

HOMICIDE

INVESTIGATIVE TECHNIQUES

DANIEL J. HUGHES, M.Ed.

Former Editor, *Law Enforcement Expert*
Former Instructor of Criminal Investigation at
The Community College of Allegheny County
Former Detective for the Pittsburgh Bureau of Police

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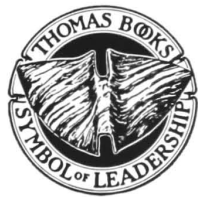
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DEDICATION

To those many police officers felled
in the line of duty. They gave the
last full measure.

PREFACE

THE COMPLETION OF THIS BOOK was accomplished at a tremendous emotional price. The forces of violence that shape the society in which we live cannot be easily divorced from the factual recitation of the criminal investigator's homicide report. Social pressures inherent in our competitive society, individual reactions to real or imagined slights and high consumption of alcoholic beverages have played enormous havoc with the lives of innocent victims confronted with an accidental encounter leading to deadly violence. Understanding the causative factors that precede the final act of violence remains a relevant point in the development of the homicide investigation. The questions presented by the precipitating events remain at best an area of ill-defined dimensions.

Who can measure the future tragic consequences of a family deprived of a father or a mother cut down by a gunman? To what immutable law of fate does a young man fall heir when his car comes into the path of a drunken driver? Do the demands of our society exceed the capability of our young people to engage the challenges without the use of deadly drugs? Are parents so deprived of the natural imprint of tenderness that the "hand that rocks the cradle" becomes a cudgel that snuffs out the life of their own seed? Is life so devoid of meaning that a young attractive girl about to be married feels compelled to take her life? What sequence of childhood experiences triggers a brutal sexual assault on a child or woman that chills the community and leaves the victim unable to blot out that moment of terror? Do the laws that so scrupulously protect the rights of the criminal do so at the cost of an outraged victim whose lips are silent and eyes no longer able to plead for mercy? Is the moral character of our society so immune to the injustice of homicide that the word "vindication" takes on an unpleasant connotation?

The key to understanding this complex riddle lies in the deepest recesses of man's mind. The criminal investigator assigned to unravel the complexities of the challenge of a homicide investigation may emerge from the experience less certain of himself and his own capabilities. No man is privy to all the truths that guide the irrational acts of his fellow man. To presume so great a knowledge is to assume an insight that invites the deepest scorn of those more honest in their efforts to understand. There is no more dangerous man than the one who would presume his righteousness exceeds the willingness to admit error in himself or in others.

The inequities of our society have given rise to a manifestation of subdued frustration that finds its outlet in courtroom dramas. These grim vignettes project the guilt not on the accused but on the collective society. It is the function of the criminal investigator against the background of hate, legal rights, scorn and public indifference to seek without bias, without prejudice, the truthful elements of the act of homicide. The dismal record of man's unwillingness to accord the decency of the right-to-life of another man is all the more reason for the criminal investigator to pursue to the limits of his endurance the rightful claim of justice that lips silenced untimely by death cannot utter.

The contents of this book were written to assist the criminal investigator assigned to a case of homicide. Each chapter was designed to enable the criminal investigator to better understand the mechanics of homicide investigation in a language that was comprehensible and concise. No chapter was intended as a complete guide to that particular aspect of homicide investigation. Experience is the greatest educator of all. No amount of reading will prepare the criminal investigator for the sense of inadequacy that each criminal investigator experiences when he scans the homicide scene and is told to "get the killer."

It is hoped that this book will greatly assist the criminal investigator who accepts the challenge of a homicide investigation.

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Cyril H. Wecht, M.D., J.D., Coroner of Allegheny County offered his office and time so that every area of forensic pathology would be available for my research. Dr. Wecht early realized the importance of close cooperation between his office and police agencies on the county level. To this end he has devoted his time and energies to promoting an efficient agency of investigation that incorporates the most recent advances in forensic medicine and criminalistics. These services were made fully available to me in my research without which this work would have suffered considerably. Though Dr. Wecht agreed to make the facilities of his office available for examination and use in developing the material for this book, he is in no way responsible for the contents. Any errors of fact or substance are the responsibility of the author alone.

