Runor och ABC

Elva föreläsningar från ett symposium i Stockholm våren 1995

Staffan Nyström (red.)

Sällskapet
Runica et Mediævalia
Opuscula 4

Sällskapet Runica et Mediævalia
Riksantikvarieämbetet
Stockholms Medeltidsmuseum

Stockholm 1997

The Romans and the Runes – Uses of Writing in Germania

Henrik Williams

If everything has a beginning, it must also have an end. One of the most commonly asked questions about the runes is: "When did they die out?". It is exceedingly difficult to answer this question; maybe the runes did not "die out" at all, considering today's interest in everything runic. There is perhaps more written with runes today than ever before. But if we speak about runes within some sort of genuine, non-scholarly tradition, late 19th century inscriptions in Älvdalen can be said to constitute the end of runic writing.

In figure 1 only a few runes remain intermingled with Latin letters. This indicates the way in which the runes disappeared – they did not just die, but were gradually assimilated into Latin script until all the runic character was lost.

It is tempting to guess that the runes originated in the same way as they disappeared. I believe that the runes have been influenced by Latin writing during many periods of their existence, not least in medieval times. I also think it likely that both the origin and the end of the runes are to be attributed to the Latin alphabet.

The present paper concerns the origin of the runes, one of the most intensely debated issues in runology. My intention is not however to propose a new theory of *how* the runes were created (although for such a theory see Williams 1996) but to discuss the question of *why* the runes were invented, for what purposes, and in what environment.

I would like to begin by giving a very brief account of the different theories concerning the origin of the runes. Today everyone agrees that there must be a classical alphabet behind the oldest *fuþark*: the runes ᚨ and ᛒ prove this beyond any reasonable doubt since shape and sound value coincide with those of classical alphabets. The three classical candidates are the Latin, Greek, and Etrus-

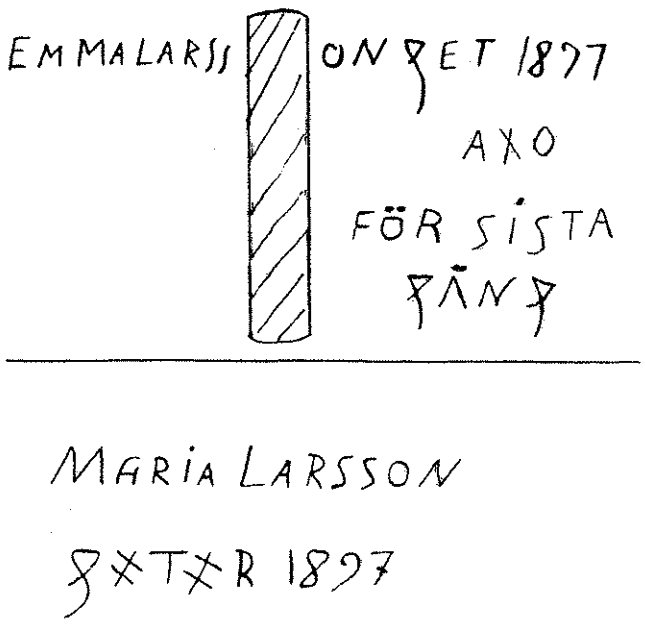

Fig. 1. *Two inscriptions from Älvdalen, Dalecarlia, Sweden. After Gustavson & Hallonquist 1985, p. 20.*

can scripts. Not only do we have to discuss three different systems of writing however, but also the vastly different times at which the invention of the runes may have taken place. Everything from the 6th century BC to 400 AD has been proposed by different scholars. Opinion also varies as to whether one should derive the runes from cursive – book writing – or epigraphical writing. Yet another complication arises from the fact that some scholars propose that the runes were patterned on different variants of alphabets, some of which are lost forever or (at least) as yet unknown. As may be understood, what we have here is a very confused situation.

Why is this? Why is it so difficult to point to a time at which the runes were invented, a place where this occurred, and a writing system from which the runes were "borrowed"? The problem is, of course, that we do not *know* when or where the runes were first used. I do not primarily refer to the difficulty in dating the runic texts or the items on which they are inscribed, but rather the problem of how long a period of time one should assume passed from the origin of the runes to the occurrence of the first known inscriptions.

