

# FORM LEVEL

## THEORETICAL CONSIDERATIONS

**Marc J. Seifer, Ph.D.**

*The life of handwriting lies in the strength of its form.*  
*Ludwig Klages*

**ABSTRACT:** The Form Level, or global quality of the handwriting, takes into account such variables as overall style, rhythm of movement, structure of the letters, left and right trend, connection versus disconnection, traditionalism versus originality, negation of form and arrangement on the page. After reviewing the theories of Klages, Sonnemann, Wolff, Mendel, Roman and Anthony, the author extends the discussion to consider neurological factors such as the link between rhythm and interhemispheric communication.

### HISTORICAL REVIEW

The “key to unlocking a person’s overall personality,” according to Ludwig Klages, is in the evaluation of the “style value”, “formniwo” or Form Level of a handwriting. Klages generalized by classifying handwritings into either “positive” or “negative” categories. A Form Level score was arrived at by looking at the Gestalt first, and then considering the rhythm, arrangement of space and originality. Six divisions were created ranging from very high to slightly above and below average to very low Form Level.<sup>1</sup>

Klages linked a person’s Form Level in handwriting to other natural processes such as the “perfect expression” of form as seen in the “purely natural form of an organism.” There is a relationship, he maintains, between the shapes of plants and animals to the shapes created by humans through the movements and forms of handwriting. The key difference is that man is influenced by an extra component, the mind, which is “non-physical” as opposed to physical forces which create the physical forms of life.

To what extent, he asks, does man’s mind influence/control the rhythm of life, and to what extent does the rhythm of life affect man’s mind? We note here, a reciprocal arrangement. How has man overcome, incorporated and integrated this life rhythm?

Manifesting from the writing’s Gestalt, the concept of originality, or lack thereof, is a key factor. The opposite of originality, which he lists as “negation of forms” include “banality of form, stereotypical forms and school type forms.”

Excessive features reduce Form Level, whereas harmonious features enhance it. High Form Level, can be seen in the fluid, simplified script of a New York City artist, Figure 1, whereas low Form Level can be seen in the artificially enhanced writing of a college student in Figure 2. Low Forminwo can be seen in crude and neglected forms, changing slant, poor baseline and arrhythmic connections, whereas high Forminwo can be seen in aesthetic forms, easy flow, good organization, trizonal dynamics and overall clarity. All trait and trait clusters are modified by the Form Level, and every trait has

within it ambivalent and/or antithetical components. Thus, even positive traits may also have negative aspects. Each trait should be seen as a multifaceted potentiality. One's strength can at the same time be one's weakness. For instance, if a so-called "Democrat" is liberal, he may also be lax, if a leader is strong, he may also be stubborn. In both cases, the same trait may be responsible for different response patterns to different situations.<sup>2</sup>

Marco  
Been extremely busy. Yes -  
am working on outline still.  
Have been under the weather  
for a few days.  
Big appointment tomorrow  
for another job.  
Bob has rest of stuff.  
Mer

**Figure 1. An example of harmonious writing and high Form Level of an artist. Note the extreme creativity and flow of the Robert signature.**

Forminwo can often be ascertained quickly at a glance, even though the component of what makes up a Form Level are rather complex. These components can be analyzed from at least four separate perspectives. We could consider the graphic components, corresponding neurophysiological elements, cognitive and psychoanalytic aspects.

Essay Exam Next Tuesday

1. O.M. - Discuss pluses and Minuses
2. Those Three (3)
  1. Humanistic Psychology - overview

**Figure 2. Excessive features, or secondary elaboration reduces form level in this student's handwriting. Note poor spacing, poor baseline and lack of control over size in the word "pluses" line 2. All of this serves to lower Form Level score.**

Sonnemann notes that Form Level is the “overriding factor” which modifies each trait in a handwriting. For example, the use of a Greek  $\in$  in a handwriting that has low Form Level, would have a different meaning than when it is found in a high level writing.<sup>3</sup> The same could be said for flourishes, wavy baselines, use of print script and use of thread. Mendel modifies this statement to say that Form Level is the “yardstick” which allows for differentiation of the same characteristic between two writers. The question then arises as to whether or not it really is the “same characteristic.”

