The Scientific Journal of the International Association of Document Examiners

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The Scientific Journal of the International Association of Document Examiners

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Editorial

Welcome to the Second Edition of the Scientific Journal of the International Association of Document Examiners. It is my goal to produce two journals a year. We have had submissions from several of our members as you can see from the Table of Contents. I encourage all members to contribute to our Journal as it is important for document examiners to be published.

If you do not feel confident to write an article by yourself, I suggest that you collaborate with one of your colleagues. You can also take a course in Technical Writing from a local community college. There is a lot of material on the web as well. Simply type in "How to Write Articles" and you will bring up many sites that offer advice.

There are many topics that can be covered in our journal. You can present research that you have conducted, write about equipment used by document examiners, or cover a handwriting characteristic such as Carolyn Kurtz's article on Rhythm and Movement.

If you find an article that you think would be of interest to our group, contact the author and ask if we can reprint the article.

I added a Case Study to the Journal and I would like to have a different Case Study for each future Journal. Cases that have gone to court are public and can be written up. If a case has not gone to court and you wish to use identifying documents, then you should ask permission from the client to publish. Or you can do as I did and present the scenario without identifying the parties involved.

Kathie Koppenhaver

Most of the authorities do not address one of the very important identifying features that we use to make identifications in handwriting. That feature is pattern recognition. The authorities do not include pattern recognition as a separate handwriting characteristic but incorporate it into other handwriting characteristics.

Forensic Science for the National Institute of Standards and Technology (NIST) recognizes our craft as part of Pattern Interpretation. Programs are being developed for computers to identify patterns in handwriting in order to assist document examiners in drawing correct conclusions. We see patterns in our environment all of the time and we make identifications of many things based upon their patterns. This is one of the reasons that logos are so important. Children can spot a fast food restaurant from their logo long before they learn to read. **Figure 1**
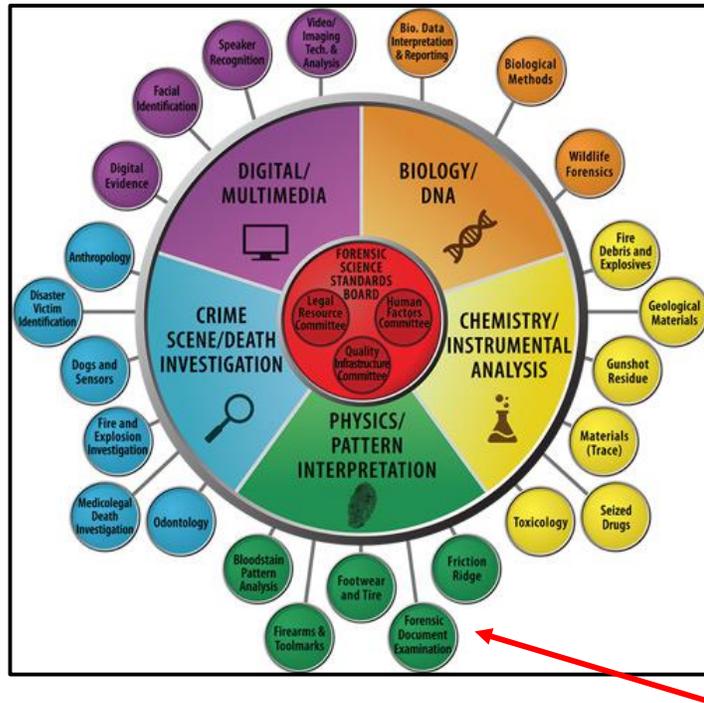
We can learn to distinguish patterns by looking at puzzles. Look at the first puzzle. Do you see numbers or letters? Most people see both. What color are the arrows on the second puzzle? The answer to the arrows can be found on the next page.
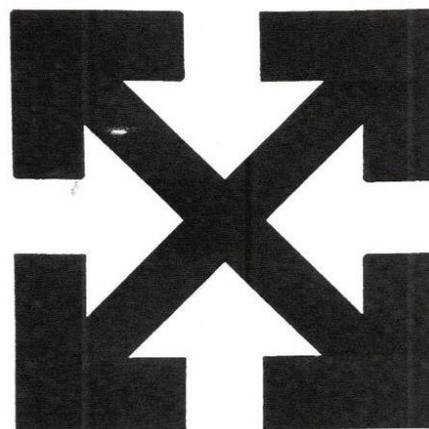

Figure 2 - Puzzle 1Figure 3 - Puzzle 2

Now look at Puzzle 2. By placing a border around the outside of the arrows, you can more clearly see that there are white arrows present as well as the black. The black color dominates so that we see the black images first. Our eyes are easily fooled with optical illusions.
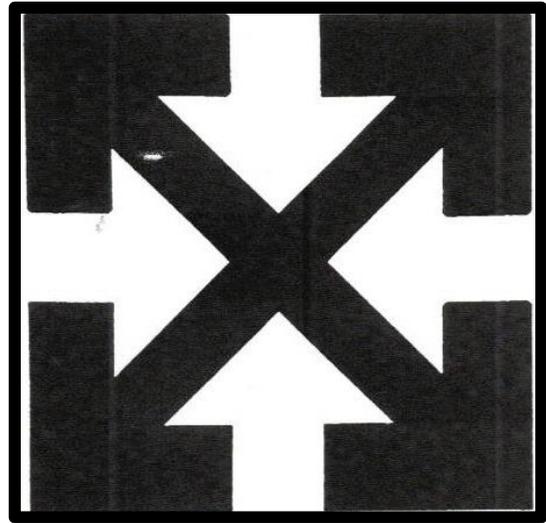
Now look at the following puzzle.   At first glance, it appears to be a series of black irregular-shaped blocks.

Next look at the same image once the lines have been inserted.