To start with, we do have a number of fairly well dated objects carrying probably contemporaneous runic inscriptions that date from the end of the second to the beginning of the third centuries. These finds show quite a widespread geographical distribution: today's Norway, Gotland, Skåne, Denmark and probably northern Germany and northern Poland as well. Even if one claims that the oldest runic inscriptions have a certain concentration to Danish territory, it is equally evident that one must allow for a certain lapse of time from the creation of the runes to the time from which the oldest inscriptions date. If I have understood the archaeological material correctly, there is no cause to believe that the find situation changes drastically in the centuries around the birth of Christ. There is thus no reason to labor with the idea that the runes were in use for many centuries before the finds start appearing. The number of rune-inscribed objects is quite substantial from the very start; it is not a case where they appear in isolation over a long time-span. I would venture to assume that the runes were neither created too close to the period from which we know them, nor *too* distant from that time either. If we date the origin of the runes to the first century and a half AD, we should be on the safe side.

Considering the time and place from which the oldest runic inscriptions are known, an alphabet model is most likely to be found among the Romans. They controlled the area between the Rhine and the Elbe from 12 BC to 9 AD (see figure 2), but were then forced to withdraw to the Rhine. Here they remained, in close contact with Germanic tribes, during the critical period when the runes were created. We cannot, however, rule out the possibility of Germanic tribes whose trade and other contacts with more distant cultures influenced them to create a script of their own. But is it natural for the literate culture close at hand to be passed up for something more distant? The oldest runic inscriptions come not from the

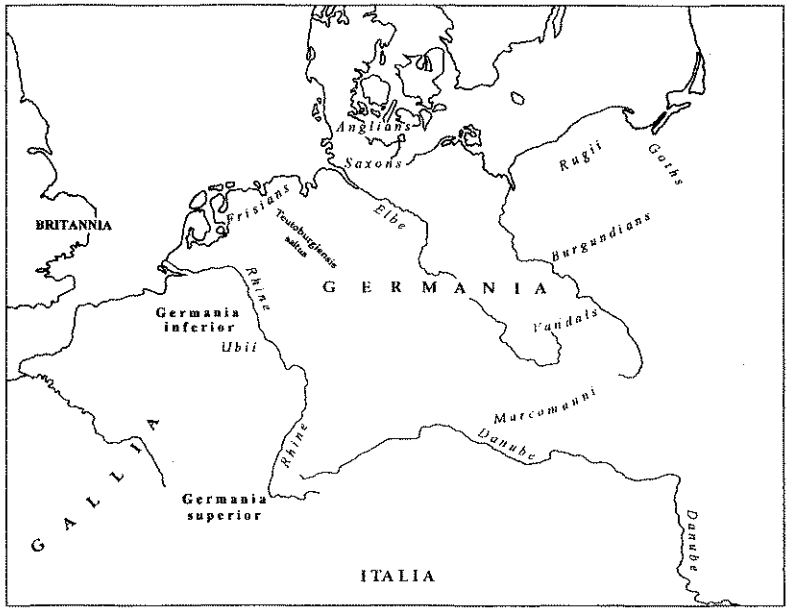

Fig. 2. *North-Western Europe in Roman times.*

eastern or southern parts of *Germania*, along the Danube, but from the north and north west.

The contact between the Romans and the Germanic tribes can hardly be exaggerated. Trade was important to both sides; furs, slaves and amber were exchanged for glass and wine, utensils of bronze and later on, above all, for gold. Germanic mercenary soldiers were already employed by Caesar, and the knowledge of Roman warefare that Germanic troops acquired thereby is thought to have affected the outcome of the famous battle in the Teutoburger forest, where the Roman army was slaughtered.

The point in time at which the Romans attained their maximum territory thus coincides with the *earliest* point at which the runes are likely to have been created, and the first stage of unrest and subsequent spread of the Germanic tribes about the middle of the second century happens to correspond with the *latest* point at which that invention probably took place.

