

SCIENTIFIC EXAMINATION OF QUESTIONED DOCUMENTS

REVISED EDITION

ORDWAY HILTON

ELSEVIER

Scientific Examination of Questioned Documents

Revised Edition

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Preface

This book is a guide to all aspects of a questioned document for attorneys, investigators, document examiners, and others. It attempts to cover the broad spectrum of this work as practiced today—not only the scientific examination of questioned documents, but also the steps to be taken by the field investigator and trial attorney. Disputed document inquiries encompass extensive and varied technical examinations, unique phases of investigation, and specialized legal presentations. The coordinated efforts of the persons responsible for every step ensure a successful conclusion.

Today there is widespread use of the document examiner's services both in civil law practice and in criminal cases. His services, however, are not confined to potential court trials, but also deal with personnel problems, security work, and investigations in the business world, as well as assistance to troubled individuals.

Many techniques have been developed by which the physical facts contained within the document can be discovered, revealed, and demonstrated. The courts of most jurisdictions accept the assistance derived from these skills, a significant change from the practices of 75 or more years ago, when presentation of findings was curtailed whenever possible. Early cases consisted almost entirely of handwriting identification and the detection of forgery. Today these problems are still common, but examiners are confronted with typewriting and other mechanical impressions, erasures and alterations, photocopies, and many additional problems involving inks, writing instruments, and paper. In fact, if there is a question about any type of document, the document examiner is consulted for the solution.

The preface to the first edition (in 1956) noted that no comprehen-

sive treatment of the questioned document had appeared for over 20 years. Within the succeeding five years two texts were published.¹ Now another 20 years has elapsed since an up-to-date treatise has appeared. During that period many new instruments and materials for preparing documents have been introduced, including porous tip and roller pens, single element and electronic typewriters, and dry-process copiers. Recognizing and identifying their work has presented challenges to the progressive document examiner. In response to these new problems there have been significant modifications in technique. At the same time, workers in the field have developed other new methods, such as thin-layer chromatography, infrared luminescence, and examination with dichroic filters, to answer older questions more completely and accurately. In a number of respects document examination today is more advanced than it was, or had to be, in the 1950s. The innovations in methods and the recognition of current problems have in some measure made all former texts obsolete. Consequently, a substantial revision of the previous edition was needed.

A comprehensive approach to any document problem is essential. Many times the question of a document's authenticity, or its fraudulent nature, is answered only by a careful consideration and correlation of all or a number of the various attributes that make up the document. In accomplishing such a study, however, it is necessary to know exactly what each of its elements may contribute to the composite picture. Therefore this presentation deals with individual parts of a document and single problems rather than directly with such broader topics as whether a document is authentic or forged.

One possible exception is a chapter, new to this edition, on the age of a document. It brings together many aspects of a question that, at least in civil cases, is so frequently raised. However, the discussion in another chapter of some particular element of the document may itself reflect on the question of age by showing that the document could not have been prepared on its date.

The discussion of examination methods has been deliberately curtailed. The governing principles and basic mode of attack are presented so that the reader who is confronted with a questioned document problem may gain a clearer idea of what can be done. Examination techniques have not been expanded so that this book might serve as a training manual, although with its present scope it can be used as a guide for a course of training under a qualified document examiner-instructor.

¹Wilson R. Harrison, *Suspect Documents, Their Scientific Examination* (New York: Frederic A. Praeger, 1958). James V. P. Conway, *Evidential Documents* (Springfield, Ill.: Charles C Thomas, 1959).

tor. With many problems the footnotes cited expand on the methods.²

The work of the field investigator, the efforts of the attorney preparing for trial, and the techniques of presenting evidence in court form an important part of document examination. Since errors and oversights in any of these steps may be just as serious as failure to consider the physical evidence contained within the document itself, several chapters are devoted to this phase of the work. The technical questions are not isolated from the case as a whole, but must be fully coordinated with the initial investigation and the courtroom presentation.

²For other worthwhile papers not included, see the *Syllabus/Bibliography of Selected Books and Articles Related to Forensic Document Examination* (American Board of Forensic Document Examiners, 1979).

Acknowledgments

A number of research papers by fellow workers have been cited. No one document examiner can hope to keep abreast of all aspects of this work without the published writings of others, and these examiners have all made significant contributions to the general fund of knowledge condensed in this book.

