Raetic and Runes

On the relevance of North Italic inscriptions for the question of the origin of the Runic script

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The paper investigates the potential role of the Raetic inscription corpus for the derivation of the Germanic futhark. It gives an overview of the North Italic corpora and the current state of research, focussing on the Raetic epigraphical evidence. A detailed comparison of the grapheme inventories of Raetic and Runic as well as their respective epigraphical characteristics shows that the Raetic alphabets do not serve as convincing models for the Runic script.

1. Introduction

As remarked by Düwel in the current RGA entry on *Runenschrift*, the observation that the issue of the origin of the Runic script is much debated has become a "stereotype Eröffnungsattitüde" (2003: 579) in the runological literature concerned with this topic – far be it from me to exempt myself from this time-honoured practice. When embarking on my thesis project, I found that the comparison of the numerous theories which have been proposed since Wimmer 1887 is hampered by the lack of consensus concerning the weighting of the aspects of the problem (archaeological context, phonetics, historical sources, alphabet history, cultural history, …), as the starting point often determines the result. But it was specifically the relative merits of the models involving the North Italic alphabets that I found difficult to assess. The main reason for this was the unsatisfactory state of the edition of the documents. Fortunately, much progress has been made in this respect in the previous decade. Now that particularly the Raetic and Cisalpine Celtic material is more readily accessible, the verification of claims made in the literature is easier, and the lines of argumentation can be evaluated with more certainty. Furthermore, close analysis of the North Italic alphabets has shown that the number of graphically almost identical, but orthographically dis-

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tinct variants is higher than expected. When searching for potential models for individual runes or Runic writing practices among North Italic inscriptional evidence, attention must be paid to which variety the respective features pertain to – particularly since one of the most frequently criticised aspects of the North Italic theory of Runic derivation is the tendency of the scholars concerned to disregard the heterogeneity of the North Italic corpus and its local and chronological writing traditions and to employ a "cherry-picking" approach to the search of models for runes. In the present paper, I will give an overview of the state of research on the North Italic alphabets of Transpadania and the Alpine area, and try to answer the question of whether any aspects of specifically the Raetic writing culture qualify as possible models for characteristics of the Runic script.

2. Transmission of the alphabet to Northern Italy

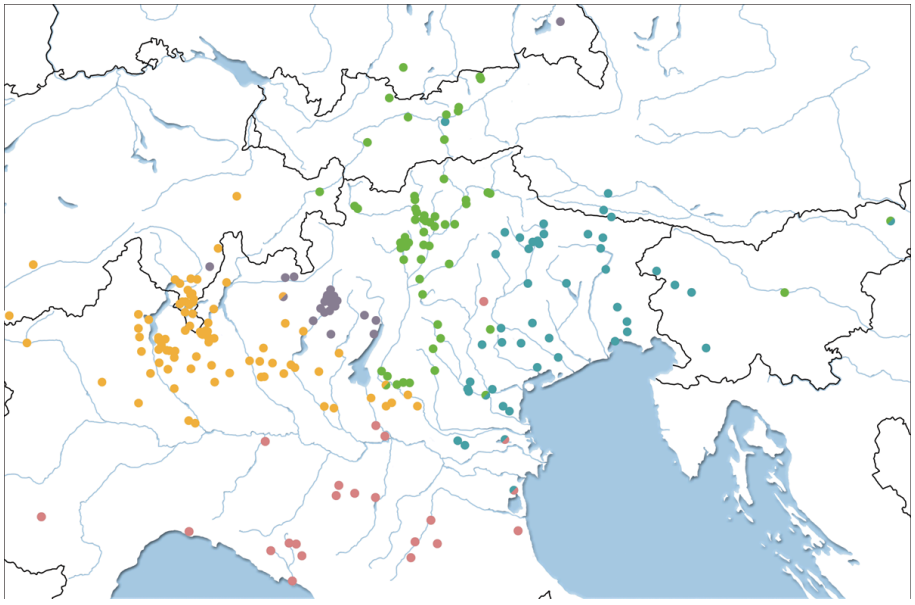
2.1 Etruscan

In the 8th century BC, the island of Pithekoussai (modern Ischia) off the coast of Campania was colonised by Greeks from Euboia. The acquisition of their script by the Etruscans on the mainland was not a long time coming: the oldest inscription, on a kotyle from Tarquinia (ET Ta 3.1), is dated to about 700 BC (Wallace 2008: 17). Etruscan had a stop system with two phonemic sets written with the Greek characters for the voiceless unaspirated (pi, tau, kappa [/gamma/qoppa]) and the voiceless aspirated (phi, theta, chi) sets. A phonetic realisation very much like the Greek one is *communis opinio* among Etruscologists (Wallace 2008: 30 f., but see n. 5). The obsolete characters for the Greek voiced stops eventually dropped out of the alphabet row. Gamma, however, was preserved in Central/Southern Etruria as part of a curious orthographic rule for writing contextual allophones together with kappa and qoppa, which has its roots in Greek writing practice.[1] The northern part initially used only kappa, but gamma ended up replacing both the other characters as the exclusive letter for the non-aspirated velar stop in the entire Etruscan area. Owing to the lack of phonemic /o/ in Etruscan, omicron fell away. In the 6th century, after a phase of writing the sound /f/ with a digraph ‹vh› or ‹hv›, an additional character 8 was created for the phoneme and added at the end of the alphabet row. The Etruscan language appears to have had – apart from a dental affricate written with zeta – two sibilants /s/ and /ś/ (probably [ʃ])

1. See Cristofani 1972: 471 and Wachter 1987: 16 ff.

which were written with sigma and san – in the central and southern parts sigma for /s/, san for /ś/, the other way round in the north.[2]

In the early phase, the writing direction is not fixed; from around 600 BC onwards Etruscan inscriptions are generally sinistroverse, until Latin influence triggers a switch to dextroverse writing in the 1st century BC. Unlike in Greek practice, boustrophedon writing is rare. The archaic Etruscan texts often dispense with word separation, which only establishes itself in Neo-Etruscan time (from the 4th century onwards; Wallace 2008: 17–19).



Map 1. Find places of North Italic inscriptions: yellow = Cisalpine Celtic, purple = Camunic, green = Raetic, blue = Venetic, together with the northernmost Etruscan material (pink)

2.2 Venetic

The Venetians are speakers of an Indo-European language that is part of or at least close to the Italic branch. The Venetic inscription corpus is the most extensive of the North Italic corpora, and includes a large number of Latino-Venetic documents from the last centuries BC. The inscriptions are dated to between the early 6th and the 1st centuries BC; the find area extends from the Po delta in the southwest to the Dolina Soče in the east and the Gailtal in the north. The standard

2. See Agostiniani 1992: 43 for a possible explanation.

edition is still Pellegrini & Prosdocimi (1967), whose sigla (type "Xx 1") are used in this paper. Collections of more recent finds can be found in Prosdocimi (1988) and Marinetti (2004).

For the traditional view on the origin of the Venetic alphabet (from the Etruscan alphabets of Adria and Spina) see Pellegrini (1959). According to the more recent theory of Prosdocimi (e.g. 1988), we have to distinguish between two phases of Venetic writing. The first version of the Venetic script ("phase 1"), as attested in the inscription *Es 120 (Prosdocimi 1988: 182–284), dated to the beginning of the 6th century at the latest, is based on a model from Northern Etruria, while a separate tradition lies at the root of most of the younger, locally diverse alphabets (Este, Padova, Làgole di Cadore, etc.; "phase 2"). The archaic Venetic alphabet features a rare form of theta ×, which is found in a handful of late 7th and 6th-century inscriptions from the Northern Etruscan cities of Poggio Civitate, Chiusi and Volsinii,[3] and employs the digraph ‹vh› to write /f/ rather than the younger letter 8. Syllabic punctuation is absent.

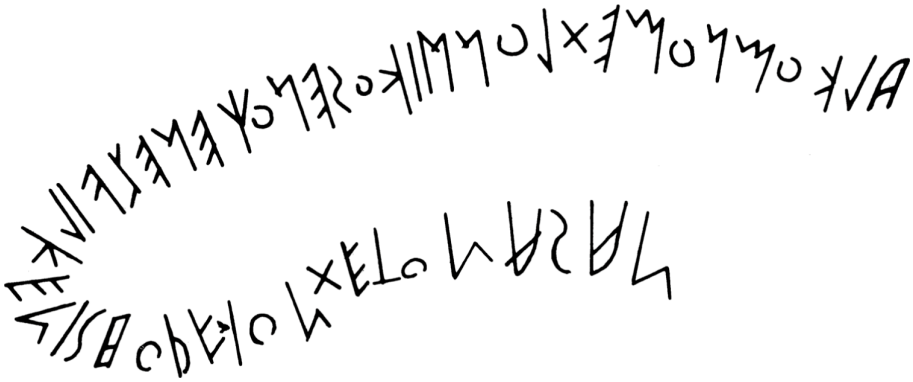


Figure 1. The archaic Venetic inscription *Es 120 *alkomnomeθlonśikosenoχenesvilkenishorvionθetonasan* **alkomno metlon śikos enogenes vilkenis horvionte donasan** on a kantharos from Este (from Prosdocimi 1988: 329 [Figure 297]). Museo Nazionale Atestino, inv. no. unknown

The younger alphabet of Este is unusually well documented on a number of votive writing tablets from the Baratella sanctuary-cum-writing school and distinguished by syllabic punctuation,[4] both of which phenomena connect it with

3. See Tuck & Wallace 2012: 10 and Colonna 1972: 470.

4. The system of syllabic punctuation revolves around the concept of the basic syllable (CV), by which writing appears to have been taught in the scribal schools of Veii and Este. All letters for sounds which are not part of a simple CV-syllable are punctuated, i.e. marked by medial dots put before and after the respective letter. This concerns syllable-initial vowels and conso-

the 6th-century writing tradition of the Portonaccio sanctuary in Veii in the south of Etruria. Syllabic punctuation became the key feature of Venetic script, though alphabets from other parts of the Venetic area deviate from the Este alphabet, most prominently in the writing of the dental stops. Prosdocimi argues that the various younger phase-2 alphabets represent different solutions for reconciling the archaic Venetic alphabet with the younger Southern Etruscan model and particularly with the theoretical grid on which the writing instruction was based.

