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UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF GEORGIA
GAINESVILLE DIVISION

UNITED STATES OF AMERICA, .
Plaintiff, . Docket Nos. 2:02-CR-038,
2:03-CR-052
v. . Gainesville, Georgia
November 19th, 2003
10:00 o'clock a.m.
WILLIAM EMMETT LECROY, JR., .
Defendant .
.

VOLUME II

CONTINUATION OF TRANSCRIPT OF
PROCEEDINGS BEFORE THE HONORABLE
SUSAN S. COLE, UNITED STATES MAGISTRATE.

APPEARANCES:

For the Government: OFFICE OF THE UNITED STATES ATTORNEY
RUSSELL G. VINEYARD, AUSA
JOEY BURBY, AUSA

For the Defendant: FEDERAL DEFENDER PROGRAM
STEPHANIE KEARNS,
CHIEF FEDERAL PUBLIC DEFENDER
PAUL KISH,
ASSISTANT FEDERAL PUBLIC DEFENDER

BRIAN MENDELSON,
ASSISTANT FEDERAL PUBLIC DEFENDER

Court Reporter: Donna C. Keeble, RMR, CRR
1959 U.S. Courthouse
Atlanta, Georgia 30303-3361
(404) 215-1383

Proceedings reported by machine shorthand, transcript produced
by computer-aided transcription.

1 (Following proceedings were had in open court on November
2 19th, 2003.)

3 (Defendant Lecroy present.)

4 THE COURT: Good morning, and please be seated.

5 MR. VINEYARD: Good morning, Your Honor.

6 THE COURT: All right. Mr. Vineyard, are you ready
7 to proceed?

8 MR. VINEYARD: We are, Your Honor.

9 THE COURT: You may.

10 MR. KISH: Judge, before we go any further, I would
11 like to make a record on something, if I could. This morning,
12 when we came into the courtroom, this sheaf of papers, which by
13 my estimate, is about maybe 100 and something pages of
14 documents, was left on our table and it has a number of
15 individual sheets of paper followed by -- it's somewhere in the
16 middle of here, is the curriculum vitae of the witness that the
17 government proposes to call next, followed by which are a
18 series of stapled together stickies of some information that
19 may be relevant in this case.

20 And I just want to make the record that further
21 reiterates the objection we had yesterday to the government
22 calling Ms. Jackson to testify, because from what Mr. Vineyard
23 has told me after he himself came in the courtroom, this is
24 either, these are either exhibits and/or Jencks material that
25 they intend to use with this witness. And this, I believe,

1 magnifies and amplifies upon the objection that we had
2 yesterday, this information Mr. Vineyard says he only obtained
3 last night but I'm obtaining it now, this morning for the first
4 time. So we just wanted to make a record that we continue with
5 our objection to having Ms. Jackson testify.

6 THE COURT: All right.

7 MR. VINEYARD: Your Honor, we call Kirstin Jackson.

8 THE DEPUTY CLERK: Please step into the witness stand
9 and raise your right hand.

10 KIRSTEN JACKSON, GOVERNMENT WITNESS, SWORN

11 THE DEPUTY CLERK: Thank you. Please be seated and
12 state your full name for the record.

13 THE WITNESS: My name is Kirsten -- that's spelled,
14 K-i-r-s-t-e-n -- Jackson.

15 DIRECT EXAMINATION

16 BY MR. VINEYARD:

17 Q. How are you employed, Ms. Jackson?

18 A. I'm a forensic document examiner with the U.S. Postal
19 Inspection Service in Dulles, Virginia, outside Washington,
20 D.C.

21 Q. And, ma'am, how long have you held that employment?

22 A. I've been with the U.S. Postal Inspection Service for
23 approximately four years.

24 Q. And are you a forensic document examiner in your current
25 position?

1 A. Yes, I am.

2 Q. And have you worked in any other laboratories before
3 joining the U.S. Postal Inspection Service?

4 A. Yes, I have. Prior to the postal inspection service, I
5 was employed for six years with the Internal Revenue Service
6 Internal Security Forensic Science Laboratory, and prior to
7 that, I worked for seven years with the Virginia Division of
8 Forensic Science.

9 Q. And did you work as a forensic document examiner in either
10 of those laboratories?

11 A. Yes, I did.

12 Q. What is your educational background, Ms. Jackson?

13 A. I have a bachelor's degree in psychology from the
14 University of Virginia and a master's degree in forensic
15 science from the George Washington University in Washington,
16 D.C.

17 Q. And the degree from George Washington, what did your
18 studies entail there?

19 A. It entailed studying various aspects of forensic sciences
20 such as questioned documents, firearms and tool mark
21 examinations, other physical sciences, as well as criminal law
22 courses.

23 Q. And focusing in on the questioned document examination,
24 what type of courses do you recall taking there?

25 A. There was one full semester course in questioned document

1 examination, and questioned documents was also a part of the
2 subject of some of the other comparative science courses in the
3 curriculum.

4 Q. And after completing your education, did you receive any
5 formal training to become a forensic document examiner?

6 A. Yes, I did. I trained for approximately three years with
7 the Virginia Division of Forensic Sciences in Richmond,
8 Virginia.

9 Q. And can you describe for us what sort of training you
10 received there?

11 A. I was trained under the supervision of retired qualified
12 forensic document examiners from the FBI, the U.S. Postal
13 Inspection Service and the U.S. Army crime lab, and my training
14 entailed reading books and articles in the field of questioned
15 documents, examining hundreds of cases involving thousands of
16 writings, and attending courses in questioned document analysis
17 as well as conferences and meetings.

18 Q. Would it be better to describe this as an apprenticeship?

19 A. Yes.

20 Q. All right. In that apprenticeship, did you have any
21 formal testing that was done to measure your proficiency?

22 A. Yes. I was tested on a periodic basis at the conclusion
23 of sections of my course of instruction, which also happens to
24 be the U.S. Army crime lab course of instruction, and I was
25 given practical examinations to take, I was asked to write

1 research papers on topics, and at the conclusion of my
2 training, I was given a mock trial.

3 Q. Okay. And when did that training conclude, approximately,
4 what year?

5 A. In June 1986. '89, June 1989.

6 Q. Did you successfully complete that apprenticeship and
7 training program?

8 A. Yes, I did. I received a certificate of completion
9 bestowed by the Virginia Division of Forensic Science.

10 Q. Okay. At that point, were you released to conduct your
11 own analysis of handwriting documents?

12 A. Yes, I was.

13 Q. And did you, in fact, do that for some period of time
14 within the Division of Forensic Science for the Commonwealth of
15 Virginia?

16 A. Yes, I did, for four more years.

17 Q. Okay. Have you been certified by the American Board of
18 Forensic Document Examiners?

19 A. I was certified last year by the ABFDE.

20 Q. And what is the ABFDE?

21 A. It is the certifying body for forensic document
22 examination. It receives applicants from the field of forensic
23 document examination and considers them for their eligibility
24 to participate in the certification process; it reviews their
25 credentials; and then each candidate is given a written test

1 and upon completion and passing of the written test, the
2 candidate is then given five practical examinations to complete
3 within a period of time at their laboratory. And if those are
4 successfully completed and passed, then, the candidate must
5 undergo an oral board of three of the five practical exams, and
6 upon completion of this, the candidate is then considered
7 certified.

8 Q. And did you successfully complete that certification
9 process?

10 A. Yes, I did.

11 Q. And you said you received that certification in 2002?

12 A. Correct.

13 Q. Now, between the time of your apprenticeship, the
14 completion of your apprenticeship and your certification, did
15 you continue to undergo continuing education in your field?

16 A. Yes, I have. Can you still hear me?

17 Q. Sit where you're comfortable.

18 A. The chair doesn't go forward and the microphone doesn't
19 come back.

20 Q. You have continued to attend courses over the years in
21 continuing education programs?

22 A. Yes, I have, mainly, attendance at professional forensic
23 conferences.

24 Q. Now, ma'am, currently, you work for the postal inspection
25 service?

1 A. That's correct.

2 Q. And you've done so since 1999?

3 A. That's correct.

4 Q. Okay. Let me hand you what's marked for identification as
5 Government's Exhibit 15 and ask you if you can identify that
6 for us?

7 A. Yes; this is my curriculum vitae.

8 Q. And is that an accurate copy of it?

9 A. Yes, it's an accurate copy.

10 MR. VINEYARD: Your Honor, I tender Government's
11 Exhibit 15.

12 MR. KISH: I have no objection, based on what we have
13 already objected to.

14 THE COURT: All right. It's admitted.

15 BY MR. VINEYARD:

16 Q. Ms. Jackson, I want to talk to you about your current
17 employment at the postal inspection service. Does postal the
18 inspection service use peer review as part of its process in
19 your lab for forensic document examination?

20 A. Yes. We have 100-percent peer review in our laboratory;
21 every case that is examined by an examiner is then given to a
22 second examiner, who independently examines the same case to
23 arrive at the same conclusion prior to a submission or, excuse
24 me, issuance of the laboratory report.

25 Q. And was that the case at other labs that you have worked

1 at?

2 A. At the Internal Revenue Service and at Virginia, there was
3 not 100 percent peer review of every case; there was a
4 percentage of cases that was reviewed.

5 Q. Okay. And the postal inspection service lab, is it
6 accredited in any way?

7 A. It's currently in the process of being accredited.

8 Q. And by what organization?

9 A. That would be the American Society of Crime Lab
10 Directors' --

11 Q. Okay.

12 A. -- Laboratory Accreditation Board, also known as ASCLD,
13 and this is a group of laboratory directors who evaluate
14 forensic laboratories to determine whether they meet specific
15 standards regarding evidence handling and procedures,
16 examination procedures, et cetera, and upon satisfying these
17 criteria, the laboratory is deemed accredited.

18 Q. Okay. And the postal inspection service lab is in the
19 process of going through that accreditation now?

20 A. That's correct.

21 Q. Are you familiar with ISO, ISO certification?

22 A. I have heard of it.

23 Q. Is the U.S. postal inspection service lab ISO certified?

24 A. No, sir.

25 Q. Now, are you a member of any professional organizations

1 apart from your certification by the American Board of Forensic
2 Document Examiners?

3 A. Yes. I'm a member of the questioned documents section of
4 the American Academy of Forensic Sciences; I'm a member of the
5 questioned document section of the Mid-Atlantic Association of
6 Forensic Scientists; I'm also a member of the American Society
7 for Testing and Materials, ASTM, International, and the
8 subcommittee E30.02, which is the subcommittee devoted to
9 questioned document standards.

10 Q. Have you testified in court before as an expert witness?

11 A. Yes, I have, 30 times.

12 Q. Okay. Has that included federal and state courts?

13 A. Federal and state.

14 Q. Can you approximate how many times you've been in federal
15 court and qualified to testify as an expert in forensic
16 document examination?

17 A. Approximately, eight times. Eight to ten times.

18 Q. And as part of your continuing education and reading in
19 this field, are you familiar with challenges to expert
20 testimony by forensic document examiners?

21 A. I'm familiar with challenges of forensic document
22 examiners, yes.

23 Q. Okay. And have you done reading in the area as part of
24 your continuing education, as part of your work in your field,
25 to keep up with studies that have been performed in relation to

1 that challenge?

2 A. Yes. I receive The Journal of Forensic Sciences quarterly
3 and read that, and I also read The Journal of the American
4 Society of Questioned Document Examiners, as well as other
5 articles that are provided to me in the field.

6 Q. Ms. Jackson, has the postal inspection service had a
7 relationship with a Dr. Srihari regarding certain studies that
8 he has performed?

9 A. Yes. Dr. Srihari is a professor and --

10 MR. KISH: Judge, can I interpose an objection here?
11 It was my understanding that this lady was being called upon as
12 a forensic document analyst and it's now as if she is being
13 called upon to testify about the work of other people. And if
14 it's for that purpose, then we want to be sure that's what it
15 is, because I thought this was a Daubert hearing on the
16 government's proposal to call Arthur Anthony as an expert
17 witness.

18 THE COURT: Mr. Vineyard?

19 MR. VINEYARD: Your Honor, this hearing is a Daubert
20 challenge to the field of handwriting, and in addition to
21 Mr. Anthony's personal qualifications, this witness will be
22 addressing her knowledge of studies that have been done in this
23 field addressing the issues raised by the defendant by the
24 motion that has been filed.

25 THE COURT: I'll permit the line of questioning.

1 MR. KISH: Yes, ma'am.

2 THE WITNESS: Dr. Srihari is a professor and a
3 researcher at the State University of New York in Buffalo, New
4 York, and he has also worked with the U.S. Postal Service for
5 the past 20 years in developing handwriting recognition
6 software for converting handwritten and hand-printed addresses
7 on mail envelopes into bar codes at the bottom of the
8 envelopes.

9 His studies of handwriting recognition using software
10 were carried further into The National Institute of Justice
11 funded research involving the study of translation of
12 conventional handwriting examination aspects into computer
13 language to find objective methods of evaluating handwriting
14 without the examiner being involved, directly involved.

15 BY MR. VINEYARD:

16 Q. So did Dr. Srihari's initial work with the postal
17 inspection service have to do with processing mail using
18 computers?

19 A. Yes. The handwriting recognition occurs during the
20 processing of the U.S. mail --

21 Q. Okay.

22 A. -- yes.

23 Q. All right. Now, it was subsequent to that that he also
24 conducted certain studies regarding the individuality
25 handwriting?

1 A. Correct. He already had some familiarity with the field
2 of handwriting recognition and some of the aspects of the
3 examination of handwriting, and he converted some of what
4 examiners look at in handwriting into machine language and also
5 used computer language purely separate from what examiners look
6 at, and with the combination of the two, he was able to
7 evaluate the writing of over 1500 writers, which he gathered as
8 representative of the U.S. population based on a projected
9 census survey. And his machine, his software was able to
10 evaluate aspects of the writing and identify a questioned body
11 of writing with the correct known writer in the database with a
12 98 percent confidence level.

13 Q. Did Dr. Srihari publish a paper entitled, "Individuality
14 of Handwriting"?

15 A. Yes. He published the paper in the 2002 edition of The
16 Journal of Forensic Sciences, a peer review journal.

17 Q. And is that journal in your field that you're familiar
18 with?

19 A. Oh, yes.

20 Q. And are you familiar with the article, Dr. Srihari's
21 article?

22 A. Yes, I am.

23 Q. Let me show you what's marked for identification as
24 Government's Exhibit 19 and ask you to identify that?

25 A. (Reviews exhibit.)

1 (Pause in the proceedings.)

2 THE WITNESS: Yes, this is a copy of Dr. Srihari's
3 article entitled "Individuality of Handwriting," published in
4 The Journal of Forensic Sciences, July 2002.

5 MR. VINEYARD: Your Honor, I offer Government's
6 Exhibit 19.

7 THE COURT: Mr. Kish?

8 MR. KISH: Again, if I can just have a continuing
9 objection based upon what we previously said, but with that
10 continuing objection, I have no objection to this being
11 admitted.

12 THE COURT: It's admitted.

13 MR. VINEYARD: Thank you, Your Honor.

14 (Pause in the proceedings.)

15 BY MR. VINEYARD:

16 Q. Ms. Jackson, I don't want to discuss all of the details of
17 this article but, briefly, if you could summarize what were the
18 findings of Dr. Srihari with regard to the ability to
19 distinguish handwriting?

20 MR. KISH: Judge, again, the document is in evidence,
21 and if this witness did not perform the study, I would object
22 to her extracting what she believes the study shows.

23 MR. VINEYARD: Your Honor, I just intend this to be
24 an aid to the Court. These are rather voluminous papers; this
25 is a witness who has an expertise in this field. And I don't

1 intend to spend a long time on these articles, but I think it
2 might be helpful for her just to summarize from her experience
3 and knowledge what the findings were.

4 I suspect that Mr. Denbeaux is going to be doing that
5 later today in his testimony. That is his, quote, "field of
6 expertise."

7 MR. KISH: Well, so long as the government will have
8 no objection to Professor Denbeaux doing that, then that's
9 fine.

10 THE COURT: It will apply equally. The ruling will
11 apply equally. You may proceed.

12 MR. VINEYARD: Thank you, Your Honor.

13 THE WITNESS: Dr. Srihari -- can you hear me?

14 Dr. Srihari gathered the handwriting of over 1500
15 writers representative of the U.S. population. He used his
16 computer software, which was a combination of computational or
17 computer only features and conventional features that document
18 examiners use, such as examination of the slant of writing or
19 the formation of letters, and he used this combination to
20 evaluate -- to have the software evaluate the handwriting in
21 two different kind of tasks.

22 In one, he input a body of writing considered to be
23 in question, a questioned document, and asked the software to
24 search the database for the writer of the questioned document,
25 and the software was able to do this with a 98 percent

1 confidence level, correctly identify the writer of the
2 questioned writing from the database of writings.

3 The other task that he had the software perform
4 involved verification, which is where he had one questioned
5 writing, one known writing, and asked the software to determine
6 if the same writer wrote both or if they were written by
7 different writers, and the software was able to determine the
8 correct answer with a 96 percent accuracy or confidence level.

9 BY MR. VINEYARD:

10 Q. Ms. Jackson, are you familiar with any other studies that
11 have been done addressing the issue of the individuality
12 writing?

13 A. The Secret Service has a computerized database that is
14 called the FISH system, and this stands for Forensic
15 Information System for Handwriting. This is actually a
16 handwriting database that was established in the early '70s by
17 the German Federal Criminal Office.

18 The German office built this database to house
19 handwriting samples so that searches could be done if an
20 anonymous threatening letter, for example, were submitted to
21 see if any of the writers in the database may have written this
22 letter, and the Secret Service in the early '90s became part of
23 this FISH program.

24 FISH operates somewhat like the automated fingerprint
25 identification system, the database for fingerprint searches.

1 It does measurements and evaluations, however, of writing and
2 will perform inquiries or searches on the database to search
3 for matches.

4 There is one type of evaluation that the system does
5 that's purely objective, does not involve any human operator
6 involvement, and this is called the text insensitive
7 measurement.

8 MR. KISH: I'm sorry, I couldn't hear that, the text
9 and the what?

10 THE WITNESS: The text insensitive measurement, TIM.
11 They refer to it as TIMs.

12 MR. KISH: Thank you.

13 THE WITNESS: This is where the computer, the
14 software itself makes its own evaluations of the writing based
15 on black and white pixels, essentially. It doesn't recognize
16 words, it doesn't recognize letters; it simply looks at shapes
17 and provides the code that represents that body of writing.
18 And there has to be at least three lines of writing for the
19 system to evaluate it.

20 Once the body of writing has a code, the machine then
21 can move on to another body of writing and also establish an
22 algorithm or code for this next body of writing.

23 When searches have been done on this database using
24 only the machine measurements, the database returns with the
25 correct writer for a questioned writing in ranked listing,

1 either in the first or second place of the ranking. It will
2 rank all of the writers in the database according to how
3 closely they match the questioned code, but always, the correct
4 writer is in the first one or two positions of the ranking that
5 the machine produces.

6 This is without operator intervention. This is also
7 without the machine knowing or needing to know whether the
8 writing is questioned or known. It doesn't know, it doesn't
9 need to know this information; it's simply put in as a body of
10 writing and it will evaluate the body of writing and search
11 other bodies of writing for matches.

12 BY MR. VINEYARD:

13 Q. Ms. Jackson, I want to ask you about the database for the
14 FISH system. The known writing that is included in that
15 database, how is it determined to be known writing and how is
16 it included in the FISH database?

17 A. Other aspects of the FISH evaluation do involve forensic
18 document examiner examination to confirm whether a questioned
19 writing was written by a known writer.

20 The only known writings in the system are those that
21 have been obtained by law enforcement agents and have been
22 witnessed by them as the writings of the person they are
23 obtaining the writing from, so it's not an subjective decision
24 by forensic document examiners as to what is questioned and
25 what is known. The knowns are firmly established through

1 witnessing and chain of custody, and it's not necessary for the
2 machine measurements to know which is which; it simply looks
3 for codes that are similar to make matches.

4 Q. Ms. Jackson, are you familiar with any other studies that
5 have been done resulting in published papers regarding the
6 individuality of handwriting?

7 A. Yes. There have been a series of studies published in
8 different journals, and these are research studies carried out
9 by forensic document examiners who decided to determine if the
10 handwriting of identical and fraternal twins could be
11 distinguished.

12 The logical premise is that if two people are born
13 with the same DNA, in the same family, have gone through the
14 same educational schooling systems, that their writing would
15 tend to be more similar to one another than to other writers.

16 In the 1960s, in 1960, Mary Beacom conducted a study
17 where she examined the writing of about 50 identical and
18 fraternal twins, and in 1980, there was a study published by
19 Gamble and he also studied the writing of about 50
20 identical-only twins. And then in 1998 was another published
21 study by D. Boot, David Boot, I believe, and he studied 95 sets
22 of twin writings.

23 All of the authors and examiners reached the same
24 conclusion in their examination of twin writings, and that is
25 that given a sufficient amount of writing, it is always

1 possible to distinguish the handwriting of identical and
2 fraternal twins.

3 Q. And are you familiar with the Beacom paper, the Gamble
4 paper and the Boot paper?

5 A. Yes, I am.

6 Q. Let me show you what's marked for identification as
7 Government Exhibits 16, 17 and 18 and ask you to identify those
8 by exhibit number, please.

9 A. Exhibit 16 is an article entitled "A Study of Handwriting
10 by Twins and Other Persons of Multiple Births" by Mary Beacom.

11 MR. VINEYARD: Your Honor, I tender Government's
12 Exhibit 16.

13 THE COURT: Any objection?

14 MR. KISH: No.

15 THE COURT: It's admitted.

16 THE WITNESS: Government's Exhibit Number 17 is "The
17 Handwriting of Identical Twins" by D.J. Gamble. This was
18 published in the Canadian Society of Forensic Science Journal
19 in 1980.

20 MR. VINEYARD: Your Honor, I tender Government
21 Exhibit 17.

22 THE COURT: Mr. Kish?

23 MR. KISH: No objection, Judge.

24 THE COURT: It's admitted.

25 THE WITNESS: And Government's Exhibit Number 18 is

1 entitled "An Investigation into the Degree of Similarity in the
2 Handwriting of Identical and Fraternal Twins in New Zealand,"
3 published in 1998 in The American Society of Questioned
4 Document Examiners' journal.

5 MR. VINEYARD: I offer Government's Exhibit 18, Your
6 Honor.

7 THE COURT: Any objection?

8 MR. KISH: Judge, again, I haven't paged through
9 these, but I have no objection to that.

10 THE COURT: It's admitted.

11 BY MR. VINEYARD:

12 Q. Ms. Jackson, how do these studies relate to the tenets or
13 the principle of forensic document examination; what is the
14 significance of these studies?

15 A. The basic premise of handwriting examination and
16 identification is that no two writers in the world share the
17 same combination of handwriting characteristics and, therefore,
18 are distinguishable by their handwriting.

19 The impetus behind looking at twin writings, as I
20 stated, is that, logically, one would assume that the writings
21 of twins would tend to be more similar than the writings of
22 non-twins in the population.

23 Q. Ms. Jackson, I want to turn your attention to whether your
24 field of expertise has any established standards for your
25 method or technique of analysis. Are you familiar with any

1 standards in your field?

