

Continued Discussion on
Can We Agree on Terminology Beyond Handwriting?

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At this point in time, there seems to be a large variation in the manner document examiner express their conclusions. It has been many years since the first heated and spirited debates started on the terminology to be used in reports by document examiners. This evolved into the ASTM¹ standard and SWGDOC² standards continuing the debates and evolution of the terminology. The terminology as it relates to certainty can also be seen in expressing opinions and reporting conclusions in proficiency testing. While there are of course drawbacks at times, the use of standards to explain conclusions is generally regarded in the field as a helpful guideline. In the ASTM and SWGDOC standards number 3.5, it is said that the terminology can be applied to other areas of document examination not just handwriting examinations. The questions for today are; “Should we do that?”, “Do we do that?”, and “How close are we to being on the same page in practical cases and applications?” This paper will be an interactive discussion-based presentation with made up case examples, but comparable to real cases and findings that are commonly seen in document examination. The point of the presentation is NOT to say that someone’s opinion got more votes than another, but instead to evaluate the similarities and differences in expressing opinions in document examination cases. These case examples will include the evaluation/identification photocopier damage, the use of multiple ink formulations to create an entry, entries, or an entire document, the evaluation of impression evidence, and the evaluation of other similar examinations.

The feedback and discussion of the examples discussed in this paper can provide guidance if the standards can be used in some or all the areas of document examination and secondly, if there is a productive path forward to begin to arrive at some parameters for the implementation and use of possible future standards.

Let’s begin with the four ESDA case examples below for discussion. Example A is from an actual case with redacted information. Example B – E are made up cases based on the same scenario, although the way the documents were written are completely different in order to discuss a range of possibilities and the conclusions that can be made. In the scenario for Example A, a large group of documents were produced in discovery in order to prove that the client should have already received the correspondence and payment authorizations. The client’s position was that they never received the questioned documents. Our task was to determine whether the documents were created on their purported dates of creation. For case Examples B – E, the hypothetical patient, Robert Martinez, has gone to see his doctor on three separate visits. Shortly after the third visit, the patient dies of cardiac arrest and the family sues the doctor for malpractice. A document examiner is retained to determine if the patient chart was altered or contains additions. The patient file is subpoenaed, and the document examiner examines the patient chart via the naked eye, microscope, and infrared equipment (a VSC6000 in this case).

ESDA Case Example A:

10th April 2017

RE – Expenses

Dear [REDACTED],

Thankyou for sending me the receipts and invoices for the expenses for March 2017.

As these expenses were made on behalf of [REDACTED] I hereby authorize you to deduct £2071.92 being held by [REDACTED] on behalf of [REDACTED]
[REDACTED]

Yours Sincerely


[REDACTED]

10th July 2017

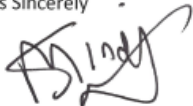
RE – Expenses

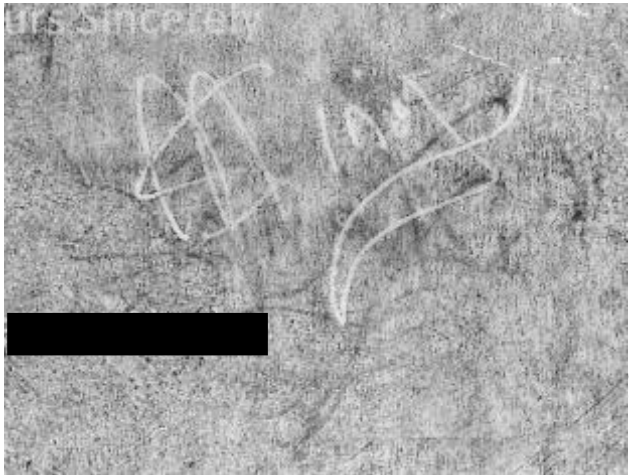
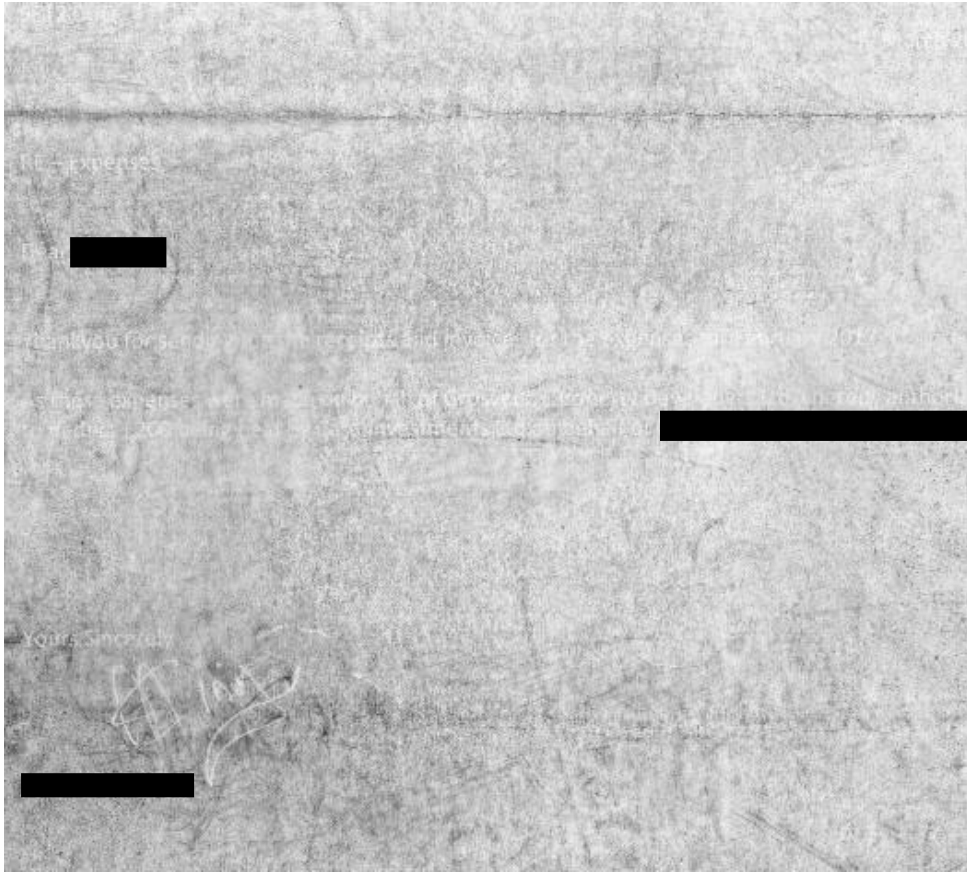
Dear [REDACTED],

