

## BOOK REVIEW

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### Review of: *Principles of Bloodstain Pattern Analysis: Theory and Analysis*

**REFERENCE:** James SH, Kish PE, Sutton TP. *Principles of bloodstain pattern analysis: theory and analysis*. Boca Raton, FL: Taylor & Francis CRC Press; 2005.

This book is the most comprehensive book on the subject of bloodstain pattern analysis to date. After the obligatory introduction and history chapter the authors present the material in a straightforward logical manner in 20 chapters.

Of great significance is the decision of these authors to discontinue the classification of bloodstains and bloodstain patterns by velocity. The use of low-velocity impact blood spatter (LVIS), medium-velocity impact blood spatter (MVIS), and high-velocity impact blood spatter (HVIS) has been a terrible albatross in bloodstain pattern analysis for many years. This gross oversimplification of bloodstain patterns into HVIS, MVIS, and LVIS has caused many analysts to error in their interpretation of bloodstain patterns during the last 30 years. I am glad to see that these authors have recognized this error and have done something about it.

This book classifies bloodstains by their geometric appearance and taxonomy. This has been talked about and even mentioned in texts before, but this is the first time that this type of system has been presented in a systematic and complete manner. The three main bloodstain categories are Passive (drops, transfer, and flow patterns), Spatter (impact, secondary, and projection mechanisms) and Altered (clotted, diluted, diffused, insects, and voids).

Chapters 5–9 go through each of the bloodstain types found in the classification system in detail. Care is taken to present the specific characteristics of each of the pattern types. A number of these bloodstain patterns overlap in size and appearance, and the authors point out the great caution and care needed to properly interpret these patterns. For example: coughed (expired) blood may often be indistinguishable from gunshot or impact spatter.

The text is augmented by a great number of high-quality color photographs, which greatly enhance the written descriptions. The authors also present a number of actual cases that show examples of the patterns being discussed.

I especially liked the inclusion of material concerning bloodstain patterns produced by medical conditions (e.g., esophageal varices, varicose veins, etc.) as well as the numerous practical tips on how to approach a bloodspatter case and the difficult task of writing reports in bloodspatter cases. Sprinkled throughout the book are numerous “words of wisdom” that these authors pass on to the reader. For example: “The analyst should always remember that there is no shame in saying ‘I don’t know.’ Erring to the side of caution should always prevail over unfounded opinions.” (p. 336)

The authors present a very even-handed philosophy with regards to the proper use of bloodstain pattern analysis. By this I mean that they present case examples that exonerate the accused as well as point to guilt. They are emphasizing that “science is neutral.” This is probably because of the fact that all three of the major authors have a strong science background and clearly present the material as scientists. They often quote pertinent research in the text as well as including a comprehensive list of references in the back of the book.

To make the book a complete resource the authors have recruited nine other experts to write on specific subjects. Chapters concerning medical aspects of bloodshed, presumptive blood tests, the use of Luminol, chemical enhancement techniques, directional analysis using the computer, and the legal and ethical aspects of bloodstain-pattern evidence were all presented by outstanding and well-recognized experts in these specialized areas. At least four of these specialized chapters were virtually identical to chapters by these same authors published in previous books as early as 1998. These chapters could have been augmented or updated.

I highly recommend this book to forensic scientists, criminal investigators, first responders to crime scenes, and attorneys. BRAVO to these authors who have produced the new “standard” for a reference book in the field. Yes, there will be updates and revisions in the future, but for now it is the most complete text around.

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