The question of *when* the runes were created may therefore be

given a reasonable answer, even if a somewhat imprecise one. As for the place of origin of the runes, north western *Germania* seems the most likely candidate, possibly today's southern Denmark or north western Germany. The question *why* the runes were invented should really be reversed. Given the contact with Roman culture, it would be a strange thing indeed if some Germanic individual had *not* been impressed by the Roman art of writing and tried to imitate it. *How* this imitation took place and eventually led to the creation of the runes is something we know little about. But there is one powerful corrective in all discussions about the origin of the runes: we *do* know what the result was, the end product of the process which derives runes from letters. By studying a number of objective characteristics of the runes one is able to draw certain conclusions as to their origin. These characteristics are primarily:

a. The order of the runes
b. The names of the runes
c. The general appearance of the runic graphs
d. The field of application of the runes
e. Certain runic forms.

a. The order of the runes

We have a number of rune-rows attested from at least the fifth century onwards. These show slight variations, but excepting the final two runes, it is possible to establish the order of the runes with reasonable certainty (see figure 3):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
ᚠ	ᚢ	ᚦ	ᚨ	ᚱ	ᚲ	ᚷ	ᚹ	ᚺ	ᚾ	ᛁ	ᛃ	ᛇ	ᛈ	ᛉ	ᛊ	ᛏ	ᛒ	ᛖ	ᛗ	ᛚ	ᛜ	ᛟ	ᛞ
	ᚣ														ᛋ			ᛠ					
f	*u*	*þ*	*a*	*r*	*k*	*g*	*w*	*h*	*n*	*i*	*j*	*ï*?	*p*	*z*	*s*	*t*	*b*	*e*	*m*	*l*	*ŋ*	*o*	*d*

Fig. 3. *The older runes: their sound values and chief variants.*

The most striking aspect of this order is its utter dissimilarity with any of the classical scripts, as well as with any other system of writing. As a matter of fact, the order of the runes can be statistically

only arbitrarily related to that of, for example, the Roman alphabet.

Since the runes, as was shown above, must necessarily be related to at least one of the classical alphabets, their deviant order is a most unexpected feature. When the Greek letters were borrowed from the Phoenician, the Etruscan from the Greek, and the Roman (probably) from the Etruscan, the alphabetical order was in principle maintained (which, of course, is why the terms *alphabet* and *fuþark* respectively, are used).

The fact that the *fuþark*-order is so aberrant must be allowed to play a prominent role in the search for the origin of the runes. Since classical alphabets kept that particular order, the runes are not best compared with these systems of script, at least not in this respect, a fact overlooked by some runologists (for example Moltke 1985, p. 38 ff.). It is more rewarding to compare the runes with the syllabary used by the American Cherokee people and the Celtic *ogham* letters.

Sequoya (or Sikwaya) was a Cherokee chief who in the beginning of the 19th century invented a syllabary eminently suited to his own language. His system of writing spread quickly and is still used for the writing of Cherokee. He is presumed to have borrowed the letters from early European colonists, perhaps from someone learned in the Scriptures, since both Roman, Greek and Hebrew letters appear to be used by Sequoya. The important point is that none of the syllabic symbols has any sound value in common with the letter that it was obviously modeled upon. Furthermore, the order of the Cherokee syllabary has nothing in common with any alphabet.

The Celts first used classical letters before they invented the *ogham* system of writing around 300 AD. *Ogham* consists of symbols made up by strokes or dots on a vertical line. The script was modeled on the Roman alphabet, but *ogham* letters are not arranged alphabetically.

Most scholars studying the origin of the runes seem to assume a high degree of intimate knowledge of the classical lending alphabet on the part of their inventor. The search for a one-to-one correspondence between letters and runes is symptomatic of this attitude. The aberrant order of the *fuþark* indicates one of two things: either the inventor of the runes did not know her or his source alphabet very well, or else there must have been a radical change in the circumstances in which the runes were used. If they were invented in close contact with a classical alphabet, the runes must soon have come to be employed in a totally different situation, otherwise the main common characteristic of the classical scripts – again their alphabetical order – could not have been discarded.

b. The names of the runes

Ogham does not follow alphabetical order and its letters are named, just like the runes. The trait of using names unites *ogham* and the *fuþark*. The names of the latter, **fehu*, **uruz*, **þurisaz* etc. are not attested before they appear in manuscripts from the ninth century onwards. However, the use of so-called "Begriffsrunen", i.e. runes used ideographically with their own rune name as semantic content, from at least the seventh century, indicates that the rune names were not a learned invention of the monks who wrote the manuscripts, but rather part of a genuine tradition. Even though the set of names is not entirely fixed, the slight variation always has one common feature: the acrophonic principle, i.e. the rune name starts with the sound represented by the rune, except in two cases where this sound cannot be used initially.