Figure 4 - **Puzzle 2**
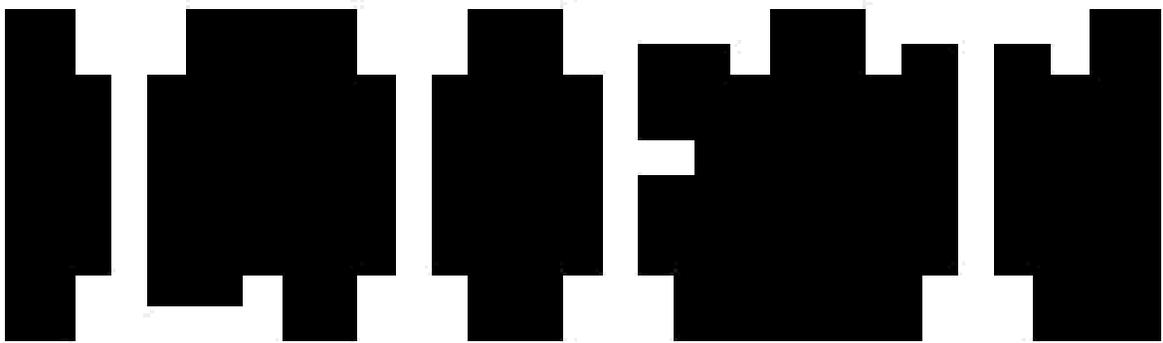

Figure 5 - Puzzle 3
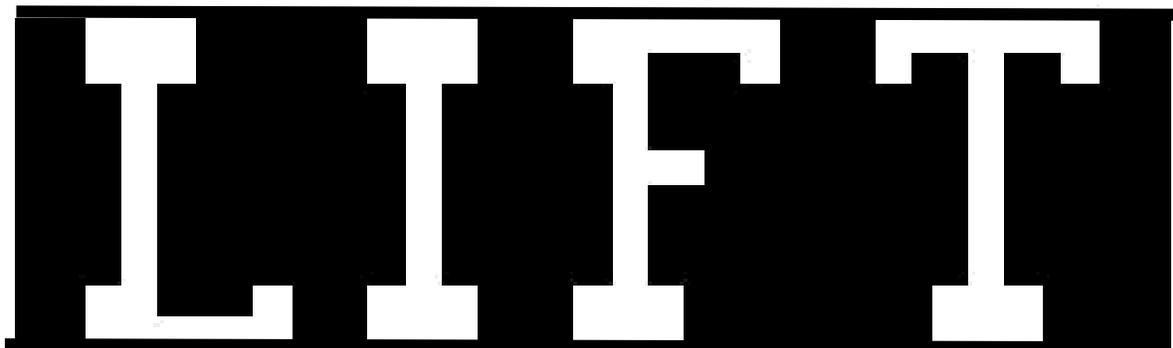
Figure 6 - Puzzle 3

People write in patterns. Handwriting characteristics are patterns. Patterns are the most productive method of examining documents. Patterns are the result of habitual movement.

Patterns occur in many places in handwriting.   Patterns are found in pressure patterns, spacing, rhythm, hooks and tics, joining strokes, and letter forms. Even if the writing is illegible, we can discern patterns.

Line direction can be deduced from patterns when writers use ballpoint pens. Burr striations always go from inside to outside and gooping occurs after a curve in the writing line. Gooping consists
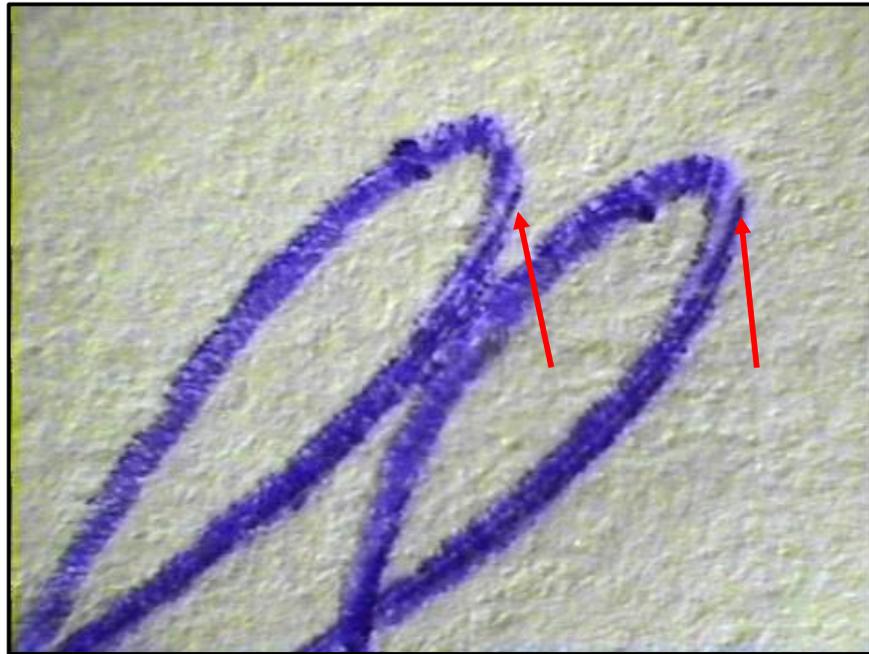