2 A. Yes. In 1997, the FBI organized a group that's known as
3 SWGDOC, S-W-G-D-O-C. This stands for the Scientific Working
4 Group for Questioned Documents; it is one of several working
5 groups that the FBI sponsors, and its purpose is to develop
6 standards for the field of forensic document examination.

7 Other groups are SWGFAST (phonetic), which is for
8 forensic latent print examinations; SWGDAM (phonetic) is for
9 DNA; SWGGUN (phonetic) is for firearms, and there are others.

10 The guidelines that have been developed by SWGDOC
11 have been submitted to ASTM, which I mentioned earlier; it's
12 the American Society for Testing and Materials. This is an
13 organization that was established in 1898 and it provided the
14 forum for organizations and groups to develop voluntary
15 consensus standards for their respective professions.

16 At the SWGDOC level, the standards have been
17 peer-reviewed by the questioned document community. At the
18 ASTM level, the standards are peer reviewed by an even larger
19 forensic science community.

20 Upon review and approval, the standards are then
21 published in ASTM publications. There is a committee titled
22 E30 in ASTM that is devoted to forensic sciences and a
23 subcommittee, E3002, which is devoted to questioned document
24 standards.

25 Other examples of standards in the field, I had

1 mentioned ASCLD earlier, the group who accredits laboratories
2 after determining that the laboratory meets specific
3 standards. This is an example of laboratories needing to meet
4 agreed-upon standards in order to be found accredited and
5 approved.

6 Also the organization ABFDE, the American Board of
7 Forensic Document Examiners, certifies forensic document
8 examiners, as I mentioned earlier, and this is another form of
9 standardization for the field.

10 Q. Now, have you served on any of the committees that worked
11 on these standard guides for examination of handwriting?

12 A. I'm currently a member of the subcommittee E3002 of ASTM
13 and I served for four years with the SWGDOC subcommittee that
14 developed the published standard for the examination of
15 handwritten items.

16 Q. Okay. I want to show you what's marked for identification
17 as Government Exhibits 20 and 21 and ask you to identify these
18 exhibits by their numbers, please.

19 A. Exhibit 20 is the ASTM International Standard Guide for
20 Examination of Handwritten Items, designation E2290-03.

21 Government's Exhibit 21 is the ASTM Standard
22 Terminology for Expressing Conclusions of Forensic Document
23 Examiners, designation E1658-96.

24 MR. VINEYARD: Your Honor, I offer Government
25 Exhibits 20 and 21.

1 THE COURT: Is there any objection?

2 MR. KISH: Judge, again, and I'm not trying to be
3 difficult here, but I've just been handed this incredibly huge
4 pile of paper. These two documents, I've never before seen in
5 my life, and I would like the opportunity to read through them
6 before I have the opportunity to at least decide whether I want
7 to make an objection or not, so if I could just have a moment?

8 THE COURT: Certainly.

9 MR. KISH: Thank you.

10 (Pause in the proceedings.)

11 MR. KISH: Judge, after a very quick review of about
12 7 pages of single-spaced, highly technical data, I object.

13 The reason for my objection is the person that we're
14 focusing on here is Arthur Anthony, the person the government
15 wants to call as a witness.

16 I recall yesterday, Mr. Anthony clearly testified
17 that he did not follow these standards; therefore, these
18 standards have absolutely no relevance to whether or not Mr.
19 Anthony can be permitted to testify in front of the jury in
20 this case.

21 MR. VINEYARD: Your Honor, it was my understanding at
22 our pretrial conference back in October that they were
23 challenging the field of forensic document examination as well
24 as Mr. Anthony, in particular. These standards go to the
25 Daubert factor regarding whether there are standards in the

1 field. These publications show that there are standards in the
2 field and the Court would be able to compare these standards
3 with the standards that Mr. Anthony testified about.

4 In the Kirby case, these are the standards that
5 Magistrate Judge Baverman cited in that opinion and found that
6 Mr. Anthony's procedures, as he testified in the Kirby case,
7 were substantially the same as these procedures, so I believe
8 they are relevant to the challenge that has been presented.

9 MR. KISH: But the problem here, Judge, is that
10 Mr. Anthony said he did not follow them; he made it very clear
11 yesterday, and I was very specific when I asked him. He said
12 he did not follow these procedures because, from his point of
13 view, there were none, and I think that's the key to our
14 inquiry here.

15 They can have all the working groups they want in
16 Washington that put together lists of things that a questioned
17 document examiner is supposed to do, but if that particular
18 examiner who the government proposes to call as a witness
19 doesn't follow anything, those lists are irrelevant for
20 purposes of the gate-keeping provision that the Daubert
21 decision requires the Court to perform.

22 THE COURT: Well, I don't think it's irrelevant if
23 he -- he may not be aware of the standards themselves, but if
24 he performed the equivalent, then I think it is relevant, so
25 I'm going to overrule your objection and that document will be

1 admitted.

2 MR. VINEYARD: And we also tender Government Exhibit
3 21, Your Honor.

4 MR. KISH: It's the same objection to that, Judge,
5 that I had before.

6 THE COURT: All right. Same ruling.

7 BY MR. VINEYARD:

8 Q. Ms. Jackson, I'm going to hand you back Government's
9 Exhibit 20. Are these standard guides for the examination of
10 handwritten items in your field?

11 A. This is the standard guide for the examination of
12 handwritten items.

13 Q. Okay. And does your lab follow any standard guides in
14 your evaluation of documents?

15 A. Yes, our laboratory follows this standard guide.

16 Q. Okay. And Government Exhibit 21 -- let me just ask you to
17 do this. If you would, just summarize for us what the standard
18 procedures are in your lab, then, as --

19 A. With regard to examining handwriting?

20 Q. Yes, please, as they relate to Government Exhibit 20.

21 A. The standard guide for our examination of handwritten
22 items begins by discussing the scope of the guide in reference
23 documents and terminology used in the guide and how the
24 terminology is defined.

25 It also discusses the significance in use of the

1 guide itself for the standard and equipment and requirements.

2 The actual procedure begins on page 2 and explains
3 that when an examiner has questioned and known writing, the
4 first step that the examiner takes is to determine whether the
5 writing is original or a copy.

6 If an original can be obtained, the examiner is
7 recommended to do this; if not or if it doesn't exist, then,
8 the examiner is asked to continue to the best of his or her
9 ability with the copy and evaluate the quality of the copy and
10 the extent of the examination that can be carried out.

11 Once this is determined, the questioned writings are
12 then segregated, if need be, by style and type of writings.
13 For example, cursive writings are separated from hand-printed
14 writings, and then within each of those subsets, the examiner
15 establishes consistency or inconsistency.

16 For example, if there is a stack of cursive writing,
17 the examiner will determine if it's all one writer, appears to
18 be, or if there is more than one writer involved, in which case
19 that subset is further divided.

20 The known writing is also examined for styles of
21 writing, hand-printed and cursive, and if it is submitted as
22 coming from one writer, the examiner ascertains that this is
23 the case, that it is consistent internally.

24 The examiner then examines the questioned and known
25 writing to determine if there is sufficient quantity and

1 quality of writing for a comparison and if the writings are
2 comparable. In other words, if the questioned writing is
3 cursive, the known writing needs to also be cursive for
4 comparison and the text needs to be similar, if not the same,
5 the wording. An A needs to be compared to an A; an A can't be
6 compared to a B, for example, in a handwriting examination.

7 Once this is established, the examiner then compares
8 the questioned and the known writing and seeks similarities and
9 dissimilarities and their significance and weighs them in
10 combination and reaches a conclusion as to whether or not the
11 questioned writing is the product of the known writer.

12 Q. Now, Government Exhibit 21 are standards for expressing
13 conclusions of forensic document examiners; is that correct?

14 A. This is correct.

15 Q. And is there a standard terminology that has been adopted
16 by ASTM?

17 A. Yes. This is standard terminology for expressing
18 conclusions; we refer to it as our nine-point scale. It ranges
19 from identification to elimination, with a neutral finding in
20 the middle of no conclusion, and then there are probable and
21 highly probable and limited association, qualified conclusions
22 on both positive and negative sides of the scale and in
23 between.

24 Q. And does the U.S. postal inspection lab follow this
25 nine-point scale?

1 A. Yes, we do.

2 Q. Are you aware that other labs follow different scales, a
3 modification of this nine-point scale?

4 A. I'm aware that the U.S. Secret Service also follows this
5 ASTM standard. I'm aware that the FBI, I believe, does not,
6 but I can't comment on other laboratories.

7 Q. I want to ask you some further questions about peer
8 review. You've testified about the peer review process within
9 the postal inspection service; what other forms of peer review
10 occur within your field of expertise?

11 A. First, there is the scholarly peer review, which is the
12 journals that are peer reviewed and published articles that are
13 relevant to the field of questioned document examination.

14 Examples of some of these journals are The Journal of
15 Forensic Science, The Journal of the American Society of
16 Questioned Document Examiners, The International Journal of
17 Forensic Document Examiners, and others.

18 Other types of peer review could be considered in the
19 ASCLD accreditation process, where inspectors from other
20 laboratories come to a laboratory to determine if that
21 laboratory that is being inspected does meet specific standards
22 as prescribed by ASCLD.

23 Also the American Board of Forensic Document
24 Examiners is a form of peer review for an individual examiner
25 as far as meeting specific standards in the field.

1 As we spoke of earlier, casework in my laboratory and
2 in many others is 100-percent peer-reviewed by colleagues, and
3 this is certainly a form of peer review on its own.

4 I would like to note that cases that are examined at
5 the laboratory, for the most part, do not undergo any sort of
6 destructive examination, so they are maintained in their
7 original submitted condition and can, therefore, be reexamined
8 by another examiner at another location at any time.

9 Q. And are there individuals who are forensic document
10 examiners in private practice?

11 A. Yes, there are.

12 Q. And they would be available to be retained by a defendant
13 to examine questioned and known samples?

14 A. To my knowledge, that's correct.

15 Q. Now, has the field of forensic document examination been
16 accepted by other forensic sciences?

17 A. Yes. I believe I mentioned earlier the American Academy
18 of Forensic Sciences, which was established in 1948, is the
19 only national multi-disciplined forensic organization in the
20 country.

21 Questioned documents was one of the first sections to
22 become a part of the American Academy of Forensic Sciences.
23 There are also -- there is also The International Society of
24 Identification, to which questioned documents has a section.
25 There are regional organizations in the United States that have

1 questioned document sections such as The Mid-Atlantic
2 Association of Forensic Scientists, The Midwestern Association
3 of Forensic Scientists and others. There are also
4 international societies that have forensic document examiner
5 sections, such as the Canadian, Australian, New Zealand,
6 British and other societies that have questioned documents
7 within their organization.

8 Furthermore, there are a number of universities that
9 have forensic science degrees and within their curriculum are
10 questioned document courses, such as the George Washington
11 University where I attended with the masters program in
12 forensic science; there is the University of Alabama at
13 Birmingham; this is the Oklahoma State University and several
14 others.

15 Q. Okay. Is there any particular program of study at the
16 Oklahoma State University regarding questioned document
17 examination?

18 A. There is a new program that has been established that
19 offers four courses in the examination of questioned document
20 analysis for four credits per course within the degree program.

21 Q. And, Ms. Jackson, are you familiar with any studies that
22 address the known or potential error rate of forensic document
23 examiners?

24 A. Yes, I am.

25 Q. And what studies are you familiar with, Ms. Jackson?

1 A. Dr. Moshe Kam's study. In the early 1990s, Dr. Moshe Kam,
2 who is a professor and researcher at Drexel University in
3 Philadelphia, conducted a pilot study involving seven forensic
4 document examiners with the FBI and ten laypersons. He wanted
5 to determine if there was a difference in the abilities of
6 document examiners and laypersons in matching unknown and known
7 documents.

8 Although he acknowledged that this was a very small
9 group, he did note that the difference was striking in the
10 abilities of the two groups.

11 This led him to conduct a large-scale study published
12 in 1997 in The Journal of Forensic Sciences involving 104
13 document examiners, and I would like to note that that 104
14 document examiners probably makes up between a third and a
15 sixth of the total number of document examiners estimated to be
16 in the U.S., so he had a large-scale study.

17 And he asked the examiners to do, again, matching
18 tasks. He gave them six documents which were of unknown origin
19 to the examiner and then 24 as the known or the database
20 documents and asked the examiner to determine for each of the
21 six how many of the knowns wrote the six documents. He also
22 gave the same tasks to a control group of laypersons.

23 He found that the forensic document examiners
24 incorrectly identified a writer with a questioned writing 6.5
25 percent of the time, whereas laypersons incorrectly identified

1 the writer 38.3 percent of the time; that laypersons errored
2 six times more often, therefore, than document examiners in
3 identifying the wrong person with a questioned writing.

4 Q. And in that study, how did the laypersons compare with the
5 forensic document examiners in making correct identifications?

6 A. What's interesting to note in the study is that in
7 correctly identifying writers, the percentages are very close;
8 the document examiners and the laypersons do almost equally
9 well in correct identifications.

10 But what one must keep in mind is that that result
11 cannot be considered without also considering the error rate.
12 That is because the laypersons are identifying but at the
13 expense of making errors on the other end.

14 In other words, the analogy that I like to use is if
15 a layperson were given a true or false test and marked every
16 answer true, the layperson would get all of the true answers
17 correct, but they would also have marked true for the false
18 ones. And in this example, in this study, this is what has
19 happened; they have over-identified indiscriminately, to the
20 point of getting many identifications correct but also
21 identifying the wrong people, and this is why they have done
22 well in one sense but very poorly in the other.

23 Q. Let me show you what's marked for identification as
24 Government Exhibit 22 and Government Exhibit 23 and ask you if
25 you can identify those?

1 A. Yes. Government's Exhibit 22 is an article entitled
2 "Proficiency of Professional Document Examiners in Writer
3 Identification" by Dr. Moshe Kam, published in The Journal of
4 Forensic Sciences in 1994.

5 Q. Is that Dr. Kam's paper regarding his pilot study?

6 A. Yes, yes.

7 MR. VINEYARD: Your Honor, I'll offer into evidence
8 Government Exhibit 22.

9 MR. KISH: No objection.

10 THE COURT: It's admitted.

11 BY MR. VINEYARD:

12 Q. You've identified -- I'm sorry.

13 A. And Government's Exhibit 23 is an article entitled "Writer
14 Identification by Professional Document Examiners, Dr. Moshe
15 Kam," et al., and this was also published in The Journal of
16 Forensic Sciences in 1997. And this is a large-scale research
17 project that he carried out with over 100 document examiners.

18 MR. VINEYARD: Your Honor, I'll offer Government's
19 Exhibit 23 at this time.

20 MR. KISH: No objection.

21 THE COURT: It's admitted.

22 BY MR. VINEYARD:

23 Q. Ms. Jackson, has Dr. Kam published any other papers in
24 this field of measuring the proficiency or the error rate for
25 forensic document examiners?

1 A. Yes, he has, although I would like to mention that in
2 1998, he provided a published article in response to criticisms
3 of his large-scale study in 1997 in which the monetary
4 incentives provided to the laypersons some critics felt were
5 insufficient and, therefore, the laypersons didn't have the
6 same motivation to do well as forensic document examiners. So
7 Dr. Kam conducted a monetary incentive study, where he designed
8 four different monetary schemes of reward and taking away money
9 based on their performance, and he found that there was no
10 significant difference in the performance of the laypersons in
11 any of the various monetary schemes that he had set up.

12 In 2001, Dr. Kam published another study in The
13 Journal of Forensic Sciences, this one regarding signatures,
14 and the determination of genuine versus non-genuine signatures
15 were simulated.

16 A simulated signature is one in which somebody tries
17 to imitate either from memory or tracing or just in their own
18 writing the writing of another person's signature.

19 Document examiners determined that a good signature
20 was bad -- this is the error rate -- they incorrectly said a
21 good signature was bad 7.05 percent of the time. Laypersons
22 said a good signature was bad in error 26 percent of the time.

23 Document examiners concluded a bad signature was
24 good .49 percent of the time. Laypersons concluded a bad
25 signature was good 6.47 percent of the time.

1 Laypersons, again, errored three and a half times
2 more often in calling a good signature bad and thirteen times
3 more often in calling a bad signature good, more often than
4 document examiners.

5 In 2003, just this month, an article was published in
6 The Journal of Forensic Sciences regarding hand-printing and
7 document examiner proficiency in examining hand-printing only.
8 The error rate for identifying the wrong writer for document
9 examiners is 9.3 percent. The error rate for laypersons is
10 40.45 percent. Therefore, laypersons errored four times more
11 often, actually, 4.35 times more often than document examiners
12 in identifying the wrong writer.

13 Q. Let me hand you what's marked for identification as
14 Government's Exhibits 24 and 25 and ask you to identify these
15 for us, please.

16 A. Government's Exhibit 24 is an article entitled -- this is
17 a long title -- "Effects of Monetary Incentives on Performance
18 of Non-Professionals in Document Examination Proficiency
19 Tests."

20 And this was published in The Journal of Forensic
21 Sciences in 1998.

22 MR. VINEYARD: Your Honor, I offer Government Exhibit
23 24.

24 THE COURT: Any objection?

25 MR. KISH: I have no objection.

1 THE COURT: Okay. It's admitted.

2 THE WITNESS: Government's Exhibit 25 is an article
3 entitled "Writer Identification using Hand-Printed and Non-Hand
4 Printed Questioned Documents," and this was published in the
5 November 2003 issue of The Journal of Forensic Sciences.

6 MR. VINEYARD: Your Honor, I tender Government
7 Exhibit 25 at this time.

8 MR. KISH: No objection.

9 THE COURT: It's admitted.

10 BY MR. VINEYARD:

11 Q. And Government Exhibit 25 is the most recent paper by
12 Dr. Kam addressing the issue of hand-printing?

13 A. Yes, that's correct.

14 There is another study that was published in 2001 in
15 The Journal of Forensic Sciences by a researcher at LaTrobe
16 University (phonetic) in Australia, Dr. Brian Found, and he
17 also examined the proficiency of document examiners versus
18 laypersons in determining genuineness versus nongenuineness of
19 signatures, and his results essentially corroborate
20 independently Dr. Kam's study of signatures in his 2001
21 published article.

22 Q. Let me show you Government's Exhibit 26 and ask you if
23 that is the published paper by Dr. Found that you have just
24 testified about?

25 A. Yes. Government Exhibit 26 is an article entitled

1 "Forensic Handwriting Examiners' Expertise for Signature
2 Comparison."

3 MR. VINEYARD: Your Honor, I tender Government
4 Exhibit 26.

5 MR. KISH: Judge, I object. There is no question of
6 signatures in this case and the government is well aware of
7 that; I would object to this study, that this study has no
8 relevance for that purpose.

9 THE COURT: I'll overrule.

10 BY MR. VINEYARD:

11 Q. Ms. Jackson, are you familiar with any other sort of
12 proficiency testing within your field?

13 A. Yes. As part of the accreditation program, laboratories
14 that have been found accredited by the ASCLD lab group must
15 participate in external proficiency testing.

16 There is a company known as Collaborative Testing
17 Services, CTS, which provides proficiency tests, one or two a
18 year, to laboratories who are voluntarily participating in
19 these proficiency tests.

20 Prior to the existence of CTS, there existed, and
21 still exists, The Forensic Sciences Foundation, which was
22 founded in 1969 with a law enforcement grant, and the purpose
23 of The Forensic Sciences Foundation was to study the
24 application of science to the resolution of legal and social
25 issues.

1 In 1971, the foundation became affiliated with the
2 American Academy of Forensic Sciences, and their mission at
3 that point was to develop education and training in forensic
4 sciences, to develop and improve the forensic sciences in
5 various ways, to fund studies. And there is one other that I
6 can't recall off the top of my head.

7 But The Forensic Science Foundation contracted with
8 CTS in the '70s to provide proficiency tests to forensic
9 laboratories who wished to participate.

10 Can I editorialize a little bit here?

11 Q. Well, let me just ask a question for you.

12 A. Okay.

13 Q. Are you aware of critics of your field using results of
14 The Forensic Sciences' Foundation testing, particularly in the
15 1980s?

16 A. Yes. In 1989, there was an article issued in a law review
17 journal which criticized the lack of scientific studies in the
18 field of forensic document examination, specifically,
19 handwriting examination.

20 The authors of the article noted that the only
21 existing studies were The Forensic Science Foundation and CTS
22 proficiency tests. They chose to -- the authors chose to take
23 the results of the tests in aggregate and interpret them as a
24 representation of the abilities of forensic document examiners.

25 Now, both of these entities have always established

1 that the purpose of their test is not to be an indicator of the
2 quality or abilities of a profession or discipline but simply
3 to be used on a lab-by-lab basis for training, for research,
4 for feedback for that particular laboratory.

5 There are many flaws with these CTS tests. I would
6 like to point out, they can be taken by anyone who orders them
7 and pays for them; they can be taken by examiners in foreign
8 countries, where English is not their first language; they can
9 be taken in countries where the Roman alphabet is not even
10 used. It's unknown who is taking all of these tests, so
11 considering them in aggregate is meaningless.

12 Unfortunately, CTS is the only organization currently
13 that commercially provides tests to laboratories that wish to
14 remain accredited.

15 Q. The article that you referred to in the law review was
16 published by Professors Denbeaux, Saks and Risenger (phonetic)?

17 A. I believe that's correct.

18 Q. And you're familiar with those FSF studies that are cited
19 in that article?

20 A. Yes.

21 Q. And those are what you have been addressing --

22 A. Yes.

23 Q. -- in terms of the shortcomings of those and the purpose
24 for those proficiency tests?

25 A. Yes.

1 MR. VINEYARD: If I could have just a moment, Your
2 Honor?

3 THE COURT: All right.

4 (Pause in the proceedings.)

5 MR. VINEYARD: Your Honor, I believe that's all the
6 questions I have for Ms. Jackson at this time.

7 THE COURT: All right. Mr. Kish, would it be useful
8 to the defense to have us break for lunch at this time and take
9 an extended lunch, or are you prepared?

10 MR. KISH: I'll blunder forward, as best I can, if I
11 can here, Judge.

12 THE COURT: All right.

13 MR. KISH: Thank you.

14 CROSS-EXAMINATION

15 BY MR. KISH:

16 Q. Ms. Jackson, when were you first contacted to testify in
17 this case?

18 A. This past Friday.

19 Q. Okay. My name is Paul Kish, by the way. So we have never
20 met before?

21 A. (Nods head affirmatively.)

22 Q. And you work and live in the D.C. area?

23 A. That's correct.

24 Q. Did you prepare these notes that I'm going to show to you
25 here that were handed to me this morning? There are several

1 pages of typed notes.

2 A. (Reviews documents.)

3 (Pause in the proceedings.)

4 THE WITNESS: Yes, I did.

5 BY MR. KISH:

6 Q. Are those notes that you used for preparing to testify

7 here today, or have you used those notes on other occasions?

8 A. Both.

9 Q. Am I right in assuming you probably prepared those before
10 being contacted last Friday?

11 A. Yes.

12 Q. Can I have those back, please?

13 A. Sure.

14 Q. And do you have another body of work, in other words, all
15 of your research and everything that led you to the creation of
16 these notes?

