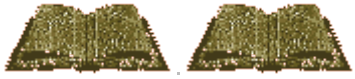
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Technical Books Section

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OTHER REVIEWS IN THIS ISSUE
[Technical Books Section] Pages: |1| 2| 3| 4| 5| 6| 7| 8| 9| 10| 11| 12| 13| 14| 15| 16| 17| 18| 19| 20| 21| 22| 23|
[Popular Books Section] Pages: |1| 2| 3| 4| 5| 6| 7| 8| 9|

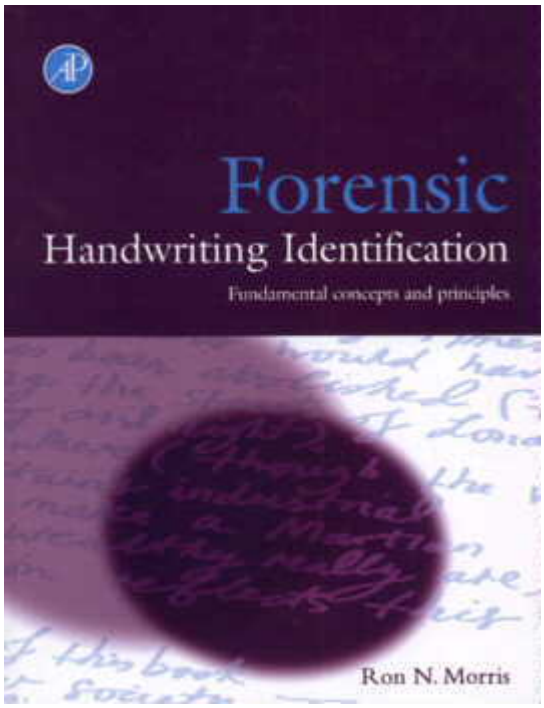
[Animated Reviews] Pages: |1| [Software/Multimedia] Pages: |1|2|

REVIEWS IN THE PREVIOUS ISSUE | NEXT ISSUE

HANDWRITING SECRETS

Forensic Handwriting Identification: Fundamental Concepts and Principles *by* Ron N. Morris Academic Press, Harcourt Place, 32 Jamestown Road, London NW1 7BY, UK; 238 Pages: ISBN 0-12-507640-1: Hardback edition, 2000: Price £46.95

Click Cover to buy from Amazon



Let me start with an interesting quiz question,"Who was the last Indian to be hanged for forgery?" The answer is - Nanda Kumar, in 1775. For those who are interested in the details of the case, Nanda Kumar (also spelled sometimes as Nand Kumar) was a *Brahmana* (the highest caste among Hindus) of high rank, who held an important position in the Government of Siraj-ud-daulah, the Nawab of Bengal. At that time the Governor of Bengal was Warren Hastings (who incidentally is perceived in the Indian subcontinent as one of most corrupt politicians in history). Hastings had deprived Nanda Kumar of his house, and had shown special favors to his foe, one Mohan Prasad who was the executor of an Indian Banker. Stung by this humiliation, on 11th March 1775, Nand Kumar charged Hastings with taking presents from various people. One damning charge was that he took Indian Rupees 354,105 from Muny Begum, the widow of Mir Jafar. Even today, this amount is fairly opulent, let alone in that time when it must at least be a thousand times more valuable. According to Nanda Kumar, this bribe was taken to place her in control of the Nawab's household. Historians are divided over the fact if these charges were true. The fact however is that Hastings refused to meet the charges. The matter was placed for trial before his Councilors (who numbered 4 - Monson, Barwell, Clavering and Philip Francis - most of them hostile to Hastings). Quite predictably, the council decided that the charges were true, and that Hastings should deposit that amount in the Company's treasury.

View this book on Amazon

This decision was later reversed in 1776 by the law officers of the Company in England. Meanwhile Hastings was not sitting quiet. He got his revenge by implicating Nand Kumar in a forgery case. In the month of May, 1775, Mohan Prasad, who is widely perceived as a stooge created by Hastings, charged Nand Kumar with forgery in connection with a will executed five years before. Forgery was a capital crime in England, but not in India, and it is doubtful, if English law should have prevailed over the Indian natives. Anyway, he was tried by the Supreme Court (which by the way was created by the *Regulating Act* of 1773, and whose jurisdiction remains doubtful to this day) and a jury, found guilty, sentenced to death and hanged.

Which brings us to the main question (which incidentally has troubled my mind ever since I first read of this case some 20 years back): what was the evidence used in this case? To the best of my knowledge, no authentic evidence was produced. There were no handwriting experts in those times, who could detect forgery on a scientific basis. Sir James Stephen has stated that,"if he had to depend upon the evidence called for the prosecution, he would *not* have convicted the prisoner." It does appear that some preconceived notions swayed feelings at that time.

