EVOLUTION OF THE ELIAN SCRIPT

From Code to Calligraphic Writing System.

How this:


Evolved into this…

Then into this:

Loose writing of:
"feelings bleed in tears"
2/2

The Elian script was originally intended to differentiate, at a glance, unfinished notebook writings from those still in progress. Before developing this system I used the letters of the Cyrillic alphabet as sheer phonetic elements: "Tuscany" would thus be written "ТСКАНИ". The more I wrote phonetically in Cyrillic, however, the more my spelling in English deteriorated - "ТСКАНИ" back to English would be written "Tskani;" I needed something else.

Soon after, I came across the numbered nine-square grid (page 3). It occurred to me that each of the nine boxes had a unique configuration, and that with the addition of a numeral, "1", "2", or "3", it was possible to have a coded form for each of the 26 letters of the Latin alphabet. At first I used this grid simply as a code since its initial form had no calligraphic aspects to it. Only when modification led to modification did the potential for calligraphy emerge.

Below is an outline of the code's structure, followed by a series of illustrations that show its formal evolution from code to calligraphic writing system[1].

The starting point of the Elian script was a one-to-one code written in the same sequence as the letters that it codified:

 → "y e a r s . W h a t"
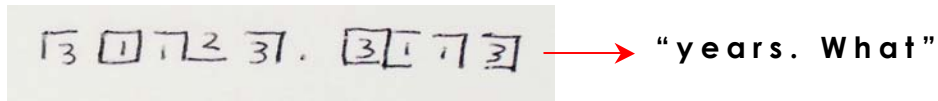
The boxes above with a numeral from 1-3 in them each refer to one specific letter out of a possible three, in keeping with the system shown below:

Each box inside the nine-square grid is unique in shape, such that a set of box coordinates can refer to only one of the nine boxes[2].
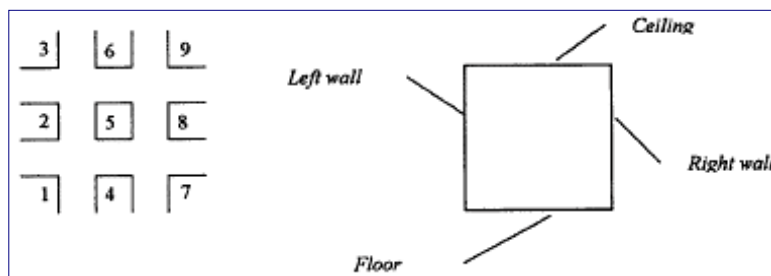
This correspondence of number to box shape is the original code. At that point it served as a code is intended to do, namely "A system of symbols, letters, or words given certain arbitrary meanings, used for transmitting messages requiring secrecy or brevity".

Each subsequent modification to the shape of the code was intended to maintain the system (box shape + number = specific letter) all the while stretching the limits, and always for the sake of speed and flow—common motivations in the transformation of many writing systems[3]. The entire process of change was nearly imperceptible because each modification was needed to make the next alteration possible. Only in hindsight was I struck by the contrast between the beginning and the final appearances of this writing system.

I periodically edited notes into new notebooks and threw out the old ones. As a result only a few examples of the original writings at each stage of this system's development remain.

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[1] This review of the graphic aspects of the Elian script puts aside the fascinating subject of writing systems themselves: what constitutes them, how they differ from or are similar to codes, how they become mainstream, and a slew of other reflections.

[2] Although the specific enumeration above is used, the first box could just as well have started at any corner and gone in any sequential direction. The essential thing is to stay with the enumeration decided upon.

[3] Cuneiform and hieroglyphics are two examples. Professor Robert Fradkin's website at the University of Maryland has elegant animated representations of the evolution of many writing systems,
http://www.wam.umd.edu/~rfradkin/alphapage.html .

Though it is a matter only of recreating the form at various stages, I can't replicate the same tonality of line as there was in the original texts and so I've chosen to use only actual samples.
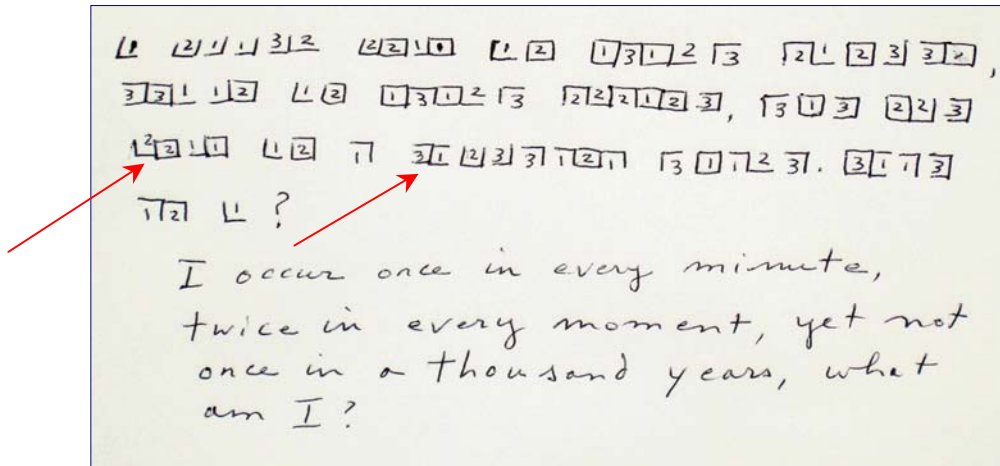

Above - **1** - **Earliest Version** - *Ca. 1980*
Numbers are placed in boxes.
Arrows point to use of common walls for words "once" and "thousand"[4].

In the illustrations immediately below the shape of the boxes and each numeral within them indicates which of the three possible letters is represented:"1" represents the first letter in alphabetical order in that box, "A."; "2" for the second letter in the same box, "J," and "3" for "S" the third letter in alphabetical order in that box, as shown below.
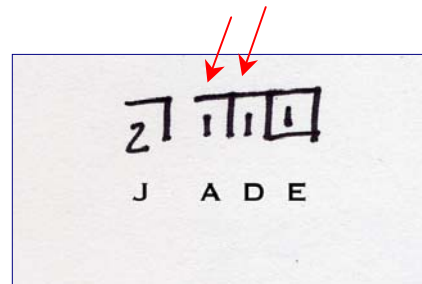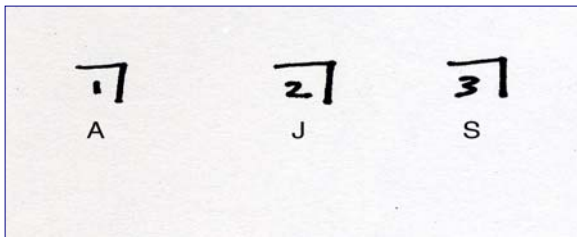

The arrows point to where "a" and "d" share a common wall. It was faster to write if I connected the walls. Later I saw that this linear joining was a prejudice inculcated by the structure of Western alphabetical writing systems and eventually discarded this composition. Its removal was the key to the calligraphic developments that then followed.

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[4] The answer to the riddle is: the letter "m".
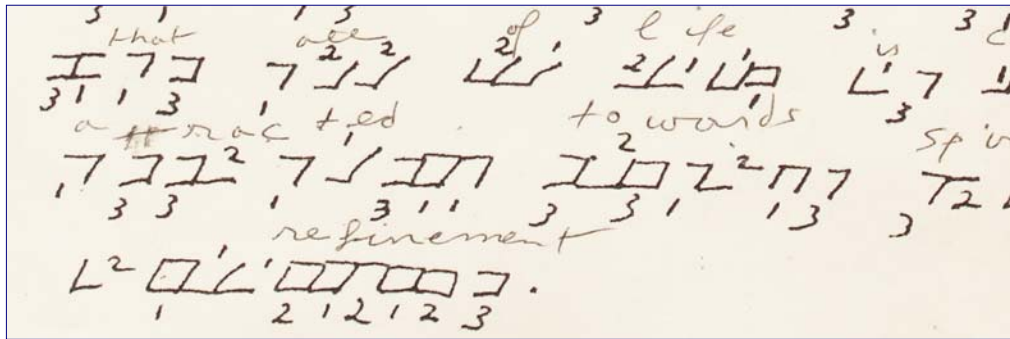
Above - **2 Numbers eventually migrated outside the boxes**. *Ca. 1982*
There is still an effort to keep to the square form and common walls are still used

Within a short time the sides of the boxes became slanted, probably because there is naturally a rightward slant to my writing in the Latin version. By taking the path of least resistance the pace of writing increased. The numerals are now placed well outside of their respective boxes without losing their association to them. The writing was made much easier without the need to fit numerals into boxes and doing so didn't make any difference to the clarity of the system. This last condition dictated whether or not any modification would stay.
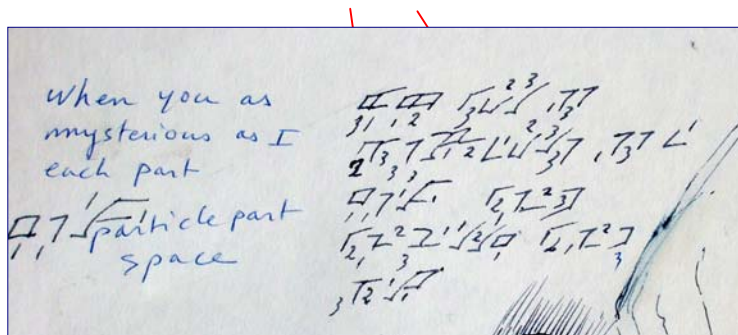
*Above -* **3 Lines lengthen for increased speed of writing**. *Ca. 1983*

