

Document
Examination
Consultants Inc.

Technical Review

Forensic Report of Anne Bisotti

Date Stamped 05 May 2010

Prepared by
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(Book 1 of 2)

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Book 2

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Document Examination Consultants Inc.

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October 15, 2010

Bayne, Sellar, Boxall
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200 Elgin Street, Suite 500
Ottawa, Ontario
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Attention: Donald Bayne

TECHNICAL REVIEW Report of Anne Bisotti

File No. 1975/09
Re: Hassan Diab

1. Retainer

I have been retained by Donald Bayne of Bayne, Sellar, Boxall, Barristers and Solicitors to conduct a technical review of a forensic report issued by Anne Bisotti of the Laboratoire de Police Scientifique de Paris date stamped 05 May 2010.

I am a forensic document examiner and president of Document Examination Consultants, Inc. I have worked in the field since 1982 and am certified as a forensic document examiner by the American Board of Forensic Document Examiners. I have a diploma from the Forensic Science Society in England and membership in the Canadian Society of Forensic Science, the American Academy of Forensic Sciences, and the American Society of Questioned Document Examiners. During the past 27 years I have published several articles and written chapters in two comprehensive books on forensic science. I am a co-editor of, and a principal contributor to, the *Scientific Examination of Questioned Documents, 2nd Edition*. I have given expert evidence in most provinces in Canada as well as in the United States. A copy of my curriculum vitae is attached.

2. Purposes and nature of the technical review

In the forensic community a technical review involves an evaluation of another forensic scientist's reports, illustrations, notes, data, and other documentation to ensure there is an appropriate and sufficient basis for the scientific conclusions. This review is usually conducted within a practice or laboratory by a second qualified individual as part of a quality assurance program before a report is issued. Alternatively, it can be an external review like those conducted through accreditation programs, such as ASCLAD/LAB and ISO. It can include an assessment of the examination methodologies and the resulting determinations; the adequacy of technical notes; verification of noted observations; applicability of references; reliable application of proper methodology and proper use of equipment; assessment of the adequacy or limitations of the material available for examination; and whether the conclusions are supported by the observations recorded.

My external technical review concentrated on the Bisotti forensic report itself; the supporting illustrations; the underlying materials made available to her; as well as relevant methodological issues. The objective of the review was not for me to form an independent opinion as to the authorship of the signature and hand printing in question, but rather to assess the foundation for, and accuracy of, the conclusions rendered by Ms. Bisotti.

The documents, which were provided to me as copies, were studied at various degrees of magnification with the aid of a stereoscopic microscope and hand magnifiers. To fully assess the extent of natural variation within the writing provided, Write-On²® Document Comparison Software was employed so that all variations and letter combinations could be readily evaluated and charts prepared for illustrative purposes.

3. Summary of this technical review

The results of the technical review do not support the conclusions rendered by Anne Bisotti. Rather, based on the materials provided to her, it is unreasonable to expect that any qualified, competent forensic document examiner would reach such findings employing recognized and established forensic handwriting comparison methodologies. In fact, she has used unconventional examination and comparison

methods, some of which are in clear contradiction to well-documented and tested analytical techniques.

Ms. Bisotti's report is often confusing and incomprehensible. The terminology used in her conclusions is most unusual and reflects an inherent bias in the use of the term "presumption." Furthermore, it is unclear what strength or degree of certainty three of the conclusions carry.

Overall I find her opinions to be patently unreliable and, for the most part, not supported even by her own observations, which could not be confirmed upon review of the material available for examination.

4. Items provided for consideration in this technical review

- Copy of the Bisotti forensic report (along with an English translation), as well as appendices that include copies of the documents analyzed.
- Expert Commissioning Order and its Supplement, dated December 15, 2009, and March 19, 2010, respectively, issued by Marc Trevidic, Vice President of Investigation at the Tribunal de Grande Instance of Paris.

5. Instructions and mandate to Anne Bisotti from Marc Trevidic

December 15, 2009—Order:

- "1. Receive the closed and sealed record no. ONE constituted by the Institut Génétique de Nantes Atlantique, which was last broken and resealed, on February 6, 2008, by Evelyne MARGANNE, containing an invoice of FF 315, filed as Exhibit D870, and a cardboard hotel registration form filled out on September 22, 1980, and filed as Exhibit D871, which is the subject of the present comparison analysis.*
- 2. Note the integrity of the record and provide a description.*
- 3. Receive the photocopies of exhibits D3499, D3636/1 and 2, D3646/1 to 3, containing the notes handwritten by Hassan DIAB.*

4. *State whether the writer of the exemplars mentioned above in point 3 is or may be the writer of the words "PANADRIYU", "ALEXANDER", "LARNACA", "CYPRUS" and "technician" attributed categorically by the hotel receptionist to the person who introduced himself as Alexander PANADRIYU, appearing in Exhibit D871 (sealed record no. ONE) and considering, as the case may be, the differences in the date of the exemplar documents made between 1987 and 1997, compared with the creation date of the questioned document, i.e. September 22, 1980. [Emphasis added.]*
5. *Receive the photocopy of the report of the questioning of Alexander PANADRIYU, filed as Exhibit D908, which has at the bottom slightly to the right under the word "principal", a false signature (since the identity of Alexander PANADRIYU himself was false).*
6. *Compare the false signature of the individual who used the false identity of Alexander PANADRIYU with the signatures of Hassan Naïm DIAB found on the bottom of Exhibits D3499, D3636/2, in part 7 of Exhibit D3646/2 and on Exhibit D3646/3.*
7. *State whether it is possible, although the signature of the person who used the false identity of Alexander PANADRIYU is a false signature, to compare the false signature with Hassan DIAB's signatures and, if possible, indicate whether there are sufficiently probative similarities, specifically in the general design of the signature, in its style or in any other significant point.*
8. *State all observations that may be useful for the purpose of the assignment.*
9. *Reconstitute the sealed record no. ONE, to the extent that it was damaged during the analysis and contact us for its restitution."*

March 19, 2010—Supplement to the Order:

- “1. *On March 19, 2010, receive officers from the Embassy of the USA who, in response to the request you sent me by letter dated January 5, 2010, will provide you with the original file regarding Hassan DIAB's immigration to the United States of America.*

2. *Select from this original file handwritten writing samples that are of sufficient quality to be used as exemplars in the expert assignment, without being limited to the documents that had been listed and transmitted as copies (Exhibits D3499, D3636/1 and 2, D3646/1 to 3).*
3. *Digitize copies of the selected documents by any method that enables you to save the most aspects that the photocopied reproductions could not reveal (pressure on the writing instrument, visualizing the position of the initial strokes, fine connections between two characters, direction of the graphic movement) because the original documents must be returned to the Embassy of the USA.*
4. *Indicate if the exemplars you selected are written by the same person. [Emphasis added.]*
5. *State whether the writer of these exemplars is certainly or may be (in which case, try to indicate a degree of probability) the writer of the notes "PANADRIYU", "ALEXANDER", "LARNACA", "CYPRUS" and "technician" attributed categorically by the hotel receptionist to the person who introduced himself as Alexander PANADRIYU on the document filed as Exhibit D871 (sealed record no. 1). [Emphasis added.]*
6. *State whether the writer of these exemplars is certainly or may be (in which case, try to indicate a degree of probability) the writer of the date "22/09/80" in the "DATE" field, since the hotel receptionist stated that he only wrote the word "unexpected" at the bottom of the form, which would, by default, indicate that Mr. PANADRIYU also wrote this date. [Emphasis added.]*
7. *State all observations that may be useful for the purpose of the assignment.*
8. *Attach the scanned reproductions of the questioned documents to the expert report."*

It is important to note that at no point does Mr. Trevidic request an opinion as to whether Hassan Diab may not be the writer of the signature and hand printing in question; rather, his instruction is to determine if he (Diab) is certainly or may be the writer. There appears to be no room for an objective consideration of the possibility

that the author of the sample material may not be the writer; he is presumed to be the writer.

Ms. Bisotti is instructed that the "22/09/80" date is written by the writer of the main body of hand printing on the hotel registration form. She is not asked to make an objective determination as to whether the forensic evidence supports this assertion, but is asked to simply accept the proposition based on claims by a hotel employee.

In my view, Ms. Bisotti has adopted these preconceived ideas in her examinations and has rendered opinions that clearly reflect a lack of objectivity. The instructions she received are an obvious example of context bias. Further on in this review I will explain in detail the basis for my observation.