Whether the Venetians still had access to the characters for voiced stops (as *lettres mortes* through Etruscan teaching) is hard to judge, but they did not use them to write their own voiced stops. Instead, they employed the superfluous letters for the Etruscan aspirated row.[5] While, in the case of labials and velars, this transition appears to have happened smoothly (pi = /p/, phi = /b/; kappa = /k/, chi = /g/), the characters for the dentals were shifted around. *Es 120 demonstrates the use of tau for /d/ (in *donasan*, the plural form of the well attested *donasto* 'gave'); the above-mentioned theta ᛝ was used for /t/. This distribution is also documented for the phase-2 alphabet of Vicenza. In the younger Este alphabet (and also in the sanctuaries of Làgole and Auronzo di Cadore), /t/ is written as a large St. Andrew's cross ᚷ, but zeta is employed to write /d/. A third combination is found at Padova, where first tau ᛏ, later a large St. Andrew's cross are in use for /d/, while /t/ is written with a more traditional framed form of theta ᛜ.

The origin of the letter in the shape of a St. Andrew's cross is somewhat obscure. Prosdocimi (1988: 332), regarding the archaic distribution, explains tau for /d/ and theta for /t/ by assuming a developing homography of ᛏ and ᚷ. The phonetic values were swapped before the characters were differentiated again, which led to St. Andrew's cross being used for /t/ henceforth. Prosdocimi points to the Lugano alphabet and the Este alphabet tablets, on which the letters can be unambiguously identified by their position in the consonantal alphabetarium, for evidence of a tendency of tau to develop towards a cross-shape. To further avoid homography in this area, tau was substituted by zeta at Este; at Padova, the form of theta was changed to ᛜ, which allowed tau to turn into ᚷ. In other words,

nants in the syllable coda. Clusters of a certain structure (obstruent + *r*/*n*/*l*, also *kv*) qualify as simple onsets and are not punctuated. For details see Prosdocimi 1988: 336–342.

5. Prosdocimi (1988: 331–333) argues that the Venetians used the characters for the Etruscan aspirates because they preferred superfluous active letters, despite the wrong sound values, over *lettres mortes* (whereas they reactivated the "dead" omicron because there was no alternative available among the active letters). Differently Rix (1997: 244), who – assuming that the second Etruscan obstruent set was not aspirated, but fricative – holds that phi, theta and chi were in fact the obvious choice, because the Venetic voiced stops were articulated as spirants in the intervocalic *inlaut*.

according to Prosdocimi, X has two separate origins: from theta at Este, from tau at Padova.[6]

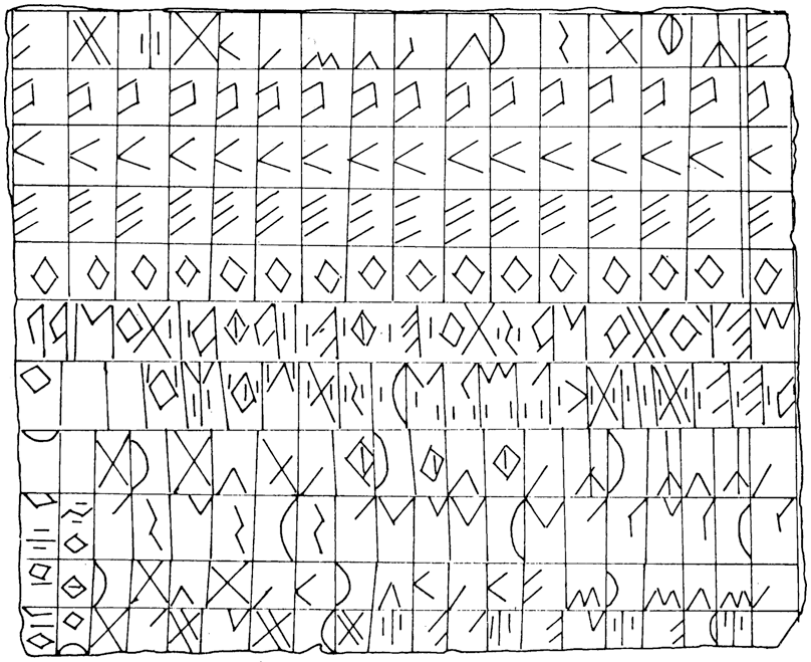


Figure 2. The writing tablet Es 23 with consonant, vowel and complex syllable sequences, a full alphabetarium, and inscription *meχozona.s.to.e.φ.vhaφa.i.tśap* | *ora.i.o.pio* | *roφo.s.* **mego donasto e(…) b(…) Fabaitśa Porai op iorobos** from the Baratella sanctuary at Este (from Prosdocimi 1988: 271 [Figure 256])

The Venetic script features omicron, which, in the younger Este alphabet, is situated not in its original place, but at the very end of the row, as evidenced by

6. On the Este writing tablets, where the letters can be unambiguously identified by their position in the consonantal alphabetaria, tau appears – with Prosdocimi: is retained as a *lettre morte* – in the shape of a cross, similar to, but clearly distinct from, theta: while tau is small and sometimes lopsided, theta is a large St. Andrew's cross whose tips reach into the corners of its panel. Since the grid lines of the rectangular panels into which the individual letters are inscribed are regularly used as hastae, it has been argued that the entire frame around the St. Andrew's cross representing theta is supposed to be part of the letter, forming a large, but otherwise inconspicuous ⊠. Theta would then have come to be reduced to only the cross through reinterpretation. This explanation, however, does not account for the early appearance of × and its apparent connection with Chiusi; note also that of six preserved tablets, two lack engraved grid lines and feature theta without a frame.

the votive tablet Es 23, the only one which bears a complete alphabet row (in addition to the usual consonant-only row; see Figure 2). While omicron is usually assumed to have been acquired directly from the Greek alphabet (Pellegrini 1959: 191–193), probably through contact with Greeks settling in and south of the Po delta, Prosdocimi (1988: 329) prefers to think that it was taken as a *lettre morte* from the Etruscan alphabet in phase 1, and retained in phase 2, where it had to be appended, because the Etruscan phase-2 model had already discarded omicron, so that the letter had no place in its original position in the alphabet grid. The Venetic use of sigma vs. san follows the Southern Etruscan use, sigma being the character used for the default sibilant and san leading a marginal existence. This is also the case in the archaic inscriptions – Prosdocimi (1988: 330 f.) suggests that the unmarked Venetic sibilant was closer to the Etruscan marked one and was therefore written with sigma, while san was sporadically used to represent dental clusters with fricative features. Finally, one of the distinctive features of the Venetic script is the frequent inversion of lambda ᚳ and upsilon ᚴ, which, according to Prosdocimi (1971: 33), is due to a "regolarizzazione del ductus" with preference for tip-up orientation, minimising distinctive features (especially in relation to pi ᚱ). A reviewer points out that the two letters are also inverted in the South Picene alphabet (which also features pi with two bars ᚷ), as well as in a handful of early Latin inscriptions, notably the Tibur Pedestal inscription CIL I,2 2658 (ca. 500 BC; see Vine 1993: 88–90 with further examples).

2.3 Cisalpine Celtic

The alphabet used in the western part of Northern Italy is called the Lugano alphabet; it renders Celtic languages once spoken in Northern Italy and Italian Switzerland (cp. p. 128–133). Inscriptions in a Cisalpine Celtic language called Lepontic begin to appear in western Transpadania somewhat before 600 BC; the Lepontic core area lies between Lago di Como and Lago Maggiore, later in the Ticino, and coincides with the archaeological Golasecca culture of the late Bronze and early Iron Age. The younger inscriptions render both Lepontic and Cisalpine Gaulish, the language of the Celtic invaders from ca. 400 BC onwards. The inscriptions are collected in *Lexicon Leponticum* (LexLep), to which sigla in this paper refer (type "XX·1").

It has so far proved hard to understand how the characters for obstruents are used. Pi, kappa and St. Andrew's cross are the standard letters for stops and can be shown to have been used for both voiceless and voiced stops. While phi

does not occur at all,[7] chi, traditional tau with one vertical hasta, traditional theta ⊕ or ⊙ and zeta are used variously and in different combinations. The Prestino inscription (CO·48; see Figure 3), a lengthy inscription on a stela, is the only Lepontic text in which a systematic use of a full set of characters for dentals can be observed: tau in the shape + demonstrably stands for /d/ (*tetu* [dedu:] 'dedicated'), so that theta ⊙ appears to stand for /t/. Zeta ‡ represents the dental affricate (more precisely, the tau gallicum phoneme in *uvamokozis* [uφamogotsis] or [uu̯amogotsis] < **upamo-g*^{h}*ostis* 'having the highest guests'); St. Andrew's cross is absent. Pi and kappa are used for /b/ and /g/. The orthographic systems which underlie this and other inscriptions and their chronological significance remain to be determined.

