IB1: Altered and Obliterated Documents

I. INTRODUCTION

The term decipherment in this context refers to determining the original content of a document that has been altered, obliterated, erased or otherwise changed. Both destructive and nondestructive tests are available.

II. INSTRUMENTATION

Magnification (i.e. Hand Magnifier and Stereo Microscopes), adequate light source, VSC 6000/HS and ESDA (See Appendix VI).

III. MINIMUM STANDARDS & CONTROLS

See Appendix I.

IV. EXAMINATION PROCEDURE

Documents that are suspected of being altered will be examined for evidence of alterations to include mechanical and chemical erasures, discoloration, obliterating substances, smearing of printed or inked entries, multiple writing instruments or printing processes, overwriting, crowded text or writing, uneven margins, irregular spacing, etc…

Standard nondestructive techniques will be exhausted before employing destructive tests. NOTE - Removal of a layer of correction material (such as Wite-Out®) by physical means which can be accomplished without damage to the underlying document and writing will not be considered a destructive test unless there is writing or other evidence on top of the correction material.

The examiner can discontinue the examination at any step which produces satisfactory results.

A. Non-destructive techniques:

1. Visual examination using appropriate magnification. Image enhancing software may be necessary to adequately demonstrate findings.
2. Oblique light: In a darkened room, use a fiber optic light to illuminate the document at grazing incidence from all sides of the document. Attempt to decipher visually, with magnification if necessary.
3. Transmitted light: Place the document on a light table, light box or VSC 6000/HS so that the light is transmitted through the document. Attempt to decipher visually, with magnification if necessary.
4. Ultraviolet: Examine visually, with magnification if necessary. If the obliterated or altered material fluoresces, it may be visible from the reverse side of the document using the VSC 6000/HS.
5. Infrared: Examine with the VSC 6000/HS using magnification as necessary.
6. Infrared Luminescence: Examine with the VSC 6000/HS. If the obliterated or altered material luminesces, it may be visible from the reverse side of the document. Liquid nitrogen enhances IR luminescence, makes paper more transparent, and neutralizes the adhesive bond of glues.
7. Use ESDA processing when it is appropriate. In erasure cases, ESDA may clarify or

highlight the area erased even if it does not reveal the contents of the erasure.

8. If multiple pages are in question then it may be of value to examine the results of ESDA processing to determine whether or not writing on a page was executed before or after possible intersecting indented writing.

B. Destructive techniques:

1. Before utilizing any unconventional destructive techniques, consider the following hierarchy (Never move down the list without just cause):

   a. The probative value of the evidence should determine the processing steps.
   b. Preserve the exhibit as best as possible as submitted
   c. Preserve the evidence on the exhibit
   d. Preserve the evidence of greatest probative value
   e. Risk the evidence only as a last resort and with the informed consent of the submitter or District Attorney.

2. Liquids (i.e. pet. ether, xylene substitute, water) which approximate the refractive index of paper fibers may be added to the back of a document to make the paper transparent. While generally this is not considered destructive, sometimes inks on the document may dissolve in the liquid and run. So care and judgment must be exercised to ensure that anything applied to the document does minimum harm to the original.
3. Physical removal of obliterating material using scalpel or chemical solvents. The term "Destructive" applies to the present condition of the document. Since the document has already been altered, this type of processing can be thought of as restorative rather than destructive. As with step 2 above, care and judgment must be exercised to ensure that anything applied to the document does minimum harm to the original.

   Note: Dequenching of luminescence frequently occurs as a result of the application of solvents. If the obliterating material is not removed by the first solvent application, the document should be checked for UV and IR luminescence before continuing with additional solvents. This should be repeated between subsequent steps.

4. Photographing or photocopying the exhibit between steps will ensure a record of the condition of the document at each stage.

C. Record results using photography, photocopier, VSC 6000/HS printer and/or ESDA lift film where appropriate.

D. Render conclusions based on examinations conducted in report form. Conclusions regarding altered documents may include whether or not they were made and/or decipherable. If alterations were made and decipherable then the information should be included in the report. If the information cannot be deciphered then the reasons for the inconclusive opinion should be outlined in the report. All Altered and Obliterated examination reports will include the different methods utilized in the examination process.

REFERENCES

1. ASTM E 1658-04, *Standard Guide for Expressing Conclusions for Forensic Document Examiners*
2. ASTM E 2331-04, *Standard Guide for Examination of Altered Documents*
3. Foster and Freemen, LTD. ESDA Operating Instructions
4. Foster and Freeman, LTD. VSC 6000 Video Spectral Comparator Hardware Manual
5. Foster and Freeman, LTD. VSC 6000 Video Spectral Comparator Software Manual, November 2011

6. Hilton, O. *Scientific Examination of Questioned Documents;* Elsevier: New York, NY, 1982; pp 95-134.
7. Kelly, J. S., Lindblom, B. S., *Scientific Examination of Questioned Documents*, Taylor & Francis Group, Boca Raton, FL, Chapter 14, 15 and 27.
8. Miller, L. "Examination of White-Out Entries"; AAFS, New Orleans, 1992.
9. Osborn, Albert S. *Questioned Documents;* Patterson Smith: Montclair, NJ, 1978.
10. *Journal of Forensic Sciences;* JFSCA, January **1982**, Vol 27, No 1, pp 196-199.
11. Questioned Document Section Article Library

History	Issue Date	Section(s) Revised
Original Issue	11/18/99	N/A
1st Revision	7/19/02	IV A 1
2nd Revision	4/15/11	II, IV, IVA8, IVD and References
3rd Revision	6/2/11	Added Division to Header and Issuing Authority to Footer
4th Revision	3/22/12	Added VSC 6000/HS information

Approval

Director _____ Date:
Matthew C. Mathis

Issuance

Criminalist _____ Date:
Jeffrey S. Taylor

Jeffrey S. Taylor

Digitally signed by Jeffrey S. Taylor
DN: cn=Jeffrey S. Taylor, o=CMPD, ou=Crime Laboratory, email=jtaylor1@cmpd.org, c=US
Date: 2012.03.22 09:12:44 -04'00'