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Overview

- **Materials Used to Write RN.** "the Ransom Note was drafted on paper taken from the middle of a pad of paper located at defendants' home and with a pen found at defendants' home. Additional sheets were missing from the pad and were never located at defendants' home. The pen used to write the Ransom Note was sourced to defendants' home and found placed back in its normal place by the phone. Finally, there was another page in the pad that had written on it "Mr. and Mrs. I," which many believe to have been an early "false start" of the Ransom Note. (PSDMF P 51.)" (Carnes 2003:24-25).
 - **Ransom Note Pad.** According to [Webbsleuths](#) (see The Notepad immediately following transcription of RN) the pad normally was kept on the table in the rear hall ([photo](#)). This [diagram](#) shows which pages were blank, where the practice note pages were and where the real RN pages were torn from.
 - **Pen Used.** "Crime scene techs at the house had recovered three Sharpie felt-tip pens from an orange metal container on the kitchen counter beneath the telephone from which Patsy had made her 911 call, not far from where the ransom note tablet was found...the U.S. Secret Service eventually determined that one of those pens, a pre-November 1992 water- based ink Sharpie, was used to write both the practice and actual ransom notes. The Secret Service, which maintains a huge database on inks because of federally mandated assignment to chase forgers, told us, "The ink [on the notes](#) is unique in the collection of approximately 7,000 standards from the Ink Library." That meant that whoever wrote the notes used the exact pen from that cup. They not only left the pad behind but, when they finished, neatly put the felt-tip pen in its container" (Thomas 2000:54).
- **Contents of RN**
 - **Scanned Version.** Photocopies of the 3 separate pages are at [The Daily Camera](#) and [acandyrose.com](#). A "stitched together" scan showing the note in a single continuous page is [here](#).
 - **Official Transcript.** An "official" transcript of the RN is included as Attachment A in the first [search warrant](#).
 - **Annotated Transcript.** Another transcript is posted at [Webbsleuths](#), including photos of where the note was found.
- **Staircase Where RN Found.** A detailed description of the staircase on which the RN was found is at [Webbsleuths](#). According to this [video](#) from *Hard Copy*, the note was found on the first or second step. However, Steve Thomas states in his book "Another tech saw the ransom note on the bottom step of the spiral staircase and photographed it there. But the photograph lied. The note had traveled from the stairs, possibly into Patsy's hands, then had been spread out on the hallway floor where John Ramsey and the police had read it, and French had put it back on the stairs. The photograph, which was suppose to show exactly where evidence had been discovered, was inaccurate" (Thomas 2000:20).
- **Details.** Further details about the RN and how it was found are at [acandyrose.com](#).
- **News Related to RN.** The Daily Camera coverage of news related to the RN is [here](#).
- **On-line Discussions of RN.**
 - See [Ransom Note](#) at Webbsleuths forum chat.
 - See [Day 6: The Ransom Note by u/Krakkadoom](#) at Reddit.

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Who Provided Writing Samples to BPD

Ramsey Family Members

- **John Ramsey** (samples taken December 26 and December 28, 1996 and January 5, 1997).
- **Patsy Ramsey** (samples taken December 28, 1996 and January 4, 1997; another sample was [taken](#) February 28, 1997). In addition, Colorado Bureau of Investigation handwriting expert Chet Ubowski [expressed concerns](#) that "the handwriting samples obtained from Patsy Ramsey do not suggest the full range of her handwriting." Accordingly, historical samples of Patsy's writings were obtained through a March 4, 1997 [search warrant](#) executed at the Charlevoix vacation house owned by the Ramseys.
- **Burke Ramsey** (sample taken December 28, 1996).

- [John Andrew Ramsey](#)
- [Melinda Ramsey Long](#)

Friends of Family

- [Fleet White](#)
- [Bill McReynolds](#)

Neighbors

- [Joe Barnhill](#)

Handwriting Analysis

Who is Qualified to Do Handwriting Analysis?