17 A. Not an actual body of work. I have many files, hard copy
18 and electronic, that I have collected over the years related to
19 this --

20 Q. And where is all that?

21 A. -- these issues. At my office in Dulles, Virginia.

22 Q. Okay. Does that have all of your readings that would form
23 the basis of the things you've told us about here today?

24 A. Yes, I would say that it does.

25 Q. Okay. Okay. Did you send your notes down anytime before

- 1 this morning to anybody here in Georgia?
- 2 A. I didn't send them down; I brought them down --
- 3 Q. Okay.
- 4 A. -- yesterday.
- 5 Q. Have you testified -- you've mentioned you've testified in
6 federal court before, right?
- 7 A. Yes.
- 8 Q. Do you have any of the transcripts of your earlier
9 testimony?
- 10 A. No, I don't.
- 11 Q. Okay. As I understand things, you are not a trained
12 social scientist, are you?
- 13 A. That's correct.
- 14 Q. Do you know that Professor Michael Saks is a trained
15 social scientist?
- 16 A. I believe I've heard that.
- 17 Q. Do you know that Professor Michael Saks has an expertise
18 in evaluating social science research which you do not have?
- 19 A. I will take your word for that.
- 20 Q. Okay. Now, in evaluating social science research, that's
21 not what you're paid to do by the United States Postal Service?
- 22 A. That's correct.
- 23 Q. Okay. What you're paid to do is to examine documents,
24 right?
- 25 A. Essentially.

1 Q. And in examining some of the things that the professors
2 have examined, what you're trying to do is join the growing
3 body of forensic document examiners that are trying to save
4 your field from being, basically, being put out of existence,
5 right?

6 A. We're trying to correct misrepresentations and misleading
7 commentary, as well as satisfy and meet recent legal
8 requirements.

9 Q. You mentioned some peer review issues earlier. Would you
10 agree with me that the peers that are reviewing the work of
11 your field after the Daubert decisions are people who are
12 wearing robes and sitting on the bench in federal courts,
13 because if they say it's not an expertise, it's not an
14 expertise? Would you agree or disagree with that statement?

15 A. What is your -- are you asking about the peers or the --
16 that a judge is a peer?

17 Q. That is the only body of peers, is what I'm suggesting to
18 you; do you agree or disagree with my suggestion?

19 A. The only body of peers -- I think you will have to reword
20 that; I'm not getting that question.

21 Q. You think that your field is an expertise and you should
22 be allowed to testify as an expert; you agree with that, don't
23 you?

24 A. Yes.

25 Q. All right. You do know that after the Daubert decision,

1 only federal judges decide who is or who is not an expert?

2 A. I do understand that.

3 Q. Do you, therefore, agree that the only peers who are
4 reviewing the body of work by forensic document examiners that
5 makes any difference for purposes of hearings like this are
6 federal judges?

7 A. And state, but --

8 Q. Yeah.

9 A. Yes. For admissibility for testimony, yes.

10 Q. Okay. For some reason, in your peers, you didn't mention
11 the fact that a United States District Judge in the Western
12 District of Virginia, a United States District Judge in the
13 Northern District of Illinois, a United States District Judge
14 in the district of Alaska, a United States District Judge In
15 the district of Nebraska, a United States District Judge in the
16 Northern District of California, a United States District Judge
17 in the District of Massachusetts and, most recently, a United
18 States District Judge in the District of Arizona have all
19 either completely blown your field out of the water or severely
20 restricted it. Why have you not mentioned that?

21 A. I also didn't mention all of the ones that have accepted
22 it. Do you have that list?

23 Q. There's two, in published opinions.

24 A. That's incorrect, sir.

25 Q. So are you an expert in the law also?

1 A. No, but I have accumulated the federal decisions, both
2 appellate and district, involving the admissibility of
3 handwriting examination.

4 Q. I see. So the judges who have restricted your field, is
5 it, again, just a matter of they were being incorrect?

6 A. I think it would be necessary to read each decision
7 independently for the reasoning. I understand in at least two
8 of the exclusion cases, that the government didn't provide
9 sufficient support for its side of the case, so the judge
10 didn't receive a sufficient amount of information to determine
11 the admissibility.

12 Q. When you do peer review at your lab, how many people are
13 in the section that you work in, in the forensic document
14 section?

15 A. Total number of examiners?

16 Q. Yes, ma'am.

17 A. Six.

18 Q. And where are you on a ranking of -- I mean, are you the
19 head of the section, are you one of the people that's beneath
20 the head, or how does that work?

21 A. I am one of the senior forensic document examiners.

22 Q. Okay. When someone reviews your work, is it the head of
23 the section or one of the other people who are on the same
24 level as you?

25 A. It can be either.

1 Q. Okay. Do you ever review the work by the head of the
2 section?

3 A. Yes.

4 Q. Okay. Is it only one person that reviews that work, when
5 the head of the section performs an examination?

6 A. No.

7 Q. Okay.

8 A. Any of us can review the supervisor's examination.

9 Q. Okay. When you're doing peer review, is there just one
10 document examiner looking at the work of what one other
11 document examiner did?

12 A. Correct.

13 Q. Okay. You mentioned to us this work by Dr. Srihari, which
14 I believe is spelled S-r-i-h-a-r-i.

15 A. Right.

16 Q. And you're aware, although you're not a social scientist,
17 with what Dr. Srihari has done?

18 A. I have contributed from a forensic document standpoint
19 information for him in his research.

20 Q. Okay. And I'm going to summarize here based on what I've
21 had to quickly read, but as I understand it, Dr. Srihari
22 started out by working on some -- and I'm going to use the word
23 machinery -- machinery to help the postal service with its job
24 of sorting mail, right?

25 A. Correct.

1 Q. And what Dr. Srihari and his graduate assistants and other
2 people did was they came up with this optical scanning
3 equipment that could distinguish between words, right?

4 A. Yeah.

5 Q. And the purpose, the original purpose was to help the
6 postal service route the various billions of pieces of mail it
7 gets to the correct zip codes?

8 A. Yes, to make it more efficient, to speed it up.

9 Q. And then Dr. Srihari recognized that his machine was able
10 to possibly identify two pieces of writing created by the same
11 hand, right?

12 A. His postal software was unable to do that.

13 Q. But his later-developed software did that?

14 A. Right.

15 Q. And he was paid for that by federal government money to
16 try to develop that even further?

17 A. Right.

18 Q. Correct?

19 A. Right.

20 Q. Okay. And the forensic document examiners began to help
21 Dr. Srihari with this attempt to create a machine that can do
22 what the people do, the document examiners, right?

23 A. Yes. Our field has been criticized for not having an
24 objective, scientifically-validated demonstration of the basis
25 that proves the basis of forensic handwriting examination.

1 Q. One of the things that Dr. Srihari and his assistants did
2 was they went through the letters of the alphabet and they
3 looked at certain characteristics of certain common letters or
4 letter combinations that occurred more often than other
5 characteristics or other letter combinations; you would agree
6 with that, wouldn't you?

7 A. Yes, I believe he has done that.

8 Q. And then what Dr. Srihari and others did was they
9 quantified what the machine should look for when deciding if
10 there is a match between a questioned and a known document,
11 right?

12 A. The machine looks at various features, and he terms them
13 micro features and macro features. And the macro features are
14 more of a global overview of the writing, such as the slants
15 and overall shape and concavity or openings or closings of the
16 letters. The micro features refer more specifically to the
17 actual -- to each actual letter and its shape and formation and
18 pixelization.

19 Q. And the machine does very well, 98 percent, you mentioned?

20 A. Based on the population of the database, yes.

21 Q. Well, that's what any study is based on, is the population
22 of the database, right?

23 A. Yes.

24 Q. Isn't that right?

25 A. Yes.

1 Q. And that's no different than the studies you think are
2 incorrectly put together, The Forensic Sciences' Foundation
3 studies of the 1980s; it's based on the database, right?

4 A. I'm not sure what you're referring to there.

5 Q. Well, what I'm trying to point out is are you saying that
6 Dr. Srihari's work is limited because his database is not large
7 enough?

8 A. I would agree with that.

9 Q. That his study is no good?

10 A. I don't agree with that.

11 Q. All right. I'm not following what you're saying.

12 A. It is somewhat like the pilot study that Dr. Kam first
13 carried out.

14 Q. Okay.

15 A. The population is not very large, 1500. It's also highly
16 diverse.

17 Q. Okay.

18 A. So the chances of distinguishing writing intuitively would
19 increase, the machine would do better with a diverse
20 population.

21 Dr. Srihari is currently working to build the
22 database, make it larger, and to include the writings of less
23 diverse populations.

24 Q. Would you agree with me that if Dr. Srihari continues
25 along the road he is going, you will no longer have a job?

1 A. I can't predict that.

2 Q. Okay. Now, you mentioned your impressions about the size
3 of the database in Dr. Srihari's work and, again, you also
4 agreed with us that you're not a professionally-trained social
5 scientist, right?

6 A. Right.

7 Q. Do you know how many studies are needed and what size of
8 databases are required before the social science community
9 will, in essence, agree that a certain proposition has been
10 established?

11 A. Since we have just confirmed that I'm not a social
12 scientist, I don't think that's a question that I can answer.

13 Q. Right. So you have no way of knowing whether the
14 professionals in the field of evaluating research would come to
15 the same conclusions that you have when it comes to the
16 question of the performance of forensic document examiners,
17 right?

18 A. Do you mean if Dr. Kam were to examine a case that I
19 examined?

20 Q. Are you saying Dr. Kam is a professional social scientist,
21 a person who evaluates research?

22 A. Maybe you should ask the question again and be more
23 specific, then.

24 Q. The FISH database that you mentioned, that's something
25 created by one of the German law enforcement agencies, right?

1 A. Correct.

2 Q. And I think you mentioned to us that it has -- it, that
3 FISH system -- has features somewhat similar to what
4 Dr. Srihari has been working on, right?

5 A. That's my understanding.

6 Q. Okay. It's a machine that looks at human creative writing
7 and hand printing, right?

8 A. Right.

9 Q. And by getting down to the very minute level, it
10 attempts -- the machine does and the program does -- attempts
11 to see if it can distinguish between writers and then match
12 known and questioned documents; is that right?

13 A. (Nods head affirmatively.)

14 Q. Is that right?

15 A. Yes, except that it doesn't recognize known and
16 questioned; it simply takes a document and determines if there
17 are other documents in the database that match it.

18 Q. And, again, the machine actually performs measurements on
19 letter size, letter slant, letter spacing and letter placement
20 on a document vis-a-vis the lines, right?

21 A. This is my understanding.

22 Q. All right. And, again, those are features that the
23 forensic document examining community does not do, the
24 measurement and size of letters and placement on a paper,
25 right?

1 A. Right, not on a regular basis, certainly, we do not take a
2 ruler out and measure every letter.

3 Q. Okay. Let's talk about twins. As I understand it, the
4 whole idea of studying twins is to make sure that this general
5 assumption that everyone writes differently is more likely to
6 be correct; is that why the studies of twins is important to
7 your work?

8 A. Yes. The assumption is that the likelihood of their
9 writings being similar, more similar than in the general
10 population, was the basis of studying and determining if the
11 writings could still be distinguished, that writing is, indeed,
12 individual to each person. And the conclusions of these
13 studies were that, with a sufficient amount of writing, they
14 could always be distinguished from one another.

15 Q. The most recent of those studies was the one done by
16 Mr. Boot down in New Zealand, right?

17 A. I think so.

18 Q. And did you know that Dr. Boot said that the results
19 showed that there was a marked degree of similarity between the
20 writing of twins? That's right in his abstract; would you
21 disagree with that?

22 A. No. That supports our assumption that handwriting of
23 twins would be more similar than the handwriting of the general
24 population; therefore, it's a good group of writers to study
25 and still distinguish. Being similar doesn't mean it's

- 1 indistinguishable.
- 2 Q. Have you done any study in neurology?
- 3 A. No, I have not.
- 4 Q. Any studies in genetics?
- 5 A. No, I have not.
- 6 Q. Have you ever been a schoolteacher?
- 7 A. No.
- 8 Q. Okay. Do you know anything about how the D'Nealian system
9 of hand printing was taught in the Georgia school systems in
10 the 1970s and 1980s?
- 11 A. No, although my daughter is learning D'Nealian in the 6th
12 grade.
- 13 Q. Okay. Do you know how many printing systems are used in
14 the United States America?
- 15 A. In total, I don't.
- 16 Q. Okay. How many do you think, just roughly?
- 17 A. Oh, this is a true guesstimate. There are three primary,
18 I believe. There may be as many as 20 different handwriting
19 systems; I'm not certain about that.
- 20 Q. Would it surprise you that if you looked at the footnotes
21 in Dr. Kam's most recent study on printing, that he only refers
22 to the printing systems that were used in the 1950s and '60s in
23 this country? Would that surprise you?
- 24 A. I don't know what his reasoning was.
- 25 Q. Again, not being trained as a social scientist, do you

1 know if that has any impact on his ultimate conclusions?

2 A. No, I don't know that.

3 Q. Okay. Now, you mentioned these lists of standards that
4 have been created by some committees that I think you had some
5 work on, which are Government's Exhibits 20 and 21. I'll hand
6 these back to you now.

7 Now, you mentioned that these are standards for
8 forensic document examiners to try to follow when they do the
9 task that is assigned to them, right?

10 A. That's correct.

11 Q. All right. Government Exhibit 20 is a standard guide for
12 how to examine handwritten items, correct?

13 A. Right.

14 Q. Whereas number 22 -- 21, I should say, is how to try to
15 have a standardized or a regular way for you folks to use the
16 same words when you're trying to express your ultimate
17 conclusion?

18 A. Correct.

19 Q. Okay. Let's go back to number 20 for a second. Nowhere
20 in this item does it tell or does it standardize the difference
21 between cursive and printing writing, does it?

22 A. It does ask the examiner to separate into subsets writing
23 by style, so cursive would go into one group and hand printing
24 would go into another.

25 Q. Show me where it says to separate printing versus

1 cursive.

2 A. (Witness reviews exhibit.)

3 (Pause in the proceedings.)

4 THE WITNESS: It's under 7.7.1, "Type of Writing," it
5 states, "If there is more than one type of writing within the
6 questioned writing, separate the questioned writing into groups
7 of single types of writing."

8 BY MR. KISH:

9 Q. Is the term, quote, "type of writing" defined anywhere to
10 be the difference between cursive and printing?

11 A. On page 2 --

12 Q. Okay.

13 A. -- under 3.3.14 --

14 Q. Okay.

15 A. -- type of writing is defined as "Refers to hand
16 printing" --

17 Q. Okay.

18 A. -- "cursive writing, numerals, symbols or combinations
19 thereof and signatures".

20 Q. I missed that one, having just gotten these for the first
21 time this morning.

22 Well, then, let's go to another question: At some
23 point, it tells the examiner to look for individualizing
24 characteristics when performing the examination, right?

25 A. Right.

1 Q. And it tells the examiner that such, quote,
2 "individualizing characteristics are," quote, "marks or
3 properties that serve to uniquely characterize writing," end
4 quote, right?

5 A. Right.

6 Q. How does it standardize that decision of when something is
7 a unique characterization?

8 A. This is something which is within the realm of the
9 examiner's experience and training.

10 Q. Really, what this standard guide does is it gives a set of
11 steps that are supposed to be performed but it doesn't tell how
12 the steps are performed; would you agree with that?

13 A. I agree.

14 Q. All right. So if Document Examiner A believes that a
15 certain letter is unique but Document Examiner B does not think
16 that same letter is unique, this standard has nothing to do
17 with that disagreement between those two examiners; would you
18 agree with that?

19 A. It would not help reconcile it.

20 Q. Right.

21 A. But if two examiners have similar training and education
22 and follow the established standards, then the likelihood that
23 they will agree is very good.

24 Q. Do you have any studies on that --

25 A. No.

- 1 Q. -- that two examiners will come to the same conclusion?
- 2 A. No, I don't.
- 3 Q. That's just your guess, isn't it?
- 4 A. Well, through my peer review consultations, I have found
- 5 that to be the case.
- 6 Q. Have you ever heard of Jon Benet Ramsey, the little girl
- 7 who was murdered in Colorado?
- 8 A. I've heard of it.
- 9 Q. Did you know that a United States District Judge in this
- 10 district recently authored an opinion about the disagreement of
- 11 groups of handwriting experts about the authorship of the note
- 12 that might have had something to do with that girl's death?
- 13 A. I don't; I don't have knowledge of that case.
- 14 Q. Okay. A significant difference is a word that's defined
- 15 in these standards, right?
- 16 A. Yes.
- 17 Q. And, again, that turns back to this basic idea of an
- 18 individualizing characteristic which is different between one
- 19 piece of writing and a different piece of writing; would you
- 20 agree with that?
- 21 A. An individualizing characteristic that is different
- 22 between two bodies of writing?
- 23 Q. I'm looking at number 3.311.
- 24 A. Yes.
- 25 Q. Is that correct?

- 1 A. Yes.
- 2 Q. Okay. Once again, it is the subjective decision of any of
3 the forensic document examiners following these standards that
4 really determines if there is a significant, quote,
5 "significant difference," right?
- 6 A. That's true.
- 7 Q. Again, if astrologers were given a list of steps to
8 follow, that would be no different than what these standards
9 are, right?
- 10 A. These standards presume that the examiner using them has
11 sufficient training and experience that can be used in
12 combination with these standards.
- 13 Q. Okay. I think the answer to my question is yes, if there
14 was a guide for astrologers, it would look similar to this,
15 wouldn't it?
- 16 A. I'm not an astrologer; I don't know.
- 17 Q. Do you know what they look at to make their
18 determinations?
- 19 A. No, I don't.
- 20 Q. Okay. Error rate studies -- and, again, you've read
21 Dr. Kam's work, I assume, right?
- 22 A. Yes. Yes, I have.
- 23 Q. And you are not a statistician, are you?
- 24 A. No, I'm not.
- 25 Q. You are not a social scientist?

1 A. Correct.

2 Q. Okay. But you do know that in Dr. Kam's very first --
3 well, let me back up. Did you know that before Dr. Kam did his
4 study, that the only studies in existence anywhere that had
5 been published were the ones by Collaborative Testing Services
6 and The Forensic Sciences Foundation?

7 A. Those actually are not studies; they are simply tests.

8 Q. What's the difference?

9 A. I presume it's what the authors of the 1989 article have
10 done, which is to combine all of the tests and consider it a
11 study of the tests.

12 Q. No. Do you know the difference between something that the
13 social science community would call a, quote, "study" versus
14 something called, quote, "a test"?

15 A. I couldn't define either.

16 Q. All right.

17 A. I'm not a social scientist.

18 Q. But you do know that before Dr. Kam began getting paid by
19 the federal government to do this, that the only work in this
20 area was by Collaborative Testing Services and The Forensic
21 Sciences Foundation? You do know that, don't you?

22 A. The only test data available, yes, that's correct.

23 Q. Right. And Dr. Kam only started working in this area
24 after Professor Denbeaux, Professor Risenger and Professor Saks
25 published their article; you know that, don't you?

1 A. Actually, he had been contacted, selected by the FBI to
2 automate their national bank robbery note file, which consists
3 of handwritten documents, and in his research in automating
4 handwriting, he and some of his graduate students wondered how
5 do we know that document examiners can do what they do? So
6 Dr. Kam sent the graduate student to the library to look for
7 articles and assumed there would be voluminous research
8 articles, and all the student came back with was The
9 Pennsylvania Law Review article.

10 Q. That's right, he came up with the same data, the student
11 did, that the professors did, and it was only after Dr. Kam
12 sent the student to look for the work that Kam began looking
13 into whether or not you could test what document examiners do?

14 A. Right, because there was a lack of scientifically
15 validated research.

16 Q. Right. But up until then, you document examiners had been
17 coming into court for years and years telling judges, "Trust
18 us, we're good at this," until finally Dr. Kam decided he was
19 going to study it, right?

20 A. For over 100 years, we have been testifying.

21 Q. So his first group consisted 17 human beings to whom he
22 gave a test, right?

23 A. Yes.

24 Q. Do you know if that is a statistically valid number under
25 social science criteria?

1 A. I can't say authoritatively, but I understand Dr. Kam has
2 acknowledged it's a very small group, so it cannot be
3 considered representative.

4 Q. Next, his second test, he used 104 people, right?

5 A. Right.

6 Q. Do you know if that is a statistically valid sample in a
7 country of over 280 million people?

8 A. According to Dr. Kam, it is.

9 MR. VINEYARD: I object; he has already asked the
10 question whether she is a statistician, if she is a social
11 scientist. I don't think those questions are properly
12 addressed to this witness.

13 THE COURT: Well, I think she is on cross and I think
14 he can proceed.

15 BY MR. KISH:

16 Q. Do you know whether that's a statistically valid sample?

17 A. According to Dr. Moshe Kam, it is, because the document
18 community consists of somewhere between 300 and 600 examiners
19 across the country.

20 Q. Do you have any source of information about your belief of
21 its statistical viability, other than Dr. Kam?

22 A. No.

23 Q. Okay. Did you know, by the way, that Dr. Kam refuses to
24 share his data with any of his critics?

25 A. I have heard this criticism. I understand everything

1 that's necessary to repeat his studies is present in his
2 published articles.

3 Q. But you do know he will not share the data of how your
4 fellow document examiners performed on his tests?

5 A. Even he doesn't know, because once he receives a test,
6 they are anonymous.

7 Q. Now, you do concede that in his second test where he had
8 104 people involved, that lay people and the professionals made
9 correct matches at the same rate? You do concede that, don't
10 you?

11 A. Yes.

12 Q. Under his data?

13 A. Yes.

14 Q. And you do concede that you're not a statistician, right?

15 A. Right.

16 Q. And you don't have any basis for making a professional
17 decision as to whether or not the rate of making correct
18 matches is a valid number?

19 A. I understand from reading the article that the reason the
20 laypersons make so many correct matches is that they grossly
21 over-associate, meaning that they indiscriminately identify
22 writing.

23 Q. That would also amplify their errors, wouldn't it?

24 A. And that's what has happened, apparently, yes.

25 Q. All right. Suffice it to say that other than those

1 numbers on the correct matching rate, there is nothing else out
2 there in the scientific community after these hundreds of years
3 that shows that forensic document examiners perform any better
4 than any other person in this room when it comes to correctly
5 matching a questioned document with a known writer, right?

6 A. Aside from the three or four published scientifically
7 validated studies, nothing else proves that we do better than
8 lay people, right.

9 Q. There is not three or four studies, ma'am, there is this
10 one study by Kam with 104 people, and it's the same data that
11 he uses over and over again. You know that, don't you?

12 A. There is the hand printed study also.

13 Q. I'm sorry, go ahead.

14 A. Yes, I know that's the re-analysis of the 1997.

15 Q. So it's the same 104 people, right?

16 A. Yes, but with hand printing distinguished from
17 handwriting.

18 Q. So there has been one analysis one time of 104 people and
19 that is the only analysis there has ever been of the
20 performance of forensic document examiners versus the
21 performance of the lay people in the same area, right?

22 A. Right, and it is representative and one analysis is
23 sufficient.

24 Q. I'm sorry, what did you just say?

25 A. Because his study is sufficiently large and representative

1 of the community and its proficiency, it's sufficient.