Thankyou for sending me the receipts and invoices for the expenses for June 2017.

As these expenses were made on behalf of [REDACTED] hereby authorize you to deduct £5914.29 being held by [REDACTED] on behalf of [REDACTED]
[REDACTED]

Yours Sincerely


[REDACTED]



AS Inda

s sincerely

AS Inda

Above are letters RE: Expenses dated 4/10/2017 and 11/6/2017 and below that is an ESDA of a letter RE: Expenses dated 3/6/2017 containing impressions of the two signatures from the letters dated 4/10/2017 and 3/6/2017. Below the full images of each document described are enlargements of each to show that the impressed signatures are identical. In the above case, 96 documents were submitted to our lab for examination and 13 of those documents were processed on the ESDA. Almost all the ESDA films contained impressed signatures in the same area from the other documents within our possession.

What conclusions can the document examiner come to and what can be said about the questioned entry?

1. The questioned documents were (to a certain degree of certainty: highly probable, probable, indications, probably did not, or highly probable did not) signed and created on or about its purported date or at a later time than the date on the document
2. The questioned documents were (to a certain degree of certainty: highly probable, probable, indications, probably did not, or highly probable did not) signed in a stack and created at the same time
3. No conclusion can be drawn as to the timing of the signatures on the documents

ESDA Case Example B:

LEASE AGREEMENT

This Lease is made on
BETWEEN Ricardo Sanchez

whose address is 4530 Pleasant Tree Ln. Plantation, CO 60625 (LANDLORD)
AND Morty Smith

(TENANT)

The word "TENANT" refers to each Tenant named above.

1. PROPERTY: TENANT agrees to rent from LANDLORD and LANDLORD agrees to rent to TENANT (the PREMISES).

2. TERM: The term of this lease is for 1 year, starting on 10/3/2019 and ending on 10/3/2020. The LANDLORD is not responsible if the LANDLORD cannot give the TENANT possession of the PREMISES at the start of this Lease. However, rent will only be charged from the date on which possession of the PREMISES is made available to the TENANT. If the LANDLORD cannot give possession within 30 days after the starting date, the TENANT may cancel this Lease.

3. RENT: The TENANT agrees to pay \$2,500.00/mo as rent, to be paid as follows: \$ 2500.00, due, in advance, on the first day of each month. The first payment of rent and any security deposit is due 30 days prior to moving in. The TENANT must pay a late charge of \$ 150.00 for each payment that is more than five (5) days late. This charge is due with and shall be considered to be a part of the monthly rent payment for the month in which the rent was paid late.

4. SECURITY DEPOSIT: The TENANT will deposit the sum of \$ 1000.00 with the LANDLORD as security that the TENANT will comply with all the terms of this Lease. This money is being held by the LANDLORD in a tenant security deposit account at Bank of America. If the TENANT complies with the terms of this Lease, the LANDLORD will return this deposit within 30 days after the end of the Lease, including any extension. The LANDLORD may use as much of the security deposit as necessary to pay for damages resulting from the TENANT's occupancy or, at LANDLORD's sole option and election, to pay for delinquent or unpaid rent and late charges. If the deposit is so used by the LANDLORD prior to the Lease termination, the LANDLORD may demand that the TENANT replace the amount of the security deposit used by the LANDLORD. If the LANDLORD sells the property, the LANDLORD may transfer the deposit to the new owners for the TENANT's benefit. The LANDLORD will notify the TENANT of any sale and transfer of the deposit. The LANDLORD will thereupon be released of all liability to return the security deposit.