Figure 7 – Line Direction

of the blobs of ink deposited on the writing line. The housing collects ink when direction is changed and deposits it on the writing line after the writer makes a curve.
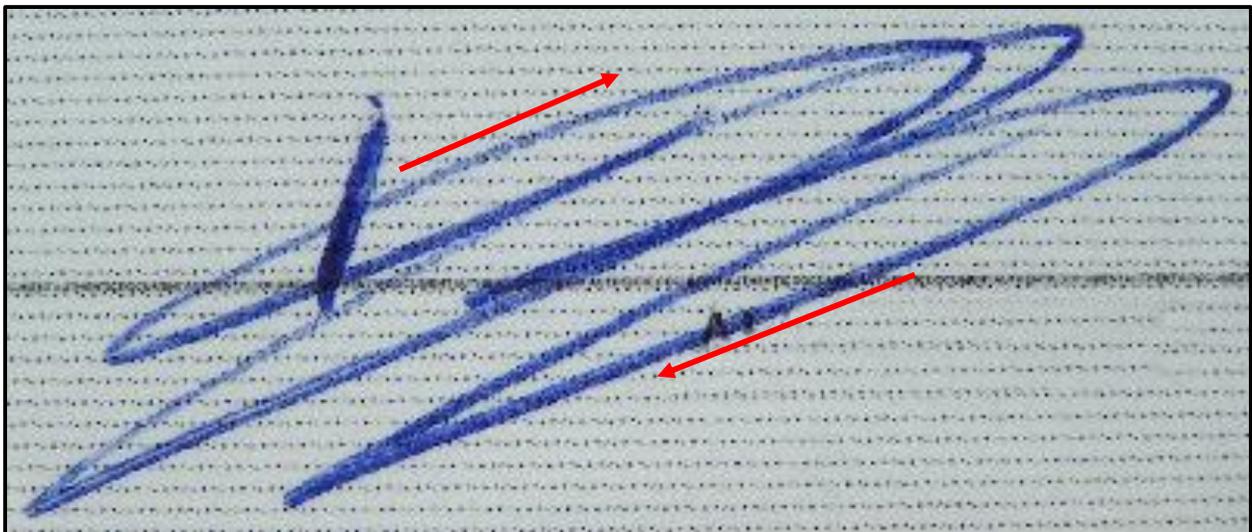
Figure 8 – Pressure Patterns

Pressure patterns indicate direction. Writers normally have lighter upstrokes and heavier downstrokes enabling us to determine the direction of the writing.

People develop their unique patterns that enable us to identify the writer of a particular set of patterns. Signatures are written more frequently than other handwriting and these signatures develop into our unique patterns.
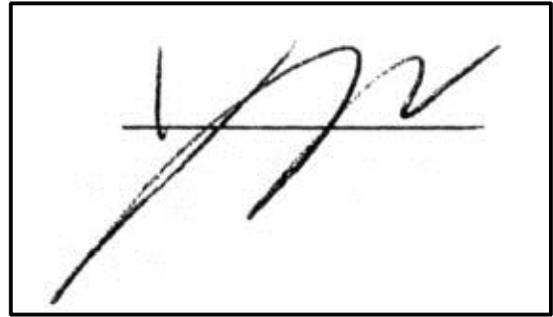
2 signatures from the same writer.

Figure 8Figure 9

The most obvious patterns occur in letter forms. Most people including document examiners rely on letter forms to identify handwriting. However, many document examiners do not use the patterns in letter forms. The best letters for letter forms are those that contain ovals as these have a distinctive pattern. The best letter for comparison is the letter **a.** Patterns can be found in the location of the starting stroke. The specific shape of the circle or oval and the ending or joining stroke.


Figure 10 - Patterns showing natural variation of a writer

Similar letters can be compared. This includes circle letters (a, o, d, g, and p); humped letters (m, n, h); upper looped letters (b, h, l, and f); lower looped letters (f, g, j, p, and y).

Figure 11 – Similar letters

Figure 12 – Similar looped letters

While the letter forms will not be exactly the same, the shapes remain consistent, varying in size. The circle letters may be opened or closed even by the same writer. Circles can be contaminated with hooks or tails inside the circles or with loops inside of the circles. Loops may vary in size and fullness but maintain their pattern. Humped letters may be rounded or pointed. They may be retraced or open.

Sometimes it is a specific combination of letters that form a particular pattern. Joining strokes

have patterns. They are garlands, angles, thready or non-existent. Some writers join their t-bars to the next letter. Some combine o and f in a different manner. Some make letters larger or smaller than other letters. For example, a's are often larger while I's are usually smaller. When writers change their size, the proportions tend to remain consistent.

Figure 11 – "of" connection

Spacing maintains a pattern. Placement of a period after a middle initial of a signature can be a pattern. Size and shape and location frequently remain consistent.
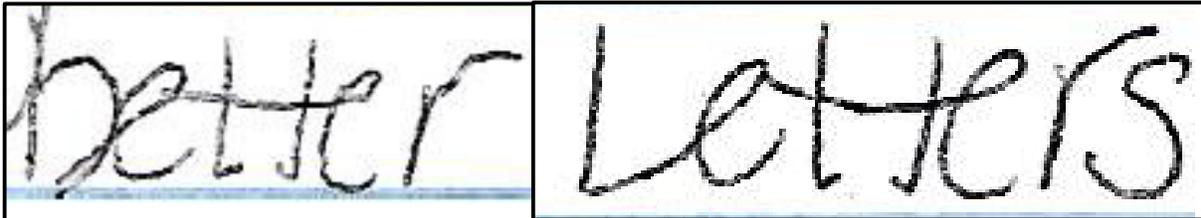
Figure 12 Figure 13

Note the similarity in the letter forms and the ticks on the bottom of the t's.

Similarity of letter forms are the easiest identifying pattern of individual writers. Many examiners give their opinions based upon the letter forms and fail to take into consideration all of the other handwriting patterns. In Figures 12 and 13, the letter forms are the easiest to identify but connections, ticks, spacing, baseline, and ratio and proportions of the letters are all part of the pattern.

