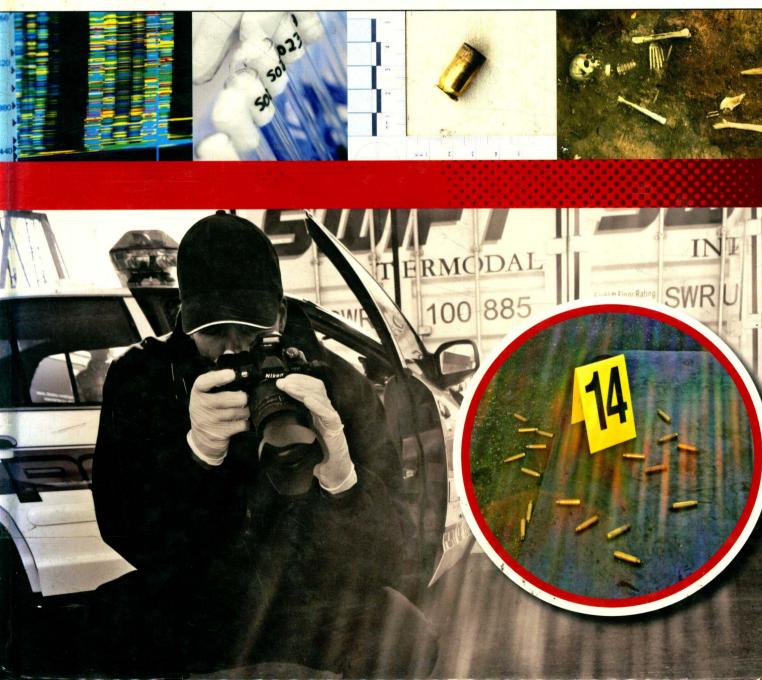
10TH EDITION

# CRIMINAL Investigation

Swanson, Chamelin, Territo, Taylor



10TH EDITION

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#### CRIMINAL INVESTIGATION

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# CRIMINAL INVESTIGATION

# DEDICATION

From Charles R. Swanson: For my mystery writing novelist wife, Paige Cummings, who inspires me, our granddaughter Keira Pless, a pistol although she is only 18 months old, our children with spouses—Traci and Mark, Kellie and Steve, Maggie and Steve, Cole and Kelley, and our two bachelor sons, Colin and Ben. Finally, this is for the women and men out there 24/7 doing a hard job incredibly well.

From Neil C. Chamelin: For my wife, Vicki, and our children, Chris and Todd; my daughter-in-law Heidi; my granddaughters, Tally and her little sister Casey; and a soon-to-be-born granddaughter whose name is held secret by her parents until she is born.

From Leonard Territo: For Elena, the kindest and sweetest woman I have ever known, and our children, Lorraine, Kseniya, and Ilia, and my grandchildren, Matthew and Branden.

From Robert W. Taylor: For my beautiful wife, Mary, for her enduring love and support.

# ABOUT THE AUTHORS

Charles R. "Mike" Swanson is the managing partner of Swanson and Bracken, a firm specializing in police promotional testing. He has extensive experience in designing promotional systems and tests for state, county, and municipal public safety agencies, including the Kentucky State Police including the Kentucky State Police, the Georgia Burean of Investigation, the Alabama State Troopers and the Georgia State Patrol. He has conducted over 60 job-analysis studies and written more than 125 promotional tests. He has designed and implemented at least 75 assessment centers, as well as written their exercises. Mike has trained assessors from 18 different states and has testified in federal court as an expert witness on police promotional matters.

Mike enlisted in the Marine Corps when he was 17 years old and then joined the Tampa Police Department, working as a uniformed officer in the highest crime areas of the city before being promoted to detective. Subsequently, he worked as the senior police planner, and later as the acting deputy director, of the Council on Law Enforcement in the Office of the Florida Governor. While working in Florida, Mike earned his bachelor's and master's degrees in criminology from Florida State University. Then, after a teaching stint at East Carolina University, Mike accepted a faculty position at the University of Georgia's Institute of Government, where he received a Ph.D. with an emphasis on public administration and rose through the administrative ranks, retiring as the interim director in late 2001.