5. LANDLORD'S AGENT: The LANDLORD authorizes the following person(s) to manage the PREMISES on behalf of the LANDLORD:

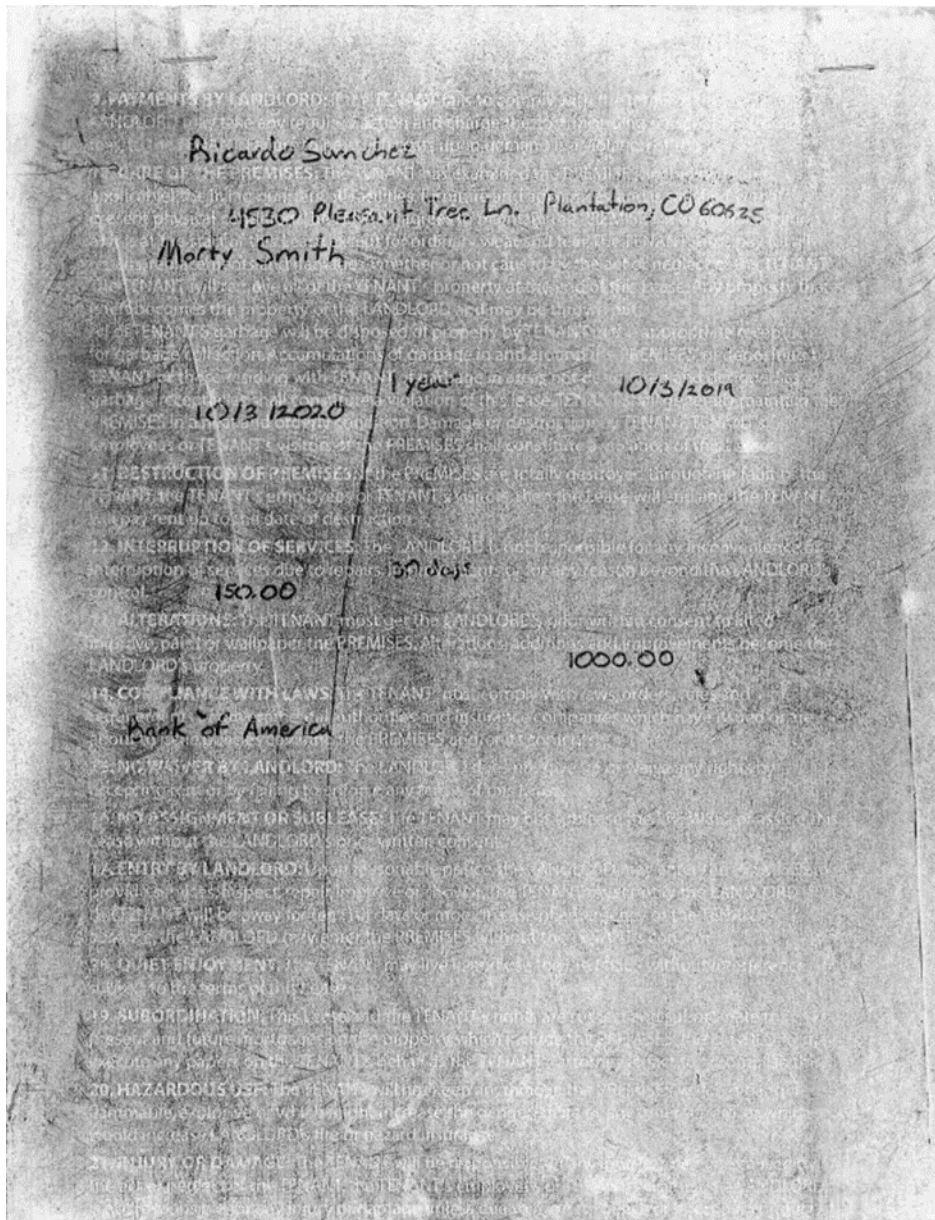
6. USE OF THE PREMISES: The TENANT may use the PREMISES only as a single family residence.