Letter forms clearly show the similarities between the questioned and known handwriting in Figure 14. The letters all have individual identifying characteristics.
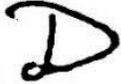
Figure 14

Figure 15

Figure 15 shows a lack of natural variation in the two signatures of Gordon L. Hill. By turning one signature red and the other green and overlaying them, one can see the overwhelming similarities. This lack of natural variation is indicative of a copying process since no one can duplicate his signature so closely. This lack of natural variation is another type of pattern recognition. Figure 16 shows a different type of pattern. Note in Figure 17 that all of the letters in Harold W. Lincoln's signature occupy the same space right down to the period after the middle initial.
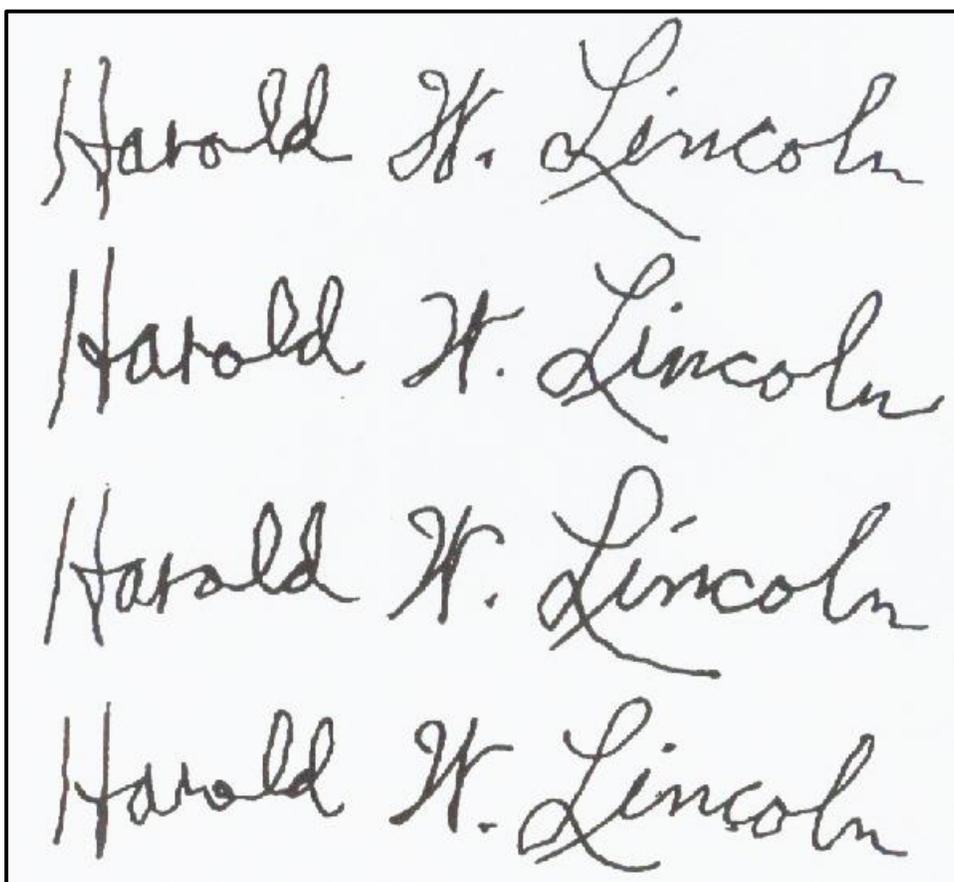
Figure 16
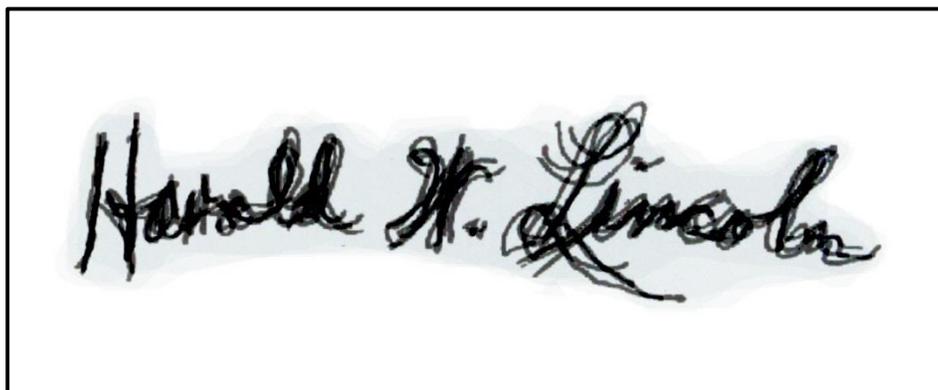
Figure 17
The Harold W. Lincoln's signatures were all traced from the same model.

Figure 18

Writers also use patterns when writing their numbers. Many writers have been identified because they were not aware that their numbers were distinctive. They will type an anonymous letter and then hand-address the envelope.

Document examiners who use pattern recognition to identify the master pattern have a higher rate of success in solving cases.

Cursive*:* To Be or Not to BE in Our Public School Classrooms?

by Diana J. Mears, CFDE

Cursive instruction has been gradually declining nationwide since the 1970**'s** according to a 2010 report by the Miami-Dade public school system. However, the decline has been accelerated by technology as well as the Common Core State Standards that has been developing since 2008, launched in 2010, and currently implemented in many of our schools.

Technology of our day which often includes keyboarding has had an impact on handwriting and particularly cursive. It is argued by some that teachers prefer typing over handwriting and that by the time a student gets to high school, about 50% of all assignments turned in are composed with word processing programs.

Common Core Standards are designed to standardize "what is being taught" in our schools in order to raise student achievement across the United States. In the process, "cursive is not" a part of this standardizing program. It is not mandatory, but can be taught if a community and educators on the local level think it is what their students need. However, they have to find the time after fulfilling "the standards".

Aside from the reasons for the dissent mentioned above, it is believed by some that the cost of teaching cursive is a waste of precious time. Of course, "it takes time", but not a waste, to learn to coordinate the multiple joints in the hand, wrist, elbow, and shoulder to make letters and put them on paper. Not only that, there's the gripping of the pen and leading it across the paper using sensory information from the skin, joints, and muscles of the hand. The value to all this is that with practice, handwriting becomes highly automated using motor skills committed to memory. For reasons that follow, the benefits are well worth the price.