The medical staff of the Allegheny County Coroner's Office including Dr. Earle Davis, Dr. Joseph Sieracki, and Dr. Howard Reidbord, contributed to any success that this book might enjoy. Their tireless patience in answering my many questions is greatly appreciated and duly recognized.

Joshua A. Perper, M.D., LL.B., Chief Forensic Pathologist for the Allegheny County Coroner's Office contributed greatly by his timely criticism of the early manuscript. His assistance in pointing out relevant facts upon which the success of any homicide investigation depends was revealing and informative.

The author would also like to recognize the technical aid of Mr. Floyd Coles, Autopsy Room Supervisor. His efforts on my behalf and personal committment reduced the amount of unnecessary research, his help was invaluable.

The personnel named serve on the staff of Dr. Cyril Wecht and is an indication of the top rate administration which that organization enjoys.

D.J.H.

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**HOMICIDE
INVESTIGATIVE TECHNIQUES**

Chapter I

AN INTRODUCTION TO HOMICIDE INVESTIGATION

HISTORICAL BACKGROUND

HOMICIDE INVESTIGATION traces its antecedents to the very dawn of history. In primitive cultures the unjustified killing of another person was grounds for the community to outlaw the killer. Any member of that society could then kill, with impunity, the outlawed person. Where the community declared the killing unintentional then a specified sum of money was paid to the family by the killer. This became known as *blood money*. In the early history of man the judgment as to the guilt or innocence of an accused person was based on the slightest evidence of guilt. Only witnesses for the prosecution, or those making the accusation were heard. The rights of the accused were given little consideration. If the accused had difficulty explaining his innocence, then justice was swift and terrible. Negligible concern was given to detailed inquires of the innocence of the accused. In most cases to stand accused was to be found guilty and suffer the grim penalties that a brutal society could inflict.

Early societies lacked the sophisticated legal machinery and advanced social attitudes necessary for the protection of the innocent as well as the prosecution of the guilty. Tribal rules were based on a primitive sense of

values concerning right and wrong. Justice was a moral abstraction that was individually defined and arbitrarily enforced. In an argument where one man provoked another and a killing resulted, it was a member of the dead victim's family who settled the homicidal debt with the killer. If blood money was not paid then the avenging family quickly arranged the death of the suspected killer.

Each society had its own methods for dealing with homicides and it generally developed that individual acts of retribution were the final courts of justice. Family feuds or vendettas, for generations were common. In many cases the family member could not even remember the original cause of the feud. The revenge of a family member's death became an obligation for the surviving members of the family. In the majority of cases it was the murdered man's eldest son who acted as the executioner for the killer of his father, brother or other close family member.

In early Athenian society it was the duty of the family to revenge the death of the family member whose life had been taken. In most early societies, including Greek, the murderer was considered to have unclean hands that contaminated the rest of society. Society demanded that the killer be dealt with in order that the gods would not be displeased. The suspected killer was not permitted to take part in religious ceremonies or other group activities. However, under Athe-

nian law, if the murdered person forgave the killer before dying, no action could be taken against the killer.

As man became more civilized his attitudes of justice changed considerably. Nomadic tribes gave way to settled communities where great emphasis was placed on the value of property and human life. As community life became more accepted, society turned more and more to written law to settle differences involving individual disputes, as well as those involving the state. In early Greek history a definite and rather complicated court procedure was established for homicide inquiry. This procedure included an inquiry into the violent death of an Athenian citizen on the part of the state. Elaborate formalities were put into motion to arrest suspected murderers of Athenian citizens. Where suspected killers came from other cities and fled to the safety of their own cities after the killing, hostages were taken. The hostages were citizens of the city where the killer sought sanctuary and who were then living in Athens. These hostages served as security for the appearance of the accused killer at a court trial at a later date. If the accused killer did not present himself then Athenian justice was imposed on the hostage.

The structure of Athenian society emphasized the importance of the family unit. When a member of an Athenian family was killed then the killer was an enemy of the family and the state. The family took appropriate action against the killer through official officers of the state.

The basileus was the Athenian official who was in charge of the homicide investigation. The family of the

murdered person preferred charges of homicide against the accused before the basileus who then made a public proclamation against the accused person. After a series of pretrials, the final trial was held with the basileus acting in an official state function. The basileus held a position similar to a moderator. He prompted the witness when to speak and when to stop speaking. He did not in any way advise, or influence the jury who heard the trial. The final verdict was determined by the jury based on the evidence given at the trial.