Now that I had habituated to the slanted lines, they readily lengthened. The numerals plus the junctures of the lines, within their angular range below 180 degrees, do the work of box and letter specificity, making it inconsequential whether or not the box lines are rectilinear. When snapped to the grid all slanted lines amount to the same information; what is determinative is the location of the point where the lines meet and how many meeting points there are to a given box.
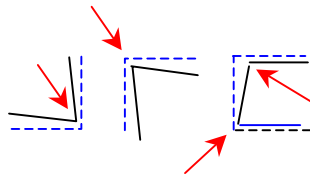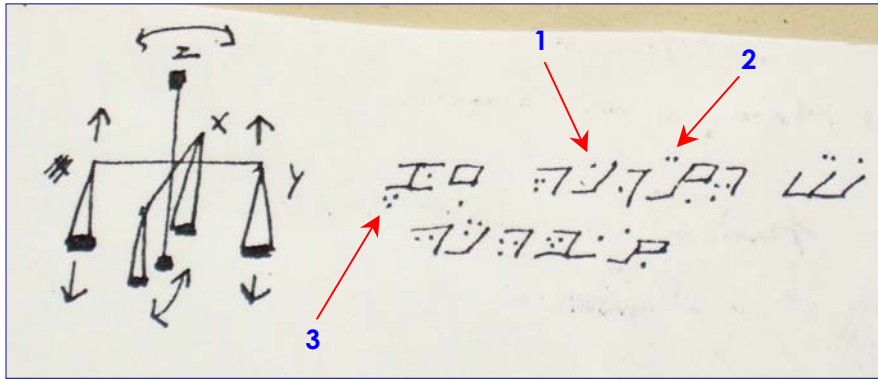
Above - **4** - **Numerals are replaced by equal number of dots** - *Late 1983*

Given that the highest numeral used was a 3, it was a lot faster to replace numerals with an equal number of dots.
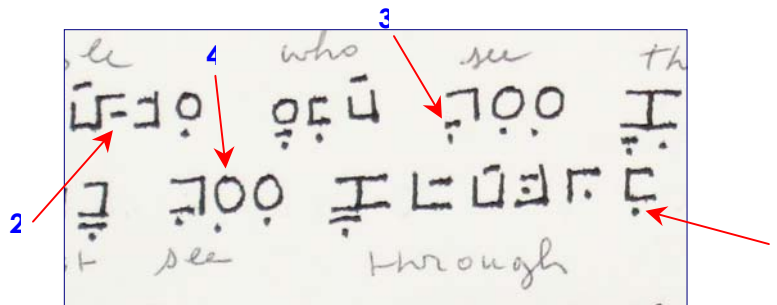

Above - **5** - **Two dots for the 2ⁿᵈ cycle are combined into a dash**. *1984*

Inspired by the tendency for doubled ink dots to seep one into the other, I realized rather quickly that I could blend the two dots into a dash. This was a net gain in speed and ease of writing. The enumerations now consisted of a dot (1), a dash (2), and a dash plus a dot (2 + 1 = 3). The square form of box 5 now becomes a circle since the vital characteristic of that box is complete enclosure (——➤ 4) — a circle is much faster to form than is a square. As evident in the above illustration, I reverted briefly to equal length lines and right angles as a hedge against confusion while in the early stages of using the new element of dashes.
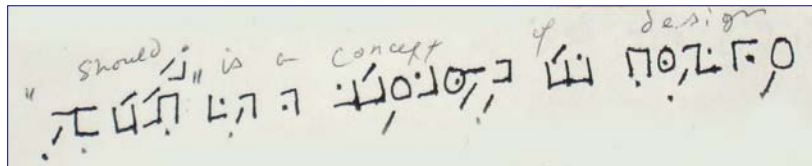
Above - **6** - **Dashes become slanted** *Ca. 1984*

As it was earlier with the lines demarking the sides of a given box, the dashes for the letters of the second and third cycles began to slant. This made the writing process far more fluid.

7
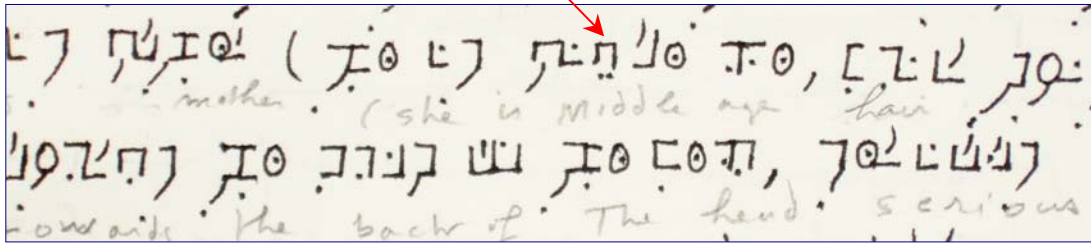

Above – 7 - **Dashes connect to boxes for 2nd cycle** -
Two dots here now mean doubling of a letter instead of a 2nd cycle letter.
(Note the double "d" of the word "middle" in the top line {arrow}.)
This abbreviation was soon discarded. *1985*

      The additional action of lifting the pen to make the dash is now circumvented by lengthening any one of the lines that made up the parameters of a given box and its 2nd cycle, e.g. attaching the dash to the box. At this time the boxes of the first cycle still contain a dot because I hadn't yet realized that I could simply make those lines of equal length and still avoid ambiguity between boxes for letters of the first cycle and those for the second.
      The dash was now used for a letter of the second cycle and the double dots could be used for something else. As indicated in the caption, for a while I used these double dots to indicate the doubling of a letter. This element seemed too arbitrary, so I discarded it.
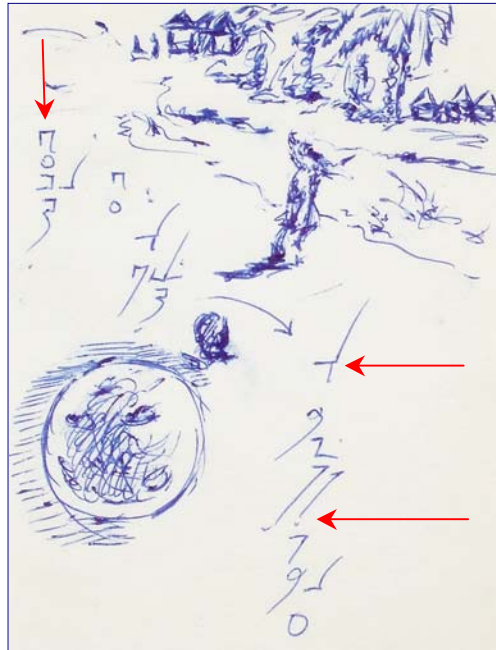
Above - 8 - **Dot for 1st cycle starts to be replaced by equal box line lengths**.
Lengthened line used for 2nd cycle and dot added to it for 3rd cycle (arrows.)
Letter composition starts to stack.
(Writing is in French:". "*le début de la mort* > la naissance,"
"The beginning of death > birth". *Ca. 1986*

Above - **9** - **Stacking of letters due to limited writing space**.
Accents are added to first cycle letters.
(Writing in French: "*le passé du passé –{ la création de la nuit*"}
"The past's past – {the creation of night".}) *Ca. 1986*

With the specification of equal line lengths for the first cycle box, the dot disappears. In the above example the "a" in both instances of the French word "passé" are not equal in length because these notes were rapidly made during a live storytelling performance in Paris on an, approximately, 3.25" x 2" notebook. However, I was aware that they were intended to represent first cycle letters because I had just discovered this option and was quite thrilled about it, as with all of the transmutations. At this stage of the code (and I still thought of it as one,) I was not as concerned then as I was later that it be a tight system since it was still for my private notes.

In the above example, which was done on the same day as that in illustration **8**, I was aware of the importance of making the lines of equal length for the first cycle letters to avoid ambiguity, but it still required a deliberate effort to do so. Forming the boxes of the second cycle letters, however, was very easy because of the reduced need for concentration. Now that the dash was attached to the box line itself, the detached dash was available to add to first cycle letters to indicate accents, a necessary detail in French. This was workable with first cycle boxes but not second cycle ones since the dash there in addition to the lengthened line would indicate third cycle letters. Fortunately most accents in French occur with first cycle letters (a, e, i,) and when they don't it is with the vowel "o" in its distinctive circumflex shape (^) or with a "u" which can take an accent in addition to the dash for a third cycle letter without creating ambiguity.

Over time I've come up with modifications to write words whose elements go beyond those needed for English, but that language is still my primary focus. As with many writing systems, different languages will take on an existing one and adapt it to their own needs.

The size of the above notebooks (3.35" x 2") left me with little space for both text and drawings so I found myself spontaneously stacking letters. To my way of perceiving the notes there was no loss of legibility. I would naturally move my eye from left to write and then top to bottom. This movement is nothing more than a straight line let loose to meander across a field and not an action of scrambling the word; the letter sequence remains preserved.
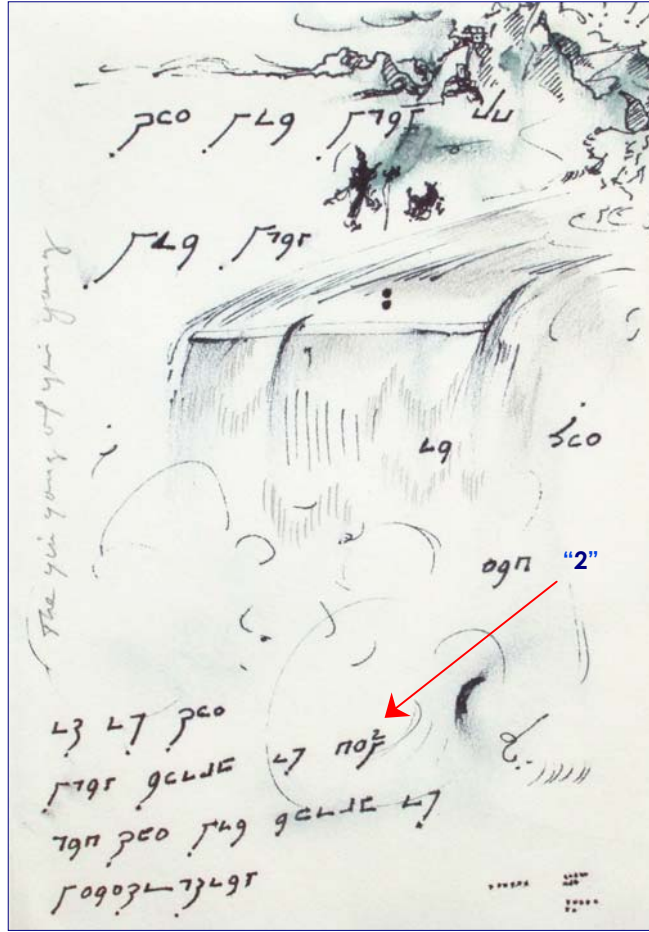

Above - **10** - **Common walls no longer used.**
The arrow points to the numeral "2" that was placed above the coordinates
for the letter "e," to spell "deep." This technique was soon dropped.
Ca. 1987

When necessary I would stack the letters of a word to fit them into the space available, however, I still thought that a linear sequence of writing was the way it *should* be. A year after I began to stack letters I continued to write along a single baseline. By 1987 I began to detach the lines of a given box from those of the neighboring one and discarded common walls. The stacking of letters had loosened each letter from its habitual linear bond and I now saw each letter as an individual element in need of its own distinction.
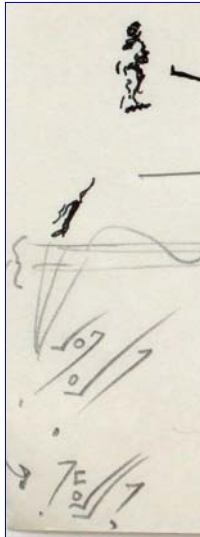
Above **– 11 - Letter sequence stacks more readily with discard of common walls**.
Ca.1987-1988

After 1987 I began to stack letters even when there was room to move across the page. Here is where I let go of the Latin script's straight baseline imperative and discovered a new freedom available within my own system. The more I stacked the letters of words the more I realized that the choice of several baselines meant a word could be composed in different ways, all without loss of legibility

By now I really had to make line lengths equal if I wanted to indicate letters of the first cycle, otherwise I would be confused between whether or not I meant to write a letter of the first cycle or one of the second. The additional focus required by the letters of the first cycle made the loosened restraint for letters of the second cycle all the more vivid which led me to make lengthened lines of the second and third cycle with that much more verve.

