

# ABSTRACTS

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## **Arabic-Illiterate Forensic Handwriting Analysis: A Pilot Study to Further Investigate the Ability of Arabic-Illiterate Examiners to Judge the Accuracy of Simulations of Arabic Signatures, Compared with Arabic-Literate Examiners**

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This article extends the study in Al-Musa (2010) examining whether forensic handwriting examiners (FHEs) who are illiterate in Arabic can detect Arabic forgeries as accurately as FHEs who have native fluency in Arabic. Because large numbers of real forgeries are difficult to find, the forgery data in these two pilot studies consisted of simulations, produced by 100 native Arabic writers, of two Arabic signatures. Two experienced Arabic-literate FHEs and two experienced Arabic-illiterate FHEs then judged the accuracy of these simulations, using standard forensic handwriting analysis methods. Their judgments of four narrow elements of the simulations (Size, Spacing, Arrangement, and Slant), as well as two of the broader elements studied in the 2010 article (Form and Line Quality), were compared. As in the earlier study, the judgments of Arabic-literate FHEs did not differ significantly from those of Arabic-illiterate FHEs (p 5 0.05). Thus, a second statistical study adds support to a widespread view held by FHEs, based on anecdote and experience, that literacy in a script is not needed to detect forgery in that script. Other considerations, however, suggest that a native writer of a script may have advantages over an illiterate in that script in conducting forensic handwriting analysis.

## **Effect of DNA Tape Lifting on the Ability of the ESDA® to Recover Latent Indentations in Paper**

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Questioned documents are often received into forensic laboratories requiring examinations for both trace DNA and latent indentations using an electrostatic detection device (EDD) such as the Electrostatic Detection Apparatus (ESDA®). Such documents can include extortion notes, threatening letters, drug ledgers and paper items related to white powder incidents, to name a few. Debate often arises as to which of the various examinations should be undertaken first. Assessments regarding examination sequencing need to be made on a case-by-case basis with the knowledge that each examination has the potential to compromise others.

This article focuses specifically on the effect that the tape lifting process has on the ability of the ESDA to recover latent indentations in paper. The research showed that the tape lifting process had a detrimental effect on the ability of the ESDA to recover and develop latent indentations. At worst, the tape lift can cause tears and areas of the paper's surface to be lifted whilst at the same time effectively 'masking' the indentations, making them difficult for the ESDA to detect. At best, there is fibre disturbance that results in the development of background noise on the ESDA lift; this reduces visibility, definition and legibility of the developed indentations. Given these results, in cases where it is decided that both examinations are required, the ESDA examination should be conducted prior to tape lifting for trace DNA.

# Do People Always Disguise Their Writing the Same? The Trilogy

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Determining whether handwriting is naturally or unnaturally prepared is a common challenge for forensic document examiners (FDEs) and many variables must be taken into consideration during such an examination. Some issues include the writing instrument, writing medium, nature of the signature, age of the subject(s), health of the writer, and the date of the writing. The final answer being sought, however, comes down to one of three possibilities: the writing is genuine, the writing was forged by another via freehand simulation or tracing, or the writing was deliberately disguised by the subject (often called auto-forgery, or auto-simulation.) This paper discusses the results of a research project conducted to determine the most frequently used strategies writers use when attempting to disguise handwriting, whether writers tend to use the same form of disguise each time, and if the availability of deliberately disguised known specimen writing aided FDEs in their examinations.

This research study focused on disguised writings and signatures prepared by subjects who intended to deny them at a later date. A deliberately disguised document was obtained from more than 50 subjects along with natural and disguised known specimen writings. These writings were collected by 3 forensic document examiners from 3 different geographic regions of the U.S. The specimens were then used in side-by-side examinations and comparisons with their disguised writings. Strategies used by the writers to disguise their writing will be discussed. Potential sources for error in certain problematic samples will also be discussed.

The hypothesis of the forensic document examiners conducting this study was that, like one's natural writing, a person's disguised writing will contain individual characteristics that will be repeated again and again whenever an attempt at disguise is made. Two prior research studies have supported this premise, and these will also be discussed. It is also hypothesized that the comparison of said characteristics, in a side-by-side examination of questioned to known writings, also like one's natural writing, can lead to the identification of a writer of disguised writing. If this theory is correct, it may be necessary to require that the collection of requested known exemplars include a set of "disguised" known samples as well as normal, natural writing specimens.

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## THE LOEB-LEOPOLD CASE

(From the Standpoint of the Handwriting, Pen Printing, and Typewriting Expert)

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