

Stephen Carlson's Questionable Questioned Document Examination

Scott G. Brown and Allan J. Pantuck

Hershel Shanks' announcement that *Biblical Archaeology Review* had arranged for an expert in Greek paleography and a Greek forensic document examiner to analyze the handwriting of the sole manuscript of Clement of Alexandria's *Letter to Theodore* (Mar Saba 65) brought us back to a question that has received surprisingly little attention over the past five years: how capable was the handwriting analysis made by Stephen Carlson? Then a patent attorney, Carlson had no training or prior experience in questioned document examination yet applied its principles to argue that the handwriting of this manuscript was forged by its discoverer, Morton Smith. This autodidactic approach is frowned on by the American Board of Forensic Document Examiners (ABFDE), which asserts that competency in distinguishing between authentic and inauthentic documents is acquired, not from textbooks or correspondence courses, but from "a legitimate structured training program" and at least two years of mentoring in "a recognized forensic laboratory or with an examiner in private practice who has previously received proper training," followed by comprehensive written, practical, and oral examinations that are based on a wide range of problems frequently encountered in document examination.¹ As J. F. McCarthy put it, "the judgments of those dabbling in the field are quite apt to be wrong."²

Given the unlikelihood that Carlson attained the necessary competence without any training or experience, and the fact that he misapplied these same methods when he incorrectly identified some semiliterate scribbling in Mar Saba 22 not only as a forgery but also as a forgery in the same handwriting,³ it is surprising that his ability to detect forgery has gone unquestioned by so many readers of his book *The Gospel Hoax*. The most likely reason for this is Carlson's appeals to a professional document examiner named Julie C. Edison, who advised him and wrote a letter assessing his methods.⁴ Prior to the release of his book, Carlson posted an excerpt from this letter on the Yahoo Group textualcriticism, which the group's moderator, Wieland Willker, subsequently reposted on The Secret Gospel of Mark Homepage.⁵ Shortly after the book's

¹ ABFDE, "Frequently Asked Questions," American Board of Forensic Document Examiners, <http://www.abfde.org/FAQs.html>.

² J. F. McCarthy, "Some Aspects of Normal Behavior: Their Use in Understanding Problems Encountered by Document Examiners," *Journal of Forensic Sciences* 21 (1976): 205. Albert S. Osborn frequently complained about untrained document examiners. The following is typical: "There is sometimes greater danger from half-knowledge, 'a little learning', than from complete ignorance. If a smattering of knowledge from limited experience or superficial reading or information, is accompanied by presumption, as is often the case, then truth and justice are in peril when one thus prepared testifies in court regarding grave and important issues." *Questioned Documents* (2d ed.; Albany, N.Y.: Boyd Printing Co., 1929), 374.

³ See Scott G. Brown, "Factualizing the Folklore: Stephen Carlson's Case against Morton Smith," *Harvard Theological Review* 99 (2006): 293–98; Allan J. Pantuck and Scott G. Brown, "Morton Smith as M. Madiotes: Stephen Carlson's Attribution of *Secret Mark* to a Bald Swindler," *Journal for the Study of the Historical Jesus* 6 (2008): 106–25.

⁴ Stephen C. Carlson, *The Gospel Hoax: Morton Smith's Invention of Secret Mark* (Waco, Tex.: Baylor University Press, 2005). Carlson thanks Edison for her advice on p. xix and her assistance on p. 112 n. 9.

⁵ Stephen C. Carlson, "Re: The Gospel Hoax - my opinion," textualcriticism, posted October 23, 2005, <http://groups.yahoo.com/group/textualcriticism/message/1224>. Wieland Willker, "Discussion of Carlson's Gospel Hoax on the Textualcriticism List Nov–Dec 2005," no date, <http://www-user.uni->

release, Carlson reposted this excerpt on his blog *Hypotyposeis*.⁶ By way of introducing this excerpt, Carlson explained that he “hired a professional forensic document expert” to “review my work” and write a “report.”⁷ This vague description of Edison’s role is the source for the common belief that a professional forensic document examiner conducted a study of the handwriting in the photographs and concluded that the manuscript is a forgery.⁸ Craig A. Evans, for example, has vigorously promoted this idea to the evangelical world, turning Edison into a cadre of “experts in the science of the detection of forgeries” who studied the color photographs and discovered “clear and compelling” evidence of fraud.⁹

