BOOK REVIEW

William J. Flynn¹

A Review of Principles of Forensic Handwriting Identification and Testimony

REFERENCE: Smith, E. J., *Principles of Forensic Handwriting Identification and Testimony*, Charles C Thomas, 2600 South First, Springfield, IL 62717, 123 pp., \$24.75.

The stated purpose of this book is to provide a "new approach to forensic handwriting identification theory" for the novice and experienced document analyst, trial counsel, and investigators. The "new" approach espoused by the author involves the use of set theory, calculus of probability, and the psychology of learning to provide the logical foundation for the three-part "house of truth" referred to in the text as the "tridium of handwriting identification."

The author apparently attempts to develop an all inclusive, step-by-step methodology which, if followed precisely, must result in accurate and logical conclusions. The intent may be noble; the reality of the treatise, however, is quite another matter, What comes through this laborious text is a pompous, ponderous, and jargonized 118 pages.

The author states, for instance, that "each of (seven) pretest examinations should be performed on *all* documents brought to the attention of a handwriting analyst." Number two in the text is ultraviolet viewing (Number four is ultraviolet fluorescence). How does the author view reflected ultraviolet light? Also, how does Smith photograph reflected ultraviolet for a permanent record? To the best of this reviewer's knowledge, his own laboratory does not have the quartz lenses necessary to record the short or medium wavelengths of ultraviolet light. Step Number seven involves checking all documents for secret writing by subjecting them to heat. This reviewer finds it very difficult to believe that all stolen social security checks, welfare checks, and so forth that pass through this author's laboratory are checked for "secret writings." By stating, however, that this is (or should be) standard procedure, the author provides ammunition to attorneys who will now certainly imply that an examination of a simple check endorsement case was incomplete because it was not subjected to the "seven pretest examinations."

In Chapters III and XI, the author discusses the importance of document examiners becoming familiar with Professor Simon Newcomb's probability theory. The author discusses, in these chapters, his belief that any valid identification rests on the probability of two events occurring together (such as two fingerprints being identical or two different writers producing exactly the same letter forms). Mathematics and probability calculus provide one of the two "supporting pillars" in the author's "House of Truth." If that is the case, then the author's house has long since crumbled. Not once in his three attempts to show how probability theory

¹Arizona Department of Public Safety, Questioned Document Laboratory, 2010 W. Encanto Blvd., Phoenix, AZ 85009.

works did the author's math come close to being correct. On page 17, for instance, he states that 5 raised to the 12th power (5^{12}) is 241 140 625; the correct answer is 244 140 625, off by three million. On the same page, the author states that 5 raised to the 24th power is "55 844 870 025 390 625." He is off the mark by almost 4 quadrillion; the correct answer being 5.960 465 \times 10¹⁶. In Chapter XI, page 63, Smith claims that 6^{14} = "261 445 387 972" (the correct answer being 78 364 164 096). What makes this so ludicrous is the fact that the author did not even realize that 6 raised to any whole number *must* end in a 6!

In the opinion of this reviewer, the book is laborious and redundantly written. Most of the information has already been published by numerous authors in the questioned document field over the past 50 years. The new ground the author attempts to break, that is, a set theory approach to forensic handwriting, is cumbersome, impractical, and, in most instances, totally unnecessary to produce a valid handwriting examination. The final chapter (and final straw) is the author's allegation that his examination formulas provide a basis for a handwriting identification and classification system which will codify or "describe the fundamental steps followed in forming letters." It should then be possible to use his work as the basis to computerize handwriting identification. Since the treatise ends with computers, this reviewer will summarize the book in an acronym that is axiomatic to programmers—GIGO.