Figure 3 contains the handwritings of three females who all make use of this Greek  $\in$ . The top writing is that of a college student who dresses in a provocative fashion and who has a tongue ring. At the time of writing, in the year 2002, tongue rings are common, found as frequently as one or two per class of 30. The writing is slack and has a disturbed rhythm, sometimes with ample letters, and at other times with neglected forms, e.g., the g-loop of the second g in “going”, line 3 and in the o of “to”, line 4. Nevertheless, the letter is well organized, and the Greek E is fairly well integrated into the body of the script.

The middle writing contains a conventional style offset by a deep need to stand out. This writer is seeking to establish a separate identity, but, so far, the attempt remains superficial.

The bottom script is the most disturbing. The wiring is distorted, and there is a tortured feeling to the forms. The Greek  $\in$ , for some reason, has an important symbolic aspect for the writer. Due to the lack of the structure of the vertical axis, one would guess that there was a good amount of dishonesty in the household that she grew up in. One also suspects sexual abuse in childhood, although this is unconfirmed.

The overall arrangement, according to Mendel, can be analyzed in terms of the handwriting’s general layout on the page. Does it appear orderly or disorderly? Crowded

or dispersed? Form Level, according to Mendel's interpretation of Klages, can be broken down into four major components:

---

I'm sorry I couldn't be  
in class today. I'm sick and  
going home early. I didn't want  
to wait any longer to pass  
in my paper though. So here  
it is.

---

I dreamed I was traveling to  
Atlantic City by car and it only  
took three hours to get there.

Jane Green

---

Kids used to use their imagination, they  
would spend the day outside playing, inter-  
acting & thinking. Now it's all computers  
& video games, they don't have to use  
their imagination, it's all done for them.

---

**Figure 3. The Greek E appearing in 3 female handwritings. Where the Greek E is well suited in the top handwriting, it appears forced in the middle sample and distorted in the bottom sample.**

**Rhythm:** harmony in forms and spaces, richness and variety of organization.

**Symmetry:** inner balance, a person's fit in society.

**Simplification:** does a person try to improve himself, that is, modify beyond convention?

**Legibility/Fluency:** purposefulness mixed with social cooperation.<sup>4</sup>

Time is a key factor. How much time does the writer allow himself in the act of writing? Graphologically, this is linked not only to speed, but also to simplification and rhythm. A disturbed rhythm may in part, be due to the person's general inability or unwillingness to spend the time necessary to execute the letters in a completely clear and well paced fashion. Roman writes that Klages breaks rhythm down into three divisions:

**Rhythm of Movement:** the periodicity or repeating element in the writing: extensions into the vertical and horizontal dimensions, smooth or jerky nature of the stroke and the quality of the speed.

**Rhythm of Form:** the construction of the letters and interrelationship of the parts: simplification or elaboration, originality of letters, types of connections, naturalness, linearity or pictorialness of style.

**Rhythm of Arrangement:** the spatial distribution of the graphic pattern as a whole: the margins, figure/ground relationship, spacing and trizonal components.<sup>5</sup>

This last area is what Mendel calls “rhythm of space”, which measures space within letters, between words and lines, and relationship to margins. Is the spatial arrangement harmonious or disharmonious? Werner Wolff links this last area to the “principle of configuration” and to his “diagrams of the unconscious,” which will be discussed below.

In the area called “rhythm of form,” Mendel discusses the concept of symmetry. Is one zone overdeveloped at the expense of another? Or are there harmonious proportions between height, width, pressure, slant, use of loops, bars, dots and flourishes? Saudek’s concept of “dominants” and “counterdominants” could be integrated here as well.

Originality and creativity are also key factors, and Mendel differentiates between the two:

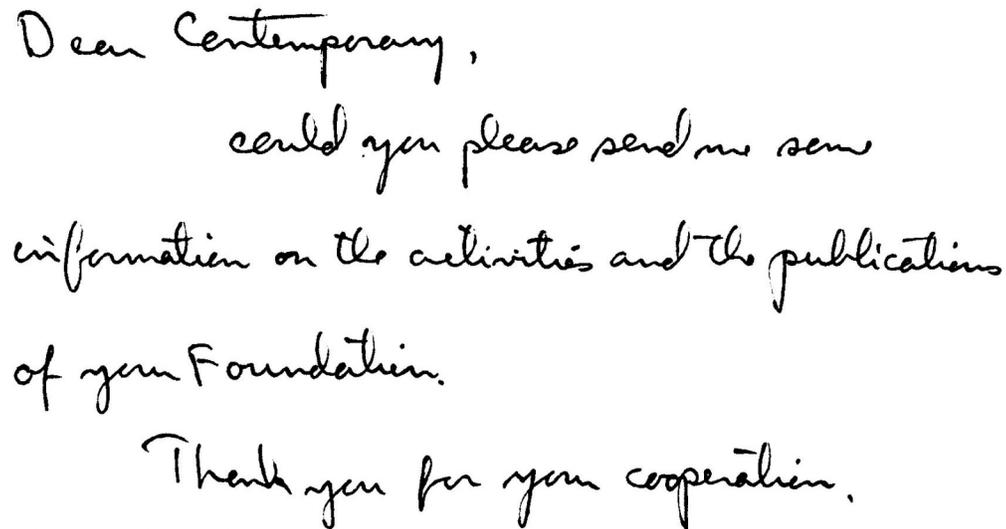
**Original** is individual.

**Creative** adds something new.

Creative people are always original, but the reverse is not always true. “To invent and use new and better characters or connections of characters is a feat perhaps only a genius can achieve,” he notes. Creation in writing “must facilitate the writing.” It must be easy to do, and be written in such a way as to not impair legibility. Mendel notes that “only a person who does a great deal of writing who is daily confronted with the need to create more easily executed characters” will develop (or tend to develop) his handwriting in this way. Creativity could also be measured in life as well as in handwriting. For instance, a carpenter who does no writing may have a crude penmanship but be highly creative. I personally knew such a man who, although in his 20’s, happened to be illiterate. Obviously, there would be no way to measure his Form Level because he could not write, but in terms of his carpentry skills, I would have rated him at a very high level.

This brings us to one of the greatest difficulties there is in the analysis of handwriting, and that is, in comparing the handwriting of one who writes a lot, such as a professor, with one who does not write at all, such as a builder. Certainly, in nine times out of ten, the professor will have a higher Form Level. Highly educated people may have extremely high Form Levels, and yet they may also have psychological problems which are more easily masked because they are so glib with the actual act of writing. Simultaneously, well-educated people and glib writers who do not make much effort to alter their handwriting from the learned standard, (e.g., the Palmer method), may at the

same time be creative individuals, but their creativity simply does not show up in any conventional way in their handwriting (e.g., in the creation of unusual or original forms).



Dear Contemporary,  
could you please send me some  
information on the activities and the publications  
of your Foundation.  
Thank you for your cooperation.

**Figure 4. An example of what Gille-Maisani calls "aerated writing", whereby the space between words has deep significance for the writer.**

Usually, in these instances, the creativity shows up in the Rhythm of Form and Rhythm of Spatial Arrangement, e.g., organization on the page will play a key factor. This type of creative person may have what Dan Anthony calls touch-points, yet, at the same time, original letter forms or original connections may not appear. Touch-points are found by using a compass, ruler and pen to connect the tops of letters and diacritics that tend to line up rhythmically in exacting fashion even though letter heights and baselines may vary. For instance, in these types of writings it is not uncommon to find three or four i-dots lining up with exact precision diagonally down a page.<sup>6</sup>

Professor Jean-Charles Gille-Maisani discusses this concept of the Rhythm of Spatial Arrangement, more in terms of the overall placement of the words than in the link between the letters. "What a man does not say is as important as what he does say," says Gille-Maisani. Harmony can be perceived in the "distribution of the masses." A person who leaves a significant amount of blank spaces often portrays a "need for mental clarity." These kinds of handwritings Gille-Maisani calls "aerated writings." See Figure 4, which is the handwriting of a college professor of chemistry. These writers tend to be "reflective in thought and judgment." They are also objective as they can "stand back" and perceive. They may be "steady and critical, capable of restraint," yet at the same time, suffer from feelings of "isolation and distancing." In the opposite situation, a

person who “entangles lines” may be one who “compensates by a debased extraversion,” and thus might be “excessively open to change.” Writers who “squeeze” letters together oftentimes are close with relatives, but “reserved with strangers.”<sup>7</sup>

## THE PSYCHOGRAM

If we look at the structure of handwriting and its relationship to the concept of Form Level from the neurophysiological perspective, we note that the writing could be understood from a left brain/right brain point of view, or as a manifestation of an integrated process involving the brain as a whole.