It is not surprising that some people think that Edison validated Carlson’s competence and conclusions, for Carlson explains that he sought her services to find out “whether my analysis of the handwriting is competent,” and the excerpt he posted from her “report” is wholly positive. A few eyebrows might have been raised by the fact that he posted only an “excerpt” from the letter, and the two curious ellipses within that excerpt likely raised a few more, but Carlson assured us that whatever salient information he left out could only further bolster his case: “Here’s part of her report to me (omitting discussion of the background as well as another suspicious feature she found).” Yet one author of this paper always wondered, Why do the flattering remarks about Carlson’s research that follow the first ellipsis begin with the word “However”? And the other author wondered, Why did Carlson never appeal to or even name this additional evidence of forgery discovered by a forensic document expert?

Eventually, our curiosity about the things that Carlson does not disclose about Edison and her letter got the better of us. We wanted to know, for instance, what kind of images she was working with. Were these the same halftone reproductions of Smith’s black-and-white photographs that Carlson displayed in his book? Was she aware that Charles Hedrick possesses original color photographs? The difference between real photographs and halftone reproductions is essential. Whereas original photographs can reveal more information through enlargement or magnification, halftone images actually lose essential visual information (the entire spectrum of shading between black and white) and distort the line quality when magnified or enlarged to the

bremen.de/~wie/Secret/discussion-hoax.html.

⁶ Stephen C. Carlson, “Some Initial Reviews and a Second Opinion,” *Hypotyposeis*, posted November 26, 2005, <http://www.hypotyposeis.org/weblog/2005/11/some-initial-reviews-and-second.html>.

⁷ The two introductions are similar. We quoted the phrase “review my work” from the post on textualcriticism, and the other phrases from the post on *Hypotyposeis*.

⁸ Timo S. Paananen, for instance, cited the excerpt from Edison’s letter on *Hypotyposeis* to show that, “Contrary to what [Hershel] Shanks suggests . . . , Stephen C. Carlson has in fact consulted a professional forensic document expert, Ms. Julie C. Edison, whose testimony confirms the findings of Carlson: ‘Mr. Carlson’s research into the questioned document field has been exemplary’” (italics removed). Paananen, “As the Secret Gospel of Mark Walked in to a BAR . . . ,” *Salainen evankelista*, posted November 28, 2009, <http://salainenevankelista.blogspot.com/2009/11/as-secret-gospel-of-mark-walked-in-to.html>.

⁹ Craig A. Evans, *Fabricating Jesus: How Modern Scholars Distort the Gospels* (Downers Grove: Inter-Varsity, 2006), 95; repeated in Craig A. Evans and Emanuel Tov, *Exploring the Origins of the Bible: Canon Formation in Historical, Literary, and Theological Perspective* (Acadia Studies in Bible and Theology; Grand Rapids: Baker Academic, 2008), 169; idem, “How Scholars Fabricate Jesus,” in *Contending with Christianity’s Critics: Answering New Atheists and Other Objectors* (ed. Paul Copan and William Lane Craig; Nashville: B&H Academic, 2009), 144. In an interview related in Lee Strobel (*The Case for the Real Jesus: A Journalist Investigates Current Attacks on the Identity of Christ* [Downers Grove: Inter-Varsity, 2006], 49, 50), Evans refers to Carlson “bringing in handwriting experts” and vividly describes how, “When experts examined the magnified photos of the text, they could see what they call ‘forger’s tremor.’” Edison actually does not refer to “forger’s tremor” in her letter.

point at which the individual dots become distinguishable. At the normal viewing distance the evenly spaced black dots meld together in our perception to create “the optical illusion of a continuous tone picture.” But as the apparatus that creates this illusion, the dot formations themselves differ in significant ways from the illusion they create. What up close appears as a jagged line might appear as a smooth gray line in the original photo. Curved lines and straight lines angled away from the orientation of the screen have a stepped appearance that resembles a halting pen movement. The result is phantom tremors and blobs and disconnections that do not exist in the original photographs.¹⁰ Evidence like this is worthless, as document examiners have long realized. In 1956, when Ordway Hilton published his findings on the utility of different forms of photographic reproductions in forensic document examination, he stated, “Both half-tones and line cuts have valuable applications, but not for the reproduction of material which is to be subjected to questioned document examinations.” He noted that they *do not* reveal hidden detail through their magnification. Rather, “with the use of a low-power magnifier the actual make-up becomes apparent even when a fine screen is used. This curtailment on the use of magnification is a serious limiting factor in document examination.”¹¹

The question of what images Edison used was therefore of primary interest. But we also wanted to learn the details of her expertise, the amount of time she devoted to the study of the handwriting, and her entire professional opinion regarding the authenticity of the manuscript. The information she provided us will leave both Carlson’s supporters and critics feeling deceived.