The main question to be answered is, what necessitated the rune names? It seems that this might be a key to the origin of the runes. Letter names are common among all the alphabetical scripts, but there are different types. The Phoenician letters had meaningful names such as *'alef* 'bull' and *bét* 'house'. The Greek borrowed these names along with the letters, but they became meaningless and only functioned as proper names: *alpha* and *beta*. The Etruscan-North Italic and Roman letter names are strictly phonological: a syllable without meaning, wherewith the sound value of the letter is signified by the initial (or final) sound of its name: *a*, *be* etc. The *fuþark* and *ogham* utilize none of the type of letter names evidenced by any of the classical alphabets; instead, the letter names of the *fuþark* and *ogham* resemble the Phoenician type, even though they cannot be derived from that writing system.

The rune names like the Celtic letter names had to be meaningful to satisfy a mnemonic purpose. The rune names were arranged in a

poem which facilitated their learning. The "school system" of the Germanic tribes must, of course, have been very different from that of the Roman Empire. The latter possessed formal schools, and the ability to read and write was not a privilege only of the few. Soldiers in the Roman army, for example, had to know these skills. Although more characteristic letter names were obviously not necessary to teach the Roman letters, this was not true of the runes. Whatever the runes may have been used for, they do not seem to have been backed up by a rigorous plan of formal instruction.

c. The general appearance of the runic graphs

The "angular" character of the runes has been explained as caused by the properties of the wood the runes were designed to be carved in. This may of course be true, although it is never wise to argue something on the basis of a vast corpus of material not yet found, or even lost forever. There *are* a few early inscriptions on wood, but those that exist are not always totally angular, nor do they always avoid horizontal lines, as has been presupposed. It must also be emphasized that some other scripts have a markedly "angular" character, for example the North Italic letters, without anyone having claimed that *they* were designed primarily to be carved in wood.

The *fuþark* is an epigraphical script. That type of writing operates with a limited number of distinctions. This means that individual rune forms may be found in close or identical shapes in other systems of writing without any organic relationship whatsoever. The individual examples which occur as early as the Bronze Age rock carvings led some early scholars to believe that these symbols were the mother of the runes. A more remarkable instance is evidenced by the so-called Kök Turki runes which derive their name from their great likeness to "our" runes (figure 4).

In fact, no less than 17 of the Kök Turki runes are identical in shape to Germanic runes, but there is no similarity in sound values at all. Yet the fact that runic forms seem to occur spontaneously should not tempt us to conclude that the runes could have arisen totally independently. As pointed out earlier, the close correspondence between certain runes and letters, *both* in shape *and* sound value,