In addition to this book, Mike has coauthored four others, including *Police Administration: Structures, Processes, and Behavior*, and has authored or coauthored a number of monographs, articles, and conference papers pertaining to policing. In 2003, he received the O. W. Wilson Award for Outstanding Police Scholarship. He has received multiple awards from the governors of three states and from the Georgia Association of Chiefs of Police, who recognized his contributions to their association by making him the first Honorary Chief of Police. He is currently working on a novel, tentatively titled *The Shield*, which is the first in a series set in the Tama Police Department.

**Neil C. Chamelin** is an assistant state attorney in Leon County, Florida. He previously served as a hearing officer in the Florida Division of Motor Vehicles; director of Criminal Justice Programs for Troy State University—European Region; director of the Florida Police Standards and Training Commission; division director, Standards and Training Division, Florida Department of Law Enforcement; administrator of the Police Science Division, Institute of Government, at the University of Georgia;

and director of the Florida Institute for Law Enforcement. He has also served as a police officer in Sarasota, Florida. Chamelin is author of *Criminal Law for Police Officers* and coauthor of *Introduction to Criminal Justice* and *Police Personnel Selection Process*.

Leonard Territo is presently a Visiting Distinguished Professor in the Department of Criminal Justice at Saint Leo University, Saint Leo, Florida, and Professor Emeritus in the Department of Criminology at the University of South Florida, Tampa, Florida. He was previously the Chief Deputy (Undersheriff) of the Leon County Sheriff's Office in Tallahassee, Florida. He also served for nine years with the Tampa Police Department as patrol officer, motorcycle officer, and homicide detective. He is a former chairperson of the Department of Police Administration and director of the Florida Institute for Law Enforcement at St. Petersburg Junior College (Now St. Petersburg College), St. Petersburg, Florida.

In addition to writing nearly 50 articles, book chapters, and technical reports, he has authored or coauthored nine books, including *Police Administration*, which is in its seventh edition; *Crime and Justice in America*, which is in its sixth edition; *Police Civil Liability; College Crime Prevention and Personal Safety Awareness; Stress and Police Personnel; Stress Management in Law Enforcement* which is in its second edition; *The Police Personnel Selection Process;* and *Hospital and College Security Liability*. His books have been used in more than a thousand colleges and universities in all 50 states, and his writings have been used and referenced by both academic and police departments in 16 countries, including Australia, Barbados, Belarus Canada, China, Chile, Czechoslovakia, England, France, Germany, Israel, the Netherlands, Poland, Saudi Arabia, South Korea, and Spain.

His teaching awards include being selected from among 200 criminal justice educators from the state of Florida as the Outstanding Criminal Justice Educator of the Year, and the Outstanding Teacher of the Year by the College of Social and Behavioral Sciences at the University of South Florida. He has been given awards by both the Florida Police Chiefs Association and the Tampa Police Academy for his years of teaching and meritorious service and has been selected for inclusion in Who's Who in American Law Enforcement. He's been also given an award for Distinguished Scholarly Publications at Saint Leo University, Saint Leo, Florida. He is also a qualified police procedures expert in Alaska, Arizona, District of Columbia, Florida, Georgia, Illinois, Iowa, Kansas, Kentucky, Louisiana, Michigan, New Jersey, Ohio, Oregon, Pennsylvania, Tennessee, Virginia, Washington, and Wisconsin.

Robert W. Taylor is currently professor and chair of the Department of Criminal Justice at the University of North Texas in Denton, Texas. For the past 25 years, Bob has studied police responses to terrorism. He has traveled extensively throughout the Middle East and Far East Asia. He currently serves as a consultant to numerous federal, state, and local agencies on intelligence analysis, human trafficking, terrorism, and Middle Eastern groups. Since September 11, 2001, Bob has been a consultant to the U.S. Department of Justice working with the Institute for Intergovernmental Research. He acts as a lead instructor in the State and Local Anti-Terrorism Training (SLATT) program, which is responsible for training law enforcement and other related criminal justice professionals (specifically the FBI Joint Terrorism Task Forces-JTTF, the Organized Crime Drug Enforcement Task Forces—OCDETF, and the

DEA High Intensity Drug-Trafficking Area Strike Forces—HIDTA) on Middle Eastern groups and other terrorism issues. Bob focuses on the nexus between human trafficking, drug trafficking, and the financing of terrorist incidents internationally and domestically. He was recently awarded the University of North Texas, Regent's Lecture Award for 2003, for his work on the Middle East.