When first contacted, Edison responded, “Regretfully, I do not recall offering a professional opinion regarding Morton Smith’s Letter of Clement.” With further prompting, she recalled having spent a single afternoon in 2005 with Carlson looking, we presume, at the black-and-white halftone reproduction of the letter in Smith’s book: “We only looked at a book containing writings attributed to Clement; and possibly a sheet containing symbols of the 18th century Greek alphabet.” She recalled that “Mr. Carlson spent a great deal of time regarding who may have written Clement’s letter; he was considering writing a book.”¹² She was quick to add, “However, please be advised, no professional evaluation of mine was put into writing. Mr. Carlson paid me for my consulting time, but we did not communicate after than [*sic*].” We discussed the possibility of retaining her as an expert to generate a written report, but after some consideration she rejected the offer, and without our requesting it she forwarded the full text of the letter that she had previously sent to Carlson with the explanation, “There is nothing further

¹⁰ Roger Viklund, “Tremors, or Just an Optical Illusion? A Further Evaluation of Carlson’s Handwriting Analysis,” *The Jesus Character Critically Examined*, <http://www.jesusgranskad.se/theodore2.htm>; idem, “The Difference Between Real Photographs and Printed Photographs,” *Salainen evankelista*, <http://salainenevankelista.blogspot.com/2010/02/difference-between-real-photographs-and.html> (Part One, posted February 7, 2010); http://salainenevankelista.blogspot.com/2010/02/difference-between-real-photographs-and_10.html (Part Two, posted February 10, 2010); http://salainenevankelista.blogspot.com/2010/02/difference-between-real-photographs-and_13.html (Part Three, posted February 13, 2010).

¹¹ Ordway Hilton, *Scientific Examination of Questioned Documents* (Chicago: Callaghan & Co., 1956), 282–83.

¹² We are unsure whether Edison’s recollection is fuzzy here because Carlson referred on his blog to “Chapter III of my forthcoming book” four days later: “My SBL Paper Proposal Accepted,” posted May 10, 2005, *Hypotyposeis*, <http://www.hypotyposeis.org/weblog/2005/05/my-sbl-paper-proposal-accepted.html>.

for me to add on this subject, as it is not my area of expertise beyond what is written in the report.”

The missing sections from her letter answered our questions only too well. The “background” information that Carlson omitted precedes the section he excerpted. The contents excised by the first ellipsis read as follows (emphasis original):

Although my undergraduate degree is in history, my knowledge of ancient Greece, Rome, and early Christianity is basic at best. And I have a limited knowledge of the Greek alphabet.

However, some fundamentals exist when determining if a handwriting sample is fraudulent.

Most important: we need to compare the questioned document to known standards. And although Mr. Carlson has Greek writing samples attributed to the 17th or 18th century, *he has no known handwriting* from Clement or the unknown monk who allegedly transcribed his letters. Therefore, Mr. Carlson may not be able to conclusively state this text is non-authentic – solely on the basis of forensic document examination.

All of this information is at odds with Carlson’s description of what he left out. Edison made two vital points here. She plainly indicated that she herself cannot read the manuscript, and she identified the absence of known standards for comparison as a fundamental problem with his approach to questioned document examination. We will offer our thoughts on these two matters later. Here we note that Carlson’s suppression of this portion of Edison’s letter under the rubric of unnecessary background misled all interested parties to believe that she was properly qualified to render an opinion on this text and unequivocally endorsed his work.

The section omitted by the second ellipsis reveals the possible suspicious feature:

Although Mr. Carlson did not have known standards from Clement or the 18th century monk who may have transcribed his 3rd century letter, Mr. Carlson offered examples [of] Greek writing attributed to the 18th century. This examiner noticed that these letters appeared as though they had been mechanically reproduced.

Before the industrial age, professional penmen – and religious writers – transcribed essential texts and records. This uniform quality of the letters is also found in early American writing, such as the Declaration of Independence, U.S. Constitution and many early land records.