Apart from up to three ceramic pieces (VA·5, CO·53, CO·54) bearing the sequence *aev* – arguably the beginning of the alphabet after beta, gamma and delta dropped out – we have no alphabetaria from the Cisalpine Celtic corpus. The St. Andrew's cross of the Lugano alphabet could be Chiusi-style theta, or it could be the Transpadanian lop-sided tau which features in Prosdocimi's theory about the Venetic dentals. Beta, delta and gamma are absent until the appearance of Latin(oid) inscriptions from the Roman Imperial Age, but omicron is present from the earliest inscriptions. As in Venetic, it may have been available from an Etruscan model (Gambari & Colonna 1988: 144 f.), or introduced from (in this case Massilian) Greek (Pellegrini 1959: 193–195). On the allocation of sigma (for the sibilant) and san (for the tau gallicum phoneme and, later, /d/) see Stifter (2010: 368–374) and below. Pi and lambda are distinguished systematically as ᚴ vs. ᚳ; upsilon appears tip-down ᚡ, though inverted forms ᚢ do occur. Alpha has two oblique hastae (ᚨ and similar) in the archaic inscriptions, later changing into ᚫ.

Figure 3. The Prestino inscription CO·48 *uvamokozis : plialeθu : uvltiauiopos : ariuonepos : siteś : tetu* (from Morandi 2004, 642 [Figure 30, no. 270]). Museo Archeologico "Paolo Giovio" Como, inv. no. 8777

The Celtic languages, just like Venetic, being of Indo-European descent it is at this point difficult to determine the extent to which the similarities of the alphabets could be the results of parallel development due to speakers of similarly structured languages having acquired similar (or identical) models. Certain features

7. The possible attestation in the inscription BG·20, discussed by Maras 2014: 83 f., strikes me as highly dubious.

of the Lugano alphabet may have been derived from or have been influenced by the Venetic writing tradition or vice versa. The chronology is not helpful, as the oldest Lepontic inscriptions come from roughly the same time as the archaic Venetic ones, though they were recently suggested to be somewhat older by Maras (2014: 73 f.), which would make them maybe even slightly older than *Es 120.

Rix (1997: 232) regards the presence of omicron, St. Andrew's cross and especially the Prestino inscription with tau for /d/ and theta ⊙ for /t/ (i.e., Padovan orthography) as evidence that the Lugano alphabet is derived from Venetic. The evidence of the Prestino inscription's dentals is qualified by the theory of Colonna/Maras, who posit an archaic Golaseccan alphabet in which not only the letters for dental stops (as in Venetic), but the entire sets for obstruents are transposed, i.e. pi, tau and kappa write the voiced stops, (phi), theta and chi write the unvoiced stops. Colonna (Gambari & Colonna 1988: 144 f.) argues for a derivation from a recently reduced Etruscan alphabet from which omicron could still be revived, but the active letters for the aspirates were chosen over the discarded letters for voiced stops; Maras (2014: 77) suggests the possibility that the letters for aspirates were in fact preferred for phonetic reasons, viz. the aspiration or spirantisation of the Celtic voiceless stops. However, Maras (82 f.) considers St. Andrew's cross to be not tau, but theta, to account for the letter's appearance in places where we would expect /t/ (e.g. the verbal form [karite] in VA·6), assuming that after original theta ⊙ had been replaced by X, the opposition between tau and theta was neutralised. The use of sigma for /s/ is explained by Colonna by assuming that the use of the two characters was not determined phonetically, but that sigma was always used for the most common sibilant – the alveolar sibilant in Southern Etruscan and in Celtic, the palatal sibilant in Northern Etruscan. Maras (77 f.) prefers to think that the Celtic situation with only one sibilant was so unlike the Etruscan one that sigma may have been chosen at random. According to Maras (73 f.), the spread of writing to the area of Golasecca at the end of the 7th century BC belongs in the context of the general transmission of writing to the Etruscan north via inscribed prestige gifts exchanged among members of the elite.[8]

2.4 Camunic

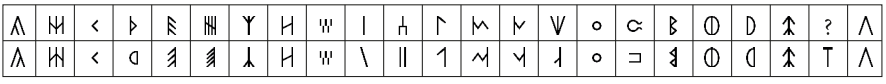
The corpus of the so-called Sondrio alphabet ("Camunic script"), conspicuous for its obvious graphic peculiarities, comprises the rock inscriptions of the Valcamonica, and a handful of documents from other places whose characters bear resemblance to those of the petrographs, though the alphabets cannot be said to

8. Cf. Verger (2001: 312 f.), who argues for a transmission of the Etruscan alphabet to western Transpadania via the area of Genova and the Scrivia valley.

be identical. Indeed, different systems appear to have been employed within the Valcamonica itself. The sigla system is not standardised, but useful collections are provided by Mancini 1980 and Tibiletti Bruno 1990. The language of the rock inscriptions, called *Camunic* after the demonym *Camunni* documented by the ancients, has not yet been convincingly analysed or connected to any of the surrounding languages (Schumacher 2007). The other inscriptions have been argued to encode diverse languages, and remain mostly enigmatic.

Despite the fact that the Sondrio alphabet is clearly derived from a Mediterranean alphabet, the identification of many letters is difficult: rock inscriptions from different localities, alphabetaria and the (possibly idiosyncratic) documents from abroad appear to exhibit substantial differences in the use of some characters, which so far could be neither conclusively sorted out individually nor reconciled. The picture presented by the twelve alphabetaria, or fragments of such, from the Valcamonica (first edited in Tibiletti Bruno 1990; see also Tibiletti Bruno 1992) in particular demonstrates that the Sondrio alphabet is the odd one out among the North Italic alphabets. Table 1 shows the characters as they appear in two distinct groups of alphabetaria. The presence of a complete Greek row has been suggested to indicate that the Sondrio alphabet was derived directly from a Greek source, without Etruscan intermediation. What is more, the Greek model has been argued not to have been of the "red" variety like the Euboic alphabet from which the other Italic alphabets ultimately derive (Tibiletti Bruno 1992: 374–378; Schumacher 2007: 335). Even under such a premise, the shapes of the letters are highly unusual.

Table 1. Camunic alphabetaria from Piancogno and the Foppe di Nadro. The first line gives the alphabet row PC 10 from Piancogno, with letters slightly standardised where their shape deviates from Camunic standard (nu, qoppa). The positions of mu and nu as well as of gamma and delta are interchanged in the original, delta being written in ligature with beta. The ligature and possibly the inversion of the nasals also occur in the very similar row PC 27. The other alphabetaria or fragments of such from Piancogno are PC 6, PC 12, and probably PC 28. The second line gives an ideal alphabetarium from rock 24 of the Foppe di Nadro, based on FN 3, FN 4, FN 5 and FN 6, where only FN 3 and FN 6 are complete. Here, also, the letters for the nasals are interchanged. The two other alphabet fragments FN 1 and FN 2, also on rock 24, both end with waw (?) and display a variant form of gamma ᚴ



3. Raetic

3.1 The corpus

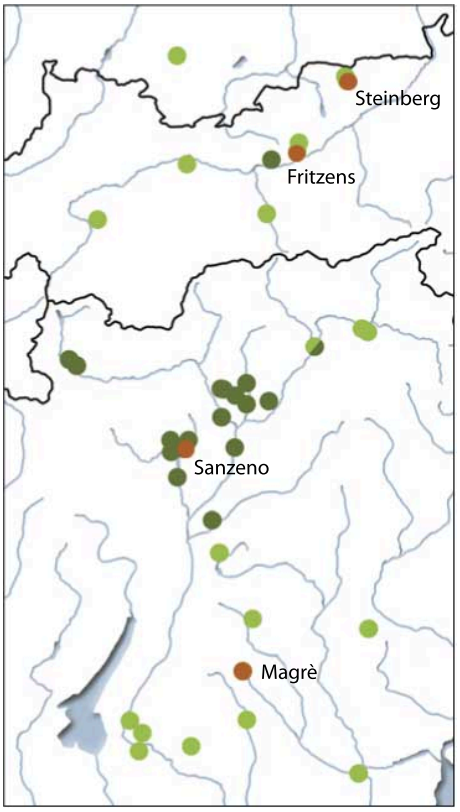
The term *Raetic* refers to some 400 inscriptions on about 300 objects found mainly in the Trentino, the Veneto, as well as in North and South Tyrol; outliers come from the Lower Engadine, Southern Bavaria, and Slovenia. The inscriptions are dated to between the late 6th and the 1st centuries BC and are the only attestations of the Raetic language, a non-Indo-European language of the Alpine region. The most up-to date edition is the online edition *Thesaurus Inscriptionum Raeticarum* (TIR), where the reader can find complete commentaries on all inscriptions mentioned in the present paper, with images and references to further literature. Raetic inscriptions are cited according to TIR, i.e. the sigla system established by Schumacher 1992 (type "XX-1").