6. Qualifications of Anne Bisotti

Ms. Bisotti's training and experience are set out in her Appendix 1. She states that she is Chief Engineer and Head of the Documents, Handwriting and Traces Section, and has been a document examiner since 1993. Listed are degrees in biology, biochemistry and forensics. Under "Professional Development" are eight courses or seminars totaling 170 hours. Nowhere is there any specific mention of training in forensic document examination. The 170 hours in professional development are not focused on handwriting examination, except perhaps for "Expert Analysis—21 h." There is also no indication that she participated in a structured training program or that she was tested, both in theory and practice, during training.

While generalized academic study in forensic science is certainly valuable, it must always be supplemented with specific, in-depth training in the particular discipline you intend to work in.

Forensic document examiners train as understudies or apprentices for a minimum of two years, on a full-time basis. A considerable amount of that time is devoted to signature and handwriting comparison. I can find no evidence in Ms. Bisotti's curriculum vitae that demonstrates she has completed such a training program. Based on the qualifications listed, she would not qualify for membership in recognized professional organizations and associations in North America, including the Canadian Society of Forensic Science, American Academy of Forensic Sciences or the American Society of Questioned Document Examiners. If Ms. Bisotti resided in North America she would also not be eligible for certification by the American

Board of Forensic Document Examiners. The Board specifically requires at least two years (or equivalent) of understudy in a forensic laboratory, which is in addition to a minimum of a baccalaureate degree.

7. Conclusion terminology and absence of an opinion scale

Three of the conclusions rendered on page 33 of the Bisotti report use the term "presumption" (présomption). The specific instances are shown below.

"There is a very high presumption that ..."

« Il existe une très forte présomption à l'égard ... »

"There is a very low presumption that ..."

« Il existe une très faible présomption à l'égard ... »

"There is a presumption that ..."

« Il existe une présomption à l'égard ... »

In my 28 years of practice I have never read a forensic document examination report that uses this word. I have canvassed my colleagues in Canada who routinely issue reports in French and have determined that they do not offer conclusions using this type of expression, nor have they encountered such terminology in their work. Terms such as "probability," "indications" and "likelihood" are most commonly used together with appropriate qualifiers, such as "very strong," "strong" and "moderate."

There are guidelines for conclusion terminology and a recommended opinion scale. The American Society for Testing and Materials (ASTM) publishes many standards, some of which are specific to forensic science. Attached is Guideline E1658-08, the *Standard Terminology for Expressing Conclusions of Forensic Document Examiners*.[†]

[†] ASTM Designation: E1658-08, (2008) *Standard Terminology for Expressing Conclusions of Forensic Document Examiners*, ASTM International, West Conshohocken, PA.

While examiners are under no obligation to use these particular terms, they have nevertheless been adopted by many laboratories throughout the world.

Use of the term "presumption" carries with it a lack of objectivity as its employment suggests that the examiner is starting out with a certain expectation or assumption—in this particular case, that Hassan Diab is presumed to be the writer. The forensic expert should begin from a neutral position as to whether a particular individual is or is not the writer of a questioned entry.

The final conclusion offered by Ms. Bisotti on page 33 is particularly troublesome. There she states:

"There is a presumption that Hassan DIAB is the author of the questioned signature in the report on the questioning in sealed record no. SIXTEEN, copy of which is Exhibit D908. The degree of presumption cannot be quantified."

« Il existe une présomption à l'égard de M. Hassan DIAB comme auteur de la signature de question portée par le procès-verbal d'interrogatoire de question placé sous scellé N° SEIZE dont la copie est cotée D908. Ce degré de présomption ne peut être chiffré. »

This statement is meaningless in the context of a forensic finding. The reader is given no clue as to the certainty of the finding. Does Ms. Bisotti believe the likelihood that Hassan Diab is the writer to be—very strong, strong, weak or inconclusive? We are given no insight. In fact, she declares that *"The degree of presumption cannot be quantified."* Ms. Bisotti seems to be merely stating the obvious—that someone presumes Hassan Diab is the writer of the Alexander Panadriyu signature on exhibit D908. As a forensic document examiner it is her task to test this presumption, not to simply regurgitate an investigator's suspicions.

Forensic scientists have an obligation to clearly articulate their findings and opinions such that there is no opportunity for misinterpretation. Ms. Bisotti has not met that responsibility. The confusion is further compounded by the absence of an opinion scale that clearly identifies the range of conclusions and their relative strengths. Is the term "presumption" routinely used at the Laboratoire de Police Scientifique de Paris, or is it unique to this particular file? If it is the latter, why would that be?

8. Methodology—assessing similarities and dissimilarities

In her report, on page 12, Ms. Bisotti addresses the issue of what is necessary in order to identify a particular writer as the author of a questioned writing. She explains the weighing of characteristics as follows:

“Moreover, only when many personal characteristics are identified in both the questioned writing and the exemplar, and especially when the number of these graphic similarities is much greater than the number of dissimilarities found there, will it be possible to identify the writer of the exemplar as the author of a questioned document.”

« De fait, ce n'est que lorsque de nombreuses caractéristiques intimes sont mises en évidence à la fois dans l'écriture de question et dans celle de comparaison et surtout lorsque le nombre de ces similitudes graphiques est très supérieur au nombre de dissemblances qui y existent, qu'il sera possible de désigner le scripteur de comparaison comme étant l'auteur de la pièce de question. »

While it is true that in order to identify a writer there must be numerous similarities in writing habits, to suggest that this is sufficient even if there are dissimilarities flies in the face of one of the most basic tenets of handwriting comparison. Evaluating similarities and differences is not a simple act of counting them up. Rather, the significance of each characteristic must be considered and the differences must be reasonably accounted for if an identification is to be made. Many noted authorities have written extensively on this subject. They all stress that differences, even though small in number, carry much greater significance and often outweigh abundant similarities. A sampling of these declarations follows:

“Repeated small differences are sufficient to establish clearly that writings are the work of two individuals even though they may contain a considerable number of general similarities. This is often a major concern to the layman, but of less importance to the trained FDE. In situations where similarities clearly outnumber the differences, the existence of a few fundamental, repeated differences can be overwhelming and controlling. Everyone seems to appreciate that two writings are not by the same individual when there is a vast number of differences, but just a few fundamental dissimilarities may not seem to warrant the same finding. Nevertheless, they do. If two writings are by a single person, then no fundamental differences should exist. Conversely, if there are any basic dissimilarities that cannot be accounted for by a logical, commonsense

explanation, then the two writings must have been prepared by different writers."²

*"...whatever features two specimens of handwriting may have in common, they cannot be considered to be of common authorship if they display but a single consistent dissimilarity in any feature which is fundamental to the structure of the handwriting, and whose presence is not capable of reasonable explanation."*³

*"A series of fundamental agreements in identifying individualities is requisite to the conclusion that two writings were authored by the same person, whereas a single fundamental difference in an identifying individuality between two writings precludes the conclusion that they were executed by the same person."*⁴

Ms. Bisotti's lack of awareness, or disregard, of this most fundamental principle is evidenced in her discussion on the similarities and differences observed between the Diab specimen hand printing and the details on the hotel registration form (D871). This subject will be further expanded upon in my technical review.

9. Contemporaneousness of Diab hand printing specimens

On page 14 of her report, Ms. Bisotti addresses the issue of the 15-year gap between the dates of the specimen writings and the 1980 hotel registration form. She offers the opinion that this difference does not preclude their use. Her reasoning is as follows:

"In this case, the writer was born in 1953. When the questioned documents were written, he was 27 years old and thus had reached his optimal level of graphic performance.

When he wrote the documents in his immigration file, he was about 40 years old. Unless there was some particular accident in his life, his writing and his signature would not have changed much.

² Purdy, Dan C., (2006) "Identification of Handwriting" in *Scientific Examination of Questioned Documents, Second Edition*, Kelly, Jan Seaman and Lindblom, Brian S. eds., CRC Press Taylor & Francis, Boca Raton, FL, page 63.

³ Harrison, Wilson R., (1958) *Suspect Documents*, Frederick A. Praeger Inc., New York, page 343.

⁴ Conway, James V.P., (1959) *Evidential Documents*, Charles C. Thomas, Springfield, IL, page 65 and 67.

Thus, basing our comparisons on documents written about 15 years apart is possible. At most, the passing years would have resulted only in a smoother and more definite stroke. If there were changes in the writing, they would appear in all of the comparison documents."

