after death.
- Calvaria (calvarium)** — The skull cap or superior portion of the skull.
- Capillaries** — Connect arteries and veins.
- Carbon dioxide** — A heavy, colorless gas. Formed in tissues during respiration and eliminated by the lungs.
- Carbon monoxide** — A colorless, odorless, very toxic gas formed by burning carbon or organic fuels.
- Carcinoma** — Cancer. This will usually be defined by the organ or body affected.
- Cardio** — A combining form denoting relationship to the heart.
- Cardiovascular system** — The network of structures, including the heart and the blood vessels, that pump and convey the blood throughout the body.
- Carotid** — Arteries of the neck.
- Cartilage** — The gristle or white elastic substance attached to articular bone surfaces and forming certain parts of the skeleton.
- Casting** — The filling of a three-dimensional footwear impression with material that takes on and retains the characteristics that were left in that impression by the footwear. Also, a method of making a mold by first making a three-dimensional model of a shoe and then making a cast from that model (Bodziak's *Footwear Impression Evidence* textbook).
- Cast-off stains** — Stains created when blood is flung or projected from an object in motion or one that suddenly stops some motion.
- Castration** — Removal of the gonads (primary sex organs).
- Cause of death** — Any injury or disease that produces a physiological derangement in the body resulting in the individual's dying.



**Cavity** — A hollow place or space.

**Cecum** — A cul-de-sac constituting the first part of the large intestine.

**Cell** — The basic unit of all living organisms, including humans, animals, insects, and plants. The cell consists of a nucleus and cytoplasm. The human body has more than 10 trillion cells.

**Cerebral** — Pertaining to the cerebrum, which is the main portion of the brain occupying the upper part of the cranium.

**Cerebrospinal fluid (CSF)** — The fluids about the brain and spinal cord.

**Cerebro-vascular accident (CVA)** — A stroke; severe injury to the brain resulting from spontaneous hemorrhage or thrombosis.

**Cervical** — Pertaining to the neck.

**Chain of custody** — Refers to the process which documents the “custodial history” of an item of evidence from the time it is recovered from the crime scene through the laboratory process to the time it is presented in the courtroom.

**Chicken** — In pedophile slang, a young boy who is used sexually by an adult homosexual.

**Chickenhawk** — An adult homosexual male who seeks children or young teenagers for sexual activities.

**Choking** — Asphyxia caused by obstruction within the air passages.

**Chop wounds** — Wounds caused by a heavy object with an edge, e.g., an axe, a machete, or a meat cleaver.

**Chromosome** — A structure in the cell nucleus composed mainly of DNA and other proteins that stores and transmits genetic information.

**Chronic** — Of long duration (said of sickness).

**Circulation** — Movement in a regular course, such as the circulation of the blood.

**Cirrhosis** — A disease of the liver marked by progressive destruction of liver cells.

**Class evidence** — Class evidence is that which *cannot* be forensically identified with a specific source to the exclusion of all others

**Clavicle** — A long, curved horizontal bone just above the first rib forming the ventral portion of the shoulder girdle.

**Clustered crime scene** — Involves a situation where most of the activities take place at one location; the confrontation, the attack, the assault, and sexual activity, etc.

**Coagulate** — To become clotted.

**CODIS (Combined DNA Index System)** — A database maintained by the FBI and several individual states containing the DNA profiles from criminals who have been convicted of a certain class of crimes as well as DNA evidence from sexual assaults and homicides

**Colon** — The part of the large intestine that extends from the cecum to the rectum.

**Comatose** — Unconscious and unresponsive to stimuli. Note that a comatose person is not dead.

**Congenital** — Existing at or dating from birth.

**Conjunctiva** — Delicate membrane lining of the eyelid.

**Contact wound** — Occurs when the firearm is pressed against the head or body. Consequently, gases from the explosion expand between the skin and the bone, producing a bursting effect and ragged wound. Contact wounds can be hard, loose, angled, or incomplete. Gas, soot, metallic particles, vaporized metal from the bullet and cartridge case, primer residue, and powder particles are all driven into the wound track.

**Contrecoup** — Injury to a part of the body (usually the brain) caused by a blow to the opposite side. Occurs frequently in falls.

**Contrecoup contusions** — These occur in the brain directly opposite to the point of impact. They are seen most commonly in the frontal and temporal lobes. Contrecoup contusions are classically associated with falls.

**Contusion** — An area of hemorrhage into soft tissue due to the rupture of blood vessels caused by blunt trauma.

**Convulsion** — A violent, involuntary contraction or series of contractions of the voluntary muscles.

**Coprolangia** — A sexual desire to consume feces.

**Coprophilia** — A sexual attraction to feces.

**Coronal plane** — An imaginary line dividing the body into a front and back portion.

**Coronary** — Of or pertaining to the heart.

**Corpse** — The dead body of a human being.

**Corpus delicti** — The body of the crime. The facts constituting or proving a crime; material substance or foundation of a crime. The *corpus delicti* in a murder case is not just the body of the victim, but the fact that he has been murdered.

**Crack** — Concentrated form of cocaine used in vapor form. It is smoked or inhaled through “crack pipes.” It is a highly addictive drug that causes psychotic behavior, which is often violent.

**Cranial cavity** — The skull cavity, which contains the brain.

**Craniotomy** — The opening of the skull, such as for brain surgery.

**Cranium** — The skull or brain pan.

**Cremains** — Human remains which have been cremated.

**Cricoid** — A ring-shaped cartilage connected to the thyroid cartilage.

**Criminal investigative analysis** — The current term used by the FBI Behavioral Sciences Unit at Quantico to define their psychological profile and criminal personality profiles of offenders.

**Cruising** — In homosexual slang, to go looking for a homosexual pickup or partner for a brief sexual encounter.

**Culpable** — Meriting condemnation or blame.

**Cunnilingus** — The act of kissing and licking a female's vagina and stimulating it with the tongue.

**Cutaneous** — Pertaining to the skin.

**Cyanosis** — Blueness of the skin, often due to cardiac malformation, resulting in insufficient oxygenation of the blood.

**Death** — Apparent death: the cessation of life as indicated by the absence of heart-beat or respiration. Legal death: the total absence of activity in the brain and central nervous system, the cardiovascular system, and the respiratory system as observed and declared by a physician.

**Decomposition** — The separation of compound bodies into their constituent principles; postmortem degeneration of the body. It involves two principles: autolysis and putrefaction.