The corpus as it presents itself today contains a large number of documents – roughly a third of the inscriptions – whose relevance to the study of the Raetic language is doubtful (e.g. putative factory marks, possibly pseudo-script, and many undefined para-script sequences). The language-encoding texts are mostly short, though a few long ones have up to about forty letters. They are written on the usual pottery, bronze vessels and stones, as well as the typically Raetic half-plastic bronzes and antler pieces. In contrast to the Venetic and Celtic corpora, funerary inscriptions seem to be rare; well nigh all the inscriptions which lend themselves to interpretation contain ritual texts, mostly votive, often from archaeologically definable ritual contexts. Petrographs have been found in the very north of the Raetic area. The association of epigraphic finds from the Trentino and South Tyrol with the ancient ethnonym *Raeti* goes back to the middle of the 19th century and has turned out to be quite adequate: the corpus now covers an area which fits reasonably well with the localisations of Raetic tribes given by the ancients[9] and coincides largely with the areas of the archaeological Fritzens-Sanzeno and Magrè groups (Lunz 1981: 198 f.). Even Livy's observation that the Raetic language was akin to that of the Etruscans (V 33, 11) was eventually verified (Rix 1998; Schumacher 1998): together with Etruscan, and Lemnian in Asia Minor, Raetic constitutes the Tyrsenian language family.

Owing to the predominance of votive texts, the analysable Raetic inscriptions contain mainly names. We can identify the Raetic name formula, which consists of an individual name and, usually, a patronym in *-nu*/*-na*. Votive inscriptions

9. E.g. Pompeius Trogus (transm. Justin XX 5), Pliny Nat. Hist. III 130. 133. 135. 146, Polybios Hist. XXXIV 10, 18 (transm. Strabo Geogr. IV 6, 12), Strabo Geogr. IV 3, 3. 6, 6–8. V 1, 6), Cassius Dio Hist. Rom. LIV 22.

name the dedicant, often in the pertinentive case and in combination with a deverbal noun in *-ku* (e.g. WE-3 *lasta-si elu-ku piθam-nu-ale* 'donated by Lasta son of Piθamne'; see Figure 10).



Map 2. Find places of Raetic inscriptions written in the Magrè (light green) and Sanzeno (dark green) alphabets

3.2 The Raetic alphabets

Linguistically Raetic inscriptions are written in two alphabets. These alphabets differ from each other in the use of graphic variants of a handful of letters but share certain features that set them apart from the other North Italic alphabets and can therefore be considered typically Raetic. They are traditionally named after the most important find places, i.e. Magrè and Sanzeno (indicated on Map 2). Pi, lambda and upsilon are the shibboleth characters which primarily distinguish the Magrè and Sanzeno alphabets (Whatmough 1933: 507; Prosdocimi 1971: 31–34). The Magrè alphabet employs forms typical of Venetic alphabets:

inverted lambda 𐌛 and upsilon 𐌍, and pi with a pocket 𐌟 vel sim.[10] The Sanzeno alphabet bears a closer resemblance to the Lugano and Etruscan alphabets in that it features the traditional forms lambda 𐌋, upsilon 𐌅 and pi 𐌐 with a single bar. According to Prosdocimi (1971: 33), the Venetic system of distinction is a variation of the archaic Etruscan one, while the Sanzeno-forms (especially pi with a single bar) correspond to younger Etruscan ones. However, pi 𐌛 is already found in 7th-century Chiusi (e.g. Cl 2.1, 2.4). While the orientation of lambda and upsilon is not quite consistent in the Venetic alphabets (e.g. 𐌋 in Es 16, 𐌅 in Es 22), in Raetic the two systems are rarely ever mixed.

Table 2. The characteristic letter forms of the Magrè and Sanzeno alphabets

	pi	lambda	upsilon
Magré alphabet	𐌟	𐌛	𐌍
Sanzeno alphabet	𐌛	𐌋	𐌅

In addition to the above-mentioned ones, three other letters appear consistently in different graphic variants in the two alphabets. Tau appears with the bar rising in writing direction, and usually not crossing the hasta, in the Sanzeno alphabet (𐌕).[11] Heta, though not common, has three bars 𐌇 in the Magrè alphabet, but two 𐌇 in the Sanzeno alphabet. Both alphabets feature graphically innovative characters for the dental affricate: 𐌦 in the Sanzeno alphabet, 𐌣 exclusively at Magrè (otherwise absent from Magrè-type inscriptions). Vestiges of Venetic syllabic punctuation are found only in the Magrè alphabet, while word separation is only employed in the Sanzeno alphabet.

The most evident feature unifying the Raetic alphabets is a negative one: the absence of omicron. Given that it is linguistically motivated (one may conclude that Raetic, like Etruscan, did not to have phonemic /o/), it does not provide a strong argument for the epigrahic correlation of the two variants. Purely epigraphic characteristics connecting the two are mu 𐌌 with only three bars, as well as two characteristics pertaining to writing direction: alpha written 𐌀 with the bar slanting downwards against writing direction, and sigma written 𐌎 with the upper angle opening against writing direction. Both the latter features are prevalent in the Magrè alphabet and almost exclusive in the Sanzeno alphabet.

The areas in which the Magrè and Sanzeno alphabets are used are neatly separated (see Map 2). The Sanzeno alphabet is used in the central area, i.e. the Val di Non, the upper Adige valley and the Eisacktal, with tributary valleys and

10. In Venetic, the pocket is almost always open, more similar to archaic Etruscan 𐌛.

11. For argumentation in favour of this new reading, see Salomon 2017.

Table 3. The Magrè and Sanzeno alphabets (standardised dextroverse) with transliteration

	alpha	epsilon	waw	zeta	heta	theta	iota	kappa	lambda	mu
Magrè										
Sanzeno				–						
	a	*e*	*v*	*z*	*h*	*θ*	*i*	*k*	*l*	*m*

	nu	pi	san	rho	sigma	tau	—	upsilon	phi	chi
Magrè										
Sanzeno										
	n	*p*	*ś*	*r*	*s*	*t*	*þ*	*u*	*φ*	*χ*

the surrounding highlands. Its area of distribution mostly coincides with the core area of the Fritzens-Sanzeno culture (South Tyrol and the Trentino). Magrè-type inscriptions, as may be expected from their affinity with the Venetic script, come from the area of the archaeological Magrè group, i.e. the Alpine foothills south of Trento between the Adige and Piave rivers. This includes the inscriptions from the area of Verona, and stray finds from the Padan plain. Inscriptions from the north of the Raetic area (the Wipptal and North Tyrol), which is associated with the Fritzens-Sanzeno group, including the petrographs, are written in the Magrè alphabet as well.

The difference between the two alphabets also involves chronological parameters. A group of (potentially) archaic inscriptions on atypical objects from various find places[12] are written in Venetoid alphabets, though they appear to work with different character sets and orthographies. A Venetoid (Magrè-type) tradition continues through the 4th century and becomes dominant from the 3rd century onwards. The notably homogenous Sanzeno alphabet appears to be a speciality of the central Raetic area during the 5th and 4th centuries – it may have emanated from the putative Sanzeno sanctuary at the Casalini and spread to those Raetic tribes who shared in the respective cult, in much the same way in which the major Venetic alphabets seem to be tied to sanctuaries. We find a considerably larger extent of geographic and diachronic variation within the province of the Magrè alphabet than in the Sanzeno inscriptions. Apart from the archaic inscriptions mentioned above, a number of local and maybe chronological variants can be distinguished. For example, the character  is used only in the votive inscrip-

12. HU-7 on the Situla in Providence, PA-1 on the Paletta di Padova, PU-1 on the Lothen belt plaque, VR-3 on the Spada di Verona.

tions on antler pieces from Magrè itself; syllabic punctuation is only employed in inscriptions from Magrè and Serso. Pi appears in a peculiar shape with a large pocket 𐌑 in North Tyrol, and a letter 𐌕 which writes a dental (here transliterated with *t*) and whose formal derivation is unclear appears in a number of inscriptions from before ca. 300 BC (Salomon 2017). Northern Etruscan orthographic influence may be detected in the inscriptions from the area of Verona.

3.3 The petrograph alphabets

Petrographs from the Raetic area and displaying linguistically Raetic features have been found (so far) only in the very north, viz. in the Northern Limestone Alps. The Schneidjoch (ST; one inscribed wall) and the site of the Achenkirch inscriptions (AK; two walls) are located close to each other in the Rofan mountains in the Steinberg/Achensee region (North Tyrol); the Unterammergau inscriptions (UG; min. three walls) are found in southern Bavaria. Not all of the inscriptions are epigraphically or linguistically utilisable – of some, only faint traces can be seen, many are doubtful, a few are most probably not Raetic or even script. Among the utilisable petrographs, two groups emerge involving both epigraphic and linguistic features:

1. Sinistroverse inscriptions that contain the well-attested Raetic two-part name formula in the pertinentive case (where decipherable), featuring normal Venetoid lambda 𐌋 and other standard letter forms, and being generally inconspicuous (ST-1, ST-2, ST-3, AK-1.1, AK-1.2, AK-1.6, AK-1.7, AK-1.19, AK-1.21).
2. Mostly dextroverse inscriptions of unclear linguistic content which show certain special features (to varying extent): the punctuation of suffixes,[13] the ligature 𐌍 *nu*, and peculiar letter forms (four-stroke sigma 𐌎, lambda 𐌊, and kappa 𐌊 with bars which do not touch in the middle). Of these inscriptions, ST-5 (the only sinistroverse one; see Figure 6) and ST-6 are particularly similar in structure; AK-1.11 (as well as the fragmentary AK-1.10, AK-2.1 and AK-2.2) may be grouped alongside. Dextroverse AK-1.17 lacks the punctuated suffixes, but has 𐌎 and apparently a (different) ligature.[14]

13. In ST-5, ST-6 and AK-1.11, the suffixes of the syntagma *-nu-ale* (patronymic suffix + ending of the pertinentive case) appear to be marked by puncts.