« Dans le cas qui nous intéresse, le scripteur est né en 1953. Lors de la rédaction des pièces de question, il a 27 ans et a donc acquis son niveau de performance graphique optimal.

Lorsqu'il rédige les pièces de son dossier d'immigration, il est âgé d'environ 40 ans. Aussi, sauf accident particulier de la vie, son écriture et sa signature auront peu varié.

Ainsi, le fait de fonder nos comparaisons sur des pièces dont les dates sont éloignées d'environ 15 ans, est possible. Tout au plus, les années les éloignant n'auront pour conséquence qu'un tracé plus éludé, plus performant. Si des altérations de graphisme se sont produites, elles apparaîtront dans la population des écrits de comparaison. »

How could Ms. Bisotti know what did or did not occur in Mr. Diab's handwriting over the course of 15 years? She had no exemplars from that time period. Did Mr. Diab have an injury or other writing impairment around 1980 or any time thereafter? She cannot say. Not all writers produce "a smoother and more definite stroke" once they reach maturity. This characterization is, at best, a generalization. There are many writers who see a deterioration in penmanship and legibility in their intermediate years. This could result from the need to produce large volumes of handwriting in a hurried fashion (e.g., doctors and lawyers), or from having little occasion to write. A more recent phenomenon (from the 1990s onward) is the depreciation in writing skill coinciding with the advent of computer use. In this situation the amount of writing decreases substantially with a resulting decline in penmanship.

If Ms. Bisotti had sample hand printing from 1980 and 1994–1998, she could have determined whether or not the writings were consistent and, if so, used all the material. This is not the case however. Her position on this subject stands in contradiction to a substantial body of work that consistently cautions against relying solely on non-contemporaneous specimens.

Following is a sample of the abundant commentary that exists on the need for contemporaneous comparison exemplars:

"Normally in the case of a typical adult basic writing habits change gradually. Therefore, material written 2 or 3 years before or after the disputed writing serve as satisfactory standards, but as the lapse of years between the date of standards and questioned material becomes greater, the standards have a tendency to be less representative. Consequently, an effort should always be made to procure some specimens written near in date to the disputed matter."⁵

"They should be contemporary.

The questioned and specimen writings should be written around the same time frame. A vital part of this depends upon a number of factors, the major one being has the writer(s) reached graphic maturity? If the writer is young and has not reached graphic maturity, then the writing(s) to be examined should be written as closely together in time as possible. If the writer has reached graphic maturity, then the time differential between the writing(s) does not have to be as closely spaced, but they should still be contemporary in time. There are variations to this requirement, depending upon such things as the effects of transitory factors on the writer between, or during, the time of the writings."⁶

"It is obvious that the best standards of comparison are those of the same general class as the questioned writing and as nearly as possible of the same date. Such standards should, as a rule, include all between certain dates covering a period of time both before and after the date of the writing in dispute."⁷

10. Handedness of writer

In her discussion of the reference exemplars on page 19 Ms. Bisotti concludes:

"...there is a strong presumption that the writer is right-handed: the upper parts ("E", "T", "I"...) are written from left to right and no left-handed or regressive connecting strokes are evident."

⁵ Hilton, Ordway (1982) in *Scientific Examination of Questioned Documents*, Elsevier North Holland Inc., New York, NY, page 305.

⁶ Morris, Ron N., (2000) *Forensic Handwriting Identification*, Academic Press, London, UK, page 149.

⁷ Osborn, Albert S., (1910) *Questioned Documents*, The Lawyers' Co-operative Publishing Co., Rochester, NY, page 18-19.

« ...il ressort qu'il existe un très forte présomption pour que le scripteur de comparaison soit droitier: les barres supérieures ("E", "T", "I"...) sont tracées de gauche à droite et aucune liaison lévogyre ou régressive n'est mise en évidence. »

This opinion is problematic for two reasons. First, determining the direction of strokes is extremely difficult when non-original documents are examined. As noted at the beginning of Ms. Bisotti's report, she worked with scans of the immigration documents, not the originals. In assessing direction of stroke the examiner must study pen pressure characteristics, tapering of initial and terminal movements, and ink line morphology features. It is the exceptional circumstance where all of these elements can be fully assessed in a given character on a copy. This is particularly the case when considering straight lines; having an electronic image of the writing under examination does little to assist in this regard.

Second, in looking at characteristics that indicate left-handedness it must be borne in mind that the absence of such features does not in itself provide conclusive evidence to the contrary. Research shows that the horizontal strokes in letters such as "E," "T," "I" and others, as well as "i" dots and punctuation marks, are more frequently made from right to left when produced by a left-handed writer. Ovals in "0"s (zeros) or "O"s are more often written in a clockwise direction by left-handed writers. However, not all left-handed writers form these letters in these particular directions; research shows that the frequency of occurrence varies greatly depending on the feature being considered. Conrad,⁸ for instance, found that right-to-left cross strokes occurred in 59% of left-handed writers tested, but nearly 30% of these executed the stroke consistently from left to right. Clockwise ovals were made by approximately 13% of left-handed writers, whereas 76.7% made the ovals in a counter-clockwise direction.

Can it be assumed that Ms. Bisotti is satisfied with the 59% frequency of occurrence as justification for a "*strong presumption that the writer is right-handed*"? If so, then this is a shockingly low threshold, bearing in mind that 41% either did not form their crossbars in this manner or were inconsistent in the direction of stroke used. This 59% is less than one standard deviation (68%) confidence level.

✓ ⁸ Conrad, Marianne, (2008) *Left-hand Writing vs. Right-hand Writing*, Journal of the American Society of Questioned Document Examiners, Vol. 11, No. 1, pages 24 and 25.

11. Inter-comparison of the alleged Hassan Diab specimen signatures

On pages 20 and 21 of the Bisotti report (pages 21 and 22 of the English translation), she discusses the alleged Hassan Diab signatures provided for comparison with the questioned "A. Panadriyu" signature on Exhibit D908. Ms. Bisotti assesses the construction of the three purported Diab signatures, those being on Feuilletts 7, 13 and 14 found in Appendix 10 of the sample material. Ms. Bisotti states on page 16 that, according to the Expert Commissioning Order, these three signatures are attributed to Hassan Diab. She accepts this information at face value and then compares the remaining 12 Diab signatures on the immigration and related forms (taken from the USA immigration file) with the three previously assessed signatures. The objective here is to determine whether or not all the purported Diab signatures are authored by one and the same writer; Ms. Bisotti concludes that they are. In support of her conclusion she notes that:

"All of the signatures on these pages fall within the natural variations of the reference comparison signatures and the stable elements of construction are retained."

« L'ensemble des signatures de ces feuillets rentre dans les variations naturelles des signatures de comparaison de référence et les éléments stable de construction sont conservés. »

It is my view, however, that Ms. Bisotti has failed to note significant differences within the structures of some of the immigration document signatures, as follows (see my Chart 1, attached):

- In the "i" of "Diab" seen on Feuillet 22, there is an initial upstroke, followed by a downstroke to form the letter. Yet, in all the other examples, the formation is with a single downstroke. Clearly, this is not a "stable element of construction" found in each "i."
- The "a" of "Diab" in the signature on Feuilletts 15, 18 and 22 is formed with an upward movement out of the "i" followed by either a retrace along the left side of the letter or the formation of a diagonally orientated eyelet. The pen then travels in a counterclockwise direction to form the oval. This is followed by a short vertical staff at the right side of the "a" and concludes with a rightward movement to complete the letter and connect it to the "b." In contrast, the "a"s in the other signatures are constructed with a simple counterclockwise oval that terminates toward the left near the top of the oval.

The "a" is disconnected from the "b" in these examples. These two sets of movement combinations are substantially different.

- The final series of arches seen below the "D" staff of the signature on Feuillet 18 differ from those found in the other signatures. This movement combination is the ending of the name "Hassan" written in Arabic. As such, it is written from right to left and the form looks like a stylized "N" (Roman alphabet). The other signatures exhibit a more angular and narrower trough between the two arches than is seen in the Feuillet 18 signature. Additionally, while the arches are of equal size in the Feuillet 18 example, they are not in the other signatures, where the first arch from the right is smaller than the one that follows. Once again, the form does not exhibit a "stable element of construction."

These noticeable differences may not be natural variations. The possibility that a second writer was involved in signing some of the signatures must be given considerable weight.

It is important to note that this is the third French examiner who has failed to properly assess the sample material for possible contamination. In each instance the examiners appointed by the French government dismissed the differences amongst the writing samples as variations or alternate styles. This is a position for which there is no forensic support and one that ignores fundamental principles of handwriting examination.