1. **Apprentice System.** "Forensic document examiners are generally trained through a "guild-type" [51](#) apprenticeship process, in which supervised trainees study methods of document examination described by the field's leading texts. (Defs.' Mot. In Limine [68](#) at 3; Epstein Dep. at 40-41.) (Carnes 2003:50-51).
2. **American Board of Forensic Document Examiners.** The only recognized organization for accrediting forensic document examiners is the American Board of Forensic Document Examiners ("ABFDE"). (Defs.' Mot. In Limine [68](#); Epstein Dep. At 36.)" (Carnes 2003:50-51).
3. **National Association of Document Examiners.** In his deposition in the *Wolf v. Ramsey* case, Epstein, a handwriting expert testifying against the Ramseys, stated the following (In this section, which begins on p. 35, line 20, the questioner is James Rawls): **Q.** She [Katherine Koppenhaver], we were told, is actually the president of an organization -- or is immediate past president of an organization called *National Association of Document Examiners*. Is that a bona fide group of forensic document examiners? **A.** It is not. **Q.** What is that group, if you know? **A.** It's a group that's composed primarily of graphologists. **Q.** Do you recognize board certifications by the National Association of Document Examiners of forensic document examiners? **A.** The only recognized body for the forensic profession in document examination in North America is the *American Board of Forensic Document Examiners*. They're the only recognized board to certify document examiners. A lot of these fringe organizations, and there are others besides that one that certify their own members, and that's so that the individual can go into court and state that they're board-certified, and the court doesn't know the difference between one board and another."

Graphology

- **Definition.** In his deposition in the *Wolf v. Ramsey* case, Gideon Epstein, a handwriting expert testifying against the Ramseys, [defined](#) graphology as the "study and examination of handwriting with the purpose of establishing a person's personality and character traits."
- **Scientific Basis of Graphology.** In the same deposition, Epstein offered his opinion of graphology as a science (In this section, which begins on p. 23, line 23, the questioner is James Rawls): **"Q.** Does that business of graphology impress you as a science? **A.** It does not. **Q.** Does it have credibility with you in any manner? **A.** It does not. **Q.** Do you believe in it? **A.** I do not."

Steps in Forensic Document Analysis

- **Carnes Summary.** "The recognized method for forensic document analysis occurs in several important steps.
 - First, the expert determines whether a questioned document contains a sufficient amount of writing and enough individual characteristics to permit identification.
 - After determining that the questioned document is identifiable, the expert examines the submitted handwriting specimens in the same manner.
 - If both the questioned document and the specimens contain sufficient identifiable characteristics, then the expert compares those characteristics often through the use of a chart. (SMF PP 230-232; PSMF PP 230-232.) For example, the slant of the writing, the shapes of the letters, the letter connections, the height of the letters, the spacing between letters, the spacing between words, the "I" dots and "t" crosses are aspects of handwriting that can be used for comparison.
 - Next, the expert weighs the evidence, considering both the similarities and the differences of handwriting, and determines whether or not there is a match. (SMF P 232; PSMF P 232.)" (Carnes 2003:52).
- **FBI Guidelines.** FBI guidelines for forensic document examination are available [on-line](#).

