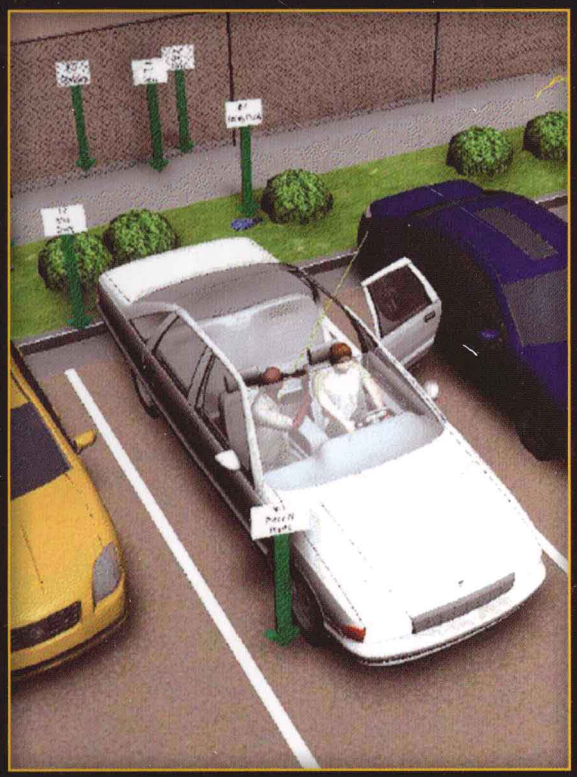
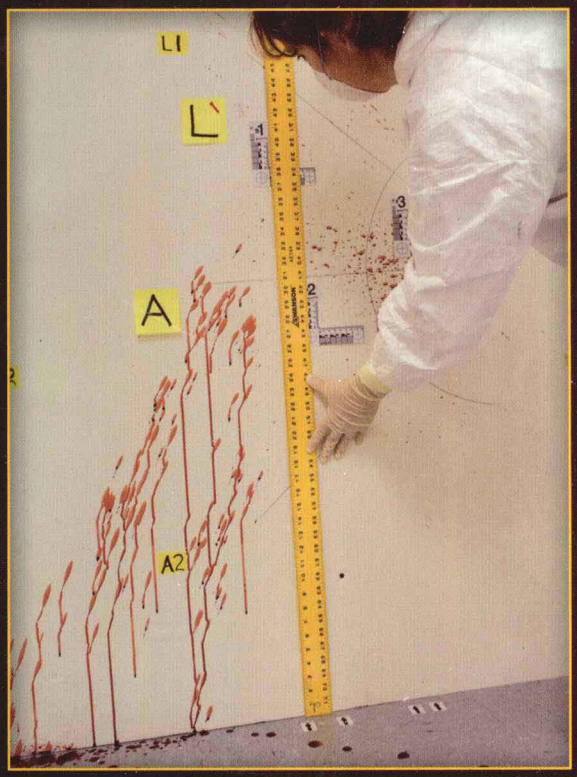
Practical Crime Scene Processing and Investigation

Second Edition





Ross M. Gardner

Practical Aspects of Criminal and Forensic Investigations Series

CRC Press
Taylor & Francis Group

PRACTICAL CRIME SCENE PROCESSING AND INVESTIGATION

Second Edition

Ross M. Gardner

常州大学山书馆
藏书章

CRC Press
Taylor & Francis Group
Boca Raton London New York

CRC Press is an imprint of the
Taylor & Francis Group, an **informa** business

CRC Press
Taylor & Francis Group
6000 Broken Sound Parkway NW, Suite 300
Boca Raton, FL 33487-2742

© 2012 by Taylor & Francis Group, LLC
CRC Press is an imprint of Taylor & Francis Group, an Informa business

No claim to original U.S. Government works

Printed and bound in India by Replika Press Pvt. Ltd.
Version Date: 20110520

International Standard Book Number: 978-1-4398-5302-3 (Hardback)

This book contains information obtained from authentic and highly regarded sources. Reasonable efforts have been made to publish reliable data and information, but the author and publisher cannot assume responsibility for the validity of all materials or the consequences of their use. The authors and publishers have attempted to trace the copyright holders of all material reproduced in this publication and apologize to copyright holders if permission to publish in this form has not been obtained. If any copyright material has not been acknowledged please write and let us know so we may rectify in any future reprint.