The American system of law dates its early development to the English system of justice. The hue and cry, posse, trial by ordeal were legal innovations intended to improve the system of English law and to check the increasing crime statistics in that day and age. Legal evolution based on trial and error methods as well as an increasing awareness of the rights of the individual members of society has produced the courtroom procedure familiar to the present day observer. Many of these court procedures used in the courts today trace their origins to Athenian courts of justice as well as English methods of criminal procedure.

PRESENT TRENDS IN HOMICIDE INVESTIGATION

The criminal investigator called to investigate the scene of a homicide faces a perplexing set of social, legal and moral issues. Resolving these issues is a continuous struggle on the part of those who fear the unrestrained power of the police establishment as opposed to those who fear the faceless figure of homicidal violence directed at an unprotected society.

Throughout the field of law enforcement vast changes have taken place. The United States Supreme Court has questioned almost every significant method of investigative technique previously used by law enforcement agencies. The dramatic changes caused by these Supreme Court decisions has forced police administrators in the field of law enforcement to more closely examine techniques of investigation previously accepted as standard operational procedure. This is particularly true of those crimes that carry the death penalty. The unfortunate result has been that many young police officers, as well as older members of the police establishment, have been caught in a crossfire of increasing homicide statistics and compromising court decisions that attack the criminal investigator in the most vulnerable area of his professional calling—his methods of investigation.

The use of the confession by the criminal investigator as a main point of focus in the court presentation is becoming more and more a calculated risk. Unless the criminal investigator can resort to more objective methods of linking the suspect with the murder, the criminal investigator may well find his case rapidly dissolving under the relentless attack of a defense counsel who claims that unfair methods of interrogation were used to obtain the confession. So narrow are the limits under which the criminal investigator operates when obtaining a confession, that many confessions are invalidated by very minor objections raised by the defense counsel.

The effect of recent Supreme Court decisions has been to place a greater responsibility on the criminal inves-

tigator to be much more objective in evaluating evidence, and more keenly aware of the legal rights of the accused as guaranteed under the United States Constitution. The criminal investigator, with increasing frequency, must rely on the evaluation of evidence by experts who are academically and professionally qualified to properly examine suspected traces, stains or other physical evidence found at the scene of a crime or in some way connected with the crime.

This requires that the criminal investigator have more than just a slight knowledge of what takes place in the crime laboratory. It is the criminal investigator who must make use of the findings of the scientific analysis made by the laboratory expert. It is the decision of the criminal investigator that determines just how the laboratory findings fit into the total pattern of homicide investigation. On the basis of the homicide investigators decisions, which in turn are based on the findings of the crime laboratory, useless avenues of investigation can be eliminated, while other avenues of investigation that might prove more informative can be initiated.

The criminal investigator has a moral responsibility to leave no avenue of investigation unexplored in his search for the killer of another human being. The family of the deceased have no other person in whom to place their confidence and trust, in the hopes that the killer will not go unidentified and that every effort, every available resource known to the police agency will be intelligently used to bring the accused to an accounting before a jury of his peers where the spotlight of public inquiry will cause the infliction

of adequate sanctions of justice prescribed by law.

The courts scrutinize with ever-increasing severity the methods used to bring to justice those members of society who by a murderous act of violence take the life of an innocent human being. A primary consideration for the criminal investigator in the light of these new social attitudes is to academically and professionally equip himself to meet the rigorous standards that have been established by the courts. In this way only, can the criminal investigator relieve the outraged conscience of society.

THE ROLE OF THE PATHOLOGIST

The history of medical jurisprudence dates back to about the thirteenth century when police surgeons used the autopsy to determine the cause of death, especially when the cause of death was suspected as poisoning. Modern pathology can be traced to Giovanni Margani who in 1761 published a work in which he described the medical condition of bodies on which he had performed autopsies. A great deal of new information in the field of medicine was gained by his efforts.