Bob also has written extensively in the area of law enforcement management and policy, community policing, and police responses to crime. He served as a sworn police officer in Portland, Oregon, for six years, three of which were as a major crimes detective. Aside from this work, Bob has coauthored three additional books: Juvenile Justice: Policies, Programs, and Practices; Police Administration: Structures, Processes, and Behavior; and Digital Crime and Digital Terrorism.

**As with the previous editions,** the first purpose of this book is to provide a useful tool for those on law enforcement's front lines. Thus, *Criminal Investigation* is once again filled with practical "how to" information, case studies, and color photographs that illustrate important points and checklists that can be adapted to the needs of local agencies.

We have scrutinized all aspects of the book to keep what is deemed worthy by others. At the same time, we break new ground by introducing cutting edge topics, such as the investigation of staged crimes, remote sensing techniques, fusion centers, marijuana grow houses, handling of cold case backlogs, and dealing with deaf victims of sexual assaults. Many portions of chapters have been totally rewritten, such those on as crime scene sketching and forensic mapping, along with the usual updating of citations and tables. (These and other changes are identified in a later portion of this front matter to the tenth edition.)

Criminal Investigation continues to differ from other texts, and the differences are again reflected throughout this edition.

First, criminal investigation generally has been conceived of, and touted as, an art. This approach depreciates the precision required to conduct inquiries; it denies the existence of, and adherence to, rigorous methods; and it associates criminal investigation with unneeded mysticism. Criminal Investigation is in large part a science. The fact that criminals are not always apprehended does not make it less so. The rational scientific method is, of necessity, supplemented by initiative and occasional fortuitous circumstances, but it is the application of the method rather than shrewd hunches that most frequently produces results. The most successful investigators are those who know how to apply the rational scientific method; therefore, it is this method that we consistently use in *Criminal Investigation*.

A second major difference between this text and others arises from our belief that writing about techniques takes on more substance if one understands something of the nature of the event being investigated. Thus, we have discussed typologies—including offenses, offenders, and victims—in depth, so that our readers not only take away a more comprehensive understanding of criminal investigation than they would from another textbook but also have substantial information to use later as a reference.

Third, because crime-prevention technology has been a significant milestone for both the police and the public, we have inserted short sections on prevention in chapters where appropriate. The complexity of crime prevention dictates that it is a specialization within police departments. Yet, at the scene of a crime, the investigator may

be in a unique position to make a few helpful, if rudimentary, suggestions to a victim on how to avoid further loss. *Criminal Investigation's* crime prevention sections give investigators the tools to accomplish this task.

Finally, most investigative books tend to blur the distinction between the roles of uniformed officers and detectives; we draw this line distinctly. Although everyone may not agree with our dichotomizing, the uniformed officer's role must be recognized for the contribution it makes to the ultimate success of an investigation.

### THE TENTH EDITION

Criminal investigation is always evolving owing to scientific, legal, and social developments, as well as to changes in the behavior of criminals. Although many investigative techniques are fundamental and remain basically the same over time, significant changes also occur on a continuing basis. In addition to having updated photographs, tables, figures, and citations, this edition reflects both the ongoing and the changing dimensions of criminal investigation by including the following text updates and revisions:

- Chapter 1, "The Evolution of Criminal Investigation and Criminalistics," a historically oriented chapter, has undergone a more modest revision than have other chapters. However, the chapter does feature an updated section on institutional initiatives in investigation and criminalistics. Although some historical images (such as the one showing Allan Pinkerton with President Lincoln) of necessity remain as black and white, many color photographs have been added.
- Chapter 2, "Legal Aspects of Investigation," is a new chapter that addresses topics uniformed officers and investigators encounter on a daily basis. It includes rewritten and updated materials on the laws of arrest largely taken from Chapter 21 in the previous editions, and it includes materials on the Exclusionary Rule and the law of search and seizure.
- Chapter 3, "Investigators, the Investigative Process, and the Crime Scene," includes crime scene sketching and forensic mapping, entirely new to the tenth edition. A major section on staged crimes was added. Although people stage scenes to deflect suspicion of themselves, some such scenes are "forged" to save a family from embarrassment, for example, to make a suicide look like a murder. The chapter continues to emphasize its strong crime scene and preliminary investigation focus.