Except as permitted under U.S. Copyright Law, no part of this book may be reprinted, reproduced, transmitted, or utilized in any form by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying, microfilming, and recording, or in any information storage or retrieval system, without written permission from the publishers.

For permission to photocopy or use material electronically from this work, please access www.copyright.com (http://www.copyright.com/) or contact the Copyright Clearance Center, Inc. (CCC), 222 Rosewood Drive, Danvers, MA 01923, 978-750-8400. CCC is a not-for-profit organization that provides licenses and registration for a variety of users. For organizations that have been granted a photocopy license by the CCC, a separate system of payment has been arranged.

Trademark Notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

Library of Congress Cataloging-in-Publication Data

Gardner, Ross M.
Practical crime scene processing and investigation / Ross M. Gardner. -- 2nd ed.
p. cm. -- (CRC series in practical aspects of criminal and forensic investigations)
Includes bibliographical references and index.
ISBN 978-1-4398-5302-3
1. Crime scene searches. 2. Criminal investigation. 3. Evidence, Criminal. I. Title.

HV8073.G32 2012
363.25'2--dc23
2011021219

Visit the Taylor & Francis Web site at
http://www.taylorandfrancis.com

and the CRC Press Web site at
http://www.crcpress.com

Series Note

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

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

Foreword

I feel very comfortable in saying that criminal investigators throughout our law enforcement community universally agree that the importance of quality crime scene investigations cannot be overemphasized. Criminal investigators must be able to identify and collect items of evidentiary value left at the crime scene in order to better piece together events surrounding the crime and to identify perpetrators and sometimes victims.

It is essential then that crime scene personnel take all means necessary to ensure the integrity of evidence collected in order to avoid legal restrictions that may prevent the introduction of such evidence at trial or the development of a solid case for prosecution.

The content of this book speaks to issues in crime scene processing that are important, addressing techniques and applications that apply. It tells you what you need to know, what you need to do, and how to do it.

The methods and procedures used in crime scene processing, as presented here by Ross Gardner, combine the collective knowledge of other experts and practitioners in the field, as well as his own practical experiences garnered over more than two decades of work as an active criminal investigator and some 4 years as a police chief. I had the pleasure of serving as his executive manager for 6½ years during his special agent investigator tenure.

I am convinced it is essential that all officers and investigative personnel have a solid understanding of professionally accepted crime scene protocols in order that their agency can take full advantage of today's sophisticated laboratory techniques and technologies. This book can play a significant role in helping responsible, concerned individuals realize that objective.

Eugene R. Cromartie
Deputy Executive Director/Chief of Staff
International Association of Chiefs of Police
Major General (Ret.)
U.S. Army Criminal Investigation Commander

此为试读,需要完整PDF请访问: www.ertongbook.com

Preface

Over the life of the first edition of this book I have been humbled by its acceptance and success. I set out in 2003 to write a practical guide of what to do and how to do it in a crime scene. I was confident I came close to the mark, having spent over 23 years in crime scene investigation, but I still wondered if I achieved a product that was useful and easily understood to the majority of those involved in the field.

As it gained acceptance across the country, I specifically looked at those using it in the classroom for my best feedback. Mind you, many of these individuals held master's degrees in forensic science. They worked in the lab and field all day long and then served as adjunct professors at night. These were individuals who were not fooled by prose and judged material based on content. No easy crowd to please, but *if* I met their mark as teaching practitioners, then I felt I had met my mark of success. Based on the feedback I received, I met the mark of the majority and for that I am proud, but as with all endeavors I have listened to them as well and sought to make this document better. Just as there is no perfect crime scene investigation, there is no perfect crime scene investigation book. So I continue to challenge myself to keep this document timely, clear, and technically correct. As you will see, I sought out some extremely competent and skilled contributing authors to assist me in that endeavor.

