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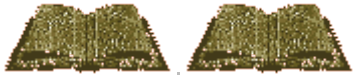
Book Reviews: Technical Books Section



OTHER REVIEWS IN THIS ISSUE
[Technical Books Section] Pages: |1| 2| 3| 4| 5| 6| 7| 8| 9| 10| 11|
[Popular Books Section] Pages: |1| 2| 3|

[Books on CD/Audio tapes] Pages: |1|

REVIEWS IN THE PREVIOUS ISSUE | NEXT ISSUE



BEAUTIFULLY WRITTEN AND WELL-ILLUSTRATED

Henry Lee's Crime Scene Handbook, 1st Edition, *by* Henry C. Lee, Timothy Palmbach and Marilyn T. Miller. Hardcover: ; Dimensions (in inches): 1.0 x 10.00 x 7.50.
Academic Press, Harcourt Place, 32 Jamestown Road, London NW1 7BY, UK. Date of publication 2001; xvi+416 pages, ISBN 0-12-440830-3. Price $69.95

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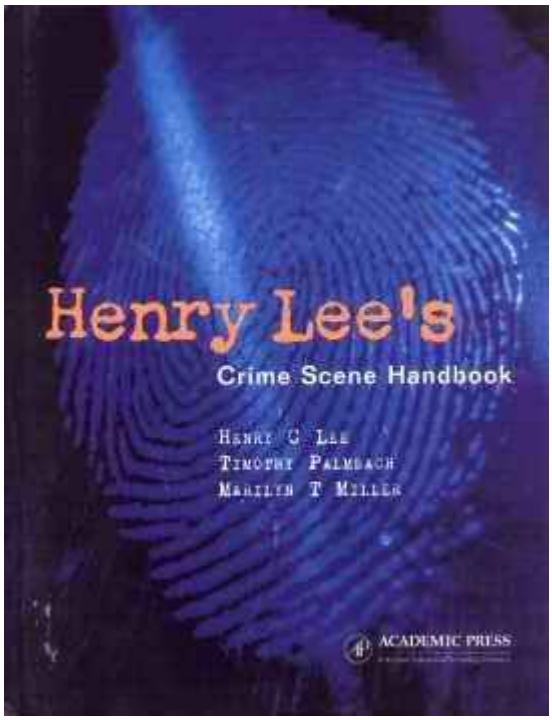


Crime scene investigation is the most important part of the investigation for any crime, be that a violent or a non-violent crime. A good crime scene investigator is one who doesn't rely on haphazard instincts but on methodical scientific procedures to examine the crime scene to solve the crimes. And for that one should be aware of the various procedures that are required during a crime scene search. To mention all those procedures in one book is practically not possible unless one wants to write a book large enough to be carried on wheels. So the present book, we think, is of adequate size imparting relevant information in a reasonable space.

View this book on Amazon

We all know Lee very well. He was the brain behind the famous O.J. Simpson case. He also testified in a number of other celebrity cases, some of them being the Mathison murder case, The Woodchipper murder case, The Sherman case and the MacArthur case. In one case, after Lee - through blood spatter and other evidence - had methodically walked the court through each step the killer took during the murders, he (the killer) was heard to whisper in amazement, "How the hell did he know?" Judge Charles D. Gill of the Connecticut Superior Court thinks it's because he is the brightest criminologist in the world. At last Lee has written a book, where he shares his secrets with all of us.

"It's the investigators who read the books, not the criminals" is an old saying. The truthfulness of this can be judged from the fact that in spite of so much crime taking place, no two crimes are similar. In other words, there is a very big possibility that a situation once encountered will not be encountered again. This makes the job of crime scene investigation all the more important.

Almost certainly any new criminal case will have elements that have never been encountered before. This is one of the points that have been highlighted so very often in this book. And what a beautiful job the authors have done in putting across this point. To circumvent this problem they

have shown the various flow charts called 'logic trees' in chapter 7. They give a broad overview of how a crime scene investigator should proceed in various types of crimes, in spite of them being different.

Table of Contents

S.no.	Topic	page
1	General Crime Scene Considerations	1
2	Elements of Crime Scene Management	19
3	General Crime Scene Procedures	49
4	Crime Scene Documentation	73
5	Searching for physical evidence	113
6	Collection and Preservation of Physical Evidence	131
7	Logic Trees	183
8	Field Tests and Enhancement Reagents	201
9	Special Scene Techniques	233
10	Crime Scene Reconstruction	271
	Appendix I: Crime Scene Investigation equipment inventory	321
	Appendix II: Game plan for processing	325
	Appendix III: Resources and Supplies	333
	Appendix IV: Bibliography	343
	Case Study 1: Partial Reconstruction (Focus point: Blood stain pattern analysis)	347
	Case Study 2: Complete Reconstruction (Focus point: Shooting scene reconstruction)	365
	Case Study 3: Limited Reconstruction (Focus point: Location of Physical Evidence)	399
	Index	411

Having discussed the high point of the book, although a bit out of place, let us now move in a methodical manner (like a crime scene investigator) to discuss the other high and low points of the book. First and foremost, we would like to praise the authors for the quality and quantity of the

photographs. "A photograph can describe what a thousand words can't", and nowhere is this more applicable than in forensic sciences. In this book the authors have used photographs extensively to express and highlight their points. The important thing is that the quality of the photographs has not been compromised in any way.