14. The utilisable inscriptions attested in the Ammertal are hard to compare with the material from the Rofan mountains due to their shortness; both are dextroverse, UG-1.1 features four-stroke sigma.

The inscriptions of the first group (type 1) are written in the Magrè alphabet, with inverted lambda and upsilon (and possibly pi 𐌡 in ST-2), and with the typically Raetic orientation of sigma, but traditional North Italic alpha with the bar slanting down in writing direction. ST-2 and 3 may show influence of Este orthography in the use of zeta for [d̨]. As concerns the second group (type 2), the position of ST-6, which must have been applied after type-1 ST-3, suggests that this type is younger; the epigraphic peculiarities cannot at this point be classified. A specific affinity with the Venetic sphere is indicated by lambda 𐌋, which is typical for the Venetic alphabet of Làgole di Cadore, and possibly Venetic heta 𐌇 in ST-5; four-stroke sigma only occurs elsewhere in Raetic in PU-1, which, however, shares the use of zeta with the type-1 petrographs (see below). Punctuation of suffixes rather than syllabic punctuation is not known from Venetic; the ligatures stand isolated as well. None of the Raetic petrographs show any particular affinity to the only rock inscriptions in the Venetic corpus, those from Würmlach in the Gailtal (Gt 13–23).

Apart from the somewhat doubtful and epigraphically Camunic AV-1 and a recently found inscription from the Fern pass (Kirchmayr & Schumacher 2019), the rock inscriptions are the only attestations of Raetic from beyond the Inntal. Any propositions concerning the ultimate function of these inscriptions and the identity and purpose of the writers must at this point remain speculative. The Achental connects the Inntal with the Isartal and thereby with the Bavarian Alpine foreland, so the sites must probably be seen in the context of pre-Roman routes across the Alps. The small crevice which contains the Steinberg inscriptions may have been a sanctuary by a spring (Sydow 1989: 69 f.).

3.4 The derivation of the Raetic alphabets

According to Schumacher (2004: 312–316) and Rix (1998: 48–56), the Raetians learned the art of writing from the Venetians rather than directly from the Etruscans. While Raetic inscriptions are only known from at most the late 6th century BC onwards, the writing tradition beginning just at the time when contact with Etruscan culture was established via the Padan plain, some features of the Raetic script are supposed to suggest a Venetic source:

1. the putative employment of phi, chi and tau for lenes or voiced stops rather than for the second obstruent set,
2. the non-employment of zeta for the dental affricate (because zeta was not used at all or used to write /d/ in Venetic alphabets),
3. the use of St. Andrew's cross for the voiceless dental stop,
4. the use of sigma for the dental sibilant, while san is marginal,

5. rudimentary syllabic punctuation,
6. inverted lambda and upsilon.

However, it remains yet to be determined whether all Raetic alphabet variants are derived from the same model, and how the various writing traditions relate to each other. The non-employment of zeta for the dental affricate is a strong argument for a Venetic source, but, as indicated above, some of the similarities with the Venetic alphabets (points 5 and 6) can only be demonstrated for the Venetoid alphabets of the south and north of the Raetic area, subsumed under the term *Magrè alphabet*. A subset of these appears to be close to the archaic Venetic alphabet, although the sporadic use of (somewhat idiosyncratic) syllabic punctuation indicates an acquaintance with a phase-2 Venetic source. One common feature of the Raetic alphabets, three-bar mu 𐌌, is also found as the standard form in the Venetic alphabets of Vicenza and the Isonzo area, both of which are unfortunately represented by only a few documents. However, the Sanzeno alphabet clearly displays Etruscoid characteristics; St. Andrew's cross and the use of sigma and san might also be modelled on the Lugano alphabet. It seems likely that different Venetic varieties, and also Etruscan or Celtic writing practices, have, at different times, influenced Raetic writing.

4. Raetic and runes

4.1 Characters

The main reason for bringing the North Italic alphabets into the question of Runic derivation in the first place was that they provide a large variety of graphic letter variants which, not merely because of their overall "archaic" look and angularity, are reminiscent of runes (e.g. Seebold 1991: 29 f.; Rix 1992: 414. 416) and can be used to supplement character derivations where Wimmer's are forced and questionable (explicitly e.g. Luft 1898, Hempl 1896). The first version of the North Italic theory which had a real impact on the field was that of the Norwegian Celticist Carl J. S. Marstrander in 1928. Marstrander agreed with Wimmer and the proponents of the Latin theory insofar as he conceded that, with a number of runes being clearly derived from Latin, it was reasonable to try and derive the others from the same source. He pointed to ᚢ, ᚨ, ᚾ, ᛊ, ᛚ and ᛝ as forms which deviate from the corresponding Latin ones, and considered the Latin derivations of ᚦ, ᚹ, ᚴ, ᛇ, ᛉ, ᛞ and ᛜ as problematic. Of the latter group, four letters (ᚦ, ᚹ, ᛉ and ᛜ) represent sounds not present or not written in Latin, which led Marstrander to conclude that the entire group must be additional characters taken from

another alphabet. Going by the shapes of ᚨ, ᚢ and ᚴ, and the general angularity of the forms, Marstrander opted for the North Italic group. Evidence for a mixed Latin and North Italic alphabet was brought in via the recently discovered inscription from the Maria Saaler Berg in Carinthia – later revealed to be a fake (Pittioni 1937) – which Marstrander read as Runic. He concluded that the use of runes in 1st-century AD Carinthia pointed to the Marcomanni, who created the futhark, pick-and-mix, from the alphabets of the West Alpine region in their advanced state of Latinisation after the Roman Alpine campaign.

Mees (2000) also finds rune shapes in different North Italic alphabets, but posits the existence of an alphabet in North Italic tradition used by Alpine Celtic tribes in Vindelicia and Bohemia in the 2nd century BC, who passed it on to invading Germanic peoples. With a different approach, Markey assumes intensive contacts between the epichoric writing traditions of Northern Italy (2001: 94) and an "eastward shift" (2001: 83), which allows him to identify the Camunic alphabet as a sort of all-in variant (2001: 103). Rix (1992) is specifically concerned with explaining the use of multiple models for the Runic script; he derives runes from all North Italic alphabets. Rix' scenario – declared "the silliest invention hypothesis" by Markey (2001: 89) – is the following: Germanic mercenaries involved in the local struggles among the peoples of Northern Italy and of the Alps, testified to by the *Harigast*-inscription on the Negau helmet B, brought back with them numerous objects – weapons, clothing accessories and the like – which bore inscriptions written in various North Italic alphabets. They memorised the texts on these prized possessions by using Germanic words as acrophonic memory hooks. Some of these documents found their way to a sanctuary in Northern Germany or Southern Denmark, where Germanic priests were inspired to create a script from the scraps. Rix' model, though doubtlessly far-fetched, serves to explain a plurality of sources as well as the rune names, and also the deviant order of the row, as the priests never got to see any alphabetaria.

The only two runes for which specifically Raetic models have been suggested are ᛏ and ᚦ (Whatmough 1933: 509 f.; Rix 1992: 419 f.; 1998: 46; Markey 2006: 147 [n. 2]), these letters being graphically identical to or reminiscent of the Sanzeno and Magrè characters for the dental affricate, respectively. Neither of the Raetic characters can be readily identified with Mediterranean archigraphemes. Following Whatmough (1933: 508), both are transliterated here with the letter *þ* to distinguish them from and to avoid confusion with characters for dentals which go back to the Greek alphabet. The two characters do not seem to be graphically related to each other; instead, it is more likely that they were created independently in two different places in order to represent a sound for which the Venetic alphabets provided no character.

At Magrè, and only there, the character 𐗇 (MA-5 𐗇) occurs six times in six different inscriptions. Twice (MA-8, MA-9) it is used initially in the preterite verb form *þinaχe*, which can be directly equated with the Etruscan verb form *zinace* 'made' (Thurneysen 1933: 1–8).[15] As a consequence of this equation, the phonetic value can be determined as a dental affricate [t^{s}] vel sim. (Wallace 2008: 31 f.). Rix (1998: 47) and Markey (2001: 93; 2006: 155) consider 𐗇 to be developed from a digraph of tau and sigma or san. Whatmough (1933: 509 f.), assuming that 𐗇 was the original form to which a third angle was added "as a flourish", prefers to derive the character from theta via tau gallicum Ð. The Magrè character has a graphic comparandum only in Camunic alphabetaria, where a character 𐗇 occupies the position of san – san writes the tau gallicum phoneme in the Lugano alphabet, but 𐗇 cannot be the Magrè alphabet's san, as Raetic standard san 𐗍 is attested in the Magrè inscriptions (MA-4]*eiluke*[?]*śu*, MA-14 *esiumninuśur*, maybe MA-5).[16]

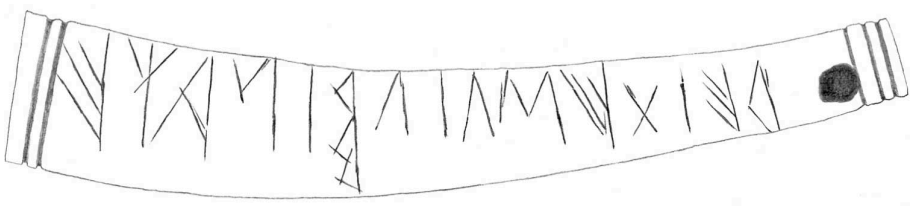


Figure 4. Inscription MA-8 *reiθemuiuþinaχe* on an antler piece from Magrè (Schio, Veneto) containing the letter 𐗇. Museo Nazionale Atestino, inv. no. MNA 58808