According to Ms. Bisotti, one of the "stable elements" of the Diab signature is the position of the "D" vertical staff relative to the initial and terminal strokes of the "D" body. She states that:

"The initial and terminal strokes of (P) are left of (H)".

« L'attaque et la finale de (P) sont à gauche de (H) »

This is clearly not the case. The terminating movement of the "D" in the signatures seen on Feuillet 1, 6, 9-13, 20 and 21 (nine signatures in total) all conclude at, or often to the right of, the "D" staff (identified in the Bisotti diagram as H). (See my Chart 1, attached.)

A second element of construction identified by Ms. Bisotti is a pen lift within the "a." For this, she states:

"2 pen lifts are made systematically: the first one between the stroke of (H) and the stroke of (P) and the second one between the oval and the tail of the "a"." [Emphasis added.]

« 2 levers de plume sont systématiquement maqués: le premier entre le tracé de (H) et celui de (P) et le second entre l'ove et la queue du "a". »

This description is also incorrect. The signatures on pages 15, 18 and 22 all show a very obvious connection of the "a" oval to the vertical staff or tail. (See my Chart 1, attached.)

Ms. Bisotti's evaluation of the alleged Diab signatures is seriously flawed in two ways—both in her failure to note structural differences within the group of signatures that are strongly suggestive of a second writer, and her inability to properly characterize the initial and terminal strokes in the "D" and the formation of the "a."

Her lack of thoroughness and accuracy is further demonstrated in the creation of the Diab signature chart on page 21 (page 22 in the English translation). The Feuillet 9 signature shown is missing the terminal forms in the Arabic name "Hassan." This signature, as found in Appendix 10, shows arch-like movements below and to the left of the "D" staff that are absent from her chart. (See my Chart 1, attached.)

12. Comparison of the alleged Hassan Diab signatures and hand printing with the A. Panadriyu signature on D908

On pages 30 and 31 of the Bisotti report there is a description of the comparison made between a substantially illegible "A. Panadriyu" signature found on Exhibit D908 and the alleged signatures of Hassan Diab written in a combination of Roman and Arabic characters. She also compares hand printed letters within the Diab sample material with certain elements of the questioned signature.

A fundamental principle of forensic handwriting comparison is that like items must be compared; that is, signatures with signatures, hand printing with hand printing, numerals with numerals and cursive handwriting with cursive handwriting. One cannot compare numerals with a handwritten sentence, or a stylized illegible cursive signature with hand printing. The reason for this is obvious; they most often do not

have writing features in common. Common elements must be present in order to conduct a comparison or the process is a non-starter. As Morris states:

"All the writing(s) must be suitable for comparison purposes. What does this mean? We have already seen that they must consist of common letters and letter combinations, be of the same style and, ideally, they should be used within the same context, standing alone, or in combinations. They must be of the same style—cursive with cursive, printed with printed, numerals with numerals, etc.—and they must have been written with the same relative speed."⁹

Even when comparing handwriting with handwriting the sample must be compatible with the writing in question. Ellen provides a concise example of why it is essential to compare like with like:

*"Comparisons are made of each letter of the alphabet with other examples of the same letter. Nothing is gained by comparing the letter *æ* with the letter *k*. Similarly, there is no purpose in comparing a block capital *A* with a lowercase cursive letter *æ*. Because each letter has to be compared, it is important that all those present in the questioned writings are represented in the known writings."¹⁰ [Emphasis added.]*

The comparison conducted by Ms. Bisotti is misguided and wholly inappropriate. The Panadriyu signature (shown in my Chart 1, attached) features only one legible letter—that being the initial "A." All other structures are illegible and the signature as a whole is greatly abbreviated. In contrast, the alleged Hassan Diab comparison signatures are each composed of a cursive Roman script surname (Diab) followed by an Arabic given name (Hassan). Diab is written from left to right, whereas Hassan is executed from right to left. (See my Chart 1, attached.)

The Diab signature samples include neither an uppercase "A" nor any of the other forms seen in the questioned signature. They are, therefore, of very little value for comparison purposes and should not have been used.

⁹ Morris, Ron N., (2000) *Forensic Handwriting Identification*, Academic Press, London, UK, page 148.

¹⁰ Ellen, David (2006), *Scientific Examination of Documents, Methods and Techniques, Third Edition*, CRC Taylor & Francis, Boca Raton, FL, page 82.

Ms. Bisotti's comparison of movements in the Panadriyu signature with the Arabic portion of the Diab signature defies not only common sense but most certainly the fundamentals of forensic handwriting comparison. She suggests that the diagonal retrace running across the bottom of the Panadriyu signature is similar to the horizontal movement appearing under the surname Diab. That horizontal movement is actually an "assa" letter combination in the Arabic given name. It of course goes from right to left because that is the direction in which Arabic is written. It is not a flourish like the movement combination found in the questioned signature, but rather recognizable characters in a different alphabet. It is nothing more than a coincidence that both signatures feature horizontal movements. They are written for quite different reasons and at different points in the construction of the two signatures. To suggest that the same general movement is present in both and that it has identification value is absurd. To reiterate, only like structures can be compared.

In Ms. Bisotti's description of the flourish on page 30 of her report she states:

"4- The final flourish (PR) in a geometrically inverted α (a), written from left to right and descending (b)."

« 4- Le paraphe final (PR), en α géométriquement inversé (a), tracé de gauche à droite et descendant (b). »

The 4(b) description is clearly wrong as the movement is, in fact, from right to left as represented in her diagram. This is yet another example of her failure to accurately document the construction of a form.

Another feature that Ms. Bisotti considers to be a similarity is the shape of the "A."

"2- The pointed form of the frame of "A" with curved stems."

« 2- La forme du portique pointu du "A" avec ses montants incurvés. »

The specimen illustrated on page 30 is an uppercase **printed** "A." While it does have a pointed peak, the right stem does not show the degree of curvature found in the questioned signature. Furthermore, the central horizontal bar in the sample "A" is nothing like the short diagonal bar seen in the initial "A." Also of considerable importance is the presence of a retrace on the left stem of the Diab sample that is absent in the questioned signature. A review of numerous other "A"s in the sample material (220 occurrences) reveals a pattern of retracing the left stem. Ms. Bisotti

makes no mention of this fundamental difference, yet it is a structural feature that reflects an author's writing habit.

A third similarity outlined is the manner of terminating the long vertical stroke in "Panadriyu." It is described as:

"1- Visible twists on vertical strokes."

« 1- Les torsions visibles sur les tracés verticaux. »

According to Ms. Bisotti the movement is found in the terminations of a hand printed "A" and "I." Once again, she is **comparing printing with cursive handwriting**. In addition, such a miniscule movement that is more a line quality element than a writing habit can be found in the writing of thousands of individuals and is therefore of no value in establishing the identity of the writer of the questioned signature. To suggest that this minor undulation in the stroke is of significance is a demonstration of Ms. Bisotti's lack of understanding about what constitutes a handwriting characteristic that can be used to identify the author of a questioned entry.

I do agree that the loop in the Panadriyu signature is similar to the loop in the "b" of the Diab signatures. However, when there are so few comparable structures in the two signatures and when even these forms show differences, proper consideration must be given to the possibility of a coincidental similarity.

Ellen notes that the possibility of a coincidental match is dependent on the amount of writing under examination:

"Provided that a sufficient amount of material is present, the combination of features used by one person in his or her writing will be sufficiently different from the combination of features of any other person for any chance match to be found. If the amount of writing is smaller, the probability of coincidental match will be greater."¹¹

Even in writings by two different individuals it is possible to find a few, or even several, features in common. This is because each feature in a person's handwriting

¹¹ Ellen, David (2006), *Scientific Examination of Documents, Methods and Techniques, Third Edition*, CRC Taylor & Francis, Boca Raton, FL, page 27.

is not necessarily unique to that writer. These vary from common, to less common, to unusual, to very unusual. Even if we focus solely on the similarities, the very few identified between the alleged Diab signatures and the questioned Panadriyu signature are clearly insufficient to establish whether or not they are by one writer. But of course, as discussed above, there are also significant differences to take into consideration.