7. UTILITIES: The LANDLORD will pay for the following utilities:
Water and Sewer Electricity, Garbage removal, Gas, Oil. The TENANT will pay for the following utilities:

8. EVICTION: If the TENANT does not pay the rent within five (5) days of the date when it is due, the TENANT may be evicted. The LANDLORD may also evict the TENANT if the TENANT does not comply with all of the terms of this Lease, or for any other causes allowed by law. If evicted, the TENANT must continue to pay the rent for the rest of the term. The TENANT must also pay all costs, including reasonable attorney fees, related to the eviction and the collection of any

Above is page 1 of a 3-page lease agreement which a document examiner has been retained to determine if the document contains any additions or alterations. After the document examiner has done an ESDA on the three pages, the examiner does not identify impressions into page 1, but the examiner identifies impressions of everything written on page 1 into the 2nd and 3rd pages except for the questioned entries, the rent and amount due in advance.

Below is ESDA film with the captured impressions.



What conclusions can the document examiner come to and what can be said about the questioned entry?

4. The questioned entries were written at a different time than the remainder of the text
5. The questioned entries were written after the text was completed
6. No conclusion can be drawn as to the timing of any of the entries
7. The questioned entries were likely the first entries written as they were likely written before the pages were assembled.

Lab Creation:

In order to create the above example, our lab filled out the lease agreement excluding the rent and amount due in advance portion of the document while the pages were in a stack, page 1 on top of page 2 and page 2 on top of page 3. Page 1 was then laid on the table by itself to fill in the rent and amount due in advance portion of the document.

ESDA Case Example C:

LEASE AGREEMENT

This Lease is made on
BETWEEN Ricardo Sanchez
whose address is 4530 Pleasant Tree Ln. Plantation, CO 60625 (LANDLORD)
AND Morty Smith (TENANT)

The word "TENANT" refers to each Tenant named above.

1. PROPERTY: TENANT agrees to rent from LANDLORD and LANDLORD agrees to rent to TENANT (the PREMISES).

2. TERM: The term of this lease is for 1 year, starting on 10/3/2019 and ending on 10/3/2020. The LANDLORD is not responsible if the LANDLORD cannot give the TENANT possession of the PREMISES at the start of this Lease. However, rent will only be charged from the date on which possession of the PREMISES is made available to the TENANT. If the LANDLORD cannot give possession within 30 days after the starting date, the TENANT may cancel this Lease.

3. RENT: The TENANT agrees to pay \$2,500.00/mo as rent, to be paid as follows: \$2500.00, due, in advance, on the first day of each month. The first payment of rent and any security deposit is due 30 days prior to moving in. The TENANT must pay a late charge of \$ 150.00 for each payment that is more than five (5) days late. This charge is due with and shall be considered to be a part of the monthly rent payment for the month in which the rent was paid late.

4. SECURITY DEPOSIT: The TENANT will deposit the sum of \$ 1000.00 with the LANDLORD as security that the TENANT will comply with all the terms of this Lease. This money is being held by the LANDLORD in a tenant security deposit account at Bank of America. If the TENANT complies with the terms of this Lease, the LANDLORD will return this deposit within 30 days after the end of the Lease, including any extension. The LANDLORD may use as much of the security deposit as necessary to pay for damages resulting from the TENANT's occupancy or, at LANDLORD's sole option and election, to pay for delinquent or unpaid rent and late charges. If the deposit is so used by the LANDLORD prior to the Lease termination, the LANDLORD may demand that the TENANT replace the amount of the security deposit used by the LANDLORD. If the LANDLORD sells the property, the LANDLORD may transfer the deposit to the new owners for the TENANT's benefit. The LANDLORD will notify the TENANT of any sale and transfer of the deposit. The LANDLORD will thereupon be released of all liability to return the security deposit.

5. LANDLORD'S AGENT: The LANDLORD authorizes the following person(s) to manage the PREMISES on behalf of the LANDLORD:

6. USE OF THE PREMISES: The TENANT may use the PREMISES only as a single family residence.

7. UTILITIES: The LANDLORD will pay for the following utilities: Water and Sewer Electricity, Garbage removal, Gas, Oil. The TENANT will pay for the following utilities:

8. EVICTION: If the TENANT does not pay the rent within five (5) days of the date when it is due, the TENANT may be evicted. The LANDLORD may also evict the TENANT if the TENANT does not comply with all of the terms of this Lease, or for any other causes allowed by law. If evicted, the TENANT must continue to pay the rent for the rest of the term. The TENANT must also pay all costs, including reasonable attorney fees, related to the eviction and the collection of any

Above is page 1 of a 3-page lease agreement which a document examiner has been retained to determine if the document contains any additions or alterations. After the document examiner has done an ESDA on the three pages, the examiner does not identify impressions into page 1, but the examiner identifies impressions of only the questioned entries, the rent and amount due in advance, from page 1 into the 2nd and 3rd pages. Below is ESDA film with the captured impressions.

