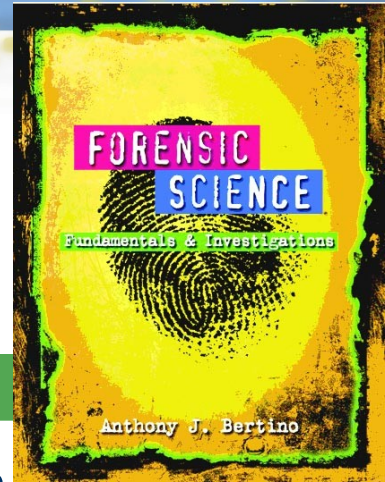


Chapter 10 *Handwriting Analysis, Forgery, and Counterfeiting*

By the end of these notes you will be able to:

- describe 12 types of handwriting characteristics that can be analyzed in a document
- demonstrate an example of each of the 3 types of handwriting traits
- identify the major goal of a forensic handwriting analysis

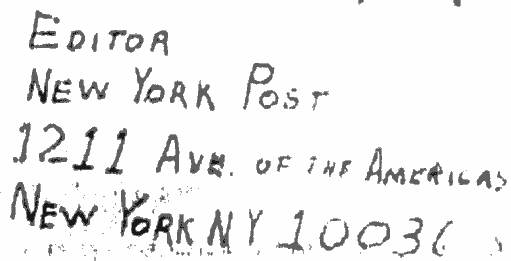


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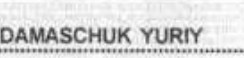


Introduction

- Document analysts examine and compare ***questioned documents*** with ***known material (exemplar)***.
 - What do you think a questioned document could be?
 - A questioned document is any signature, handwriting, typewriting, or other written mark whose source or authenticity is in dispute or question.
 - Give an example of where you have heard of this before.



Warrior Landis	HARAGON Landis
Betty Landis	Betty Landis
Jeffrey Chess	JEFFREY CHES
Charnae Hess	Charnae Hess
Sharon Geib	Sharon Geib
Geneva Culp	Geneva Culp
Anta Doyle	Anta Doyle
Susan H Ellis	Susan H Ellis
Alicia Dwyer	Alicia Dwyer
Gregg Loft	Gregg Loft
Jeffrey Shroyer	Jeffrey Shroyer
Carol A Shroyer	Carol A Shroyer
Robin Burns	Robin Burns
Bradley Mansouri	Bradley Mansouri
Robert Mansouri	Robert Mansouri
Shirley Mansouri	Shirley Mansouri
Patrick F. Yeerber	PATRICK F. YEERBER
Jeffrey G Shanks	JEFFREY G SHANKS
James R. Weidman	James R. Weidman

	FEDERAL MINISTRY OF JUSTICE <i>Authority to Pay Certificate</i> 	
RC NO: 0387	Between UNION BANK NIGERIA PLC And GAYDAMASCHUK YURIY	
This is to Certify on this day 28TH NOVEMBER 2003 that Union Bank (Nigeria) Plc, agrees to pay GAYDAMASCHUK YURIY and the nature of the payment of NEXT OF KIN/BUSINESS PARTNER to the LATE ENGR. MARK ELHOURIY for the value of US\$6,000,00,00 MILLION DOLLARS		
<u>FEEDS:</u> 1. The Union Bank Nigeria Plc, through the Federal Ministry of Justice reserve the right to revoke this payment if the beneficiary fails to deliver the relevant documents when needed. 2. Every tax or taxes to any ministry of corporation here in Nigeria, e.g. Central Bank, Ministry of Justice, e.t.c must be paid upfront before funds will be transferred or deposited into the beneficiary's designated foreign account. 3. No. matter the fluctuation in currency, the payment value cannot be amended or changed. Having been cautioned in English Languages as the beneficiary has agreed and been abided by the above mentioned payment deeds.		
 Union Bank Nigeria Plc	 Federal Ministry of Justice	 Beneficiary



Introduction

- Experts in the field investigate such things as handwriting, computer printouts, commercial printing, paper, and ink.
 - Questioned documents can include: checks, certificates, wills, passports, licenses, money, letters, contracts, suicide notes, receipts, lottery tickets, etc.
- Their work can help identify a document's author.