Pathology is a branch of medical science that is concerned with the study of disease. Pathology is a medical speciality within the field of medicine. Forensic pathology is a subspeciality of pathology. Forensic medicine is the total field of medicine as applied to questions of law, both civil and criminal. Forensic medicine is also known variously as forensic jurisprudence, legal medicine, and medical jurisprudence.

The forensic pathologist is a specialist in the field of pathology who

knows and understands the importance of the autopsy as it relates to the laws of evidence and as it particularly relates to the field of homicide investigation. The forensic pathologist is better able to understand not only the problems of the cause of death as it relates to the victim, but also as it relates to a criminal act. This becomes of prime interest to the criminal investigator who is not only interested in the fact that the victim died of multiple gunshot wounds but also that the bullets are removed from the body in such a way that they will be appropriate as pieces of evidence in the court trial.

The coroner generally conducts investigations into the cause of death in the United States. In some areas the medical examiner system is used. The office of coroner is usually elective with no previous experience in law enforcement or medical background required. In some political jurisdictions only physicians are permitted to hold office, but these physicians need not be specifically trained in forensic medicine or pathology.

The autopsy or post-mortem examination is the scientific examination of a dead body for the purpose of establishing the cause of death. Doctors who have been specially trained in the field of pathology perform the autopsy. The pathologist not only makes a visual examination of the body but surgically opens the body for a closer examination. The pathologist also takes specimens of tissues for the necessary microscopic examinations to support the determination of death. These tissues, blood, or other body specimens may include brain, kidney, stomach, or any other tissues con-

sidered important by the pathologist in the determination of death. The tissues are turned over to other highly trained laboratory specialists who make careful and detailed examinations of the submitted tissues. The autopsy is the only method by which death can be raised from the level of conjecture or speculation to scientific fact. This is particularly true of deaths resulting from acts of homicidal violence.

The selection of the pathologist to perform the autopsy is a critical point for the criminal investigator. For this reason the criminal investigator should acquaint himself with the autopsy technique in order to utilize the information that results from the autopsy.

If the criminal investigator assigned to a suspected homicide has any voice in the choice of the pathologist to perform the autopsy the investigator should look carefully at the qualifications of the pathologist, particularly his experience in the field of criminal investigation. In the interests of justice it is much better to await the services of a qualified forensic pathologist than to permit the autopsy to be performed by one who is not familiar with the intricacies of criminal investigations or the pitfalls of court room procedure.

The general rule to follow with respect to the question of whether to autopsy or not to autopsy, is to autopsy the body when there are any suspicious circumstances surrounding the death. In any case where it is not known with absolute certainty that the death can be attributed to natural causes the criminal investigator should review his suspicions with the pathologist to decide the course of action.

In all cases of suicide, vehicular homicide, where the death was unattended by a physician, or where the person was not under the immediate care of a physician, it is better to perform the autopsy than to have later regrets that the autopsy was not performed.

The courts have ruled in favor of those coroners who have authorized autopsies of bodies against the wishes of the family. Where the coroner in the interests of society and the furtherance of justice seeks to determine the cause of death and such determination can only be made by a duly performed autopsy under the strict control of a qualified pathologist, the coroner is justified in having the autopsy performed, even though the family may object and the results of the autopsy show that the person did indeed die of natural causes.

The autopsy room is a restricted area. No one except those officially interested in the proceedings should be present in the autopsy room. Only the pathologist, his assistants, the immediate police officials interested in the case under investigation and such other persons as the courts may direct, are to be present when the autopsy is performed. (Newspaper personnel, or any representative from the news media, do not fit this description and should be excluded.) The courts have ruled in favor of families seeking damages in cases where the privacy of the dead person was violated by the presence of unauthorized persons when an autopsy was performed.

Photographs taken of the autopsy are for official use only. Under no circumstances should they be released or shown to unauthorized persons.

The physical equipment of the

morgue will vary with the size of the community served. In large cities the morgue is very often fully equipped. Simultaneous dissections on a number of bodies can be conducted at the same time. Full facilities, for not only the autopsy but also for embalming, are also a part of the large morgue facilities. In smaller communities the facilities are more limited but need not be any less professional. In the end, it is the expertise of the pathologist who performs the autopsy that determines the quality of the dissection. When the pathologist does not feel that a proper autopsy can be performed because of inadequate dissection facilities, then any suggestion advanced by the pathologist should be given careful consideration regardless of the cost.