- Chapter 4, "Physical Evidence," has been carefully updated with new material on the collection and the analysis of soil evidence. There is also new content on glass fracture matches and the types, features, and characteristics of such fractures. A new section on using florescent light to locate lip print evidence was also written.
- Chapter 5, "Interviewing and Interrogation," has been reorganized and consolidated to provide a better flow of materials. Material has been updated, and several sections containing esoteric topics have been deleted.
- Chapter 6, "Field Notes and Reporting," includes a
  rewrite of introductory materials on incident reports
  and emphasizes the importance of reporting an event
  in logical order and including all details. The term
  primary questions has been replaced by the term interrogatory questions to clarify the distinction with basic
  specific questions.
- Chapter 7, "The Follow-Up Investigation and Investigative," contains two new major sections, remote sensing and fusion centers. Remote sensing is the collection and analysis of data on areas, objects, or events without being in contact with them. At the low technology end, this capability is illustrated by the use of cadaver dogs; at the high end, by ground-penetrating radar.

Fusion centers (FCs) are more than computer networks or intelligence networks in that they support the implementation of prevention, response, and consequence management programs.

The essence of FCs is the constant merging, analysis, and dissemination of information from many different sources to be used tactically and strategically for homeland security and crime-fighting purposes.

- Chapter 8, "The Crime Lab," focuses on the new technology available in crime labs to scientifically analyze evidence discovered and collected at crime scenes. In particular, there is expanded treatment of DNA analysis and DNA banking with respect to using familial DNA to solve crimes.
- Chapter 9, "Injury and Death Investigations," includes many new photographs and graphics to illustrate content. Ways to handle backlogs of cold case investigations have been added, such as the use of private labs and criminal justice university students.
- Chapter 10, "Sex-Related Offenses," includes a
  new module on interviewing deaf victims of sexual
  assault. Although such incidents do not happen with
  great frequency, investigators need to be aware of the
  unique aspects of interviewing these victims. An
  entirely new section, including photographs, was
  written on homosexual homicide investigation.

- Chapter 11, "Crimes against Children," was rewritten to include updating the sections on Sudden Infant Death Syndrome (SIDS); Internet crimes against children and Internet predators; child molestation; human trafficking and sex tourism; and the Amber Alert System. Also updated is the material on school shootings, including information and lessons learned from the Virginia Tech shootings in 2007.
- Chapter 12, "Robbery," now addresses the use of surveillance cameras as a method of preventing and investigating robberies, along with a number of associated new photographs. An entirely new section on Bank Robberies and Bank Robbery Prevention has been added to this chapter.
- Chapter 13, "Burglary," The references and data in this chapter have been updated. Portions of this chapter were rewriten to achieve additional clarity.
- Chapter 14, "Larceny and White-Collar Crime" places greater emphasis on larceny investigation without sacrificing the treatment of white-collar crime. The entire beginning of the chapter was rewritten to accomplish this. Shoplifting was substantially revised to accommodate the distinction between small-scale, but costly, shoplifting versus organized retail theft (ORT) accomplished by full-time rings of professionals.
- Chapter 15, "Vehicle Thefts and Related Offenses," contains new material on the cloning of vehicles and has updated chapter materials.
- Chapter 16, "Computer Crime," has been updated and expanded to include new material on computer manipulation crimes, common Internet scams, denial of service attacks, cyberstalking (on MySpace and YouTube), computer component theft, and virus hoaxes.
- Chapter 17, "Agricultural, Wildlife, and Environmental Crimes," was rewritten in many areas to simplify the presentation of material, along with the usual updating of case studies, photographs and content. The section on "Livestock Identification" was totally rewritten.
- Chapter 18, "Arson and Explosives," includes a rewritten section on collecting evidence at bomb scenes, as well as numerous new photographs and an entirely new section on bomb threat standoffs. The discussion on reading bombers' signatures is entirely new.
- Chapter 19, "Recognition, Control, and Investigation of Drug Abuse," includes a new section on marijuana grow houses, along with coverage of heroin cheese and Strawberry "Quick" meth.