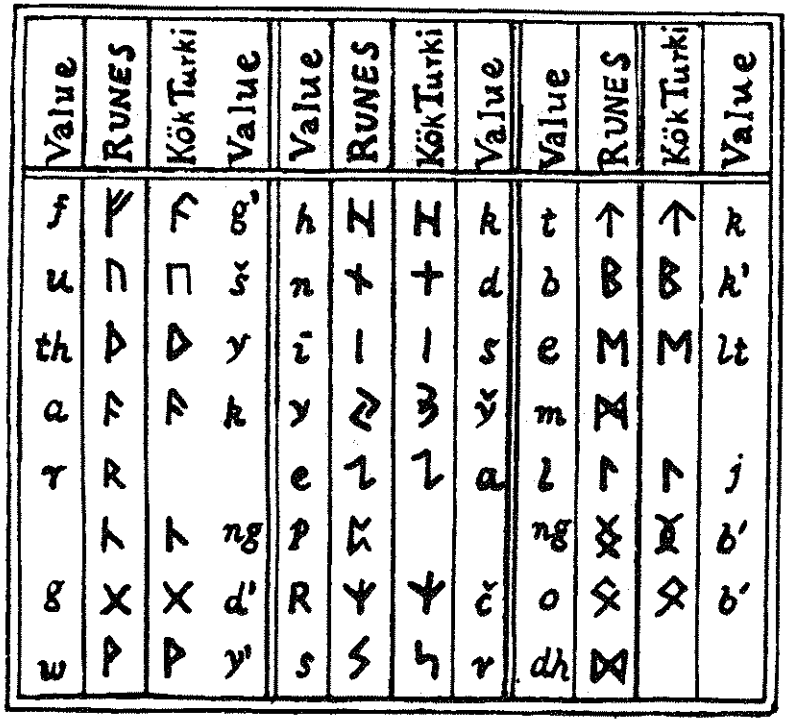

Fig. 4. *Kök Turki runes. After Diringer 1968, p. 234.*

prohibits this. Although there is a limited set of variables for constructing a rune, the number of possibilities is still vast, and the probability of more than a chance occurence of identical shapes is slight. If all the runes can be proved to closely correspond in shape with *all* the letters of one of the classical alphabets (or vice versa), it is extremely likely that this is where the origin of the runes is to be found.

d. The field of application of the runes

Richard Morris, who has published a monograph on the origin of the runes, states (1988, p. 6): "a Germanic speaker must have known

how to speak and write a Mediterranean language before he could make the association between a Mediterranean graph and a sound in the Mediterranean language. Being able to write also implies that a person can analyze and separate sound sequences into distinctive segments and then graphically reproduce them."

This means that the epigraphy is comprised not only of the shape and sound value but also, to quote Morris: "the direction of writing, the use of ligatures, interpunction, the vocabulary of writing, writing techniques, types of inscriptions, and spelling conventions" (Morris 1988, p. 2).

Morris studies all of these factors in a convincing manner and reaches the seemingly inescapable conclusion that the runes are modeled on a Pre-classical, probably Greek, alphabet from the 5th century B.C. (loc.cit., p. 156 f.). Since Morris' result would mean that the runes were invented at least 500 years before any archaeological traces of them are found, his conclusions have failed to convince many of his runological colleagues. Morris can of course be right in his presupposition that the inventor of the runes must have been well acquainted with a classical alphabet. The common practices in Archaic Greek and Runic writing as regards direction of writing etc. are not always as obvious as Morris claims, but even if they were, they would prove only that the *creation* of the runes took place in close contact with a classical writing tradition. Many factors, however, such as rune names, order of the *fuþark*, certain incongruities between runic form and expected sound values (compared with the supposed classical model), prove that the runes for some reason were *removed* from an intimate contact with their source alphabet.

The most interesting factor to study is actual runic usage. Bengt Odenstedt, who has written the latest monograph on the subject (1990), has made a calculation of the textual contents of the oldest runic inscriptions (p. 171 f.), based on the interpretations in Wolfgang Krause's corpus edition (1966) which, I think, means an overestimation of supposedly magical inscriptions. Even so, Odenstedt's basic premise (loc. cit., p. 172) is likely to be correct and his results reasonable: "about a quarter of the inscriptions consist of a single word, a quarter are obscure or uninterpretable, and a quarter magical"; nor are the rest overly impressive. Odenstedt (p. 173) reminds

us of Anders Bæksted's argument "that it is not feasible to postulate that what has been lost had an entirely different character from what has been preserved." One might add that it is hardly likely that the runic inscriptions which have survived should belong to the *least* competently executed ones. It should rather be the reverse, since what we have is often inscribed on valuable objects, such as fibulas, clasps, weapons, medallions (including bracteates), and even large horns of solid gold. Nor should monumental rune stones indicate a less capable runographer than inscriptions in wood. The preserved examples of the latter show nothing to contradict this. Thus the runic inscriptions on perishable objects are not likely to have contained longer, more intelligible, better executed, or more refined texts that the texts that we actually know of.

