

## J20 Revealing Writing That Has Been Covered Using Correction Tools

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After attending this presentation, attendees will learn of a novel method for revealing the underlying writing and/or printed material obliterated by various correction tools. In addition, this novel method of using the Electrostatic Detection Apparatus (ESDA) was compared to the use of the Video Spectral Comparator (VSC) for the same purpose. Attendees will also learn the benefits of using a non-destructive technique and the value of the VSC for this type of examination.

This presentation will impact the forensic science and questioned documents community by demonstrating the use of a common technique on a challenging type of evidence in an efficient manner.

One particular challenge encountered by the forensic questioned document examiner is that of obliterations through the use of correction utensils and opaquing solutions (e.g., Wite-Out<sup>®</sup>). Underlying writing can be difficult to distinguish due to this type of obliteration. In the past, various methods have been implemented to deal with these types of evidence, such as physically removing the solution; however, this method has the potential to destroy the original evidence in the process.

An alternate non-destructive method for the visualization of the underlying writing might be preferred. The ESDA and the VSC are both non-destructive techniques widely used in the analysis of questioned documents. The ESDA was proposed and examined as a novel method for visualizing this type of obliterated writing. This non-destructive method was then compared to that of using the VSC for this same type of examination.

The evaluation was carried out through the use of a variety of writing instruments, inks, and printing methods. A series of samples consisting of handwritten, typewritten, and non-impact printed material was prepared and sections of each were covered with a different correction tool. Both the ESDA and VSC were used to view the underlying writing. The ESDA was able to distinguish the underlying writing in three of the eight samples where the correction tape was used. Surprisingly, for all other correction tools, the ESDA did not succeed in revealing the obliterated writing. In all cases, however, the VSC was able to generate a legible image of the original writing. In short, the VSC was exceptionally effective at visualizing writing obliterated by opaquing solutions. There may, however, be some situations where the ESDA may be advantageous.

ESDA, VSC, Correction Tools