• Chapter 20, "Terrorism," reflects the nature of terrorism, which is always changing and adapting. Thus, the chapter is always a "work in progress."

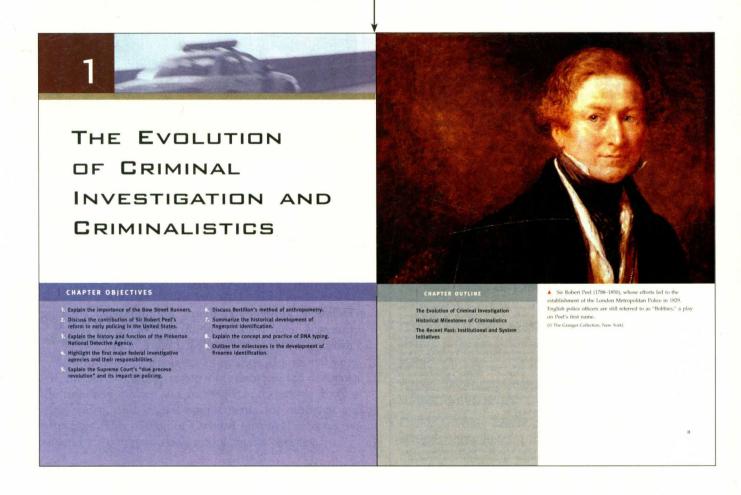
The investigation of terrorism continues to involve agencies at every level of government and of every size. There is new material on international groups such as al-Qaeda, Jemaah Islamiya, Hizbollah, HAMAS, and Hizb ut Tahrir (HuT), as well as expanded material on terrorist money laundering and a checklist on investigating hawalas. We also include information on the impact of recent domestic cases involving the conviction of ELF leaders and ecoterrorism threats, as well as emerging threats along the U.S.-Mexico border with respect to illegal immigration. Finally, there is a discussion on private-public partnerships and intelligence-based software designed to prevent terrorist events in the United States.

· Chapter 21, "The Trial Process and the Investigator as a Witness," describes pretrial and trial procedures and offers a detailed discussion on the law

enforcement investigator's role in court. Discussion of the pretrial process has been expanded to cover jury selection and the effects of a recent U.S. Supreme Court decision on exceptions to the hearsay rule.

# LEARNING AIDS

Working together, the authors and the editors have developed a format for the text that supports the goal of a readable, practical, user-friendly book. In addition to the changes already mentioned, we have added a host of new photographs, figures, and tables to reinforce and expand the text coverage. A visual presentation of the book's many lists—which are so critical in a text that teaches professionals and future professionals "how to" investigate crime—makes this material easy to digest. The learning aids in the edition go beyond these visual elements, however:



· Chapter-opening photographs, outlines, and learning objectives draw readers in and serve as a road map to the chapter.

INTRODUCTION

Over a number of centuries, many people from different countries have made contributions to the fields of criminal investigation and forensic science. To recognize all of them is well beyond the

scope of this chapter. Thus, without ne's work, it is necessary to draw some boundaries. For pres purposes, the roots of criminal investigation can be traced back to England in the reighteenth century, a period marked by numerous social, political, and economic changes. These changes were catalysts in the creation of the first modern detective force, the Bow Street Runners. In addition, London was the home of the first police reformer. Robert Peel, Both of these factors contributed to the subsequent