This case, more than anything else, underlines the dire need for a scientific way to detect handwriting forgery. Can a conviction - let alone hanging - take place without taking any scientific evidence into consideration? While the book discussed on the previous page discusses all kinds of documents and their examination, the current book focuses just on handwriting and its authentication and comparison. Or in other words, while the first book gives a general overview of the art of document analysis, the second one zooms in on handwriting analysis alone. Readers who want to explore further into the art of handwriting analysis may want to try this book.

Can you answer these questions? The book is packed with interesting information on handwriting identification. Here are some questions you should be able to answer after reading this book. You may want to try these questions now. For answers see the box below and to the left.

Qu 1. Are there principles of the writing movement that can be relied on?
Qu 2. Is it possible to know the nationality of a writer from his handwriting?
Qu 3. Do handwriting features differ in right-handed and left-handed individuals?
Qu 4. What is a feather stroke?
Qu 5. Is taking a sample of handwriting from a person for comparison purpose, a violation of his right against self incrimination?
Qu 6. What is the difference between a "handwriting expert" and a "Forensic Document Examiner" (FDE)?

The book very rightly starts with the concept of *Graphic maturity* and then goes on to give the details of physiology of writing. It might be surprising to some of us, but indeed there is a thing called "physiology of writing" as writing is a function of nerves, muscles and their co-ordinated activity. But first something about Graphic maturity. The writer tells us that there are various levels of graphic maturity of a writer. First of all, a child learns to make letters simply by making different strokes. In other words he acts by what is called the *Stroke impulse*. This is the first level of graphic maturity. As he matures, he begins to think in terms of letters and makes letters as a unit. This is the *letter impulse*. He then goes on to mature to syllable impulse, word impulse and finally sentence or phrase impulse. This is the final stage of the graphic maturity of a writer.

The writer now goes on to give the seven physiological principles as enunciated by Saudek in 1978. For instance, principle number one is that for a graphically mature writer, the various movements involved in handwriting are habitual. Second principle enunciates that the hand muscles function best when making rhythmical contraction and relaxation movements. The third principle enunciates that the relaxing of a muscle requires more time than its contraction when the writer is fatigued, because relaxation becomes more difficult. A proper understanding of all these physiological principles goes far in identifying an individual from his writing.

Is the level of graphic maturity of a writer dependent in some way to his level of education? No, tells us the author. A person may not be formally very much educated, but his nature of job may require him to write a lot (say a clerk). On the other hand, a Ph.D. in, say, economics, or physics, may not be writing too much. The level of graphic maturity of the clerk would be more than that of the Ph.D., although he is lesser educated.

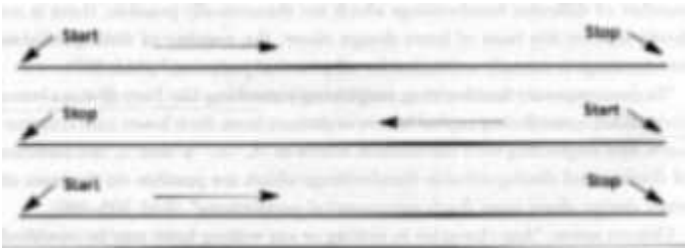
The "3W" Letter form



Chapter 2 is on Handwriting systems, and in this chapter the author informs us about the various handwriting systems. What is a handwriting system in the first place? They are basically optimal solutions to a large and unique set of constraints, including the structure of language represented, the function that the system serves, and the balance of advantages to the reader as opposed to the writer. Plainly and simply put, it is a way of writing letters. The author informs us of an interesting example of cultural influences on writing. Before 1960s - the time when many Black and White students began attending the same school - African Americans had a peculiar way of writing the 'W'. It was written with a strange flourish to the left, which looked much like the numeral '3'. Because of this, this type of letter became known as "3W" or "black W". Now it is seen in many other cultures too.

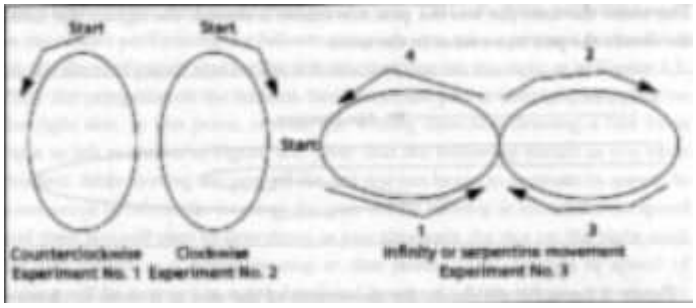
Chapters 3 and 4 discuss class characteristics and individual characteristics respectively. Everyone's writing consists of a combination of "class" and "individual" characteristics, and it is this different "mixture", which makes everyone's writing so unique. Characteristics which are common to a group of individuals, and especially those which may be influenced by a common environmental or cultural influence are known as the class characteristics. Individual characteristics on the other hand are characteristics which are unique to a particular individual. As a writer matures graphically, he departs from the use of some class characteristics and introduces more and more of his individual characteristics.