Of course there were the typical naysayers. Although few and clearly uninformed, I even listened to them, when they had valid criticism. I was probably most amused, however, when I was labeled "jack of all trades and master of none." An individual, who I learned had been "present" in a couple of crime scenes over his AFIS career but had never been responsible for actually processing a scene from beginning to end, offered this tag. Lacking true crime scene experience, little did this antagonist understand that his label effectively defines easily two-thirds of the role of the crime scene investigator. Competent crime scene investigators are masters of their trade, processing crime scenes. But they are also expected to be a jack of all forensic trades, knowing and generally understanding all of the different fields of forensic science, in order to appropriately collect evidence in a usable form for the laboratory scientist. That is by no means an easy task.

An interesting sidelight of this jack of all trades issue was the publication in 2009 of the National Academy of Sciences report "Forensic Science in the United States: A Path Forward." I was asked by the NAS to preview the draft and offer comments. Be aware, this document is not a scientific report. Over half its authors were lawyers. At the very least, 70% of the citations offered in the report are legal opinions, but it is represented as science in every court. One might not agree with how they achieved the conclusions, but they certainly offered some valid criticisms. The recommendations offered by the NAS were commonsense and well-established thoughts in the minds of most forensic science practitioners. We should all agree with their desire to see forensic science become more critical of itself, more professional, and more standardized. What the NAS failed to recognize was that the weakest link in the chain of criminal justice is the crime scene investigator. If evidence is not collected and collected properly, it serves no function in defining the

truth. Yet, they offered no directed recommendations on how to resolve the training and development of crime scene investigators. This is *the problem* for forensic science in the United States. Even if the NAS fails to understand that, we as police professionals must recognize and act on it. There is no more excuse for failing to properly process a scene of crime—none at all. Programs abound to teach basic skills. Professional associations such as the International Association of Identification have crime scene certification programs. If you wish to be competent, then you have the means at your disposal to be competent. We all have a responsibility and are all part of the resolution of this problem. This book is my personal effort at a resolution; I hope it serves your needs.

This isn't a book about crime laboratory techniques. It won't go into depth about the G-C-A-T order in DNA or discuss how mass–gas spectrometry works at the crime lab. This isn't a book about criminal investigations. It doesn't have chapters on burglary or sex crimes, discuss how to develop functional investigative timelines, or talk about interviews and interrogations. This isn't a book about behavioral science; there will be no in-depth discussion of serial vs. mass murders, nor differentiating of organized vs. disorganized crime scenes.

The subject of this book is crime scene processing—practical proven methods and procedures to be used at *any* crime scene. It includes concepts and investigative procedures that anyone charged with the responsibility of processing a crime scene should understand. These methods and techniques are field proven by people who have been using them, not someone who simply read about it in a book once. To teach these methods, we will deal with forensics, investigative procedures, and myriad other subjects. Nevertheless, the focus will remain on what crime scene investigators do, how they actually do it, and how to decide in what order they will do it.

I make no claim that these ideas and concepts are my personal brainchild. The procedures described here are the consolidated knowledge of the literally hundreds of mentors, peers, and instructors I've encountered over my career. From municipal departments to federal agencies, from Scotland Yard to the Finnish Bureau of Investigation, each of the individuals I've encountered has added in his or her own way to our collective understanding of functional crime scene procedures. These are proven techniques, methods I have taught and employed in day-to-day criminal investigations throughout the years. They are the real deal and they work. I certainly intend for this book to serve as a functional reference for those new to crime scene processing. I expect it will be used as a handy refresher for those engaged in crime scene processing as a part of their daily duties. Unfortunately, there are also many participating in the process who simply put have never been taught the basics. Hopefully this book will aid those individuals as well. The contents are a knowledge base of many capable and competent subject matter experts.

If one were to choose the entertainment industry as his or her subject matter expert, as many lawyers do, it would appear that crime scene processing is simple, absolute, and written in stone. Accordingly, any dummy can do it perfectly, each and every time. As these sources would have it, evidence should never be damaged or destroyed through processing techniques and nothing would be degraded. Of course this logic has one major problem: Hollywood producers aren't bound by any rules associated with reality. Amazingly enough, Hollywood rules and many lawyers seem content to say, "Well I saw it on *CSI*, so that is how it's done." I liken this thinking to the old joke about incest and the resulting DNA in a family tree. Every time a lawyer watches *CSI*, his or her understanding of forensics and crime scene practices becomes more and more warped. Yet every time that lawyer opens

his or her mouth in court, he or she presents himself of herself as somehow "in the know." That is amazing in and of itself, because across the years I've spent a lot of time teaching lawyers (defense and prosecution) about forensics and crime scene practices, and I am continuously flabbergasted to find that few receive *any* in-depth training on police practices or forensics in their formal education. They are left to learn about crime scene practices and forensics on the fly! Nevertheless, lawyers continuously espouse comments, concepts, and opinions about how it's really supposed to be done. As a result, a number of myths about crime scene processing abound. It is important that we debunk a few of these myths.