In the context of the Sanzeno alphabet, the character 𐗈 occurs twelve times in as many inscriptions. Its identification with the Magrè variant hinges on the one-off attestation of *þinake* written with 𐗈 in the anlaut in SZ-1.1 (Schumacher 2004: 304). The equation is supported by SZ-4.1 *þal*, which, being accompanied

15. The Raetic and Etruscan forms are lexically and morphologically equivalent, only the semantics of the equation are problematic. Etr. *zinace* means 'made', 'produced', appearing in workmen's inscriptions (Rix 1998: 44 f.; e.g. Ve 3.44/6.5 *mi*[*ni*] *zinace velθur ancinieś* 'Velθur Ancinieś made me'). The Raetic context is clearly cultic – all five certain attestations occur on votive objects, pieces of antler and a bronze which were produced specifically for donation; we would not expect any of these inscriptions to say "I made this". Examples for Etruscan votive texts with a similar structure can be found in Rix 1998: 43. Rix (44 f.) theorises that the two differing meanings 'made', 'created' vs. 'gave', 'dedicated' are derived from an original one 'put', 'place' → Raet. 'put up' vs. Etr. 'produce' (with IE parallels). An alternative is hinted at by Agostiniani 2011: 34 f., who translates Etr. *zinace* as 'ha inciso'.

16. It should maybe not be entirely ruled out that both a Camunic san 𐗇 vel sim. and standard Raetic san are used to write the affricate at Magrè, imitating Lugano orthography – *śur* is opaque, but for]*śu* cf. MA-2, MA-5 and MA-23 *-þu*.

by a plural form (*φute-r*), is highly likely to correspond to Etruscan *zal* 'two' (e.g Vc 0.74; Rix 1998: 57 f.), and the onomastic elements *vaþ-*[17] and maybe *nuþ-*.[18] Rix (1992: 420) suggests that ↑ is simply tau ⊤ with a broken bar.[19] The "arrow sign" is reminiscent of tau, but tau does not occur in this shape in the Etruscan alphabet or regularly in any of the Transpadanian alphabets, all of which have a single unbroken bar (e.g. Venetic [Vi 2] ⊤, Raetic [WE-4] ⊤, Lugano [CO·48] +). A character ↑ appears in the variable and problematic codas of the Camunic Piancogno alphabetaria and in the Sondrio-alphabet inscription on the Castaneda flagon (GR·3), but it is not clear whence it is derived and which sound value it represents, and whether there is a connection with the Raetic letter. An arrow-shaped character also appears in two difficult petrographs from Würmlach (Gailtal, Carinthia; Gt 20, Gt 22, ascribed to the Venetic corpus) – Pellegrini & Prosdocimi (1967 I: 627 f.) suspect pseudo-script, though they note the apparent "ductus « prerunico »" (also with ᚺ). Both the Magrè and the Sanzeno character may be creations from scratch (Schumacher 2004: 311), but a connection with a Camunic tradition cannot be excluded.

Figure 5. Inscription BZ-10.1 *tnake viθamu* (or *piθamu*) | *laþe*? on a stela from Stadlhof (Pfatten, South Tyrol), containing the letter ↑. Tiroler Landesmuseum Ferdinandeum, inv. no. 8.636. Drawing by Gudrun Bajc for TIR

17. Probably a loan name from Celtic **u̯ats-* < **u̯osto-* 'servant', 'slave', where *st* > *t*^{s} (tau gallicum phoneme; Schumacher 1998: 98 [n. 14]; see also Pellegrini & Prosdocimi 1967 II: 194); cf. CIL V 4376 *vassa*, Venetic Es 93 *vasseno* (Untermann 1959: 147. 152; 1961 I: 169).

18. Cf. maybe various Etruscan names from a base *nuz-* (see ET index p. 261), e.g. the nomina Cr 2.1 *nuzinaia* (gen.), Vs. 1.190 *nuzarnai*.

19. His later (1998: 47) suggestion works with an incorrect form (a misconception apparently caused by the transliteration sign used in Schumacher 1992). The Sanzeno variant is graphically identical with the Faliscan letter for /f/ (attested already in the oldest inscription in the 7th century BC), whose origin is equally obscure (Giacomelli 1963: 32 f.).

ᛏ – Sanzeno alphabet 𐌕. The letters are graphically identical; there are no graphic variants in Raetic, and only one maginal one ᛐ (Kowel and Valsfjord, see Odenstedt 1990: 127) in early Runic. Both denote dentals, but while ᛏ represents a stop, 𐌕 can be argued to stand for an affricate. ᛐ as on the Kowel lancehead appears sporadically, e.g. in archaic Venetic *Es 120, in the Venetic Isonzo inscriptions and in the Camunic alphabetaria from the Foppe di Nadro (in the place of tau), and, of course, in the Latin alphabet – the rune belongs with those which can be derived from a Latin letter without much difficulty.

ᚦ – Magrè alphabet 𐌸. As is the case with ᛏ and 𐌕, both the rune and the North Italic character denote dentals, and again the values do not quite fit (here spirant vs. affricate). Unlike ᛏ, ᚦ cannot be derived from a Latin letter without assuming graphic changes which cannot be convincingly motivated even with reference to supposed rules of rune formation. An association with 𐌸, whose graphic derivation is equally obscure, is therefore appealing, but given that the letters are not even identical, the comparison is not convincing. While it is true that the Raetic character, whose pockets are never rounded, appears with only two pockets 𐌢 once (MA-5), this form is unlikely to be a character variant, but is most likely due to sloppiness on the part of the writer: the comparatively complex Magrè character usually ends up being considerably taller than the other letters in the respective inscriptions, so that the omission of the lowest pocket does not strike me as an unreasonable move. ᚦ is ultimately no more similar to Raetic 𐌢 than it is to Latin D or Greek Δ, or to tau gallicum Ð vel sim., as suggested by Marstrander (1928: 107 f.). Phonetically, the Raetic letter and tau gallicum denote affricates, the Latin and Greek letters stops, so that both could be considered only approximations for the Germanic spirant. A letter graphically identical to Runic ᚦ appears in the place of delta in the Camunic alphabetarium PC 10 from Piancogno (see Table 1; Schumacher 2007: 336).

The fact that both of the specifically Raetic letters have potentially corresponding Runic forms, and – all being dental characters – with vaguely appropriate values at that, may seem immediately suggestive, but the connection is not evident. However, the appearance of both forms (or variants of them) in Camunic context (specifically the Piancogno alphabetaria), which is notable for providing a number of graphic comparanda with runes, may yet be significant, and remains to be investigated.

Among the runes that can be identified with Mediterranean archigraphemes with reasonable certainty, some bear resemblance to variants which are attested in Raetic inscriptions:

| – iota I. Being the graphically simplest and hence probably the most stable of the alphabetic letter forms, iota in the shape of a full-length vertical is present in Raetic as it is in all of the relevant alphabets. The letter is of no diagnostic value.

ᛊ – sigma ᛊ. As with iota, the standard Italic form with three strokes is present in Raetic as well as in the other North Italic alphabets, and, curved, in Latin. While the letter is usually retrograde in Raetic inscriptions, no such convention is evident in Runic, but the orientation of Runic ᛊ tends to be variable and can even change within the same inscription, which is true also for the Raetic (e.g. WE-3, see Figure 10) and the Cisalpine Celtic corpus. The arguably archaic Runic variant ᛋ (Odenstedt 1990: 87–92; Imer 2011: 178 f.; Seebold 2011: 92) is very rare in Raetic inscriptions, occurring only in the palaeographically problematic inscription PU-1 on a belt plaque from Lothen in the Pustertal and in type-2 petrographs. The Lothen inscription, on an object datable to the 5th century (Lunz 1981: 22), is written in a Venetoid alphabet (with inverted lambda and upsilon) – whether it actually follows Venetic (specifically Este) orthography or whether it is close to an Etruscan tradition (thus Pellegrini 1951: 13) depends on the phonetic analysis of the name *φelzuries*, spelled with what appears to be a variant of zeta. The inscription also features a variant of san ᛗ which does not otherwise occur in Raetic (which has ᛘ), but is typical for the Lugano alphabet (Stifter 2010: 367–374), and upsilon ᚢ. The Raetic type-2 petrographs, which contain four-stroke sigma, may be argued to be close to Venetic writing (see above). Despite the fact that ᛋ in Raetic seems to appear in Venetoid contexts, the form is not at all common in Venetic inscriptions (e.g. Pa 10); it is, however, quite frequent in the Lugano alphabet.[20] The latter also knows sigma with five (e.g. CO·6) and seven (NO·1) strokes. To execute sigma as a zig-zag line with a variable number of five to eight strokes, as attested in a handful of archaic Runic inscriptions, seems not to have been an option in Raetic.

ᚴ – lambda ᚴ. Provided that lambda was not inverted in Runic to ease the scratching in wood, as suggested by Wimmer (1887: 105), the inverted variant can be directly derived from a number of North Italic alphabets: it is typical for the Venetic alphabets and for the Raetic Magrè alphabet; it appears in Camunic alphabetaria (see Table 1) and sporadically in inscriptions (e.g. Sc 1). It occurs only twice in the Lugano alphabet, once in combination with inverted upsilon (TI·36.3) and once in an inscription which provides evidence for san ᛞ writing /d/ (MI·10.1; see below).