The next thing that is noticeable is the division of the book in chapters. The authors have divided the book in chapters beautifully, starting from the first thing that is to be done on reaching the crime scene and moving further. Its advantage lies in the fact that the procedure is made simple and easy to grab. The methods of how the crime scene is to be approached, how is it to be examined and documented, the methods of search etc. have been explained in great detail. The methods of examining the crime scene like line, grid, spiral etc. have been thoroughly explained along with the relevant diagrams. The various ways of documentation like sketching, video graphing, photography etc. have been explained extensively by giving each topic the treatment it deserves.

Chapter 8 entitled "Field tests and enhancement reagents" needs special mention. In this chapter the authors have described the various tests that can be used in the field for the trace evidences that can be found at the crime scene. Along with the methods, the authors have provided with photographs that are highly informative. These photographs, as we have mentioned earlier, are of extremely good quality. They tell us about the positive test results that are to be expected while using these tests.

The chapter on "collection and preservation of physical evidence" has described briefly the methods used for collection of trace evidence. All these methods cannot be described totally in a single book. Keeping the size of the book in mind, they have been described properly and adequately.

A brief mention should also be made about the "special scene techniques". Here the authors have described about the types of crimes that are either not usually encountered or are going to be encountered in future. These include crimes like arson, terrorist attacks and most importantly in the modern times computer-related or cyber crimes. Again the shortage of space has forced the authors to limit their description to the bare essential. We think these cases should have been described in some more detail as these are something that are going to consume a lot of time, energy and logistics in future times.

Training a crime scene investigator to use the majority of these reagents is not difficult or complex. Following a simple sequential procedure with prepared reagents is all that is required with most tests. The interpretation of testing results is often straightforward and simple, such as observing a color shift or formation or fluorescence. However, some results require interpretation by more experienced or trained personnel. Unfortunately, the novice or relatively inexperienced personnel using these tests may not even be aware that they are observing a false positive or problematic result and thus can reach an erroneous conclusion.

Lee's book is full of illustrative and instructive photographs. This one appearing on page 171, shows an overall view of a sexual assault/homicide victim. Several bite marks were noticed

on the victim's right shoulder. Blood stains and seminal evidence were also found on her body and at the scene



One way to minimize this problem is to require formalized training in the use of these reagents and testing procedures before allowing their application to actual case or crime scene applications. This training should include considerable practical exercises and interpretation of results. Ideally, only trained personnel are allowed to use field tests and enhancement reagents. Despite the simplicity of the basic procedure, it is helpful to have an understanding of the underlying chemical reaction or mechanism.

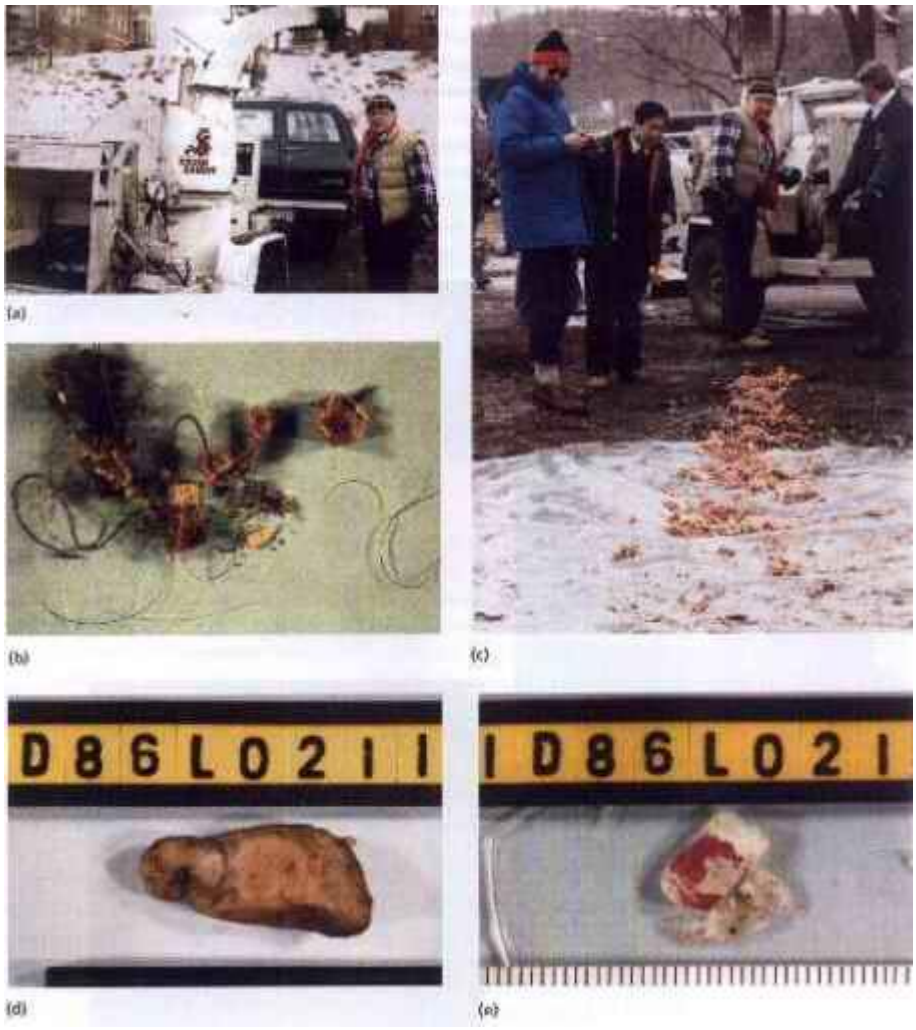
At several places Lee tends to explain with actual examples. Needless to say that real life examples go a long way in making even difficult concepts very easy to understand. Case histories give the reader an idea how a situation has been dealt with previously and what are the do's and don'ts that are to be followed when one encounters a similar situation. It also gives the readers an idea about the past follies and how they can be ignored and prevented in future.

