

# ADVANCED CRIME SCENE PHOTOGRAPHY



**CHRISTOPHER D. DUNCAN**



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# **ADVANCED CRIME SCENE PHOTOGRAPHY**

*For Wynn and Miranda Duncan*

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# Preface

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*Advanced Crime Scene Photography* developed over time and out of my experiences as a crime scene investigator with a large metropolitan police department. Like any major city, violent crime is prevalent, offering numerous opportunities to utilize the different skills and techniques learned and evolved through numerous schools, scene experiences, and experimentations. Furthermore, a large police department is like any other bureaucratic institution, small units within the greater organization must fight for every dollar. The mantra “do more with less” is a guiding principle and as a result, I had to learn to adapt non-forensic items for forensic purposes in order to save money. This book is meant to help investigators working in similar circumstances, investigators who are attempting to document crime scenes without all the fancy and expensive equipment commonly sold by forensic vendors, but who still need to produce quality photographs that will leave a lasting impression.

The majority of my career has been spent working the night shift. As a result, I learned the value of time exposures versus relying on my electronic flash to illuminate a crime scene. I hope to impart this realization to those working in similar low-light conditions. Electronic flash has tremendous value to photography, but relying on it to document extensive crime scenes can be detrimental to a photographer’s body of work. Outstanding, colorful, and informative photographs can be recorded even in the dimmest of conditions, and capturing such images is of paramount importance in developing into a professional crime scene photographer.

Creating a lasting impression on a jury requires the crime scene investigator to work equally well in divergent environments that range from nighttime crime scene locations to the controlled-lighting environments found in a laboratory. In addition to the technical aspects of photography, such as exposure evaluations and flash calculations, crime scene photographers have the mandate or requirement to impress others with their compositions, showing an investigator’s skill and dedication to the investigation. Putting artistic flair into crime scene images and seeking difficult subjects to photograph will increase the jurors’ opinions of investigators and their work. In the end, what matters is the ability to present a case to the jury while assuring them that the investigation is thorough and accurate. It is true that a photograph is worth a thousand words, but it may be

even more valuable toward the establishment of an investigator's credibility and believability on the stand.

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# Acknowledgments

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Maturing into a confident and valuable crime scene investigator and/or photographer occurs over time and through training, education, and experience. The process of improving one's skills is made much easier through the help of investigators who preceded the novice. Lt. Alton "Glen" Riddle preceded me and has been my inspiration. I could have had no better role model. Although he has moved on to bigger and better things within the police department, we all hope that one day he will find his way home to the crime scene unit. Investigating crime scenes is a team effort and those I work with are some of the best investigators around. I had a great deal of help and support completing this project from other investigators who contributed photographs and ideas. I wish to thank them all for their hard work. They include Jeffrey Crusier, Alton Holmes, Daniel Nunez, Ruth Nunez, Mike Perez, and Andrew Taravella. A special word of thanks must be given to Ernest Aguilera, who always is there to lend a hand at a complex scene or to assist in tackling a difficult investigative task. Without Ernest, I would never have been able to find the courage to write this book. Another tremendously positive influence in my career has been provided by Laura Tierney of U.S. Immigration and Customs Enforcement. Over the years, Laura has always encouraged me to write and teach, and I am indebted to her for all she has done. Curtis Klinge of the Bryan, Texas Police Department has been of great value to my career, not only in the preparation of this book, but also in tackling difficult photographic subjects. Curtis and I discuss difficult photographic situations, experiment with various techniques, and share our successes and failures.

Facing challenging situations serves as a learning experience and some of the more challenging situations are provided in the classroom environment. Students have the uncanny ability to come up with intriguing and devilishly difficult photographic dilemmas. Christine Ramirez has been an important part of my teaching career, working with Texas A&M University and the Texas Engineering Extension Service in putting on crime scene investigation and crime scene photography courses. Christine is a premier investigator and is especially adept in the area of bloodstain pattern analysis. Christine assisted greatly by providing me with bloodstain photographs for this publication.