weelopment of police organizations and criminal investigation in the United States
Within the criminal investigation process, investigators frequently use various scientific methods found in criminalistics to help identify suspects, gather evidence, and collect information—all of which is done in the effort to convict criminal offenders. Criminalistics draws from diverse disciplines, such as geology, physics, chemistry, biology, and mathematics, to study physical evidence related to crime. If it is suspected that a person has died from poisoning, for example, a toxicologist, who specializes in identifying and recognizing poisons and their physiological effects on humans and animals, can assist in the investigation physiological circles on numans and animate, can assess in the investigation. Experts in other areas, such as botany, forensic pathology, entomology, and archaeology, may also provide helpful information to criminal investigators. This chapter presents a brief history of criminalistics and criminal investigation

and highlights major developments in the field. In addition, it discusses the creation and use of personal identification systems, such as anthropometry, fingerprint identification, and DNA typing, and provides an overview on the use of firearms identification in criminal investigation. Writing about these separate but intertwined topics is a difficult task. Many volumes have been written about them, but the space that can be devoted to them here is limited. Sufficient broad perspectives and supporting details, however, are included in this chapter to enable readers intrigued by these subjects to independently pursue their interest armed with a working knowledge of the basics.

#### THE EVOLUTION OF CRIMINAL INVESTIGATION

The evolution of criminal investigation began in eighteenth-century England, when massive changes were occurring. To fully appreciate the development of criminal investi-gation, you must first understand the social, economic, political, and legal contexts in which it evolved. Thus,

this section provides this background and offers a brief history of criminal investigation from its early days in England to more recent times in the United States.

During the eighteenth century, two events—an agricultural revolution and an industrial revolution—began a

SOIL AND POLLEN 99

An elderly woman was robbed and murdered in a Washington, D.C., park, and her body was found under a park bench. Within a short time, a suspect was apprehended as a result of a description given by a witness who had seen the person leaving the park on the night of the murder. It was obvious that the suspect had been involved in a struggle and had soil adhering to his clothing and inside his trouser cuffs. He claimed to have been in a fight in another part of the city and gave the location of the fight. Study of the soil near the park bench and of that collected from the scene of the alleged fight revealed that the soil from the suspect's clothing was similar to soil near the park bench but did not compare favorably with samples from the area of the described fight. These comparisons strongly suggested that the suspect had been in contact with the ground in that area and cast strong doubt on his statement that he had not been in the park for years. Furthermore, the lack of similarity park for years. Furthermore, the lack of similarity between the clothing soil samples and those from the area in which he claimed to have been fighting ques-tioned the validity of his alibi."

The pollen in soil or on plants and grass can also be very significant in determining whether or not a suspect was at the scene:

In a case of alleged sexual assault, the pollen content of samples from a grassy crime scene were compared to pollen recovered from the suspect's clothes and shoes. A very strong correlation with the variety of pollens present on the suspect's clothing and the sample collected at the scene very strongly supported the conclusion that the suspect was at the scene.12

Pollen come in a variety of shapes and sizes. To be useful, analysis must not only present correlation from the crime scene to the suspect (as in the preceding case) but also identify type and variety. The California Crimi-nalist Institute, a unit of the California Department of Justice, maintains a database of 140 pollen images gener Justice, maintains a darabase or it at poiner images generated on a digital scanning electron microscope for identification purposes. <sup>13</sup> Interestingly, the CCI maintains this database on the Internet and continues to systematically add to images as new samples are collected.

Although soil and pollen are class-characteristic evidence, their specificity can approach the level of individual characterization:

In a rape case, the knees of the suspect's trousers con-In a rape case, the knees of the suspect's trousers contained encusted soil samples; the sample from the right knee was different from that collected from the left. In examining the crime scene, investigators found two impressions in the soil corresponding to a right and a left knee; samples taken from these two impressions were different. The soil sample from the left-knee impression compared with that removed from the left trouser knee of the suspect, as did the right-knee impression and the right trouser knee solls. The significant difference in soil type between the two knee impressions and their consistency with samples obtained from the suspect's trousers strongly indicated his presence at the scene.<sup>14</sup>

#### Locating and Handling Soil Evidence

Soil evidence may be important when the suspect drives or walks on unpaved areas, since it is picked up by the treads or the bottom of shoes and the cuffs of pants. It may also be recovered in a number of other places, such as on the floorboard of the subject's car or on articles in the trunk of the vehicle, including shovels and blankets. If there was a struggle with the victim, the suspect may also have soil on his or her body and clothing. If this soil is different from that in the area where the body was found, this may suggest that the victim was killed elsewhere. In hirand-run accidents, soil samples may be encountered, for example, on the clothing of victims and on the road. In one unusual case, a solid soil sample in on the road. In one unusual case, a solid soil sample in the rough shape of a triangle with 3-inch sides was found and later matched to a space on the underside of the suspect's vehicle.