The criminal investigator must be cautioned that the autopsy has to be performed before the body is embalmed. Once the body has been embalmed, the chances of securing any information are considerably reduced. This is especially true if the suspected agent of death is poison. Many poisons cannot be detected once the body has been embalmed.

The major chemical constituent of embalming fluid is formaldehyde. This chemical is introduced into the body by gravity or pressure as blood within the body is forced out. The large abdominal and chest cavities are also injected with embalming fluid and the blood in these areas is aspirated. Embalming fluid is then introduced into the evacuated chest and abdominal areas. In this way, then, almost all of the blood in the body is exsanguinated in the process of embalming. Much information can be

gained through the study of the blood of the dead person. Once the blood has been removed a door of investigation to the investigator has been permanently closed.

Another feature of the embalming process is the washing of the body by the embalmer, which removes important traces that might play an important part in a criminal investigation. Fingernail scrapings are destroyed if the body is washed and prepared for burial. Gashes and wounds are also cleaned and dressed by the embalmer. This makes it impossible for the pathologist or criminal investigator to fully appreciate their importance to the investigation.

So closely does the pathologist work with the criminal investigator that whenever possible the pathologist should be present at the scene of the homicide. In the event that this is not possible, the pathologist, in cooperation with the police agency, should establish a procedure of operation in which is developed investigative techniques that will assist the pathologist in his autopsy as well as benefit the criminal investigator in his investigation. Failure of the criminal investigator to understand the problems of the forensic pathologist who performs the autopsy, far removed from the scene of the actual homicide, makes this important investigative step in the investigation of murder less effective.

THE ROLE OF THE CRIME LABORATORY EXPERT

Modern criminalistics has become a major tool in homicide investigation in the last few decades. Fully equipped laboratories in larger communities are the rule rather than the exception. In

many communities where it is not possible to justify an expensive crime laboratory, facilities are available for performing highly sophisticated laboratory examinations on the state and federal level, for police agencies requesting their services.

The modern criminalistic expert is a college trained man possessing several degrees and who is an expert in his field of training. In the past, these highly trained men have had easy access to industry. It was therefore difficult to properly staff otherwise fully equipped crime laboratories. The present trend is to give pay scales equal or superior to those in industry to attract qualified personnel to the field of criminalistics.

The role of the laboratory expert is to analyze physical evidence and traces submitted to the crime laboratory by the criminal investigator. In some instances it is wise to have the laboratory expert go to the scene of the homicide in order to best determine what should be taken to the crime laboratory, and how it is to be transported. With the laboratory expert on the scene of the homicide errors of judgment with respect to how much material should be taken to the laboratory and what should be taken are avoided. Having the laboratory expert on the scene is an ideal situation and is a great aid to the criminal investigator who must make a number of decisions at the homicide scene. As a rule, however, it is the criminal investigator himself who makes the important decisions concerning what is to be taken, how much is to be taken, how it is to be transported, and to insure that the chain of custody of those handling the evidence can be ac-

counted for. The criminal investigator should be fully acquainted with the services of the crime laboratory. The scientific inquiry into physical evidence poses limitations of a practical nature that the laboratory expert understands and acknowledges and which must be comprehended by the criminal investigator. If these limitations are not recognized then the criminal investigator will expect more information from the laboratory expert than he is able to supply.

The present trend of the courts in challenging previously accepted investigative techniques has narrowed considerably the areas of investigation that can be pursued effectively by the criminal investigator. The criminal investigator will increase his efficiency greatly by learning to properly avail himself of the criminalistics laboratory.

THE ROLE OF THE CRIMINAL INVESTIGATOR

The role of the criminal investigator in homicide cases is to completely and intelligently develop every phase, or step of the investigation. The criminal investigator, though not a pathologist, must be thoroughly conversant with the autopsy procedure. The criminal investigator must be familiar with the limitations of the pathologist in arriving at medical judgments. A pathologist cannot produce impossible results. Nor can the pathologist rightfully or legally name the killer. This is the function of the criminal investigator who uses the information supplied by the pathologist and the criminalistic expert.