Based upon Greek standards supplied by Mr. Carlson and this examiner’s exposure to early American documents; this examiner noticed the questioned manuscript contained a far greater degree of natural variation than what was typical for professional penmen of that era. Natural variation in known standards became more common in the 20th century, when a greater number of citizens learned to write. [Albert S.] Osborn devoted an entire chapter to it – “Chapter XIII. Variation in Genuine Writing.”

This section largely conforms with Carlson’s description of the second thing he omitted. Yet we still wonder, Why would he omit it?

Two possible reasons present themselves. First, the omission begins where Edison reiterates her description of a fundamental problem with Carlson’s analysis—the absence of samples of authentic handwriting in this particular eighteenth-century hand to use as known standards for comparison. Carlson has to eliminate both references to this problem if he is to keep his readers ignorant of it. Second, the additional “suspicious feature” identified by Edison turns out to be a high degree of “natural variation”; all of the textbooks on forensic document examination identify the phenomenon of natural variation as a feature that favors authenticity. Anyone who consulted Osborn’s book would learn that forged documents rarely display natural variation.

There are, then, three important issues raised by the material Carlson removed from Edison's letter: her inability to read Greek, the necessity of having known standards for a proper analysis of the signs of forgery, and the fact that the manuscript handwriting displays a high degree of natural variation. We will offer our own thoughts on these matters in the sections that follow.

Professional Examination of a Foreign Script

The question of whether a document examiner can professionally assess a document that is written in an unfamiliar script occasionally arises in the secondary literature. In an article on this issue, Jay Levinson explained that the basis for any professional judgments about what is unusual about a particular writing is expertise in what is usual. Someone working on a document in an unfamiliar script does not possess that expertise. Hence, "It is clear that the examiner not knowing a script (even familiar with it enough for reading, but lacking extensive examination experience in it) *cannot* professionally examine materials as he should."¹³ The cause for concern, as McCarthy noted, is that "Examining writings in foreign alphabets and scripts may lead the unwary experienced examiner to make the same kinds of mistakes that a novice examiner may make in the examination of domestic systems of writing."¹⁴ According to Levinson, such an examiner is "working in the dark," "working from insufficient knowledge[, which] is little more than guesswork."¹⁵ The appropriate thing for an examiner to do in such situations is acknowledge his or her limitations: "But, can the document examiner admit professionally that there are certain types of handwriting problems that he cannot handle? Yes, he can make that statement, because sometimes it is the only honest statement that can be called professional."¹⁶

Edison is aware of her limitations and made the proper acknowledgement, both in her letter to Carlson and in her discussion with us. Whether she should have commented at all on this document is an individual judgment call.¹⁷ Her acknowledgement that she does not have the expertise to conduct her own investigation and render a professional opinion about this document and the fact that she met only briefly with Carlson raise the question, Is she really in a position to attest to the competence of Carlson's analysis? Carlson implied that she can and did do this by stating that he hired her in order to find out whether his analysis was competent and by hiding her inability to work in Greek and her criticisms of his method. Edison herself, however, more realistically stated that Carlson "asked me . . . to help verify his methods for uncovering the truth." In other words, she was writing about the validity of his methods, not certifying that he applied them competently, which is something she cannot do without acquiring the necessary expertise and conducting a study of her own using standards of authentic writing. What she does venture to certify is his "research into the questioned document field," which she believes "has been exemplary." She is impressed that he "carefully studied" Albert S. Osborn's 1929 book of 1028 pages. How she is in a position to verify this is not explained.¹⁸

¹³ Jay Levinson, "Questioned Document Examination in Foreign Scripts," *Forensic Science International* 22 (1983): 250 (emphasis original).

¹⁴ McCarthy, "Normal Behavior," 205.

¹⁵ Levinson, "Foreign Scripts," 250, 252.

¹⁶ Levinson, "Foreign Scripts," 250.

¹⁷ Levinson, "Foreign Scripts," 251.