**Defecation** — Elimination of solid waste matter from the intestines.

**Defeminize** — To divest of female qualities or characterizations; in particular, to remove a woman's breast.

**Defense wounds** — Cuts, abrasions, and contusions on the hands, wrists, forearms, and arms which occur during a violent struggle as the victim attempts to ward off his or her attacker.

**Degeneration** — Deterioration.

**Delirium** — A mental disorder marked by illusions, hallucinations, physical restlessness, and incoherence.

**Dentition** — The arrangement, number, and kinds of teeth as they appear in the dental arch of the mouth. The character of the teeth of an individual; types of dentition, pertaining to teeth.

**Dependent personality** — Behavior characterized by excessive or compulsive needs for attention, acceptance, and approval from other people to maintain security and self-esteem.



**Depersonalization** — The actions taken by a murderer to obscure the personal identity of the victim. The face may be beaten beyond recognition, or the face of the victim may be covered.

**Depraved** — Corrupt or perverted.

**Deteriorate** — To become worse.

**Deviant** — Gay slang to describe homosexual activities that are particularly strange or bizarre, e.g., S&M, sex with a child, fisting, urophilia, or coprophilia.

**Diagnosis** — The art of distinguishing one disease from another.

**Diaphragm** — The musculomembranous partition that separates the abdomen from the thorax.

**Diesel dyke** — A particularly masculine or tough lesbian.

**Dildo** — An artificial penis-like sex toy.

**Disarticulation** — Amputation or separation at a joint.

**Disease** — Any departure from a state of health; illness or sickness.

**Disembowel** — To take out the bowels or entrails; eviscerate.

**Disinterment** — Digging up a body after burial.

**Distal** — Indicates farther away from the center of the body. Hence, the elbow is distal to the shoulder.

**DNA (deoxyribonucleic acid)** — This molecule is housed in every nucleated cell of the body. Often described as the body's blueprint because it carries the genetic codes that govern the structure and function of every component of the body.

**Dorsal** — Pertaining to the back.

**Dorsal cavity** — Subdivided into the cranial and vertebral cavities.

**Double homicide** — Two victims killed during one event and at one location.

**Drag** — Wearing the clothing of the opposite sex, especially when a male wears female attire.

**Drag queen** — A gay male who dresses as a woman in a spirit of playacting. (Not to be confused with transvestism.)

**Drowning** — Asphyxiation because of submersion in a liquid. Sequence of events is holding the breath, involuntary inspiration and gasping for air at the breaking point, loss of consciousness, and death.

**Dump job** — A police colloquialism which references that a body has been transported and discarded at a location other than where the murder occurred. The dump site is usually in an isolated or desolate location.

**Duodenum** — The first portion of the small intestine.

**Dura mater** — Outermost and toughest membrane covering the brain.

**Dyke** — A street term used to describe a lesbian.

**Dysentery** — A term given to a number of disorders marked by inflammation of the intestines, attended pain in the abdomen and frequent stools containing blood and mucus.

**Dyspnea** — Difficult or labored breathing.

**Ecchymosis** — Swelling from a bruise caused by bleeding beneath the skin.

**Eczema** — An inflammatory skin disease.

**Edema** — Collection of abnormal amounts of fluid in tissue, such as in lungs or limbs.

**EEG (electroencephalogram)** — A tracing of the electrical activity of the brain allowing diagnosis of disease of the brain.

**Ejaculate** — To discharge.

**EKG; ECG (electrocardiogram)** — A tracing on a strip of paper showing the electrical activity of the heart and allowing diagnosis of heart disease.

**Electropherogram** — Capillary electrophoresis is used to separate DNA fragments based upon their size. An electrical current is applied through a thin tube known as a capillary that acts as a molecular sieve. Negatively charged DNA molecules migrate through the capillary toward the anode (+); smaller DNA fragments migrate faster than larger fragments. As the fragments move through the detector, their tags are excited by a laser, which causes them to fluoresce. The fluorescent emission is sent to a computer workstation where data are acquired and analyzed. Electronic data are recorded in a form known as an electropherogram.

**Electrophoresis** — A technique for separating biological molecules by size by exposing them to an electrical charge.

**Electrostatic lifting device** — A device consisting of a high-voltage supply used with a special conductive lifting film to transfer a dry origin footwear impression electrostatically from a surface to a film.

**Embalming** — The treatment of the dead body to prevent putrefaction.

**Embolus** — A thrombus which breaks away from where it formed and travels to another area of the body.

**Embryo** — The fetus in its earlier stages of development.

**Emphysema** — Lung disease. The area of the lungs is reduced by this disease, causing wheezing and difficult breathing.

**Engram** — (In psychology “a mind picture.”) Attributed to early sexual psychic trauma. Paraphilic in nature. A typical engram might be a sadistic fantasy or specific sexual scenario. The sadistic scenario is thus conjured in the imagination, whether it is a recreation of the actual crime or the product of fantasy.

**Entomology** — Branch of science dealing with the study of insects. For example, in making a determination of time of death, a forensic entomologist evaluates the structures and habits of certain necropagous insects collected from the carrion; which provide cycle time frames for the species.

**Entrails** — The inner organs of humans and animals. Specifically, the intestines.

**Enzyme** — Proteins that initiate specific biochemical reactions.

**Epidermis** — The outermost layer of the skin.

**Epiglottis** — Lid-like structures covering the entrance to the larynx.

**Erotic** — Arousing sexual desire.

**Eroticism** — Sexual or erotic quality or character of something.

**Erythema** — Redness or inflammation of the skin or mucous membranes that is a result of dilatation and congestion of superficial capillaries.

**Eukaryocyte cells** — Human cells

**Evisceration** — Removal of the viscera from the abdominal cavity; disembowelment.

**Exclusionary rule** — Refers to the admissibility of evidence. Any evidence seized in violation of the Fourth Amendment is not admissible in court.

**Exculpatory evidence** — Evidence that exculpates or proves a suspect or defendant is not guilty.

**Exhibitionism** — Exposing the genitals to an unsuspecting stranger for the purposes of obtaining sexual excitement.

**Exhume** — The disinterring or removal of a body from the grave.

**Expiratory blood** — Blood forced from the mouth, nose, or respiratory system under pressure.

**Exsanguination** — Loss of blood.

**Fag, faggot** — A street term used to describe an effeminate homosexual man.

**Fag bashers** — A street term used to describe “straight” men who beat up gay men.

**Fag workers** — A street term used to describe offenders who set up and rob homosexual men.

**Fantasy** — An imaginative sequence in which one’s desires are fulfilled.

**Fatal injury** — An injury resulting in death.



**Feces** — Excrement discharged from the intestines.

**Fellatio** — The act of kissing and mouthing a sex partner's penis. A sexual activity involving oral contact with the male genitals.