The following extract from Chapter 8 (Field Tests and Enhancement Reagents) would illustrate how easily Lee explains his concepts, mixing his actual cases with science involved. After a brief introduction to the various applications of field tests and enhancement reagents, Lee goes on to say this:

Excerpts:

As valuable as these tests and reagents may be to investigators and forensic scientists, there are certain precautions that must be heeded. Field tests are designed for screening purposes and should not be utilized in lieu of laboratory analysis and confirmation testing. As a general rule, if the amount of available sample for testing is so minute that there may not be sufficient material for a full array of testing, then, if at all possible, avoid field tests so as to preserve the sample for laboratory analysis.

This series of photographs shows how Lee solved the famous Woodchipper murder case. For captions, please see excerpts



However, this form of presumptive testing should not be taken too lightly as results of field tests may provide important investigative leads. For example, in an investigation into the disappearance of a wife, investigators received information that the suspect was operating a large wood chipper along a river bank during the general time frame when his wife was reported missing. In addition, extensive cleaning of bed sheets and removal of carpet and furniture had also taken place after his wife's disappearance. Luminol and tetra-methyl benzidine reagents were sprayed onto washed bed sheets, towels, bathtub, and floors. A large number of samples yielded positive results. Subsequently, the actual wood chipper rented by the suspect was seized as evidence and systematically disassembled. No visible signs of blood, tissue or suspicious trace material were found. Fragments of hair and fiber evidence were recovered. Presumptive tests for the presence of blood were conducted in the blade and bearing assemblies, yielding positive results for blood. Although there was insufficient sample available to conduct any confirmatory testing due to extensive cleaning these results provided detectives with valuable investigative leads. Photos 8.l (a-e) depict investigators and laboratory scientists working together as a team searching for physical evidence.

These Photographs (reproduced above and on the right) are from the State v. Richard Crafts 'wood chipper' murder trial. (a) Crime scene supervisor standing next to the wood chipper rented by the suspect and believed to have been used to shred portions of his wife's body. (b) Close-up view of fibers, hairs, wood, and tissue debris located along the river bank where the suspect was seen operating the wood chipper during night hours.

(c) Dr Henry Lee, Medical Examiner and detectives conduct an experiment with wood chipper to determine the distribution of flesh and bone material (a slaughtered pig was placed in the wood chipper) and obtain known fragments for microscopic analysis of the tool marks on bone, associated with the chipper (d) One of the largest pieces of tissue located along the river bank. This specimen was the upper portion of a human finger

(e) Close-up view of a Fingernail with nail polish. A sample of this polish was instrumentally analyzed and compared to a sample of nail polish recovered from the victim's home.

In addition, tissue and blood crusts were located on pieces of a disassembled chain saw recovered from a river bottom. Also, numerous items were located on the riverbank. Fifty-six bone chips, a tooth, a portion of a finger and attached nail, and 2660 hairs were among the recovered items. These findings were instrumental in the conviction of her husband for murder.

Lee winds up his book with very illustrative three case studies, relating to partial, limited and complete reconstruction. It is indeed true, that crime scene investigation can never be learned by reading books alone. This is one area of expertise that has to be acquired with experience. But to get that knowledge and experience one HAS to study books and draw upon the experiences of great masters. And the present book is one of the most well-compiled, easy to read and understand, thorough and beautifully written books that can go a long way in making one a better crime scene investigator.

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