The higher the Form Level, the greater the use of advanced centers of the brain. In Dan Anthony’s *Psychogram* book, (which is a veritable Bible for any serious graphologist), he links the Form Level score to such variables as:

Organization	Alignment control
Simplification	Pressure
Rhythm	Lower zone
Spontaneity	Speed

and also emphasis in the connecting strokes of the arcades, angles and garlands.<sup>8</sup> Graphologically, this translates into dynamic handwritings that display excellent rhythm, good use of trizonal dynamics, harmonic use of pressure, sound organization and a rightward trend. What the Psychogram has attempted to do, is break down the Gestalt into its parts and then reconstruct the whole in a mathematical and pictorial way through the use of a mandala-shaped chart.

## RHYTHM: THE BALANCE BETWEEN CONTRACTION & RELEASE

This brings us to the dual nature of handwriting analysis, analyzing a writing by looking at the whole, and breaking down the process into its constituent parts. Both Sonnemann and Mendel discuss the concepts of the vertical and horizontal axes. Up and down movements, or the vertical dimension, relate to a person’s “self-orientation and available values.” Its downstroke is called the “stable axis,” and portrays, according to Mendel, the “backbone” of the writer. The horizontal or mobile axis expresses our “attitude towards the future and our fellow man” and also the exteriorization of libidinal drives. Sonnemann calls this the person’s “orientation to reality.”

These two processes, the up and down movement and the one from left to right occur in Time, and thus, this would also relate to what Klages calls the Rhythm of Movement. A periodicity or a repeating element should appear in a natural way displaying the Rhythm of Space, or the Principle of Configuration which Wolff discusses.

Other processes to be considered in the creation of these two axes are cognitive and emotional factors, a homeostatic quality which seeks to control or integrate these two diametrically opposed criteria, and pressures erupting from past, present and future considerations, e.g., emotional baggage from childhood, present day to day pressures, and goals for one’s future. How are all of these processes controlled by the brain? What is happening psycho-motorically, i.e., in terms of muscle groups used in the expression of

fine motor control needed to hand write? What is the link between the rhythm of Contraction (downstroke) and Release (upstroke), and for the right-handed writer, movement to the right, Release, and movement to the left, Contraction.

### THE PROBLEM OF THE LEFT-HANDED WRITER

Things are much more complex for the left-handed writer for this dynamic, because a releasing movement away from the body for a lefty is to the left, and this movement opposes the natural rightward progression of the writing. Simplistically stated, left-trend in a right-handed writer generally serves to lower Form Level, but the same movement in a lefty should not affect Form Level to the same extent or even in the same way. In other words, a left-tending movement that would have a negative connotation for a righty could have a positive connotation for a lefty, for the simple reason that it is a contractual or restrictive movement for a righty and an expansive releasing movement for a lefty. That said, the lefty still needs to curb his natural releasing movement to the left because it opposes the goal of progressing to the right when he writes. He therefore must find release in a movement to the right, which is, generally a contractual movement for him because it is a movement towards the body. Release will therefore be found in a different set of muscle groups in the arm and wrist for the lefty as compared to the musculature release in a righty. The end result is that right trend will still be seen in a positive light for a lefty even though it is more difficult for him to execute than right trend for a righty.

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Dear Sir:  
Please deliver information  
on <sup>metaphysical</sup> metapsychical phenomena or about  
your organization etc.  
Thank You

Figure 6. This writer has much difficulty controlling the impulse pattern. The distortion in size and spatial arrangement serves to greatly reduce Form Level score.

Figure 5, that of President Bill Clinton, is an excellent example of unusual rightward trend in the handwriting of a lefty. The natural way for a righty to make the letter l is to swing back to the left to create the loop. This movement would be even easier for a lefty to execute, so for a lefty to come up with this tent-like l is even more extraordinary, and it can be seen as a sign of brilliance. This movement is also a form of primary thread, which is a thread in the vertical axis. Secondary thread can be seen at the end of the signature. Symbolically, on the positive side, the rightward trend reflects a forward thinker. On the negative side, it may also symbolize a wish to escape the past. Note the tight capital I's. Here we see the dual nature of Bill Clinton, out there shaking hands and enjoying the limelight, as seen in the open signature, and also hiding something, as seen in the restricted left-leaning capital I's.