Introduction

- **Document Experts** may investigate threatening, ransom, or suicide notes.

- What do you think they are specifically looking for when they analyze the questioned document against a known sample?
- Changes in: letter size, shape or appearance, line spacing, letter slant, style, etc.

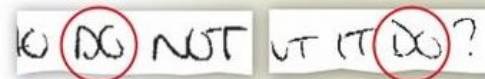
Prison letters

A letter apparently written by gang member Willie Clark indicates he shot Denver Bronco Darrent Williams. The Rocky Mountain News obtained a copy of the letter and hired a certified document examiner

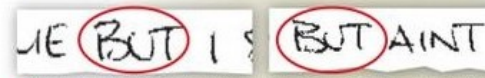
to compare it to letters Clark wrote to Rocky reporter Sara Burnett in 2007 and to U.S. District Judge Wiley Daniel earlier this month. The same person wrote all of the letters, the expert concluded.

2007 LETTER TO THE ROCKY

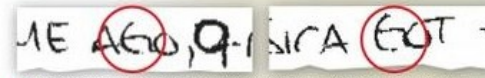
LETTER OBTAINED FROM SOURCE



■ In the word "Do" the letter shapes are the same and the letters touch each other each time they are written.



■ In the word "But," the B touches the U and the U has no return stroke on the right side.



■ The letter G is made in two strokes, like a C with the number 7 for the second part.

2008 LETTER TO JUDGE

LETTER OBTAINED FROM SOURCE



■ The K in his signature is consistently written like an R.

Source: Document examiner Linda James

ROCKY MOUNTAIN NEWS



Introduction

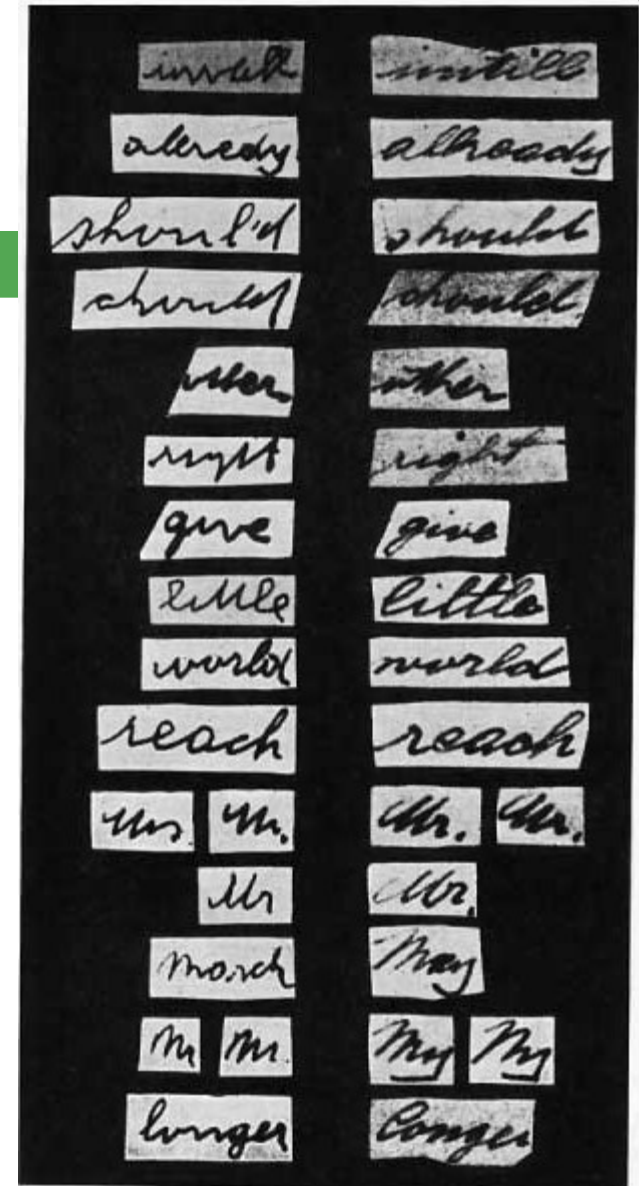
- Document Experts are **NOT** graphologist!
 - Graphologists analyze handwriting to detect personality traits (this is not a recognized part of forensic science, but is may be useful to investigations).
 - How could a graphologist be useful to an investigation?