First and foremost, there is no one-and-only right way to process a scene. There is a clear and specific purpose for why we process the scene; that is to collect as much evidence as possible in as functional and pristine a condition as possible. By achieving that, we hopefully define more effectively what did or did not happen in the situation being investigated. Every action we take is directed toward accomplishing this purpose. There is certainly a basic sequence of effort directed at the crime scene. Investigators routinely assess, observe, document, search, collect, and analyze the scene, in that order. So there are rules to the game, just not hard-and-fast rules. If there are rules, then there are clearly wrong things to do in a crime scene. Yet no two scenes are the same, and every scene presents unique problems that must be overcome. Competing interests routinely occur in the process, and that presents contradictions that the crime scene investigator must overcome. In the end it is only by considering the overall purpose, the sequence of effort, and by understanding the associated forensics that the scene investigator is able to reach an appropriate decision on what to do. Even then there is no guarantee that his or her decision will be right, given the 20/20 hindsight available at trial.

An equally important myth to debunk is the fact that there are no perfect crime scenes or perfect crime scene processors. The scene begins to degrade from the moment the event begins, throughout the course of the crime, and continues right through the arrival and processing by police and forensic scientists. It is impossible for the scene to do otherwise. Granted, every procedure we discuss is directed toward collecting the evidence and its associated context in as pristine a condition as possible, but scene degradation is a fact of life. We use every mechanism available to limit this degradation, but we must accept that it will occur.

These myths negatively impact the way crime scene investigators operate and are often used as a distracter at trial. Far too often crime scene investigators say, "Oh the scene was disturbed; there is no reason to even try to process." That kind of thinking is ridiculous. There may be scenes that are so disturbed that little, if anything, of value will be found. But until the crime scene investigator tries, he or she doesn't know what he or she will find. Lazy investigators routinely use this excuse to keep from doing their job. At trial the myths come into play as well, where crime scene investigators are put on the defensive because something was damaged or lost through the processing. Why be defensive? Embrace the reality and tell it like it is: "We tried something; it failed. Would you have preferred, Mr. Lawyer, that I have not tried at all?" This answer can't be used as a routine excuse for poor procedures or haphazard effort on our part, but just the same, we can't allow unknowledgeable people to get away with painting the Hollywood version of crime scene processing to the court. Hollywood's version of crime scene investigation is fantasy and always has been.

What drives the Hollywood hype is, however, rooted in forensic science. Edmund Locard's *Principle of Exchange* states simply: "Every contact leaves its trace." With every new advance in technology, forensic science increases its ability to do more with the evidence.

Things unimaginable when I first stepped into a crime scene are commonplace today, such as recovering and identifying DNA from mere touching. Each change increases our ability to prove Locard far more accurate than perhaps he ever thought possible. Although the technology is in constant change, the underlying process of dealing with the crime scene hasn't changed much at all. Documentation, collection, and analysis still require the same basic skills. Between the time this book is sent to the publisher and the day it is published there is no doubt that some new fingerprinting method or forensic technique will be forthcoming. For that reason, this book won't concentrate on every specific technique available. It will concentrate on the basic procedures that do not change with time and on the basic techniques and skills necessary at most crime scenes.