General Observations

General Principles

- **Handwriting Analysis.** "both parties agree that the field of forensic document examination is premised on the assumption that no two persons' handwriting is exactly alike; instead, each person has a unique handwriting pattern that allows the person to be identified through a comparison of proper handwriting specimens. (SMF P 209; PSMF P 209.) {Defendants agree that this is the bedrock assumption of practitioners in this area; they disagree that this assumption has any validity, inasmuch as it has never "been seriously tested, much less proven." (Defs.' Mot. In Lim. [68](#) at 16 and n.9) (Carnes 2003:Note 22).} "Forensic document examination involves the subjective analysis and assessment of writing characteristics found in a persons's handwriting or handprinting style, by examination of subtle and minute qualities of movement such as pen lifts, shading, pressure and letter forms. (SMF P 210; PSMF P 210.) Handwriting identification is an inexact endeavor that "cannot boast absolute certainty in all cases." (SMF P 212; PSMF P 212.) Two or more handwriting experts can reach different conclusions of authorship, even when examining the same questioned document and handwriting exemplars. (SMF P 213; PSMF P 213.)" (Carnes 2003:49-50).
- **What Examiners Compare.** "Writings prepared by a person in the past in the normal course of business are referred to in the field as "historical writings" or "course-of-business" writings. (SMF P 215; PSMF P 215.) In contrast, writings prepared on request for the purpose of comparison are referred to as "request exemplars." (SMF P 216; PSMF P 216.)... The most reliable method of forensic document examination occurs when an examiner compares both historical writings and request exemplars to the questioned document. (SMF P 217; PSMF P 217.)" (Carnes 2003:51-52).
- **Use of Originals by Handwriting Experts.** "Ideally, a handwriting expert should consult the original unidentified writing, not a copy, to increase the reliability of his or her assessment. (SMF PP 218-219; PSMF PP 218-219.)" (Carnes 2003:51).
 - Gideon "Epstein acknowledges the importance of consulting original documents in an article he coauthored, appearing in the 1971 edition of *Identification News*, a publication of the International Association for Identification. (SMF P 220; PSMF P 220.) In this text, Epstein writes that: 'All investigative agencies should be aware of the limitations that are imposed upon the Questioned Document Examiner by the submission of copies (Xerox, Photo, or Thermofax) in place of the original. By having to use the copies, the examiner is being deprived of one of the most important elements of scientific examination, the study of line quality of the writing. Those breaks, pressure areas, and even spacing, can often be attributed to the mechanical method of reproduction and not to the actual writing itself. A qualified conclusion based on examination of only copies is not rare. ATTEMPT TO OBTAIN THE ORIGINALS WHENEVER POSSIBLE.' (SMF P 129; Hans M. Gideon & Gideon Epstein, "The Obtaining of Proper Handwriting Exemplars and Standards," emphasis in original, Ex. A to Jordan Aff., Tab. 23.)" (Carnes 2003:61-62). "The parties also agree that mechanical copying may distort the writings or eliminate subtleties, such as pen lifts, hesitations, pressure or "feathering." (SMF P 222; PSMF P 222.) Notwithstanding his previous warnings about the use of copies, Epstein testified in this case that copies produced today are of a higher quality than those generated at the time the article was produced and, therefore, some of the concerns expressed in the article have been mitigated. He still agreed, however, that it is optimum to review the original. (PSMF P 219.)" (Carnes 2003:62-63).
 - Ted Widmer, director and principal instructor of the *International School of Handwriting Sciences* in San Francisco, [concur](#)s: "one of the tenants {sic} in handwriting identification is we always like to have the original sample. In other words, we like to have the one that was actually written with the pad and so forth, not a photocopy. None of us except for the people directly involved, apparently, in Colorado have actually seen the original note. The reason for that is because one of the main aspects of handwriting identification is pressure pattern. In other words, the force exerted, which is directly related to the neuromuscular system of the person. When you have a photocopy, you can't see that."
- **Generally Accepted Standards.** "In addition to a recognized methodology, there are some accepted standards that should be employed when engaging in handwriting analysis.
 - "One standard is that the genuineness of the historical writing or request exemplar must be verified; that is, the forensic document examiner should ensure the purported author is the true and historical writing is indeed the author. (SMF P 223; PSMF P 223.)" (Carnes 2003:53).
 - "In addition, any differences between the questioned document and the comparison writings are generally considered to be more significant than are similarities, when attempting to determine whether someone is the author of a questioned document. (SMF P 224; PSMF P 224.) The reason that similarity, by itself, is not dispositive is because most people are taught handwriting as children from the same or similar "notebook [54](#) styles" and, therefore, many people will share common handwriting characteristics called "class characteristics." (Defs.' Mot. In Limine [68](#) at 4; Albert S. Osborn, *QUESTIONED DOCUMENTS* 226 (2nd Ed. Patterson Smith, 1973), attach. to Defs.' Evid. In Supp., Vol. I, at Tab 16.)" (Carnes 2003:53-54).
 - "The existence of even one consistent fundamental difference between writings, however, has historically been viewed as a legitimate basis for concluding that two writings were not produced by the same person. (SMF P 225; PSMF P 225.) {"Plaintiff {Chris Wolf} contends, however, that modern handwriting analysis literature also views significant similarities as strong evidence that, in some instances, can outweigh an unexplainable difference between the writings. (PSMF P 225.)" (Carnes 2003:Note 23).
 - "Finally, it is generally accepted that consistent characteristics present over the course of a long writing should be viewed as genuine characteristics of the author's handwriting, and not the product of an attempt to disguise. (SMF P 237; PSMF P 237.)" (Carnes 2003:54).