## **UPSTROKES AND DOWNSTROKES**

Sonnemann and Jacoby begin to clue us in on the relationship between Contraction and Release and Conscious and Unconscious processes. Rightward trend involves the process of externalization, whereas leftward trend involves contact avoidance. The first is future oriented, the second, past. During the act of writing, complex letter forms are created. At the same time, thoughts, words, sentences and paragraphs are being formed in the mind of the writer as individualized letter forms are created. If handwriting were not a predominantly preconscious, automatized process, thinking and writing simultaneously would not be possible. Handwriting is thus a mainly preconscious activity.<sup>9</sup>

Nevertheless, handwriting is not one continuous smooth operation. Sonnemann discusses that by its nature, handwriting is a discontinuous process involving changes in direction, separation of words, alterations in size and speed, and continuous shifting from contractual movements to ones of release. Here is where the concept of Form Level enters. For handwriting variables fall essentially into one of two categories:

1. Contraction/Release
2. Overall pattern (e.g., form quality)

Up and down strokes, Sonnemann continues, are executed as the hand moves across the page in time. Contraction involves movement towards the body and thus ego emphasis, volitional processes, control over emotions and cognitive functions. Releasing movements away from the body involves spontaneity, object emphasis, impulsivity and fantasy life. The structure of individual letters, the person's backbone and expression of volitional control are linked to the downstroke. The upstroke is mainly just a way to get to the next downstroke. Thus, downstrokes are more linked to conscious procedures, whereas upstrokes are more unconscious procedures. In Sonnemann's book, he clearly points out that if all the upstrokes of a writing are eliminated, much of the writing is still legible; whereas if all the downstrokes were eliminated, the writing becomes illegible.

It is at this point that a leap to a discussion of brain organization can occur. Downstrokes are apparently more linked to left brain activity, and upstrokes more linked to right brained activity. This hypothesis is supported by Jeanette Farmer who suggests

that contracted writers tend to be more left brain dominant, whereas released writers tend to be more right brained.<sup>11</sup>

Taking it a step further, we know that language is centered in the left hemisphere, and pictures are more centered in the right. However, there is some evidence from Luria (1980), that consonants are more left brain centered, and vowels more right brain centered.<sup>10</sup> Note that the last phrase is possible to read even without the vowels. This is analogous to the fact that one can read handwriting if all the downstrokes are present, but cannot do so if only upstrokes are present. What all of this suggests is the possibility that the process of language and the creation of written speech, i.e., handwriting, apparently involves a close interplay of interhemispheric communication. The language center is not just located in the left hemisphere, but involves both. An example of this was pointed out by an associate of mine who suffered a temporary but debilitating stroke to the left temporal lobe, Broca's area, which is, the language center for speech production of his brain. He could "think" the alphabet, but he could not "say" the alphabet for a full twelve hours.<sup>13</sup> Rhythm, which Klages tells us is the balance between contraction and release, therefore also suggests a balanced relationship between left and right hemispheres of the brain as well.

Taking this a step further, we can thus see that the concept of Connectedness is directly associated to the link between conscious and unconscious processes, and perhaps, also, to the left and right hemispheres of the brain.

The connecting of letters with upstrokes involves an integrated contiguous movement to the right which Jacoby associates not only to the ability of the writer to see how things are linked, but also to the writer's "intellectual, emotional and practical adaptability." The term "spontaneity" is associated here. Connection suggests spontaneity and an element of inhibition, disconnection suggests the opposite.

From a mechanical point of view, disconnection, involves the elimination of upstrokes, which Jacoby tells us, "are the very lines of the connection of bridges between the ego and the world." Thus, connectivity measures the degree of connection between the person and the world, the degree of social adaptation, self-coordination and spiritual connection. Too much connection, on the other hand, can be associated with too much adaptability, with an overexcited nature, one who is obsessed, or one who has uncontrollable thoughts.

Arrhythmic disconnections reflect a schism within that. People who have been adopted, people who have never connected emotionally with the mother, people who feel isolated, schizophrenic individuals and the epileptic split-brain writers all display this graphic variable.<sup>11</sup> Lack of rhythmic connections, thus shows a lack of a natural ability to access the unconscious, and corresponding right hemispheric structures of the brain. Obviously, Form Level will be affected in a negative way if there are arrhythmic disconnections.

There is much disturbance in the rhythm of spatial arrangement in Figure 6. Great lack of emotional control is revealed in this low Form Level sample. Contrast this sample with Figure 7. Although there are some significant size and slant fluctuations, overall, the Gestalt pattern is evolved. This is a high level thinker who has excellent organizational skills. Her great emotional range is offset by keen intellectual insight.