9. PAYMENTS BY LANDLORD: THE TENANT HEREBY agrees with the terms of this... LANDLORD as well as the... and shall... to the TENANT... TO CARE OF THE PREMISES: THE TENANT shall be responsible for... applicable... present physical condition... repairs... the TENANT will remove... becomes the property of LANDLORD and... All of TENANT'S goods... for garbage collection... TENANT or those residing with... garbage receptacles... PREMISES in a neat and orderly condition... employees or TENANT'S visitors... 17. DESTRUCTION OF PREMISES: THE PREMISES... LANDLORD... 18. CANCELLATION OF SERVICES: THE LANDLORD... 19. ALTERATIONS: THE TENANT... 20. COMPLIANCE WITH LAWS: THE TENANT... 21. NO WAIVER BY LANDLORD: LANDLORD... 22. NO ASSIGNMENT OF LEASE: THE TENANT... 23. ENTRY BY LANDLORD: Upon... 24. QUIET ENJOYMENT: THE TENANT... 25. SUBROGATION: THE TENANT... 26. JOINT AND SEVERAL LIABILITY: THE TENANT...

What conclusions can the document examiner come to and what can be said about the questioned entry?

1. The questioned entries were written at a different time than the remainder of the text
2. The questioned entries were written after the text was completed, because it was likely written once the pages were assembled.
3. No conclusion can be drawn as to the timing of any of the entries
4. The questioned entries were likely the first entries written

Lab Creation:

In order to create the above example, our lab filled out the lease agreement with the rent and amount due in advance portion of the document while the pages were in a stack, page 1 on top of page 2 and page 2 on top of page 3. Page 1 was then laid on the table by itself to fill in the remaining portions of the document.

ESDA Case Example D:

LEASE AGREEMENT

This Lease is made on
BETWEEN

Ricardo Sanchez

(LANDLORD)

whose address is *4530 Pleasant Tree Ln. Plantation, CO 60625*
AND

Morty Smith

(TENANT)

The word "TENANT" refers to each Tenant named above.

1. PROPERTY: TENANT agrees to rent from LANDLORD and LANDLORD agrees to rent to TENANT (the PREMISES).

2. TERM: The term of this lease is for *1 year*, starting on *10/3/2019* and ending on *10/3/2020*. The LANDLORD is not responsible if the LANDLORD cannot give the TENANT possession of the PREMISES at the start of this Lease. However, rent will only be charged from the date on which possession of the PREMISES is made available to the TENANT. If the LANDLORD cannot give possession within 30 days after the starting date, the TENANT may cancel this Lease.

3. RENT: The TENANT agrees to pay \$ *3000.00/mo* as rent, to be paid as follows: \$ *3000.00*, due, in advance, on the first day of each month. The first payment of rent and any security deposit is due *30 days* prior to moving in. The TENANT must pay a late charge of \$ *300.00* for each payment that is more than five (5) days late. This charge is due with and shall be considered to be a part of the monthly rent payment for the month in which the rent was paid late.

4. SECURITY DEPOSIT: The TENANT will deposit the sum of \$ *1000.00* with the LANDLORD as security that the TENANT will comply with all the terms of this Lease. This money is being held by the LANDLORD in a tenant security deposit account at *Bank of America*. If the TENANT complies with the terms of this Lease, the LANDLORD will return this deposit within 30 days after the end of the Lease, including any extension. The LANDLORD may use as much of the security deposit as necessary to pay for damages resulting from the TENANT's occupancy or, at LANDLORD's sole option and election, to pay for delinquent or unpaid rent and late charges. If the deposit is so used by the LANDLORD prior to the Lease termination, the LANDLORD may demand that the TENANT replace the amount of the security deposit used by the LANDLORD. If the LANDLORD sells the property, the LANDLORD may transfer the deposit to the new owners for the TENANT's benefit. The LANDLORD will notify the TENANT of any sale and transfer of the deposit. The LANDLORD will thereupon be released of all liability to return the security deposit.