The criminal investigator must be sufficiently familiar with the autopsy

procedure that he can intelligently converse with the pathologist during the conduct of the autopsy. He should be knowledgeable of medical terms that are used in describing both natural and violent forms of death. This knowledge does not make the criminal investigator an expert in the medical sciences, but it does mean that he can arrive at conclusions of a positive or negative order based on information supplied by the pathologist from an autopsy.

The criminal investigator serves as a important link between the pathologist and the crime scene. It is the criminal investigator who supplies the needed information to the pathologist for the proper evaluation of wounds, injuries or other suspicious circumstances surrounding a death. There should be a close working relationship between the pathologist and the criminal investigator.

It is the role of the criminal investigator to see the criminal investigation in its total concept. Each unit or part of the investigation must be related to the next part so that a total structure evolves. It is the important function of the criminal investigator to insure the adequate preparation of the homicide case for court prosecution. He must notify witnesses of their appearance in court. He must insure a complete briefing of the district attorney concerning the development of the investigation.

The role of the criminal investigator requires a person who is thoroughly versed in the field of law enforcement. The criminal investigator, particularly as regards those police officers who specialize in homicide investigation, should be knowledgeable in the law.

He should be fully conversant with courtroom procedure. His knowledge of evidence and how it is used in court should be complete and accurate. There should be no question concerning his ability to testify in areas of criminal investigation requiring a broad background in specialized areas immediately related to police work such as criminalistics and medical science.

The role of the criminal investigator in cases of homicide demands the highest level of investigative skill. The investigator will be facing the finest brains in the legal profession who will utilize every professional and legal tactic to overcome the burden of proof and the chain of evidence that the investigator has worked diligently to weave around the suspected killer. Every concrete piece of evidence introduced by the prosecution will undergo the closest scrutiny by the courts and attorneys representing the murder suspect. Unless the criminal investigator has prepared his case well and is ready to present the case in an orderly and sensible chronological order he stands a good chance of having the case, the evidence and his own personal conduct of the investigation severely criticized. There is the strong possibility also, that the guilty person will walk out of court free, not because he is innocent, but because of poor methods of investigation in which evidence becomes suspect in the eyes of the court.

THE THREE ROLES INTERRELATED

Though murder constitutes a comparatively minor part of the criminal activity that faces a police agency, the reputation of the police agency—

in the eyes of the public—often depends on how effectively or efficiently these murder investigations are prosecuted. The apprehension and conviction of murderers constitutes a major outlay of time and effort on the part of police agencies across the United States. This requires the total commitment of the coroners office or medical examiners office, the criminalistics laboratory expert as well as the criminal investigator.

The role of the pathologist, the crime laboratory expert and the criminal investigator are mutually complementary. It is the role of the criminal investigator to integrate the various units of the investigation in order to produce a total structure that evolves into the complete homicide investigation. This cannot be accomplished without the close cooperation of the pathologist, the crime laboratory expert and the criminal investigator.

In the investigation of death, a number of complicated points are raised. Among these questions that must be answered are:

1. Who is the victim?
2. How did the victim die?
3. Is the death one that involves violence?
4. Is the death a homicide, suicide, accidental or was the death natural.

These questions demand almost immediate answers. In order to solve these questions the services of a pathologist, toxicologist, histologist, chemist, bacteriologist, and pharmacologist, not to mention other highly trained specialists, are required to make the proper evaluations of the evidence collected by the criminal investigator.

A major consideration in the utilization of scientific research personnel is the ability of the criminal investigator to know what member of the criminalistic laboratory staff should be contacted to analyze evidence and when the expert should first be contacted. Where the evidence to be analyzed is perishable, such as blood, time is of the greatest importance in collecting and transporting this type of perishable evidence to the qualified expert for analysis. In this respect, the criminal investigator should be fully aware that there are limitations on the ability of the laboratory expert to arrive at any definite conclusions on the evidence supplied by the criminal investigator. The evidence may have no relevance to the investigation. In this case such information may in itself be revealing in the sense that it may well eliminate an innocent person from undue police investigation. In other situations the evidence may have absolutely no value to the investigation. It is therefore important that the criminal investigator be selective in the type of evidence that he submits to the laboratory for analysis. In this way the laboratory will not be over-burdened with highly sophisticated examinations that are in no way relevant to the investigation. It is also of extreme importance that the criminal investigator know the proper methods of transporting the evidence to the laboratory. Of equal importance is the establishment of the formal chain of custody of the evidence turned over to the criminalistic laboratory for analysis.