**Femme** — A street term used to describe a feminine-looking lesbian.

**Femoral artery** — An extension of the external iliac artery into the lower limb, starting just distal to the inguinal ligament and ending at the junction of the middle and lower thirds of the thigh.

**Femur** — The thigh bone, which extends from the pelvis to the knee.

**Fetish** — Any object or nongenital part of the body that causes a habitual erotic response or fixation.

**Fetishism** — Compulsive use of nonliving objects for sexual arousal (usually, female undergarments [e.g., panties], shoes, etc.).

**Fetus** — The unborn offspring of a human or an animal.

**Fibrillation** — Fluttering of the heart not controlled by motor nerves.

**Fibula** — The bone of the leg, lateral to and smaller than the tibia.

**Filicide** — The act of murdering one's child.

**Fisting** — A deviant sexual act practiced among homosexual males. The human hand is inserted into the anal cavity of the other participant during sadomasochistic sex.

**Fistula** — An abnormal passage leading from an abscess to the body surface.

**Flaccid** — Soft, limp.

**Flaming faggot** — A street term used to describe a flamboyantly effeminate homosexual man.

**Floater** — A dead body in the water which comes to the surface due to decompositional gases.

**Fornication** — In law, sexual intercourse between two people who are not married to each other. The specific legal definition varies from jurisdiction to jurisdiction.

**Frame of reference** — The personal guidelines of an individual, taken as a whole. An individual frame of reference reflects the person's social status, cultural norms, and concepts.

**Fratricide** — The act of killing one's brother or sister.

**Friction ridges** — The fingerprint ridges that can be seen on the inner surfaces of the hands.

**Frotteurism** — A sexual attraction to touching or rubbing against a nonconsenting person. Rubbing one's genitals against the body of another.

**Frye rule** — A legal standard of admissibility, used by a number of jurisdictions, which requires that scientific evidence to be introduced into court must have gained general acceptance by the scientific community. Based on the Supreme Court decision *Frye v. U.S.*, F 1013 at 1014 (D.C. Cir. 1923). A number of these *Frye* rulings have occurred as a result of DNA technology. Most courts have upheld DNA.

**Gangrene** — Death of tissue, characterized by anoxia and marked inflammation.

**Garrity** — *Garrity v. New Jersey*, 385 U.S. 493 (1967). Refers to warnings to employees during the investigative stages of a use-of-deadly-force investigation. Garrity warnings apply only to administrative investigations of employees and are coercive in nature.

**Gastric** — Relating to the stomach.

**Gastrointestinal tract** — Of or pertaining to the organs from mouth to anus. Specifically, of the stomach and intestines.

**Gastroscopy** — Looking in the stomach with a metal instrument, a gastroscope.

**Gay** — Homosexual

**Gay bashing** — The politically correct reference to “fag bashing.”

**Gene** — A segment of DNA that codes for the production of a specific protein.

**Genitalia (genitals)** — The sexual organs. In males, the testes and penis; in females, the vulva and vagina.

**Girl** — In prison slang, a male who is used sexually by other males. An “insertee.”

**Glycoprotein (P30)** — A semen-specific glycoprotein (P30) of prostatic origin discovered in 1978. This substance is only present in semen and has essentially replaced analysis for acid phosphatase in rape investigations except for rapid screening tests.

**Gorilla** — In prison slang, a tough male who plays the insertor role sexually.

**Heart** — The muscular, cone-shaped organ, about the size of clenched fist, that pumps blood throughout the body and beats normally about 70 times per minute.

**Helix** — A double-spiral of deoxyribonucleic acid in the shape of a twisted ladder, i.e., DNA as a double-stranded helix.

**Hematoma** — A large focal collection of blood in an area of contusion; local swelling filled with effused blood.

**Hemolysis** — Breakdown of red blood cells and the release of hemoglobin.

**Hemophilia** — Condition in which blood is slow to clot or does not clot, allowing a person to bleed to death.

**Hemorrhage** — Heavy bleeding. A loss of a large amount of blood in a short period of time, externally or internally. May be arterial, venous, or capillary.

**Hemothorax** — An accumulation of blood and fluid in the pleural cavity, between the parietal and visceral pleural; usually the result of trauma.

**Hepatic** — Relating to the liver.

**Heterophobia** — A fear or hatred of heterosexuality. An irrational and/or paranoid fear or animosity of heterosexuals because of one's affinity toward homosexuality. An example would be the need to *overtly demonstrate* homosexual proclivities in order to affront heterosexual ideals, mores, and/or values because of the *perceived threat* of attack by heterosexuals.

**Histology** — The science dealing with the microscopic identification of cells and tissues; the structure of organ tissues, including the composition of cells and their organization into various body tissues.

**Histone** — A group of strongly basic, low molecular weight proteins which combine with nucleic acids to form nucleoproteins.

**Histotoxic** — Poisonous to tissue or tissues.

**Histotoxin** — Any substance poisonous to the body tissues. It is usually generated within the body rather than introduction externally.

**HLA (human leukocyte antigen)** — A polymorphic protein system commonly identified for paternity testing.

**Homeostasis** — A relative constancy in the internal environment of the body, naturally maintained by adaptive responses that promote healthy survival. Examples of some functions controlled by homeostatic mechanisms are the heartbeat, blood pressure, and respiration.

**Homicide** — The killing of a human being by another human being.

**Homicidomania** — Impulsive desire to commit murder.

**Homophobia** — Fear or hatred of homosexuals. Irrational fears of homosexuality in others, the fear of homosexual feelings within oneself, or self-loathing because of one's homosexuality (Weinberg, G. *Society and the Healthy Homosexual*. New York: Anchor Books, 1973).

**Homosexual** — A person who is attracted to and obtains sexual gratification from acts performed with a person of the same sex.

**Homosexual handkerchief codes** — The color-coded handkerchief signals employed by certain homosexual subcultures to indicate their sexual proclivities and/or preferences.

**Humerus** — The largest bone of the upper arm.

**Hustler** — In homosexual terminology, a male prostitute, especially a young male who takes pay to let himself be felated.



**Hybridization** — Probes, usually tagged with a radioactive marker, are applied to the nylon membrane (see Southern blotting). These probes are designed to seek out a predetermined chromosomal locus containing a polymorphic region of DNA.

**Hydrophobia** — The usual common name for rabies in man.

**Hyoid bone** — Small U-shaped bone at the base of the tongue.

**Hypertension** — High blood pressure.

**Hyperthermia** — A much higher than normal body temperature.

**Hypothermia** — An abnormal and dangerous condition in which the body is below 95°F. Usually caused by prolonged exposure to cold.

