

Letter 7

The writing talking magazine

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Gerrit Noordzij has written a very provocative account of the history of writing with most of which I disagree. I thought of commenting on points of disagreement, but find that it is clearer if I offer an alternative history.

Writing was first developed in Egypt and in the Fertile Crescent. Our tradition is related to the latter and to the cuneiform script of the Sumerians; this was partly phonetic, partly ideographic. It was finally reduced from about two thousand to forty one signs in Achaemenid Persia. Even so the script was still not purely alphabetic.

The alphabet was probably invented in Palestine. It was adopted by the Phoenicians, but without signs for vowels, and received a final version from the Greeks, around the ninth or tenth century B.C. All western alphabets derive from Greek. Arabic and Hebrew belong to a different family.

Roman capitals derive from Etruscan and early Greek writing, around the seventh century B.C.; though they did not achieve their final, mature form, from which roman type-design derives, till around the first century A.D.

The minuscule, that is the four-line book-hand known as half-uncial, (though more related to cursive) appears in the fourth century, i.e. in the late antique, but still Roman, period.

Thereafter follows the long period of successive barbarian invasions, the setting up of the separate kingdoms of the Ostgoths, Franks, Visigoths, Lombards, Anglo-Saxons, and the conversion of these peoples to christianity. Ireland was never part of the roman Empire. Its conversion was begun by the Romano-British St Patrick (died in 461). In the sixth century the Irish set out to reconvert Europe. They founded monasteries at Iona, Luxeuil, St Gallen, Bobbio, Echternach, but they were not alone, Anglo-Saxon Benedictines, Willibrord, Boniface and others went to Frisia and Germany. Others such as Wilfred went to Rome and from Rome came St Augustine. The Roman tradition was never broken.

Gerrit refers to the tradition of 'the word'. I understand this to imply the use of a broad pen creating a reverse as well as a positive shape. A broad pen was used for uncial and 'rustic' late antique book hands and at first words were not separated, but books were read aloud, so the separateness of words must have been recognised.

Different varieties of script were evolved in the different kingdoms. Of these the Anglo-Irish, or Insular, was the most

Nicolette Gray upsetting the table

Nicolette starts with a summary of what is generally believed to be the history of the development of writing. Perhaps the history is wrong but it is definitely not the history of writing. If it could survive criticism at all it would be at best a history of spelling. It says that at first writing was logographic, a sign (for instance A) represented a word. Then it became syllabic, a sign (for instance A) represented a syllable. Finally it became phonetic, a sign (for instance A) representing a lot of sounds. Whatever might have changed in this development, not the writing, the same sign (for instance A) could do in all cases.

Though not told very respectfully, this is the concern of such books as A study of writing by I. J. Gelb. Because our present orthographic systems are not fonetic and because these systems require a logographic arrangement I cannot believe a word of it. It is in contradiction with the facts of everyday. However, this history is not my business.

A history of writing is a history of shapes and not a history of meaning. The history of our (Semitic, Western

My marginal struggle

formed and beautiful. It was used as one of the bases for the Carolingian minuscule, sponsored by Charlemagne, to be used throughout his Empire.

The Irish were important missionaries but the battle of Poitiers (732) was won by the Frank, Charles Martel, grandfather of Charlemagne. The battle marked the final checking of Arab advance into Europe. The creation of the Holy Roman Empire (800) marks the restoration of European initiative. The Carolingian minuscule is the basis of lower case type-design. So by the time of the Arab explosion writing had been used in Europe for many centuries.

Arabic is written from right to left, like most Eastern scripts. Owing to the importance of the Koran for which it was used, which might not be translated or altered in any detail, it developed into sophisticated and beautiful forms very quickly. There are three forms of each letter, initial, medial and final. The word would thus become a unit; except that six letters have no medial form. The earliest of the many styles of Arabic writing is Kufic, formal and static, often used for the decoration and sanctification of buildings, carved in relief, painted on ceramic, ornamented; so capable of making reverse as well as positive shapes. Other styles are more fluid.

At first Greek also was written from right to left, then 'boustrophedon' (as the ox ploughs) was tried, reversing the direction of letters such as E, L, P which look in one direction. After about 500 B.C. the Greeks decided to write from left to right. Latin script — but not Etruscan — also adopted this direction. I have not come across any explanation.

x: The traditional date for the use of the brush for calligraphy in China is the Chiin dynasty, third century B.C. (Qin).