The introduction of variable baselines was not only a compositional shift but also a conceptual one. When I reviewed this writing system's evolution I noticed a distinct paradigm shift as I retraced the emergence of descending baselines. The bonds between the letters of a word melted away; each letter tumbled loose and took on an individual presence such that a word revealed itself as an assembly of parts and no longer a solid unit.

The greater use of letter stacking inspired exploration of the compositional possibilities and created two self-sustaining options: to write all in a straight line (as below) or to stack, which could also include letters that traveled along the same baseline. This exploration was somewhat casual because I was still not seeing this writing system as anything more than a private means of recording language. That there might be interesting compositional and visual aspects to it were still peripheral observations.
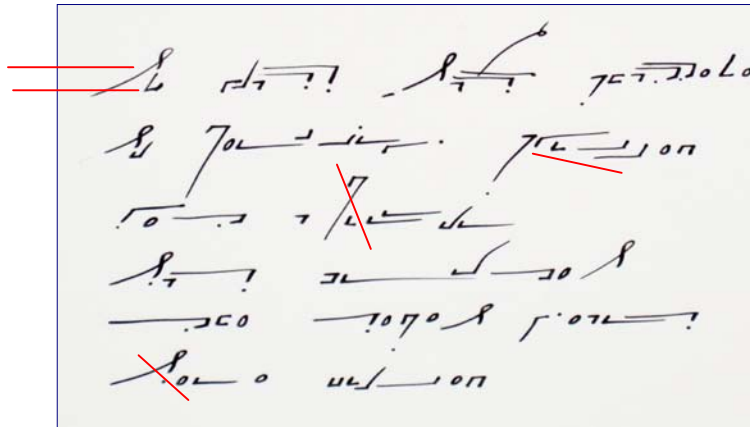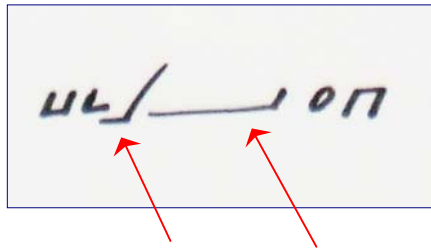
Above - **12 – Calligraphic aspects emerge.**
Drifting baselines naturally occurs (red lines) Ca.1989

      The three basic rules of this system were now firmly established: unambiguous line ratio (equal versus unequal,) writing direction: left to right then top to bottom, and clarity of dash association with its proper box coordinates.

      It was at this point that other aspects of the system came out that until then I was too involved in following the system itself to notice. The above example is among the first where I played with the sweep of the lines' lengths. Even though I was moving across the page as if along a single baseline there was a spontaneous nestling of the letters. It now required a deliberate effort on my part to write all of the letters along a single and consistent baseline and I rarely felt like writing that way.

      The system also permitted any one of a box's lines to be lengthened for the second or third cycles (**12a** below) and also the angles of the connected lines to vary. When I added those variables to the option of shifting baselines it was clear that the greater the number of letters in a word, the greater the different ways in which that word could be composed.


Above – **12a** – The two variations of the 2nd cycle letter "L" in the word "will.)
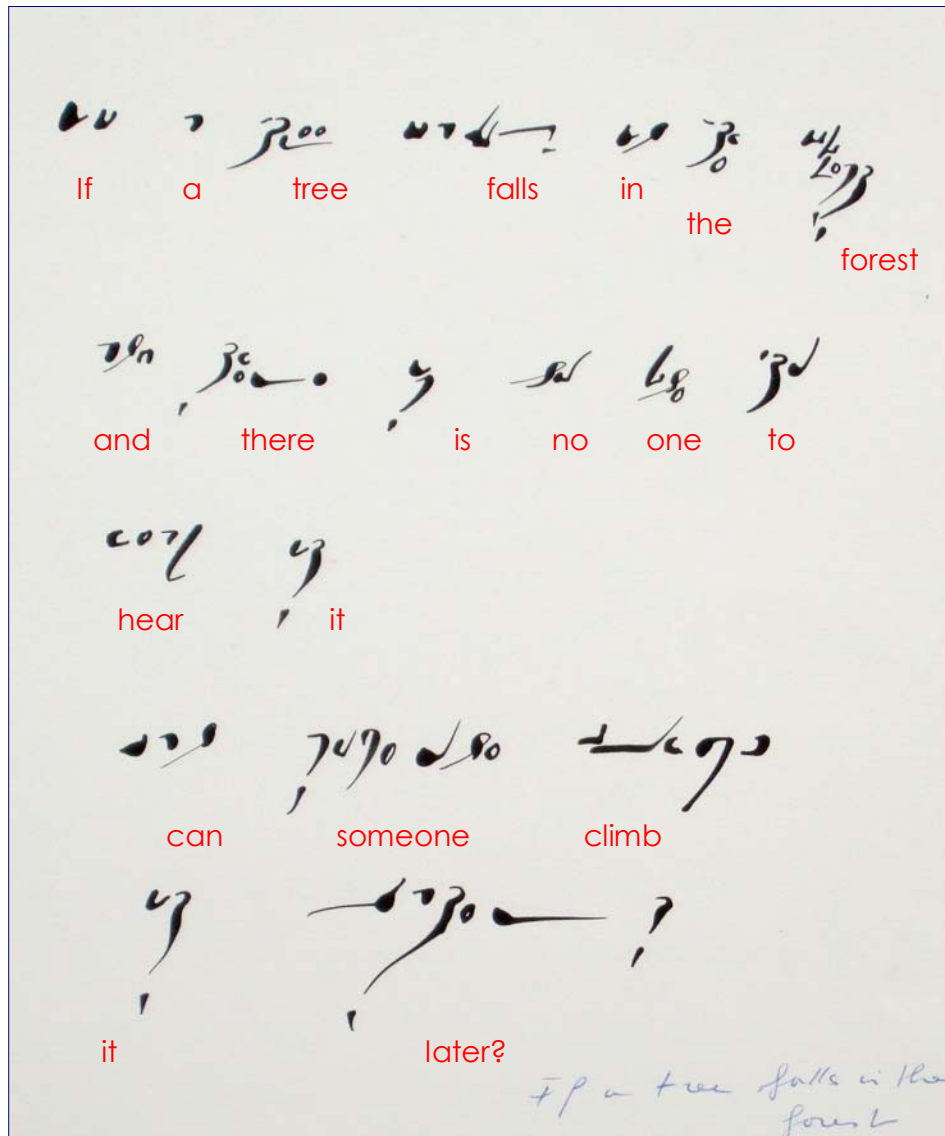
*Above* -**13** - **Calligraphic elements become inherent**.
Ca. 1991

      Once the calligraphic aspect of the system appeared, I deliberately sought out calligraphic writing materials to explore styles of lines (in the above instance quill and pen nibs with Indian ink.) At this point the element of drawing entered that of writing. Not only was the style of line expressive, but each line did not need to conform to any other line, as would be the case with a typography. The overall concern was one of compositional balance rather than conformity, much as it would be with an Asian or Middle Eastern calligraphy.
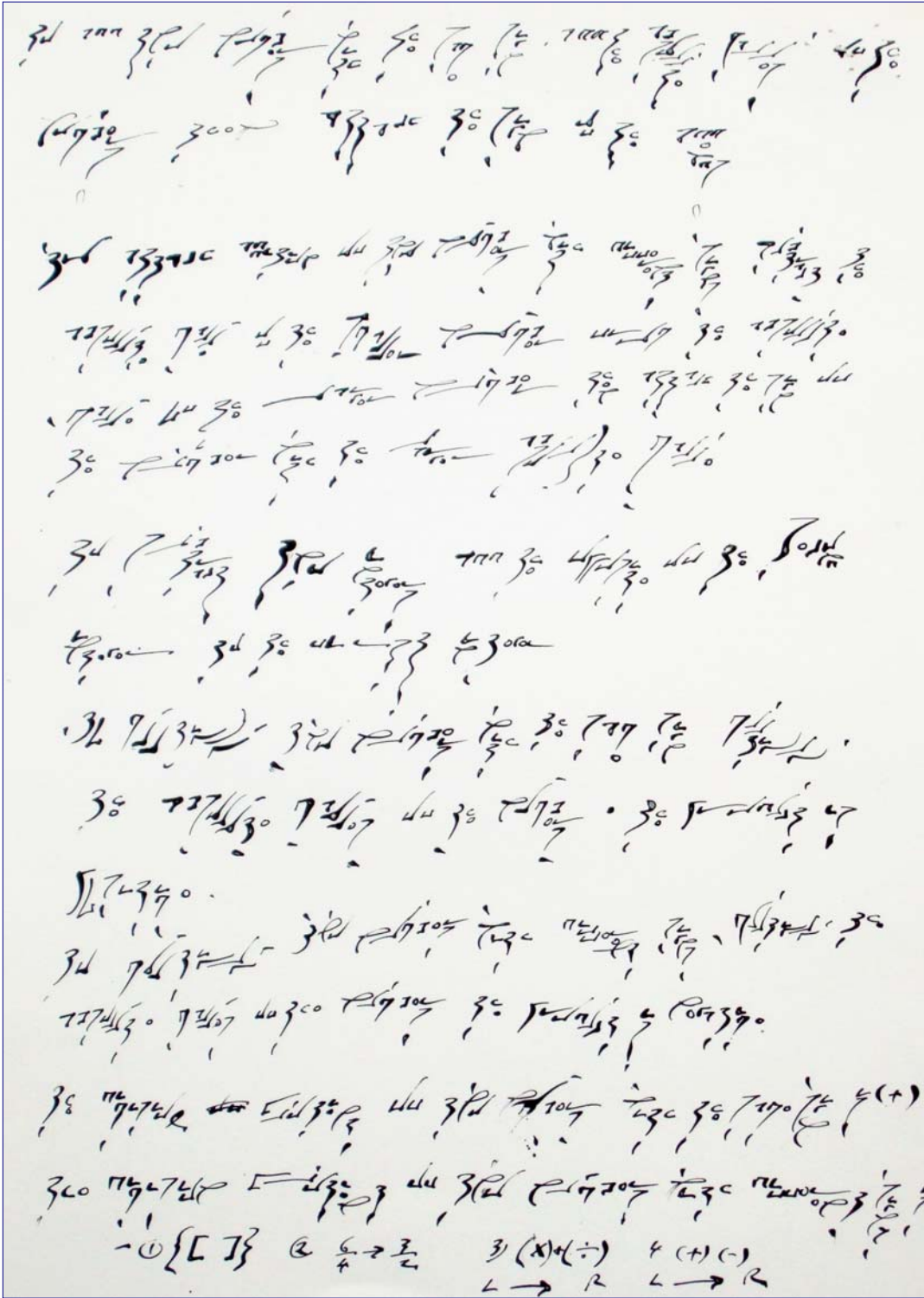
Above - **14 - Stacking of letters becomes preferred composition**.
Ca. 1991