**Hypoxia** — Partial deprivation of oxygen.

**Incised wound** — Caused by a sharp instrument or weapon. A wound that is longer than deep, with minimum bruising, no bridging of skin, and bleeding freely.

**Incision** — A wound inflicted by an instrument with a sharp cutting edge.

**Individualistic evidence** — Evidence that can be positively and forensically identified with a specific source to the exclusion of all other sources.

**Infanticide** — The act of killing an infant soon after birth.

**Infarct** — An area of necrosis (death of a cell or group of cells) in a tissue, produced by sudden arrest or circulation in a vessel.

**Inferior** — Indicates direction further away from the head end of the body or towards the lower part of the body.

**Infibulation** — Self-infliction of pain on the genitals.

**Inguinal** — Of the groin.

**Inhalation** — The drawing of air or other vapor into the lungs.

**Insertee** — In homosexual terminology, a homosexual male who receives the partner's penis in his mouth or anus; a homosexual female who receives the partner's tongue in her vagina. (See also Bottom man.)

**Insertor** — In homosexual terminology, a homosexual male who puts his penis in the partner's mouth or anus; a homosexual female who performs cunnilingus on her partner. (See also Top man.)

**Intestine** — The membranous tube that extends from the stomach to the anus.

**Intra** — Prefix meaning within.

**Jaundice** — Yellow pigmentation of skin, most commonly resulting from liver failure.

**Kidney** — One of a pair of bean-shaped urinary organs in the dorsal part of the abdomen. There is one kidney on each side of the vertebral column.

**Klismaphilia** — A sexual attraction to the giving or receiving of enemas.

**Laceration** — A split or tear of the skin, usually produced by blunt force (shearing or crushing type of injury from blunt objects, falls, or impact from vehicles). These injuries tend to be irregular with abraded contused margins. Internal organs can also have lacerations.

**Laryngeal prominence** — The bulge at the front of the neck produced by the thyroid cartilage of the larynx (Adam's apple).

**Larynx** — The voice box, located between the root of the tongue and the trachea.

**Latent prints** — Fingerprints not visible to the naked eye. Usually developed through fingerprint powders or chemical enhancement.

**Lateral** — Pertaining to a side.

**Leather freak** — In homosexual terminology, a homosexual, usually a male, who dresses in leather and acts tough and masculine. Street term which also means someone who practices S&M. (See Sadomasochism.)

**Lesbian** — A female homosexual.

**Leukemia** — Cancer of the blood cells.

**Ligament** — Any fibrous, tough band which connects bones or supports viscera.

**Ligature** — Anything which binds or ties.

**Linkage blindness** — An investigative failure to recognize a pattern which "links" one crime with another crime in a series of cases through victimology, geographic region or area of events, the "signature" of the offender, similar M.O., and a review of autopsy protocols.

**Liver** — The largest glandular organ situated in the upper part of the abdomen on the right side, usually of a dark red color.

**Lividity or livor mortis** — Postmortem discoloration due to the gravitation of blood into the dependent capillaries and veins.

**Locus** — The specific position occupied by a particular gene or allele on a chromosome.

**Lumbar** — Pertaining to or near the lower region of the back.

**Lung** — One of a pair of light, spongy organs in the thorax constituting the main portion of the respiratory system.

**Mandible** — The large bone constituting the lower jaw.

**Manic depressive** — A psychosis characterized by alternating periods of mania and mental depression.

**Manner of death** — Explains how the cause of death came about. Medicolegal manners of death are homicide, suicide, accident, natural, and undetermined.

**Marbling** — Produced by hemolysis of blood vessels with reaction of hemoglobin and hydrogen sulfide and development of greenish black coloration along the vessels.

**Masochism** — Sexual perversion in which the individual takes delight in being subject to degrading, humiliating, or cruel treatment such as flogging or choking.

**Mass murder** — A homicide involving the killing of four or more victims during a single event at one location. *Classic* — involves a single individual, who kills more than four persons at one location during a period of time (minutes, hours, or days). *Family-member murder* — more than three family members are killed and the perpetrator takes his life in a mass murder/suicide. *Family killing* — four or more family members killed by a family member who does not commit suicide.

**Master** — In S&M sex; the dominant, active, insertor partner.

**Masturbation** — Manual manipulation of the genitals resulting in sexual excitement.

**Maxilla** — One of a pair of large bones that form the upper jaw.

**Mechanical asphyxia** — Asphyxia created by pressure on the outside of the body, which prevents respiration. Examples are traumatic asphyxia, positional asphyxia, and riot crush or “human pile” deaths.

**Mechanism of death** — The physiological derangement produced by the cause of death that results in death, e.g., hemorrhage, septicemia, cardiac arrhythmia.

**Medial** — Pertaining to the middle. Indicates closer to the midline of the body.

**Mediastinal or interpleural cavity** — Contains everything located in the thoracic cavity other than the heart and lungs. Includes the trachea, bronchi, esophagus.

**Membrane** — A thin layer of tissue which covers a surface or divides a space or organ.

**Meningitis** — Inflammation of the meninges (thin membranous covering of the brain).

**Midline** — The center of the head, chest, and abdomen.

**Miscarriage** — The premature emptying of a uterus prior to 28 weeks of gestation.

**Misdemeanor murders** — A “Geberthism” which suggests that when two “shit-birds” (less than productive citizens) kill each other in some sort of drug-related homicide the crime might actually be considered a less than felony offense. The author obviously uses the term in a facetious manner.

**Mitochondrion** — Small, threadlike organelle with the cytoplasm. Mitochondria are self-replicating and contain sources of DNA.



**Modus operandi** — “Mode of operation or way of doing things.” The M.O. is a learned behavior that changes as offenders gain experience, build confidence, or become involved with the criminal justice system.

**Monomania** — Insanity on a single subject or class of subjects.

**Mummification** — The complete drying up of the body as the result of burial in a dry place or exposure to dry atmosphere.

**Munchausen syndrome by proxy (MSBP)** — A form of child abuse whereby the parent or adult caregiver deliberately simulates or causes medical distress in a child in order to gain attention, praise, or the sympathy of others.

**Musculoskeletal system** — All of the muscles, bones, joints, and related structures, such as the tendons and connective tissue, that function in the movement of the parts and organs of the body.

**Myocardial infarction (MI)** — An occlusion of a coronary artery caused by atherosclerosis or an embolus resulting from a necrotic area in the vasculature myocardium.