13. Comparison of the "22/09/80" date with the Diab specimen material

On pages 25 and 26, Ms. Bisotti outlines her comparison of the date on the hotel registration card (D871) with the sample numerals alleged to have been written by Hassan Diab. She notes that of all the features identified and profiled in the Diab sample material only five are comparable to the date. Of these five, only one feature (#53) is also found in the questioned date; that characteristic is the meeting of the initial and terminal strokes of the "0" at the 10-12 o'clock position. This is a frequently seen writing characteristic and, while similar, cannot be given much weight for identification purposes.

Ms. Bisotti correctly states that there are also some notable dissimilarities, including the construction of the "8" and the connection of the "80" combination.

There are important handwriting characteristics in the date that have not been assessed by Ms. Bisotti. For instance, within the month, the "0" is much smaller than the "9." The Diab specimen material contains 16 occurrences of "09" combinations, as shown in my Chart 2, attached. Ms. Bisotti should have compared these examples with the date in question to determine whether or not the size ratio of the two numerals is the same or different. As we can see, they are not the same.

The date on D871 includes two diagonal (oblique) lines that separate the day, month and year. These too could have been evaluated for their length, slope and spacing within the date. There are more than 20 instances where obliques are used to separate elements of the date in the specimen documents.

The formatting of the date should also have been considered and compared. On D871 it is written as day/month/year, which Ms. Bisotti identifies as a French format. She suggests that a comparison cannot be made because the writer of the samples used an Anglo-Saxon style (month/day/year) for dates. As the hotel registration card does not indicate which format to use one would expect the author to use their

normal dating habit, which is a significant feature to consider in itself. Moreover, it must be noted that there has been a presumption that the date and main body of the registration were authored by the same writer. I must emphasize that the remainder of the hand printing on the registration card is in English, not French.

There are also documents in the Diab specimens that do not provide direction on the date format—these include D3499, Feuilletts 1, 2, 3, 6 and 13. Some include numerical dates that are definitely formatted as month/day/year and therefore differ from that on D871.

According to Ms. Bisotti, there is but a single general similarity between the questioned date and specimen materials, along with significant, fundamental differences. She renders a puzzling conclusion when she states (on page 33) that:

“There is a very low presumption that Hassan DIAB is the author of the date “22/09/80” on Exhibit 871 in sealed record no. 1. The degree of presumption cannot be quantified.”

« Il existe une très faible présomption à l'égard de M. Hassan DIAB comme auteur de la date “22/09/80” figurant sur la pièce cotée D871 sous scellé N° 1. Ce degré de présomption ne peut être chiffré. »

Is she saying it is unlikely that Hassan Diab wrote the date or that there is a weak possibility that he did write it? The wording is very problematic; the opinion unclear. Given the fundamental differences noted by Ms. Bisotti, why is she not giving a strong and clearly worded negative opinion? The differences are very significant and, yet, according to her report there is but one similarity.

Although Ms. Bisotti states that there is little writing in the date, there are a number of highly unusual features which she chose not to assess. She also points out that the registration form was chemically treated for fingerprints. She suggests that these two factors preclude the possibility “... to exclude the writer with certainty.” Does this mean that her opinion is on the negative side of the conclusion scale, pointing away from Hassan Diab being the writer? Possibly, but in the absence of a conclusion scale ranking the opinion the reader cannot be certain. Once more Ms. Bisotti has left the reader guessing as to what her conclusion is, and she has not, therefore, met her obligation to provide an unambiguous conclusion.

Another concern with respect to her examination of the numerals in the date is the description of how the "2" in the specimens was constructed. Feature #55 is characterized as follows:

"The curve of the "2" is a hairpin shape; the connection to the wavy end stroke is looped."

« La courbure du "2" est en épingle à cheveux; la liaison avec la terminaison sinieuse, est bouclée. »

Her description notes a loop or eyelet preceding the wavy terminal movement ("2"). While this is true for some of the forms, there are approximately 40 examples that are constructed in a "z"-like manner ("2"), lacking the loop. (See my Chart 3 for an illustration of the two variations.) Ms. Bisotti has not recognized the variation in the numeral design. I note that some examples are quite similar to the "2" in the questioned date, an element in the writing apparently not appreciated by Ms. Bisotti. Her failure to properly evaluate the character's structure leads me to seriously question her ability to recognize both gross and subtle elements in the design of letters and numerals.

There is no comment in the Bisotti report regarding the writing fluency and penmanship seen in the questioned date as compared to the other hand printing on the registration form. The date is written with a consistent rightward slope and a high degree of writing skill, whereas the hand printed name, address, nationality and profession exhibit an inconsistent, variable slope together with less skilled, more rudimentary penmanship. These differences point away from the two sets of writings being by the same person.

Marc Trevidic instructed Ms. Bisotti that it was the hotel clerk's recollection that all of the hand printing, including the date, was written by one individual. As the features do not support his working hypothesis, it is curious she did not observe and note the unlikelihood of this being true. This should have been brought to Mr. Trevidic's attention.

I believe it is here that context bias plays a significant role. Had Ms. Bisotti simply been asked to compare the date and other hand printing with the comparison specimens she may very well have observed the internal differences. Instead, she accepted Mr. Trevidic's preconceived ideas and disregarded obvious differences.

I find it surprising that handwriting samples were not obtained from the hotel clerk. Typically, the date on a hotel registration card would be filled in by hotel staff. Mr. Trevidic has accepted the clerk's assertion that he did not fill in that part of the form and has moved directly to requesting a comparison of that entry with Hassan Diab's samples. It would have been more appropriate to first explore whether or not the hotel clerk is accurate in his recollection of what he did and did not complete. In light of the numerous differences between the purported Diab specimens and the date, why would an investigator not pursue the matter further with regard to whether the hotel clerk may have been mistaken?

14. Evaluation of the hand printed words on the hotel registration form—D871

A review of the five hand printed words on the registration form reveals that some of the letters are very simplistic in structure and, as such, have limited value for identification purposes. These particular letters are illustrated below:



Bearing in mind that there are only five words in question, the simplicity of the above letters has a significant impact on the strength of conclusion that could potentially be rendered.

The words "PANANDRIYU," "ALEXANDER" and "LARNACA" are all in uppercase hand printing. In contrast, "cyprus" and "technician" include several lowercase forms, although "cyprus" does appear to feature a few uppercase letters. The lack of consistency between these two groups of words makes it a considerable challenge to establish with any degree of certainty that they are all by one writer. Furthermore, "cyprus," "technician" and the date "22/09/80" appear to be written with lighter and finer pen strokes, raising the issue of whether the same pen was even used to execute all areas of the registration form. There is no indication that Ms. Bisotti has investigated this possibility. Had the entries been written with more than one blue ink ballpoint pen then such a finding could be useful in a determination of the number of writers involved in completing the registration form. This is particularly relevant with regard to the questioned date.

Surprisingly, Ms. Bisotti also has very little to say about writing skill and fluency in the hand printed words. She does note that the registration card was tested for fingerprints and that the chemical treatment has caused the ink to bleed somewhat, and that this could hamper assessment of the writing features. In addition, she states on page 15 that:

“Moreover, the quantity of writings, comprised of a few upper case and lower case characters, is low.”

« Par ailleurs, la quantité d’écrits, constitués de peu de caractères en majuscules et en minuscules, est faible. »

The presence of letter structures lacking individuality is not addressed, nor is the obvious change in writing fluency within the surname “PANADRIYU.” The “P” is written with greater fluency and writing skill than the letters that follow. This same type of discrepancy is seen amongst other letters within the hand printed entry. The inconsistency in line quality could very well be an indication that the hand printing was to some extent not naturally and spontaneously written. Ms. Bisotti is clearly oblivious to this real possibility. In fact, she comments on page 15 that:

“However, the fact that the writing shows no sign of disguise makes it possible to consider it usable in handwriting comparison.”

« En revanche, le fait que l’écriture ne présente aucun signe de déguisement, autorise à la considérer comme exploitable pour une comparaison d’écritures manuscrites. »

This is a very cavalier position for an examiner to take, given the limited amount of hand printing, as acknowledged by Ms. Bisotti, the lack of consistency and the low writing skill within the five words. A far more prudent approach would have been to treat the writing with caution and not assume that the characteristics present are all truly representative of the writer’s normal habits. Under the heading “*The Recognition of Disguise*,” Harrison¹² notes eight characteristics to consider when assessing handwriting for the possibility of disguise. These include:

¹² Harrison, Wilson R., (1958) *Suspect Documents*, Frederick A. Praeger Inc., New York, pages 350–372.