5. LANDLORD'S AGENT: The LANDLORD authorizes the following person(s) to manage the PREMISES on behalf of the LANDLORD:

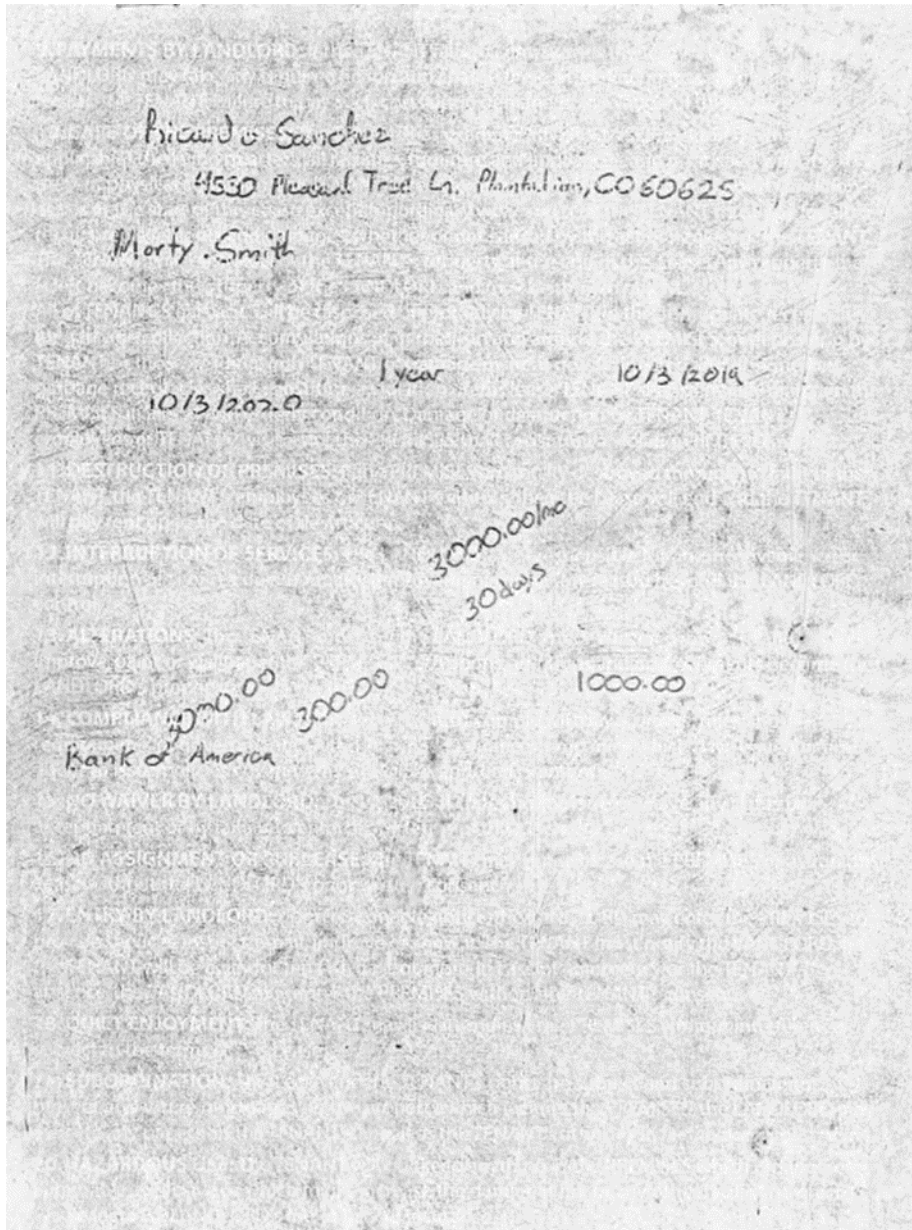
6. USE OF THE PREMISES: The TENANT may use the PREMISES only as a single family residence.

7. UTILITIES: The LANDLORD will pay for the following utilities:
Water and Sewer Electricity, Garbage removal, Gas, Oil. The TENANT will pay for the following utilities:

8. EVICTION: If the TENANT does not pay the rent within five (5) days of the date when it is due, the TENANT may be evicted. The LANDLORD may also evict the TENANT if the TENANT does not comply with all of the terms of this Lease, or for any other causes allowed by law. If evicted, the TENANT must continue to pay the rent for the rest of the term. The TENANT must also pay all costs, including reasonable attorney fees, related to the eviction and the collection of any

Above is page 1 of a 3-page lease agreement which a document examiner has been retained to determine if the document contains any additions or alterations. After the document examiner has done an ESDA on the three pages, the examiner does not identify impressions into page 1, but the examiner identifies impressions of all the writing from page 1 into the 2nd and 3rd pages. The impressions of the

questioned entries are out of alignment with the other impressions identified on the ESDA film. Below is ESDA film with the captured impressions.



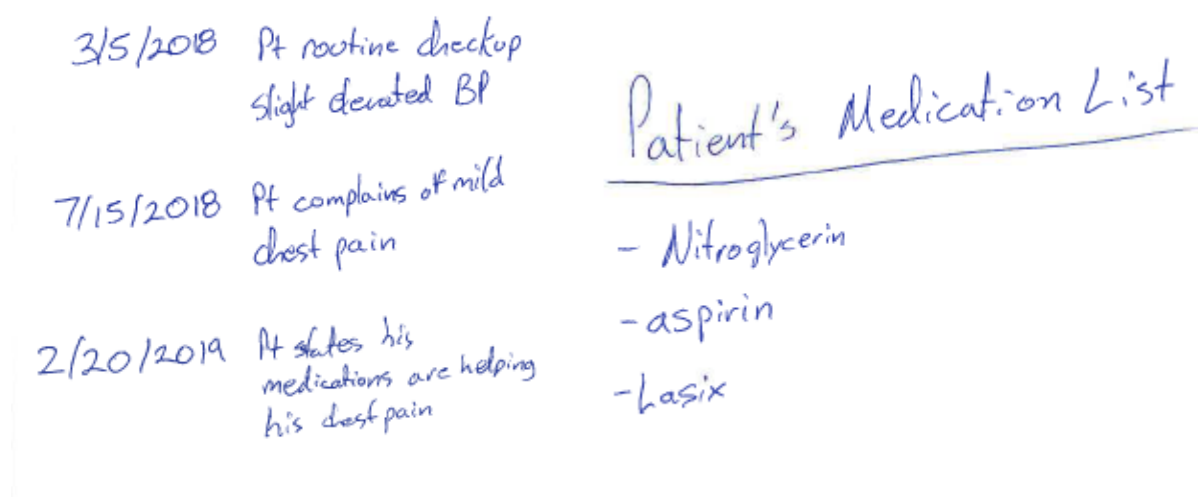
What conclusions can the document examiner come to and what can be said about the questioned entry?

