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BOOK REVIEW

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A Review of "The Use of X-Ray Techniques in Forensic Investigation"

REFERENCE: Graham, D., *The Use of X-Ray Techniques in Forensic Investigation*, Williams and Wilkins, Baltimore, 1973, 142 pages, $13.50.

In his preface the author states that this is the first attempt to collate applications o X-ray techniques in forensic investigations. Besides methods of others, a number of the procedures presented have been developed by the author himself. Thus, he has compiled a survey of what he considers to be the state of the art as applied to forensic science.

The text itself is brief and methods are described in a simple manner. Whether there are other X-ray techniques applicable to the field of forensic investigation is difficult for one not active in this specialty to judge, but the book does include significant applications in a number of fields.

There is a discussion of X-ray applications to fingerprint investigation which describes advantages, in some instances, over older techniques. The author has developed an interesting procedure for revealing fingerprints on skin, suggesting that this would be of particular advantage in cases of death due to violent or sexual assaults.

The most commonly recognized uses of X-ray techniques are undoubtedly in the field of forensic medicine. Medical examiners and coroners are familiar with the medical applications of X-raying, and it is a natural transition to use the same techniques in their investigations. Location of bone fractures and of bullets in the body are among the logical extensions of nonforensic uses. The importance of X-rays, especially dental, in disaster identification work is also cited. Here the author emphasizes the particular advantage of the X-ray in the examination of burnt bodies.

X-ray techniques have a few applications to the examination of documents and the author describes in detail his particular methods for X-raying paper. The method may occasionally prove to be an improvement over other available procedures, especially when interfering writing or printing cannot otherwise be eliminated.

Besides the discussion of applications the book also contains a brief review of the origin and nature of X-radiation and a discussion of electronography. In a short chapter grenz rays are described, and their uses in connection with the examination of paintings and documents, as well as gunpowder patterns and fingerprints, are touched upon.

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Finally, several radioactive sources are mentioned, and the advantages of radioactive iodine-125 is included.

The book has an ample number of illustrations which are well reproduced. In all, over 50 pages of the 140-page presentation are devoted to illustrations.

A major drawback is the lack of a bibliography of significant papers relating to the subjects discussed. This would have added immeasurably to the value of the presentation, especially for forensic scientists who are not completely familiar with certain problems discussed. Despite this drawback, however, this short monograph does have value and one can hope that its publication will lead to wider use and application of X-ray procedures in forensic investigations.