Handwriting Scales

According to the Carnes decision, "on a scale of one to five, with five being elimination as the author of the Ransom Note, the experts placed Mrs. Ramsey at a 4.5 or a 4.0." There is a dispute about whether such a scale exists since many posters have failed to find such an official scale using Google searches.

- **ASTM Scale.** A 9-point scale has been used by experts in U.S. courts: "Mr. Hammond based his opinions using a 9-point scale, ranging from: Identification, Highly probable did write, Probably did write, Indications did write, No conclusion, Indications did not write, Probably did not write, Highly probable did not write, and Elimination.....The American Society for Testing and Materials (ASTM) has also promulgated standards for forensic document examiners. The nine-point scale used by Mr. Hammond in this case for expressing his opinions was established under the auspices of the ASTM." (*U.S. v. Thornton*).
- **According** to Internet poster Anti-K, the 9-point scale is as follows:
 - 1) Identification
 - 2) Highly probable did write

- 3) Probably did write
 - 4) Indications did write
 - 5) No conclusion
 - 6) Indications did not write
 - 7) Probably did not write
 - 8) Highly probable did not write
 - 9) Elimination
- Anti-K has suggested that a 5-point scale derived from the foregoing might be:
 - 1) Identification
 - 1.5) Highly probable did write
 - 2) Probably did write
 - 2.5) Indications did write
 - 3) No conclusion
 - 3.5) Indications did not write
 - 4) Probably did not write
 - 4.5) Highly probable did not write
 - 5) Elimination
- Internet poster Jayelles has [provided](#) the official ASTM definitions for each point on the scale:
 1. **Identification** – this should be used when the examiner is certain that the writer of the known material also wrote the questioned material.
Recommended terminology - "It has been concluded that Joe Bloggs wrote" or "It is my opinion/conclusion that Joe Bloggs wrote"
 2. **Strong probability (highly probable, very probable)** – the evidence is very persuasive but is missing some critical feature.
Recommended terminology - "It is my opinion/conclusion/determination that Joe Bloggs very probably wrote..."
 3. **Probable** – evidence points strongly towards the same person having written the known material and questioned material but falls short of certainty.
Recommended terminology - "It is my opinion/conclusion/determination that Joe Bloggs probably wrote..."
 4. **Indications (evidence to suggest)** – this is a weak opinion. A few significant features are in agreement between known material and questioned material. Should always be qualified to say that it is far from conclusive.
Recommended terminology - "evidence to suggest Joe Bloggs wrote...but falls far short... to reach a definite conclusion"
 5. **No conclusion (totally inconclusive, indeterminable)** – There may be significantly limiting factors – disguised writing, lack of comparable writing.
Recommended terminology - "could not determine whether Joe Bloggs"
 6. **Indications did not** – this is a weak opinion. Little significant evidence between known material and questioned material. Should always be qualified to say that it is far from conclusive.
Recommended terminology - "Indications Joe Bloggs did not write far from conclusive"
 7. **Probably did not** – Evidence points against known and questioned materials having been written by the same person but uncertainty still exists.
Recommended terminology - "it has been concluded that Joe Bloggs probably did not...." or "It is unlikely that Joe Bloggs..."
 8. **Strong probability did not** – examiner is virtually certain that known and questioned materials were not written by the same person.
Recommended terminology - "Strong probability that Joe Bloggs did not write" or "Highly probable that Joe Bloggs did not write" or "Highly unlikely that Joe Bloggs did not write".
 9. **Elimination** – Examiner has no doubt that the known and questioned materials were not written by the same person. Extreme care should be taken in using this conclusion especially if exemplar materials are limited.
Recommended terminology - "It has been concluded that Joe Bloggs did not write". "It is my opinion/conclusion/determination that Joe Bloggs did not write"