Taking on the challenge of writing this book could never have been accomplished without the support and love of my family. My parents, Carl



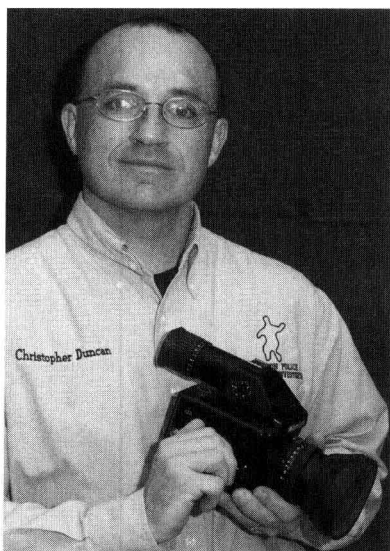
and Pam Schafer, always wanted more from me and challenged me to be better in everything I do. The love and understanding of my wife Rhonda was very important as I worked toward the completion of this project as well. Without her, this book would never have been completed. In addition, her mother, Carole Corey, was of immense value by helping edit my writing, making me appear as if I actually know how to compose a sentence or two. Carole's husband, Ken, was one of my biggest cheerleaders, always interested in listening to the trials and tribulations of a crime scene investigator. I must also thank Taylor & Francis Publishing and my editor, Becky McEldowney Masterman. We met at an International Association for Identification Educational Conference and spoke briefly about the possibility of my writing a book on crime scene photography. From that one innocuous conversation grew this body of work and without her encouragement none of it would have been completed.

My ultimate goal is to encourage investigators to make the extra effort necessary to capture truly outstanding crime scene photographs and to avoid permitting arbitrary computer chips or checklists to determine what, which, and how photographs are recorded. I hope this book starts the creative juices flowing in all of us and that investigators seek out new techniques to record difficult evidentiary subjects. This book should not be taken as a singular guide for crime scene photography, but as an invitation to crime scene photographers and investigators to take a more active role in current photographic work to improve what they are already doing. I trust my book will be informative and encouraging. Furthermore, I hope that every investigator continues to seek the truth in all that he or she does.

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## About the Author

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Christopher D. Duncan is a crime scene investigator for a large metropolitan area in Southeast Texas where he has served seventeen of his twenty-two years in law enforcement. Officer Duncan received his bachelor of arts degree in history from George Mason University in 1987 and his master's degree in criminology from the University of Houston in 2007.

In addition to his university education, Officer Duncan graduated from the Northern Virginia Criminal Justice Academy in 1989, the Houston Police Academy in 1992, and the National Forensic Academy in Knoxville, Tennessee in 2003. Officer Duncan has also completed 1,500 additional hours of training specific to the documentation,

collection, and processing of physical evidence.

He received commendations from his chief of police in 1999, 2000, and 2009; the Houston Police Award of Excellence in 2007; and the Professional Achievement Award from the Texas Commission on Law Enforcement Officers Standards and Education (TCLEOSE) in 2009.

He routinely conducts training at the Houston Police Academy, as well as other agencies in and around Texas. Furthermore, Officer Duncan has offered training at the International Association for Identification (IAI) Educational Conferences. His knowledge and expertise as an educator has taken him coast to coast, offering training in everything from DNA evidence handling to crime scene photography.

Officer Duncan has had numerous articles published in various forensic journals, including the *Journal of Forensic Identification*, the *International Association of Bloodstain Pattern Analysts News*, and the forensic journals of state IAI organizations, including Texas, Georgia, and the Chesapeake Bay divisions.

Officer Duncan is a member of the IAI, the Chesapeake Bay Division of IAI (CBDIAI), and the International Association of Bloodstain Pattern Analysts (IABPA). He was one of the first to receive certification from the IAI as a forensic photographer. Officer Duncan has also served as chairman on the Texas Division of the IAI's Forensic Photography Committee and the Editorial Review Board.