I do not know if this divergence between Nicolette and me is a matter of disagreement. It seems to be rather a difference in point of view. For Gelb there is no difference between a system of writing and a system of spelling (as he says explicitly) and Nicolette seems to be able to live in peace with such a tremendous nonsense, I can not.

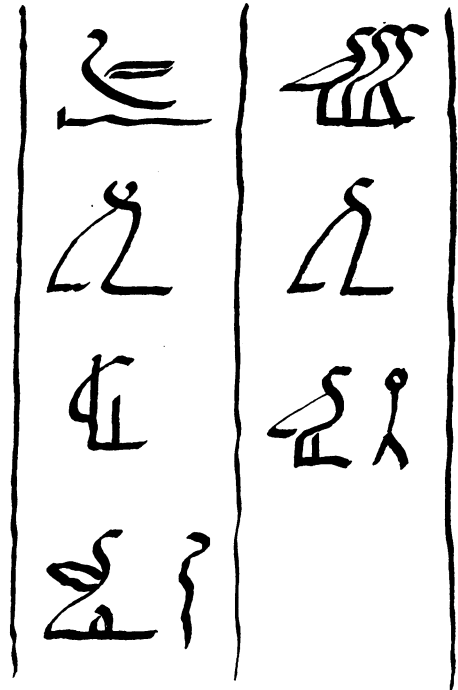
With her critical remarks Nicolette reduces my table to more reasonable proportions, but I can still serve my cup of coffee on it. Probably I have not been sufficiently clear about the invention of the word. In the article 'Support for the table' there are more details.

The Irish civilization (christened in The Table as the Western civilization) clashed with the Arab civilization at Poitiers. Nicolette wants to make under-

stood that it were Frankish warriors rather than Irish monks who fought the battle but this is not a point for disagreement. I did not suggest something else.

The history of Western writing is the history of the broad pen, but this history has not yet been written. Obviously there are a few breaks in the history of the broad pen. The broad pen is clearly an Egyptian invention. It came into use in the same period when the Semitic alphabet was invented. The Greek did not adapt the broad pen which is an indication that the alphabet reached the Greek before the broad pen was introduced in Semitic writing around the tenth century BC (Van der Kooij). Semitic calligraphers waited 3 or 4 centuries

and Indian) writing is the story of shapes composed of strokes with a broad nib. These shapes cannot owe anything to the reversed pyramides sunk into the clay of Sumerian cuneiform writing. The tool and the stroke of our writing have their origin in the the 18th dynasty of ancient Egypt. A broad nib is all I need to write this collection of hieroglyphic birds.



before adapting the Egyptian innovation. This is difficult to understand for me.

The Romans might have learned to use the broad pen after invading the Levant. The Greeks seem to have learned nothing after the fifth century B.C.

The Greeks are standing aside in the history of Western writing because they did not learn to use the broad pen. They are, however, of some interest from a pathologic point of view.

The Greeks made mistakes because they were not sure in the difference between left and right. It is rather exaggerated to call this infantile mistake 'boustrophe-donal' (I do not

know if an ox would ever make this mistake; a fly would not).

A mathematician gave me the Harvard lectures on Symmetry by Hermann Weil. From his analysis of Greek geometry Weil comes to the same conclusion in as I do in my analysis of Greek writing and as William M. Ivins in his *Art & Geometry*.

The Greeks did not know which stem of P was the longer one and they

solved this problem by changing P into π with stems of equal length.

Now it was always right, even when it was wrong. In a more reverent story this little, but dangerous, trick might be advertised as

THE CREATION OF
SYMMETRY

but I call it pathologic because it reminds me of learning disabilities of children. This aspect of Greek civiliz-

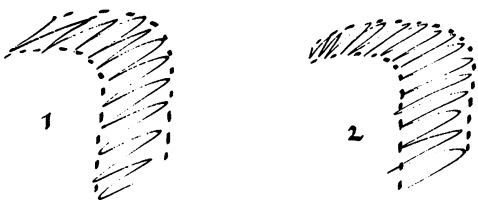
ation could be considered as collective word-blindness.

In the *Timaeos* (Plato) the old Egyptian priest says to Solon: The Greeks will always remain children.

In the end of the Semitic novel *Iona* God and the prophet are discussing the astonishing fact that there are such people as Greeks and children 'not knowing how to distinguish left and right'.