Common Pitfalls in Forensic Document Analysis

- **Ignoring Differences.** Ignoring differences between characteristics is a frequent cause of error in handwriting identification. (SMF P 233; PSMF P 233.) (Carnes 2003:52-53).
- **Dismissing Differences as Disguised.** Similarly, dismissing differences as merely the product of intentional disguise is another common mistake made in the analysis. (SMF P 235; PSMF P 235.) (Carnes 2003:52-53).
- **Analysis Should be Blinded.** "In addition, an examiner should not know the identity of the comparators and should consult more than one comparator to increase the reliability of his or her analysis. (SMF PP 256-57 & 268-72; PSMF PP 256-57 & 268-72.)" (Carnes 2003:52-53).

Is Handwriting Evidence Reliable?

- **Courts Have Split on Admissibility of Handwriting Evidence.** "Since the Daubert and Kumho Tire decisions, courts have been split on the admissibility of expert testimony of a forensic document examiner. Some courts have found the testimony to be reliable and fully admissible. Some courts have determined that the forensic document examiner's testimony was not sufficiently reliable and therefore fully excluded their testimony. However, other courts have taken a middle position, permitting the forensic document examiner to testify as to particular similarities and dissimilarities between the documents, but excluding the ultimate opinion on authorship." (*U.S. v. Thornton*).
- **Software Analysis Can Be Highly Accurate.** "Among the studies cited by Mr. Hammond is a study by Professor Sargur Srihara on the individuality of handwriting. Using handwriting of 1500 individuals, his conclusions were that, using computer software, they were able to establish with a 98% confidence that the writer can be identified. Taking the results over the entire population, they were able to validate handwriting individuality with a 96% confidence. By considering finer features, Professor Srihara opined that they should be able to validate handwriting individuality with a near 100% confidence" (*U.S. v. Thornton*).
- **Error Rates: Professionals vs. Non-Professionals.** "A study by Dr. Moshe Kam indicates that professional document examiners had only a 6.5% error rate compared to an error rate of 38.3% for nonprofessionals. Dr. Kam concluded by stating that professional document examiners possess writer identification skills absent in the general population. Another study by Professor Kam indicated that professionals concluded that forgeries were genuine 0.49% of the time whereas lay persons did so 6.47% of the time. Professionals mistakenly concluded that genuine signatories were forgeries 7.05% of the time; lay persons did so 26.1% of the time. Another study by Jodi Sita, Brian Found and others found that forensic document examiners made errors in 3.4% of their opinions, while 19.1% of the control group gave erroneous opinions." (*U.S. v. Thornton*).
- **Why Amateurs Make Mistakes.** "As Professor Kam stated: 'It struck me very quickly that **lay persons tend to see similarities and jump to a conclusion** . . . whereas document examiners always started the analysis—when I asked why did you make the decision—by trying to show me **sic** what's different'" [Emphasis added] (*U.S. v. Prime*).
- **Carnes Position**
 - **Ramseys Argued Handwriting Evidence Unreliable.** In *Wolf v. Ramsey*, "Defendants argue that the opinions of plaintiffs' expert should not be admitted because the field of forensic document examination is not sufficiently reliable. In their Brief in Support of the Motion in Limine, defendants argue that the "science" of handwriting analysis does not meet the reliability standards of Rule 702: as the theoretical bases underlying this science have never been tested; error rates are neither known nor measured; and the field lacks both controlling standards and meaningful peer review. (Br. In Supp. Of Mot. In Limine 68 at 2.)" (Carnes 2003:49).
 - **Carnes Ruled Handwriting Evidence from Qualified Examiners Reliable.** However, "the Court concludes, as a general proposition, that forensic document examiners, who are equipped with the proper background qualification and who employ the accepted methodology in their analysis, can serve to assist the trier of fact, in some regards, through providing reliable testimony about similarities or differences, or both, between a questioned writing and comparative exemplars." (Carnes 2003:55).