- "(1) Most Disguise is Relatively Simple in Nature*
- (2) Disguised Handwriting Exhibits Less Fluency and Poorer Rhythm than the Normal Hand*
- (3) Any Change in Slope Introduced as Disguise is Rarely Constant*
- (4) Disguised Handwriting Often Contains Altered Letter Designs*
- (5) The Internal Consistency of Handwriting is Disturbed by the Introduction of Disguise*
- (6) Originality in Disguise is Rare*
- (7) Disguise is Rarely Consistent*
- (8) Certain Features are Rarely Disguised"*

Some of the indicia of disguise are certainly present within the hand printing in question—it should have been scrutinized for internal consistency. Such an examination often reveals writing distortion or disguise if it is present, as well as revealing letterform variations. By way of example, the examiner studies letters that repeat themselves to determine if they are written in a consistent fashion. There are multiples of the letters "A," "C," "D," "E," "i," "L," "N," "n," "R" and "U," From this analysis we can see that certain letters are formed in a relatively consistent manner, such as the "A," "L," "N" and "U," while the shapes of the "C" and "R" vary quite considerably. Is that because the writer has broad natural variation or because it may be disguised? Both possibilities must be carefully evaluated.

Different letters with common elements can also be compared with one another. In this instance, the "A" and "N" have initial movements in common. Both begin at the baseline and move upward at an angle to form the left staff or stem. The stem is also sometimes commenced at a lower point relative to the base of other strokes in the letter. These similarities are of considerable importance as they tend to be fixed habits.

There is not one word in Ms. Bisotti's 33-page narrative to suggest that she conducted this essential analysis. Instead, it appears that after a cursory inspection of the hand printing she moved directly to the comparison with the purported Diab hand printing specimens.

15. Comparison of questioned hand printing on the hotel registration form with the alleged Hassan Diab specimen material

It is important to remember that the purported Diab specimens are dated approximately 15 years after the questioned document and therefore are not contemporaneous. In addition, the sample writings were scans of the original documents. While copies can be used for comparison purposes, depending on the writing under examination they may not reveal subtle but important characteristics. Features such as retraces, subtle disconnections within letters, sequence and direction of strokes, and the number of strokes used to construct a letter or numeral can be indistinct on printed copies and even in electronic files.

There is nothing in the report to suggest that Ms. Bisotti performed a microscopic examination of the exhibits before returning them to the US Embassy staff. She also has not acknowledged the problems that can be encountered when examining non-originals. Although Ms. Bisotti did request the originals of documents that were initially provided as photocopies, in the end she **did not directly examine the originals submitted**.

In any handwriting comparison the examiner must objectively evaluate all of the writing features in the questioned material, determining whether they are similar to, or different from, the specimens. This procedure involves assessing whether or not each letter, numeral or other symbol of the questioned writing falls within the range of natural variation present in the specimen material. **A failure to thoroughly analyze all the characteristics is a significant potential source of error.**

The ASTM *Standard Guide for Examination of Handwritten Items* provides a step-by-step procedure for conducting a handwriting comparison, as well as a reference list of handwriting features that should be evaluated. Point 7.12.4 states:

"7.12.4 Analyze, compare, and evaluate the individualizing characteristics and other potentially significant features present in the comparable portions of the bodies of writing.

NOTE 6—Among the features to be considered are elements of the writing such as abbreviation; alignment; arrangement, formatting, and positioning; capitalization; connectedness and disconnectedness; cross strokes and dots, diacritics and punctuation; direction of strokes; disguise; embellishments; formation; freedom of execution; handedness; legibility; line quality; method of production; pen hold and pen position;

overall pressure and patterns of pressure emphasis; proportion; simplification; size; skill; slant or slope; spacing; speed; initial, connecting, and terminal strokes; system; tremor; type of writing; and range of variation.

Other features such as lifts, stops and hesitations of the writing instrument; patching and retouching; slow, drawn quality of the line; unnatural tremor; and guide lines of various forms should be evaluated when present.

Potential limiting factors such as age; illness or injury; medication, drugs or alcohol (intoxication or withdrawal); awkward writing position; cold or heat; fatigue; haste or carelessness; nervousness; nature of the document, use of the unaccustomed hand; deliberate attempt at disguise or auto-forgery should be considered."¹³

In conducting a forensic handwriting comparison an examiner is determining if the features present in the questioned writing can be accounted for within the specimen material provided. That specimen material may include a multitude of letters, numerals and character variations that are not seen in the questioned writing. This is not important to the identification process. By way of example, consider a questioned writing consisting of the words *"I am right."* Included is only a single instance of the letter "g." It is formed with a narrow oval at the top and small loop in the lower region. Suppose this combination of movements is seen repeatedly within the extensive sample material; the letter is therefore determined to be similar. Let us also suppose that found amongst the occurrences of the "g" is a variation in which the oval is open at the top and the bottom of the letter is made with a simple downstroke, rather than a loop. The presence of this alternative variation has no bearing on the conclusion reached, as the "g" design encountered in the questioned writing has already been accounted for within the sample material. It is not necessary to match each letterform variation within the specimen material with the questioned writing. Clearly, in the example above, two or more variations of the "g" cannot be expressed in a single instance of the letter within the questioned material.

In Appendix 12, Ms. Bisotti has identified 30 characteristics that she believes are similarities between the hand printing in question and the specimen hand printing.

¹³ ASTM Designation: E2290-07a, (2007) *Standard Guide for Examination of Handwritten Items*, ASTM International, West Conshohocken, PA.

Two of these are given the greatest importance. I agree with her that there are similarities in the "c" (two instances), "E," "e," "L," "S," "Y" (general shape), "h" and "t." However, it must be noted that a number of these have very basic structures that deviate little from the copybook style and, therefore, are not highly individual—they are seen in many people's writing. The more common the feature, the greater the number required before a strong opinion can be rendered.

Feature #8 is one of the two characteristics that Ms. Bisotti gives great weight to:

"The characters reveal, particularly on the stems, twists, tremors and dented patterns. Angular breaks appear in curved strokes and bowls. The ovals may thus be triangular. This is a significant identifying factor."

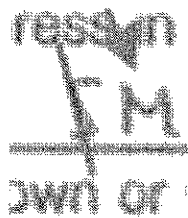
« On décèle sur les caractères, plus particulièrement sur les hampes, des torsions, des mouvements tremblés, des cabossages. Des cassures anguleuses apparaissent dans les tracés courbes et les panses. Les oves peuvent être ainsi de form triangulaire. Les barres sont souvent sinieuses. Il s'agit d'un élément fort d'identification. »

I have studied Ms. Bisotti's charts for many hours and discussed the meaning of this characteristic with Mr. Radley, Mr. Osborn (forensic document examiners also retained in this matter) and two French-speaking Canadian examiners. Like me, they find her description and accompanying examples incomprehensible. In the purported Diab specimens arrows point to ballpoint pen morphology characteristics, line quality elements and minute undulations in the ink line. The majority of the examples do not identify a writing habit but rather more often a characteristic of the pen type used or a general line quality feature. I have illustrated Ms. Bisotti's examples in my Chart 4 (attached), along with the **single instance of the characteristic**, the "U" of "PANADRIYU," found in the questioned hand printing. The indistinct starting point of the "U" may be partly retraced, patched or impacted on by the writing surface. Other than having a slight curve at its commencement it has little in common with the assortment of features/anomalies highlighted by Ms. Bisotti. Even if it were similar it can hardly be considered a "significant identifying factor"; rather, it has minimal or no identification value.

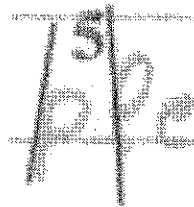
The second significant characteristic identified is the varying slant within the same word. While the changing orientation is found to **some extent** in the Diab specimens **at certain points**, it is of minor value. Many writers with limited writing development will fail to maintain a consistent slope and within the Diab specimens there is far greater adherence to the baseline. What would be far more significant is the sloping

of a particular letter consistently in one direction, while another shows an equally consistent, but different, slope.

I must also point out that Ms. Bisotti's depiction of the slope found in particular letters of the specimen material is often inaccurate. Provided below are three instances taken from the Bisotti chart where the slope indicated by the red bar misrepresents the actual orientation or slope of the letter. She has arbitrarily chosen a point within the letter to define its orientation, rather than considering the letter as a whole. This is a concrete example of her failure to recognize in a precise manner the structural elements of the hand printing she is assessing.