2 Q. I thought you said you weren't a social scientist; how do
3 you know that's true, what you just said?

4 A. I've read the study, and I've talked with Dr. Kam.

5 Q. Would it be fair to say you believe it? You don't know
6 it, as a professional, do you?

7 A. All right. I will say that I believe it.

8 Q. All right. The hand printing study, I think you mentioned
9 that the lay people erred by 40 something percent of the time
10 whereas the professionals actually made errors almost 10
11 percent of the time, right?

12 A. Correct.

13 Q. Also when it comes to how they did when making a correct
14 match between a questioned and a known document, you have those
15 numbers in front of you, don't you?

16 A. Actually, I don't.

17 Q. If you would, turn to page 16 on Government's Exhibit 25
18 and I would direct your attention to a table that's found
19 there. And this is what Dr. Kam in his most recent
20 regurgitation of his 1996 data groups into two different
21 areas: One, he calls the Wrong Association Rate, or W.A.R.,
22 and the second area that he calls the Group Hit Rate, the
23 G.H.R.; that's what's on that table, isn't it?

24 A. Yes.

25 Q. And you do know from reading the article, which you said

1 you did, that group hit rate is when his participants back in
2 1996, either the professionals or the lay people, made a
3 correct match between a known document and a questioned
4 document that was hand-printed, right?

5 A. Right.

6 Q. And we do know, now after Dr. Kam has been paid to
7 re-analyze this data by looking for hand printing, that the
8 doctor has determined that forensic document examiners make a
9 group hit rate on hand printed documents, in other words, they
10 are correct, about 88.5 percent of the time, right?

11 A. Right.

12 Q. That's real close to the number that the document
13 examiners do on all writing, both cursive and printing, which
14 is about 87 percent, right?

15 A. Right.

16 Q. The lay people, on the other hand, their performance got
17 even better when it came to comparing printing versus two
18 printed notes, one known and one questioned, right?

19 A. Yes. And, again, I don't think you can consider their
20 correct rate without also considering their error rate.

21 Q. But you are not a statistician and you do not know if that
22 answer you just gave is statistically valid, do you?

23 A. But you asked me and I have answered.

24 Q. But the number of times that Dr. Kam found that the lay
25 people are correct when comparing known versus a questioned

1 document is 93.85 percent of the time, right?

2 A. Right.

3 Q. And if those numbers are valid, I'm going to do just as
4 well as you, statistically speaking, in comparing questioned
5 printing to known printing; would you agree with that?

6 A. Yes.

7 MR. VINEYARD: Objection, Your Honor; again, the
8 question has been asked. There is two sides here: He says,
9 "You're not a statistician," and then he asks her questions
10 that call for that, for those conclusions, and I would just ask
11 that he be consistent with that. If she is going to be allowed
12 to testify as a statistician, then, she should testify as such
13 but not to be questioned and berated when she answers about
14 whether she is a statistician or not.

15 THE COURT: Well, I'm not going to permit him to
16 berate her, but I do think she testified on direct about
17 comparison of how well lay people do, both sides of the coin,
18 so I think Mr. Kish can proceed.

19 MR. KISH: Yes, ma'am.

20 MR. VINEYARD: For completeness, Your Honor, I would
21 ask that the full chart, that line, that item 5 of all of the
22 statistics be read.

23 MR. KISH: I'm not going to do it; it's part of the
24 record already. If the government wants to ask that on
25 redirect, they are welcome to do it.

1 BY MR. KISH:

2 Q. Do you know, ma'am, any of the people, any of the
3 professional forensic document examiners who are part of the
4 database of Dr. Kam's 1996 study?

5 A. One of them, but I don't know all of the others.

6 Q. Okay. Was there hand printing on what you looked at when
7 you were a participant in his study?

8 A. I can't specifically recall what I looked at.

9 Q. Okay. You then mentioned that you had some personal --
10 I'm going to call them criticisms, and if I'm wrong, tell me --
11 but some personal criticisms of the numbers that were generated
12 in the tests, if you want to call them that, given by
13 Collaborative Testing Service and The Forensic Science
14 Foundation. Are you critical of those numbers?

15 A. I'm critical of the tests themselves --

16 Q. Okay.

17 A. -- in that the test-taker population is unknown.

18 Q. Okay.

19 A. Anybody can take them.

20 Q. Okay.

21 A. And the tests are not given to control groups of
22 laypersons. They are not designed based on any sort of
23 standards, they are not developed and designed. They are taken
24 it is known by examiners in foreign countries where English is
25 not the primary language and, again, where the Roman alphabet

1 isn't even the primary alphabet.

2 Simply combining the results of the CTS tests and
3 drawing conclusions is meaningless, based on these flaws.

4 Q. It sounds like you know something about the tests of these
5 two foundations by virtue of looking at the data, the
6 underlying information; am I right about that, or am I wrong?
7 How is it that you have come about with these criticisms, how
8 do you know about how the tests were done?

9 A. I have participated in the tests myself.

10 Q. Okay.

11 A. I have also spoken regularly with one of the test
12 developers with CTS and with some of the CTS representatives
13 about their tests.

14 Q. Now, you do know that one of the reasons you and others
15 have been able to have those criticisms of those tests is that
16 the data has been shared --

17 A. Correct.

18 Q. -- unlike Dr. Kam's work, right?

19 A. I don't -- I don't understand what data is being
20 considered shared and not shared with Dr. Kam. That is
21 something, I guess, that will have to be taken up with Dr. Kam.

22 Q. Okay. All right. All right. Finally, you yourself
23 perform document examinations, right?

24 A. Yes.

25 Q. How many times do you have to have the same characteristic

1 in a known and a questioned document in order to make a
2 decision that they were written by the same person?

3 A. If there is a feature in the questioned writing that is
4 also demonstrated in the known writing, it only needs to be
5 present one time.

6 Q. If that same feature -- and let's say it is a letter that
7 has a hook on it that you have decided is the feature that's so
8 significant that it makes you decide that the questioned
9 document was written by the known writer --

10 A. No conclusion would be based on a single feature.

11 Q. Okay. Then how many features does it have to be?

12 A. There is no number of features. Every characteristic in
13 the questioned writing must be demonstrated in the known
14 writing in order to reach a conclusion of identification.

15 Q. Every characteristic in the known writing?

16 A. The questioned writing.

17 Q. Questioned, every characteristic has to be found in the
18 known writing?

19 A. With no fundamental differences, correct.

20 Q. So if the questioned document has, let's say, 38 words
21 with a combination of about 138 letters, are you saying that
22 you have to find all 138 letters written identically in the
23 known writings before you can make a match?

24 A. Written similarly, yes.

25 Q. Okay. How about if one of the letters of that -- and just

1 using an example here -- one of the 138 letters is written in
2 the known writing only one time in a way that's similar to
3 what's in the questioned document; would that change your
4 opinion?

5 A. I'm not sure what you're asking.

6 Q. Well, let's say you've got the letter T written in these,
7 among these 138 letters that are in a questioned document,
8 okay?

9 A. Okay.

10 Q. And the letter T is written in a certain distinct fashion;
11 let's assume that, okay?

12 A. Okay.

13 Q. And out of about 50 pages of known writing, you find that
14 T written in that same distinct fashion only one time?

15 A. That's sufficient to say that that is a similarity between
16 the writings.

17 Q. That's enough to make a match?

18 A. Not an identification --

19 Q. Okay.

20 A. -- but to state that that is one similarity between the
21 writings and then to move on to the next characteristic.

22 Q. Okay. Okay. So what about the other remaining -- I'm
23 taking a number here -- 60 times that the letter T is written
24 differently in the known writing than in the questioned
25 document?

1 A. It doesn't matter if it's written differently in the known
2 writing; that's already been established as the known writing.

3 Q. Okay. And who decides that?

4 A. It's submitted by the inspector or the agent or the
5 investigator who has witnessed it or can in another way
6 validate that known writing.

7 Q. Okay.

8 A. When it comes to the laboratory, we have already assumed
9 that this is the writer's known writing.

10 Q. No. Who decides that all the differences or the
11 variations don't detract from the one time when they are
12 similar? Who makes that decision?

13 A. Who decides that all of the differences don't get
14 tracked? What does that mean, sir?

15 Q. Here is what I'm getting at: You've used the term
16 variation, which is a different word than the word substantial
17 similarity; would you agree that there is a distinction between
18 those two concepts?

19 A. Between variation and similarity?

20 Q. Yes.

21 A. No. I never used the word, "variation."

22 Q. It's in your standards that you said you were a part of.
23 Take a look at exhibit 20.

24 A. Yes, but I had not mentioned the word yet and you were
25 putting words in my mouth. I'm sorry, repeat that again.

- 1 Q. Do you use the concept of variation in your work?
- 2 A. Yes.
- 3 Q. All right. Variation, as I understand it, means that
4 every person's writing is going to change a little bit from
5 time to time, or all the time?
- 6 A. Because we're not machines --
- 7 Q. Right.
- 8 A. -- we don't write exactly the same way every time. There
9 is some degree of variability or variation in our writing, but
10 every writer still maintains a master pattern or habit of
11 creating characteristics --
- 12 Q. Right.
- 13 A. -- that are repeated throughout their writing.
- 14 Q. So although my letter, capital M, in my scribblings here
15 might be slightly different one from the other, your theory is
16 that it's going to be substantially or it's going to vary, I
17 should say, one from the other, but under your theory, it is
18 going to be substantially different from the capital M that's
19 written on Mr. Vineyard's pad, assuming he wrote that?
- 20 A. It may; it may not be. They may be very similar, but it
21 is the combination of your characteristics that distinguishes
22 your writing from his.
- 23 Q. And who decides if the different formations of the letter
24 M you might find on my pad that I'm holding here means that
25 it's simply a variation or whether it actually might have been

1 put down there by my client while you were testifying? Who
2 makes that decision?

3 A. When an examiner is comparing a questioned writing to a
4 known writing, if there is a variation of that M in the
5 questioned writing that's not demonstrated in the known
6 writing --

7 Q. Okay.

8 A. -- that would preclude an identification.

9 Q. All right. I want to ask you one more question about your
10 field. It's actually a couple of questions.

11 As I understand it, both on the standards that are
12 placed there in front of you and based on the practice that you
13 have learned over the years in your apprenticeship program and
14 also being a professional in this area, the main way a document
15 examination is done is to compare one or more questioned
16 documents with a body of known writing from one person, right?

17 A. Correct.

18 Q. All right. Now, that suggests to you, doesn't it, that at
19 least somebody thinks that the known writer might have
20 something to do with the questioned document? You would have
21 to agree with me, wouldn't you?

22 A. I don't want to presume what somebody else is thinking.

23 Q. Are you telling me law enforcement officers regularly send
24 you the writing of a person who is not a suspect and ask you to
25 compare it to a questioned document?

- 1 A. I can tell you I certainly don't identify every subject
2 writing I receive.
- 3 Q. You know that's not what I asked you, though, don't you?
- 4 A. I'm not going to presume what the submitter is thinking or
5 believing.
- 6 Q. Okay.
- 7 A. My job is to establish simply what is in question and what
8 is considered known and to make my comparisons.
- 9 Q. Now, you've got a masters in forensic work, don't you?
- 10 A. Correct.
- 11 Q. You do know that when it comes to making identification,
12 when they ask human beings to identify a face, they do it in a
13 very different way than what they ask you to do when you're
14 trying to identify a writing?
- 15 A. (Nods head affirmatively.)
- 16 Q. They lay out six potential people who might be the match
17 for the face that the witness saw, right?
- 18 A. Right.
- 19 Q. Why don't you?
- 20 A. I guess.
- 21 Q. Why don't you do that in your field, why don't you match
22 up the known writing with other potential writings so that
23 there is no unwritten or unspoken orientation towards the
24 writing of one person?
- 25 A. Very often in my casework, I do receive the writing of

1 several subjects in one case, so I must consider the known
2 writing of two or more writers in comparing it with a
3 questioned writing, so in essence, I am doing something like
4 that.

5 Q. But most of the time, it's only one set of known writing?

6 A. I don't think that's correct; I can't say most of the
7 time, it's only one.

8 Q. Okay.

9 A. We often get multiple known writers for comparison.

10 Q. Do you keep statistics on the number of times that you
11 have eliminated a person as being the potential writer?

12 A. No, I don't.

13 Q. You don't have any idea how often you do that?

14 A. No, I don't.

15 Q. Do you keep any statistics as to the number of times that
16 you have personally either disagreed with another examiner when
17 you're performing peer review or when another examiner has
18 disagreed with you when they are reviewing your work?

19 A. I don't keep any documentation regarding that. I can say
20 that if there has been disagreement, it has only been in
21 degree; in other words, I might state "Highly probable did not
22 write" and they might state "Probably did not write," for
23 example.

24 Q. And that's because, as you said earlier, it sounds like
25 your point of view is that a professional examiner, they always

1 come to the same conclusion, more or less?

2 A. Essentially, in my experience, yes.

3 Q. Okay.

4 MR. KISH: Okay. If I could just have one moment,
5 Judge.

6 (Pause in the proceedings.)

7 MR. KISH: I've got some good questions about peer
8 review.

9 BY MR. KISH:

10 Q. When you do the reviewing of the work of another
11 professional document examiner or when they are reviewing your
12 work, that's what we're talking about in peer review, right?

13 A. Yes.

14 Q. Okay. And I want to make sure I understand this: When
15 you're looking at someone else's work, in other words, when
16 you're looking at the questioned document and the known
17 document that that other examiner has looked at --

18 A. Yes?

19 Q. -- they haven't told you what result they have come up
20 with before you look at it, or have they?

21 A. They have provided me with their result. I don't look at
22 it until I've reached my own conclusion.

23 Q. So you don't want to be prejudiced is probably the wrong
24 word but oriented in any way by finding out what the other
25 person had done ahead of time?

1 A. Correct.

2 Q. That would be bad practice?

3 A. I think so.

4 Q. Okay.

5 MR. KISH: Okay. Thank you.

6 THE COURT: Mr. Vineyard?

7 MR. VINEYARD: Yes, Your Honor.

8 REDIRECT EXAMINATION

9 BY MR. VINEYARD:

10 Q. Ms. Jackson, do you still have in front of you Government
11 Exhibit 25, which is Dr. Kam's most recent study?

12 A. Yes. Yes, I do.

13 Q. And Mr. Kish directed you to Table 2 on page 16; is that
14 correct?

15 A. Yes.

16 Q. And he asked you about one column on -- I'm sorry, on row
17 5, he asked you about the figures for comparison in columns 2
18 and 3 which showed the group hit rate, or correct
19 identification; is that right?

20 A. Actually, columns 2 and 4, right.

21 Q. I'm sorry, 2 and 4?

22 A. (Nods head affirmatively.)

23 Q. And what do columns 3 and 5 represent?

24 A. Those represent the wrong association rate.

25 Q. And what was the wrong association rate on hand printing

1 documents for forensic document examiners as compared to
2 laypersons?

3 A. For forensic document examiners, the wrong rate is 9.3
4 percent; for laypersons, it's 40.45 percent.

5 Q. And is this an example of the over-inclusive effect that
6 you've testified about?

7 A. Yes. In over-identifying, they have erred in the other
8 direction.

9 Q. So when we compare the results from '96, which are listed
10 on row 3, we see that their error rate or wrong association
11 rate was 38 percent, and for the hand-printed documents, it's
12 increased to 40.45 percent?

13 A. Yes.

14 Q. Correct?

15 A. Yes.

16 Q. And that corresponds with an increase in their group hit
17 rate from 87 to 93.85?

18 A. Uh-huh (affirmative). Yes.

19 Q. And that's what you would expect to find from your
20 over-inclusiveness; is that right?

21 A. That appears to be what has happened.

22 Q. Now, you were asked about, quote, "the only studies" on
23 this issue, being those of Dr. Kam, but did Dr. Found also
24 conduct studies that confirmed Dr. Kam's findings?

25 A. Yeah, regarding signatures and their genuineness and

1 non-genuiness, he corroborated Dr. Kam's signature study also.

2 Q. And that compared forensic document examiners with
3 laypersons?

4 A. Correct.

5 Q. Are you aware of any studies which have invalidated the
6 basic tenets of forensic document handwriting?

7 A. No, I'm not.

8 MR. KISH: Judge, I'm going to object
9 here --

10 THE WITNESS: No, I'm not.

11 MR. KISH: -- the question is not whether we
12 invalidated it; the question is whether the government can show
13 it's valid. They have the burden; we don't have any burden in
14 this situation, and that question, therefore, I would suggest
15 asks for irrelevant information.

16 THE COURT: Well, I think the inquiry is fairly broad
17 into the validity of this area, so I think he can answer the --
18 he can ask the question.

19 THE WITNESS: I think that the Kam tests themselves
20 were carried out as validation tests to determine whether or
21 not the expertise of forensic document examination actually
22 does exist and if document examiners outperform laypersons, and
23 in taking these tests, we have confirmed or Dr. Kam has
24 confirmed that there is an expertise and that document
25 examiners do outperform laypersons.

1 BY MR. VINEYARD:

2 Q. Okay. And my question is are you aware of any studies
3 that have invalidated that foundational tenet?

4 A. These studies had the potential to do that and did not.

5 Q. Are you aware of any studies in progress on the effects of
6 peer review?

7 A. Yes, I am.

8 Q. And what are those?

9 A. Dr. Moshe Kam is continuing studies regarding aspects of
10 handwriting examination and he has some preliminary results
11 regarding the effects of peer review on examinations.

12 Q. Are you aware of those preliminary results?

13 A. Yes. In conducting the peer review testing, he has found
14 that when a second examiner reviews the first examiner's -- the
15 same case, that the error rate drops to zero and all
16 inconclusives also drop out.

17 MR. VINEYARD: That's all the questions I have, Your
18 Honor.

19 THE COURT: Anything further, Mr. Kish?

20 MR. KISH: Yes.

21 RECROSS-EXAMINATION

22 BY MR. KISH:

23 Q. You mentioned Mr. Found's work in Australia on
24 signatures. You know this case has nothing to do with
25 signatures, don't you?

- 1 A. I don't know anything about this case.
- 2 Q. Okay. Let me ask you this: Do you agree or disagree with
3 the following proposition: "Signatures are the most unique
4 form of handwriting"; do you agree or disagree?
- 5 A. I think that would have to be determined on a case-by-case
6 basis. Some signatures are less individualized than others;
7 some handwriting is more individualized. It would determine --
8 it would be -- have to be determined individually.
- 9 Q. So do you disagree with the other forensic document
10 examiners who have published papers and who have written
11 textbooks in which they make that statement that signatures are
12 the most unique form of human writing?
- 13 A. If you could show me those, I would be --
- 14 Q. I'll be glad to.
- 15 A. -- happy to take a look.
- 16 Q. Let me ask you one more question, then: Do you agree or
17 disagree with the following proposition, "Printing has the last
18 number of unique characteristics of all form of human writing"?
- 19 A. I don't know that that's been scientifically determined.
20 It has the potential to be less individualized, because it can
21 be made as block writing, as single stroke slow writing.
- 22 Q. It sounds to me like your answer is it's possible that
23 printing is less unique than cursive writing?
- 24 A. I'm not aware of studies that have confirmed or disproved
25 that yet.

1 Q. Well, what's your feeling, after being a professional in
2 the field?

3 A. My feeling?

4 Q. Right. Is printing more individualized or less
5 individualized than cursive writing?

6 A. I am more likely to or less likely to identify hand
7 printing than handwriting in general, but it is just as
8 identifiable as handwriting.

9 MR. KISH: Thank you.

10 THE COURT: Mr. Vineyard? All right.

11 MR. VINEYARD: No further questions.

12 THE COURT: Ms. Jackson, you may step down.

13 THE WITNESS: Thank you.

14 THE COURT: All right. I think we will take a lunch
15 break. And who is the next witness?

16 MR. VINEYARD: I believe Mr. Denbeaux for the
17 defendant, Your Honor.

18 May Ms. Jackson be excused?

19 THE COURT: Yes.

20 And, Mr. Kish, how long do you -- I know you told us
21 yesterday. How long do you anticipate Professor Denbeaux will
22 be?

23 MR. KISH: I think Professor Denbeaux will be on the
24 witness stand about the same amount of time that Ms. Jackson
25 was, probably a couple of hours.

1 THE COURT: All right. Very good. Well, we will
2 take a one-hour lunch break, then, and resume at 1:00 o'clock.

3 (A recess was had, after which the following proceedings
4 continued in open court.)

5 (Defendant LeCroy present.)

6 THE COURT: All right. Please be seated.

7 MR. KISH: Mr. Kish is walking down the hallway.

8 THE COURT: All right.

9 (Pause in the proceedings.)

10 MR. KISH: I'm sorry I'm a few moments late. I
11 apologize.

12 THE COURT: That's all right. We just got here.

13 MR. KISH: First off, Judge, we would object. I know
14 that Ms. Jackson is in the courtroom here and I believe there
15 are some other members of either one of the labs or some other
16 place that are taking notes, and it's my understanding that
17 they have been possibly consulting with future witnesses about
18 what's going on here.

19 So first, we would object to Ms. Jackson having been
20 here, since both parties have invoked the Rule of Sequestration
21 and, secondly, we would obviously ask that no witnesses be
22 transmitting to any future witnesses who have not yet testified
23 about what's going on here, and I'm thinking mostly of Dr. Kam
24 here.

25 THE COURT: Mr. Vineyard?

1 MR. VINEYARD: Certainly, Ms. Jackson has been
2 excused as a witness, Your Honor, and her testimony is
3 completed. She is able to sit in the courtroom.

4 THE COURT: Well, as long as her purpose is not going
5 to be to transmit information to another witness.

6 MR. VINEYARD: Oh, certainly, Your Honor, we
7 understand that, and we're not going to be transmitting any
8 information.

9 I presume that's the same for Mr. Saks, who will be
10 testifying for the defendant.

11 MR. KISH: Judge, as we anticipate, it's possible Ms.
12 Jackson may be a trial witness. We don't think it's
13 appropriate for any of the witnesses to be listening to one
14 another's testimony, depending upon the Court's ruling, of
15 course.

16 THE COURT: Mr. Vineyard?

17 MR. VINEYARD: Your Honor, I don't see how she would
18 be a trial witness. The issue of her testimony goes to their
19 challenge to the admissibility of Mr. Anthony's testimony, and
20 Mr. Anthony certainly will be a witness if the Court allows him
21 to testify. But Ms. Jackson, she didn't conduct any
22 examination in this.

23 THE COURT: All right. I mean, I think you're
24 committed to that position, and with that commitment, then I
25 think she can stay.

1 MR. VINEYARD: Certainly.

2 THE COURT: Okay. Is there any other witness or
3 spectator that's in question here?

4 MR. KISH: Not that I'm aware of, Judge. And we
5 would call Mark Denbeaux to the witness stand.

6 THE DEPUTY CLERK: Step up to the witness stand and
7 raise your right hand.

8 MARK DENBEAUX, DEFENDANT'S WITNESS, SWORN

9 THE DEPUTY CLERK: Please be seated and state your
10 full name for the record.

11 THE WITNESS: My name is Mark Denbeaux,
12 D-e-n-b-e-a-u-x.

13 DIRECT EXAMINATION

14 BY MR. KISH:

15 Q. Mr. Denbeaux, are you a teacher at any specific location?

16 A. Yes. I'm a professor of law at Seaton Hall Law School,
17 and I've been teaching there since 1972.

18 Q. I will then call you Professor Denbeaux, if that's all
19 right with you.

20 A. All right.

21 Q. All right. Professor Denbeaux, give us a brief background
22 of your education.

23 A. I went to college in Ohio. The college of Wister, in
24 Wister, Ohio. I majored in English literature, theology, and
25 then I went to NYU law school and I graduated from NYU law

1 school in 1968.