1. The questioned entries were written at a different time than the remainder of the text based on the alignment
2. The questioned entries were written after the text was completed
3. No conclusion can be drawn as to the timing of any of the entries simply based on the orientation of the pages at the time of writing and the resulting impressions.
4. The questioned entries were likely the first entries written

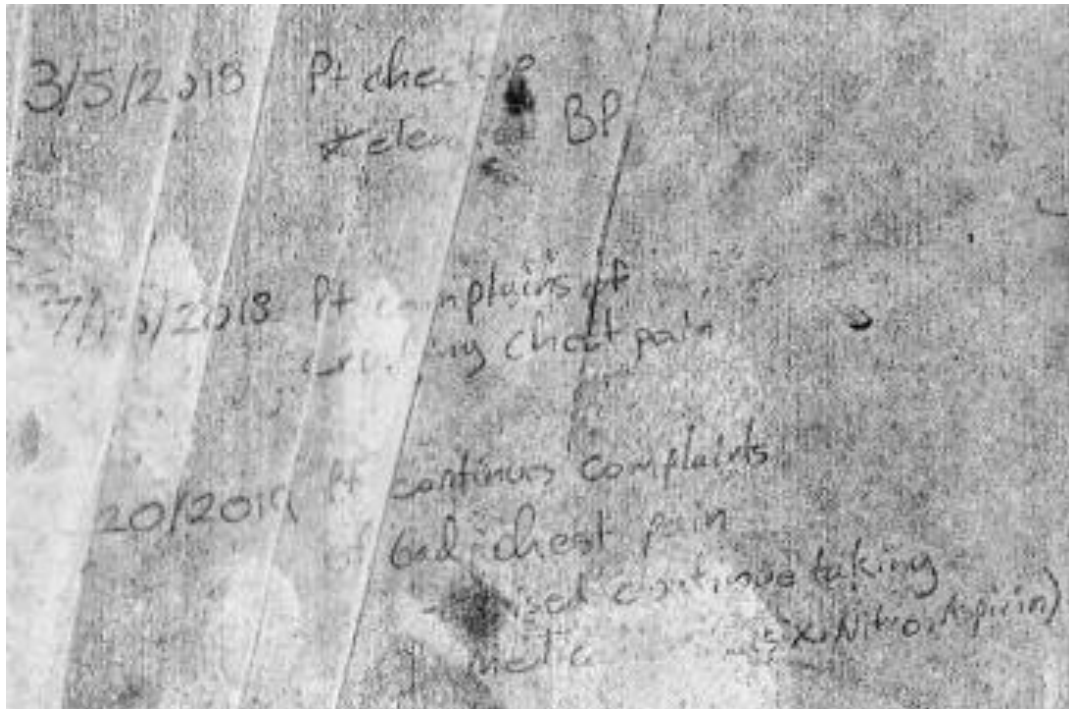
Lab Creation:

In order to create the above example, our lab filled out the lease agreement excluding the rent portion of the document while the pages were in a stack, page 1 on top of page 2 and page 2 on top of page 3. Page 1 was then stacked on top of page 2 and 3 out of alignment to fill in the rent portion of the document.

ESDA Example E:



Above are 2 pages from a patient's file which a document examiner has been retained to determine if the questioned document on the left contains any additions or alterations. After the document examiner has done an ESDA on the known document on the right, the examiner identifies similar impressions to the entries from the questioned document (but not the questioned document). The impressions contain the same dates and similar information as the questioned document entries. Below is the ESDA film with the captured impressions.



What conclusions can the document examiner come to and what can be said about the questioned entry?

1. No conclusion can be drawn as to the timing of any of the entries or source without the patient's name impressed along with the similar entries
2. The page containing the three questioned entries in the chart now is not the original recordings for this patient
3. The questioned page with the three entries has been rewritten and replaced
4. The questioned three entries were rewritten on or after the date of the last entry on the page
5. The significance of the difference in the language between the missing page which was likely the original portion and the new document shows significant changes in shifting the blame from the doctor to the patient and is a fabricated document

Lab Creation:

In order to create the above example, our lab wrote a fake patient chart on top of example known document. Then, a questioned document was then written by itself on a table to contain similar information and same dates as the previous patient chart.