Feuille 11



Feuille 12



Feuille 19

What is actually observed in these examples is: an upright "S" with no noticeable slope either to the left or right; an "I" with a slight rightward orientation; and a "g" that is upright. Ms. Bisotti's approach is imprecise; these particular examples are not representative of the variable slope alluded to in her report.

I find it astounding that she would place so much weight on these two supposedly "significant identifying factor(s)." Once again, it demonstrates Ms. Bisotti's inability to properly evaluate and weigh handwriting characteristics.

Her dissection and analysis of many letterforms on the hotel registration card is superficial in the extreme, often ignoring important structural elements. As I have mentioned previously, both the "A" and "N" in the questioned hand printing are formed with an initial upward movement from the baseline. Seven "A"s and three "N"s exhibit this important element of internal consistency. Nowhere in her report does Ms. Bisotti address this characteristic.

Given that the specimens include 220 occurrences of the "A" and 183 examples of the uppercase "N," Ms. Bisotti had ample comparison material. My Charts 5 and 6 (attached) show a side-by-side sampling of questioned and specimen "A"s and "N"s. Each specimen shows a retrace of the left stem that is consistently absent from the 10 letters in question, making it a repeated fundamental difference.

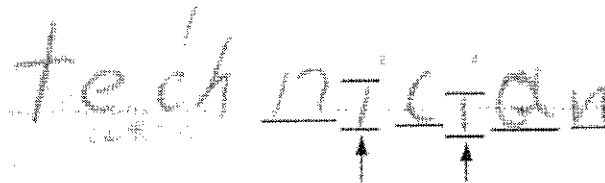
Another case where Ms. Bisotti only looks at the most basic elements of a letter is the "I." In Appendix 12 she comments that:

"The "I", which is never pointed, has a top and base."

« Le "I", qui n'est jamais pointé est pourvu de plateau et piètement. »

There is nothing in the least unusual about an uppercase "I" with a horizontal stroke at the top and bottom of the vertical staff. Millions of writers use such a structure as it is the copybook style learned in school. Forensically, what would be of interest in the design are the relative lengths of the vertical and horizontal strokes; whether the horizontals are evenly spaced above and below the staff; and whether the horizontals are parallel to one another or at different angles. None of these writing elements are discussed in Ms. Bisotti's report.

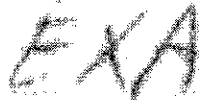
The relative alignment of letters is another writing habit that can serve as an identifying feature. As seen below, both the top and bottom of the two "i"s in "technician" sit well below those of the neighboring letters.



The Diab material contains 91 examples of an "i" found in an intermediate position within a word; 10 have an "ic" and one includes an "ici." I can find no consideration of this characteristic in the Bisotti report. The only observation she makes is that *"the "i", a stick, is pointed."* This is certainly not of identifying value as it is nothing more than a description of how an "i" should be formed.

On pages 16--18 Ms. Bisotti presents a list of 62 graphic characteristics reportedly identified while examining Feuilletts 7, 13 and 14. Feature #32 reads *"the "X" is a cross."* This is of interest for two reasons. First, as there is no "X" found on these three sheets, how this characteristic made it onto her initial list is a mystery.

Questioned—D871



x (ALEXANDER)

Specimens



x (LENNOXVILLE) Feuille 10



x (ext) Feuille 19



x (exclusive) Feuille 19

Second, the three "X"s within the remaining specimen documents, shown above, could have been used in a comparison. Ms. Bisotti claims on page 23 (page 24 in the English translation) that Feature #32 is not assessable in the questioned writing, with no explanation as to why it was not evaluated.

There is an intrinsic danger in Ms. Bisotti's backwards approach to hand printing comparison. She begins with an inter-comparison of Feuilles 7, 13 and 14. From this she constructs a list of what she considers to be the important features in, and variations of, each comparable letter on these particular pages. This is used as a checklist to determine whether these features are found within the balance of the specimen material. Consequently, any **additional** letters, characteristics or variations present in the 11 other specimens were not addressed. This procedural error is then compounded by using the same list in the comparison with the questioned hand printing. A prime example of this flawed method is seen in Ms. Bisotti's consideration of the uppercase "R." Based on her examination of Feuilles 7, 13 and 14, she states:

"27. *The bowl of the "R" is elliptical, even triangular; the commissure is angular (a) or looped (b) and meets the stem; the leg is short and rectilinear (c) or convex (d).*"

« 27. *La panse du "R" est elliptique, voire triangulaire; la commissure est anguleuse (a) ou bouclée (b) et rejoint le fût; la traverse, courte, est rectiligne (c) ou convexe (d).* »

Characteristic #27 does not accurately describe the "R" variation in "PANADRIYU" shown below. It is constructed using two strokes, one being the vertical staff on the

left, and the other being the open bowl and diagonal leg on the right. There is an open eyelet between the upper oval and diagonal leg, and the movements on the right do not meet, or join, the left vertical staff. Because this variation is absent from the 21 "R"s on Feuillet's 7, 13 or 14 it is neither described nor properly considered. No thought is given as to whether or not it appears within the 82 "R"s found amongst the remaining specimens. A review of these examples establishes that there is not a single instance of this variation within the specimen material. **This constitutes a significant difference** (see my Chart 7, attached).



There are four occurrences of a "c" on D871. Ms. Bisotti describes both the upper and lowercase forms as:

"12. The back of the "C" is not very round; its terminal stroke is rectilinear."

"25. The back of the "c" is not very round."

« 12. Les dos du "C" est peu bombé; sa finale est rectiligne. »

"25. Les dos du "c" est peu bombé. »

While this description is accurate with regard to two of the "c"s, it does not address two other variations: one at the beginning of "cyprus" and the first occurrence of the letter in "technician." As can be seen in the image below, the back of the "c" in "cyprus" has a pronounced curve. Also shown is the terminal upswing, rather than rectilinear termination, in the "c" of "technician"—not to be confused with a connecting stroke to the next letter as would be seen in a cursive version of the "c." As these variations are not described on her checklist, Ms. Bisotti does not consider them and fails to note that they are not represented within any of the 107 occurrences in the specimen material (see my Chart 8, attached).



Once again, Ms. Bisotti has failed to appreciate significant differences between the hand printing in question and the sample material.

It is incomprehensible that Ms. Bisotti would not assess all of the questioned letters given there are so few of them to begin with. It is a clear demonstration of an incomplete examination.

16. Differences are dismissed as variations

On page 23 (page 24 in the English translation) are listed seven differences. Let us look at four of these in greater depth.

The first three examples are instances where a **structural variation present in the specimen material, but absent from the questioned document**, is erroneously identified as a difference.

"19a: the "I" is a stick."

« 19a: Le "I" est bâton. »

As discussed previously, there is only one uppercase "I" found in "PANADRIYU" and it is formed with two horizontal strokes and a vertical staff. There are nine occurrences of this basic structure in the Diab specimen material. Its general design, therefore, is accounted for (but not the more subtle characteristics). The fact that the "stick" style "I"—a variation found in the specimens—is not in the questioned hand printing is irrelevant. Obviously, many letters and variations of particular characteristics will be seen only in the specimen material. This is to be expected when the amount of exemplar writing is much more substantial than that in question. I do not know why Ms. Bisotti would list this variation in the **known writing** as a **difference**; it makes no sense.

Similarly, Feature #33a describes the "Y" as being "... formed with an angular cup with a tail added to the base." Once again, this variation is found only in the **known writing**—it is of no importance and should not be listed.

In a third instance, a variation of the "t" in the sample material is identified as being different. Ms. Bisotti states:

"49 b: The "t" can be in "γ"."

« 49: Le "t" peut être en "γ" (b). »

I believe what she is actually describing is a design in which the horizontal crossbar is formed by a curved upward movement from the base of the vertical staff, as seen in the example below.



t (cooperation) Feuillet 12

Clearly there is no equivalent on D871. To reiterate, it does not matter if a variation observed in the specimen material is absent from the questioned document.

Now let us consider the converse: a **structural difference in a letter seen within the questioned hand printing but not found in the specimen material** is dismissed as a variation. Ms. Bisotti does notice that within the sample material there are two variations of the "P." She has determined that one of those variations is represented in the word "cyprus." The second style is claimed to be absent from the questioned document. It is characterized as follows:

"25b: The bowl of the "P" is elliptical."