**Myocardium** — The heart muscle.

**Mysophilia** — A sexual attraction to filth.

**Narcomania** — An insane desire for narcotics or alcohol.

**Narcissistic personality** — A personality characterized by behavior and attitudes that indicate an abnormal love of self. These persons have an exaggerated sense of self-importance.

**Narcolepsy** — A syndrome characterized by sudden sleep attacks, sleep paralysis. Persons with narcolepsy experience an uncontrolled desire to sleep, sometimes many times in one day. Episodes may last from a few minutes to several hours.

**Natal** — Pertaining to birth.

**Navicular** — Having the shape of a boat, such as the navicular bone in the wrist or the area of the vagina, such as in fossa navicularis.

**Nausea** — Tendency to vomit; sickness at the stomach.

**NCAVC (National Center for the Analysis of Violent Crime)** — A subdivision of the FBI’s Behavioral Science Unit located in Quantico, Virginia. Composed of four sections: Research and Development, VICAP, Criminal Personality Profiling Program, and Consultation Program.

**Necrophagia** — The eating of dead bodies or feeding off carrion, e.g., necrophagous insects such as flies and beetles can provide entomological evidence in death investigations.

**Necrophilia** — Morbid attraction to corpses; sexual intercourse with a dead body; erotic interest in or stimulation by corpses.

**Necrosis** — Localized tissue death that occurs in groups of cells in response to disease or injury.

**Neonaticide** — The killing of a child within 24 hours of its birth.

**Nitroglycerine** — Medicine to treat heart patients; a pill taken under the tongue.

***Non compos mentis*** — Not sound of mind; insane.

**Nucleus** — The part of the cell that contains the chromosomes, which are composed of DNA and associated proteins; the genetic program.

**Oblique lighting** — Light positioned at a low angle of incidence relative to the surface being photographed. Also referred to as side lighting.

**Occlusion** — In anatomy, a blockage in a canal, vessel, or passage of the body.

**Organized crime “hit”** — A murder of a known or recognized member of an organized criminal enterprise.

**Ossification** — Formation of bone or a bony substance.

**Osteitis** — Inflammation of bone caused by pyogenic organisms.

**Osteomyelitis** — Inflammation of bone caused by pyogenic organisms.

**Overlay** — Mechanical asphyxia combined with smothering. An example would be an infant in bed with one of the parents, who inadvertently rolls on top of the child, thus compressing the chest and occluding the nose and mouth with the bedding or the body.

**Padding** — Material placed between a body portion and the ligature or device used to alter the physiological state of the victim.

**Pancreas** — A large, elongated gland located behind the stomach.

**Papillary** — Pertaining to or resembling a nipple, ridges, or grooves.

**Paralysis** — The loss of power of voluntary motion.

**Paranoia** — A mental disorder characterized by systematized delusions, such as of grandeur or especially of persecution; often, except in a schizophrenic state, with an otherwise intact personality.

**Parenticide** — The act of killing one’s parents.

**Parietal** — Of or pertaining to the outer wall of a cavity or organ.

**Patella** — A flat triangular bone at the front of the knee joint.

**Patent prints** — Fingerprints that are visible and do not need to be enhanced through processing, such as fingerprints in blood or visible prints in other materials.

**Pathognomonic** — Of a sign or symptom. Specific to a disease or condition.

**PCR (polymerase chain reaction)** — A DNA testing procedure which mimics the cell's ability to replicate DNA, essentially copying it a millionfold.

**Pedophile** — A person who engages in pedophilia.

**Pedophilia** — Engaging in sexual activity with prepubertal children.

**Pelvic cavity** — The lower portion of the abdominopelvic cavity, which begins roughly on a line with the iliac crests and ends at the inferior end of the abdominopelvic cavity. It contains the urinary bladder, the sex organs, and part of the small and large intestines.

**Pelvis** — The lower portion of the trunk of the body, composed of four bones.

**Pericardial cavity** — Contains the heart.

**Perimortem** — Near or around the time of death.

**Peritoneum** — An extensive serous membrane that covers the entire abdominal wall of the body and is reflected over the contained viscera.

**Peritonitis** — An inflammation of the peritoneum produced by bacteria or irritating substances introduced into the abdominal cavity by a penetrating wound or perforation of an organ.

**Permeation** — The spreading of a disease process through a tissue or organ.

**Petechial hemorrhages** — Minute (pin-like) hemorrhages that occur at points beneath the skin. Usually observed in conjunctiva (the mucous membrane lining the inner surface of the eyelids and anterior part of the sclera).

**Phalanx** — Any bone of a finger or toe.

**Phlebitis** — Inflammation of veins.

**Physiological mechanism** — The ligature or device used to alter the physiological state of the victim.

**Piquerism** — Sexual inclinations to stab, pierce, or cut. Obtaining a sexual gratification from the shedding of blood, tearing of flesh, and/or observing such pain and suffering of a victim subjected to this activity.

**Plastic prints** — Visible prints in soft substances such as wet paint, soap, or wax.

**Pleural** — The chest cavity about the lungs.

**Pleural cavities** — Contain the two lungs.

**Pleuritis** — Pleurisy; inflammation in the chest cavity.

**Pneumatic** — Pertaining to air or respiration.

**Pneumothorax** — Air in the chest cavity.



**Polymorphism** — A naturally occurring or induced variation in the sequence of bases on a segment of DNA.

**Positional asphyxia** — Asphyxia occurring as a result of body position which restricts respiration.

**Posterior** — (Dorsal) Indicates the back side of the body. Hence, the heels are posterior or dorsal.

**Postmortem** — After death.

**Postpartum** — Pertaining to the period following childbirth.

**Probable cause** — Reasonable grounds to believe that a person has committed a crime.

**Probe** — In genetic engineering, a fragment of DNA carrying the complementary code for a specific base sequence. Probes can be used to detect variations in base sequence that establish individual identity.

**Protein** — A molecule consisting of linked amino acids. Proteins serve as the building blocks of body structures or as the enzymes that initiate specific biochemical reactions.

**Proximal** — Indicates nearer to a point of reference, usually the center of the body. Hence, the shoulder is proximal to the elbow.

**Psychiatry** — Branch of medicine concerned with the study, treatment, and prevention of disorders of the mind, including psychoses, neuroses, etc.

**Psychodynamics** — The study of the mental and emotional processes underlying human behavior and its motivation.

**Psycholinguistic analysis** — A sophisticated method of examining the spoken or written communication as to origin, background, and psychology of the speaker or writer.

**Psychological autopsy** — A collaborative procedure involving law enforcement and mental health experts, who attempt to determine the state of a person's mind prior to a sudden death.