High Form Level scores, on the other hand, would display natural connections, excellent organization and rhythm of spatial arrangement. Neurophysiologically

speaking, this would translate into well coordinated interhemispheric communication, i.e., easy access between left and right brains, conscious and unconscious processes, and well developed areas of the following four areas of the cerebral cortex:

**1. CEREBRAL CORTEX:** The most “human” part of the brain.

**Frontal lobes:** where goals, higher cognitive processes and abstract thinking is formed, and where motor output begins.

**Motor cortex:** where muscle coordination is controlled.

**Temporal lobe:** where sounds, words (left hemisphere) and music (right hemisphere) are processed.

**Occipital lobe:** or visual cortex where words and letters would be seen.

**Parietal lobe:** where coordination of these lobes will take place.

On two sides of the left temporal lobe are Broca’s area where speech is produced and Wernicke’s area where speech is comprehended. In brain damaged individuals and those who suffer from dyslexia, there may not be easy access between the visual cortex and the temporal lobe and Wernicke’s area. These types of people have difficulty reading words as they have trouble getting from the visual cortex to the region of the brain which can interpret what they have seen. Reading aloud helps offset this problem.

High Form Level involves an integrated use of emotional factors, and thus easy access to deeper brain centers such as found in the midbrain and brainstem:

**2. LIMBIC AREA:** Where emotions are tied in.

**Thalamus:** the main switchboard of the brain which transfers information from the lower centers to the higher centers. It is also believed that one’s self-image is tied to the thalamus.

**Hypothalamus** (in the midbrain): controls sexual and aggressive drives, emotions and link to the endocrine system, hormone production and the pituitary gland.

**3. BASAL GANGLIA:** Where important mechanical and instinctual aspects are organized.

**Corpus Striatum** (in the brainstem): which is an inhibitor of instinctual drives.

**Globus Pallidus** (in the brainstem): which is an expresser of instinctual drives.<sup>12</sup>

**Substantia nigra:** which produces dopamine sent to the rest of the basal ganglia for augmenting fine motor control.

**4. CEREBELLUM:** Handwriting is initially organized in the cerebral cortex and is then transferred to the cerebellum via the thalamus as an automatized subroutine. Since this process is mostly a preconscious activity, symbolic correlates will be transferred as well.

A fifth area would include physical factors outside the brain such as, in the negative sense, any injury to the shoulder, arm or hand.

High Form Level suggests that the writer would have a well-coordinated, integrated and highly developed brain.

### CONSCIOUS, PRECONSCIOUS & UNCONSCIOUS DETERMINANTS

Werner Wolff notes that the general direction of writing is conscious, the automatized steps involved in creating the numerous letter forms as in the hand gliding across the page is preconscious and the overall pattern, probably the slant, and the placement of such things as diacritics is unconscious. Wolff differentiates between movements that are learned -- that start out as being conscious, and over time, after practice, become preconscious, and movements that are unconscious -- not learned, inborn. This is the form and quality of the writing, e.g., why we emphasize a curve, why we choose a linear or pictorial graphic pattern, etc.

Wolff's book, *Diagrams of the Unconscious*, could be looked at from the Form Level point of view as really being an attempt to analyze the rhythm of spatial arrangement. It is also an attempt to find a meeting ground between inborn primeval processes and those learned after birth. These are combined into what he calls the principle of configuration: How the words and preconscious patterns lay out across the page.<sup>13</sup>

4. Leibniz/Spinoza -  
- Leibniz described his theory of monads as an infinite number of units, that make up all matter + energy - this microcosm reflects the laws that govern the macrocosm of the Universe. As above, so below. He was strongly influenced by Spinoza when they spoke of our minds being a reflection of the thinking-conscious component of the Universe. Spinoza's monothology is seen in his description of God - a unifying force that unites all mind, matter + nature.

**Figure 7. Although there is some entanglement of lines, size distortion (lower zone lengths) and changing slant (g leaning back in the word being, line 5) overall, this is a very positive handwriting. The legibility, rhythm of spatial arrangement, simplification and aesthetic value all contribute to a high Form Level score.**

In Thelma Seifer's article, "A Right Brain Approach to Handwriting Analysis," she attempts to discuss how one goes about measuring this configurating principle. It is her contention that this overall pattern is directly linked to unconscious factors in the writer.<sup>14</sup> Certain symbols could be highlighted in different colored pens to help reveal the

pattern, or a ruler could be used to connect touch-points either within words or even between words horizontally or diagonally down a page. This unconscious symbolic patterning represents an integrative function, an aesthetic Gestalt which is a global factor which affects Form Level in a positive way.