« 25b: La panse du "P" est elliptique. »

Again, it does not matter whether this variation is present. What does matter is that there are a total of 25 "P"s in the specimens (see my Chart 9, attached) and none have the same shape as the bowl in the first "P" of the questioned hand printing. Given the number of occurrences in the specimens one would expect to see that shape present if it were within the writer's range of natural variation. **So here we have a true and relevant difference or, at the very least, an unaccounted for characteristic.**

Ms. Bisotti ultimately goes on to dismiss all seven "differences" by declaring that:

"These differences are thus actually natural variations of the form of certain characteristics and therefore do not constitute dissimilarities that

would exclude the writer of the exemplar from being the writer of the questioned documents because all of the characteristics cannot appear in such a small writing sample."

« Ces dissemblances sont donc en fait des variations naturelles de forme de certains caractères et ne constituent donc pas des dissimilarités propres à exclure le scripteur de comparaison comme en étant à l'origine graphique, puisqu'elles ne peuvent toutes apparaître dans si peu d'écrits. »

This statement is both self-serving and unsupported as it applies to some of the differences. Using this type of logic, one could account for virtually any difference found between two writings, where one is limited in amount. If a structure or characteristic is present in the questioned writing but absent from the specimens then it must be considered at the very least an unaccounted for feature if not a difference. The examiner cannot speculate that it is a variation, for there is nothing to substantiate that position. Ms. Bisotti's reasoning is quite simply contrary to one of the basic principles of forensic handwriting comparison.

17. Failure to note differences and to assess all of the letters in question

From the discussions above it should be apparent that there are a multitude of differences between the questioned hand printing and the purported Diab sample material that cannot be merely dismissed as natural variations. There are also several letters that Ms. Bisotti has not evaluated; both are highlighted in the illustration below. The red indicates elements that are made differently in 12 letters; the five blue letters have either been only partially evaluated or entirely ignored.

PANADRIYU
ALEXANDER.
se. LARNACA.

malité CYPRUS
ssion technician

Again, one must bear in mind that it is not possible for an examiner to identify the author of the questioned document as the same individual who wrote the exemplars if there are even a few fundamental differences that cannot reasonably be accounted for. Moreover, Ms. Bisotti does not know whether the letters she failed to assess are similar or different, so potentially there may be even more differences. Based on the differences identified above, one cannot possibly render an opinion higher than inconclusive.

18. Conclusion respecting the hand printed details on D871

Ms. Bisotti's opinion on the authorship of the name, address, nationality and occupation is found at page 33 of her report:

"There is a very high presumption that Hassan DIAB is the author of the notes "PANADRIYU, ALEXANDER, LARNACA, CYPRUS and technician" on Exhibit D871 in sealed record no. 1. The degree of presumption cannot be quantified."

« Il existe une très forte présomption à l'égard de M. Hassan DIAB comme auteur des mentions "PANADRIU ALEXANDER. LARNACA. CYPRUS technician", figurant sur la pièce cotée D871 sous scellé N° 1. Ce degré de présomption ne peut être chiffré. »

The opinion stated above cannot be justified for the numerous reasons outlined in the preceding points.

Even before comparing the hand printing with the specimen material a competent examiner would know that the potential to give a strong opinion is very unlikely for many reasons: the amount of questioned writing under consideration; the limited individuality in this small sample; and the possibility of disguise.

19. The degree of presumption cannot be quantified

In the three most important conclusions offered by Ms. Bisotti on page 33 of her report, she states that the degree of presumption is unknown; that is, it cannot be quantified. How can she **not know the strength** of her own opinions, but at the same time state there is a "very high" and "very low" presumption? It is beyond

comprehension; once again the reader is left in a quandary as to how certain she is that Hassan Diab wrote the entries in question.

“There is a very high presumption that Hassan DIAB is the author of the notes “PANADRIYU, ALEXANDER, LARNACA, CYPRUS and technician” on Exhibit D871 in sealed record no. 1. The degree of presumption cannot be quantified.

There is a very low presumption that Hassan DIAB is the author of the date “22/09/80” on Exhibit 871 in sealed record no. 1. The degree of presumption cannot be quantified.

There is a presumption that Hassan DIAB is the author of the questioned signature in the report on the questioning in sealed record no. SIXTEEN, copy of which is Exhibit D908. The degree of presumption cannot be quantified.” [Emphasis added.]

« Il existe une très forte présomption à l'égard de M. Hassan DIAB comme auteur des mentions “PANADRIU ALEXANDER. LARNACA. CYPRUS technician”, figurant sur la pièce cotée D871 sous scellé N° 1. Ce degré de présomption ne peut être chiffré.

Il existe une très faible présomption à l'égard de M. Hassan DIAB comme auteur de la date “22/09/80” figurant sur la pièce cotée D871 sous scellé N° 1. Ce degré de présomption ne peut être chiffré.

Il existe une présomption à l'égard de M. Hassan DIAB comme auteur de la signature de question portée par le procès-verbal d'interrogatoire de question placé sous scellé N° SEIZE dont la copie est cotée D908. Ce degré de présomption ne peut être chiffré. »

20. Confusing illustrative charts

Comparison charts are an essential part of any forensic handwriting comparison report. They allow the reader to fully appreciate the similarities and differences discussed in the narrative. Ms. Bisotti's report does not include any side-by-side charts such as those attached to this technical review. What she has presented is a very confusing assortment of scattered images pointing to various examples of certain letter designs. For the most part we are left to hunt for the appropriate

comparison example amongst the multitude of red arrows within copies of the specimen documents. She further confuses the matter by using different numbers to describe the same feature or, alternatively, the same number to describe different features. Evaluating the characteristics highlighted in her copies is extremely challenging for a document examiner and I believe almost impossible for the lay person. A coherent set of charts that illustrate and support her findings is sadly lacking in this sub-standard report.

21. Technical review conclusions

It is appropriate here to consider the words of Albert S. Osborn, one of the founding fathers of forensic document examination in North America. I have highlighted in bold those points that, in my view, are particularly applicable:

“Summary:

Identity is proved when two handwritings both contain a sufficient number of significant characteristics, qualities and elements so that it is unreasonable to say that they would all accidentally coincide in two different handwritings.

Identity is not proved by the presence of only a few common or conventional forms.

Identity is not proved by the presence of only system or national qualities or characteristics.

Identity is not proved by the presence of a few common abbreviated or developed forms and qualities.

Errors are due to: (1) Basing opinion on inadequate amount of disputed writing; (2) inadequate amount of standard writing; (3) basing conclusion on common qualities alone; (4) basing conclusion on system or national characteristics; (5) basing conclusion partly on outside facts or statements of interested party; (6) ignoring differences in the writings; (7) interpreting all differences as disguises; (8) allowing prejudice, sympathy or antipathy to affect a conclusion; (9) haste or superficial examination; (10) inability to weigh and interpret characteristics or qualities; (11) basing opinion on undeveloped writing from school teachers or pupils or

*young writers; (12) the attempt to identify the actual writer of a forged signature that is a simulated or traced writing.*¹⁴ [Emphasis added.]

The above quotation could have been written specifically in response to the Bisotti report, had it not been published several decades earlier. I believe Ms. Bisotti's observations and conclusions cannot be relied upon because they are subject to several of the errors identified by Osborn. It is alarming that an examiner in the employ of a national police institute could deviate so significantly from standard examination procedures and ignore not one but numerous of the underlying axioms of forensic handwriting and signature comparison.

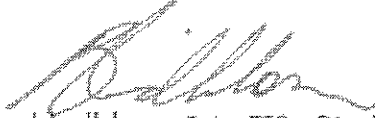
It is for the reasons set out in detail at points 7 to 20 earlier in this review that I offer the following conclusions:

- Ms. Bisotti's opinions are patently unreliable and, for the most part, unsupportable even by her own observations, which could not be confirmed upon review of the material available for examination.
- The approach used by Ms. Bisotti deviates significantly from established methodologies in the field of forensic document examination.
- There is very clear evidence that she has not approached her assignment in an objective manner, but rather has accepted Mr. Trevidic's preconceived ideas and ignored fundamental principles of forensic document examination, while advancing self-serving illogical arguments.
- It is unreasonable to expect that any qualified examiner would reach such findings using the same materials provided to Ms. Bisotti.

I wish to emphasize that I have focused my review on what I believe to be the most serious problems with the Bisotti report—ones that undermine her findings and demonstrate their unreliability. Not addressed herein are numerous other shortcomings, inaccuracies and methodological problems.

¹⁴ Osborn, Albert S., (1952, reprinted 1973) *Questioned Documents, 2nd Edition*, Patterson Smith Publishing Corp., Montclair, NJ, page 388.

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