**Psychology** — The science dealing with the mind and with the mental and emotional processes; the science of human and animal behavior.

**Psychopathic killer** — A person who kills for pleasure.

**Psychopathic personality** — A person whose behavior is largely amoral and asocial and who is characterized by irresponsibility, lack of remorse or shame, perverse or impulsive (often criminal) behavior, and other serious personality defects, generally without psychotic attacks or symptoms.

**Psychopathic sexual sadist** — A person who inflicts physical or psychological pain on another for the purposes of causing suffering, submission, humiliation, fear, and terror. The suffering of the victim is sexually arousing for the offender.

**Psychopathology** — The science dealing with the causes and development of mental disorders; psychological malfunctioning, as in mental disorder.

**Psychosis** — A major mental disorder in which the personality is very seriously disorganized and contact with reality is impaired.

**Psychosomatic** — Pertaining to the mind–body relationship.

**Psychotic** — Of or having the nature of a psychosis; having a psychosis; a person who has a psychosis.

**Psychotic killer** — A person whose psychosis drives him or her to kill.

**Pubic** — Pertaining to the pubes (anterior pelvic bones).

**Pugilistic attitude** — Position the body assumes in fire deaths. Coagulation of the muscle due to heat causes contraction of muscle fibers with resultant flexion of the limbs.

**Pulmonary** — Pertaining to the lungs.

**Pulmonary embolism** — The closure of the pulmonary artery or one of its branches by an embolus.

**Pulmonary infarction** — An area of necrosis in lung tissue produced by sudden arrest of circulation in a vessel.

**Purge fluid** — Decomposition fluid, which drains from the mouth or nose. Sometimes mistaken as blood from head trauma.

**Purines** — Basic chemicals of life, such as in DNA molecules; adenine (A) and guanine (G).

**Putrefaction** — Decomposition of soft tissues by bacteria and fermentation and enzymes. After death, the bacterial flora of the gastrointestinal tract invades the vascular system, spreading throughout the body and producing putrefaction.

**Pyrimidines** — Basic chemicals of life, such as in DNA molecules; thymine (T) and cytosine (C).

**Quadrants** — Additional points of reference to locate precisely the organs in the abdominopelvic cavity because the cavity is large and contains several organs. The medical description divides the cavity into four *quadrants*. (1) Upper right quadrant contains part of the small intestine, the descending duodenum, the upper ascending colon, most of the liver, gallbladder and bile ducts, head of pancreas, right adrenal gland, right kidney, and upper part of right ureter. (2) Lower right quadrant contains the lower ascending colon, cecum, appendix, lower right ureter, terminal ileum, part of urinary bladder, and sex organs. (3) Upper left quadrant contains

ascending part of duodenum, upper descending colon, left half of transverse colon, spleen, small part of liver, left adrenal gland, left kidney, and upper part of left ureter. (4) Lower left quadrant contains descending colon, small intestine (part of ileum), lower part of left ureter, part of urinary bladder, and sex organs.

**Queen** — Gay slang. A term used to describe effeminate or queer male homosexuals. Usually combined with other words such as “drag queen,” etc.

**Queer** — A homosexual, usually refers to a male.

**Queer queers** — In gay slang, deviants.

**Quickie** — In gay slang, a hasty sex act between strangers.

**Radius** — One of the bones of the forearm, lying parallel to the ulna.

**Rancid** — Having a musty, rank taste or smell.

**rDNA** — Recombinant DNA; rDNA technology in which a molecule of DNA is cloned or synthesized.

**Rectum** — The portion of the large intestine proximal to the anal cavity

**Renal** — Relating to the kidneys.

**Reproductive system** — The male and female gonads, associated ducts and glands, and the external genitalia that function in the procreation of offspring. In women, these include the ovaries, fallopian tubes, uterus, vagina, clitoris, and vulva. In men, these include the testes, epididymis, vas deferens, seminal vesicles, ejaculatory duct, prostate, and penis

**Res gestae** — “Things done.” The facts that form the environment of a litigated issue and are admissible in evidence. An example would be a *res gestae* or spontaneous statement made to a police officer by a suspect.

**Respiration** — The act or function of breathing.

**Respiratory tract** — The complex of organs and structures that performs the pulmonary ventilation of the body and the exchange of oxygen and carbon dioxide between the ambient air and the blood circulating through the lungs.

**Restriction endonuclease** — Enzyme that “cuts” the DNA molecules at specific locations.

**Resuscitation** — To revive, as in drownings or electrical shock.

**Retardation** — Delay or hindrance.

**RFLP** — Restriction fragment length polymorphisms.

**Rib** — One of 12 pairs of elastic arches of bone forming a large part of the thoracic skeleton. The first seven ribs on each side are called the true ribs because they articulate directly with the sternum and the vertebrae. The remaining five ribs are called false ribs; the first three attach ventrally to the ribs above and the last two ribs are free at their ventral extremities and are called floating ribs.



**Rigor mortis** — A rigidity or stiffening of the muscular tissue and joints of the body after death due to the disappearance of adenosine triphosphate (ATP) from muscle.

**Ritual** — Any practice or pattern of behavior repeated in a precise manner.

**Ritualism** — Adherence to or insistence on ritual.

**Rough trade** — In gay slang, extra tough, masculine types of males, who pretend to be straight but play the insertor role in homosexual sex.

**Sacro** — Combining form denoting relationship to the sacrum, the large triangular bone at the dorsal part of the pelvis.

**Sadism** — Getting sexual pleasure from dominating, mistreating, or hurting one's partner. Obtaining sexual gratification from inflicting physical or psychological pain on another.

**Sadomasochistic acts** — Sexual relations in which one partner purposely hurts the other physically, or abuses and humiliates the other, or both, with both partners becoming sexually aroused by these activities. Example: a sexual sadist, who dominates and abuses a consenting sexual masochist.

**Safe sex** — Sexual acts that avoid an exchange of or contact with the partner's sperm, vaginal fluid, saliva, or blood.

**Sagittal plane** — An imaginary line dividing the body into a right and left portion.

**Sarcoma** — Malignant tumor; cancer.

**Scapula** — One of the pair of large, flat, triangular bones that form the dorsal part of the shoulder girdle. Also referred to as the shoulder blade.

**Schizophrenia** — A major mental disorder of unknown cause typically characterized by separation between thought processes and the emotions; a distortion of reality accompanied by delusions and hallucinations; a fragmentation of the personality, motor disturbances, bizarre behavior, etc., often with no loss of basic intellectual functions.