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# Introduction

# 1

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The photographic documentation of crime scenes is the cornerstone of any criminal investigation. The complete and accurate portrayal of a crime scene demands that investigators and photographers thoughtfully and purposefully record true and accurate depictions of the location and evidence. Photographs provide a link between evidence recovered at a crime scene and the identification of a defendant in a court of law. The systematic and complete photographic recording of all aspects of an investigation helps bridge the gap between an individual piece of evidence and the processing of that evidence that leads to the identification of a suspect. Consequently, crime scene photography is an important and required task that must be accomplished with dedication and skill.

All too often, investigators feel they must operate in a robotic or automated mindset, which requires them to record a specific set of images, all with the camera set to Program Mode and recorded as if to checkmark some hypothetical box on some crime scene to do list. Investigators who operate in such an automated mode with rigid parameters miss the opportunity to inspire and excite the photographic images' viewers. Not only should investigators document a scene as true and accurately as possible, they should also strive to create a lasting impression with the viewers, especially those viewers charged with deciding between guilt and innocence in a jury's deliberation room. Creating powerful evidentiary images that make statements and have the greatest impact on the viewers should be the goal of all crime scene photographers. Documenting a crime scene is so much more than fulfilling requirements on an arbitrary checklist. It is an opportunity to show one's dedication and professionalism to the jury, prosecutors, and other investigators. Creating a lasting impression with a jury will go a long way during a jury's deliberations when it comes time to decide who is the most credible and accurate.

Frequently, the fear of venturing away from a camera's program or automatic mode settings comes from a lack of confidence. Investigators are afraid of making mistakes in exposure or composition and therefore rely too heavily on the camera. The only mistake they make is relying upon the camera to do all the work. One can possess the latest and greatest camera, having all the bells and whistles imaginable, but if the command dial is never moved off the automatic mode, one may as well be documenting the scene with a disposable point-and-shoot camera. The photographer, not the camera, is responsible for taking the picture. Composing and orienting a subject with the camera



is just as important to obtaining a proper exposure evaluation. Furthermore, cameras can be easily fooled into capturing under- and overexposed images. A photographer must learn to recognize what the camera is looking at and know how to compensate for difficult compositions, something even the best of photographic equipment cannot do.

*Advanced Crime Scene Photography: Creating a Lasting Impression* is designed for those crime scene investigators and photographers comfortable with their cameras who have a basic understanding of apertures, shutter speeds, ISO values (film speed), “stops” of light, and basic exposure calculations. Countless books and general-photography classes cover basic photography concepts. Applying those fundamental concepts to the thorough documentation of a crime scene is the next step in a photographer’s maturation.

The advancement of an investigator’s skills will improve with time. Common failures among investigators include developing tunnel vision and failing to record sufficient photographs of the evidence, and being satisfied with just a few uninformative images. Subjects need to be oriented within the entire crime scene, shown in relationship to other pieces of evidence, and be properly photographed in close-up detail. Simply recording one or two images prior to an item’s recovery and its forever altered state is vital to the documentation of a crime scene in a true and accurate manner. Taking a thoughtful approach and actively participating in the crime scene photographic process will result in more stunning photographs and more valuable evidentiary images.

## **Review of Basic Photographic Concepts**

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A fundamental understanding of basic photographic concepts is necessary to appreciate the ideas presented in this text. Therefore, a review of the general concepts of light evaluation and exposure principles are appropriate to ensure that everyone is speaking the same language.

Capturing photographic images is all about the recording of light onto film or a digital imaging chip. A photographer can set his or her camera up in a dark room, open the shutter for hours, and not capture a single piece of information. However, a photograph can be taken during the daytime in a thousandth of a second under the right circumstances. Finding the correct exposure between a fraction of a second and an extended time exposure is based upon the amount of light illuminating a subject and the camera settings chosen by the photographer. At times, the range of camera settings may be limited by the equipment, but the fundamental concepts remain the same regardless of whether one is using an older, fully-manual film camera, or the latest and greatest digital single lens reflex (SLR) camera.