What Handwriting Experts Say About the JBR Ransom Note

Physical Characteristics

- **Quality of RN Not Ideal.** "Both parties agree that the Ransom Note is not an ideal specimen for handwriting analysis, primarily due to the type of writing instrument, a broad fiber-tip pen, used to draft the note. This type of pen distorts and masks fine details to an extent not achievable by other types of pen, as for example a ball point pen. (SMF P 243; PSMF P 243.) In addition, the stroke direction used to construct certain letters and subtle handprinting features, such as hesitations and pen lifts, are difficult to ascertain because of the pen used in the Ransom Note. (SMF P 244; PSMF P 244.)" (Carnes 2003:25).
- **Length of RN.** "The Ransom Note was quite long, and in fact is one of the longest ransom notes in the history of kidnapping cases. (PSDMF P 17.) (Carnes 2003:25)

Was Handwriting Disguised?

Overview

Some have argued that Patsy Ramsey either disguised her writing in the RN or disguised her writing in the exemplars so as to mislead investigators.

Evidence Writing Was Not Disguised

- **Carnes Decision.**
 - "the longer a document is, the harder it becomes to disguise one's handwriting. (PSDMF P 19.) (Carnes 2003:25)
 - "the handwriting in the original Ransom Note showed consistency throughout the entire writing. (SMF P 246; PSMF P 246.) One of the most common means to disguise one's handwriting is to attempt to make the script erratic throughout the text." (Carnes 2003:25).
 - "In sum, for the above reasons, the Ransom Note is not an ideal specimen for handwriting analysis. Nevertheless, the writer does not appear to have been trying to disguise his or her handwriting." (Carnes 2003:25).
- **Leonard Speckin.** "I can find no evidence that Patsy Ramsey disguised her handprinting exemplars" ([Epstein Deposition](#) (p. 137:21-23).

Evidence Writing Was Disguised

- **Gideon Epstein Analysis.** "The handwriting on the ransom note is a classic example of an attempt to disguise the true handwriting habits of the writer." ([Epstein Deposition](#) (pp. 97:25 through p. 98:1-2).
- **Karen Iannetta Analysis.** Iannetta is [self-described](#) as "a Life Fellow of the American College of Forensic Examiners (ACFE) and a member of the American Society of Industrial Security (ASIS), serving as handwriting consultant to corporate, legal, law enforcement, military and federal agencies." In an article that appeared in *The Forensic Examiner*, she states: "This disguised handwriting is observed by noting the slow, tense, hesitant pressure pattern, and patching made in letter structures, beginning on the first page of the note" ([Iannetta 1999](#)).
- **Ted Widmer Analysis.** Ted Widmer, director and principal instructor of the International School of Handwriting Sciences in San Francisco and author of *Crime and Penmanship* has [stated](#): "this ransom note was written by a person who was trying to disguise their handwriting."

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