When someone uses cursive handwriting rather than keyboarding, more areas of the human brain are engaged. The fluid motion used when writing cursive, which is faster because the letters are connected, improves hand-eye coordination and develops fine motor skills. Thus, reading, writing, and cognition skills are promoted. One study found that better reading skills were achieved by those who wrote neater than those who wrote "chicken-scratch" style. According to academic therapists, Deborah Spear, individuals with dyslexia can learn cursive easier because most letters start at the baseline and the fluid, left-right motion of the pen.

In recent years, multiple states have fought to keep cursive writing in their schools. The states are Alabama, Arkansas, California, Georgia, Idaho, Ohio, Indiana, Kansas, Maryland, Massachusetts, North Carolina, South Carolina, Tennessee, and Utah. Some of these states have gotten bills passed to mandate cursive while other have introduced bill still being considered.

While technology and Common Core may hinder the preservation of cursive, whether believed a waste of time or not, or whether considered beneficial for various reasons, cursive is not out of the classroom yet!

Cursive*:* To Be or Not to BE in Our Public School Classrooms?

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The Importance of Rhythm and Movement by Carolyn Kurtz, CFDE

Rhythm is defined as a regular, repeated pattern of movements. It is a movement marked by the regulated succession of strong and weak elements.

Rhythm in handwriting is created by a combination of whole-arm, forearm, hand, and finger movement -- coordinating impulses in the brain -- all in perfect harmony, not precise, but with variation between upstrokes and downstrokes. This normal variation does not change the overall appearance of the writing.

Movement is what gives shape, character, and direction to the writing (the lines, curves, and strokes) to form the letters, words, and sentences. It creates all the characteristics of the writing, both conspicuous and inconspicuous. It influences the look and quality of the writing. The speed of the movement affects the quality of the rhythm and movement.

In *Forensic Document Examination: Practices and Principle* (Chapter 2, page 7), Katherine M. Koppenhaver writes that "No two people write exactly alike. Handwriting is brain-writing, a complex neuromuscular interaction between the brain, nerves, and muscles of the hand, arm and fingers in coordination with the eyes." And, according to Edna W. Robertson in *Fundamentals of Document Examination*, "One of the axioms of handwriting identification is that once a handwriting has been executed, it cannot be identically reproduced by freehand writing in all its intricate features by the same or another person."

Rhythm is unique to each individual, and a *very* significant factor of identification -- an almost indefinable but important feature of a person's writing, and difficult to successfully duplicate because it is not obvious and is virtually impossible to duplicate in extended writing. It is the result of subconscious impulses from the brain. Overall likeness or differences in rhythm are usually obvious at first glance, and are strong indicators of the same or a different writer. This can be verified with further study of the other characteristics of writing, especially pressure patterns created by differences between upstrokes and downstrokes.

Rhythm is a succession of gliding motion, the consistent recurrence of the movement, and an even return to the baseline, the results of the skill of the writer. It is the general overall "look" and pictorial appearance that makes the writing unique to each person, as a result of the quality of the movement of the writing instrument. It is difficult to describe or demonstrate in detail, but is seen in the whole pattern of the writing.

Rhythm and movement, along with the increasing and decreasing of pressure of the writing instrument produces a natural, free flowing result, unlike a constrained, drawn look of a simulation. The forearm movement, once mastered, gives the most pleasing, free, and continuity of motion, and rhythm to the writing. Free-arm movement produces a free-flowing, consistent motion, as opposed to finger movement, generating smaller movement, and is slower and more awkward. A

combination of movements creates a smoother, fluid writing.   Large writing is a result of arm and shoulder motion. Every change of direction in the writing causes a change in the pressure of the finger or thumb against the writing instrument.

In the skilled writer, once the writer reaches graphic maturity, the act of writing becomes automatic. There is a consistency in letter formations, fluidity, harmonious, recurrent, forward momentum that affects speed, size, slant, proportions, pressure, line quality, arrangement, spacing between letter, words, and lines, horizontal expansion, connections, free, uninterrupted movement, flying starts and finishes, air strokes, and flowing continuous lines. It has an even slant, consistency, and shows a high level of skill

 "Good rhythm gives an appearance of consistency without exact repetition." Andrew Bradley, *Advanced Studies*, page 1-8.

The rhythm is a fragile component, and can be changed or disrupted by a number of factors such as stress, illness, physical disability, drugs or alcohol, unstable writing conditions, writer's cramp, age, and language difficulties. It can vary from well balanced and pleasing, to rough and uneven. The adverse effects of a disruption are breaks, pen lifts, pen stops, angularity, hesitations and tremor in the wrong places.

Forged writing has more interruption of motion and movements than genuine writing. Forged writing contains pen lifts and pen stops, hesitations, and tremor. The forger must replicate the natural, unconscious rhythm and cadence of another person while also simulating all the detailed writing features. An analogy would be a puppet-master attempting to pull too many strings simultaneously.

When attempting to *simulate* another's writing, the forger must stop continuously to look at the model, and this restricts the flow and movement of the writing. Conversely, when attempting to *disguise* one's own writing, the writer must consciously pay attention to the writing process, which also affects the rhythm. In both instances, once there is a break in concentration, the writer will revert to his or her natural rhythm and movement.

Figure   1

Example of Good RhythmFigure 2 Example of Poor Rhythm in Attempted Forgery

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Is Document Examination a Science? By Kathy S. Carlson, CFDE

Forensic Scientists differ when defining document examination. Is it a science? If so, which science? What is our scientific analysis? Or, as some people believe, is document examination an art?

