

## Further Reading - Handwriting Analysis



One of the oldest investigative sciences is handwriting analysis. People have been forging wills, bank drafts and cheques ever since their invention. Police also study handwriting in connection with hold-ups, ransom and suicide notes. Experts were not accepted in this field until the late 1800s, but even with expert testimony, it was difficult to convict a person without a confession. It wasn't until 2002 that anyone published a convincing study proving the scientific utility of handwriting analysis. Sargur Srihari, of the State University of New York at Buffalo, looked at 1,500 U.S. handwriting samples. Through computer analysis of 10 specific characteristics, the researchers established that it was possible "to determine the writer with a high degree of confidence."

It should be noted that forensic document examination (or questioned document examination, as it is commonly known) is frequently confused with the field of graphology. Graphology is the study and analysis of handwriting especially in relation to human psychology. Graphologists have been employed to understand the psychology of criminals, including serial killer Ted Bundy, but critics of the profession question the lack of empirical evidence in the field.

The Calgary Police began studying disputed handwriting at the turn of the century but have always had to rely on experts to present the evidence in court. Early experts were either self-taught or were bank tellers, lithographers or teachers of penmanship. Now Forensic Document Examiners (FDE) are known and respected professionals, with specific training standards comprising to two years of study plus a university degree. The field is still a rather small segment of the forensic science field and university programs are rare. Most of the training is done as an apprenticeship with an experienced document examiner. FDEs examine questioned documents (QD) from samples of handwriting to computer printouts and other typed samples.

Handwriting analysis is particularly useful for cases that involve forgery. Forged signatures are studied for style, angle and pen pressure. Allowances are made for writing conditions, such as space, purpose of signature, paper, writing instrument and changes in mood or age. Forgeries are often traced and will have

gaps or pauses in the connecting lines. They will be studied in appearance and are usually longer in final length. In order to compare a forged signature, it is necessary to obtain a sample of the suspect's handwriting. This is best achieved if the suspect is unaware of the purpose of the sample. Since 1938, the RCMP have employed scientists to work in the document section of their forensic laboratories. Forensic science is the use of scientific techniques to study evidence that will then be used in a court of law.

Scientists working in the document section study samples of handwriting, typewriting and computer printouts. Experts can often tell the make and model of a computer printer based on data collected from studying all of the makes and models ever made. The characteristics of a certain make or model of printer are determined in the factory and include printing style amongst others. These are called class characteristics. After use, computer printers acquire their own unique characteristics such as spacing or damaged typeface. These are called accidental characteristics and are used to identify a specific printer. A sample of text from the suspect's computer printer is obtained by the police and compared to the evidence sample. Comparison is used to make an exact match. The two samples must match on a variety of characteristics.

The work of identification officers accepts the basic principle that no two things are ever exactly alike. Just as no two people are exactly alike, no two objects are exactly alike. Factory made objects may look exactly alike, but there is usually some difference that is noticeable upon closer inspection. With use, even more differences occur.