When I said these procedures could be used at any crime scene, I meant that in every respect. From the household burglary to the triple-axe murder, it is not whether we should apply all of these techniques to every crime we investigate, but rather a function of whether we can. I guarantee that if you *could* apply all of these procedures and practices to each and every crime you investigated, your solve rates would astound you. Between 1980 and 1999, while serving in the USACIDC, our organization routinely had a 69% solve rate on felony property crimes worldwide. Why? Not to say it was the only factor, but there was a simple rule that the agents lived by: lift all latent prints found and submit all lifts to the crime lab. It didn't matter that you thought it was smudged or that it was only a partial finger. All prints were collected, sent to, and evaluated by the crime lab. Burglary or murder, it didn't matter. As a result, we solved crime. It was anything but a secret; we simply had the resources to conduct fingerprint evaluations at that level. But that is an oddity. Imagine asking your county or state lab to provide you the same service. You'd get laughed out of the building. Now it's: "Is it AFIS quality? If not, then sorry." Whether investigative resources, money, or time, resources drive the investigative train. In a perfect world where resources were not at issue we could apply these methods across the board at every scene and be far more successful at identifying and stopping criminals.

Unfortunately we live in a far from perfect world. Sure, at the homicide scene we pull out all the stops, employ all the gadgets and gizmos. But I guarantee that the smash-and-grab at a local business or the fast food robbery will not get the same level of attention. Resource driven, the crime scene supervisor has to make hard decisions about exactly what he or she will or won't do. In order to make those decisions intelligently, those processing scenes of crime must understand forensics. They must be a forensic science jack of all trades, yet at the same time they must also be a master of their own, knowing the underlying purpose behind crime scene techniques and using proper procedures.

Even in an imperfect world there must be some standard of what minimal scene processing entails. Once defined, that standard must be met. Are a couple of Polaroid photographs and no attempt to lift latent prints at the fast food robbery really sufficient? Perhaps, if you feel testimonial evidence is more reliable. This book will not presume to define that standard in detail. Through discussions of photography, sketching, evidence collection, and report writing, it will certainly suggest where that minimum standard may lie. In the end, given the resources available and the crime encountered, each crime scene investigator or supervisor must objectively evaluate his or her effort and set that standard for his or her own organization and community.

Once you get past the Hollywood hype, past the limitations of our organizations, and past the drama queen lawyers of the courtroom, this business is really quite simple. Crime scene investigators seek to establish what happened and provide the justice system with

factual information on which to base justice decisions. We have no sideline agendas, no master to serve but the truth. When it is all said and done, the crime scene investigator simply has to look in the mirror and ask: Have I done my job to the best of my ability? Have I secured and documented the evidence that might help prove the facts more effectively to the judge and jury? If the answer is yes, then we can all sleep well. If not, then perhaps we need to work a little harder at enhancing our skills and abilities.

Acknowledgments

This book is a compilation of knowledge gained over 37 years of involvement in law enforcement. No one person can take credit for the ideas; I certainly cannot, as no one person defined them. They are the combined knowledge of many years of service by thousands of dedicated, often anonymous people. This book is a testament to their excellence.

If we are honest with ourselves, we have to accept that any skill or success we achieve in life is very much a product of those who mentored and chose to teach us. I simply cannot begin to mention all of the outstanding police officers and criminal investigators I have encountered over the years who took an interest in me. But I recognize that my success is very much a product of their effort. Each and every one of you has my heartfelt thanks.

I certainly owe a great debt of gratitude to the men and women of the U.S. Criminal Investigation Command—supervisors, peers, and subordinates alike, who through the years taught, cajoled, and beat proper techniques into me. Jim Smith, Tom Coster, Phillip McGuire, Bob Jones, John Jones, Bill Middleton, Willie Rowell; the names are endless of outstanding criminal investigators who shared their experience and knowledge as crime scene experts. I still believe and uphold that part of my agent's oath that said, "I shall at all times seek diligently to discover the truth deterred neither by fear nor prejudice." Nothing in my career has given me greater pride than being counted among the individuals who share the title of USACIDC special agent.

Along the path I also encountered a vast number of experts outside of the CID, like Detective Investigator Wichanski and Detective Sergeant Vickery of the Metropolitan Police Academy in the United Kingdom. Both were dedicated and capable criminal investigators sharing their knowledge with students at the Scenes of Crime Officer Course at New Scotland Yard. There is no doubt in my mind that they set a fire in me at an early age, one that would continuously fuel my desire for excellence in the investigative organizations I worked for. This book is very much a product of the beliefs and ideas they put into play in 1985.