Definition of Science:
Science is a way of finding knowledge through well supported justification. It provides the best explanation given observed data.
Merriam Webster – knowledge about or study based on facts learned through experiments and observations.
Free Dictionary – the observation, identification, description, experimental investigation, and theoretical explanation of phenomena.
Wikipedia – is a systematic enterprise that builds and organizes knowledge in the form of testable explanations and predictions.

Different types of Science:

Pure Sciences
Pure sciences use the experimental method in order to formulate theoretical construct, explicate natural laws, and to expand knowledge.[1]

Exact Sciences
Historically, this expression comes from Aristotle. He used the phrase to describe sciences that demonstrate precise conclusions from known principles; philosophy, arithmetic, geometry, astronomy, and harmonics. Ptolemy argued that philosophy was less precise and was not based from known principles. In the 17th century, the meaning of this expression began to change. Mathematics no longer appeared to be a science, but the language of or an assistant to science. Physics is now regarded as an exact science.

Hard Sciences
Hard sciences are quantifiable sciences. The strict use of scientific protocols is associated with mathematical equations.

Natural or Physical Sciences
Natural and Physical Sciences are harder to accumulate quantifiable conclusions: weather. They include astronomy, psychology, sociology, medical diagnosis, anthropology.

Observational Sciences
Observational Sciences cannot construct experiments to test ideas (how continents shift, how judges react to information). To substitute for experiment, statistical calculations and/or past data can allow for approximations. These sciences include geology, astronomy, and social sciences. Technology allows for observational science to become experimental sciences

(discovering what comets are made of). Conclusions are represented as "The known data indicates…" "The known data infers…" The data does not prove ideas are true.

Applied Sciences
Applied sciences use scientific principles for a practical application. Practicality, time, and financial aspects are considered in applied sciences.

Examples of Various Types of Sciences:

Pure Science	Applied Science
Physics	Engineering
Mathematics	Statistics
Dactylographic	Handwriting Identification
	Medicine

Medicine (applied science) – If you go to the doctor for a cold, they do not do blood tests because it is not financially reasonable under the circumstances.

Any of the sciences can be applied science, even hard sciences. It just means that time and money is a consideration in how much work is performed.

Art
1) A kind of knowledge that is typically considered nonscientific such as the Liberal Arts. Traditionally this kind of knowledge has been considered nonscientific because it lacks one or more of the requirements of a science, such as having testable observations. Examples: Accounting, Economics, and Religion.
2) A skill, talent, or ability that one can possess innately or by study or practice. This definition of art can apply to an individual involved in the liberal arts, the sciences, or any craft, trade or activity. This is not an essential requirement for any occupation or activity but certainly is a benefit.

Document Examination
Document Examination is a natural science (or observational science) and applied science. The natural science means that we rely on analytical thinking, not always experiments. And the applied science means that time and money is considered.

The goal of science is to provide the **most reasonable explanation** through rational explanation. This explanation is considered accurate until observations are seen that contradict the explanation (Newton and Einstein). Except for exact or hard sciences, science does not make claims that are conclusive; they leave the door open for a better conclusion. It is not facts or absolute truths.

One of the scientific methods used in questioned document examination is hypothesis testing. Hypothesis testing has been used for more than 400 years. It is an accepted scientific technique and is most popular due to the reliability of the results when the process is used correctly. It shows others that you have observations to support your theory or conclusion. A nonlinear process is a circular process continually reviewing additional data for an improved or stronger conclusion. Some examiners take a linear approach and do not return to additional information to review for an improved or stronger conclusion.

Hypothesis testing is a rough outline to guide an examiner through an experiment, not a precise methodology. It doesn't guarantee correct conclusions. The last step of the testing is a built in quality control measure to ensure the best possible results. Peer review does not always have to be done, but results must be **open** to a peer review or scrutiny from a qualified document examiner.

Four Forms of Theory Testing:

1) Start with a hypothesis as a possible explanation.
2) Gather all the data to draw correct conclusions, not only data that supports your conclusion.
3) Your conclusion will be valid, testable, repeatable or reproducible, falsifiable, as well as explainable and demonstrable.
4) Peer review insures objectivity and non-bias. It does not ensure accurate results or conclusions. Review should scrutinize all aspects of analysis, not only the conclusion.

1) Have observations or collect data.
2) Form a hypothesis.
3) Use the hypothesis to predict the existence of other phenomena.
4) Experiment and do testing. You may need to collect more data.
5) Form a conclusion.
6) Have your work peer reviewed.

1) Observe data.
2) State a question.
3) Form a hypothesis.
4) Make predictions to test hypothesis.
5) Experiment and test.
6) Draw conclusions.
7) Have your work peer reviewed.

ACE-V is another form of scientific method. Roy Huber formulated this modified version of hypothesis testing in 1959. It is the method used by the FBI, the US Treasury, and the US Postal Service in their questioned document laboratories.

A: Analysis

The first step, analysis, requires the expert to examine and analyze all variables influencing the unknown handwriting in question. The examiner must ensure that there is objective data. The examiner must have a sufficient amount of data for comparison.

C: Comparison

The comparison process introduces the known exemplars with which the questioned handwriting is to be compared. At this point, there is also another analysis phase taking place. Consider all data, not just what supports your conclusion.

E: Evaluation

The result of the comparison is the evaluation process or making a conclusion. In order to reach a reasonable conclusion, the document examiner should have consistent and sufficient data. He/she must have justification behind decisions or conclusions. The conclusion must be able to demonstrate the justification. The justification should be objective data. Don't ignore what doesn't fit. The amount needed is enough to satisfy the general consensus.

V: Verification

Verification is a form of peer review and is part of most sciences. Many examiners erroneously use verification as a method of protecting against errors, in place of adequate training. While verification may prevent the occasional error, its purpose is to verify process and objectivity as opposed to only check results. It is also an excellent vehicle for training. Another way to verify is to falsify. Play the devil's advocate. This will show independence as opposed to being personally attached.