2 Q. And when did you start teaching at Seaton Hall?

3 A. In 1972.

4 Q. In between graduating from law school and when you began
5 teaching, what sort of work did you do?

6 A. I worked for the legal services program in New York City
7 for four years. I started out at the inception of the program
8 in New York, in the Bronx Legal Services Program. I was there
9 for two years. In those days, promotions were sort of
10 battlefield -- for a promotion, I was moved to the central
11 office for several years and, thereafter, I went into
12 teaching. And I've remained connected in the legal services
13 program, both on the board of the New York City Legal Services
14 Program as chair of that board for quite a few years, and as an
15 interim director of the Bronx Legal Services Program in the
16 early '80s.

17 Q. Have you had a specialty in the sorts of subjects that you
18 have taught since you became a law professor?

19 A. I think there is no question, my primary specialty is the
20 law of evidence, the problems of proof. I teach the basic
21 required course on evidence. I also have been teaching
22 seminars, advanced seminars, and for the last eight or ten
23 years, I've been teaching a special course on the law of
24 evidence and the problems of expert witnesses.

25 Q. All right. Now, as part of your inquiry into the law of

1 evidence, did there come a time in the 1980s when you began
2 looking at the subject of forensic document examination?

3 A. I certainly began looking at the law of forensic document
4 examination as an academic in the early to mid-'80s. I had
5 become very interested in and had begun investigating it in a
6 more informal way probably starting in the very late '70s.

7 And the origins of it were quite simple: I had been
8 asked to represent somebody charged with the crime of
9 forgery --

10 Q. Now, is this while you were a law professor and doing it
11 on the side?

12 A. Yes. Yes, it's one of the perks of being a law professor;
13 at least if you to teach evidence, you try cases once in a
14 while.

15 I took this case. They asked for my client to give
16 exemplars. I simply said what seemed obvious, one, you have a
17 right to them; and, two, why do we do it in the form of a
18 show-up rather than a lineup? And the prosecutor said, "What
19 do you have in mind?" And I said, "Why don't I get four or
20 five students of mine, same age, same educational experience?"
21 The defendant was a junior in college at the time. "You tell
22 me what to do, they will all write it out, we will number them,
23 staple them, give them to you, you give them to your
24 handwriting expert and see if he can pick them out."

25 Q. And what happened?

1 A. Well, he agreed.

2 Q. Who's the "he"?

3 A. I'm sorry, the prosecutor agreed.

4 Q. Okay.

5 A. And I prepared them, sent them in to him and a long time
6 elapsed, and in about six, eight, ten weeks, he called back to
7 say the handwriting expert wouldn't take the test.

8 Q. Okay. Is that what started to raise your curiosity about
9 this field?

10 A. I think as an evidence professor, it was of some concern
11 to me, because it was either an aberration and a lack of
12 confidence on this person's part or there was a problem.

13 And I, of course, believed at the time that there was
14 something there in terms of handwriting, because it had been
15 around for a long time and I assumed there was underlying
16 credibility.

17 Q. Now, did you start to work with another law professor
18 whose last name is Risenger in this area?

19 A. Yes. Michael Risenger and I began as academics looking
20 into the Lindberg kidnapping case, the Huffman case.

21 Q. Now, those cases were important to you because of why?

22 A. Well, there were a series of evidence issues that were
23 coming to the forefront in the late '70s and early '80s about
24 that prosecution, and one of them dealt with the handwriting
25 expert --

1 Q. Okay.

2 A. -- because that teams to be the dramatic moment at which
3 handwriting took off as an admissible and commonly-used form of
4 proof.

5 Q. When you're saying the moment, you meant the Lindberg
6 prosecution --

7 A. The Lindberg prosecution.

8 Q. -- in the '30s?

9 A. Correct. And I went and looked at the transcripts, and
10 one of the things that I noted was there were seven handwriting
11 experts testifying, and I read the transcripts. And it's
12 pretty fair to say that of those handwriting experts, all of
13 them premised a major portion of their testimony not on
14 handwriting in the sense of looking at shapes of letters and
15 claiming to see a pattern but on spelling similarities.

16 Q. Now, did there come a point when you and Professor Michael
17 Risenger realized there were some limitations to what you could
18 do as law professors in your inquiry in this area?

19 A. Yes. Once we investigated, still believing we would find
20 it, looking for that seminal first case where a court evaluated
21 the field, there was a hearing of some sort and said it's
22 admissible and we assumed thereafter that its admissibility
23 followed as a matter of sort of judicial notice of that seminal
24 case. We couldn't find one in any state and in the federal
25 courts.

1 Q. So did you then go looking for some other help outside of
2 your particular expertise?

3 A. Yes. As a matter of fact, I assumed that there had to be
4 other data somewhere, and we concluded the only other possible
5 source would be research methodologists in the social science
6 field.

7 I assumed that there must be tests somewhere, and we
8 contacted somebody whom I had never met before but was a
9 well-known research methodologist and social scientist teaching
10 as a professor in Boston named Michael Saks.

11 Q. That's spelled S-a-k-s?

12 A. That's correct.

13 Q. Okay.

14 A. And actually, I was in another case filing some papers
15 dealing with handwriting and we had to make a motion and we
16 said to Michael Saks, we said, "Look, there has got to be
17 something somewhere -- we don't know what it is -- and we can't
18 find it."

19 As a result of that, he produced The Forensic Science
20 Foundation's studies, which were unpublished. The Forensic
21 Science Foundation was the proficiency testing arm of the
22 American Academy of Forensic Sciences, and they designed tests
23 in order to send out to criminal labs, laboratories, to see
24 about the proficiency of people in various areas, one of them
25 was handwriting.

1 Q. Now, after --

2 A. Well --

3 Q. I'm sorry, go ahead.

4 A. Well, just the results of those studies established that
5 if the only other area legitimizing the expertise of
6 handwriting opinion was social science, not only was there no
7 data supporting it but the data that was there, if it was to be
8 credited, showed that they were right, being charitable in
9 evaluating their data, 57 percent of the time when they gave an
10 opinion and wrong 43 percent of the time when they gave an
11 opinion.

12 Q. Now, Professor, I want to get into the specifics of some
13 of that research, but after you and Professor Risenger and
14 Professor Saks started down this road of inquiring into this
15 area, did the three of you eventually jointly put together an
16 article that was published in the January 1989 edition of The
17 University of Pennsylvania Law Review?

18 A. Yes, we did.

19 Q. All right. And was it titled "Exorcism of Ignorance as a
20 Proxy for Rational Knowledge," and the ever-present colon that
21 goes along with law review articles, "The Lessons of
22 Handwriting Identification 'Expertise,'" end quote?

23 A. That was our not very brief title.

24 Q. I'm going to show you what I have marked as Defendant's
25 Exhibit Number 1, and although it has some handwritings on it,

1 we will agree that if it's admitted, we will substitute it
2 later for a clean copy, but is that a copy of your article?

3 A. It's in a slightly different format, because it's -- I
4 think you downloaded it off Westlaw.

5 Q. Right.

6 A. And, yes, the text is certainly the same. The footnotes
7 are at the end and that's our article.

8 MR. KISH: I would move for the admission of
9 Defendant's Exhibit Number 1.

10 THE COURT: Mr. Vineyard?

11 MR. VINEYARD: Your Honor, at this time, I would
12 register the government's objection.

13 I'm just going to approach the microphone, so that
14 she can hear me.

15 MR. KISH: Fine.

16 MR. VINEYARD: We register an objection to
17 Mr. Denbeaux's based on the Paul addition. In that decision,
18 the Eleventh Circuit found Mr. Denbeaux was not an expert in
19 the limitations of handwriting analysis. I understand we're
20 going forward with this hearing and the Court has ruled on
21 that, but for the record, we register that objection.

22 Subject to that objection, I don't have any objection
23 to the admissibility of that article.

24 THE COURT: Defendant's 1 is admitted.

25 BY MR. KISH:

1 Q. Now, Professor Denbeaux, in this article that we have just
2 handed to you and that was authored in the year 1989, did you
3 and Professor Saks and Professor Risenger attempt to tell the
4 reader what you had found existed out there in the world in
5 terms of data, studies or tests about the proficiency of
6 handwriting analysts?

7 A. Well, I think we tried to tell the world what we had
8 discovered about the case law --

9 Q. Okay.

10 A. -- and then about all the studies that existed that would
11 seem to address the question of their proficiency.

12 Q. Did you find any studies addressing the question of their,
13 meaning forensic document examiners', proficiency before the
14 year 1970?

15 A. Other than a small article in Northwestern Law Journal
16 involving lay witnesses' abilities to make identifications and
17 looking at a handful of people, bank tellers and some other
18 people, other than that, there was nothing.

19 Q. Did you then find a second set of data that you told your
20 readers about that Michael Saks had found?

21 A. Yes. That's the Forensic Science Foundation studies in
22 the '70s and '80s.

23 Q. Now, what do you know is The Forensic Sciences Foundation?

24 A. It's a proficiency testing basis, and it's a proficiency
25 testing basis that works under the auspices of The American

1 Academy of Forensic Sciences. One of the subdivisions of the
2 American Academy of Forensic Sciences is questioned document
3 examiners. The Forensic Science Foundation was doing a series
4 of tests in the '70s and '80s about the proficiency of the
5 forensic document examiners in the various crime laboratories
6 across the country.

7 Q. So are you telling us that this group that was doing the
8 testing is the same group that governs the document examiners
9 themselves in their professional organizations? Maybe I didn't
10 use the word govern correctly.

11 A. Yeah, I --

12 Q. That is a part of that group.

13 A. They work at the direction of --

14 Q. Okay.

15 A. -- The Forensic Science Foundation questioned document
16 examiners' section to verify and validate and test and
17 determine the reliability and validity of the people who call
18 themselves forensic document examiners.

19 Q. Was there a second organization that had some data about
20 testing the accuracy, if you can use that word, of forensic
21 document examiners when they do their jobs?

22 A. At what period of time?

23 Q. In the 1970s and 1980s.

24 A. No, that was The Forensic Science Foundation; we have
25 never found anything else.

1 Q. Is there something called The Collaborative Testing
2 Service?

3 A. The Collaborative Testing Service really took over for The
4 Forensic Science Foundation shortly after our article came out.

5 Q. Okay.

6 A. And the collaborative testing -- I believe I'm having a
7 senior moment. The Collaborative Testing Service was an agency
8 testing crime labs and they were working in conjunction with,
9 and most of the reports were listed as The Forensic Science
10 Foundation Proficiency Testing produced by The Collaborative
11 Testing Service. I don't know if you want to say they are two
12 organizations or one, but the result was the result I've
13 described.

14 Q. All right. All right. Let's go back and focus on what
15 you learned from this I'm going to use the acronym FSF. What
16 that group had found when they had administered tests to
17 professional document examiners before you wrote your article,
18 okay, I want to focus on that.

19 A. Yes.

20 Q. Was there one test or more than one test?

21 A. There were five tests, two in the '70s and three in the
22 '80s, if my memory serves me.

23 Q. Were you given access to the underlying data that FSF had
24 used to perform its tests?

25 A. Yes. Michael Saks, in particular, evaluated that and led

1 us through the interpretation of it.

2 Q. Were you actually able to see what the tests were which
3 were administered to the test-takers?

4 A. I'm trying to think. I don't believe I saw the raw data,
5 but I saw all of the complete compilations based on a
6 cross-referenced series of things.

7 The tests were relatively simple; they were designed
8 to test forensic document examiners in assignments that
9 reflected what they actually did on a day-to-day basis. They
10 would be given a bank robber's note and some other exemplars,
11 some of which would be by different people, some would be given by
12 a forensic document examiner who simulated it. They put
13 together a series of tests and then they sent them out to all
14 the crime labs who paid for the testing process.

15 Q. Now, there has been a criticism -- I don't mean to
16 interrupt you. There has been a criticism that those tests
17 could have been taken by anyone.

18 A. Right. I've heard the position is homeless people could
19 have taken it, strangers off the street could have taken it.

20 Q. Was there anything in the data that you and Dr. Saks
21 reviewed that showed that anyone other than a professional
22 document examiner took those tests administered by FSF?

23 A. There was no data to that effect. They were sent to crime
24 labs. And by the way, crime labs generally have quite a vested
25 interest in having their accuracy of their results measured.

1 The crime labs had to pay money to take the test. They put
2 together the materials and they sent it back.

3 Now, if a crime lab wants to let a homeless person
4 wander through or a janitor fills out the form and slips it in,
5 I guess anything is possible, but beyond that, it's ludicrous.

6 Q. There has also been a criticism that the test could have
7 been taken by people for whom English was not their native
8 language; are you aware of that criticism?

9 A. I don't actually recall that one, but it's not
10 inconsistent with the other ones of the same kind.

11 Q. Did you see anything in the raw data or did Professor Saks
12 report anything to you after reviewing the raw data indicating
13 that any of the test-takers were non-native English speakers?

14 A. Remembering that I don't recall looking at the raw data in
15 the sense that identifying particular handwritten examples were
16 being distributed with it, there is nothing in the records that
17 indicate whether the person that took the test spoke English as
18 a native, didn't speak English, was literate or illiterate. I
19 mean, it's not -- there would be no way to see that.

20 Q. Okay. Now, after you and the other two professors had the
21 chance to look at the raw data and to test the results from
22 this FSF group, did you then report to the world at large as to
23 what was the only body of testing about the proficiency of
24 forensic document examiners?

25 A. Yes.

1 Q. Did you combine all of the test results from the five FSF
2 tests you've just described?

3 A. Well, combined, we didn't aggregate them, because some
4 tests had many more people taking it than others, and if you
5 added them all up -- what we did was we took each test, came up
6 with the percent numbers for each one of those in terms of
7 positive IDs, non-identification and inconclusives, and we
8 dealt with each one individually and came up with a combined
9 score. And the combined score was the number that I gave
10 before. Being fair --

11 Q. Can you tell us that number one more time, Professor?

12 A. Yes. Yes. I want to make one thing clear: We excluded
13 in our calculations all instances in which they said they
14 couldn't reach a conclusion on the assumption that if a
15 handwriting expert said they couldn't reach a conclusion, they
16 would never testify, and if they would never testify, then our
17 position was the relevant data was the number of times they
18 were right when they reached a conclusion and the number of
19 times they were wrong.

20 Q. Okay.

21 A. And the answer was they were right 57 percent of the time
22 and they were wrong 43 percent of the time they reached a
23 conclusion.

24 Q. All right. Now, after you reported this data in your law
25 review article, did you come to learn that there was someone

1 being funded by the United States government to do some further
2 proficiency testing of the work in the forensic document
3 examination field?

4 A. Yes, and he was focusing on a point that we made in our
5 article.

6 Q. And who is the "he"?

7 A. Moshe Kam.

8 Q. All right. And what's the point that you believe he was
9 focusing on?

10 A. Well, our position was really one -- first, after we got
11 past, had some doubts about their proficiency, we were sort of
12 agnostics, we looked at it and our conclusion was not
13 necessarily that they were always wrong 43 percent of the time
14 and only right 57 percent of the time, but that's the only data
15 there was, and if that data was correct, then they really were
16 flipping a coin and that was an important piece of
17 information.

18 But we also said there ought to be, there should be
19 other data. We kept looking for cases, didn't find any. We
20 looked for social science data, found it and it didn't seem
21 very convincing one way or the other, but if it had any weight
22 at all, the thumb on the scale was they weren't reliable and we
23 made the point that missing from all of this was a crucial
24 fact. There was no control group in the data. They didn't
25 give the same test to lay people. Whether you call them

1 homeless people or anything else, no matter what term they
2 used, no one was given the opportunity to do that.

3 Q. So what you and the other professors -- if I can interrupt
4 for a second --

5 A. Sure.

6 Q. -- it sounded like you were trying to see how the document
7 examiners who are in the field do vis-a-vis anyone else of the
8 human race doing the same tests they do; is that what your
9 complaint was?

10 A. Sure. For all I knew, lay people would be right 60
11 percent of the time and experts 40 percent. In terms of
12 tossing a coin, it couldn't be much worse than 50/50.

13 Q. Now, I want to jump a little out of sequence here. After
14 your article, which was published, what, 14 years ago, have you
15 been called upon to testify in court about some of your
16 research in the field of forensic document examination?

17 A. Quite a few times.

18 Q. Have you testified in federal court before?

19 A. Quite a few times.

20 Q. Approximately how many times have you testified in federal
21 court?

22 A. Oh --

23 MR. VINEYARD: Can you clarify as to --

24 THE WITNESS: Oh, two dozen.

25 MR. VINEYARD: May we clarify as to what subject or

1 expertise?

2 MR. KISH: I'll be glad to.

3 BY MR. KISH:

4 Q. Approximately how many times have you testified in federal
5 court about the limitations of forensic document examination?

6 A. Between 24 to 30 times I would say, approximately.

7 Q. Of those 24 to 34 times, how many of those have been in
8 hearings like this, in the pretrial setting?

9 A. Okay. The reason I had trouble is I think I've testified
10 about 40 times in state court and federal court, and of that,
11 two-thirds of them would have been in federal court. And of
12 those, I've testified at least 20 times in front of juries; the
13 rest of the time, I testified at Daubert hearings.

14 Q. Hearings like the one we're having here?

15 A. Similar to this.

16 Q. So are you telling us that some of the times you've
17 testified pretrial, but other times, you've been qualified to
18 actually testify when there is a jury in the box?

19 A. Oh, sure.

20 Q. Okay.

21 A. On the question of weight to be given to an opinion if the
22 Court allowed the handwriting expert to testify.

23 Q. I understand. Are you being paid to testify here today?

24 A. I hope so.

25 Q. How much are you being paid?

1 A. We, actually, I -- my hourly rate as an attorney is \$300
2 an hour and I usually find it capped fairly abruptly and I
3 never really -- I don't know the amount, but I don't think it's
4 going to be especially lucrative.

5 Q. Okay.

6 A. Although, I can always hope.

7 Q. All right. Now, getting back to after your article was
8 first published and you mentioned to us Dr. Kam and the fact
9 that you and the other professors had access to the original
10 FSF data, did you at some point during the 1990s learn that
11 Dr. Kam had published various studies which were critical of
12 your article and which were reaching results different than
13 what the data was you had found?

14 A. No, but I would like to explain.

15 Q. Okay.

16 A. I did learn of his studies. In fact, the first study he
17 produced, I was provided it before it was published here in
18 Atlanta in a hearing before Judge Charges in about in the --
19 somewhere in the 1990s, after 1995.

20 But Dr. Kam has not criticized our work; he has never
21 claimed that we missed studies that existed that we should have
22 found, nor has anyone claimed we missed cases that we should
23 have found. Dr. Kam said he was testing to resolve the
24 question we raised as to how handwriting experts compared to
25 lay witnesses.

1 Q. Now, after Dr. Kam began publishing his articles, did you
2 have any personal communication with him?

3 A. Well, we would meet in court occasionally and have some
4 brief conversations.

5 Q. Did you ever ask him for the underlying data of his
6 studies?

7 A. Both orally several times and in writing, as has Michael
8 Saks and as has a hard scientist I know very well who wanted to
9 review the data and a series of other people. And, in fact, in
10 front of Judge Carnes, under oath in a transcript, when he was
11 asked --

12 MR. VINEYARD: Objection, Your Honor; that would be a
13 hearsay statement by him.

14 MR. KISH: That's fine, and I'll move to another
15 area.

16 BY MR. KISH:

17 Q. But have you ever received the raw underlying data that
18 Dr. Saks has used in order to -- that he used to write his
19 articles and reach his conclusions?

20 A. No, and I hope to under our FOIA application that is
21 proceeding slowly.

22 Q. When you say a FOIA application, is that a Freedom of
23 Information Act application that you and your partners have
24 made to try get the government-funded research Dr. Kam has
25 performed?

1 A. Yes, absolutely. It's government money, it's made for
2 government research and used in testimony as experts for the
3 government and we never get to see it.

4 Q. Now, I also want to ask you about -- speaking of Dr. Kam,
5 I'm going to hand to you what has already been admitted into
6 evidence as Government's Exhibit Number 26, an article entitled
7 "Forensic Handwriting Examiners' Expertise for Signature
8 Comparison," and one of the authors is an Australian man by the
9 name of Byron or Brian Found?

10 A. Yes, I've seen this.

11 Q. Would you turn over to the last page of that, and it's
12 footnote 14?

13 A. Yes?

14 Q. Do you see an article there referenced by Dr. Found and
15 his partners that refers to another article you have seen?

16 A. Yes.

17 Q. What is the name of the article referenced in footnote 14?

18 A. Well, I have the article here and it is, "The Skill of a
19 Group of Forensic Document Examiners in Expressing Handwriting
20 and Signature Authorship and Production Process Opinions."

21 Q. Now, these Australian researchers in this -- in other
22 words, they referred to one of their other articles.

23 A. Yes, sir.

24 Q. It sounds like an application note for footnote 14, right?

25 A. Yes. Yes.

1 Q. Going to the other articles they referred to, first off,
2 do you know whether or not these Australian researchers who
3 authored the article the government put into evidence have ever
4 mentioned you and the work of your partners?

5 A. Yes.

6 Q. What did they say about you and your partners' work?

7 A. Well, now that I have it out of order --

8 THE WITNESS: Excuse me one moment, Your Honor.

9 (Pause in the proceedings.)

10 THE WITNESS: Yes, what they say is in describing it
11 that the sentence, the introductory sentence is "The desire for
12 the New Zealand police document examination section to expose
13 themselves to extensive and sustained blind testing of their
14 claimed skill in forensic handwriting identification can be
15 sourced originally to the concerns raised within the now
16 historically significant Risenger, Denbeaux and Saks
17 publication on the topic."

18 BY MR. KISH:

19 Q. Do the authors of that article in a later point reach a
20 conclusion about what their examination has led them to or what
21 their tests have shown them?

22 A. Yes, they do.

23 Q. And does that conclusion comport with what you and the
24 other two professors you wrote your article with put forth in
25 your article, Defendant's Exhibit Number 1?

1 A. If you accept the premise that our articles are designed
2 to say there is no data supporting the handwriting ability
3 experts' claimed proficiency, the answer is yes.

4 Q. What did they say?

5 A. Well, their concluding paragraph says --

6 MR. VINEYARD: Your Honor, may I ask if we could just
7 mark this as an exhibit? I do not have a copy.

8 MR. KISH: I'll be glad to.

9 MR. VINEYARD: I would like a chance to look at it,
10 Your Honor, if I could before it's read into the record; I
11 don't know whether it's objectionable or not.

12 MR. KISH: Sure, that's fine. Since we didn't know
13 about Government's Exhibit 26 before today, I'll be glad to let
14 you see it.

15 THE WITNESS: It's in pieces here; do you want to put
16 it in order?

17 MR. KISH: Sure, I'll be glad to.

18 THE WITNESS: My handwritten scribblings are on there
19 also.

20 MR. KISH: And we will get a clean copy of this.

21 (Pause in the proceedings.)

