

# CRIMINAL INVESTIGATION

FIFTH EDITION

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# Preface

We so often watch police dramas that end with apprehension that we forget that much of the real work is yet to come. Surely, the most exciting part of the investigation is the chase and capture, but these are of little value if they do not support laboratory analysis and successful criminal prosecution. It is hard to make laboratory tests, reports, witness statements, and offense documentation exciting, and so there is little place for them in the television crime drama, but it is on the investigation's supporting documentation that success or failure depends.

This text attempts to include forensic and Constitutional considerations to help place criminal investigation in its proper context. It has always seemed strange that we compartmentalize criminal justice function and education. Police have little interaction with the forensic personnel who process crime scenes and test evidence. Police and forensic personnel have even less contact with prosecutors, who are dependent on their work at the time of trial. To exacerbate the situation, we separate criminal justice programs from forensic science programs, and both from law school, and then seem surprised when we work at cross purposes. The good news is that many universities are beginning to recognize the need for more cross-communication between disciplines and

are creating "Justice and Forensic Institutes" to ensure mutual understanding. Unfortunately, these programs are all too rare, and forensic science and criminal justice continue to be taught separately more often than together. It is to this "compartmentalization" that this text is directed. Where applicable, we have included forensic and Constitutional considerations along with the investigative process.

In keeping with the comprehensive nature of the text, the reader will have a look at the history relating to criminal investigation. Hopefully, by understanding how we got to where we are today, the reader will gain an appreciation of, and an understanding for, the complexities and difficulties relating to the topics presented within the text. If one is to be educated on and understand what criminal investigation is and what it encompasses, it is necessary to go beyond the "how to's" relating to such matters. Therefore, in addition to the methods, motives, and motions necessary, the text also provides an in-depth look at the investigative process, as well as the ethical considerations applying to such matters. Discussions on investigative procedures, detailed figures, and real-life examples will enhance the reader's understanding and demonstrate how to apply the techniques and tools of the trade.

# The Student Experience

This text is assembled with a pragmatic, critical, and multidisciplinary approach. It also recognizes that many of the concepts and methods relating to the field of criminal investigation are

likely to be unfamiliar. It is for this reason that special instructional devices and learning strategies are utilized throughout the text.

## Student Learning Outcomes

Student Learning Outcomes are listed at the beginning of each chapter. Emphasis is placed on active learning. The learning objectives concentrate on the acquisition of knowledge and the foundations needed to understand, compare, contrast, define, explain, predict, estimate, evaluate, plan, and apply.

### STUDENT LEARNING OUTCOMES

Upon completion of this chapter, students will be able to:

- Recognize the responsibilities of all of the members of the crime scene team
- Describe how to process crime scenes, big and small
- Explain the use of templates and virtual photography in constructing crime-scene sketches
- Construct crime-scene notes
- Appreciate the importance of recording/documenting the crime scene

**Justifiable homicide** is the killing of a person under authority of the law. This includes killing in self-defense or in the defense of another person if the victim's actions and capability present imminent danger of serious injury or death. It also includes killing an enemy during wartime, capital punishment, and deaths caused by police officers while attempting to prevent a dangerous felon's escape or to recapture a dangerous felon who has escaped or is resisting arrest.

#### Justifiable homicide

The killing of a person under authority of the law

## Key Terms

In the field of criminal investigation, it is necessary to become familiar with the associated terminology and vocabulary. Key Terms are highlighted in bold within each chapter to direct the reader to specific terms of particular importance with definitions provided in the margins for review.

## Investigator's Notebook

Many chapters include *Investigator's Notebook* boxes, which contain checklists, suggestions, and guidelines regarding best-practice methodology associated with the chapter content.