By the time of the text in illustration **14,** I had been stacking the letters of words for years and was completely liberated from the gravitational pull of a writing system formed by moving

along a single baseline. This illustration (**14,**) is a text version of basic algebraic formulae. Its standard form is written in numerals and mathematical symbols.
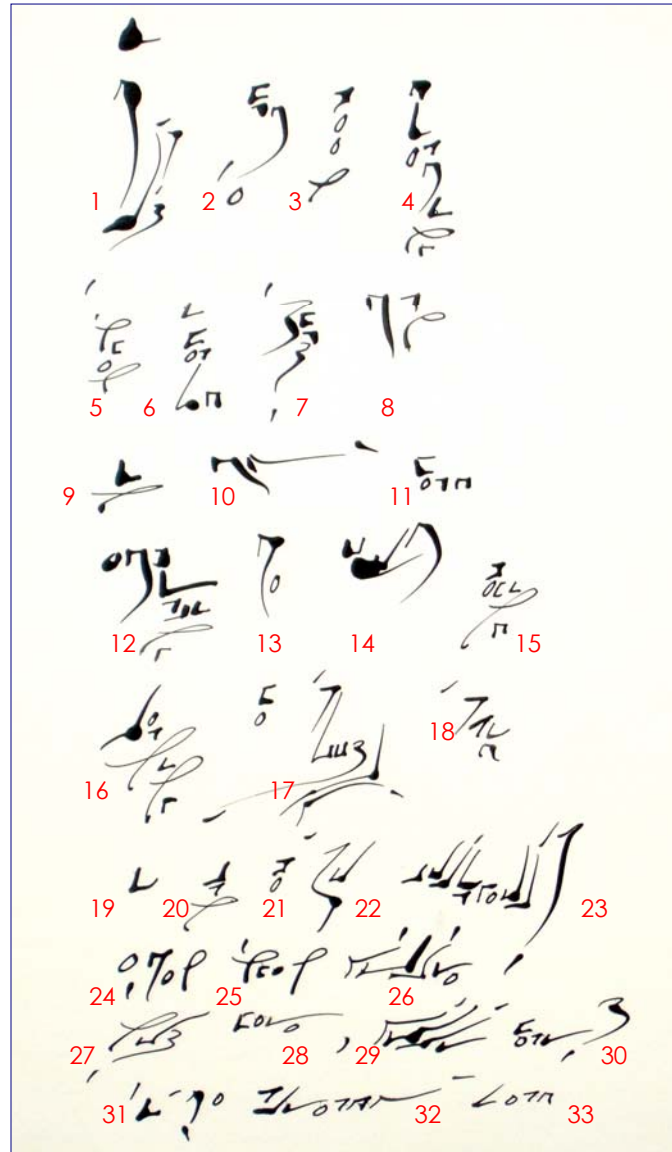
*Above -***15 - Stacking with word direction from left to right** *- Ca. 1994*

Illustration **15** is an early example of composing words on the page with an attempt to explore the expressive potential of this script. The word sequence is left to right. Though this writing still holds in places to the linearity of the Latin writing systems, the lack of an absolute bond between letters within a word is taken for granted.
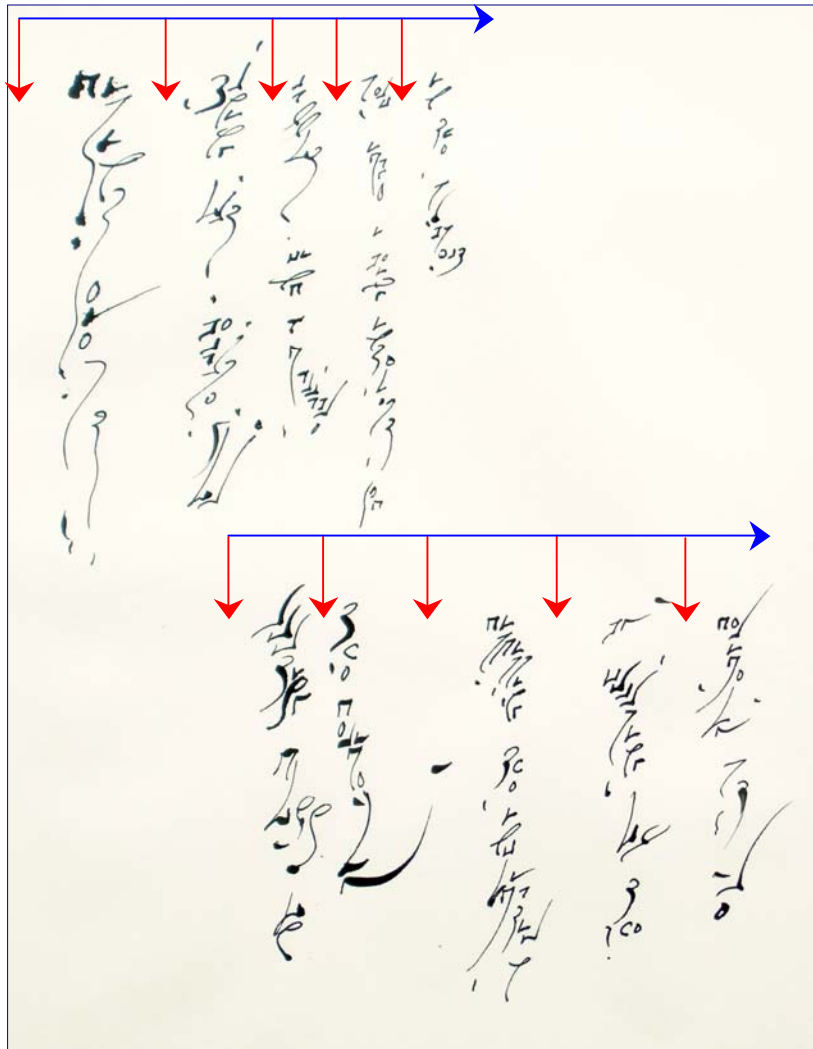
Above – **16** – **Stacking of letters with words moving from top to bottom** - Ca. 1993

This writing system allows for multi-directional word sequence. They can be written from left to write or top to bottom. Even though a little reading makes apparent the selected direction, by placing instructive arrows (see **16**) I could have indicated which direction is at play, except that I almost always write by preference from left to right, then top to bottom. On occasion I'll write across the page. It is only convention that makes for a direction to be the so-called right one. Practice of reading in one direction or another reveals none that is inherently easier—ease comes from familiarity of usage.

The illustration below is going in an expressive direction with reduced concern as to legibility, and the one following it has entered that zone of nearly illegible expressive lines, even though I can still read the spelling of the words.
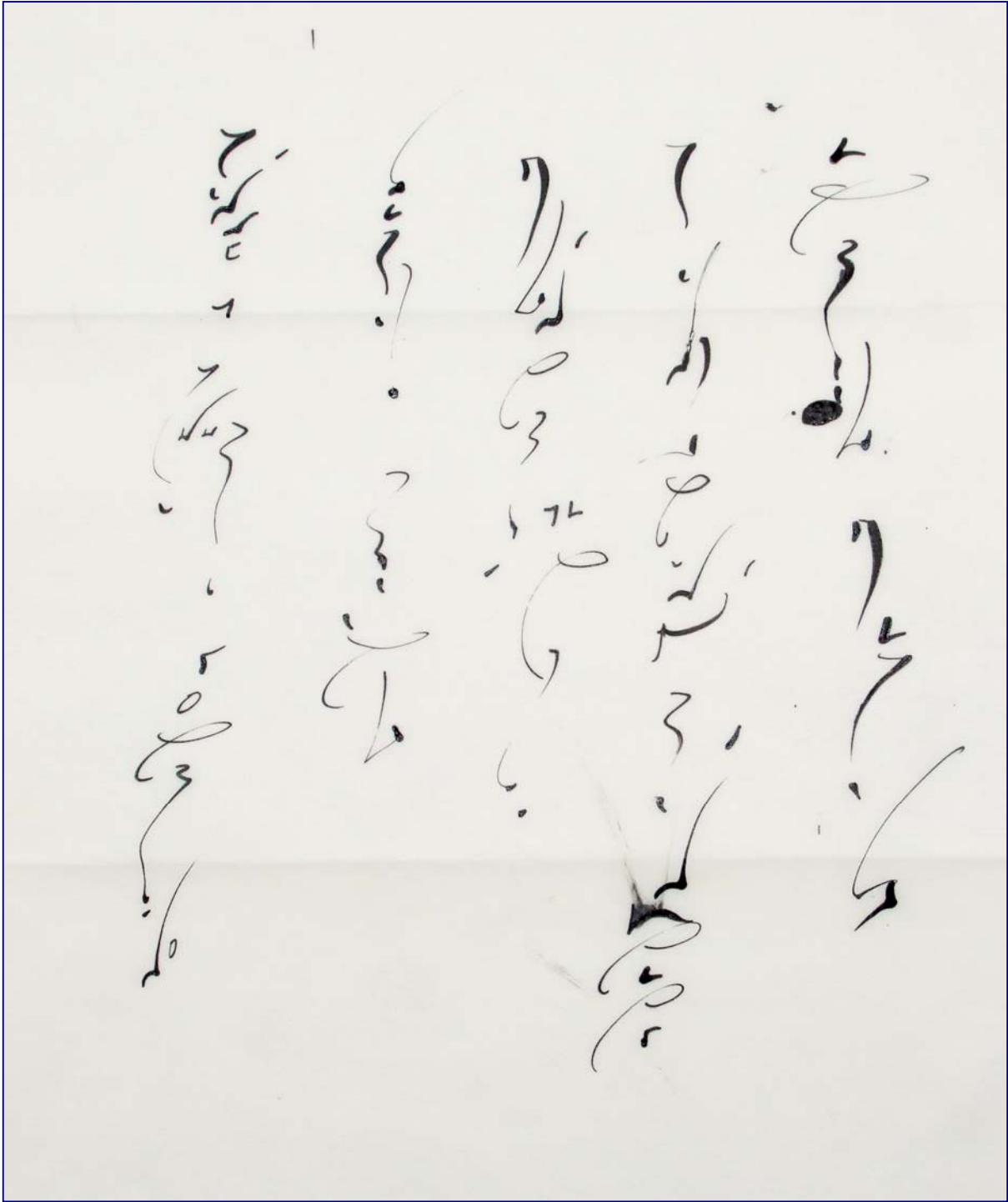
Above **- 17 - Stacking with words top to bottom – as well as loosening of line.** *2000*