The first five years in which the author practiced in New York City were in association with Elbridge W. Stein. In our many discussions of questioned document examination, there were references to drafts of the first edition of this book, in which Mr. Stein was greatly interested. Upon his retirement he left with the author a number of files dealing with some important and some unusual cases of his career, with the expressed permission to use any illustrations contained in them. A number of these photographs have been adapted as illustrations in this book, and each is specifically acknowledged.

A number of illustrations were originally published in the *Journal of Criminal Law, Criminology and Police Science*, of which the author was Police Science Editor for nearly 30 years. These appear with the permission of the journal. In addition, illustrations that appeared in articles in the *Journal of Forensic Sciences* and the *Journal of Police Science and Administration* are reprinted with permission.

The author appreciates the detailed, critical review of the manuscript by John J. Harris and Patricia R. Harris of Los Angeles and Roy A. Huber of Ottawa, Canada. Many of their comments and suggestions helped to clarify points in the final editing of the text.

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I

INTRODUCTION AND BASIC DEFINITIONS

Preliminary Considerations

This is an age of documents. We depend on them in many of our encounters with the complexities of modern life. They feature in our financial, legal, business, social, and personal affairs. Hardly a day goes by without some document playing a part in the life of every one of us. With their widespread use it is almost axiomatic that analytical methods should be developed to establish facts concerning documents—their source, authenticity, age, or original state. These are the techniques that are to be described in the ensuing chapters.

Documents and Questioned Documents

What is a document? It may be more complex than merely writing on a paper. In the broadest sense a document is any material containing marks, symbols, or signs that convey meaning or a message to someone. While the great majority of documents are written on paper either by typewriter or by hand with pencil or pen and ink, many other substances can be used for the same purpose. Wills written on wood have been offered for probate.¹ Signs painted on walls and windows make up a common class of documents; carved letters on tombstones and cornerstones all record history. These and many other combinations of materials and writing instruments form the vast store of documents with which man has recorded his acts and thoughts.

Among all these documents is a small group which, though numerous by count, actually constitutes but a minute part of the whole. This

¹Clark Sellers, "Strange Wills," *Journal of Criminal Law and Criminology* 28 (1937): 106–117.

group is known as *questioned* or *disputed documents*—those suspected of being fraudulent or whose source is unknown or background is disputed.

A questioned document, like other documents, may have been prepared with any of the numerous materials available. Sometimes the very materials of which it is constructed bring discredit and suspicion upon it. Many times, however, its elements are entirely in keeping with its history and purpose, and yet there are those who contest its authenticity.

Not all questioned documents are fraudulent. Not all are instruments of crime. There may be a variety of reasons for questioning a document other than to invalidate it or to establish the basis for a criminal action. Many documents are examined closely only to identify their authors or to establish their source. Of those suspected of being fraudulent, probably at least half are exactly what they claim to be—perfectly authentic documents. But the remainder, which involve fraud, forgery, blackmail, or a host of other lesser crimes or offenses, are instruments that may represent to the individual concerned sizable wealth, property or personal possessions, or reputation and respectability. Thus, the truth about these questioned documents assumes importance of large magnitude to all whom they concern.

Examiner of Questioned Documents

The profession of examiners of questioned documents grew out of the needs of the courts for assistance in interpreting evidence relating to the preparation and subsequent treatment of documents.² It is actually a pure forensic science in that it developed within the legal system rather than being derived from other professions, such as medicine, dentistry, or chemistry, to be applied to legal problems.

These individuals have specialized in the study and investigation of documents to determine the facts about them, their preparation, and their subsequent treatment. Not only must these examiners be able to identify handwriting, typewriting, and printed matter, but they must be able to distinguish forgery from genuineness, to analyze inks, papers, and other substances that are combined into documents, to reveal additions and substitutions in a document, and to restore or decipher erased and obliterated writing. When records produced by complex modern business machines are suspected of having been manipulated, document examiners may be among the first to be consulted. Certainly

²A. S. Osborn, "A New Profession," *Journal of the American Judicature Society* 24 (1940). This paper is reprinted by A. S. Osborn and A. D. Osborn in *Questioned Document Problems*, 2nd ed. (Albany: Boyd, 1946), Chapter 31, pp. 358–367.