Moving the front [The theory in practice]

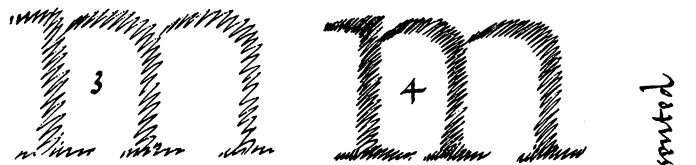
Shape 1 has a constant counterpoint and the frontline does not change its direction. At first sight it would be much simpler to say that this shape resembles the stroke of a broad pen. This could not be said of shape 2.



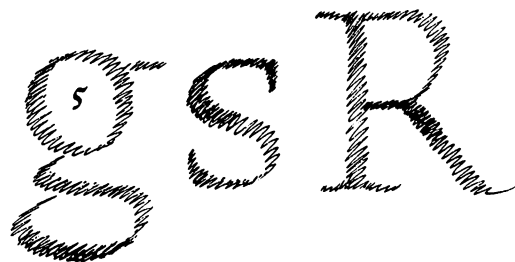
I can, however describe this shape as the track of an increasing counterpoint on a rotating frontline and this description can be compared with the first description of shape 1.

The theory of the front enables students of type design to relate their work to the stroke of the pen without being confined to its technical limitations. This is why the theory was invented. It arose from the evaluation of practical work.

Gradually the theory revealed its power in the related fields of archaeology and mathematics. Here I would like to show its possibilities in design.

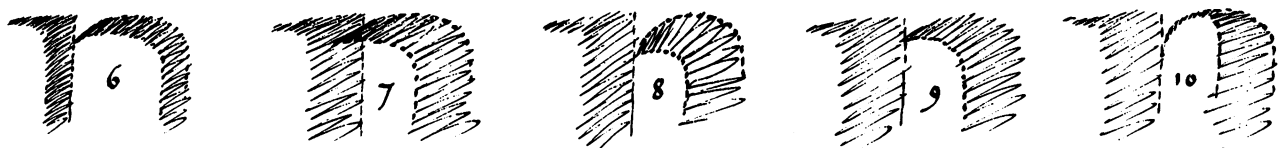


The moving counterpoint is conveniently presented by zigzag shading which evokes the shape very quickly. Different levels of articulation are reached with different densities of shading. The effectivity and the speed of this method can persuade students to abandon drawing outlines and only then design can start. The speed also encourages them to make the alternatives they would otherwise only talk about.



So we got used to a practice of discussing design by quickly shading the subjects of the discussion.

The next set of shapes is an example of such a process of evaluation.



The contrast of 6 could be described as rather straightforward translating of the direction of the stroke. A matching bold cannot be treated so simply. In 7 the increased counterpoint covers the beginning of the second stroke. This could be avoided by contracting the curve but this would result in a kind of 'black letter' and not in a matching bold.

8 is a complex of adaptations. The curve is sharper, the frontline starts as a rotation and the counterpoint is increasing. Without rotating the front so much, a greater counter could be obtained (9). The balance of the counter-shapes is better preserved in 10, but now the contrast of the expanding counterpoint is far removed from the starting point 6, which is almost the other extreme in the range.

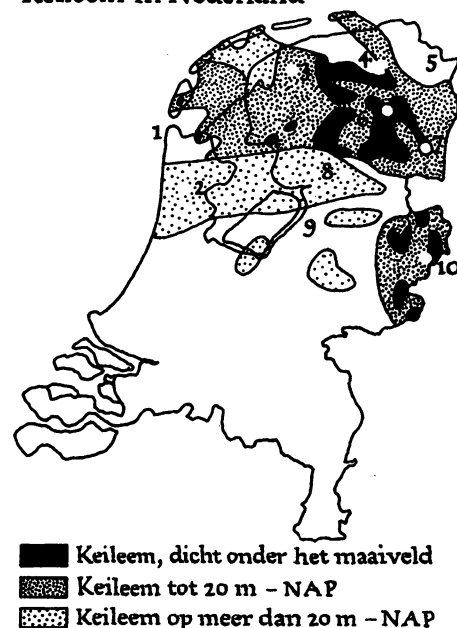
Observations of this kind might be organized in a comparison of the 'bold handwriting' of the Middle Ages and the bold type design of the 19th century but for now I leave this subject.