Above **- 18 - Further loosening of line.** *2002*

The shifting baselines and variables of line length and dash placement mean that there is no fixed composition or linear sequence of letters readily recognizable as a unique word or ideogram (as there is in Chinese or with the Latin alphabet.) With the Elian script the variable baselines and compositions necessitate the perception of each box and the cycle represented— e.g. the letter intended. The test of this system's reliability is whether or not writings from many

years ago are legible upon their re-reading. I don't know at first sight what word a composition represents since the composition of all words beyond those of three letters, is too variable; I must look at a word and realize almost each time anew what letters are indicated.

Upon reviewing older notebooks I had the novel experience of first noticing the beginning of the word, that is, which letter or two was represented and then my gaze would go to the end of the word where I would also notice the last one or two letters and decipher them. In virtually all instances the middle letters would not need to be read because the whole word would appear somewhat as suddenly as popcorn released from its kernel.

It may be that the mind computes what word could possibly begin and end with those letters already deciphered then factors in the context to arrive at a likely candidate. Recently I received from Rose Folsom, editor of *Letter Arts Review*, the results of a study on how spelling affects comprehension. The results mirrored my own experience: as long as the first and last letters of a word are in their correct place the middle letters can be scrambled without reducing comprehension.

I cdnuolt blveiee taht I cluod aulaclty uesdnatnrd waht I was rdanieg. The phaonmneal pweor of the hmuan mnid. Aoccdrnig to rscheearch taem at Cmabrigde Uinervtisy, it deosn't mttaer in waht oredr the ltteers ina wrod are, the olny iprmoatnt tihng is taht the frist and lsat ltteer be inthe rghit pclae. The rset can be a taotl mses and you can sitll raed itwouthit a porbelm. Tihs isbcuseae the huamn mnid deos not raed ervey lteterby istlef, but the wrod as a wlohe. Such acdonition is arppoiately cllaedTypoglycemia .

This phenomenon is remarkable, though it has the unstated premise that the standard spelling of the words needs to be known for the phenomenon to have its effect.

The overleaf illustrates the full sequence of transformations in the Elian script.

1

3

5

should ... is a concept
... by the laws of

7

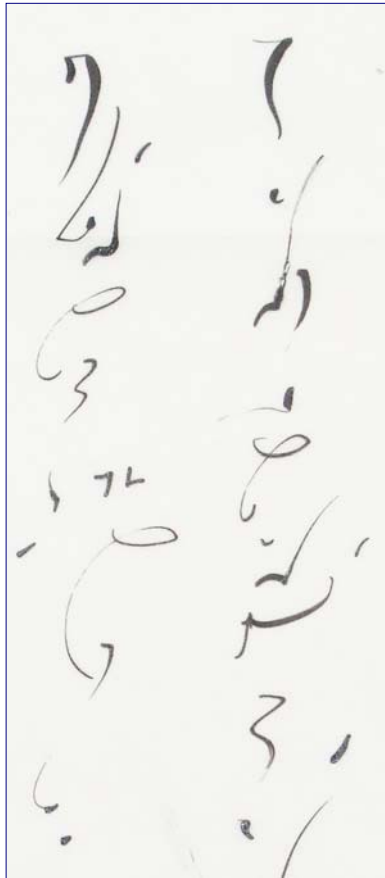mother . (she is middle age hair ... ... loud . serious
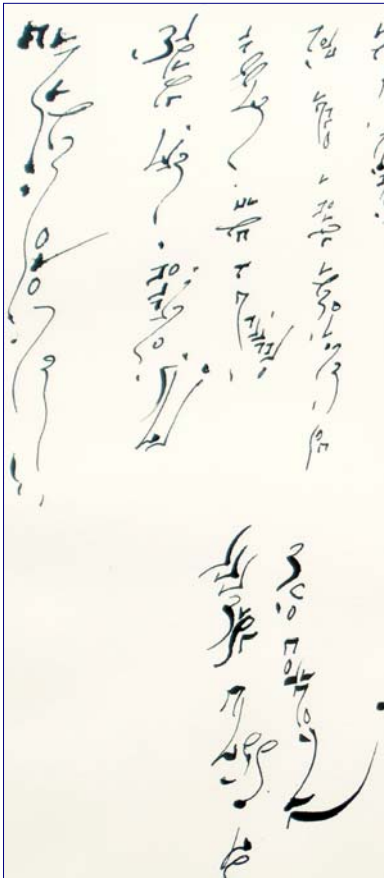
8

la creation de nuit

12
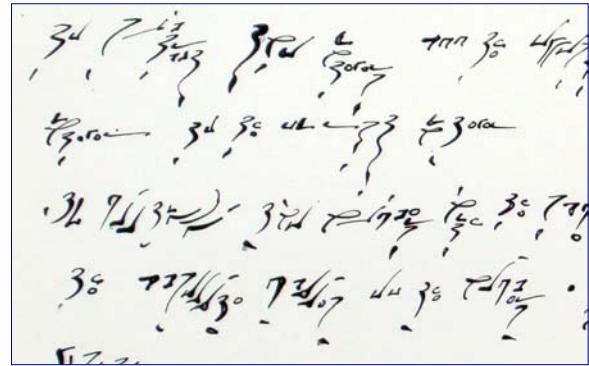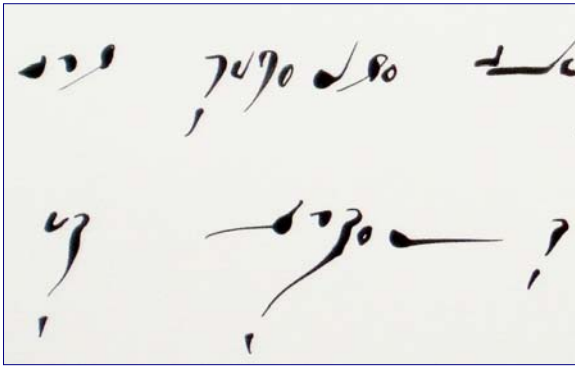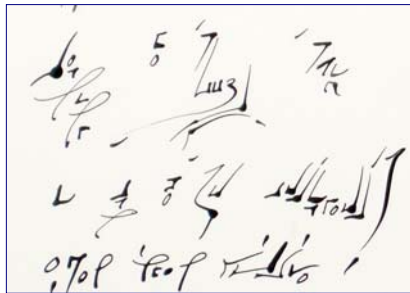
THE ELIAN SCRIPT

COMPOSITIONAL VARIATIONS

      The compositional variations of the Elian script define how letter coordinates can be formed and sequenced. Three structural principles provide all the necessary parameters and leave to the writer the ultimate composition of each word. In fact, the system does not provide model formations each word's letters must be combined as the word is written. Far more often than not, the grouping of letters for each word is unique, especially given that the more letters to a word, the more variations possible.

      The words with minimal variations are single first cycle letters such as "a, i, c," etc. which have as their main variable the angle between connecting lines.


A   J   ALTERNATE J
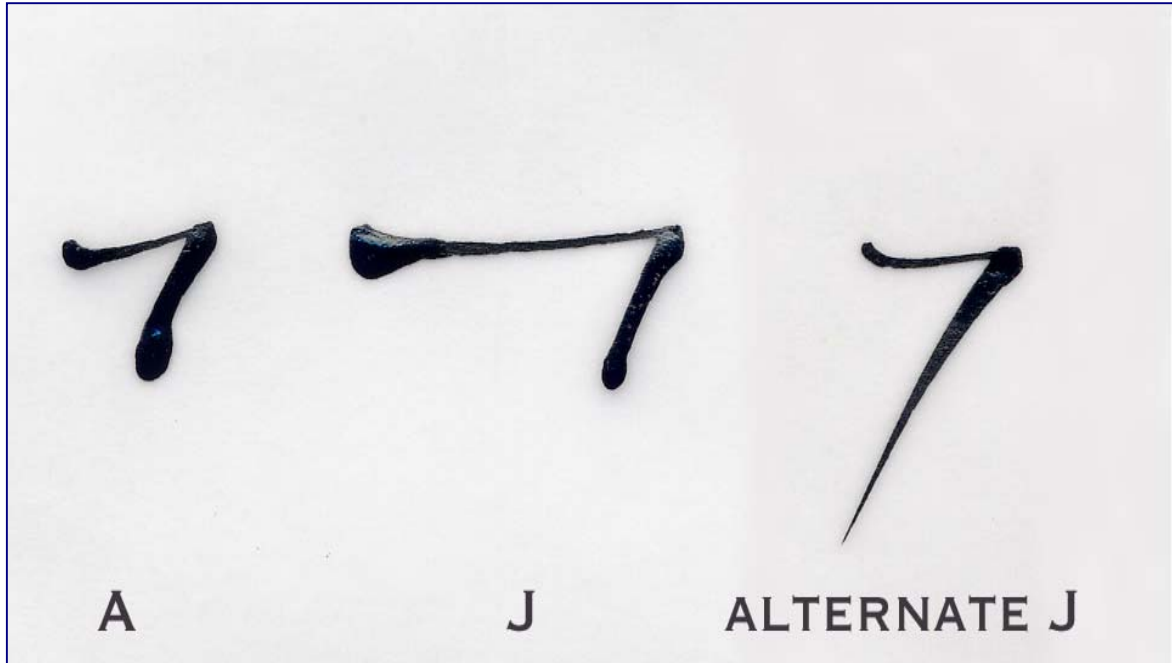
1 - **PRINCIPLE 1 -** CLARITY OF LINE LENGTH PROPORTIONS
E.G. ARE LINES EQUAL OR UNEQUAL?