20. In around forty inscriptions; see https://www.univie.ac.at/lexlep/wiki/S.

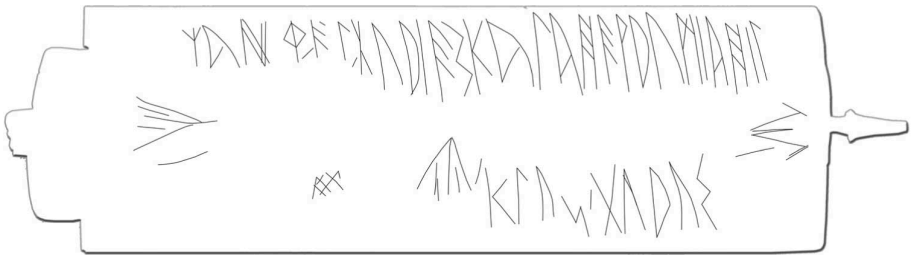


Figure 6. Inscription PU-1 *χa?φelzurieskalahepruśiahil*(?) | *klu?θurus* from the Burgkofel near Lothen (Pustertal, South Tyrol). Museo Mansio Sebatum, no inv. no. Drawing by Gudrun Bajc for TIR

ᚢ – upsilon ᚢ. Like inverted lambda, inverted upsilon is associated with the Camunic, Venetic and Raetic Magrè alphabets, though it is not as rare in the Lugano alphabet as inverted lambda.[21] Symmetrical ᚨ (argued to be the original form of the rune by Odenstedt 1990: 30) is the standard form in the North Italic alphabets; asymmetrical variants with one straight and one oblique hasta ᚾ are more frequent in Raetic than in Venetic. Specifically the somewhat unusual ᚢ with a curved second hasta, so well established in Runic despite the oft-claimed avoidance of curves in that script, occurs about ten times in Raetic: in three inscriptions from Trissino (Veneto; TR-1, 2 and 4), in PU-1 from the Pustertal (which also has four-stroke sigma, see Figure 6), and in both type-1 and type-2 petrographs (e.g. ST-5, see Figure 7).

Figure 7. The rock inscription ST-5 *hes·ṭulaṉ̃u·aleker·akve* from Steinberg in the Rofan mountains (North Tyrol), turned 90° counter-clockwise (detail from Schumacher 2004: 368 [Taf. 20])

There are two Runic forms which, though available from other North Italic corpora, speak against specifically a Raetic model:

ᚠ – alpha ᚱ. The form with an upright hasta and two bars is one of the runes that have most frequently been compared with North Italic models (e.g. Weinhold 1856: 412; Marstrander 1928: 88 f.; Mees 2000: 65 f.). "Closed" alpha

21. See https://www.univie.ac.at/lexlep/wiki/U.

𐌀 is the original Etruscan form; together with its "open" variant 𐌁 (also rounded), it appears in the archaic Venetic and Lugano alphabets. In the latter, it develops into 𐌍 around 400 BC and appears in this form in the younger Lugano alphabet. In the Venetic alphabets, 𐌍 is, I believe, absent, though flag-shaped 𐌐 is typical for the southern alphabets of Este, Padova and Vicenza. Raetic alpha notably does not undergo this change. This is conceivably due to the fact that the Raetic alphabets display a predilection (already visible in some Venetic varieties, e.g. the Isonzo alphabet) for alpha with its bar turned against writing direction (𐌁→). Only 𐌁 with the bar attached to the first hasta can develop into upright 𐌍 by straightening that hasta and reducing the second one to a second bar. Raetic does not provide a model for Runic ᚨ.

ᛟ – omicron 𐌏. It has sometimes been remarked by runologists that the North Italic theory does not work out because the alphabets concerned do not feature omicron (Odenstedt 1990: 152; Morris 1988: 6, 151; Miller 1994: 63). This is of course due to the confusion of the terms "Etruscan" and "North Etruscan", the latter being the older term for the North Italic alphabets introduced by Mommsen in 1853. As explained above, speakers of IE languages who learned to write from the Etruscans did revitalise or reintroduce omicron to write IE /o/. However, while both the Lugano and the Venetic alphabets contain omicron (a recently published Celtic inscription from the canton Wallis [VS·2] even has 𐌟), the letter is absent from Raetic inscriptions, as the Raetic language, like Etruscan, had a four-part vowel system without phonemic /o/.[22]

Then there is the oft-referred-to group of runes which cannot be derived from any alphabet but the Latin one, at least not without difficulty:

ᚠ – Latin F. The rune's obvious model, both graphically and sound-value-wise, goes back to waw, which uniformly appears as 𐌅 in the North Italic alphabets. Rix' suggestion (1992: 420) that ᚠ could have been simplified from the Venetic digraph ‹vh› /f/ in a development which parallels that which led to Latin F /f/ is strained – the Venetic alphabet used in the Cadore does the exact opposite and simplifies the digraph to heta after the loss of Venetic /h/. Rix proposes that ᚠ is borrowed from a Venetic variant of waw with upturned bars 𐌆 (e.g. Pa 7) or 𐌇 (e.g. Ca 20) (also Mees 2000: 65). Quite apart from the fact that these forms are not so much variants with upturned bars as inverted letters, they

22. Pisani 1966: 210 f. refers to omicron in the form 𐌟 in the Etruscan part of the Pesaro bilingua (ET Um 1.7; 450 BC) – interference in a situation of language and script contact? A reviewer contributes another example for a rune-like shape of a rogue omicron in ET Fa 2.33 (5th–4th centuries BC).

are clearly marginal (cf. also Raetic PU-5 and SR-3.2). If anything, ᚠ could be from ᚨ to avoid homography with ᚨ (the letters are indeed homographic in the younger Lugano alphabet, where waw is a *lettre morte*, as evidenced by attestations of the sequence *aev* ᚨᛒᚨ). However, such an assumption is entirely unnecessary with regard to the other compelling Latin derivations.

ᛒ – Latin B. As outlined above, the letters for the Greek voiced stops, unlike omicron, never made their way to Northern Italy prior to the phase of Latinisation, so ᛒ must be taken from the Latin or a Latinised alphabet (e.g., in Latino-Venetic, Es XX, Es LIII). The Camunic alphabetaria feature a variant ᛒᛁ vel sim., whose graphic derivation/development is obscure, in the place of beta (see Table 1).

ᚱ – Latin R. While it is true that a short descending stroke of rho appears already in Western Greek alphabets, it was adopted in few Italic alphabets. The standard form in all the North Italic alphabets, including Camunic, is ᚹ or ᛞ, rarely ᚹ. Rho R with the long downstroke is typical for the Latin alphabet, where the additional bar established itself to maintain the letter's distinctiveness from pi, which developed a closed pocket P. Whether one chooses, like Morris (1988: 116 f.) as a representative of the Mediterranean theory, to derive ᚱ directly from a Greek variant with a descending stroke, or whether one would prefer to look for a model letter which can explain the Runic variants with different combinations of curved and angled lines and the bars being often attached to the hasta only at the top – the North Italic alphabets do not contain useful forms.

ᛗ – Latin M. The Etruscan form of mu ᛖ with four bars is also the standard form in the Venetic and Lugano alphabets. Both Raetic alphabets have a variant ᛖ with three bars, which also occurs frequently in the Lugano alphabet, and features in the Venetic alphabet of Vicenza. Variants with two hastae (ᛗ, ᛗ) are only known from late Venetic and Celtic inscriptions which show influence from Latin writing – forms with crossed bars ᛗ in the Lugano alphabet are not variants of mu, as hopefully suggested by Rix (1992: 419 f.), but of san (see Stifter in LexLep).[23] Though the rune's crossing bars are an unexpected feature, Latin M is the obvious model.

ᚲ – Latin C. As mentioned above, archaic Southern Etruscan orthography employed gamma according to the *kacriqu*-rule, i.e. using kappa, gamma and qoppa to write the voiceless velar stop before low, front and back vowels, respectively. The rule was passed on to the Latin alphabet, but dropped eventually, gamma being generalised for /k/. This more prestigious Southern

23. https://www.univie.ac.at/lexlep/wiki/Ś.

orthography established itself in the entire Etruscan area, but the North Italic alphabets had acquired their letter for /k/ from archaic Northern Etruscan orthography, which used primarily kappa. Unless one chooses to explain the seemingly unmotivated smallness of Runic ᚲ by deriving it from kappa 𐌊 with short bars (which is frequent in the Lugano and the Raetic alphabets) in ligature (e.g. Marstrander 1928: 87; Rix 1992: 429), the Latin variant of gamma C /k/ is the obvious model. Note, however, ᚲ in the place of gamma in the Camunic alphabetaria from both Piancogno and the Foppe di Nadro (see Table 1).

ᛗ – cursive Latin 𐌌. Also in regard to its archaic variant 𐌐 (Imer 2011: 178; Seebold 2011: 91 f.), the rune is in my opinion best derived from the Latin cursive variant 𐌌 (also Haas 1965: 228). The letter is amply attested in the Latino-Venetic inscriptions,[24] but originally all North Italic alphabets have 𐌑.

