Measurement Science and Standards in Forensic Handwriting Analysis:

The ASTM years

Measurement Science and Standards in Forensic Handwriting Analysis:

The Last 100 Years

Measurement Science and Standards in Forensic Handwriting Analysis:

The Last 100 Years or So

Measurement Science and Standards in Forensic Handwriting Analysis:

The Albany Law Journal

A Monthly Record of the Law and the Lawyers

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Photography and Forgeries

By Albert S. Osborne

Photography is frequently of great assistance in detecting forgery or establishing the genuineness of a questioned handwriting. Modern lens makers, with the new Jena glass and the new formulas, are now able to construct lenses that make photographic reproductions with absolute accuracy of proportions and entirely free from distortion, and thus one of the early legitimate objections to the use of photographs in court is entirely removed.

ACT MARCH 3, 1901, c. 872.

An Act to Establish the National Bureau of Standards. (31 Stat. 1449.)

National Bureau of Standards established.

Be it enacted, etc., That the Office of Standard Weights and Measures shall hereafter be known as the National Bureau of Standards.

Act March 3, 1901, c. 872, § 1, 31 Stat. 1449.
Lenses are now made so accurately that they are certified by the government Bureau of Standards as "making reproductions without distortion."
Lenses are now made so accurately that they are certified by the government Bureau of Standards as "making reproductions without distortion."

... very accurate measurements can be made with this scale....

Every graduation throughout its whole length certified by the United States Bureau of Standards to be accurate within one thousandth of an inch.

... Fig. 47 a special micrometer caliper, made by Brown & Sharpe from a special design .... The screw thread of this instrument as well as of that shown in Fig. 46 has been certified by the United States Bureau of Standards to be correct to one ten-thousandth of an inch.

[In] 1913 ... Albert S. Osborn, author of Questioned Documents, sent some micrometers to the Bureau for calibration.

By chance, the instruments were tested by Dr. Wilmer Souder of the weights and measures division, who became interested in the scientific detection of crime.
His laboratory, with Dr. Stratton's encouragement, was for almost two decades the principal crime research center in the Federal Government, long antedating the organization of a crime laboratory in the Federal Bureau of Investigation.


The bureau has taken up the problems of identification of written and typewritten documents, signatures, guns, bullets, etc., in an effort to establish standards for this class of work.

There are, now available, a few experts who make identifications in a logical and precise manner, but there are many so-called experts who recognize no limitations, no standards, and no equipment as essential in this field.
The development of the laboratory has been carefully planned by the Division with the assistance and advice of Dr. Wilmer Souder. ... 

Dr. Souder ... has been engaged as a scientist by the Bureau of Standards ... and has devoted the principal portion of his time to handwriting, typewriting and ballistics identification. His advice and experience have rendered invaluable service to the Division in the training of the laboratory personnel and in obtaining equipment ...
ASTM E30


ASTM E30.02

1970 – ASTM Committee Founded

1972 – First Standard

E444 Standard Descriptions of Scope of Work Relating to Forensic Document Examiners

Report on Forensic Science | by RICHARD L. BRUNELLE

A few Associate Referees have mentioned the reluctance of their administrators to provide time for their methods evaluation work and also to provide finances for their travel to the annual AOAC meetings. It is hoped that persistent efforts by Associate Referees in pointing out the importance of this methods evaluation program will eventually solve this problem.

Continuous efforts should be made by all forensic scientists to propagate this program, because the courts are demanding that experts use tried and proven methods for the examination of physical evidence. It is the responsibility of the crime laboratories to take the initiative in this respect and not leave the decisions of which methods must be used to parties unfamiliar with crime laboratory problems.

In the year ahead, continued efforts will be made to select Associate Referees to study additional areas of forensic science and to increase participation in the overall forensic methods evaluation program.

JOURNAL OF THE AMAC (Vol. 55, No. 2, 1972)

Precedential

Alwyn Cole – an individual

He’s from the Government and he’s here to help

Adopted by another organization (ASQDE – 1969) then by ASTM

ASTM E30

From 1972 to 1989

E444 was 3 standards in E30

The first standard.