Below is one handwriting case example for discussion.



The image shows a handwritten signature in blue ink that reads "Richard Sanchez". The signature is written in a cursive style. The first letter, "R", is notably different in appearance from the rest of the signature, suggesting it was written with a different pen or under different conditions.

Above is the questioned signature of Richard Sanchez, the document examiner has been retained to determine whether the questioned document was signed by Richard Sanchez. The document examiner is only given photocopies of the questioned document and photocopied verifiable known exemplars to do the comparison. After the handwriting examination, the document examiner determines that it is probable that the questioned document was signed by Richard Sanchez. Opposing counsel hires another document examiner to review the case on their behalf, the opposing counsel's document examiner determines the questioned signature to be a simulated forgery because the first letter of the questioned signature is in a different ballpoint ink from the rest of the signature.

What conclusions can the document examiner come to and what can be said about the questioned signature?

1. The questioned signature is (to a certain degree of certainty: highly probable, probable, indications, probably did not, or highly probable did not) forgery because the first letter of the signature is in a different ink.
2. No conclusion can be drawn.
3. The difference in ink from the first letter of the questioned document can be explained by the possibility that the pen was running out of ink or other similar possibility, and the difference of ink should not bear any weight towards the handwriting examination conclusion.


Lab Creation:

In order to create the above example, the first letter was signed in a different blue ballpoint pen than the rest of the signature.

Below is one printer damage case example for discussion.

Printer Damage Example A:

Questioned Document



LABORATORY ANALYSIS
 Lab Report Date: 10/3/2019
 Specimen Number: M0034256
 Specimen Type: Culture

SUBSCRIBER		PATIENT	
Account No:	SCHOOL OF DENTISTRY	Patient No:	PC34230
Name:	SCHOOL OF DENTISTRY	Name:	MARIA LOPEZ
Contact:		Soc. Sec. No:	000-00-0000
Address:		Gender:	F
City:	LOS ANGELES	State:	CA
Country:		Zip:	
Phone:		Fax:	
Email:		Age:	36

Presumptive Identification of Periodontal Pathogens					
Culture	Microbiota %	% Inhibition			
		Clindamycin	Amoxicillin	Metronidazole	Ciprofloxacin
A. actinomycetemcomitans	3.1	100	100	0	100
P. gingivalis	4.6	100	100	100	100
P. intermedia	0				
T. forsythia	11.5	100	100	100	0
Campylobacter species	7.7	100	100	100	100
Eubacterium species	0				
Fusobacterium species	9.2	100	0	100	0
P. micros	0				
Enteric gram negative rods	13.5	0	0	0	100
Beta hemolytic streptococci	11.5	100	100	0	100
Yeast	0				
Eikenella corrodens	0				
Staphylococcus species	0				
D. pneumosintes (new gram-neg. anaerobic rod)	0				

Comments

1) Porphyromonas gingivalis detected by DNA analysis
 2) Treponema denticola detected by DNA analysis
 the organism cannot be cultured

Recommendations

IMPORTANT: THE TREATING DENTIST IS RESPONSIBLE FOR DECIDING ON THE USE AND CHOICE OF ANTI-BIOTIC PERIODONTAL THERAPY.

THE SELECTION OF ANTI-BIOTICS MUST TAKE INTO ACCOUNT:

- 1) THE PERIODONTAL STATUS
- 2) THE PATIENT'S MEDICAL STATUS
- 3) POSSIBLE ADVERSE PATIENT REACTIONS TO ANTI-BIOTICS
- 4) LABORATORY SENSITIVITY TESTING

NOTE: We have previously seen patients with this bacterial constellation respond well to the therapy listed at the left.

CLS, Laboratory Supervisor Laboratory Director

Above are a questioned and known document which a document examiner has been retained to determine if the questioned document contains similarities to the known document. After the document examiner has done a visual examination, the examiner identifies identical printer damage marks in both documents.

What conclusions can the document examiner come to and what can be said about the questioned entry?

4. The questioned document was created on the same machine as the known document.
5. The questioned document may have been created on the same machine as the known document.
6. No conclusion can be drawn as to the source as the limited damage marks are transient and without a large number of samples, an reliable association cannot be made.
7. The questioned document (or previous copy thereof) may have been created on the same machine as the known document (or previous copy thereof).
8. The questioned document (or previous copy thereof) was created on the same machine as the known document (or previous copy thereof) and the two may have been created on the same machine.

Lab Creation:

In order to create the above example, fake printer damage marks were added to a blank piece of paper by making small indistinct dots with a pen. This printer damage was then photocopied onto the stipulated questioned and known documents.

1. ASTM E1658-08 Standard Terminology for Expressing Conclusions of Forensic Document Examiners
2. SWGDOC Standard Terminology for Expressing Conclusions of Forensic Document Examiners