¹⁸ The body of that book actually ends on page 689, after which comes a Part Two consisting of brief quotations from legal rulings pertaining to the matters of questioned document examination covered in Part One. The rulings would be of interest to lawyers in Osborn's day who needed to know what kind of

The Necessity of Standards of Genuine Writing

When studying questioned handwriting, document examiners pay special attention to features they call the signs of forgery and the signs of genuineness. The latter,¹⁹ which were strangely neglected in Carlson's analysis, comprise the characteristics of free and spontaneous handwriting and therefore normally point to genuineness,²⁰ whereas the former suggest lack of spontaneity and conscious attention to form and are therefore potentially suspicious. Their actual significance depends on whether or not they are found in the known standards or make sense within the particular writing situation. As Katherine Koppenhaver put it:

Presence of any of the signs of forgery does not necessarily indicate fraudulent handwriting. Any of the signs of forgery could be present in genuine handwriting. The signs reveal the fraudulent nature of the handwriting if they are not present in the known handwriting.²¹

Obvious signs of forgery include patched writing, hesitation as revealed by ink blobs and breaks in the line of writing, pauses in the writing, tremor causing poor line quality, and erasures. Presence of any of the signs of forgery does not suffice to indicate that the document in question is not genuine as any of the signs could be part of the writer's normal habits.²²

Similarly, Osborn wrote:

The fact to be kept in mind in a handwriting investigation is that the genuineness or the identity of a handwriting is determined by the number and nature of its characteristics, and a positive opinion is not given by the competent witness unless an adequate amount of standard writing for comparison is supplied. In this, as with other subjects, superficial knowledge or hasty examination often leads to serious error.²³

Accordingly, the secondary literature contains caveats like the following:

The common belief that the presence of tremor indicates a forgery is not correct as, if the same type of tremor is present in the disputed as well as the specimen writings or signatures, it will then be one of the points of similarity rather than pointing towards forgery or non-identity.²⁴

If the writer places the pen on the paper before starting to write, the lines will have blunt initial strokes. Some writers habitually place the pen on the paper before starting to write, resting the pen on the paper long enough to leave a small blob of ink at the beginning of the writing line.²⁵

evidence and testimony the courts of different states permitted in 1929 but would not be of much assistance to someone interested in learning how to study Mar Saba 65.

¹⁹ See "Proof of Genuineness of a Disputed Document" in Osborn, *Questioned Documents*, 363–76.

²⁰ The signs of genuineness can point to forgery when the questioned writing displays a higher degree of skill or vitality than known samples. For example, forged deathbed signatures tend to be stronger and smoother than authentic signatures from the same day.

²¹ Katherine M. Koppenhaver, *Forensic Document Examination: Principles and Practice* (Totowa, N.J.: Humana, 2007), 93. She makes the same point in idem, *Attorney's Guide to Document Examination* (Westport, Conn.: Quorum Books, 2002), 90.

²² Koppenhaver, *Attorney's Guide*, 90 (list numbers omitted); cf. 142. Carlson cited this book in *Gospel Hoax*, 112 n. 9, and he cited this page of this book (i.e., p. 142) in connection with the forger's lapse in *Gospel Hoax*, 117 n. 64.

²³ Osborn, *Questioned Documents*, 261.

²⁴ Dewan K. S. Puri, "Tremor: Forged or Genuine," *International Criminal Police Review* 282 (1974): 242. Cf. Joe Nickell, *Detecting Forgery: Forensic Investigation of Documents* (Lexington, Ky.: The University Press of Kentucky, 1996), 68–69, 149.

The standard textbooks on questioned document examination echo Edison's emphasis on the need for standards of genuine writing.

The pitfalls of attempting questioned document examination without adequate standards were well illustrated by an experiment in which "two court-qualified state forensic document examiners" examined authentic samples of signatures without being informed that the writing was impaired by arthritis. The examiners incorrectly judged 68 percent of the arthritic-impaired signatures to be forgeries and classified the remainder as inconclusive. They were misled by the fact that the impaired handwriting contained all the usual signs of forgery ("laborious, shaky, or nervous lines"; "retouching/patching"; "retracing of strokes"; pen-lifts within connecting strokes; "lack of rhythm, inconsistent letter formations, and the general appearance of 'drawing'"; and "blobbed ending strokes"), whereas the standards did not reveal that these features were sometimes normal. When the examiners were provided with larger samples of known normal and arthritic writing for the same writers but were still not told about the impairment, they changed their minds and classified 92 percent as authentic with the qualification "attempted to disguise." In other words, they correctly identified the arthritic-impaired signatures as authentic writings of the writers in question when they knew that these people sometimes wrote this way, but they incorrectly inferred that the writing was unnatural due to disguise rather than arthritis.²⁶ The more one knows about the writer and the situation, the less likely one is to misinterpret the signs of forgery.