The last standard.

The only standard.
Following Precedent

Based on work by Government types
Started with procedures adopted by another organization
Brunelle and Pro
JOAC 55:823–826 (1972)
Kelly and Cantu
JOAC 58:122–125 (1975)

Additional Precedents

Work moved forward by federal sponsored task group
US Secret Service (Larry Stewart)
Group included practitioners from government and private practice
1996 – Group continued work with
E1789 Standard Guide for Writing Ink Identification

ASTM E30.02

1989 – E30 revived

**Following Precedent**

Based on work by Government and private practice examiners

Adopted by other organizations first

AAFS, ASQDE

**The Courts**

1993 – *Daubert*

1995 – *US v. Starzypyzel*

Tried using E444 and the new E1658

Court not too impressed

**Finding Sources**

1997 – Published material having been exhausted, more low hanging fruit was sought.

SOPs drafted for ASCLD/LAB were collected as part of ASQDE program dealing with Daubert challenges.

Objective to meld the best parts for set of ASCLD/LAB compliant documents.

**SWGDOC and ASTM E30.02**

1997 – TWGDOC started

The FBI formed the Technical Working Group on Forensic Document Examination (TWGDOC) in May 1997. At the first meeting of TWGDOC, the importance of standardizing procedures for handwriting comparison was again recognized as a primary task.

TWGDOC’s first sub-group, Standard Operating Protocols, was formed and has been meeting regularly since.

*From NIJ Solicitation, June 1998*
SWGDOC and ASTM E30.02

1997 – TWGDOC started
1999 – Changed to SWGDOC

2003 – First SWGDOC generated Standards

some organizational & procedural issues needed to be worked out

SWGDOC and ASTM E30.02

The Standards Development Process

SWGDOC developed consensus standards
Using ASTM formatting
Issued as a SWGDOC Standard
Entered the ASTM process
Got an ASTM Work Item WK# and an E30.02 Technical Contact to handle it
The ASTM process proceeded until the Item was issued as an ASTM Standard
The SWGDOC Standard withdrawn so there was only one Standard at a time

Some of the Support Staff

...and they can type

E2195-02 Standard Terminology Relating to the Examination of Questioned Documents
E2285-03 Standard Guide for Examination of Mechanical Checkwriter Impressions
E2286-03 Standard Guide for Examination of Dry Seal Impressions
E2287-03 Standard Guide for Examination of Fracture Patterns and Paper Fiber Impressions on Single-Strike Film Ribbons and Typed Text
E2289-03 Standard Guide for Examination of Rubber Stamp Impressions
E2290-03 Standard Guide for Examination of Handwritten Items
E2291-03 Standard Guide for Indentation Examinations
E2331-04 Standard Guide for Examination of Altered Documents
E2325-05 Standard Guide for Non-destructive Examination of Paper
E2389-05 Standard Guide for Examination of Documents Produced with Liquid Ink Jet Technology
E2390-06 Standard Guide for Examination of Documents Produced with Toner Technology

E 2494-08 Standard Guide for Examination of Typewritten Items
It was ballot ready in 2001

E2710-11 Standard Guide for Preservation of Charred Documents
E2711-11 Standard Guide for Preservation of Liquid Soaked Documents
E2765-11 Standard Practice for Use of Image Capture and Storage Technology in Forensic Document Examination

Did the standards from SWGDOC and ASTM help forensic document examiners in a Daubert hearing?

YES

2012 - ASTM 30.02 was Dissolved

Some Items in Process in 2012

Standard Guide for the Examination of Handwritten Items for Simulation and Tracing
Standard Guide for the Examination of Documents Produced with Thermal Printing Technology
Standard Guide for Examination of Counterfeit Documents
Standard Guide for the Examination of Line Intersections
Standard Guide for the Examination of Folds and Creases
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<td>Standard <strong>Classification of Writing Instruments</strong></td>
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