The question remains, what are we really looking at when we look at Form Level? Graphologically, this paper has attempted to say that we are looking at rhythms in the movement, form and distribution. Form Level is that quality of the Gestalt that modifies the individual parts, that colorizes different graphic clusters and their psychological counterparts to give the handwriting analyst a clearer picture of the writer's level of integration and uniqueness of personality.

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- 1 Karohs, Erika. *Ludwig Klages: From His Works*. Pebble Beach, CA: 1964.
  - 2 Mendel, Alfred. *Personality in Handwriting*. London: Peter Owen Ltd., 1947.
  - 3 Sonnemann, Ulrich. *Handwriting Analysis*. New York, NY: Grune & Stratton, 1950
  - 4 Mendel, Alfred. *Personality in Handwriting*. London: Peter Owen Ltd., 1947.
  - 5 Roman, Klara. *Handwriting: A Key to Personality*. New York, NY: Noonday Press, 1970.
  - 6 Anthony, Daniel. The Nine Signature Protocol. *Journal of the American Society of Professional Graphologists*, v. 2, Autumn 1991, pp. 95-108.
  - 7 Gille-Maisani, Jean-Charles. *The Psychology of Handwriting*. London: Scriptor Books: 1992.
  - 8 Anthony, Dan. *The Graphological Psychogram*. New York: Siegel & Vaisman Publishers, 1983, revised edition.
  - 9 Seifer, Marc. The Preconscious in Handwriting. *Journal of the American Society of Professional Graphologists*, v. 1, Fall 1989, pp. 63-80.
  - 10 Luria, Alexander. *The Working Brain*. New York: Basic Books, 1980.
  - 11 Farmer, Jeanette. Measuring the Psycho-Motor Impulses in Handwriting in four Quadrants of the Brain. *Journal of the American Society of Professional Graphologists*, v. 4, 1994.
  - 12 Seifer, Marc, and Goode, David. Handwriting: A measure of Muscle Tension in Schizophrenics and Normals. *National Society for Graphology Newsletter*,

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- 12/1974. Tenhouten, Warren, Seifer, Marc & Siegel, Patricia. Alexithymia and the Split Brain. *Psychiatric Clinics of North America*, 9/1988, pp. 331-338.
- 13 Seifer, Marc. Handwriting & Brainwriting. In A. Carmi, & S. Schneider (Ed's). *Experiencing Graphology*. London: 1988, pp. 95-124. Bernard, Marie. *Pophal's Handwriting/Brainwriting*. New York, 1980Seifer, Marc. Handwriting & Brain Trauma, *Cerebrum*, (in press).
- 14 Wolff, Werner. *Diagrams of the Unconscious*. New York: Grune & Stratton, 1948.
- 15 Seifer, Thelma, & Seifer, Marc. A Right Brain Approach to Handwriting analysis. *Journal of the American Society of Professional Graphologists*, v. 2, Autumn, 1991, pp. 109-130.
- 16 Saudek, Robert. *The Psychology of Handwriting*. London: George Allen & Unwin, 1926.
- 17 Jacoby, H.J. *Analysis of Handwriting*. London: George Allen & Unwin, 1973.

**Biography:** Marc J. Seifer, Ph.D., first Editor-in-chief of the *Journal of the American Society of Professional Graphologists*, is a Fellow of the American College of Forensic Examiners. A court qualified handwriting expert, certified by Dan Anthony at New School University, he has worked for the AG's Office in Rhode Island. Featured on the History Channel on the Howard Hughes Mormon Will, and in *The New York Times*, *The Washington Post*, *Taunton Gazette* and *The Economist*, he consulted for The Discovery Channel and 60 Minutes. With articles in *Cerebrum*, *Lawyer's Weekly*, and *Psychiatric Clinics of North America*, he has lectured at Brandeis, West Point, the U. N., in Israel, Yugoslavia, and at Oxford and also Cambridge University in England. Author of *Wizard: The Life & Times of Nikola Tesla*. Dr. Seifer presently teaches Psychology at Roger Williams University.