

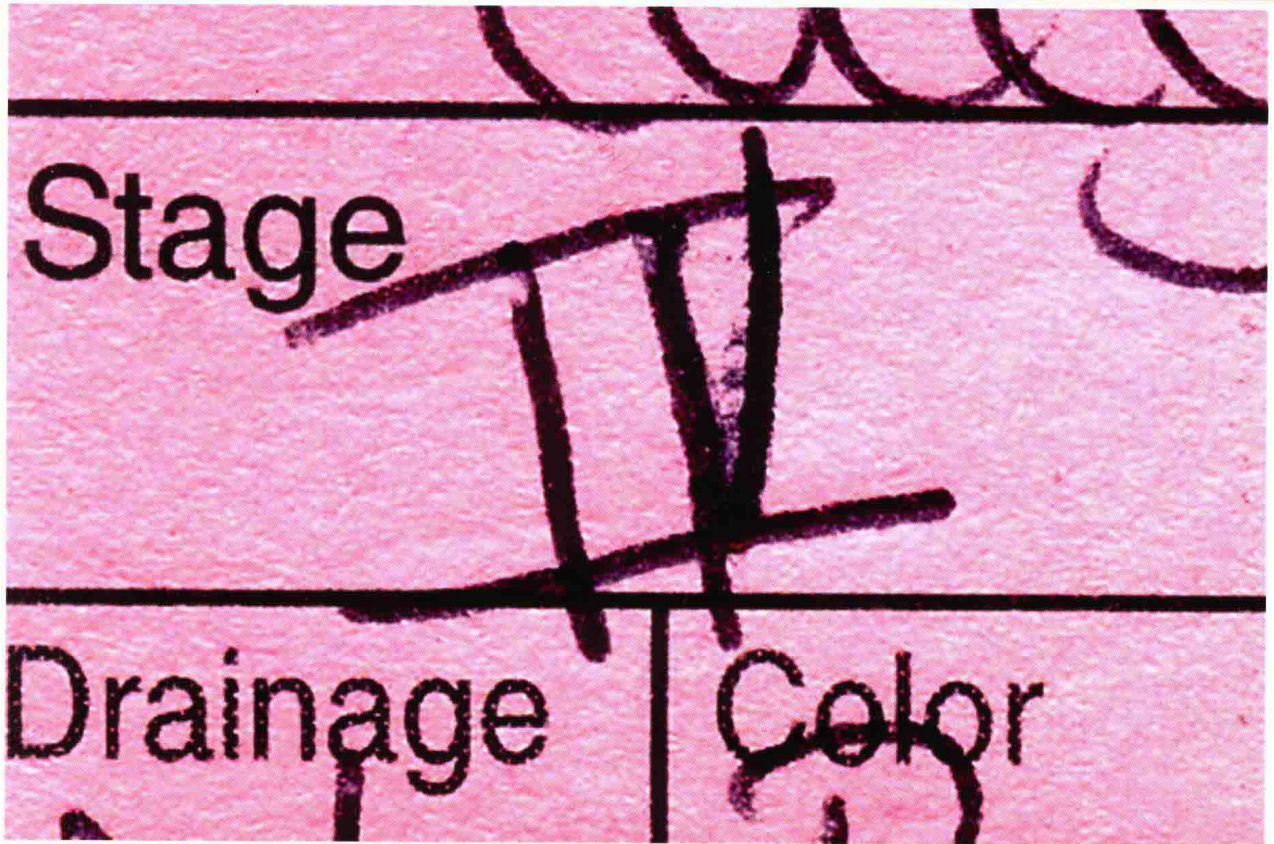
FORENSIC DOCUMENT EXAMINATION

FUNDAMENTALS AND CURRENT TRENDS



JANE A. LEWIS

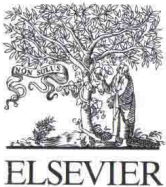




Forensic Document Examination

Fundamentals and Current Trends

Jane A. Lewis



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Dedication

for Mickey Maier

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Introduction

The cover of this book shows a beautiful bank entrance. It fits with forensic document examination because many of the cases submitted to forensic document examiners include evidence types that originate in the banking system, such as forged checks, disputed signatures on loans, mortgages, personal guarantees, and bank robbery notes.

This book will enlighten forensic document examiners, attorneys, investigators, and others using the services of forensic document examiners with a bit of history, basic principles, and current trends in the science. Time has changed and improved the science of forensic document examination. We now apply standards that did not exist 20 years ago. Instrumentation has moved beyond the microscope and the magnifying glass to digital cameras, video spectral comparators, electrostatic detection devices for the development of indented writing on paper, scanners, and software programs to assist forensic document examiners.

Forensic document examiners are misunderstood by the general public and by attorneys who use our services. The public thinks that we perform personality assessments from handwriting. We do not. Attorneys are unable to separate the properly trained and qualified forensic document examiner from the graphologist or self-trained person on the fringes of the

forensic science world. This book will help distinguish the properly trained forensic document examiner from those who lack the required education and initial professional training.

Attorneys, investigators, and forensic document examiners will appreciate the descriptions of state of the art practices, instruments, and research in forensic document examination. Standards and methodologies evolve and improve each year. This book captures the scientific progress of forensic document examination to date.

Topics featured include: the history of writing, the history of forensic document examination, the definition of forensic document examination, handwriting individuality, basic methodology, instrumentation, case examples, standards, court cases involving forensic document examination, court preparation, court charts, and research in the field.