Natural Variation

Natural variation in writing is generally considered to be evidence of authenticity, as variation in a hand generally shows natural, spontaneous, unconscious writing. With respect to forgery, it is the lack of natural variation that is suspicious, not its presence, because forgers tend to write words the same way each time, always copying from the same few instances of those words in their exemplars:

Forgers limit the letter forms they copy, making fraudulent writing more consistent than genuine writing. Forgers duplicate words exactly when they are repeated in a text. Therefore, lack of variation and exact duplication are signs of spurious writing.

²⁵ Koppenhaver, *Attorney's Guide*, 89 (bold emphasis omitted from first sentence). See also idem, *Forensic Document Examination*, 114. On the subject of retouching in genuine documents and the difference between ordinary and suspicious retouching, see Roy A. Huber and A. M. Headrick, *Handwriting Identification: Facts and Fundamentals* (Boca Raton, Fla.: CRC, 1999), 290; Osborn, *Questioned Documents*, 332–33. Osborn notes that retouching is suspicious insofar as it is "unnecessary, delicate and hidden." Is this what we see in Carlson's examples? See Roger Viklund, "Reclaiming Clement's Letter to Theodoros: An Examination of Carlson's Handwriting Analysis," posted February 7, 2009, <http://www.jesusgranskad.se/theodore.htm#4>. Retouching. A few points are worth noting. Illegibility and obvious overwriting are characteristic of genuine writing, not forgery. Likewise, ugly letterforms—especially simple ones that are normally written well—are indicative of inattention to writing; forgers pay too much attention. And places "where the pen comes off the paper but is not stopped and shows continuity of motion are, as a rule, indications of unconsciousness of the details of the operation and point toward genuineness" (Osborn, *Questioned Documents*, 364).

²⁶ Larry S. Miller, "Forensic Examination of Arthritic Impaired Writings," *Journal of Police Science and Administration* 15:1 (1987): 51–56 (quoting from 53, 52, 54); also summarized in Huber and Headrick, *Handwriting Identification*, 206–7.

The forger doesn't recognize the need for natural variation and makes the words and letters as close to the known writing as possible. This is obvious when he or she attempts to copy extended writing. The forger will exactly duplicate the letter form, crossing the "t" at the same angle and in the same place, dotting the *i* in the same location, forming the design of the letter exactly like the model, giving the writing a rubber stamp look.²⁷

Edison's impression that the extent of natural variation in Mar Saba 65 is suspicious is a hypothesis based on her familiarity with important American documents and the Greek book hands that Carlson used as comparisons. Writing of this sort has an artistic quality for the reader to appreciate. Mar Saba 65, however, is a documentary hand, a form of writing used to make everyday records. It needs to be compared to other Greek documentary hands of the period. The Greek documentary hands that the authors have seen do not display that mechanical quality with which Edison is familiar.

Concluding Thoughts

The people who read Edison's letter on the internet would have been far less impressed had they known that Carlson's consultant is unable to read Greek, that she met with him for only a few hours, that they looked exclusively at halftone reproductions of Smith's photographs, that she disavows having expressed an opinion on the manuscript's authenticity, and that her positive comments were prefaced by the "most important" observation that the absence of "known standards" in Carlson's analysis violates one of the "fundamentals" of forgery detection.²⁸ Clearly he hoped that this letter would discourage concerns about the objectivity, validity, and competence of his handwriting analysis, but now that we know the omitted contents and the manner in which he suppressed them, he has ultimately made us more dubious about these things than ever.

It is not hard to imagine that a handwriting analysis by a properly qualified questioned document examiner would look very different from what we see in *The Gospel Hoax*.

²⁷ Koppenhaver, *Forensic Document Examination*, 99, 125; cf. idem, *Attorney's Guide*, 142 (as mentioned in n. 22, above, this is a page that Carlson cited in *Gospel Hoax*, 117 n. 64). For additional discussion, see Osborn, *Questioned Documents*, 296, 369–70.

²⁸ Carlson has avoided setting the record straight. For example, when Walter M. Shandruk suggested that Edison was likely unfamiliar with "18th century Greek script" and that "the blame should ultimately lay with her for not suggesting a more rigorous analysis or not offering any serious warnings over the photographic evidence," Carlson neither confirmed her unfamiliarity with the Greek alphabet nor acknowledged that she criticized his method, although he posted comments defending himself. See Walter M. Shandruk, "Carlson's Handwriting Analysis on Secret Mark," Thoughts on Antiquity, posted August 5, 2008, <http://neonostalgia.com/weblog/?p=484>.