A simple experiment illustrating the concept of one movement-unit



This reviewer found the chapter on individual characteristics quite interesting, particularly because the author encourages the reader to undertake some simple experiments to illustrate how writing can differ in different individuals. First of all, he clarifies the concept of a movement-unit. It refers to the track which the pen covers between one pause and the next. This concept is illustrated in a fascinating way by a simple experiment. Make two dots on a piece of paper, and trace your pen from one dot to the other. When the pen reaches the second dot, retrace the line back to the first spot. Some interesting observations are made during this simple experiment. The speed of the pen increases after leaving a dot, and is maximum somewhere in between. After that it decreases once again, till the pen comes to a final stop.

Another simple experiment suggested by the author to confirm the concept that writers usually introduce their own individuality in the connecting line between two pauses.



The starting and stopping points in this line are the pauses, because here the writer stops. The line represents one movement-unit, because it comes in between one pause and the next. The idea of knowing this? Well, the writer tells us that regardless of writing direction, or the location of pauses, an opportunity exists for the writer to introduce his own individuality in the connecting line between two pauses. The author gives some more interesting experiments to confirm this statement. In one of these experiments, the author asks us to make a series of elliptical movements in a counterclockwise direction. First of all we are asked to make these motions at our normal slant, i.e. the slant that we normally use while writing. Next, he asks us to change this slant gradually to the left and to the right and note the effect on the lines and their shape. The book gives interesting interpretation of this and some other experiment that are suggested in this chapter. Many other interesting topics are dealt with in subsequent chapters. Some of the topics that feature in latter chapters are features of writing, qualities of writing, line quality, relative speed of writing, ratios-relative relationships, beginning, connecting and ending strokes, writing instruments and their influence, the process of comparison and so on.

Some more scientific principles are introduced in chapter 12 entitled "Some General Observations about Handwriting Identification". Principle number 1 says, no two people write exactly alike. The second principle states that no one person writes exactly the same way twice. A total of five similar principles appear in this chapter.

Is handwriting identification an art or science? Well, to answer this question, first of all, we have got to be very clear about our conceptions of the terms art and science. The author goes on to define "art" and "science" and then tells us that Handwriting identification is both an art as well as a science!

Answers
Here are the answers to the questions asked in the box above
Ans 1. Yes! (*Page 16*)
Ans 2. Upto around 1966, it was thought that it was possible by analysing the *Style Characteristics* of a person's handwriting. It is no longer considered a correct view. (*Page 21*)
Ans 3. Yes! For instance, some left-handed writers make ovals that are misshapen because of the way they hold their pens. (*Page 38*)
Ans 4. It is a light non-continuous line between two letters, parts of a letter, words etc, as shown here.  (*Page 111*)
Ans 5. No, it is not. In the landmark case of *Gilbert V. California 388 US 263*, decided by the Supreme Court on 12 June 1967, it was held that taking handwriting specimen's does not violate an individual's rights. The court also cited *Schmerber V. California*, where it was held that the

Fifth Amendment offers no protection against compulsion to submit to fingerprinting or photographing, etc. (*Page 187*)

Ans 6. A "handwriting expert" may be a graphologist or graphoanalyst who tries to determine the personality of a person from his handwriting. An FDE on the other hand tries to *identify* an individual based on his handwriting.(*Page 197*)

Who would find the book most useful? The book would of course be useful for document examiners and those training to become one. But it should also be useful for prosecutors, solicitors, attorneys, lawyers, judges, and various kinds of law enforcement investigators such as police officers, constables and special agents. One may ask, how such a book might be useful for, say, a police officer. Well, the book has a separate section entitled "Guide to use", which explains with examples, how each of the categories mentioned above may find the book useful. The following example appears to explain how the book might be useful for a police officer. Suppose he is investigating a credit card fraud, where purchases worth about $12,000 have been made illegally on the card of a medical doctor. Besides the doctor himself, only two other people - his wife and his office manager knew the card number. The office manager had to know the number, because she used to pay his bills. It turns out that the wife had no motive to cheat her husband, so the suspicion naturally falls upon the office manager. Where does the police officer go from here? Does he submit her to intense interrogation hoping for a confession? Or - if he is more scientific minded - does he subject her to, say, a lie detector test? No, says the book; he simply goes ahead and obtains her handwriting samples. This would include *original copies* of her office work. The police officer also collects all the credit card vouchers from local merchants. He then contacts a competent Forensic Document Examiner (FDE) and asks him to compare the two handwriting specimens, and lo, the suspect is caught. But he can only do this, if he knows handwritings can be compared, and who can do this task. It helps, if he also knows what techniques the FDE uses to compare documents, and for this he must read this book.

I would heartily recommend this book to all forensic document examiners, students of questioned document analysis, law enforcement officers, attorneys, lawyers and perhaps even members of the general public wanting to know more about forensic handwriting analysis.

Order *Forensic Handwriting Identification: Fundamental Concepts and Principles* at a discount through this online journal by Clicking here

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