### INVESTIGATOR'S NOTEBOOK

#### Guidelines for Handling DNA-Bearing Evidence

- Wear gloves; Change them between handling each item of evidence
- Use disposable instruments or clean the instruments thoroughly before and after handling each evidence sample
- Avoid touching the area where you believe DNA may exist
- Avoid touching your face, nose, and mouth when examining and packaging evidence
- Put dry evidence into new paper bags or envelopes; do not use plastic bags
- Do not use staples
- Handle all evidence as though a jury were watching
- Photograph or take video of the handling and packaging process

## Real-World Examples

### Case in Point, Ripped from the Headlines, and Exhibits

In an effort to apply the theory and guidelines addressed within the book, the reader is provided with examples of real-world incidents and cases involving the content discussed within the chapter. This application to real-world situations will enable the reader to better grasp the concepts presented.

#### CASE IN POINT

##### A Telling Drop

In one case involving an open-field death, the female victim was found face down with knife wounds to the front of her body. A cursory examination of the body revealed a single circular dried blood droplet on her buttocks. Investigators discussed various ways of retrieving the blood after having photographed it.

Determining that the blood would probably not survive handling and moving of the body, they decided to remove it prior to moving the body. The circumference of the blood drop indicated that it fell perpendicular to

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it is w  
convic

#### EXHIBIT 1.1

##### The Fifth and Sixth Amendments to the U.S. Constitution

###### Fifth Amendment

No person shall be held to answer for a capital or otherwise infamous crime, unless on a presentment, or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the militia, when in actual service in time of war or public danger; nor shall any person be subject for the same offense to be

in any criminal case to be a witness against due process of law; nor shall private property be



### — Ripped from the Headlines —

#### Blood Evidence Used to Convict Boston Marathon Bomber

On April 8, 2015, Dzhokhar Tsarnaev was convicted of the 2013 Boston Marathon bombing, which killed three and injured

260. Blood evidence and DNA analysis featured prominently within the case investigation and litigation. Prosecutors

presented DNA evidence and blood to tie in the involvement of both Tsarnaev brothers in the event, although only Dzhokhar was prosecuted for the crime, since Tamerlan died during the course of subsequent events.

## Questions for Review

Knowledge and skills must be reinforced. Questions for review are provided for student self-study or for instructors who are developing written assignments and examinations.

#### QUESTIONS FOR REVIEW

1. What is it about fingerprints that suggests individuality?
2. Why is it incorrect to refer to visible fingerprints at a crime scene as latent prints?
3. What are fingerprint patterns, and of what value are they to the criminal investigator?
4. How is a latent print visualized, developed, and lifted?
5. Why is it important to photograph a fingerprint that the investigator plans to lift anyway?
6. What is superglue fuming?
7. For what is ninhydrin spray used?
8. How would you develop fingerprints on the sticky side of duct tape?
9. What is small particle reagent used for?
10. What are iodine crystals used for?
11. What chemical is used to test for blood that luminesces under ultraviolet light?
12. What is a composite picture, and in what ways might an investigator obtain one?
13. What is a suggestive lineup?
14. What is CODIS? Describe the three-tiered identification system.
15. What does ACE-V stand for?
16. What was the cause of the Madrid, Spain, fingerprint misidentification?
17. Is it possible to develop fingerprints from a corpse? If yes, describe the process; if not, why not?
18. Explain how fingerprints corroded in a brass shell casing can be recovered.

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## References

At the conclusion of each chapter, the reader will find the scholarly references that were used to assemble the information contained within the chapters, which will include suggested readings pertaining to the key areas addressed within the chapter. In addition, many chapters include a list of *Key Legal Cases*, which the reader may consult for a more in-depth understanding relating to the subject matter.

# Teaching Tools

**Test Bank** containing Multiple Choice, True/False, Short Answer, and Essay questions. These questions allow you to originate tailor-made classroom tests and quizzes quickly and easily by selecting, editing, organizing, and printing a test along with an answer key that includes page references to the text.

**Lecture Outlines** provide you with complete, ready-to-use lesson plans that outline all of the topics covered in the text. Lesson plans can be edited and modified to fit your course.

**PPT Lecture Outlines** in PowerPoint format provide you with a powerful way to make presentations that are both educational and engaging. Slides can be modified and edited to meet your needs.