Odenstedt concludes: "The adoption of a civilized nation's writing system is an immense step to take for an illiterate, primitive people, and it would be unrealistic to expect quick progress", but here he may be over-stating his case. Apart from the unfortunately chosen word "primitive", I think that Odenstedt should have been satisfied with attacking the question from the angle "illiterate".

The reason we do not find runic texts that are longer, more perfect, and more packed with meaning is because they were not made to be. The Germanic society was not without a writing system, but it was nonetheless functionally illiterate. The Romans used *their* letters for a great number of purposes from private letters and pornographic graffiti to monumental inscriptions to honor the emperor. Latin writing was used for administration, literature, and religion; it was an instrument for entertainment, communication and the execution of power. The Germanic tribes could imitate the act of writing, and they *could have* employed the runes for some of the practical purposes filled by the Roman letters but they did not, since Germanic culture was oral, not literate, for hundreds of years after the invention of the runes, in Scandinavia for more than a millennium.

It is hardly an extraordinary assumption that the runes were used for limited purposes, in spite of having been borrowed from a highly literate culture. It should suffice to allude to the script of Linear B, used by the Myceneaens in the second millenium B.C. exclusively

for accounting purposes, with no literary or religious function whatsoever.

One must also analyse how writing systems are really borrowed. As far as I am aware, previous scholars have only been interested in comparing the invention of the runes with the conception of the classical alphabets. I have tried to show that there are important differences between the runes and their Mediterranean counterparts. There are other scripts available for comparison, and I have mentioned a few of these.

e. Certain runic forms

There is one factor that should be considered carefully, bearing in mind what was stated earlier about the unlikelihood of a runic graph resembling by pure chance a letter in the alphabet from which the other runes are posited to have been borrowed. This means that if we believe that the Greek alphabet is the source of the runes, and that for example the ᛟ-rune is derived from *omega* Ω, it should follow that the ᚷ-rune stems from *chi* X. This argument is not followed by any of the proponents of the Greek theory. Sophus Bugge and Otto von Friesen do derive the ᚷ-rune from *chi* X, but the ᛟ-rune from *omikron* O. Richard Morris derives the ᛟ-rune from *omega* Ω but the ᚷ-rune from *gamma* Γ. Elmer Antonsen is consistent on this point but takes the ᛜ-rune from *qoppa* ᛩ, although there is the Greek *omikron* O which he does not use (see figure 5).

"Straight-forward" derivation	ᛟ < Ω	ᚷ < X	
Bugge's, von Friesen's derivations	ᛟ < O	ᚷ < X	
Morris' derivation	ᛟ < Ω	ᚷ < Γ	
Antonsen's derivation	ᛟ < Ω	ᚷ < X	ᛜ < ᛩ ≠ O

Fig. 5. *Derivation of* ᛟ *and* ᚷ *respectively, according to various theories.*

All these examples are theoretically possible, and the individual scholars have made enormous efforts to explain the formal development of individual runes and the reason why certain letters in the original alphabet could not be used for the rune with the corresponding sound value, or were not used at all. One example of each should suffice. Bengt Odenstedt believes that the Roman letters are the sole source of the runes. If this is so, then since both Latin and Proto-Germanic had a phoneme /p/ and the graph P, ᛈ, is found in both the Roman alphabet and the *fuþark*, one would have expected these virtually identical letters to be used with the same sound value. This is not the case, since the rune ᛈ is used to represent /w/. Odenstedt explains this aberrant fit by the extreme rarity of the phoneme /p/ in Proto-Germanic, a misapplication of the fact that /p/ is scarce in *initial* position.

Secondly one also wonders why Odenstedt tries to exclude the Roman letter K, which was inherited from Greek or Etruscan, on the grounds that it was used only rarely, while accepting Y and Z, which were added only around the first year of our era to record words from Greek.

As stated before, all these presuppositions are perfectly possible, but if they are true, I would claim that the quest for the origin of the runes must be in vain. The reason is simply that any assumption of anything more than the slightest development (such as slanted instead of horizontal, direction, or inversion) from mother letter to posited runic heir really opens a flood-gate of possibilities. Let me choose two examples.