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eighth to mid-twelfth century charlemagne alcuin

carolingian minuscule

A Brief History of Writing

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The past is never dead. It's not even past.
(William Faulkner, *Requiem for a Nun*, 1951)

Cave Paintings

In the beginning we communicated with pictures. Cave paintings dated between 20,000 and 35,000 BC show prehistoric man's early picture writing (Jackson, 1981). The walls of caves in Altamira, Spain and Lascaux, France bloom with painted images of bison, bulls, horses, and other animals (Fairbank, 1970). The intent of these early wall murals eludes scientists. But pictures on cave walls initiated the path to modern handwriting. **Figure 1.1** shows an example of a horse painted on the wall of a Lascaux cave. Communication by pictures in ancient times grew into pictograms. Pictograms followed the bison and horses found on cave walls, but consisted of simpler designs (ibid.). Ideograms were word signs that represented ideas and actions as in road signs of today (ibid.). Eventually phonetic writing emerged. Each sign or phonogram represented language sounds, which ultimately lead to the alphabet (ibid.).

Cuneiform Writing

Cuneus comprises the Latin root of cuneiform, which means wedge. A triangular reed or stylus was used to form cuneiform signs in wet clay. Clay tablets were then dried in the sun to permanently fix the writing (Fairbank, 1970). Sumerian cuneiform existed as the first written language. The earliest examples date back

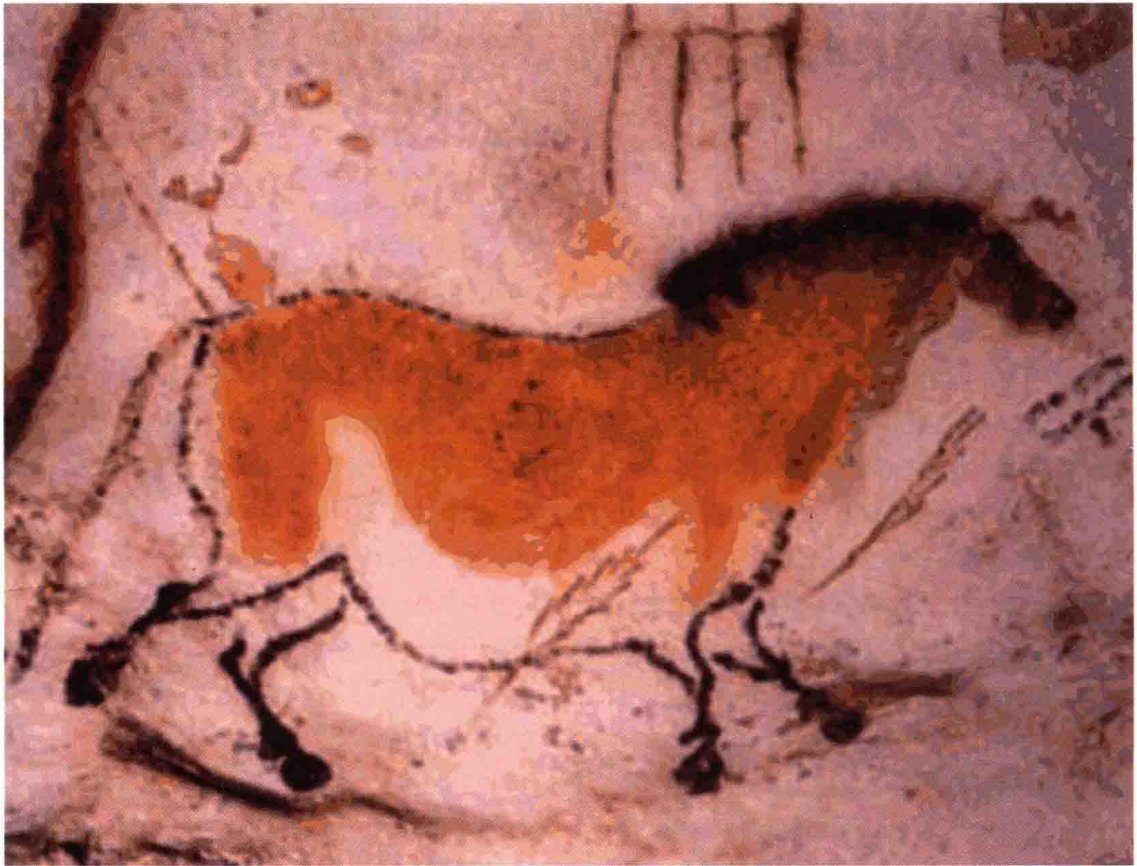


FIGURE 1.1 Vector drawing by Anthony Chojnacki of an image of a horse from Lascaux Caves. <http://en.wikipedia.org/wiki/File:Lascaux2.jpg> (Accessed October 11, 2013), (http://commons.wikimedia.org/wiki/Commons:Copyright_tags#Various_free_licenses)

to 3100 BC (ibid.). Sumerian civilization lived in the Fertile Crescent from 3500 to 1720 BC (Jackson, 1981).

Figure 1.2 depicts a cuneiform tablet. During this same time period Chinese writing developed (Gaur, 1992).

Egyptian Writing

Ancient Egyptian writing consisted of three styles: hieroglyphic, hieratic, and demotic (Fairbank, 1970: 27).

Figure 1.3 shows hieroglyphic picture-writing.



FIGURE 1.2 Vector drawing by Anthony Chojnacki of an image of a Sumerian inscription on a creamy stone plaque showing cuneiform script. http://upload.wikimedia.org/wikipedia/commons/9/91/Sumerian_26th_c_Adab.jpg (Accessed October 11, 2013), (http://commons.wikimedia.org/wiki/ Commons: Copyright_tags#Various_free_licenses)