I also owe a debt of gratitude to all of the individuals who specifically assisted in creating this book. My specific thanks go out to the following individuals for assisting me:

Tom J. Griffin and Chris Andrist, *Mass Crime Scene Handbook*, for their outstanding insight and knowledge on mass scene situations.

John Anderson for his encouragement and support of the project.

Special Agent Mike Hockrein, St. Louis FBI. As a foremost expert in gravesite recovery, Mike gave significant input and reviewed critical sections of the text to ensure it defined the best methods.

Captain Tom Bevel (Ret.), Oklahoma City PD, for his review of the bloodstain pattern and crime scene analysis sections. Tom has always been a mentor and supporter and I have learned immeasurably from my association with him.

此为试读，需要完整PDF请访问：www.ertongbook.com

Sergeant Steven Ray, Corporal Rex Duke, and Officer Faith Case, Lake City (Georgia) Police Department, for their assistance in creating photo figures used in the documentation chapters.

Detective Sergeant Bruce Wiley and the San Jose Police Department for their insight in dealing with landfill recoveries. SJPD's experiences and success in dealing with this complex scene will serve us all.

Special Agents Don Houseman, Mike Maloney, and William Herzig of the Naval Criminal Investigative Service (NCIS), who have always supported and assisted me in every endeavor.

Bud Veazey, Fox 5 News, Atlanta, and Pete Scott, *Atlanta Journal Constitution*, for their insight into journalism operations.

Cele Rossi of the Montgomery County (Texas) Sheriff's Office for her insight and feedback. Cele reviewed many a revised section of the 2nd edition and will one day be the heir apparent for the future of this book.

Casie Parish of St. Edward's University and Christine Ramirez of the Texas Forensic Science Academy, Texas A&M University. Both ladies offered me invaluable feedback and recommendations on areas to beef up in the 2nd edition.

Jim Gocke, David Alford, and Sirchie Laboratories for assistance in revising the RUVIS section and for the excellent figures they provided.

Tony Grissim for his feedback on technology aids such as the Leica Scan-Pro.

Jeff Borngasser of the Oregon State Central Point Crime Laboratory for his excellent photographs using the IR camera and his assistance in building my knowledge of IR photography technique.

Colonel Petra Hennop, South African Police Service Crime Laboratory, for her assistance in revising the DNA collection discussion.

Iris Dalley for her invaluable assistance in locating Poser models and adjusting figures.

Jan Johnson for her feedback on how to better the book for the International Association of Identification's crime scene certification program.

Bo Pang Aldrin and Labino Labs for their support in allowing me to work with their excellent ALS equipment.

And of course my contributing authors, Michael Maloney, Tom Adair, Donald Coffey, and Jeremy A. John, whose assistance I could not have done without.

A number of individuals provided photographs and figures to help demonstrate or explain the techniques, and I hope I have not forgotten anyone. My thanks go out to: Herb Leighton, Maine State Police; Roy Heim, Tulsa Police Department; Brian Steel, Steel PC; Special Agent Don Hayden (Ret.); Kelly Fite; Kim Duddy and the Washington State Patrol Crime Lab; Ranger John A. Martin, Texas Rangers; Nikon Inc.; SA Laura Nielson, Oakland FBI ERT; Special Agent Steve Chancellor (Ret.); Detective Craig Gravel, Captain J. Becker, and the Oklahoma City PD Crime Scene Unit; Kelly Fite, Atlanta, Georgia; DA Wes Lane, Oklahoma City; Mike McGuffey, Covington PD; Tom Faith, Totally Ballistic; and David Dustin, Dustin Productions.

Contributing Authors

Michael Maloney is a partner in Bevel, Gardner and Associates and serves as the senior instructor for death investigations and sex crimes for the Federal Law Enforcement Training Center (FLETC) in Brunswick, Georgia. He served as a special agent for the Naval Criminal Investigative Service (NCIS) for 14 years, his last 10 years as a senior forensic consultant. Mr. Maloney holds a Master of Forensic Sciences degree from George Washington University and completed a 1-year fellowship in forensic medicine with the Armed Forces Institute of Pathology. He has processed and reconstructed significant crimes, including the terrorist attack on the North Arabian Gulf Oil platforms during Operation Iraqi Freedom, two mass execution sites while serving with the International War Crimes Tribunal for the former Yugoslavia, as well evaluating the events surrounding the death of 24 Iraqi citizens in Haditha, Iraq. In 2008 he was the recipient of the August Vollmer Award presented by the International Association of Chiefs of Police (IACP). Mr. Maloney is a member of the Association for Crime Scene Reconstruction, International Association of Blood Stain Pattern Analysts, International Association for Identification, and American Academy of Forensic Sciences.