Elmer Antonsen (1975:10) derives ᚲ from K by means of "Faulty analysis", i.e. that K, when part of a ligature (where the crook of the rune was attached to the main-staff of another rune) was falsely analyzed as, for example, ᛗ + ᚲ. Antonsen will not allow ᚲ to have developed from Γ because of the small size of the rune which, according to him, is to be considered a forbidding argument.

Bengt Odenstedt (1990:167) wants to derive Q > ᛜ and O > ᛟ, and not the other way around, as: "Perhaps the inventor(s) of the *fuþark* might have felt that small runes should be reserved for consonants". If *ad hoc* explanations like this one are to be allowed virtually *any* development is possible and the origin of the runes could be anything, given enough time between the posited invention and the actually recorded inscriptions.

As already stated, it is not my intention here to present another theory of the origin of the runes. This paper has a much more limi-

ted purpose, that is to discuss some factors related to the situation in which the runes were created. As a conclusion I would like to claim that none of the theories of the origin of the runes that have been proposed in the last century and a half has met with widespread approval, but I would add that none of them has been conclusively disproved.

If any future theory is to gain general acceptance it must fulfill two conditions. First of all it must be complicated enough to account for the fact that nobody has thought of the solution previously. Secondly it must be so simple that everybody will say: "Of course, why did we not think of that before?". All the theories hitherto proposed contain a common fallacy: they are impossible either to prove or disprove since they presuppose so many farfetched derivations of individual runes that even if true, then any other development would be equally possible and just as likely.

The study presented here has tried to point out the direction in which we ought to look for the origin of the runes. Chronological and historical facts indicate that the runes could have been created at a time and in a place where the Germanic tribes were in close contact with a literate people. This was the situation during the first hundred and fifty years of our era in north western *Germania*.

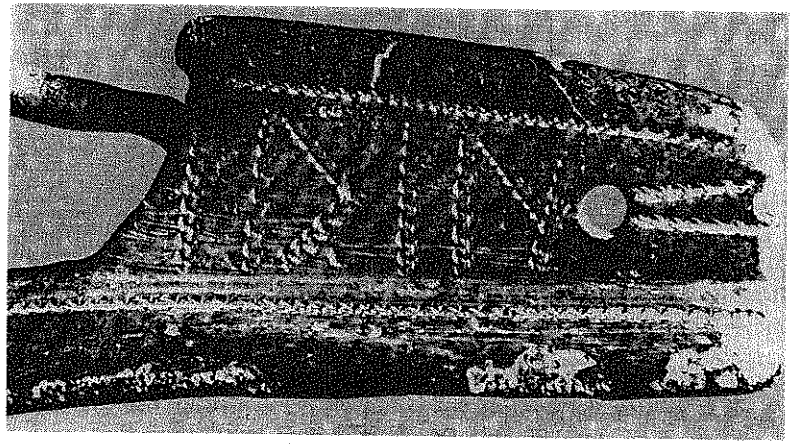

Fig. 6. *The Meldorf inscription. After Zeitschrift für deutsches Altertum und deutsche Literatur (1983 p. 153)*

A sceptical reader might ask: Is there any evidence to support this hypothesis? I would not go as far as admitting it as evidence, but there *are* some indications. Just as the Celts experimented with classical letters, likewise did the tribes of *Germania*; at least the Ubii south of the Rhine (see figure 2) definitely used Latin letters during the second century AD for inscriptional purposes. The very earliest inscriptions within the Germanic area proper are also interesting. The now-famous fibula from Meldorf (figure 6) bears an inscription from the first century AD that may be runic, but is more likely to represent a stage of experimentation with Roman letters, possibly "proto-runes". There is also the potsherd from Osterrönfeld, Kreis