Beyond first cycle coordinates, line length ratios necessitate the decision of which line will be lengthened. Below are letter coordinates for boxes two and six (K {2} and {O.}
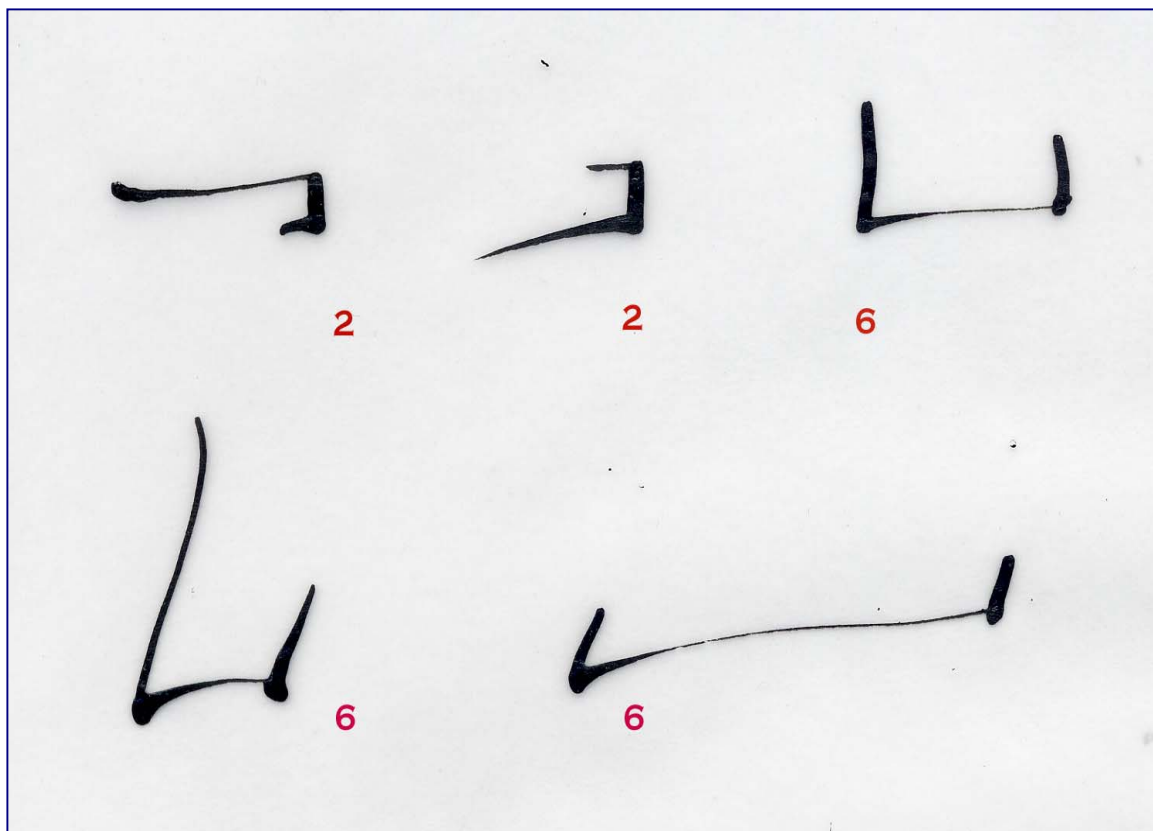

The system does not specify which lengthened side configuration determines the model. The illustration below demonstrates a couple of variations with the word "variations" itself.
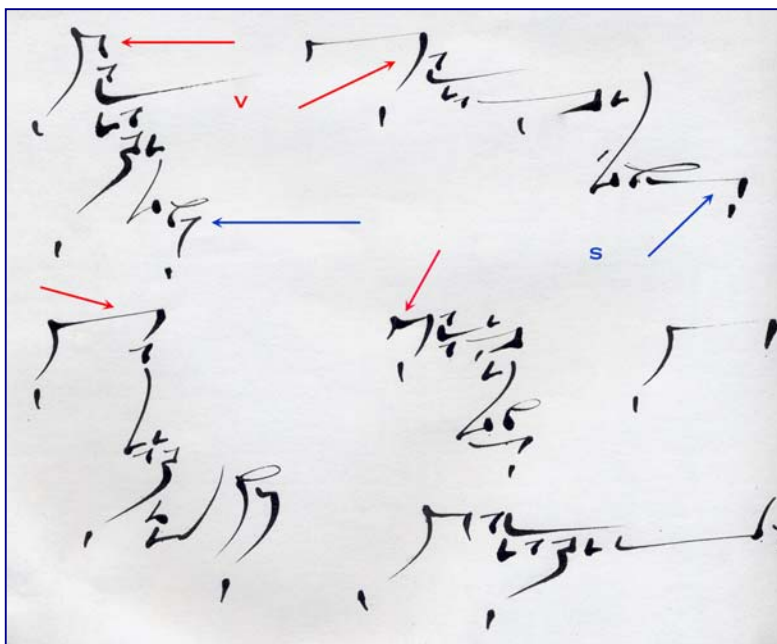
The same with the mark/dot association, which leads to the second principle, below.

PRINCIPLE 2

CLARITY·OF·MARK·(DASH/DOT)·ASSOCIATION
E.G.::·TO·WHAT·SET·OF·THIRD·CYCLE·COORDINATES·
DOES·A·MARK·BELONG?

       Each third cycle letter has a mark associated to it to differentiate it from second cycle letters. Unlike accents or diacritic marks, the specific location of a third cycle mark is not specified, only that it be associated to its correct set of line coordinates. The above illustration shows the area (blue +) where a mark would naturally be associated with the letter coordinates. The red + would most likely be too distant. However, clarity or ambiguity isn't determined until the word's letters are actually written. In the illustration below, all variations of mark placement indicate the letter "S" without any one being the correct model based on where the dot/mark is placed, and of course, which side is lengthened.
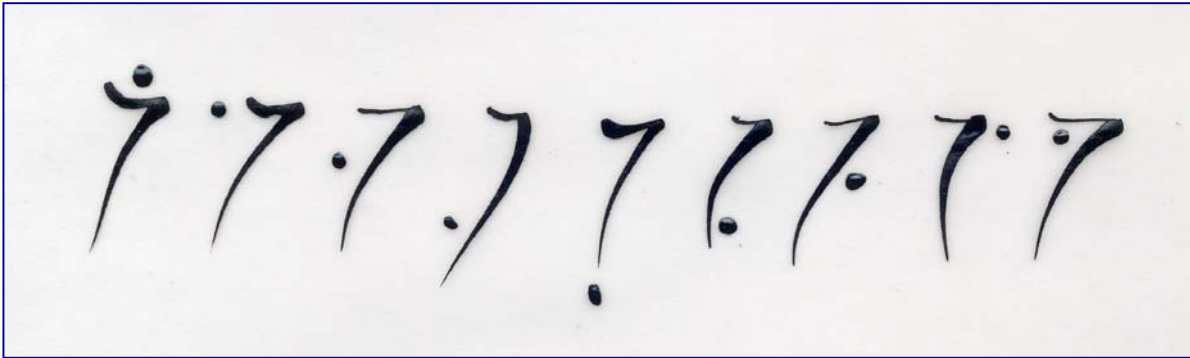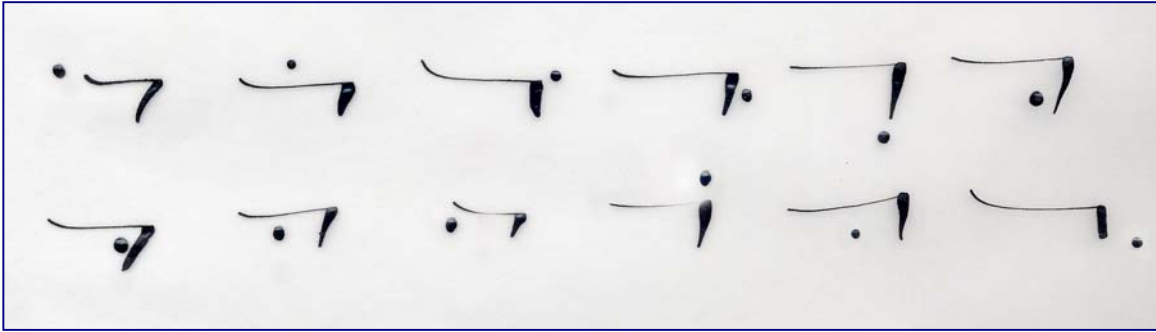
Sometimes a word has adjoining letters of both the second and third cycle, as in the word "to." If the mark is placed ambiguously between these two letters, it is not clear to which letter coordinate a mark belongs--although interpreting one or the other of the choices will usually make obvious the intended word ("kx" versus "to.") However this ambiguity is an inelegant scenario readily avoided by clarity of mark association, as illustrated below:


To
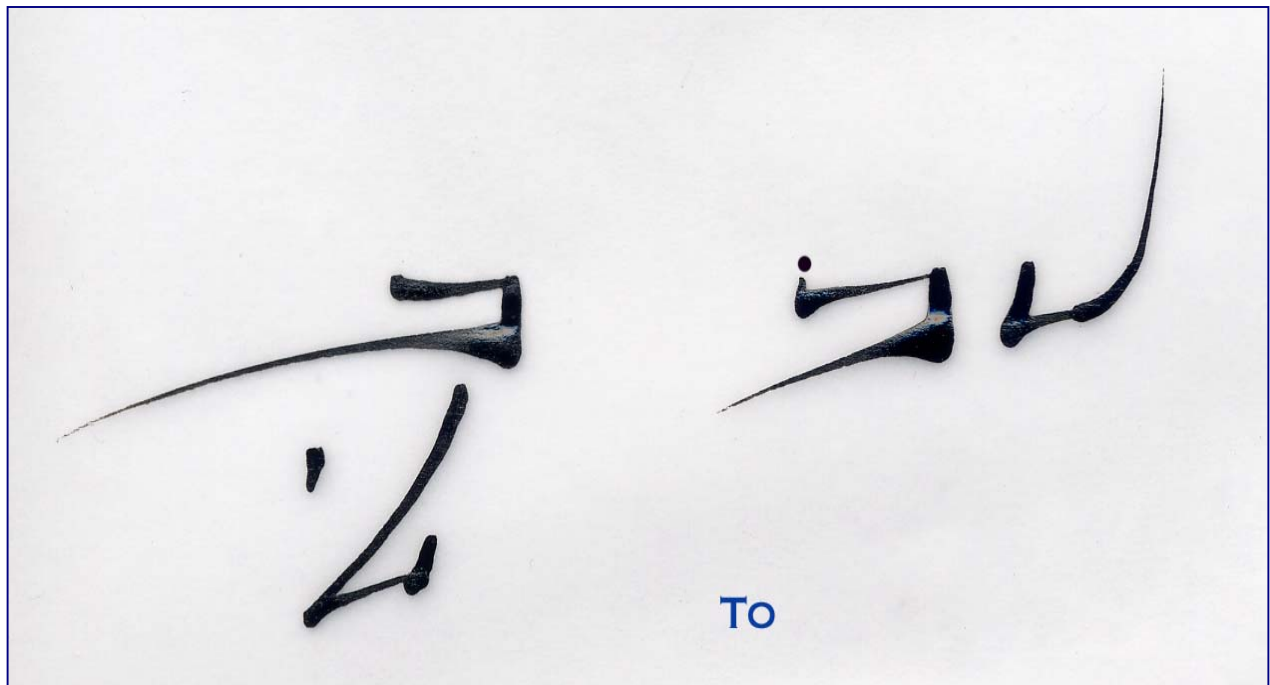
Below is the word "tassel." Unlike a two-letter word such as "to," an ambiguous dot here significantly hinders recognition of the intended word. Only the first arrow in line 1 avoids the ambiguity of mark-to-coordinate association.


(tassel)

TASSEL
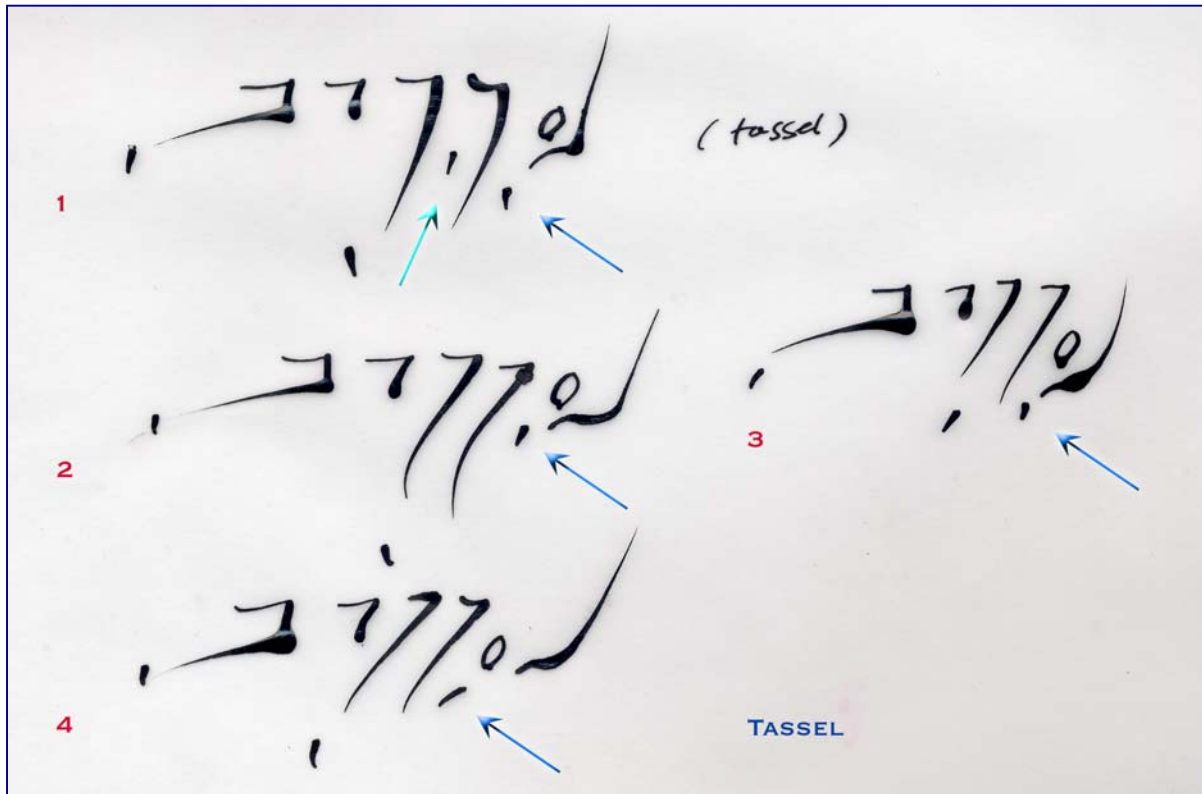
The final set of variations is that of baselines. The system does not specify what number of baselines is the model ("correct") one. The decision is made on the fly of the writing itself, with the number of possible baselines equal to the number of letters in a word. Below is the word "top," with three possible baselines, since it has three letters to it.
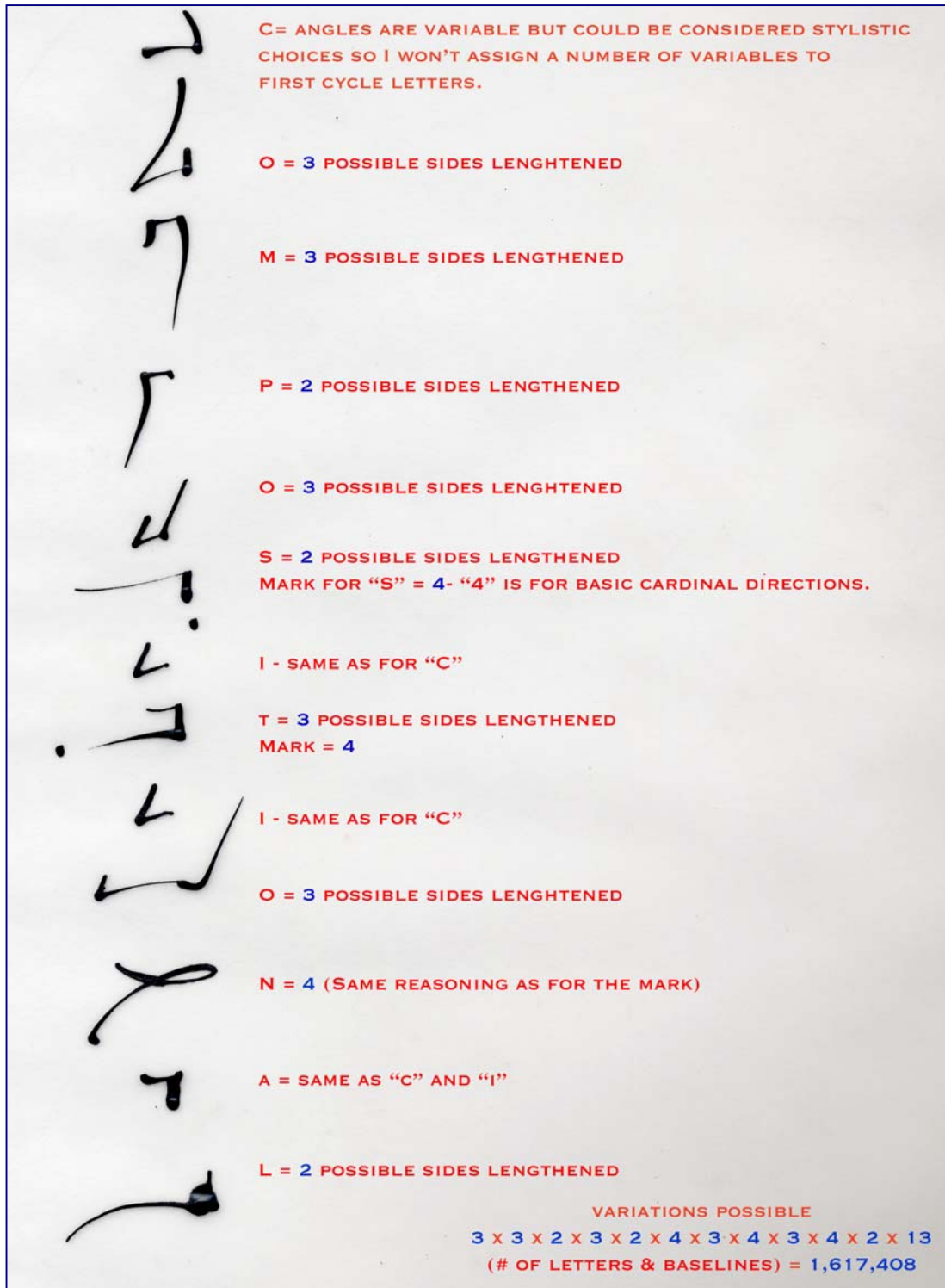

