

## BOOK REVIEW

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### *A Review of Criminal Investigation—A Guide to Techniques and Solutions*

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**REFERENCE:** Vandiver, J. V., *Criminal Investigation—A Guide to Techniques and Solutions*, The Scarecrow Press, Inc., P.O. Box 656, Metuchen, NJ 08840 and London, 1983, 398 pages.

This book is essentially a publication of numerous annotated bibliographies which covers a very broad range of subjects in the field of criminal investigation. As such, it is a useful reference text for students or novices in this field. In the opinion of the reviewer, the text does not provide any new information of value to the experienced investigator or forensic scientist.

Although many of the references in the book are excellent, frequently only one reference is cited per subject area. In these cases, the reader is presented with only a limited scope of information and possibly a biased point of view. Usually, there are differences of opinion concerning the value of certain types of evidence, investigative procedures, and forensic laboratory techniques. Failure to include a broad spectrum of these divergent opinions could leave the reader with false impressions.

The numerous annotated bibliographies extend over a wide range of subjects; however, often the information is not arranged in a logical sequence. For example, one would expect to find references concerning evidence such as arson and bomb debris in the section on "Physical Evidence" instead of the more general section on "Crimes." The technique of laser detection of latent fingerprints is found only in the section on "Crimes" and there is no mention of this technique where fingerprints are discussed in the Physical Evidence Section.

At first impression, the text appears to be a thorough review of the literature; however, close inspection reveals the omission of important subjects such as ink, paper, typewriting, obliterated writing examinations, and the dating of documents. Also, only one reference is given for the use of laser technology to detect and enhance latent fingerprints. Numerous research papers have been published on laser detection of fingerprints, and this technique and its applications are expanding rapidly. No reference is made to the recently developed applications of Super Glue® (cyano acrylate) and crystal violet techniques for the detection of latent prints on physical evidence. All of these techniques should have been referenced more extensively.

The extensive work of the Israelis and the U.S. Bureau of Alcohol, Tobacco and Firearms on laboratory explosives detection and identification procedures is not referenced. Throughout the text there are references to specific laboratory methods for the detection and identification of various types of physical evidence; however, specific reference to methods for

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the identification of explosives are few and insufficient to describe adequately the work that has been conducted in this field. Document dating using ink analysis techniques has been widely used and publicized for at least ten years and this information is absent. The latest laboratory methods using absorption-elution techniques for the detection of minute quantities of accelerants in arson debris were omitted, as were references to the more recently developed portable accelerant detectors.

Some references are misleading. For example, one reference states that generally if the odor of an arson accelerant is not perceptible, it cannot be detected instrumentally. This is not true. Using modern day absorption-elution techniques coupled with gas chromatography, accelerants are frequently detected in the absence of any odor. In another instance, an erroneous reference to the implementation of the use of explosives taggants in dynamite in the United States is given. Although a pilot program of this type was initiated, full implementation of an explosives tagging program in the United States never occurred. In the same reference, the author states the taggant consisted of multilayered paint chips. Actually, the taggants were made of a plastic-type material with the outside layer being magnetic and fluorescent for ease of detection.

There is one example of the length of time required to process a crime scene. The reference is for one specific crime and is hardly typical of the length of time to process a crime scene which is dependent on such factors as the type of crime, the evidence found, and the availability of crime scene personnel. This and other such references are misleading to the reader. Another reference is misleading because it indicates that absolute identification of flammable fluids can be accomplished using a portable gas chromatograph. There are few, if any, instances when absolute identification of any material is possible. Identification of a highly weathered, flammable fluid of a specific type and after a fire is a challenge by any method.

In summary, even though the book appears to consist of little more than randomly collected annotated bibliographies, it contains useful reference material for the novice. The book provides a little information on many topics in the field of criminal investigation. The reader should only use the text as a guide, however, because of the occasional misleading information present and because some important information was omitted.