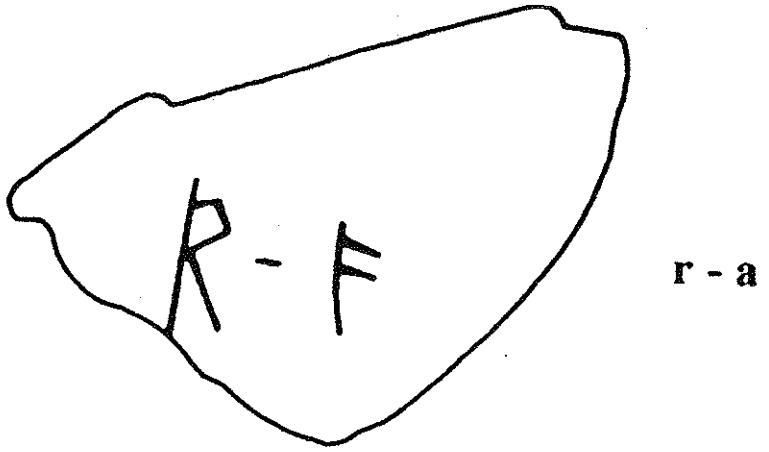

Fig. 7. *The Osterrönfeld inscription. After Marold 1994, p. 16.*

Rendsburg-Ekernförde, (figure 7) with two symbols that are certainly letters of some kind. One looks very Roman, the other equally runic. They were inscribed before the pot was fired in the oven and the object is dated to the first century AD.

These two inscriptions are but fragile indicators of the fact that experimentation with writing is an ever-continuing process. Although they *prove* nothing definite about the origin of the runes, they do allow me to summarize this paper with the reminder that in the search for the origin of the runes: all roads lead to Rome!

Bibliography

Antonsen 1975 — Elmer H. Antonsen, *A Concise Grammar of the Older Runic Inscriptions*. Sprachstrukturen, Reihe A: Historische Sprachstrukturen 3. Tübingen.

Diringer 1968 — David Diringer, *The Alphabeth. A Key to the History of Mankind* 2, 3 ed. London.

Gustavson & Hallonquist 1985 — Helmer Gustavson & Sven-Göran Hallonquist, *Runor i Dalarna*. Stockholm.

Krause 1966 — Wolfgang Krause & Herbert Jankuhn, *Die Runeninschriften im älteren Futhark* 1–2. Abhandlungen der Akademie der Wisseschaften in Göttingen, philologisch-historische Klasse dritte Folge 65. Göttingen.

Marold 1994 — Edith Marold, „Keramikscherbe aus Osterrönfeld", *Nytt om runer* 9.

Moltke 1985 — Erik Moltke, *Runes and their origin: Denmark and Elsewhere*. Copenhagen.

Morris 1988 — Richard L. Morris, *Runic and Mediterranean Epigraphy*. North-Western European Language Evolution (NOWELE), supplement 4. Odense.

Odenstedt 1990 — Bengt Odenstedt, *On the origin and early history of the runic script. Typology and graphic variation in the older Futhark*. Acta Academiae Regiae Gustavi Adolphi 59. Uppsala.

Williams 1996 — Henrik Williams, "The Origin of the Runes", *Amsterdamer Beiträge zur älteren Germanistik* 45.

Runica et Mediævalia

Opuscula

1. Göran Dahlbäck (red.), *Snorre Sturlasson och de isländska källorna till Sveriges historia. Fem föreläsningar från ett symposium i Stockholm hösten 1988* (1993).
2. Inger Lindell (red.), *Medeltida skrift- och språkkultur. Nio föreläsningar från ett symposium i Stockholm våren 1992* (1994).
3. Göran Dahlbäck (red.), *Miljö och livskvalitet under vikingatid och medeltid. Fem föreläsningar från ett symposium i Stockholm hösten 1990* (1995).
4. Staffan Nyström (red.), *Runor och ABC. Elva föreläsningar från ett symposium i Stockholm våren 1995* (1997).

Scripta minora

1. Roger Andersson, *Postillor och predikan. En medeltida texttradition i filologisk och funktionell belysning* (1993).
2. Monika Asztalos & Claes Gejrot (eds), *Symbolae Septentrionales. Latin Studies Presented to Jan Öberg* (1995).

Scripta maiora

1. Åke Nisbeth, *Ordet som bild. Östgötskt kalkmåleri vid slutet av 1300-talet och början av 1400-talet* (1995).
2. Stefan E. Hagenfeldt & Rune Palm, *Sandstone Runestones. The use of sandstone for erected runestones* (1996).