Different densities of shading have been used for the heading of this Letterletter. In the illustrations for a schoolbook on geography (11) the designer (Christoph

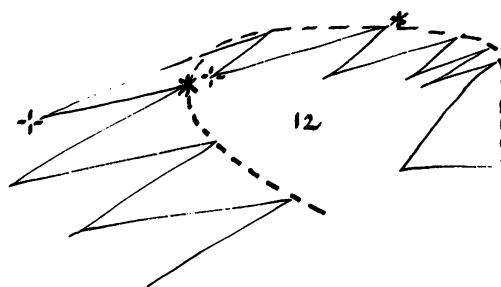
Noordzij) has applied shading to attune his lettering to the free hand drawing of the diagrams. For this purpose the shading had to be rather dense.

11

Keileem in Nederland

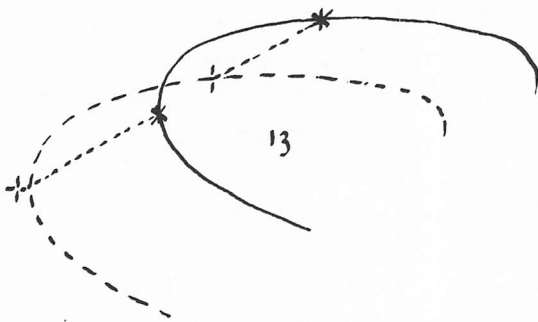


At this density the shading results in solid shapes which might be finished by smoothing the outlines.



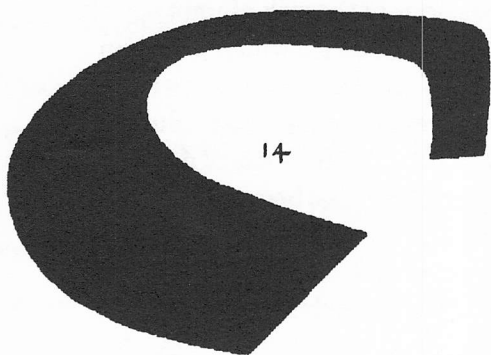
The shading of 12 is probably too loose for human perception. Without the additional points of the dotted line the shaded shape would be difficult to recognize. The theory of the front describes the shape as a set

of translations of the dotted line. The translations are intersecting. 2 of them have



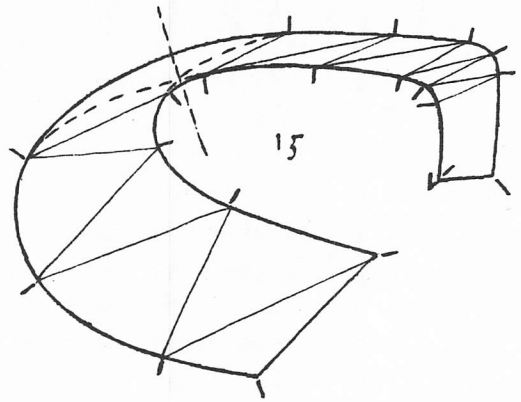
been drawn in 13 with 2 different positions of the counterpoint.

Perceptivity can be boosted by the mathematical formulas of a computer programme. I digitized a shape such as 12 for Mac Ikarus, using the turning points of the zigzag as marking points. Mac Ikarus does not understand the craftsman's logic of 13. Instead of following the translations I had to switch to the other extreme by linking * with +. This resulted in an extremely wide span between the marking points of the outer outline.



14 shows the shape as it was calculated by Mac Ikarus (in the coarse resolution of the Macintosh screen).

15 is the corresponding outline-drawing with the actual marking points.



To this drawing I added a reconstruction of my shading.

The theory of the front was invented as a model of the relationship between type-design and handwriting, as a framework for evaluating studies in typedesign.

A theory should have a wider scope. It has to offer a reasonable explanation of any phenomenon in its field. In this case the effect of the theory is favoured by the mathematical structure of Mac Ikarus, but it seems to work, anyhow. The most important question in digitizing: where should the marking points be placed? receives a single answer in this experiment: the marking points are controlled by the theory of the front.

Up to now digitizing belongs to the final stage of production. The experiment applied it in the first stage of design. This could return the definition of the shape into the hands of the designer.

SUPPORT FOR THE TABLE

Epistemological afterthoughts

In 'The seven-times table' (*Letterletter 6*) the invention of the word is the end of antiquity and the beginning of the Middle Ages. To others antiquity might come to an end when Aetius had to accept 'barbarians' as his allies to defend Europe against the invasion of the Huns. It is only my feeling which makes the invention of the word to a more important turning point in history.