In considering the interrelated roles of the pathologist, the laboratory expert, and the criminal investigator, the

continuing relationship has to be considered. It is reasonable to presume that the criminal investigator in a small police department who makes use of a professional expert in a specialized field for an investigation of a suspected homicide will have need for such an expert at some future date. It is therefore important that the criminal investigator make himself as knowledgeable as possible in a number of specialized areas so that he will readily recognize how this specialty will help in future investigations. The same holds true for other highly complex examinations that not only require advanced academic certification but also require a considerable investment in expensive and complicated scientific equipment to make possible these examinations.

The smaller police organizations which handle few real or suspected homicides would not invest large sums of money on a large well equipped criminal laboratory and there would not be any use for a large medical staff of highly trained personnel. This does not mean that such organizations should not have access to the most sophisticated scientific equipment. State and federal agencies stand by ready to assist without cost or with minimal cost to examine submitted evidence and testify in court as to the findings of the examination. These agencies should be contacted by the police agency head to determine the method to be followed in the transmittal of evidence and the procedure to be followed for obtaining the court attendance of the expert who made the evaluation. In this way there will be no unnecessary delay when it becomes necessary, because of a homi-

cide, to contact the involved agency and then determine how the evidence is to be submitted. Police administrators should make it a part of the police academy training to explain not only what is evidence but also how to go about transmitting it to the crime laboratory in a legal manner.

THE REQUIREMENTS FOR A GOOD CRIMINAL INVESTIGATOR

If the necessary requirements for a criminal investigator could be summed up in one word that would cover all the aspects from which everything else flowed, that word would be *inquisitiveness*. Even in the face of insurmountable odds persistent inquisitiveness on the part of a criminal investigator will go a long way towards solving a homicide that might otherwise remain unsolved.

The ideal background of a criminal investigator should include a number of years in police work. The ideal criminal investigator should be able to remain cool in the face of extreme emotional pressure. This is especially true of the homicide investigator who must conduct his investigation while the shock of the homicide, to the family members, is still very much a part of the murder scene. The homicide investigator may well be investigating a case which he finds personally revolting and distasteful. Certain types of crimes inflame the mind, especially those involving children. The well-adjusted investigator keeps an objective sense of balance about his investigation in order not to allow prejudicial views to influence any decisions he might have to make to determine the guilt or innocence of another. At times this is difficult, but it must

be accomplished if the investigation is not to become ineffective through fanciful expeditions that lead nowhere and serve no useful purpose.

Modern methods of criminal investigation require a high level of education. Current trends in court decisions, especially on the level of the United States Supreme Court, place increasing responsibility on the criminal investigator to rely on more scientific methods of investigation in presenting the homicide case for prosecution in court. Because of the complexity of homicide investigations education on the college level is becoming more and more a requirement for advancement.

The ideal candidate for a criminal investigator should have a genuine interest in people, since this will be the area in which he will show his most effectiveness. A police officer may have an excellent educational background, and a great deal of experience in the field of law enforcement but still be ineffective as a criminal investigator because he does not have a genuine liking for people. The police officer is unable to develop an attitude of cooperation between the person being investigated and the investigating officer. In order to be successful as a criminal investigator the man must be an astute student of human nature. This ability can be acquired with experience. Where this skill isn't acquired—and this sometimes does happen—it would be wiser for the criminal investigator to utilize his skill in those areas for which he is better suited.

The ideal investigator in the field of homicide investigation will be mature. Conducting a homicide investigation requires the investigator to enter into areas of personal investigation that if not handled properly will do irreparable and unnecessary harm to a person being investigated, such as a person who is married, a responsible member of society and who may become the object of a police inquiry in the development of a homicide investigation. Clumsy handling of an investigation of such a persons background or relationship to a person who has been killed can ruin the man and his family.

Inquisitiveness, maturity, a broad educational background and a genuine liking for people are assets that will carry the criminal investigator through the most demanding and controversial investigations that a career in homicide investigation can present.