22 MR. KISH: I'll move to another area while
23 Mr. Vineyard is looking over this document.

24 MR. VINEYARD: I might ask for reference where in the
25 article he is preparing to read from.

1 (Pause in the proceedings.)

2 THE WITNESS: The last paragraph.

3 (Pause in the proceedings.)

4 BY MR. KISH:

5 Q. Am I right in assuming that you have read Dr. Kam's five
6 studies --

7 A. Yes.

8 Q. -- that have been published?

9 A. Yes, I have.

10 Q. All right. And, again, you haven't seen the underlying
11 data?

12 A. Never.

13 Q. Okay.

14 A. Except -- I'm sorry -- in the first one he published, if
15 not the raw data, certainly, the underlying data about the
16 proficiency of each individual tested forensic document
17 examiner and each individual layperson as the control group,
18 although it was a very modest study.

19 Q. Is that little, modest study the one where there were only
20 17 participants?

21 A. Yes, ten FBI agents -- seven FBI agents and ten Drexel
22 college students.

23 Q. Okay. And since that first modest study, have you read
24 the remaining four Kam studies?

25 A. Yes, I have.

1 Q. Now, at one point in one of Kam's studies, did he do
2 something that appeared to be in response to some criticisms
3 that you and your partners had raised?

4 A. Yes.

5 Q. And what was that?

6 A. Okay. The --

7 Q. Well, what were the criticisms and then what was the
8 response?

9 A. Okay. The major study Kam did was what we refer to as Kam
10 2.

11 Q. Okay.

12 A. There was the preliminary one involving 17 people and then
13 Kam 2 had a much larger database and sampling, and that
14 involved using experts, trainees and lay witnesses, giving them
15 quite a large test and producing some results.

16 Q. Now, let me interrupt you on that point. There has been
17 testimony that that larger group included some 140 people and
18 that it represented a significant population of the recognized
19 forensic document examiners in this country. Have you heard
20 that?

21 A. Yes, I have.

22 Q. All right. Do you believe that, that it represents a
23 significant percentage of the people doing document examination
24 and testifying in front of juries?

25 A. I don't believe it. I'm pretty sure it's not true, to

1 this extent: There are two or three organizations that claim
2 to be the elite of the handwriting organization community, but
3 there are dozens and dozens of handwriting community
4 organizations. I think there was one I spoke to, the Northern
5 New Jersey Handwriting Association; it had a bunch of members.
6 And throughout the states, there are many, many people like
7 that.

8 What has happened is -- and those people are allowed
9 to testify as far as I have been able to tell without regard to
10 whether they are members of the American academy or the
11 American board or whether the North Jersey this or the
12 Southwest that, there are all these organizations.

13 And I know one of my critics, a Professor Moenson
14 (phonetic), has said that there are many, many unqualified
15 handwriting experts allowed to testify because he considers the
16 only qualified people to be members of those groups.

17 Needless to say, the vast number of people not in
18 those groups consider themselves qualified and, frankly, none
19 of them have exposed themselves to testing, so it's impossible
20 to tell which group is more reliable than the other.

21 Q. Now, when Professor Kam responded to some of your
22 criticisms, what was one of the things that he did in one of
23 his studies after this larger group came about?

24 A. Okay. Okay.

25 THE WITNESS: Your Honor, the first large group test

1 showed that the lay people did virtually identically to the
2 experts in finding a match but that they had a significantly
3 higher number of false positives. And one of the issues that I
4 raised -- again, I think it was here in Atlanta -- was that the
5 motivations were really quite different. That is, handwriting
6 experts, our article had come out, Daubert had happened, they
7 well understood that they had to be very careful.

8 Lay people, and in this case, it was basically Drexel
9 University students --

10 BY MR. KISH:

11 Q. When you say "this case," you mean the students who were
12 taking Dr. Kam's test?

13 A. Yes, the big test, number 2, Kam 2. I apologize.

14 Q. Okay.

15 A. Those students were told they would get \$25 if they took
16 the test. They were also told for every question they got
17 right, they would get an additional 25; for every question that
18 they got wrong, they would lose 25. And this was the question
19 that concerned me: Kam also said for every time you fail to
20 make a match, you lose \$10.

21 Q. Why did that concern you?

22 A. Well, first, because I had three children at that point
23 who were college age and at least two of them were risk
24 preferring and none of them were mathematically illiterate, and
25 they would have known that if you are very close on a close

1 question, you got a 50/50 chance of getting it right. If you
2 bet one way, you make 25; if you bet the wrong way, you lose
3 \$25.

4 Q. But if you don't bet all --

5 A. But if you get it wrong and you don't bet, there is a 50
6 percent chance of losing 10, which seemed to me likely to
7 inspire students, if they were even being conscientious, to
8 take the bet and put some money down on a judgment on a close
9 call.

10 Q. So did that criticism of yours result in yet another
11 permutation of the Kam studies?

12 A. Yes. Dr. Kam came up with another study. This one only
13 tested lay people, and it tested a larger group of lay people
14 and it gave them different incentives, monetary incentives for
15 the test.

16 And in that test, he concluded that no matter which
17 monetary incentive you gave, the students, it made no
18 difference to the students. And -- okay.

19 Q. I'm sorry, go ahead.

20 A. No. No. So what happened, however, Dr. Kam's second
21 study -- Dr. Kam's second study claimed the students made a
22 false positive error rate of 38 percent.

23 Q. In other words, when they made a match, they were wrong 38
24 percent of the time?

25 A. Yes.

1 Q. And was there a different number associated with what
2 happened when the professionals made a wrong match?

3 A. Yes.

4 Q. What was that number?

5 A. Theirs was six and a half percent.

6 Q. So they were correct both in 87 percent of the time but
7 incorrect at different rates?

8 A. Yes.

9 Q. Okay. Continue.

10 A. Now, and that's a pretty significant difference, six and a
11 half percent and thirty-eight percent. Putting aside group
12 motivation differences between professionals whose career is on
13 the line and people who are taking a test in a university
14 setting for money, his second test -- the third test, the one
15 that tested motivation, found motivations made no difference,
16 but this group of students only made 22 percent false
17 positives. So between the first test and the second test --
18 and they were identical tests -- the students' false positive
19 rate dropped by almost 40 percent, from 37 percent to 22
20 percent.

21 Q. Now, in all of the iterations of the Kam data that have
22 been published that you have seen, has Dr. Kam ever identified
23 the percent or the number of his test-takers who reach an
24 inconclusive result?

25 A. I don't know about all of them, because I can't remember,

1 but I looked at this particularly this morning in light of the
2 Found and Rogers test.

3 Q. Well, first off, are you aware of whether or not he has,
4 for the most part in his statistical data, told the reader how
5 many of his test-takers couldn't reach a result?

6 A. Yes, that's not a big point for him.

7 Q. Does that impact your view of the data?

8 A. Yes.

9 Q. Why?

10 A. First of all, there is a different incentive to avoid
11 false positives between experts and lay people.

12 Q. What do you mean, there is a different incentive?

13 A. Well, I think everyone understands that for an expert to
14 get on and say "You wrote this document" when she did, it would
15 be a terrible injustice. I don't know that college students
16 taking a test care very much, false positives or not.
17 Certainly, they wouldn't care as much as jurors would, because
18 there is no connection to anything, so there is a big
19 difference in the relationship.

20 Q. So are you saying that from your thinking about this, the
21 professionals are more likely to come up with an inconsistent
22 result --

23 A. Inconclusive.

24 Q. Inconclusive, I should say. Do you think they are more
25 likely to come up with an inconclusive?

1 A. That's the smarter course for them to take.

2 Q. Okay. Now, let's take these numbers that we have heard
3 where they both made correct matches 87 percent of the time but
4 there is different amounts of the incorrect matches. How does
5 that failure to know how many inconclusives there are affect
6 that?

7 THE WITNESS: Well, Your Honor, both groups were
8 right in making correct matches 87 percent of the time. The
9 experts made false positives six and a half percent of the
10 time. Lay people made them 38 and a half percent of the time.

11 The difference between those numbers is based on the
12 number of times lay people made a bet, because they made more
13 bets than the experts did.

14 BY MR. KISH:

15 Q. Because experts are more likely to reach an inconclusive
16 result because they know that's safer?

17 A. Not only that, the problem with the Kam study, if I may
18 say, is that he gave a test with a large body of knowledge, of
19 writings, in un-disguised handwriting, so that everybody wrote
20 their normal handwriting, and the problem with that is that
21 many times, handwriting distinctions are obvious.

22 The test of whether somebody is an expert or reliable
23 or valid is not whether they can tell the difference between
24 two very grossly different handwritings but whether they can
25 tell the difference between two very similar handwritings.

1 My example is everybody can tell the difference and
2 identify some handwriting. Most people would know if the
3 letter came handwritten if was from their father or from
4 somebody else and they could check. No one would confuse my
5 handwriting with my wife's, it would never happen. They would
6 know it was me or her or they would say we are different
7 people.

8 Well, we have three children, and my oldest child,
9 Josh, and my youngest, my daughter Abigail, if we left a note
10 on the refrigerator, if somebody left an unsigned note on the
11 refrigerator saying, "I'll be home at 7:00," we had no idea
12 which of our kids would be walking in the door. And this is
13 true for me and for my wife, who used to comment on it. The
14 only way we knew was if it was after 7:00 and nobody was there,
15 it was my son who would have wrote it, and if it was on time,
16 it was my daughter. That was a personality trait.

17 Q. Okay. Professor, you've mentioned to us that you presume
18 that the professionals in Dr. Kam's test probably were less
19 risk-takers and, therefore, had more inconclusives, right?

20 A. Oh, they had to be; they knew they were being tested to
21 refute the claim that they were unreliable in our article.

22 Q. Did the Australian researchers in the article that we have
23 agreed to mark as Defendant's Exhibit Number 2, when we get a
24 clean copy, did the Australian researchers actually provide
25 their data on how many times and by what percentage the

1 professionals actually took the safe course and rendered an
2 inconclusive opinion?

3 A. Yes.

4 Q. And are you looking at a table on the data, and what
5 page?

6 A. I'm looking at the table on page 22; it's called, "Opinion
7 Scores Dealing with the Authorship of Handwriting Types," and
8 this was a major study done in New Zealand.

9 Q. New Zealand, I'm sorry.

10 A. And the study, the most important thing about this study
11 in terms of what we're talking about is when they gave this
12 study in New Zealand, 52 percent of the time, the New Zealand
13 forensic document examiners said they couldn't reach a
14 conclusion.

15 Q. They took the safe route?

16 A. They took the safe route.

17 Q. And that's why the data from Kam on the false positives
18 may be skewed; is that what you're saying?

19 A. Well, yes, because what happens is if you have several
20 hundred people writing very different handwriting, everybody
21 can put to the side the extremes and say they are not a match.
22 The only question is the close stuff, because Kam has admitted
23 his study wasn't designed to test what handwriting experts do;
24 it was designed to show that handwriting experts had a higher
25 accuracy level than lay people. That's the only question he

1 was addressing.

2 And of course, what happened is if they were all
3 making the right judgments 87 percent of the time, when both
4 sides reached a conclusion, and then there were some close
5 ones, the experts would say in the close, ambiguous ones, "I'm
6 not going to take a chance, I'm going to say it's
7 inconclusive," but the lay people who weren't under any
8 incentive not to take a chance would naturally have taken that
9 chance and made more false positives.

10 The strange part about it is the only relevance of
11 handwriting experts that contributes anything to the courtroom
12 is their ability to make distinctions when the handwriting is
13 very similar and very close. They don't offer anything when
14 it's not. And when it's similar and close, they don't give an
15 opinion, sometimes, as much as 52 percent of the time.

16 Q. Now, there has also been talk here about some work done up
17 at the State University of New York at Buffalo by a Dr.

18 Srihari.

19 A. Yes.

20 Q. Are you aware of Dr. Srihari's work?

21 A. I'm aware of it, I've met him, I've spoken with him
22 repeatedly.

23 Q. All right. Are you aware of the sort of what I'm going to
24 call machinelike approach and the software that Dr. Srihari has
25 created to determine whether or not two writings are similar

1 enough so that authorship can be attributed from one to the
2 writer of another?

3 A. Yes, I am.

4 Q. All right. Now, do you know whether or not Dr. Srihari's
5 software program allows for objective features to be looked at
6 by the machine in order to make these matches?

7 A. With the database that he has prepared so far, within
8 that, the answer is absolutely yes.

9 Q. And do you know whether or not Dr. Srihari's --

10 A. "Srihari."

11 Q. -- Dr. Srihari's machine, what the data is on how accurate
12 it is in making a match?

13 A. Yes. If I can explain briefly, Dr. Srihari was the
14 association which created for the government the computerized
15 program that allows the postal service to read handwritten
16 envelopes in order to route them. And when the National
17 Institute of Justice asked for some research to determine what
18 the reasonable method is and the reliability for making these
19 distinctions about authorship, looking at shapes and letters,
20 they gave his university program a half a million dollars to do
21 a study.

22 Their first study was based on 1,500 samples of
23 writing from people and it was designed to show that the people
24 who wrote it could be determined to be different, that is, he
25 was out to prove no two people write alike.

1 Q. Sometimes called the principle of uniqueness?

2 A. That's correct.

3 Q. Okay.

4 A. And his first study says the principle of uniqueness is
5 right, at least within 90 percent, maybe 95 percent, depending
6 on what happens --

7 Q. Okay.

8 A. -- assuming that you used the same amount of words, in the
9 same order and the same letters that he used. And it's clearly
10 quite accurate and quite reliable, and it's clearly the way of
11 the future. There is no doubt that this problem is going to be
12 solved.

13 Q. When you say it's the way of the future, what are you
14 talking about?

15 A. Well, Dr. Srihari is working on a system that will be able
16 to identify in an objective, rational way, including all the
17 data that's contained in all of the questioned and known
18 writings, whether it's written by the same person or not. And
19 that data in that program will be available to civil
20 plaintiffs, civil defendants, criminal defendants, prosecutors;
21 it will be available to everybody.

22 Q. Now, does Dr. Srihari's machine, as I'm calling it, and
23 software, does it look at objectively quantifiable
24 characteristics of handwriting and hand printing when making
25 its distinctions?

1 A. It doesn't use the characteristics that forensic document
2 examiners do, but it uses a series of algorithms and formulas
3 that look at patterns and similarities in programs.

4 Q. Does it measure, in other words?

5 A. It's an objective standard that cannot be influenced by
6 outside sources that has a fixed database, yes.

7 Q. From what your knowledge of the practice of forensic
8 document examination by human beings is, have you learned
9 whether or not professional forensic document examiners do not
10 try to have objective characteristics?

11 A. I don't know if they try to; they don't have any.

12 Q. Okay. Have you done a study of the actual practice of
13 what forensic document examiners do?

14 A. I believe so. I don't know what you mean by a study; I've
15 investigated it extensively.

16 Q. What have you done to extensively investigate the practice
17 of forensic document examination?

18 A. First, I've read all of the literature and more that they
19 are required to read for their on-the-job training to be
20 forensic document examiners. I've attended and been shown
21 through a forensic document examination laboratory for a day
22 and a half; they showed me their materials. I have interviewed
23 those who will talk to me; some will, some won't. I've read
24 their depositions; I've read their transcripts; I've attended
25 court where they have testified; we have talked afterwards; I

1 have reviewed hundreds of thousands of pages of documents,
2 compared them to their reports, compared them to their
3 laboratory notes to see about similarities and
4 dissimilarities.

5 And what I've discovered are three things: One, they
6 don't do any quantification, there is no measuring; all they do
7 is eyeball it. Sometimes, they eyeball it with a magnifying
8 glass; sometimes, they don't. If they talk about slants, they
9 don't do it based on protractors or measurements; they just
10 eyeball that also. They talk about height relationships, they
11 eyeball it; there is no attempt to quantify it.

12 Q. So the first point that you've learned in your self-study
13 is there is no quantification?

14 A. Absolutely not.

15 Q. Okay. What's the second thing?

16 A. The thing second thing is that assuming they're right of
17 the doctrine of uniqueness -- and I take no position on that,
18 it certainly seems plausible, but I wouldn't be shocked to find
19 out that it happened someplace but it doesn't seem important to
20 me -- their second doctrine is the really dangerous one. It
21 says no two people write the same way -- no one person writes
22 the same way twice.

23 And that doctrine means the differences, that is,
24 similarities maybe prove something but differences don't,
25 because they will say the same person can write it the same way

1 and differently and there is no restriction on their saying
2 these differences that are here are meaningless, the
3 similarities are what count.

4 Q. Are you saying then that what you've learned is that when
5 they see a similarity that matches their opinion, it's
6 important; when there is a distinction, the distinction is
7 unimportant?

8 A. Perhaps, but slightly more refined than that. My position
9 is simple: They know before they are assigned the case that
10 they will get data or documents and they know before they start
11 that there will be similarities between the questioned and the
12 known and they know before they start there will be
13 dissimilarities. And whether I wrote all three of the
14 documents or you wrote one and I wrote one or anybody else in
15 this courtroom wrote them, there would be many similarities,
16 and there would be many differences, as there would be if I
17 wrote the documents several times, there would be many
18 differences. That's their analysis.

19 Their position, I've always thought the answer, it
20 goes like this: No two people write alike, no one person
21 writes alike, and three, we all write alike, because how else
22 can we read each other's handwriting?

23 The question you would expect to follow from that is
24 how many similarities would you expect to find to be meaningful
25 out of the database you have and how many would be inadequate?

1 Q. In your readings of all of the texts that the
2 professionals look at, has there ever been an attempt for
3 anybody to tell the forensic document examining community
4 exactly what you just said? How many similarities should you
5 expect to find?

6 A. There was one study in the 1970s by a man named Muleberger
7 trying to compare T-H and finding similarities, and he
8 concluded that this was the beginning, this was the future,
9 they had to go that way, they had to quantify it. Nothing ever
10 happened from that moment on.

11 I've been in court many times, listened to
12 handwriting experts say, "We don't count." I have spoken to
13 them and said to them, "Look, there is 100 questioned
14 documents, questioned letters, there are 10 knowns. That's a
15 thousand possible comparisons. How many are you using? They
16 will say, Six."

17 And if it turns out it's 100 times 100, we're up to
18 10,000. And I'll say, "How many are you using?" They will
19 say, "seven or eight." And they will say, "These are typical,
20 we have selected them," and so what you end up having
21 handwriting experts do is take out and, in fact, it's usually
22 tens of thousands of possible comparisons, and they pick
23 half-a-dozen or a dozen and say, "These are typical."

24 And it gets worse, in my view, because they may pick
25 a T, a capital T, and they will say, "Notice the capital T, the

1 bar, the crossbar and the staff, they don't connect there is a
2 space above them in the questioned and in the known." And then
3 you will say, "Well, okay, but if you look at the known, there
4 are 48 Ts like them; how many of them touch?" And if you look
5 and check, you will find that three quarters of the knowns
6 actually cross.

7 And then if you want to say let's look at another
8 characteristic they use, slant. Even in the T they have picked
9 where the bar doesn't cross, in the questioned it's
10 perpendicular and in the known, it's slanted, not touching and
11 balanced too far to the right, there is an endless number of
12 possible similarities and --

13 Q. Now, you mentioned that your study had led you to three
14 conclusions.

15 A. I'm sorry, three: One, no two people write alike; I
16 accept that.

17 Q. Okay.

18 A. One, no one person writes the same way twice; and, three,
19 we all write the same way, enough to be able to read it. So
20 the question is how much is meaningful and the answer is they
21 don't know.

22 Q. Now, Professor, in looking at this field over the years,
23 have you looked at Professor Kam's most recent study, the one
24 that was published this year on hand printing?

25 A. Yes.

1 Q. Have you learned whether or not that most recent study is
2 still based on the data that was generated about three or four
3 iterations ago in his work?

4 A. It's the same data, reorganized.

5 Q. His most recent study on hand printing, does that rectify
6 the problem you told us about of it doesn't tell you how many
7 inconclusives the professionals and lay people had?

8 A. My problem -- yes. Let me make sure I've got this.

9 (Pause in the proceedings.)

10 THE WITNESS: I apologize, Your Honor, I've -- yes,
11 here it is. This suffers from the same problem dealing with
12 conclusives and inconclusives.

13 BY MR. KISH:

14 Q. When you say "this," are you referring to Government's
15 Exhibit Number 26 or--

16 A. Actually, if you're referring to Kam, hand-printed, and I
17 don't think I have a copy of 26.

18 Q. I thought I put it up there.

19 A. I have exhibit 1.

20 Q. Oh, I'm sorry.

21 A. No, you gave me 26, which deals with signatures and forged
22 writings.

23 Q. Okay.

24 (Pause in the proceedings.)

25 BY MR. KISH:

1 Q. I'm going to hand you what has been marked as Government's
2 Exhibit Number 25 and ask you if that looks like a copy of
3 Dr. Kam's most recent study on the comparison of hand printing
4 using his old data?

5 A. I think this is a version that had not yet been
6 published. I think I had been looking at something that
7 already -- was just out in The Journal of Forensic Sciences
8 within a week, a day or something.

9 Q. After having looked at that, does his, "his" meaning
10 Dr. Kam's, most recent study suffer from the same problem of
11 not reporting the rate of or number of inconclusive choices
12 made by either the professional document examiners or
13 laypersons?

14 A. Yes, it has a very similar problem. Excuse me, I want to
15 make one point: I'm not sure this is exactly the same,
16 because --

17 (Pause in the proceedings.)

18 THE WITNESS: The difference here is that he has some
19 examples in his published copy of different types of the
20 writings, mixed and printed, and I don't see that in the copy
21 you've just given me.

22 BY MR. KISH:

23 Q. Other than that difference, do they appear to be the same?

24 A. Yes, they do.

25 Q. Okay.

1 A. They appear to be.

2 Q. Finally, Professor, if I could get the exhibit number back
3 from you along with Plaintiff's Exhibit Number 1 so we don't
4 make mistakes on these, I'm going to hand you what will later
5 be marked again as Defendant's Exhibit Number 2, the article
6 written by Byron Found and Doug Rogers and Allen Hurt and ask
7 you to look at the last paragraph before the conclusion there,
8 where I'm pointing.

9 A. (Reviews exhibit.)

10 Q. Now, these are the authors who wrote, some of whom
11 participated in the study that resulted in Government's Exhibit
12 26, what did they conclude in that other study about the New
13 Zealand handwriting at the place I just pointed to you?

14 A. Yeah. It says, "It's still the case that most examiners
15 internationally have not been exposed to the rigors of testing
16 of the magnitude described in this paper. For courts to take
17 holistic comfort in error scores generated by blind trials, if,
18 in fact, they take comfort at all, would be a precarious
19 position. To take this position would be to embrace an
20 underlying assumption that the error scores generated by the
21 individuals taking part in the reported trials are
22 representative of error rates over larger groups of document
23 examiners. There is at this point in time no clear evidence to
24 support this proposition."