TOP
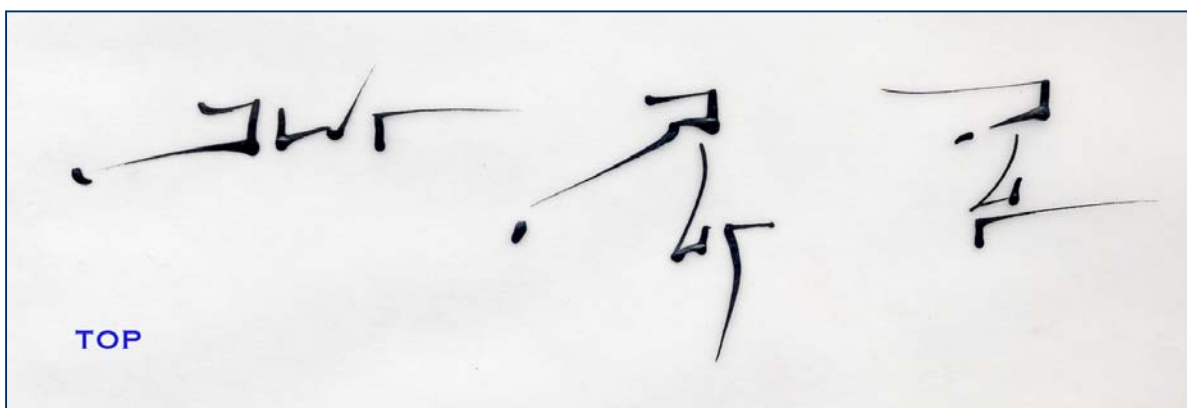
PRINCIPLE 3 - BASELINES MOVE FROM LEFT TO RIGHT AND TOP TO BOTTOM

Below I wrote "Variations" several times. Although I have a tendency to prefer which side of a coordinate I'll lengthen, variations are still inevitable, and even required by the system. Any compositional consistency is self-imposed and the more the number of letters, the more

concentration it requires to not vary the various structural elements. The yellow lines below indicate some of the baselines formed.
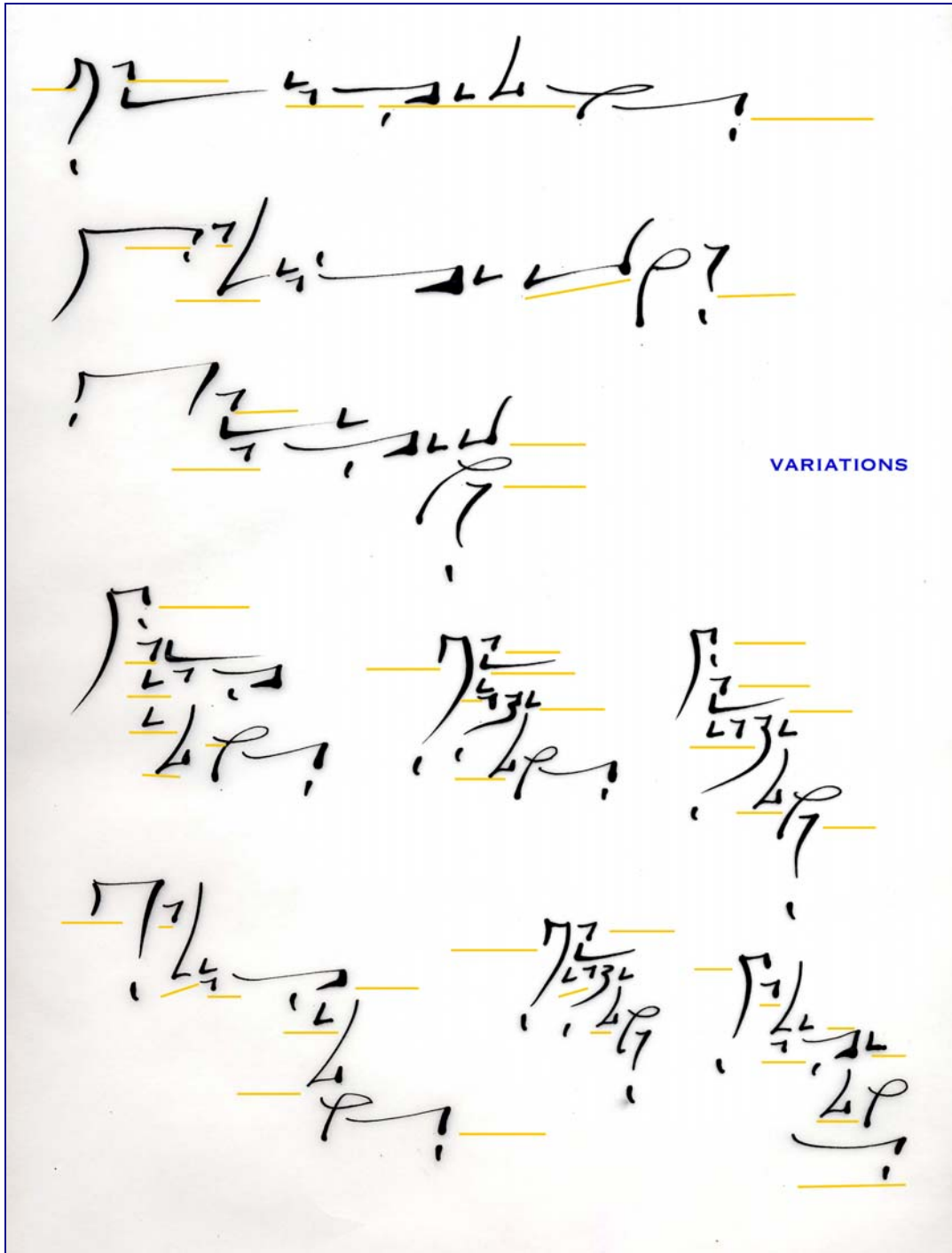
This example by no means exhausts the number of variations available. If I were to exercise each unique composition, their possible number would be very large, as with the word "compositional" below.

C= ANGLES ARE VARIABLE BUT COULD BE CONSIDERED STYLISTIC CHOICES SO I WON'T ASSIGN A NUMBER OF VARIABLES TO FIRST CYCLE LETTERS.

O = 3 POSSIBLE SIDES LENGHTENED

M = 3 POSSIBLE SIDES LENGTHENED

P = 2 POSSIBLE SIDES LENGTHENED

O = 3 POSSIBLE SIDES LENGHTENED

S = 2 POSSIBLE SIDES LENGHTENED
MARK FOR "S" = 4- "4" IS FOR BASIC CARDINAL DIRECTIONS.

I - SAME AS FOR "C"

T = 3 POSSIBLE SIDES LENGTHENED
MARK = 4

I - SAME AS FOR "C"

O = 3 POSSIBLE SIDES LENGHTENED

N = 4 (SAME REASONING AS FOR THE MARK)

A = SAME AS "C" AND "I"

L = 2 POSSIBLE SIDES LENGTHENED

VARIATIONS POSSIBLE

$3 \times 3 \times 2 \times 3 \times 2 \times 4 \times 3 \times 4 \times 3 \times 4 \times 2 \times 13$
(# OF LETTERS & BASELINES) = 1,617,408

This calculation ignores the variable of line lengths. The Elian script does not provide a model for ratios between lines, just proportions (one line is either equal to, or longer than another but not by any particular factor.) For instance, with the word "as" all examples below are possible without any one of them distorting the structural principles. The effective limit is the ability to sustain the line's tone.
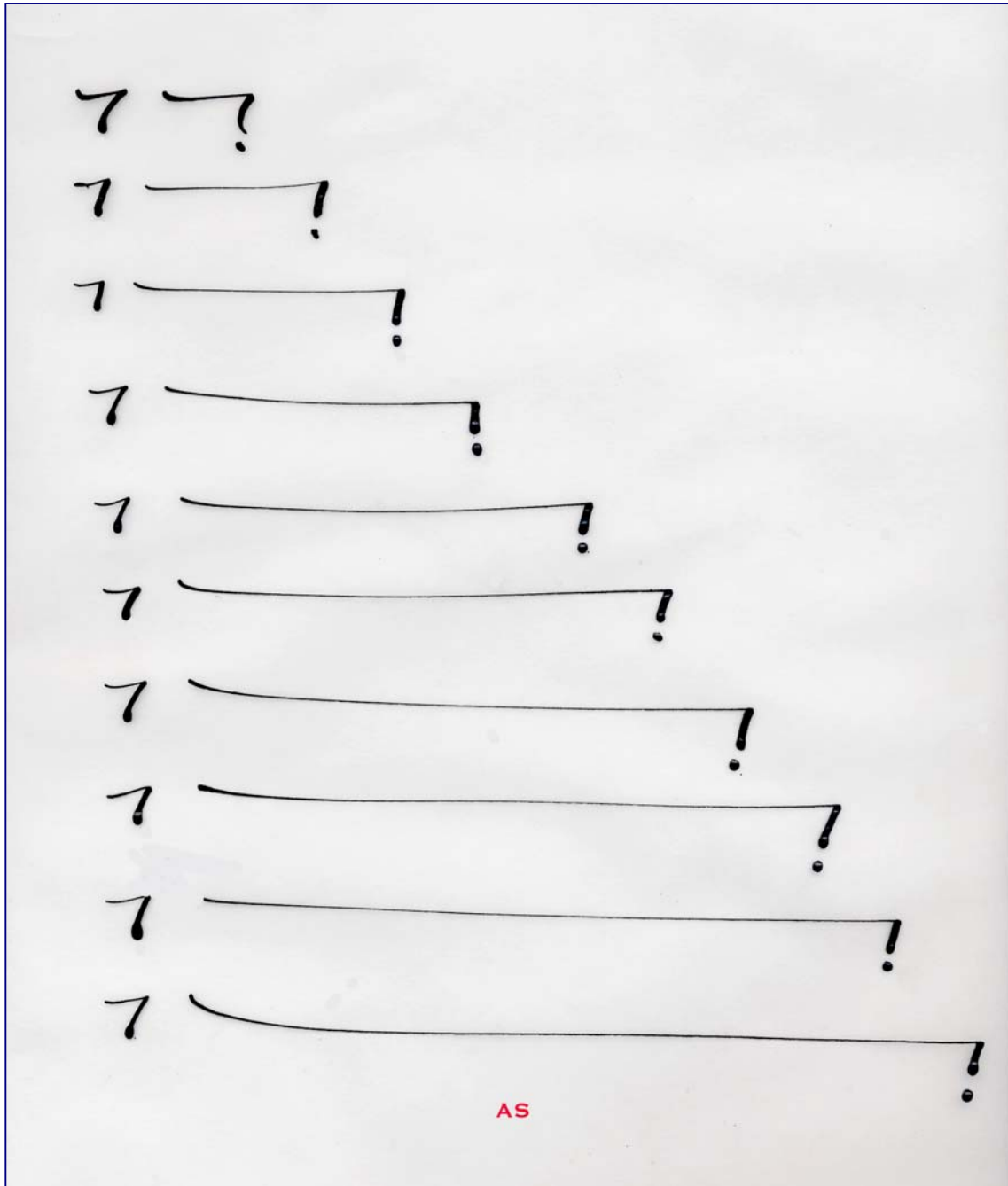
That so many variations are possible does not mean all compositions will be aesthetic. In practice, there will be fewer options, although that still leaves a very large number. The beauty of this system is that all of the variations are consistent with it and not modifications. Rather, they are an exercise of the system's expressive potential.