Don Coffey is the chief, Latent Print Branch, U.S. Army Criminal Investigation Laboratory in Forest Park, Georgia. Mr. Coffey is an IAI-certified latent print examiner and footwear examiner with 22 years of experience. In total he spent 37 years in the U.S. Army, serving in the Military Police Corp, as a special agent CID with the U.S. Army Criminal Investigation Command (USACIDC) and as a forensic examiner at the U.S. Army Crime Laboratory in Atlanta, Georgia. Mr. Coffey holds an AA and BS degree in criminal justice, University of Maryland and Thomas Edison State University, and is a graduate of the Scotland Yard Senior Examiner Course.

Jeremy A. John is a latent print and footwear examiner at the U.S. Army Criminal Investigation Laboratory in Atlanta, Georgia, where he has served since 2004. Mr. John is an IAI-certified latent print examiner and footwear examiner. Mr. John holds a BS degree in sports biology, with a minor in chemistry from Springfield College, as well as a Master of Forensic Sciences degree from George Washington University. He has instructed various agencies within the Department of Defense on various topics of evidence handling and processing techniques for footwear, tire impressions, and latent prints.

Tom Adair is a former senior criminalist with the Westminster Police Department (CO). Mr. Adair is an IAI-certified footwear examiner, bloodstain pattern examiner, and senior crime scene analyst. He is a past president of the Association for Crime Scene Reconstruction (ACSR), Rocky Mountain Association of Bloodstain Pattern Analysts (RMABPA), and Rocky Mountain Division of the IAI. Mr. Adair is a former member of SWGTREAD, the IAI Footwear Certification Committee, and co-creator of the Colorado Forensic Footwear Information Network. He has written more than 60 scientific papers and continues to conduct and write about forensic-related research.

About the Author

Ross Martin Gardner worked in law enforcement for nearly 29 years. The vast majority of that period was spent with the U.S. Army Criminal Investigation Command, performing duties as a special agent and command sergeant major. In 1999, Ross retired from the military to take a position as a chief of police in a small suburban Atlanta police department. He served in that position until 2003, when he quit public service to become a full-time consultant and instructor. Ross is currently the vice president of Bevel, Gardner and Associates, a forensic education and consulting group.

Ross holds a master's degree in computer and information systems management from Webster University, a Bachelor of Science degree in criminal justice from Wayland Baptist College, and an associate's degree in police science from Central Texas College. In 1985 he attended and graduated first in his class from the Scenes of Crime Officers Course, New Scotland Yard. Between 1988 and 1996 he served as an adjunct professor for Central Texas College. He is a member of a number of professional associations and has served in a variety of positions, including president of the Rocky Mountain Association of Bloodstain Pattern Analysts (RMABPA), president of the Association of Crime Scene Reconstruction (ACSR), chairman of the Education committee for both the RMABPA and the International Association of Bloodstain Pattern Analysts (IABPA), and chairman of the Taxonomy and Terminology Committee Scientific Workgroup on Bloodstain Pattern Analysis (SWGSTAIN).

Ross is certified as a senior crime scene analyst by the International Association for Identification and is an active instructor in crime scene processing, crime scene analysis, and bloodstain pattern analysis. Throughout his career he has taught for police agencies (national and international), police academies, law enforcement professional associations, and trial counsel professional associations, and has written a number of articles. He has qualified as an expert in bloodstain pattern analysis and crime scene analysis in both state and federal court. Ross co-wrote *Bloodstain Pattern Analysis: With an Introduction to Crime Scene Reconstruction*, 3rd edition, and *Practical Crime Scene Analysis and Reconstruction* with Captain Tom Bevel (Ret.), OKC PD. In 2007, Ross contributed a chapter to the *Wiley Forensic Encyclopedia*.