**Schizophrenic** — Of or having schizophrenia; a person who is schizophrenic.

**Sclera** — The white of the eye, a tough membrane.

**Sclerosis** — Induration or hardening of tissue.

**Self-rescue mechanism** — The object (knife, key) or method (pressure point change) utilized by the victim to alleviate the effects of the physiological mechanism.

**Semen** — Thick, whitish secretion of the reproductive organs in the male.

**Senile** — Pertaining to or characteristic of old age, i.e., the physical or mental deterioration.

**Septicemia** — Systematic infection in which pathogens (microorganisms capable of producing disease) are present in the bloodstream having spread from an infection in any part of the body.

**Serial murder (1)** — Three or more separate murders with an emotional cooling-off period, which may consist of days, weeks, or months, between the homicides. Note: This was the FBI's definition in *Crime Classification Manual* and *Sexual Homicide Patterns and Motives*.

**Serial murder (2)** — Two or more separate murders where an individual, acting alone or with another, commits homicides over a period of time, with time breaks between each murder event. Note: This is my definition, which reflects a homicide detective's perception of serial murder events.

**Serology** — The science dealing with the properties and actions of serums, e.g., blood analysis.

**Sexual masochism** — Getting pleasure from being humiliated, bound, beaten, or otherwise made to suffer for sexual arousal. (Considered chronic.)

**Sexual sadism** — The infliction of physical or psychological pain on another person in order to achieve sexual excitement. (Considered a chronic and progressive disorder.)

**Shrimping** — A disgusting action in which one homosexual, who has engaged in anal intercourse with another, then "sucks out" the ejaculate from the recipients anal cavity.

**SIDS (sudden infant death syndrome)** — Crib death as characterized by the sudden, unexpected death of an apparently healthy infant.

**Sigmoid colon** — The portion of the colon that extends from the end of the descending colon in the pelvis to the juncture of the rectum.

**Signature** — The signature aspect of a violent criminal offender is a unique and integral part of the offender's behavior. This signature component refers to the psychodynamics, which are the mental and emotional processes underlying human behavior and its motivations.

**Signature (legal definition)** — Evidence of a separate crime is used to establish the identity of the accused; more is required than merely proving the repeated commission of crimes of the same class. Generally, the device used to commit the crime or the manner in which the crime was committed must be so distinctive as to indicate a modus operandi or to act as a signature of the accused.

**Slave** — In S&M sex, the submissive, passive, or insertee partner.

**Small intestine** — The longest portion of the digestive tract.

**Smothering** — Asphyxia due to mechanical obstruction or occlusion of the external airways, i.e., mouth and nose.

**SNP (single nucleotide polymorphism)** — DNA testing procedure. These are mutations.

**Sororicide** — The act of murdering one's sister.

**Southern blotting** — Process by which the DNA fragments separated during electrophoresis are transferred from the wobbly surface of the agarose gel onto a sheet of nylon membrane.

**Spasm** — Sudden, violent, involuntary contraction of a muscle or group of muscles.

**Sperm** — A combining form meaning seed. The male germ cell (spermatozoon) found in semen, which penetrates the ovum, or egg, of the female.

**Spleen** — A soft, highly vascular, roughly ovoid organ sitting between the stomach and the diaphragm in the left hypochondriac region of the body.

**Spree murder** — The murder of more than one person at two or more locations during a single event without any cooling-off period.

**Sputum** — Matter ejected from the mouth: saliva and mucus. This substance contains DNA.

**Stab wounds** — Caused by relatively sharp, pointed instruments such as knives, screwdrivers, ice picks, daggers, scissors, or pieces of glass. These wounds are deeper than they are wide, with possible damage to vital organs beneath the skin and bone, and internal bleeding with little or no external blood.

**Staging** — Staging a scene occurs when the perpetrator purposely alters the crime scene to mislead the authorities or redirect the investigation.

**Sternum** — The breastbone. An elongated, flattened bone forming the middle portion of the thorax. It supports the clavicles and articulates the first seven pairs of ribs.

**Still birth** — A fetus at least 28 weeks old that is born dead.

**Stippling** — Also referred to as tattooing; pinpoint hemorrhages due to the discharge of burning powder against the skin.

**Stomach** — The major organ of digestion, located in the right upper quadrant of the abdomen.

**STR (short tandem repeats)** — DNA testing procedure. The STR loci are polymorphic genetic markers that are well distributed throughout the human genome.

**Straight** — In gay slang, a heterosexual person.

**Strangulation** — Any abnormal constriction of the throat, causing a suspension of breathing.

**Stroke** — Cerebrovascular accident. A sudden or severe attack, with rupture of the blood vessels of the brain.



**Subdural** — Under the dura matter or between the dura and arachnoid membranes covering the brain, such as in subdural hematoma.

**Subdural hematoma** — The most common lethal injury associated with head trauma. Bleeding, almost always from injury, between the inside of the skull and the dura, which covers the brain. This accumulation of blood produces pressure on the brain.

**Suffocation** — The failure of oxygen to reach the blood. This can occur through entrapment, smothering, choking, mechanical asphyxia combined with smothering, or through suffocating gases.

**Superior** — Indicates direction toward the head end or upper part of the body. Hence, the lungs are superior to the liver.

**Superior vena cava** — The second largest vein of the body returning deoxygenated blood from the upper half of the body to the right atrium.

**Survival interval** — The period of time between the infliction of injury and the actual death.

**Suspension point** — That location from which the victim has suspended himself.

**Tache noire** — An artifact of the drying eye after death, consisting of a brown to black band of discolored sclera where the eyes are partly open and exposed to the air.

**Tachycardia** — An abnormally fast heartbeat.

**Tarsus** — The instep proper of the foot with its seven bones.

**Tea room** — In gay slang, a public place, usually a toilet, where homosexual males meet for “quickie” sex, generally fellatio.

**Tea room trade** — Those who take part in sex acts in tea rooms.

**Telephone scatologia** — A sexual attraction to making obscene telephone calls (lewdness).

**Tetanus** — An acute, potentially fatal infection of the central nervous system caused by bacteria which release a powerful toxin.

**Thermo** — Combining form denoting relationship to heat.

**Thoracic cavity** — This is the portion of the ventral cavity above the diaphragm, which contains two pleural cavities that contain the two lungs; the pericardial cavity, which contains the heart; and the mediastinal or interpleural cavity, which contains everything located in the thoracic cavity other than the heart and lungs, e.g., trachea, bronchi, and esophagus.

**Thorax** — Chest. A bony–cartilaginous cage containing and protecting the heart, the lungs, and their major blood vessels.