25 Q. Is that the same as your opinion?

1 A. Yes.

2 MR. KISH: I have no more questions for Dr. Denbeaux,
3 Professor Denbeaux, excuse me.

4 THE COURT: Mr. Vineyard?

5 CROSS-EXAMINATION

6 BY MR. VINEYARD:

7 Q. Good afternoon, Mr. Denbeaux.

8 A. Good afternoon, sir.

9 Q. Now, sir, you're not here in your capacity as a law
10 professor at Seaton Hall, are you, sir?

11 A. I don't believe I am. If I understand your question, I'm
12 not here representing Seaton Hall in any way.

13 Q. And you're not here in your capacity as a law professor,
14 that's not how you've been tendered, is it, sir?

15 A. No, although I think it's a derivative of my being a law
16 professor.

17 Q. You've been tendered as an expert on the limitations of
18 forensic document examination and the deficiencies of the
19 methodologies employed by forensic document examiners,
20 according to a report of yours filed in this case?

21 A. Yes.

22 Q. You understand that?

23 A. (Nods head affirmatively.)

24 Q. And you also in that capacity have been found to be not
25 qualified to testify, according to the Eleventh Circuit in the

1 Paul decision; isn't that right?

2 A. I think the Eleventh Circuit found there wasn't an abuse
3 of discretion not to qualify me; I think a trial court judge
4 excluded me in the retrial of a case.

5 Q. And that was Judge Tidwell of this district?

6 A. Yes, I think that's who it was.

7 Q. And then on appeal, the Eleventh Circuit found that you
8 were not an expert on the limitations of handwriting analysis
9 in the Paul decision; isn't that correct?

10 A. I don't remember the exact language, but it wasn't very
11 flattering to me, as I recall.

12 Q. I'll show you a copy of the Paul decision; there is a
13 reference to the portion of the opinion that I'm referring to.

14 A. (Reviews document.)

15 (Pause in the proceedings.)

16 THE WITNESS: Yeah. They said because I was not an
17 expert, it didn't -- it was not of any prejudice to Mr. Paul.

18 BY MR. VINEYARD:

19 Q. Yes, sir, but my question is --

20 A. Yes.

21 Q. -- they found that you were not an expert on limitations
22 of handwriting analysis; is that right?

23 A. Yes, they did.

24 Q. And that's what you're purporting to do here today,
25 testifying to?

1 A. That's what I'm doing today, yes.

2 Q. Well, sir, you're a law professor and a member of the bar?

3 A. Yes, I am.

4 Q. Do you understand the principle that lower courts are
5 governed within their circuit by decisions of the Court of
6 Appeals?

7 A. Yes.

8 Q. So you understand that this Court is governed by the
9 decision of the Eleventh Circuit in Paul that you are not
10 qualified as an expert on the limitations of handwriting
11 analysis?

12 A. The holding said that I was -- that I didn't have
13 experience or training to contribute to that question, yes.

14 Q. So you understand that this Court under the principles of
15 lower courts being required to follow the opinions of the
16 Courts of Appeal that this Court cannot recognize you as an
17 expert on the limitations of handwriting analysis; is that
18 correct?

19 A. No, no.

20 MR. KISH: Judge, if I might object, I think
21 Mr. Vineyard is well aware of the fact that this Court makes
22 ultimate decisions on what it must and must not follow.

23 To have a witness give an opinion as to what weight
24 his testimony is to be given, I think, is just inappropriate.

25 THE COURT: I'll sustain.

1 BY MR. VINEYARD:

2 Q. Sir, so this is not the only case in which you've not been
3 qualified to testify as an expert in federal court, is it, that
4 is, the Paul case?

5 A. I think it is.

6 Q. There are other cases in which you have been excluded or
7 your testimony has otherwise been limited, aren't they?

8 A. Excuse me, was your question excluded or limited?

9 Q. Excluded and/or otherwise limited.

10 A. I don't remember. There may well be; can you tell me the
11 name of the case?

12 Q. Well, the Velazquez (phonetic) case.

13 A. Oh, yes. The trial court excluded me and the Third
14 Circuit reversed the conviction based on my exclusion.

15 Q. And in that opinion in footnote 4, it made representations
16 about your qualifications that were inaccurate?

17 A. Yes. The Court did, I didn't.

18 Q. The Court did?

19 A. (Nods head affirmatively.)

20 Q. That was in footnote 4 of the Velazquez opinion, which is
21 64 F3d, 844, for the record.

22 A. Yes, I believe it was -- it was a footnote, yeah. Yes.

23 Q. And, specifically in that footnote, the Court erroneously
24 stated that you had spent four years as a statistical social
25 scientist?

1 A. That was erroneous; I had never done that.

2 Q. And when you've testified here today, you haven't
3 corrected that erroneous representation prior to the point in
4 time that I have brought it to your attention, have you?

5 A. Would you repeat that question?

6 Q. Yes, sir. You didn't correct the erroneous representation
7 about your credentials before the Third Circuit, did you?

8 MR. KISH: Judge, I object. The man was never asked
9 anything about his representations to the Third Circuit before
10 Mr. Vineyard did, so it's not a fair question to say you didn't
11 come in here and correct that, so I object to the form of the
12 question.

13 THE COURT: I think that he has made a fair point.

14 MR. VINEYARD: I'll rephrase the question. I'll
15 rephrase the question.

16 BY MR. VINEYARD:

17 Q. Sir, have you corrected the erroneous information included
18 in the Velazquez opinion about your qualifications?

19 A. I called the clerk of the Third Circuit when I read that
20 footnote and realized the error and informed them that the
21 opinion was wrong and asked what I should do, and I was told it
22 was too late.

23 Q. And you didn't reduce anything to writing or didn't make
24 anything written?

25 A. No, I did not.

1 Q. And when you've testified like you have today in other
2 courts, is it only upon cross-examination that you bring out
3 the fact that at least one court was mistaken about your
4 qualifications?

5 A. Actually, sometimes, I'm asked on direct; sometimes, I'm
6 not. Whenever I'm asked, I point it out.

7 Q. Well, in addition to teaching evidence, do you teach legal
8 professionalism?

9 A. I teach professional responsibility, yes, I do.

10 Q. And would you believe it's important as a person who is
11 touting themselves as an expert to correct the record about
12 their qualifications if there is some misunderstanding in
13 published opinions about their expertise?

14 A. Absolutely, absolutely.

15 Q. And that's something that you could have brought to
16 Mr. Kish's attention and it could have been brought out to this
17 Court on direct examination, couldn't it?

18 A. Are you asking me whether I brought it to Mr. Kish's
19 attention?

20 Q. I'm asking you --

21 A. I could have brought it to his attention; indeed, I did.

22 Q. Okay. But that was not presented on direct testimony?

23 A. I answered the questions I was asked, sir.

24 Q. And in the Kirby case, you testified in this district in
25 the Kirby case, didn't you?

1 A. Yes. I don't remember the names very well but, yes,
2 something like Kirby, I'm sure.

3 Q. And the Gilreath case would be another case you testified
4 in?

5 A. Yes. Yes, sir.

6 Q. In those cases, you didn't bring out on direct examination
7 the fact that your qualifications had been misrepresented?

8 A. Sir, I brought it out every time I've been asked and every
9 lawyer who has ever called me since the Paul case or since this
10 has been told of this, and I've explained to them why I didn't
11 bring it to the Third Circuit's attention. I think you know
12 why.

13 Q. Sir, my question, though, is in the Kirby case, you didn't
14 bring it out on direct, it had to be brought out in
15 cross-examination?

16 A. I don't remember whether I brought it out on direct or
17 not; sometimes it is, sometimes it isn't.

18 Q. But you would agree that's an important point for the
19 Court to understand what your exact credentials are?

20 A. For which court, the Third Circuit?

21 Q. For any court in which you testify as a purported expert
22 on the limitations of forensic document examination.

23 A. I think everything is important in this area, including
24 that. But you know why I didn't bring it to the Third
25 Circuit's attention.

1 Q. I thought you said you did bring it to the Third Circuit's
2 attention by a telephone call?

3 A. You know why I delayed it, right?

4 Q. Sir, I think I know; I've read in transcripts.

5 A. Okay.

6 Q. But that has been since 1995 and you've testified a number
7 of times in court since then?

8 A. Every time I've testified since 1995, I've
9 testified --

10 Q. Because this Velazquez opinion was kind of a launching
11 point for your testifying, right, this was sort of the
12 published opinion that made you known around the country as an
13 expert in this field, isn't it?

14 A. I have no idea, I don't know. I had testified before
15 that, also, so I'm not sure. Obviously, when the Third Circuit
16 reversed a continuing criminal enterprise conviction based
17 solely on my exclusion, people noticed.

18 Q. And they did that in part based on a wrong understanding
19 of your qualifications, didn't they?

20 A. The footnote certainly indicated that.

21 Q. Because, sir, as you testified, you're not a research
22 methodologist or a social scientist? You've testified to that
23 today?

24 A. On direct, I did, yes.

25 Q. Sir, you have testified previously in this court in

1 another proceeding that motivation explains much in life; do
2 you recall that?

3 A. I think that's a fairly true statement, at least of my
4 belief.

5 Q. And, sir, your interest in the field of forensic document
6 examination and limitations to that field arose in your
7 capacity as a criminal defense attorney; isn't that right?

8 A. I think so.

9 Q. You were representing a criminal defendant in which
10 handwriting was an issue? That was your testimony on direct;
11 is that right?

12 A. Yes.

13 Q. And you wanted to challenge that evidence in your capacity
14 as a criminal defense attorney?

15 A. Actually, I asked the prosecutor a question, because I had
16 been muddling through it and we came to an agreement as to how
17 to proceed.

18 Q. Sir, my question is you challenged that testimony?

19 A. Yes.

20 Q. That was where your interest in this field arose, was in
21 your capacity not as a law professor but as a criminal defense
22 attorney?

23 A. I was actually a law professor; I was doing that case
24 pro bono at the request of somebody that came to the law school
25 and asked me to do it, and I was, as an evidence professor,

1 interested in the issues of handwriting. And when he asked for
2 the exemplar, I said, "Well, I know you have a right to it, but
3 why not do it a different way?" And he said, "Okay." So I
4 don't know what you mean by "challenged"; I actually thought
5 the opposing counsel and I agreed to it.

6 Q. You challenged it and then you wrote an article advocating
7 that others ought to challenge the admissibility of expert
8 testimony by forensic document examiners; isn't that right?

9 A. Probably ten or twelve years later.

10 Q. That was the 1989 article, which has been admitted as
11 Defense Exhibit 1. You have a copy of that article?

12 A. I have a copy of mine. I don't -- yes.

13 Q. I'll show you. This is the article "Exorcism of
14 Ignorance"?

15 A. Yes, sir.

16 Q. Now, sir, that's published in The Pennsylvania Law Review?

17 A. Yes.

18 Q. That is not a peer review journal, is it?

19 A. No. It's a law review.

20 Q. And just so the record is clear, law reviews are
21 essentially edited and published by second and third-year law
22 students, with some supervision by professors?

23 A. Yes.

24 Q. This is unlike an article that we have had some other
25 examples that are published in The Journal of Forensic

1 Sciences; those are peer reviewed articles?

2 A. What do you mean by "peer reviewed"?

3 Q. Well, sir, I'm going to ask the questions today.

4 A. Okay. I don't know what you mean by "peer reviewed."

5 Q. Well, you don't understand the concept of a peer review
6 journal?

7 A. Well I know what the concept is, I don't know
8 what --

9 Q. Would you like to explain your concept to --

10 MR. KISH: Judge, I think that Mr. Vineyard is
11 interrupting the witness when he is attempting to answer the
12 question.

13 MR. VINEYARD: I apologize, Your Honor. I'll allow
14 him to answer the question.

15 THE COURT: All right.

16 THE WITNESS: Peer review, in my mind, means
17 independent people with critical thinking read articles,
18 evaluate them, make suggestions anonymously and recommend
19 whether they should be published.

20 My question about The Journal of Forensic Sciences is
21 this: In the questioned documents articles, the peer reviewers
22 are all questioned document witnesses, and my view is they are
23 members of the American Academy of Forensic Sciences'
24 questioned documents section. So for me to say a field that I
25 don't think warrants expertise that it counts as peer review to

1 have those practitioners approve of it doesn't count as peer
2 review any more than if there was an astrology magazine and
3 astrologers were approving articles in there and saying it's
4 peer review.

5 That's my only question, it's clearly reviewed by
6 outsiders.

7 BY MR. VINEYARD:

8 Q. Well, sir, let's put aside your personal views and
9 opinions about forensic document examiners and let me ask you
10 about the publication itself, The Journal --

11 A. Yes?

12 Q. -- of Forensic Sciences. It publishes articles other than
13 those by forensic document examiners, doesn't it?

14 A. Oh, yes.

15 Q. And isn't it a peer review journal?

16 A. I think they would meet the division of peer review,
17 especially in areas of toxicology, pathology, where they send
18 them to experts outside the immediate field itself, because
19 areas of science have better ways to cross-reference than areas
20 of non-science, because the only people who can possibly peer
21 review questioned document examiners are people who believe in
22 questioned document examiners.

23 Q. So you have not engaged in the peer review of questioned
24 document examiners, then, have you?

25 A. I've been a peer reviewer for The National Institute of

1 Justice, which has dealt with some questions about different
2 forensic articles. I have done that, but I have nothing to do
3 with The Journal of Forensic Sciences.

4 Q. And you're not a forensic documents examiner; you don't
5 claim that expertise, do you?

6 A. That's correct.

7 Q. And you're not a statistician?

8 A. No, I'm not.

9 Q. A mathematician?

10 A. No, I'm not.

11 Q. We have already covered a couple of others. And you're
12 frequently asked a list of things that you're not, but we know
13 in this case, you're testifying purportedly as an expert on the
14 limitations of forensic document examination?

15 A. Yes.

16 Q. That's your only expertise and your function here today?

17 A. I think I'm testifying as to the limitations and defects
18 in their methodology.

19 Q. Now, sir, you understand that you would be subject to the
20 same standards of Daubert that any other expert would be
21 subject to; isn't that right?

22 A. In which category of Daubert do you put me in?

23 Q. Well, sir, my question is are you as an expert witness
24 subject to the Daubert factors in any category?

25 MR. KISH: Judge, if I could interrupt here just for

1 a second, we have never proffered Professor Denbeaux as an
2 expert witness, we simply asked him questions, and so I think
3 this inquiry is actually irrelevant at this point. There has
4 not been a single witness testifying in front of you in these
5 hearings who has been tendered as an expert.

6 THE COURT: Mr. Vineyard?

7 MR. VINEYARD: Your Honor, with regard to any
8 forensic document examiners, the whole issue of these hearings
9 is whether they are experts. Mr. Denbeaux has filed a report
10 that has been supplied and is the premise for these hearings in
11 which he is described as an expert on the limitations of
12 forensic document examination and the deficiencies of the
13 methodologies employed by them. He has testified already that
14 he is purporting to be here as an expert in that field.
15 Whether he has actually been tendered as we would in front of a
16 jury, I think, is not relevant.

17 THE COURT: I don't know that his opinion about
18 whether he is subject to Daubert is relevant, so I'll sustain
19 that objection.

20 MR. VINEYARD: All right.

21 BY MR. VINEYARD:

22 Q. Now, sir, you and Professor Saks and Professor Risenger
23 have all testified, I presume, in some capacity or something
24 similarly to the way you've testified here?

25 A. Proffer Risenger has not.

1 Q. He has not?

2 A. (Shakes head negatively.)

3 Q. Okay. Is there anyone other than you and Professor Saks,
4 then, who have testified in the capacity as an expert on the
5 limitations of forensic document examination?

6 A. I don't know of any. There are cases that come down with
7 decisions that are either based on our work that has been
8 submitted or somebody else has testified to it, but I don't
9 believe there are.

10 Q. So you really have no peers in the field of being an
11 expert on limitations of forensic document examinations other
12 than Professor Saks, your coauthor?

13 A. Well, by "peers," you mean people who testified as experts
14 or people who have studied the discipline in the area? Because
15 Professor Risenger doesn't testify and is clearly an expert in
16 the area, at least as much as I am.

17 Q. So that would be the three of you who coauthored the 1989
18 article?

19 A. Yes, and other people, for instance, who have worked for
20 the West Publishing Company, the publication on The Journal of
21 Forensic Science and the other West publications that deal with
22 that. I think our work has been reviewed at symposiums and at
23 other conferences repeatedly.

24 Q. But you're unaware of anyone else who has testified about
25 this other than you and Professor Saks?

- 1 A. No, I think we're the only two.
- 2 Q. And, sir, the only other article you've published in this
3 field was in 1998?
- 4 A. There is one coming out, I think -- I thought it was
5 coming out in September. The fall journal of the journal of
6 Seaton Hall Law School has a third one.
- 7 Q. But you haven't testified about that today?
- 8 A. I haven't been asked about the principles that are
9 involved in there, no.
- 10 Q. Okay. Well, let's stick with those two. The 1989 article
11 is what you've based most of your testimony about here today;
12 is that correct?
- 13 A. 1989?
- 14 Q. Yes, sir, 1989.
- 15 A. Well, no. That was the first article; that dealt with the
16 analysis of The Forensic Science Foundation materials. The
17 subsequent materials after that, I've also testified about.
- 18 Q. The 1998 article was written in response to
19 criticism --
- 20 A. Yes.
- 21 Q. -- leveled by a peer?
- 22 A. Yes.
- 23 Q. Professor Moenson?
- 24 A. Right.
- 25 Q. All right. And his article had been published in a law

1 review article, a law review journal?

2 A. That's correct. That's correct.

3 Q. And you believed that it was necessary to respond, so it
4 wasn't a product of any further research, it was a response to
5 criticism of your 1989 article and your testimony; is that
6 correct?

7 A. No. I mean, I think a law review article is always a
8 product of research. Certainly, the impetus of it was the
9 criticism that Professor Moenson made of us and that was,
10 obviously, perhaps a spur to address some of the materials that
11 were there, but we had been working on them for a long time.

12 Q. You regarded Professor Moenson's critique as intemperate?

13 A. Oh, I think some of it was intemperate.

14 Q. Well, that was the word that you used in your introductory
15 paragraph --

16 A. Yeah.

17 Q. -- he was intemperate in his critique of you; is that
18 right?

19 A. Yes, I think he was.

20 Q. Did you not regard it as intemperate when you analogized
21 the field of forensic document examiners to witch hunters in
22 your article?

23 A. To witch hunting?

24 Q. To witch hunting, yes, sir.

25 A. No. I think that seems to be quite fair; they don't have

1 to throw people in the water to find out but all they do in
2 forensic document examination is get up and say, "Look at the
3 shapes of those letters, he's guilty." That doesn't seem to be
4 very different.

5 Q. So that's your understanding of the testimony of a
6 forensic document examiner, he stands and draws his finger in
7 the air and says, "This is a match"?

8 A. Actually, no; they use lasers. They are very, very
9 skillful at the way they present their materials and point out
10 similarities or dissimilarities, depending on their
11 inclination. But they are equally skillful at selecting the
12 examples that they want to pick from a huge array of choices,
13 and they do so simply by selecting the things that prove the
14 point they want to testify to and while dismissing all the
15 things that are inconsistent and have no way to evaluate it.

16 While it may be that witch hunting, in your view, is
17 perhaps a different formula, we actually read Malaciarium
18 (phonetic), which was the Middle Ages trial methodology for
19 trying witches. It's quite an elaborate book; it's actually
20 more than a little bit chilling. And we read that book and we
21 were going through that as part of our preparation. It seemed
22 to us the analogy was somewhat fitting.

23 Some of us believe folk medicine might be another
24 analogy, others think astrology might be, but I think all of
25 them fall in the same category of premises that are un-tested

1 and basically unprovable.

2 Q. And that was the case in your 1989 article, but there has
3 been testing since that time by Dr. Kam?

4 A. He had done testing before and after, yes.

5 Q. Dr. Kam had done testing before 1989?

6 A. Oh, I'm sorry, you said '89 or '90?

7 Q. 1989, the year of your article.

8 A. I'm sorry, I misheard you. No, Kam's work all came in
9 response to ours.

10 Q. Exactly. And Dr. Kam has found in his studies that
11 handwriting experts are better at differentiating -- at not
12 wrongly associating a writer with a questioned document than
13 are laypersons?

14 A. That's what his tests show, yes.

15 Q. And so that's an improvement upon the record that you
16 found when you wrote your article in 1989?

17 A. Well, it actually doesn't change the numbers 57/43 in
18 terms of error rate. What it does say is that experts do
19 better than lay people, at least under those circumstances. I
20 don't think it makes them more accurate than their other
21 numbers, but it certainly does show that in the correlation lay
22 people presumably would do even less well.

23 Q. And it certainly showed a difference in error rate than
24 the figures you have thrown out, the 57 and the 43, didn't it,
25 for both experts and lay people, that is, Dr. Kam's studies?

1 A. Well, Dr. Kam's studies showed that lay people did as well
2 on finding correct matches. They found 87 percent; The
3 Forensic Science Foundation found 57 percent accuracy rate.

4 Remember, one of the problems turns out to be whether
5 they are right or wrong is the question. Dr. Kam's study said
6 find the matches, people found matches. Some people found --
7 lay people found matches that weren't there more often than the
8 experts did, but they were two different tests.

9 But I concede Dr. Kam's study was the first study
10 that attempted to compare experts to lay people, and his first
11 study made a very extreme difference. His second study -- I
12 call it his second study. His third study reduced by 40
13 percent the disparity; it went down to 22 percent and six and a
14 half percent, and I think there are some serious questions
15 about whether or not lay people, many of the lay people didn't
16 do better than some of the experts.

17 But as I think I've mentioned, one of my objections
18 to Kam's not providing us with the data is and with his failure
19 to give a standard deviation, we don't know how many of the lay
20 people did better than the experts, because there is obviously
21 an overlap and there is no way to tell from the data that he
22 gave.

23 Q. What we do know from the data that he gave in both studies
24 is that forensic document examiners are less likely to wrongly
25 associate a writer with a questioned document than are lay

1 persons; isn't that correct?

2 A. As a group. But, sir, his first study shows --

3 Q. Sir, I'm just going to ask you to answer.

4 A. Yes, clearly, they showed that.

5 Q. Now, Mr. Denbeaux, you testified on direct that the real
6 problem -- and I think you would agree with this -- would be to
7 wrongly associate someone, that is, a criminal defendant, with
8 having written something that he did not write; that would be
9 an injustice, wouldn't it?

10 A. Well, I certainly think that would be an injustice.

11 Q. And isn't that the logical conclusion based on the studies
12 that we have today of what would happen if forensic document
13 examiners were excluded as expert witnesses in court and
14 laypersons were left to make the comparisons?

15 A. You mean if jurors were? No, I don't think there is any
16 evidence of that.

17 Q. Well, based on Dr. Kam's studies, it would show that
18 jurors, presuming they are laypersons, would be more likely,
19 six times more likely than experts to wrongly associate a known
20 writing of a subject with a questioned document, doesn't it?

21 A. No.

22 Q. It shows that, if you prevail in your view, your advocacy
23 for excluding expert witnesses and laypersons are left to
24 examine handwriting and make the comparisons according to
25 Dr. Kam's studies, they are going to be six times more likely

1 under the first study, six times more likely than the experts
2 to wrongly associate a writing with a questioned document?

3 A. I don't see how you can make that conclusion. That's the
4 big problem. I'll answer it two ways, if you don't mind.

5 Q. All right, sir. Please.

6 A. One, you told me that -- you quoted my saying motivation
7 is everything. I think one of the serious problems is assuming
8 that if you pay somebody \$25, they will provide -- appear and
9 proceed with the same care that jurors would, knowing
10 somebody's freedom is on the line. I actually believe worrying
11 about somebody's liberty would inspire greater care and greater
12 intensity than paying some student \$25 to take a test. I think
13 the motivation there, I trust, would lead to much greater
14 reliability.