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Chapter II

THE COLLECTION AND PRESERVATION OF EVIDENCE

RECENT DECISIONS of the United States Supreme Court have made the use of confessions by the prosecution at a trial of homicide increasingly difficult. The result has been to place greater emphasis on the intelligent utilization of physical evidence. This emphasis on the utilization of physical evidence in court requires that the criminal investigator know and recognize what constitutes valid physical evidence. Equally important is the method used to collect the evidence for the laboratory expert to make an evaluation, and to safeguard the chain of custody.

The collection, preservation and transportation of physical evidence is one of the most important areas of homicide investigation that will confront the criminal investigator. Improperly collected evidence, poorly packaged, without due regard for the chain of custody may well destroy a promising criminal investigation of homicide. Common sense safeguards are the most important rules to follow in the collection, preservation and transportation of physical evidence.

Common sense rules used in collecting, preserving and transporting evidence should also be implemented by a thorough understanding by the criminal investigator of the laws as they relate to evidence. It is wise for the criminal investigator to have a

close relationship with the district attorney's office in order to get legal interpretations of the laws relating to the collection of physical evidence that will be used in a homicide prosecution.

PHYSICAL EVIDENCE

Physical evidence is any object regardless of its size or composition that will tend to prove or disprove some point of legal issue. Evidence might tend to prove the guilt of a suspect in a criminal investigation. On the other hand, the same physical evidence might just as easily, and with equal certitude, prove the suspect innocent. Physical evidence, properly examined and presented in court is completely objective.

In this respect physical evidence is neither guilty or innocent. Evidence collected by a criminal investigator merely exhibits itself to objective, professional evaluation without respect to any outside influences. A gun is neither guilty or innocent. Yet a gun found at the scene of a homicide with a clear print of the user of the gun is eloquent testimony to the criminal investigator seeking the person who fired the death weapon.

TRACE

The term *trace* refers to microscopically small particles that are examined by laboratory experts to possibly link the suspect with a crime, or in some way explain the circumstances of a crime. A trace might consist of minute

particles of glass, metal, fibers or other objects left at the scene of a crime.

EXPERT WITNESS

A expert witness is a person who gives testimony on a scientific, or highly technical or professional field and who, by reason of their academic background and practical experience, are presumed to possess more knowledge in a particular field than the ordinary person. Expert witnesses are used in firearms testimony, fingerprint identification, photography, all areas of the medical sciences and other fields that the prosecution of a homicide case might require.

Each criminal investigation of homicide presents its own unique and particular set of problems when it comes to physical evidence. There are no set or rigid rules governing what evidence should or should not be collected. This determination by the criminal investigator must be made at the time the investigation is conducted. The best course for the criminal investigator to follow is to collect more evidence rather than not enough.

One of the most important aspects of physical evidence is establishing the custodial chain to the satisfaction of the court. The fewer the number of persons who come in contact with the evidence that is to be presented in court the better it will be to establish the chain of custody. Many legal problems can arise from too many persons handling the evidence who are not required to handle it. The criminal investigator must bear in mind that the court can, and often does require that every person handling the evidence give testimony in court explaining their relationship to the ev-

idence presented. Another possibility that should not be overlooked is the chance that in a homicide investigation there are persons unknown to the criminal investigator, who would like to see the evidence completely destroyed, or in some way adulterated so that it is useless as evidence. The only way that the criminal investigator can satisfy himself that the evidence will not be contaminated wilfully or accidentally is to insure that no one but authorized persons are permitted on the crime scene.

Evidence taken at the scene of a criminal investigation and presented in court must be clearly and accurately packaged and identified. Movable evidence should be carefully packaged or wrapped, depending on the nature of the evidence. Where it is necessary to mail the evidence to a laboratory, care should be exercised that regulations of the United States mail service are followed. Suitable containers have to be utilized to avoid contamination. The item removed from the scene of the crime as evidence as well as the container should be labeled with the date, time, investigating officers name, case number and name of the deceased.

It is extremely important that only those persons directly connected with the investigation should be a part of the custodial chain. The ideal custodial chain is that relationship with the evidence that exists between the criminal investigator, the person who transports the evidence to the laboratory and the laboratory specialist who examines the physical evidence. In this way only those persons directly involved with the investigation are required to testify in court as to the