**Image Bank** in PowerPoint format is an easy-to-use multimedia tool that provides all of the illustrations and photos from the text (to which Jones & Bartlett Learning holds the rights to reproduce electronically) for use in classroom presentation.

## Investigation of Arson

- Investigators want to note:
  - When was the fire discovered?
  - Size of the fire upon discovery
  - Who discovered the fire?
  - Who reported the fire?
  - Unusual activity around the premises
  - Unusual/unidentified persons in the area

## Logging Photographs

- Take multiple photos
- The best shot is 90° from the film plane to the item being photographed
  - Most important in photographing bloodstains
  - Allows accurate analysis
- Film is cheap compared with a verdict or acquittal



Figure 4.10 Proper use of ABFO scale as to plane and camera angle (props used to raise scale).  
Culotta, A.W. (2013) Basic Crime Scene Photography, 2nd Ed.

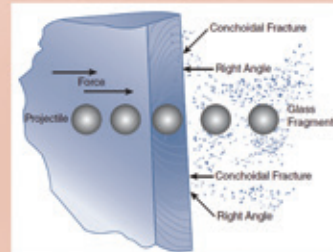


FIGURE 5.18: Determining glass break direction.  
Courtesy of Eric Bazer, University of Wisconsin-Platteville.

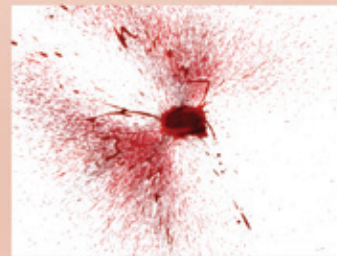


FIGURE 5.11: Example of a high-velocity-impact bloodstain.  
Courtesy of Dana Gevelinger, University of Wisconsin-Platteville.



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Aric Dutelle has been involved in law enforcement since 1999. During this time, he has held positions as a police officer, deputy sheriff, crime scene technician, and reserve medico-legal investigator. He has a Master of Forensic Sciences (MFS) degree, with a specialty in impression evidence and is the author of over 20 articles, as well as author and co-author of four texts, including *An Introduction to Crime Scene Investigation (three editions)* and *Criminal Investigation (4th and 5th editions)* by Jones & Bartlett Learning; *Ethics for the Public Service Professional (two editions)* by Taylor & Francis Publishing, and *Basic Crime Scene Photography (two editions)*. He was previously a tenured professor with the University of Wisconsin System, teaching there for 11 years and having been responsible for developing and implementing a Bachelor's of Science program in Forensic Investigation. In addition to his university obligations, Dutelle served for 7 years as a forensic instructor for the U.S. Department of Justice's International Criminal Investigation Training Assistance Program (ICITAP), specializing in and providing training in crime scene processing methodologies and techniques around the globe. The author continues to be actively involved in training, consulting, and assisting law enforcement agencies with criminal investigations and crime scene processing around the United States and internationally.

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Professor Becker completed his studies for a Bachelor of Science degree in Police Science at Sam Houston State University in 1969. He went on to finish his Master's Degree in Curriculum and Instruction at Texas Agricultural & Mechanical University in 1972. A short hiatus from higher education found him with the Mineral County, Montana, Sheriff's Office, culminating his work as a criminal investigator there and then leaving for St. Mary's Law School in 1981.

Upon completion of his law studies and passing the Texas Bar Examination in 1983, Professor Becker became a partner in the general litigation firm of Gish, Radtke and Becker in Boerne, Texas. The firm became a successful personal injury litigation practice. During that time, Professor Becker served as the Boerne Municipal Court Judge, County Judge, and Juvenile Court Judge.

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Professor Becker is currently a full professor at Chaminade University, serving as chair for the Criminal Justice and Criminology Program. Professor Becker is a member of the Hawaii Emergency Preparedness Executive Consortium and an advisory board member for the Hawaii Law Enforcement Memorial.