My preference for this event is connected with my personal position. In my own attempt to understand the changes in mediaeval writing and to understand reading disabilities I depend on my conception of the word. Without this conception I would be as helpless as the historians in their approach of the development of writing and as pedagogy in its approach of word blindness. My framework is my way to explain civilization.

Preferences need no proof. We cannot but accept or reject them. This makes discussion difficult. At most we may expect better mutual understanding from such a discussion, but we will never arrive at a conclusion about the correct history. There is not such a thing as correct history. Everybody might invent his own history. We must not, however, invent historical facts. The said Aetius really allied with the Franks to stop the Huns. And the word must have been invented in Ireland at the beginning of the seventh century. These facts must not be violated in decent history and they have to be documented convincingly.

The weak point is that the invention of the word has only little evidence in my table. One might ask if it is a fact at all. I only deduced its occurrence from pictures in books on palaeography and these pictures were selected for a different purpose. It would be beyond my knowledge of old manuscripts to make a new selection which does not depend on palaeographic anthologies.

The story in *Letterletter 6* on the invention of the word inspired Martin Steinmann (University Library, Basel) to send me the text of a paper by M. B. Parkes, *The contribution of Insular scribes of the seventh and eighth centuries to the 'grammar of legibility'*, published in *Grafia e Interpunzione del Latino nel Medioevo*, Seminario internazionale Roma, 27-29 settembre 1984, a cura di Alfonso Maierù, Roma 1987 (Lessico intellettuale Europeo 41). Steinmann remarked: 'sometimes scholars and designers are thinking the same thoughts'. How close thoughts can meet could be demonstrated in Parkes' wording: 'When Irish scribes copied Latin texts they soon abandoned the *scriptio continua* which they had found in their exemplars. Instead they adopted as the basis for their scribal practices the morphological criteria which they had encountered in the analysis of the grammarians: they set out the parts of speech by introducing spaces between the words. This process is well advanced in the datable manuscripts produced at the end of the seventh century, such as the Bangor Antiphonary (Milan, Ambrosiana, MS C.5. inf.: CLA, 311; copied c 680-91), and the beginning of the eighth century, such as the Iona manuscript of Adomnan's *Vita Columbae* (Schaffhausen, Stadtbibl., MS Gen. 1: CLA, 998; copied before 713).'

Thoughts are keeping more distance in: 'What characterizes the word-separation of Anglo-Saxon scribes is its delicacy: the space between words is minimal but adequate. They seem to have been conscious of the risk of impropriety when introducing a practice which was alien to the tradition of *scriptio continua* in the exemplars they were seeking to reproduce. This delicacy testifies to the sense of decorum which Anglo-Saxon scribes brought to the production of books.'

Of course not, the delicacy shows that these scribes were designers understanding the balance of shapes. It is, however, with much relief that I find my declaration of the invention of the word confirmed explicitly in an independent paper. Parkes produces examples from the end of the seventh century and the beginning of the eighth century, whereas I claimed the invention of the word for the

beginning of the seventh century, but this is not a contradiction, as according to Parkes the new way of writing was already 'well advanced' at the end of the seventh century.

The difference between the seven-times table and Parkes is not in the recording of the historical fact but in its appreciation. My turning point is merely a 'contribution to the grammar of legibility' in the scope of the scholar.

THESE LINES IN SCRIPTIO CONTINUA
SHOW THAT THEIRISH SCRIBES INVENTED
LEGIBILITY AS SUCH A SCRIPTIO CONTINUA
IS COMPLETELY ILLEGIBLE IN OUR
SENSE OF THE WORD

Parkes suggests that the Irish scribes 'sought to achieve new standards of calligraphy' and that they derived such standards from the works of ancient grammarians. Here his thoughts are taking a different direction. Seeking new standards of calligraphy never produces historical facts but at most journalism. Perhaps someone might have sought, but I do not know of any instance where such seeking resulted in standards. New standards come when we do not care for them because we are concentrated on the work under our hands. *The good craftsman seeks out the commonplace and tries to master it, knowing that originality comes of necessity and not of searching* (Edward Johnston, *Writing and Illuminating and Lettering*). I found my turning point when my work imposed a state of mind disclosing a translucent panorama of the Middle Ages. And it was only afterwards that I could realize that something important had happened when the dominating force in the development of mediaeval writing appeared to me as the obsession to consolidate the image of the word. This has nothing to do with language or linguistic grammar and only very little with orthography, but everything with visual perception. It was a new principle of design which made mediaeval scribes look at old things with new eyes.