Document examination is a science using hypothesis testing that has been around for 400 years and is the most reliable and most accepted when used properly. We can explain the terminology with confidence that we are using scientific methods and principles. I hope you find this beneficial and helps you in your practice.

[1](Feibleman, J.K. 1972 "Pure Science, Applied Science and Technology: An attempt at definitions."

Kathy Carlson, a Certified Forensic Document Examiner in Montrose, Colorado. She started her training in April 2009. She has continued her education by going to conferences whenever possible (at least once a year) and attending monthly classes. She has worked on 275 cases and has testified in 16 cases in numerous states plus the Turks & Caicos. She recently attended a 40 hour class in Utah on ACE-V and found it very helpful in her methodology and wants to share it with her colleagues.

ABSTRACT: Document examiners sometimes give opposing opinions. This article covers the principle reasons that examiners disagree. The factors relate to the material examined, the well-being of the writer and the skill of the examiner.
Keywords: document examiners, opinions, questioned documents, exemplars.

INTRODUCTION

Document examiners apply scientific principles to determine the authenticity of handwriting. Handwriting can be identified as belonging to an individual when there are sufficient similarities appearing in both the known writing and the questioned and no significant fundamental differences that cannot be explained. Since no one can duplicate exactly something that he has written, the examiner must determine whether the obvious differences reflect the natural variation of a writer or are evidence of a different writer.

The factors that affect the document examiner's opinion must be taken into consideration. These factors relate to the material examined, the well-being of the writer and the skill of the examiner. The document examiner needs to consider all of the material used, in both the questioned documents and the known. This includes the type of paper and its properties, the writing instrument, the writing surface and the environment in which the documents were signed. It may include the type of lighting, the location and the position of the writer at the time of the signing. The well-being of the writer includes his health at the time of the signing of the documents. It may also include his emotional state or any impairment that he may have suffered at that time.

MATERIAL EXAMINED

Document examiners may come to difference opinions if they compare different exemplars. Sometimes a client will carefully select writing samples to support the opinion he desires. Because he may have more than one signature or style of writing, a writer may deliberately select signatures that differ from the questioned in some significant detail. Sometimes a writer will provide a different style of writing sample such as handprinting to be compared to cursive writing. Even when the client supplies the examiner with a large sample of handwriting or signatures they may not represent the full range of the writer.

An examiner may make the mistake of not comparing sufficient samples of handwriting. Occasionally, a small sample of known writing is sufficient to make a positive identification when there are sufficient similarities repeated in both the known and questioned and no unexplainable fundamental differences. However, in some cases examiners may erroneously identify a handwriting as matching by attributing the differences to disguise.

Examiners should avoid giving opinions on too few characteristics unless the characteristics are unique to the individual. Since some individual characteristics are fairly common, they should not be relied upon when giving an opinion. Class characteristics must also be present in both the questioned writing and the known.

When trying to eliminate a writer, it is usually necessary to have more material covering a broader range of writing then when making an identification of authenticity. Authentic signatures are usually easily matched as similarities are generally obvious. Unless the signatures are completely different or of a higher skill level, the document examiner must survey a wider range of writing in order to cover the various ways in which that individual can write. Failure to obtain sufficient exemplars could cause a document examiner to error in his opinion.

An examiner should try to get a wide range of writing. A minimum of four to five pages of handwriting and twenty to thirty signatures should be used for comparison purposes. A combination of request writing and pre-existing signatures and handwriting samples should be collected. In some cases this will not be enough writing, especially if the examiner suspects disguise or if there has been a change in the writer's handwriting due to illness or a traumatic event. Normal course of business documents are best. Request writing could be excluded in court as post litem motam. Post litem motam means after the fact and the courts do not allow anyone to create evidence to prove his innocence.

A document examiner could fail to get writing samples from the proper time frame. Handwriting samples used for comparison should be dated to show that they were written around the same time as the questioned writing. Handwriting can change over time. There are various factors that can cause these changes such as aging, illness, or substance abuse. If a document examiner compares material from the wrong time period, he may come to an incorrect conclusion. A document examiner needs contemporary writing as the basis for his opinion.

Some writers may try to disguise their exemplars when giving request writing samples. They may hold the writing instrument differently, change the slant or their speed, or attempt to alter their letter forms. For these reasons, the document examiner should obtain writing samples that are already in existence such as canceled checks, motor vehicle records, voter's registration, credit cards, and identification cards.

Occasionally, a document examiner is given forged exemplars for comparison purposes. Many signatures are assumed to be genuine when they are not. If a document examiner relies on fraudulent exemplars his opinion will be flawed. This occurred with the Hitler Diaries when samples believed to be Hitler's were really the handwriting of the forger.

The signatures given for comparison may not be known to be fraudulent. It is the responsibility of the document examiner to look for internal consistency in the handwriting samples he is using for comparison to verify their authenticity. Generally this can be accomplished by comparing the exemplars with each other. If an unusual signature is found among the exemplars, the document examiner should ask the client about the circumstances surrounding the writing of that signature. The signature may have been written under duress or while the writer assumed an unnatural writing position. It could be someone else's handwriting. Sick and elderly people often designate others to sign documents executed in the normal course of business.

Frequently document examiners are given poor quality facsimiles and asked to render an opinion based upon the copy. Poor qualify facsimiles are a result of multi-generation photocopies, fax copies, or microfiche. Sometimes the copies are blurred or missing lines and details. Document examiners should qualify opinions given on photocopies. They should inform their clients that their opinion is subject to examination of the original and that the opinion is based upon the premise that the copy is an accurate reproduction of the original. Document examiners should insist on looking at the original documents when they exist.