**Thrombo** — Combining form denoting relationship to clot.

**Thrombosis** — Blood clotting inside the blood vessels, often in leg veins.

**Tibia** — The inner and large bone of the leg below the knee.

**Tissue** — An aggregation of cells united in the performance of a particular function.

**Top man** — The “fister” who inserts his hand into the anal cavity of the “bottom” man.

**Torso** — The trunk of the body without the head or extremities.

**Toxic** — Poisonous.

**Toxicologist** — An expert in the knowledge and detection of poisons.

**Toxicology** — The scientific study of poisons, their detection, their effects, and methods of treatment for conditions they produce.

**Trace evidence** — Evidence such as hairs, fibers, and residue as well as other microscopic evidence not visible to the naked eye.

**Trachea** — Commonly referred to as the windpipe. It is a nearly cylindrical tube of cartilage and membrane that extends from the larynx to the bronchi. It conveys air to the lungs.

**Tracheotomy** — An incision into the trachea below the larynx to gain access to the airway below the point of blockage.

**Transverse colon** — The segment of the colon that extends from the end of the ascending colon.

**Transvestism** — Cross dressing by heterosexual males for the purpose of sexual excitement. (Ranges from solitary wearing of female clothes to extensive involvement in a transvestitic subculture.)

**Trauma** — A physical injury caused by violent or disruptive action or by the introduction of a toxic substance into the body.

**Traumatic asphyxia** — Occurs when a large weight falls onto or presses down on an individual’s chest or upper abdomen, making respiration impossible.

**Tremor** — An involuntary trembling or quivering.

**Triage** — *Military medicine*: A classification of casualties of war and other disasters according to the gravity of injuries, urgency of treatment, and place for treatment. A process in which a group of patients is sorted according to their need for care, the kind of illness or injury, the severity of the problem, and the facilities available. *Disaster medicine*: A process in which a large number of patients is sorted so that care can be concentrated on those who are likely to survive.

**Tricking** — In gay slang, cruising; seeking quickie sex with strangers.

**Triple homicide** — The murder of three victims during one event at one location.

**Ulna** — The bone on the medial or little finger side of the forearm, lying parallel with the radius.

**Umbilical** — Pertaining to the umbilicus (navel).

**Unconscious** — Being unaware of the surrounding environment; unresponsive to any stimuli; comatose.

**Uremia** — Presence of urinary materials in the blood. Could indicate renal failure.

**Ureter** — One of a pair of tubes that carry the urine from the kidney to the bladder.

**Urinary tract** — All organs and ducts involved in the secretion and elimination of urine from the body. These include the kidneys, ureters, and bladder.

**Urolangia** — A sexual desire to consume urine.

**Urophilia** — A sexual attraction to urine.

**Vagina** — The part of the female genitalia that forms a canal from the orifice through the vestibule to the uterine cervix.

**Vascular** — Pertaining to a blood vessel.

**Vein** — A vessel which conveys the blood to or towards the heart.

**Vena cava** — Superior main vein draining the abdominal and pelvic viscera and the lower extremities.

**Ventral** — Of or pertaining to a position.

**Ventral cavity** — This cavity is subdivided into two major sections, the *thoracic cavity* and the *abdominopelvic cavity*. These two sections are divided by the diaphragm.

**Ventricle** — One of the two lower cavities of the heart.

**Vertebral column** — Combining form referring to the spinal column.

**Viscera** — The internal organs enclosed within a body cavity, primarily the abdominal organs.

**Visceral peritoneum** — One of two portions of the largest serous membrane in the body. The free surface of the visceral peritoneum is a smooth layer of mesothelium exuding a serous fluid that lubricates the viscera and allows them to glide freely against the wall of the abdominal cavity or over each other. The attached surface of the membrane is connected to the viscera and the abdominal wall by subserous fascia.

**Visible prints** — These prints occur when fingers, palms, or feet contaminated with a foreign substance come into contact with a clean surface and are pressed onto the surface, leaving a print.

**Vulva** — The external genitalia of the woman. It includes the mons pubis, the labia majora, the labia minora, the vestibule of the vagina, and the vestibular glands.



**VICAP (Violent Criminal Apprehension Program)** — A system designed to collect, collate, and analyze all aspects of an investigation.

**Victimology** — Pedigree such as sex, age, height, and weight. The essential information about the victim, such as family, friends, acquaintances, education, employment, residence, and neighborhood. This also includes the background information on the lifestyle of the victim. Was this person a low-, moderate-, or high-risk victim? What was going on in this victim's life at the time of the incident?

**VNTRs (variable number of tandem repeats)** — Polymorphic DNA regions unique to an individual that are known to repeat over and over.

**Voyeurism** — Repetitive looking at unsuspecting people, who are naked, in the act of disrobing, or engaging in sexual activity; the "Peeping Tom."

**Water sports** — In gay slang, urination by one sex partner on the other.

**Withdrawal** — Unpleasant, sometimes life-threatening physiologic changes that occur when some drugs are withdrawn after prolonged use. Example: a heroin addict going through withdrawal when deprived of the heroin.

**Zoophilia** — Use of animals for sexual arousal. (Includes intercourse with animals as well as training the animal to lick or rub the human partner.) This sexual disorder is also commonly referred to as *bestiality*.

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**“Remember: do it right the first time. You only get one chance.”**

— Vernon J. Geberth, M.S., M.P.S., 1980

Homicide and Forensic Consultant

Author of *Practical Homicide Investigation*, and the Series Editor  
of *Practical Aspects of Criminal and Forensic Investigations*



Renowned for being *THE* definitive source of homicide investigation, *Practical Homicide Investigation: Tactics, Procedures and Forensic Techniques* is the recognized protocol used by investigative divisions of major police departments throughout the world and is also the text used in most police academies, including the prestigious FBI Academy in Quantico, Virginia. It emphasizes essential procedures, combines detailed techniques with instructive case studies, and outlines the foundation on which to build a solid, prosecutable case.

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The book features two new chapters along with major revisions of those from the previous editions. In addition it contains 675 photos and illustrations – including 300 new entries that incorporate depictions of wound structures and procedures that portray exactly what to do and how to do it. All illustrations are presented in full color, including new medical-legal drawings for instruction and courtroom testimony.

**What's New in the Fourth Edition:**

- Introduces a completely new chapter on the latest DNA technology, as well as a new chapter on Equivocal Death Scenarios
- Includes new murder cases for reference and review
- Contains a revised Homicide Investigator's Checklist
- Provides a revised chapter on Profiling and Investigative Assessment
- Presents an updated bibliography and listing of additional reference sources, in addition to an updated and expanded Glossary of Terms

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