15 Secondly, you mentioned Kam's first study. In Kam's
16 first study, he revealed his data and it was very significant,
17 because in Kam's first study, he tested ten students and he
18 said the students had an average of eight false positives and
19 the experts had less than one false positive. However, the
20 students were actually tri-modal in the way in which they
21 proceeded. Three of the ten students made two mistakes; two
22 more made three mistakes. That means the top five students
23 made slightly more than two errors. Kam comes to the number
24 average of eight, because two students made 24 and 17 errors, a
25 third one made 13 and I believe another 12 and 10.

1 However it added up, if you took the top third of the
2 students, some of them did as well as the worst FBI agent, at
3 least two of them did, and obviously, they were all very, very
4 close. And these are people who were paid \$25 to take a
5 chance.

6 And it's clear that included in that number, if you
7 excluded the third or the half who clearly didn't put much
8 effort into it, made lots of guesses and moved out, if you got
9 those poorly motivated people out of it, the statistics would
10 be so close that Dr. Kam's study would have to reach a
11 different conclusion.

12 One of my objections to our failure to receive the
13 data that Professor Kam has relied on and his failure to give
14 us the standard deviation in the numbers is, first, we will
15 never know how much overlap there is, and I'm afraid to say,
16 I'm a little suspicious that the reason we will not get that
17 data is because there will be inevitably overlap.

18 And I believe that for two reasons: One, I don't
19 know of a serious research methodologist and social scientist
20 who will not share data, unless there is some other reason for
21 it; and, secondly, I also believe someone who doesn't give the
22 standard deviation for the numbers is actually fairly
23 describing the range of information that's there. So I don't
24 think you can say from what I said from Dr. Kam's studies that
25 if you let twelve conscientious people who are charged by the

1 judge to realize the seriousness of their import, to look at
2 the writings and compare the two, I think there is no evidence
3 that they would not do it just as accurately as the experts.

4 Now, if it turns out that experts ever expose
5 themselves to being tested one-on-one to see what their results
6 were and to show -- because some of them are undoubtedly better
7 than others, it's the normal range of human beings, some people
8 are better, some people are worse in every activity. There
9 really is, roughly speaking, a bell-shaped curve. We have no
10 idea which of the people who are being called as experts,
11 whether they are very good or very bad. There are people who
12 are great at seeing physical patterns, people can identify and
13 say you look like your father, your mother, your aunt, your
14 uncle. I can't see any of that, but there are people who can
15 and they have been pretty accurate. There may be people who
16 can see patterns in writings in ways that are better than
17 others, but there is no proof that the people who have been
18 assigned by law enforcement to work on handwriting in
19 handwriting laboratories have that talent any more than anybody
20 else.

21 Q. And that's because you do not accept the studies that Dr.
22 Kam has done?

23 A. I accept his studies for what they claim to do, but they
24 only claim to do what they claim to do; they are not sort of a
25 gestalt answer to the question.

1 And for one thing, Dr. Kam's studies, apparently the
2 latest study now claims to break it up and look at printing as
3 opposed to handwriting. Well, you know, that's an interesting
4 thing, because the confidence level of anybody's opinion goes
5 down as long as the database goes down. If Gallup Poll does a
6 study of 500 people, their confidence level in their accuracy
7 will be a far broader depth than if they do it of a thousand
8 people.

9 Well, if Kam goes and takes out of his study a third
10 or forty percent of the people and looks at them separately,
11 the confidence level in those numbers will be a significantly
12 reduced confidence level, so I don't think you can reconstruct
13 data and still plug it out the same way.

14 And I'm not surprised that when the motivation is the
15 problem that you would come to the same question. But I think
16 I've looked at all of Kam's stuff and I think it proves what it
17 proves, but you can't claim that it proves more than it
18 attempts to prove. And sometimes, I think Dr. Kam's numbers
19 have a risk of being somewhat overstated.

20 Q. And, sir, you're not a statistician and you're not
21 qualified to critique Dr. Kam and his studies, are you,
22 sir?

23 A. Actually, Dr. Kam is an engineer who knows more about
24 statistics than I do but not more than Michael Saks does.

25 And as a matter of fact, I'm not talking now about

1 statistics; I'm actually talking about probability, theory and
2 confidence levels, things that I think many people who have
3 been through a high school education can understand. I don't
4 claim any great expertise but I can tell 57 percent right would
5 be, in my view, an F. I can tell that 43 percent wrong is a
6 terrible result. I can tell when people are paid \$25 on
7 Thursday night to take a test whether they are going to be as
8 well motivated as jurors. I think my opinion on that is pretty
9 reliable, but I would trust almost anybody's opinion on any of
10 those points. I'm not speaking here as a statistician.

11 Q. And the figures that you continue to throw out, 57 and 43,
12 are based on collapsing the results of studies that were done
13 in the 1980s, the FSF studies, right?

14 A. Well, actually, I don't know what you mean by
15 "collapsing." No one has ever questioned, at least, Dr. Kam
16 has never questioned -- let me start with him -- the accuracy
17 of our numbers.

18 Q. Let's talk about those studies themselves.

19 A. The Forensic Science Foundation.

20 Q. The Forensic Science Foundation studies.

21 A. Right.

22 Q. You in your 1989 article concede that there are flaws with
23 those studies, don't you?

24 A. I don't remember, but I'm sure there are; there are flaws
25 in all studies.

1 Q. Well, you can concede that in your article as well, do you
2 not?

3 A. I actually don't remember our concession of flaws, but I'm
4 sure we did.

5 Q. And the primary flaw that you discuss in your article was
6 that there was no control group used?

7 A. Oh, you know, yes, I'm sorry, there was a failure to have
8 a control group to test the meaningfulness of this data.
9 That's the flaw that you mean. Yes, you're right, I apologize.

10 Q. Another problem with the data is that the test-takers are
11 unknown? I'm not saying that's in your article; I'm asking
12 you, isn't that another flaw with the FSF studies, is that the
13 test-takers are unknown?

14 A. I don't know who the test-takers are in these studies and
15 I don't know who they are in Kam's studies.

16 Q. And with the FSF studies, we don't know whether they were
17 given to students in laboratory -- I'm sorry, individuals in
18 laboratories who were testing to become forensic document
19 examiners?

20 A. No, I don't know that. I have no idea who they gave them
21 to.

22 Q. Or whether they were in training and this was used by
23 their particular lab as a training tool, as opposed to
24 measuring the proficiency of a forensic document examiner who
25 has already been testifying in court?

1 A. I have no idea who took those tests; I only know what they
2 were professed to be, the people were professed to be.

3 Q. And you do know that the people who took those tests had
4 complaints about the quality of the tests, don't you?

5 A. Yes.

6 Q. For example, the first test, they used photocopies for
7 purposes of making the comparison?

8 A. Yes.

9 Q. And forensic document examiners prefer to have original
10 documents in making the comparisons?

11 A. They may prefer it, but I've testified in cases where they
12 didn't feel obsessed by the fact and, in fact, frequently have
13 testified when all they had were copies, so I don't know that
14 that's something different than handwriting experts are
15 frequently called upon to do.

16 Q. But that was a criticism leveled by participants in the
17 FSF study, the first study, that is?

18 A. Well, another criticism was one of the tests was too
19 hard. I mean, they made a bunch of criticisms about it, but I
20 don't know that deals with the fact that it was their
21 proficiency tests.

22 Q. And you've referred to those in your testimony today as
23 studies but they were, in fact, proficiency tests?

24 A. Yes, I'm sorry, if I did that, yes.

25 Q. They were not studies of the sort that Dr. Kam has done,

1 they were simply to be used for whatever purpose the labs who
2 ordered these tests used them?

3 A. Okay.

4 Q. Is that right?

5 A. Well, I believe so.

6 Q. Now, despite whatever opinions you have about forensic
7 document examiners, you have conceded under testimony that they
8 are capable of giving helpful testimony to a jury?

9 A. Yes, as are lay people.

10 Q. But as an expert, they are capable of giving testimony
11 that is helpful to a jury, are they not?

12 A. I don't remember. Could I see that, whatever I said?

13 Q. Yes, sir.

14 (Pause in the proceedings.)

15 BY MR. VINEYARD:

16 Q. I'm going to show you your testimony in the United States
17 of America versus Kirby and refer you to page 395, beginning at
18 the question on line 21 of page 395 and continuing to the top
19 of the next page.

20 A. Okay.

21 (Pause in the proceedings.)

22 THE WITNESS: Sir, where did I say what you just
23 asked me about? Did you give me the right one?

24 (Pause in the proceedings.)

25 BY MR. VINEYARD:

1 Q. Let me direct you to the bottom of 394. Actually, start
2 on line 8 of page 394.

3 A. Okay.

4 Q. And if it continues to the top of 395, I apologize.

5 A. (Witness reviews document.)

6 (Pause in the proceedings.)

7 THE WITNESS: Do you want me to read this answer,
8 because I don't see where it says what you said I said?

9 BY MR. VINEYARD:

10 Q. Okay. Just for the record, let me just read the question
11 and the answer.

12 A. Okay.

13 Q. You were asked by Magistrate Judge Baverman, "An expert,
14 someone who has experience in looking at questioned documents
15 or questioned writing would be able to testify to be helpful to
16 a jury as to certain characteristics that the expert has picked
17 up over his experience; is that correct?"

18 A. The next answer is the Court, right?

19 Q. Well, it says, "Your Honor, my assumption is some
20 experts" --

21 A. Okay. I may have said that, but it goes on to say the
22 Court and then this long exegesis. If I said that -- and I may
23 well have, it sounds like me.

24 Q. If you would read it for the record then, so we're clear?

25 A. "Your Honor, my assumption is some experts should be able

1 to do that. I don't know which ones can; I don't know which
2 ones do. So that one of our big problems is there is no way to
3 tell among all the thousands and thousands of people who say
4 they are handwriting experts, I can do that, because I don't
5 think just looking at something over and over again -- Your
6 Honor, the example I give is there are psychiatrists whose job
7 it is to evaluate, decide whether somebody is dangerous to
8 themselves or others before they are released from the
9 hospital. And if the psychiatrist says every time they are
10 always dangerous -- I'm taking that as a farcical example, but
11 it's not way off -- they are locked up and they say, 'See, I
12 was right, they didn't hurt anybody.' But you don't ever have
13 a study in which anybody lets loose 100 people that the
14 psychiatrist say are dangerous to themselves or others to see
15 how accurate they are. I understand why we can't test that.
16 But handwriting examiners, it seems to me, experience ought to
17 be valuable, at least for some of them, but we don't know how
18 valuable and we don't know for which ones. So, yes, I have to
19 believe that some people have that, ought to be able to acquire
20 something by looking, but I'm not sure, Your Honor, that if you
21 asked me whether the same question was about people who looked
22 carefully at people's faces, whether some people have made a
23 study of faces all their lives, whether they might not be
24 better able to observe features and explain them and describe
25 them if the event came up that they had to identify or talk

1 about what somebody looked like. My question is not whether
2 they have got that expertise but whether that actually gives
3 them expertise, and I don't know the answer to that".

4 Q. Thank you. Now, Mr. Denbeaux, in your article from 1989,
5 you candidly in there didn't expect the courts would exclude
6 expert testimony, did you; didn't you say as much in your
7 article?

8 A. You know, my impression was that I believed that this was
9 going to be one article I would write that would actually have
10 a change in the law, the problem would be solved; I never
11 expected to have a cottage industry testifying 15 years later.
12 I thought the courts were going to address this issue and they
13 were going to address it, and they are doing it I guess more
14 glacially than I should have expected, but nonetheless, they
15 are doing it. And I did expect that the article would be
16 written with some impact.

17 As an aside, law professors always hope our articles
18 have impact, so I'm pretty sure I intended it to have impact.

19 Q. But you didn't expect -- let me find the exact wording
20 here.

21 (Pause in the proceedings.)

22 BY MR. VINEYARD:

23 Q. Did you not write, "We are not so naive as to think that
24 courts will be receptive to demands of exclusion of such
25 testimony" at page 773 of your article?

1 A. (Reviews document.)

2 THE WITNESS: Is that in the -- oh, where is that on
3 that page?

4 BY MR. VINEYARD:

5 Q. Beginning, according to this version, page 773, beginning
6 with the paragraph "Despite" --

7 A. Yes.

8 Q. -- "the power of your argument, we are not so naive as to
9 think that courts will be receptive to demands for exclusion of
10 such testimony"?

11 A. (Reviews document.)

12 THE WITNESS: Yes?

13 BY MR. VINEYARD:

14 Q. Did you write that?

15 A. We did write that, but we also suggested that the way they
16 would do it would be have more testing and more establishing
17 what would take place.

18 And, of course, remember, our position always was, at
19 least at that time, we assumed that they would be able to
20 demonstrate that handwriting experts, what they do in court was
21 valid, that individual handwriting experts would be weeded out
22 to show who was good and who was bad, and we didn't assume that
23 handwriting experts would for 14 years fail to come up with a
24 method to prove that they can do what they say they can do with
25 the level of precision that ought to be required. I assumed

1 this would be solved very quickly.

2 Q. Well, sir, you haven't done any studies yourself in this
3 area, have you?

4 A. I've actually asked handwriting associations to let me do
5 them and, every time, I've been refused. And actually, I've
6 been in court when handwriting experts have said they would let
7 Dr. Kam test them and they would never let us test them, so
8 you're right, I have not, but not because I don't want to.

9 Q. And in the article, you went on that because you
10 recognized the courts were not likely to exclude such
11 testimony, you recommended a couple of other tactics for
12 defense attorneys to use to attempt to exclude such testimony;
13 isn't that right?

14 A. I doubt we said defense attorneys; we didn't understand
15 the dynamics, the politics that were at play here. We just
16 talked about it in terms of expertise, civil or criminal or
17 anything else.

18 Q. And you suggested that they could use skills to
19 cross-examine the forensic document examiner?

20 A. Yes, sir, that's right.

21 Q. And that's available in any case, isn't it, to
22 cross-examine a forensic document examiner on the grounds that
23 you have written in your article, if he is allowed to testify?

24 A. Sure. The Constitution requires it.

25 Q. And you also suggested a different method of testing,

1 blind test regimen?

2 A. Yes.

3 Q. And in that article, you did acknowledge that some people
4 may be superior at pattern recognition, and you've testified to
5 that again here today?

6 A. That's always been my belief.

7 Q. And you don't have any opinion about the specific
8 qualifications of Art Anthony, the handwriting expert in this
9 case, do you?

10 A. I've made it a point with data not to judge any one person
11 over another, but keep in mind what you were just asking me
12 about that there. That was written before Daubert came down.
13 Daubert changed the landscape in terms of the way in which the
14 experts who had no testing validity exercises, no error rates,
15 no other peer review other than themselves should be admitted
16 in court. So obviously, we would have written that quite
17 differently and have written it differently since Daubert has
18 come down.

19 Q. And, sir, you've mentioned that you have a cottage
20 industry of testifying around courts?

21 A. Yes. I guess you could call it that.

22 Q. That's pretty accurately described, isn't it?

23 A. Right. I've written some pretty important law review
24 articles that fell like a stone in the water without a ripple
25 and this seemed to me should have driven a dagger through the

1 heart of something and be on to something more constructive.

2 Q. And you are compensated, as you've testified on direct,
3 for your testimony --

4 A. Yeah, I hope so.

5 Q. -- before the Court?

6 A. I certainly hope so.

7 Q. And when were you first retained in this case, sir?

8 A. I was first called a very long time ago, and I would say
9 eight months. I'm guessing eight, ten months. I had in my
10 file some documents; I called Mr. Kish up. He said, "No, the
11 case is still going on, sit tight," and then I guess I got a
12 call a few weeks ago saying the hearing was going to proceed,
13 finding out when I would be available.

14 Q. Okay. And you mentioned that you were familiar with a lot
15 of the writing in this area?

16 A. A fair amount.

17 Q. Have you had an opportunity to review the exhibits that
18 have been admitted in this hearing prior to testifying?

19 A. I honestly don't know all the exhibits that have been
20 admitted.

21 Q. Well, specifically, the articles and papers.

22 A. Well, in other words, I don't know exactly what has been
23 admitted, but if you want to ask me what -- just if you have
24 specific ones, I'll be glad to --

25 Q. I just want to see in the sense of the time period that

1 you have been working with the defense attorneys whether you've
2 had an opportunity to become familiar with these various
3 articles, with the exception of the most recent Kam article.
4 So rather than taking the time of the Court, I'll just ask
5 him.

6 A. No, I'm familiar with all the Kam studies. I'm familiar
7 with, I believe, most of the Australian and New Zealand
8 studies, and I've certainly been familiar with much or all of
9 the published handwriting literature that I've been able to get
10 ahold of. Some of it is in The Journal of Forensic Sciences;
11 most of it's unpublished and given at conferences and is
12 unavailable, unless you attend the conference. But I have
13 received a good bit of that. I've obviously read all of the
14 treatises, the textbooks, Osborne and --

15 Q. The twin studies?

16 A. And a U.S. postal inspector once gave me a whole book of
17 published or unpublished articles that I have read.

18 Q. And the twin studies?

19 A. Pardon?

20 Q. The twin studies article?

21 A. I'm familiar with it; I haven't read it in preparation for
22 the testimony here today.

23 Q. All right. Now, sir, you're not sure how much money
24 you're ultimately going to be paid in this case, because you're
25 still working, right?

- 1 A. Yes.
- 2 Q. Did you testify in the McVeigh case?
- 3 A. No, I did not.
- 4 Q. Were you retained as a consultant?
- 5 A. I was retained and I spent eight days in Denver day after
6 day, waiting to be called.
- 7 Q. And you were paid over \$15,000 for your work in the
8 McVeigh case?
- 9 A. If that's the numbers, I don't remember. But it was about
10 26 days of work, including preparation, and not easy work,
11 either.
- 12 Q. And, sir, you're aware that appellate courts have
13 universally admitted the testimony of forensic document
14 examiners?
- 15 A. Maybe I'm quibbling, but my understanding is appellate
16 courts regularly say it's not an abuse of discretion for courts
17 not to exclude them, which I think is somewhat different from
18 saying they regularly admit them, because I think it's clear
19 that if it's not an abuse of discretion to admit them, it's not
20 an abuse of discretion to exclude them. That seems to me to be
21 based on the data that's out there equally reasonably.
- 22 Q. And you're not aware of any appellate court decisions that
23 have excluded forensic document examiners?
- 24 A. That's right. But when you say "appellate," do you mean
25 circuit courts or --

1 Q. Yes, sir, I'm sorry, federal circuit courts of appeal.

2 A. Right.

3 MR. VINEYARD: If I could have just a moment, Your
4 Honor?

5 THE COURT: Certainly.

6 MR. VINEYARD: That's all. That's all I have, Your
7 Honor.

8 THE COURT: Any redirect?

9 MR. KISH: Just a couple of questions, if I could,
10 please, Judge.

11 REDIRECT EXAMINATION

12 BY MR. KISH:

13 Q. I can't read my writing, despite what she said earlier.

14 A. It's not inconsistent with my position.

15 Q. Why didn't you immediately go to the Third Circuit Court
16 of Appeals Clerk's Office and say, "You folks have published an
17 opinion that has got my background all wrong"?

18 A. Thank you very much. This comes up in every proceeding.
19 I'm an epileptic. I don't mind being an epileptic, I have no
20 problem with it. My seizures are mostly controlled; I can go
21 for eight or ten years without a seizure.

22 In August of 1995, I had three on one day, three or
23 four grand mal seizures. I was not functioning the rest of
24 that month. The decision came down the end of August. I
25 actually saw it on the Internet, on Westlaw. I didn't see the

1 footnotes. I did no other work; I barely attended my classes;
2 went home. In October, I had another seizure, it was another
3 setback. I never saw the copy of the decision, and all the
4 U.S. attorneys know this, because whenever they ask me, this is
5 what comes out.

6 And when in October or November, I finally saw it.
7 And, in fact, a friend of mine saw it and brought it to my
8 attention, not Michael Risenger, and we both said, "What do I
9 do?" I called the clerk's office and they said it was too
10 late, the decision was published and out and nothing could be
11 done about it.

12 I didn't send letters, I didn't call Judge Roth, I
13 didn't call any of the Court of Appeals judges because I was
14 not functioning and oblivious to it, but there is no way that
15 my failure to call was -- there is no way I would not have
16 called to correct it as soon as I saw it, and I did do it as
17 soon as I could.

18 And I have been told by other people, the former
19 chief judge of the Third Circuit, that the testimony I gave was
20 in the Virgin Islands and there is an enormous problem with
21 transcripts in the Virgin Islands because of different accents
22 and different ways of speaking, and some of the things in that
23 are wrong.

24 For instance, I never did a four-year longitudinal
25 study of handwriting, but I did do a four-year longitudinal

1 statistical study with a social scientist. Those two things
2 were confused. Another mistake in the footnote said I had been
3 an ABA fellow, I had been an American Bar Foundation fellow.
4 Most of the mistakes were of a kind that really did involve
5 transcript problems, but I absolutely would have corrected it
6 and I have brought it up in every court I have ever been in
7 either on direct or on cross. And it was my physical
8 condition. And I've never had a seizure since October of that
9 year until the present, and I don't intend to.

10 MR. KISH: I have no more questions. Thank you.

11 THE COURT: Is there anything further, Mr. Vineyard?

12 MR. VINEYARD: No, Your Honor.

13 THE COURT: All right. You may step down,
14 Professor.

15 THE WITNESS: Thank you.

16 THE COURT: And, Mr. Kish, you don't have any other
17 witnesses today?

18 MR. KISH: I've run out for the day, Judge.

19 THE COURT: All right. As I understand it, we just
20 have Dr. Kam on Friday?

21 MR. VINEYARD: That's correct.

22 THE COURT: All right. And we will resume at 10:00
23 o'clock, then, on Friday morning?

24 MR. KISH: Judge, I would for the record like to
25 submit as an exhibit the waiver that Mr. LeCroy and myself and

1 Ms. Kearns and Mr. Mendelsohn have all executed. We've shown
2 it to Mr. Vineyard. I've got it in the format of a motion, but
3 I think it might be appropriate to submit it to the Court as an
4 exhibit, showing that he is waiving his presence for the
5 upcoming deposition of Mr. Saks.

6 THE COURT: All right.

7 MR. KISH: And I'll submit that to the clerk.

8 THE COURT: Oh, you're filing it with the clerk now?

9 MR. KISH: Yes, ma'am.

10 THE COURT: All right.

11 (Pause in the proceedings.)

12 THE COURT: All right. Defendant's motion to accept
13 the waiver will be granted.

14 MR. KISH: Thank you, Judge.

15 THE COURT: We will be in recess.

16 (Proceedings adjourned, to recommence as directed by the
17 Court.)

18 * * * * *

19 CERTIFICATE

20 I, DONNA C. KEEBLE, Official Court Reporter, certify
21 that the foregoing pages are a correct transcript from the
22 record of proceedings in the above-entitled matter.

23

24 _____
Donna C. Keeble, RMR, CRR

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