An examiner should ask for a chance to review all the material that the opposing examiner used to come to his or her decision. This eliminates the problem of using different exemplars and may assist the examiner in making an accurate assessment. It also prevents surprise in the courtroom as a document examiner knows what the opposing examiner used as the basis for his opinion.

THE WRITER
The examiner needs to know about any condition affecting the writer that can alter his normal handwriting. He needs to know if an individual is a substance abuser, has suffered long-term or traumatic illness or was dying when he allegedly signed his name.

Some writers will attempt to disguise their writing so that they can deny it later. An individual may be reluctant to sign a document and may deliberately alter his signature. If the document examiner fails to consider disguise, he may declare the writing to be non-genuine.

The document examiner also needs to be informed of the writing situation at the time of the signing of a particular document. Writing can be skewed by a poor writing instrument or the type of paper used, the writing surface, lighting, and body position. Was the writer standing, sitting, or lying down when the document was signed? All of these factors can have impact on the physical appearance of the writing. The document examiner should try to duplicate the writing environment when taking request writing. He may also want to experiment by trying to duplicate the writing in question.

Writers possess various skill levels, which makes some handwriting easier to forge than others. A person who never developed much writing skill, who doesn't write very often, or whose skill has deteriorated is easier to copy than the more skilled writer. If examiners fail to take the ease of duplication into consideration, they may mistakenly attribute the signature to the author.

DOCUMENT EXAMINERS
The amount or lack of experience that the examiner possesses will affect opinions. Document examiners who have extensive experience in the field will approach their examination differently than others who lack proper training or experience. The experience of examining thousands of handwriting samples enables a document examiner to weigh the value of individual characteristics more accurately as he knows the frequency with which characteristics show up in the population. Experience generally leads to more accuracy in drawing conclusions about handwriting.

An examiner may be an advocate for his client regardless of the evidence. He may skew his opinion to satisfy his client or he may not be aware that his opinion is being influenced by his client's position. In cases where the evidence is not clear cut, opposing examiners may find sufficient similarities or differences to support their client's position. Marcel Matley recommends that document examiners try to prove the opposite conclusion as a means of maintaining objectivity.[1]

An examiner may lack sufficient skill or training in the field. Since anyone can claim to be a document examiner, people with limited skill and inadequate training can pass as document examiners and render opinions that are not based upon a solid foundation of handwriting principles. There have been some former employees of the federal government agencies who became document examiners upon retirement from the government. These people took a two or three week training course from the Secret Service or the FBI and set up shop. The Secret Service and the FBI have issued letters stating that the two to three week programs are not sufficient background as training for becoming a document examiner. They both recommend a two to three year apprenticeship with a government agency.

People in the private sector do not have access to a two or three year apprenticeship. Therefore, document examiners in the private sector have varied backgrounds. Some people with a graphology background have used that as the basis for testifying as a document examiner. While the study of graphology can be a valuable asset, it is not sufficient training in the field of document examination.

Some poorly-trained examiners will base their opinion on letter forms. They fail to consider all of the other characteristics that make up an individual's handwriting. Relying only on letter forms can lead to incorrect analysis when comparing handwriting.

SUMMARY

Disagreement over the authenticity or spuriousness of documents is the result of various factors relating to the material examined, the skill and health of the writer and the skill of the document examiner. There will always be differences and some of these will be merely a difference of opinion. When document examiners fail to adhere to the principles of their discipline, they error in their opinions. This is a disservice not only to the courts, but also to the field of document examination.

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[1]Matley, Marcel. Reliability Testing of Expert Handwriting Opinions.

The Case of the Promissory Notes

An elderly woman began having serious health issues. By the year 2000, she had reached a point where she could no longer sign her signature. She had two sons who would inherit her estate. After she died, one of the sons presented his brother with preprinted promissory notes that he claimed their mother had signed when she borrowed money from him. The notes covered 3 years, 1997, 1998 and 1999.

I usually start my examination with copies if the opposing party has the original documents in case I find against my client. In this case, it was difficult to determine if the signatures were poorly executed because of declining health or because they were not genuine. Since the originals were available, we asked to review them.

Figure 1

Mary Helen Bean, Bill and I went to the law office and examined the originals. The first thing that we noticed was white-out on the originals at the top of each page. The number, 2, could be clearly seen under the white-out. See Figure 1.
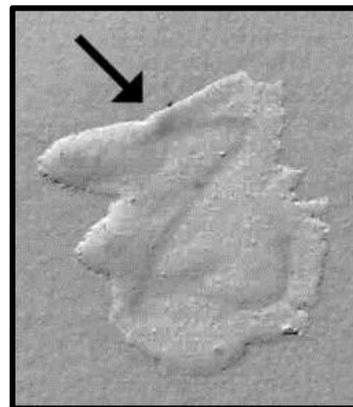
Bill observed that the three documents had the bottoms cut off with a pair of scissors. The three documents had been held together when cut and one of the documents appeared to have had some printed matter on the bottom of the form in the lower right hand corner. Only the tops of some letters was present but I suspected that the wording would be "Revised". A trip was made to the stationery store for copies of the preprinted forms and the bottom right hand corner of the forms read, "**Revised 10/1/2000**." Obviously, the elderly woman could not have signed the promissory notes.

The opposing attorney requested a deposition shortly before the trial. When I told him that the promissory notes were not genuine, he asked for an explanation. I handed him the preprinted forms from the stationery store and showed him the dates on the documents. The case settled after the deposition.

During questioning, the opposing attorney seemed very knowledgeable about handwriting and I wondered who he had consulted. At the end of the deposition he pulled out a copy of my book, "*The Attorney's Guide to Document Examination*" and asked for my autograph. He also informed me that he had recommended me to his colleagues even though we had not worked together.

This case taught me the importance of reviewing original documents whenever possible since alterations cannot always be detected. While many cases can be solved from photocopies, occasionally a case comes along that requires an examination of the original.