History of Forensic Handwriting Analysis

- In the 1930s, handwriting analysis played a role in the famous Lindbergh case.
 - It was used in the trial of Richard Hauptman for the kidnapping & murder of the son Charles Lindbergh.



Note

Letter



History of Forensic Handwriting Analysis

- In 1999, the United States Court of Appeals determined that handwriting analysis qualified as a form of expert testimony.
 - To be admissible in court, however, scientifically accepted guidelines must be followed.
- Handwriting analysis has been used by Scotland Yard, the FBI, and the Secret Service.



Introduction to Handwriting

- Everyone's handwriting shows natural variations.
 - What are some factors that affect our handwriting and cause these variations?
 - Writing instrument (pen, pencil, marker, crayon) our mood, age, time restraints, audience being written too.
- Despite these variations, each person has a unique handwriting style. This is because as we write more and more regularly, the process becomes **subconscious**.



Example

- What do you notice about the two samples of handwriting to the right?

The quick brown fox
jumped over the
lazy dog.

THE QUICK BROWN FOX
JUMPED OVER THE
LAZY DOG.



Introduction to Handwriting

- Characteristics of Handwriting
 - Handwriting Analysts look at three aspects of handwriting: letter form, line form, and formatting.
 - Letter form includes: letter shape, curve, slant, size, continuous stroke, and correct appearance.
 - Line form includes: smoothness of letters, and darkness of lines of different strokes
 - Formatting includes: spacing between letters, words, and lines, placement of words, & margins

VI. Chromosomes and Cell Reproduction

A. Chromosomes

1. Over 2 trillion cells are made each day in an adult human
2. New cells are produced from the division of old cells
3. Cell division happens differently in prokaryotes and eukaryotes
4. Prokaryotic Cell Division

- a. new cells are produced by a sexual reproduction
- b. only one parent is needed for asexual reproduction
- c. parent cell is identical to the offspring
- d. there are several types of asexual reproduction

i. binary fission

ii. budding

iii. conjugation

iv. segmentation

e. binary fission

i. copy of parent's DNA is made



Handwriting Examination

- What is the goal of handwriting examination?
 - To determine authorship and authentication.
 - To identify **forgeries**: documents created with the intention to deceive...
- Two writings are the product of one person if their similarities are unique and no unexplainable differences are found.



Handwriting Examination

- Step of handwriting analysis:
 1. Examine the questionable document for detectable traits and record them.
 2. Obtain some writing of the suspect's (an *exemplar*) and compare the traits found in the questionable document with it.
 3. Draw conclusions about the authorship of the questionable document based on the comparison.

Technology Used in Handwriting Analysis



Biometric Signature Pads

- This computerized pad “learns” to recognize how a person signs his or her name based on the speed, pressure, and rhythm of the signing.
- Forgeries then are recognized by the detection of even slight differences.

Computerized Analysis of Handwriting

- Computers can make objective comparisons between handwritings.
- Suspect signatures can be compared with ones stored in databases.



Handwriting

Connecting Letters.

Connected John Kennedy
Not Connected J ohn K ennedy

Evidence in the Courtroom

- The expert shows how comparisons were made.
- The defense attorney likely will cross-examine the handwriting expert.

Shortcomings in Analysis

- A particular piece of handwriting can be different from its usual style because of factors such as fatigue.
- Experts can miss details.



..... Summary

- 1. Summarize today's notes.
 - What did you learn?
 - What did you find interesting?
 - Is this something you could see doing for a living?
- 2. On pp.280-281, create a reference table in your notes for each of the 12 specific traits of handwriting → put EXAMPLES.
- 3. *HW: Create word art with three vocabulary words from this chapter.*