Table of Contents

Series Note xvii
Foreword xix
Preface xxi
Acknowledgments xxvii
Contributing Authors xxix
About the Author xxxi

1 Introduction 1

Police Goals and Objectives 2
Evidence Defined 7
The Interpretive Value of Evidence 8
Good Crime Scene Examinations and Scene Integrity Issues 13
Investigative Ethics 18
Summary 21
Suggested Reading 22
Chapter Questions 22
Notes 22

2 Understanding the Nature of Physical Evidence 25

Class and Individual Characteristics 26
Fingerprint Evidence 28
Serology and Biological Evidence 30
Trace Evidence 37
Hairs and Fibers 38
Glass 39
Paints and Polymers 42
Soils 43
Gunshot Residues (GSRs) 44
Firearm and Ballistic Evidence 44
Tool Mark Evidence 50
Impression Evidence 51
General Chemical Evidence 54
Document Evidence 55
Computer Forensics 56
Forensic Pathology 57
Summary 58
Suggested Reading 58
Chapter Questions 59
Notes 59

3 Actions of the Initial Responding Officer **61**

Specific Objectives of the Initial Response 61
Documenting Initial Information 62
Officer Safety 63
Emergency Care 64
Secure and Control the Crime Scene 70
Release the Scene to Appropriate Authorities 75
Summary 76
Suggested Reading 76
Chapter Questions 76
Notes 77

4 Processing Methodology **79**

Basic Activities of Scene Processing 80
Assessing 80
Observing 80
Documenting 81
Searching 81
Collecting 81
Processing/Analyzing 83
A Processing Model 84
The Adapted USACIDC Processing Model 85
Step 1: Initial Notification 85
Step 2: Coordination, Assessment, and Team Call-Out 85
Step 3: Conduct Initial Observations 85
Step 4: Deal with the Deceased 86
Step 5: Photograph the Scene 87
Step 6: Document Overall Observations 87
Step 7: Sketch the Scene 88
Step 8: Conduct a First Recheck 88
Step 9: Release the Body 88
Step 10: Collect Items of Evidence 90
Step 11: Conduct a Second Recheck of the Scene 90
Step 12: Conduct a Third Recheck of the Scene 91
Step 13: Check beyond the Scene 91
Step 14: Conduct an On-Scene Debriefing of the Investigative Team 91
Step 15: Release or Secure the Scene 91
Step 16: Process and Package Evidence 92
Step 17: Conduct a Formal Debriefing 92
Summary 92
Suggested Reading 93
Chapter Questions 93
Notes 93

5 Assessing the Scene 95

Debriefing the Responding Officers 95
Scene Scope and Boundary Assessment 98
Scene Integrity and Contamination Control 98
Managing Access 103
Defining Team Composition 105
Crime Scene Search Considerations 108
Search Patterns 113
Circle or Spiral Search 113
Strip and Line Search 114
Grid Search 115
Zone Search 115
Point-to-Point Search 118
Personal Protective Measures and Hazard Identification 118
Biohazard Risks 119
Structural Hazards in Fire and Explosion Scenes 121
Chemical and Inhalation Hazards in Fire and Explosion Scenes 122
Inhalation, Chemical, or Fire Hazards from Scene Processing Techniques 122
Chemical and Bioterror Hazards 123
Considerations for Mass Crime Scene and Mass Casualty Situations 124
Pre-Event Considerations of Crime Scene Supervisors 125
Practical On-Scene Considerations for the Mass Scene 127
Managing the Media 128
Summary 129
Suggested Reading 132
Chapter Questions 132
Notes 132

6 Crime Scene Photography 135

What Makes Good Photographs 136
Recurring Problems in Crime Scene Photography 138
Identification Problems 139
Orientation Problems 140
Confusion Problems 140
Incomplete Documentation 142
Types and Purpose of Crime Scene Photographs 142
Overall Photographs 142
Corner or Side—You Decide 143
Evidence-Establishing Photographs 148
What's in a Name: Evidence-Establishing vs. Mid-Range Photos 151
Evidence Close-Up and Forensic Quality Photographs 153
The Road Mapping Method of Photographic Documentation 156
A Basic Methodology to Crime Scene Photography 172
Camera Control Issues 175
Video Photography 178

此为试读,需要完整PDF请访问: www.ertongbook.com