The guidelines shown next should be followed in handling soil evidence:

- 1. Soil conditions at the scene can change, so gather the soil as quickly as sound action permits.
  2. Collect soil not only from the crime scene but also from the logical points of access to, and escape from, the scene. Place the samples in clean plastic vials and labeled with the date, time, name of the crime scene technician, and the case number, if
- changes in composition, color, and texture
- changes in composition, color, and rexture.

  4. Collect soil samples from a depth that is consistent with the depth at which the questioned soil may have originated. In most cases, samples should be composed of about a tablespoon of material taken no more than ½ inch from the surface.

  5. When possible, collect soil samples from allbit areas, with a the consistent of the consent of the consent
- such as the worksite, yard, or garden of the suspect.

• Chapter-opening overviews provide readers with a snapshot of the entire chapter and are excellent review tools for readers who are preparing for exams.

drug user murdered his supplier in order to "cancel" his debt and obtain additional drugs. This is a photomicro graph of the bullet recovered from the graph of the dulter recovered from the body (left) compared to a bullet fired from the murder gun (right) after the revolver was recovered from a river by police divers. (Courtesy Royal Canadian ounted Police)

FIREARMS 129

Additionally, if the fired bullet is recovered in sufficient Additionally, if the fined builet is recovered in sufficient size, it may be possible, through weighing and measure-ment, to determine its caliber. Since bullets are often recov-ered as fragments, the caliber may only be implied; for instance, the weight may rule out smaller calibers. Although it is possible to determine the caliber of the bullet, some

caution must be taken with respect to determining the bon

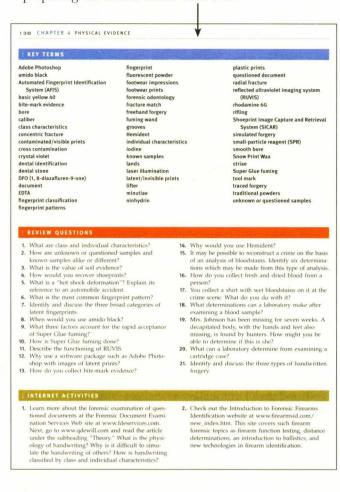
caution must be taken with respect to determining me oore of the weapon from which it was fired, since a smaller-caliber bullet can be fired through a larger-bore weapon. Fired bullets ordinarily experience some damage on impact. In some cases, one can see fabric impressions on the bullet's nose that were made as the bullet passed through the victim's outer garment. (See Figure 4-36.)



as some cases, the fabric of the garment being worm by the victim can actually be found attached to the bullet. In this use microbe, the fibers from the sweater of the victim (left) are actually found inside the flattened "mushroom" of the bull-to-covered from the body. (curvers prossis Training and consulting, LIQ

• Detailed captions accompany photographs, clarifying precisely what readers should be looking for and learning when examining each piece of art.

• End-of-chapter review sections featuring key-term lists, review questions, and Internet activities make preparing for exams easier than ever.



As mentioned, we have retained our plentiful, widely acclaimed "cases" within every chapter, ensuring that the tenth edition is not only the most current, definitive text on criminal investigation but also the most practical and relevant. And with the enhancements we have made to the learning aids, *Criminal Investigation* is, simply put, the most mastery-oriented text available for the course.

# **SUPPLEMENTS**

As a full-service publisher of quality educational products, McGraw-Hill does much more than just sell textbooks. The company creates and publishes an extensive array of print, video, and digital supplements for students and instructors. This edition of *Criminal Investigation* is accompanied by a comprehensive supplements package.

#### For the Student

Online Learning Center Website: This unique, book-specific website features interactive cases that not only are fun to explore but also are terrific learning tools. The website also includes self-grading quizzes and other exercises to

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