Obviously the same historical fact can be discovered along different roads. Parkes does not understand anything of design because he is preoccupied with linguistics. Nevertheless, he arrives at the same point. Why should my

identification with my old colleagues be a better method? This is difficult to decide; the decision is even impossible when the issue would be isolated.

Isolation of subjects always makes understanding difficult. Try, for instance, to isolate any of the following statements:

1. The alphabet cannot be improved.
2. Serifs are redundant.
3. The tool of Western writing is the broad nib.

When isolated none of these statements can be refuted or confirmed. However, when considered together it is rather easy to see that the first and the third statements are true and that the second statement is false. Isolation, such as the isolation of typography from other writing, is always demagogic in its effect (even when it is not intentionally demagogic).

I do not understand what Parkes says about grammar and how this could ever bridge the gap between antiquity and Western civilization, whereas my connection (design) explains everything. It explains how 2 constructions, the interrupted construction ('roman') and the turning front ('cursive'), originated from the same ambivalent Roman minuscule. It explains why the contrast of mediaeval handwriting increased continuously. It explains why the interrupted textura became ever narrower whereas the cursive hands became wider. And it explains why finally typography turned to the old-fashioned writing ('littera antiqua') of the Italian mannerists. All these phenomena have been 'explained' previously as the impact of religion, humanism, economy, social changes and other 'spirits of the time' which explain nothing because they could explain anything. I demand of an explanation of design that it explains design. This is my only justification of disturbing my students with history. My history has to bring the forces of design into their control.

The 'delicacy' which is attributed by Parkes to Anglo-Saxon handwriting, because its word spaces were minimal, is merely a characteristic of any Western writing unless it is bad. (Scholars are accustomed to bad handwriting and to poorly justified typewriters.)

Probably Parkes does not understand much more of design than I do of linguistics. This difference in attitude, method and purpose reinforces the discovery we are sharing: the word has been invented by Irish scribes in the beginning of the seventh century.

Besides making mediaeval design understandable this turning point in the history of Western civilization could help us to improve the teaching of reading. *The puzzle in Letterletter 6* is rooted in my view on history.

Of course, you could be satisfied with the present state of education and you might really believe that the textura was narrow because the cathedrals of later centuries were quite high. Then you would have no need for reasonable history as a substitute for cherished myths.

Worth repeating

It is worth repeating:

All innovations caused by the broad nib were used (often abstracted and adapted) in other materially dictated ways of writing too, but one can go further: it is also possible to state that none of the few innovations that came about in some specific non-ink ways of writing had spread to the ink script or any other writing tradition. The identity of Trans-Jordanian alphabetic writing in the Iron Age.

The author, Dr Gerrit van der Kooij, supposes that handwriting dominated lettering because in the Semitic kingdoms of the eighth century B.C. the craft of writing was taught as handwriting.

I suppose that writing is always and everywhere taught as handwriting because the stroke of the hand (guiding a tool) is the basic artefact.

Of course, everybody will continue to believe the books which will continue to copy the other story, but I will always be prepared to repeat the message of Van der Kooij:

Civilization is founded on the stroke.

Semitic writing

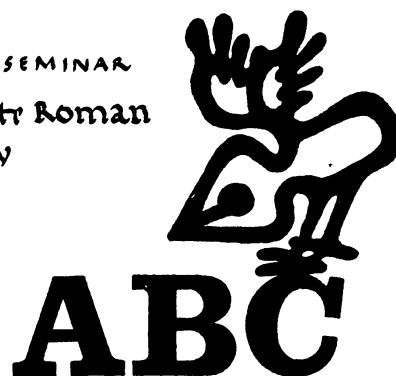
I always tried in vain to understand the differences between Phoenician, Aramaic and ancient Hebrew handwriting. Van der Kooij solves this problem elegantly:

Hebrew: direction of the frontline 15-30°

Phoenician: " 45-50°

Aramaic " > 60°

THESEMINAR
Write Roman
now



I made Letterletter 7 in a hurry (within 2 weeks). Nevertheless I succeeded in making it almost as unbelievable as the Truth. I hope you will enjoy it.

The editor

Gerrit Noordzij

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