ᚺ – Latin H. I count ᚺ among the runes which are best derived from the Latin variant of heta, because, to my knowledge, the letter does not usually occur in this form in the North Italic corpora. The Venetic alphabets have two- and three-barred forms as well as the younger 𐌇; /h/ disappears in Venetic around the end of the 4th century.[25] The Raetic alphabets exhibit 𐌑 in Magrè contexts and 𐌗 in Sanzeno contexts; the letter is absent in the Lugano alphabet. The Camunic script, yet again, is the only one in Transpadania to provide a model for single-barred heta: alphabetaria from both Piancogno and the Foppe di Nadro have 𐌍. The letter only sporadically and mostly dubiously occurs in inscriptions (e.g. PN 24m; Tibiletti Bruno 1990: 92). The pedigree of the Runic variant ᚺ in continental inscriptions remains to be clarified.

A North Italic model is particularly difficult to argue when working with the Raetic script with regard to those runes that can smoothly be derived only from the Latin alphabet. The whole point of introducing the North Italic alphabets into the discussion was to avoid strained derivations which only work with the help of a number of ad-hoc assumptions about rune formation, writing habits and phonetics. Accordingly, most systematic formulations of the North Italic theory since Marstrander 1928 involve late North Italic alphabets from the 1st century BC which show influence from Latin writing (an exception is Rix 1992). Unlike the Cisalpine Celtic[26] and particularly the Venetic corpora, the latter containing a host of 1st-century BC inscriptions, most prominently from Este (Es I–LXIV), which

24. See also n. 28.

25. The form 𐌍 is a variant of zeta in the northern Venetic area (Cadore, Agordino).

26. See https://www.univie.ac.at/lexlep/wiki/Latin_Script.

document the gradual Latinisation of the local writing culture, the Raetic corpus is notably poor in such written items.

Only a single inscription in the Raetic corpus convincingly documents the use or influence of the Latin alphabet in the area.[27] The inscription BZ-24 on a Roman-era stela from Maderneid in South Tyrol is written in what may be considered a Latinised variant of a Raetic alphabet (or the Latin alphabet with relics of a local Raetic tradition), and thereby documents a process of Latinisation in the late stages of the Raetic writing culture. The inscription reads *ossurie*. Linguistically, it can be interpreted as a Raetic individual name, but the only epigraphically Raetic features of the inscription are the sinistroverse writing and retrograde sigma. Most letters display decidedly Latin features: apart from the presence of omicron, sigma is rounded and written twice, and epsilon has straight bars. The fifth letter is damaged in the lower area, but does seem to feature a downstroke; iota appears to be written with serifs. The sandstone slab represents one of only two clearly identifiable funerary stelae (beside the one with BZ-10.1, see Figure 5) – it appears to document the transition from Raetic to Roman culture in the Bozen area, with a man bearing a Raetic name having a tombstone of southern type erected in his honour. While there are other Raetic finds from Eppan, the stela is the only one from Maderneid; in view of the fact that the Sanzeno writing tradition appears to be restricted to the 5th–4th centuries, the epigraphic context of BZ-24 is obscure.

Figure 8. Inscription BZ-24 *ossurie* on a stela from Maderneid (Eppan, South Tyrol). Stadtmuseum Bozen, no inv. no

It is unclear why the Raetians should have abandoned their alphabet so suddenly; we should expect to see the effects of Romanisation particularly in the southern Raetic area, where a Raetic epigraphic culture was still alive in the late Iron Age, and which was gradually assimilated during the last two centuries BC

27. The heavily damaged inscription SZ-68 on an iron knife from Sanzeno was convincingly read LT VALENTINVS (rather: VALENTINI) by Franz 1953: 176 f. The vaguely Latinoid characters SZ-69 on a fragment of a piece of black-coated pottery dated to the Roman Republican period (Demetz 1992: 638) can be disregarded. The Latin inscription TV-1.2 on the reverse side of the slab which bears the Raetic TV-1.1 from Castelcies (Cavaso del Tomba, Treviso) was probably inscribed at a later date and is unconnected to the Raetic inscription (Morandi 1999: 99–104).

(in opposition to the northern Raetic area, which was forcibly subdued during the Alpine campaign of 15 BC). In any case, the runes listed above cannot well be derived from a hypothetical Latinised Raetic alphabet.

Apart from (unlikely) ᚹ mentioned above, none of the more problematic Runic forms is explained by any form particular to Raetic.

ᚾ Though a connection of the rune with the archigrapheme nu is likely, none of the North Italic alphabets provide a direct model for ᚾ, as they invariably have 𐌍. The closest form may be Camunic nu 𐌍 with the bars extending from about the middle of the hasta (in both alphabetaria [see Table 1] and in inscriptions, e.g. Na 12; cf. Schumacher 2007: 336).

ᛞ Butterfly san 𐌔, graphically identical to Runic ᛞ, is particular to the Lugano alphabet. Both Raetic alphabets have standard san 𐌌 (once 𐌑) and no other form which corresponds graphically. As pointed out by Stifter (2010: 374), the Lugano alphabet's butterfly san may qualify as a model for the rune not merely graphically, as the letter can be argued to write /d/ in late inscriptions (e.g. MI·10.1 𐌌𐌄𐌔𐌉𐌄𐌋𐌀𐌍𐌄 *mediolano* from ca. 200 BC; Stifter 2010: 472 f.). Rix (1992: 421) suggests a derivation from Venetic theta 𐌘 as it appears on the Venetic alphabet tablets (also Mees 2000: 59), but see n. 6.

ᛉ The rune is graphically identical to one of the variants of North Italic chi 𐌟, which is well attested in Raetic, but also in the Lugano and the Venetic alphabets – should the correspondence in form be not coincidental, all of the North Italic candidates qualify. Yet again, the Camunic alphabetaria provide an alternative and rather more attractive comparandum, as they feature a letter 𐌡 (Piancogno) or 𐌦 (Foppe di Nadro) in the place of zeta (see Table 1; cf. Mees 2000: 61; Schumacher 2007: 336).

ᚷ Certainly coincidental is the graphic correspondence of Runic ᚷ and North Italic St. Andrew's cross 𐌗, be it theta or tau; none of the North Italic alphabets – not even the Camunic ones – have a letter of this or a similar shape for a velar (pace Mees 2000: 61 f.). Rix 1992: 421 attempts a connection via the rune name, suggesting that **gebō* is *interpretatio germanica* of Ven. *donom* 'gift', which would be singular even in the context of his bold theory.

ᚹ The rune is graphically identical with pi with a closed pocket 𐌑 as it appears in the Magrè alphabet, but if one were prepared to derive a letter for /u̯/ from one for /p/, Latin P could serve just as well. The Raetic alphabets do not feature any variants of qoppa which might qualify as models. Raetic does have a bilabial glide, but it is written with waw 𐌅; formally, a derivation 𐌅 > 𐌑 is no more appealing than 𐌅 > 𐌚 referred to above. Haas (1965: 229), who argues for

a Venetic source of the futhark, and Rix (1992: 421) derive ᚹ from phi 𐎇 [b]/[b̥] as it appears in the Venetic (and possibly Raetic) alphabets.

ᛃ Haas (1965: 227 f.), Rix (1992: 420) and Mees (2000: 63 f.) also find a model for ᛃ in the Venetic letter combination 𐎍𐎍 *ij*. Apart from the fact that the forms are, again, not identical, but only vaguely similar, 𐎍𐎍 is attested only once (Is 3); the standard form is 𐎉 (one straight and one broken iota; e.g. Ca 5).

ᛇ The yew-rune is one of the two runes which Rix (1992: 420) cannot account for. Haas (1965: 228) derives it from Venetic punctuated iota 𐎊, which may occur in Raetic ST-5, but is per se a Venetic letter. Again, the graphic connection is faint, the phonetic one debatable – particularly with regard to the still unresolved issue of the yew-rune's status and original sound value.

ᛜ The second rune for which Rix finds no model, Mees (2000: 62 f.) derives the ing-rune (in the variant with stave ᛜ) from qoppa, which does not occur in any of the Raetic alphabets.

ᛈ The rune with its symmetrical bars is hard to compare with any variant of pi in Italy other than the Camunic one.[28] Camunic has 𐐡 in inscriptions (e.g. FN 14) and the decidedly similar 𐐢 and especially 𐐣, noted by Schumacher (2007: 336), in the alphabetaria (see Table 1). As pointed out by a reviewer and already incorporated into a theory by Pisani (1966: 209 f.), a graphically identical letter is found in the South Picene alphabet (see the table in Marinetti 1985: 60 for the attested forms).[29]

To sum up, no convincing connection can be claimed between specifically Raetic letters and runes with regard to either purely graphic forms or grapheme-phoneme relationships. It is clear that no attested Raetic alphabet or alphabet variant could have served as a model for the futhark. If one were prepared to assume a very sparsely attested phase of Latinisation, in which Latin letters could provide models for the obviously Latin-derived runes, certain runes would still remain unaccounted for, as the North Italic letters which lend themselves to comparison belong to other alphabets. Even within the Raetic corpus, the two most prominent candidates for rune-models, Magrè-style 𐎄 and Sanzeno-style 𐎐, belong with distinct alphabets. Thus, when including Raetic forms, source eclecticism is unavoidable. In my opinion, this is not per se absurd and must be reckoned with, but within the bounds of arguability. Theories like those proposed by Rix, Mees and Markey, which involve blanket explanations for the generous

28. Mees (2000: 60) derives the rune from san, via a variant which is argued to be unattested by Stifter in LexLep (https://www.univie.ac.at/lexlep/wiki/Ś).

29. The first, not well discernible character 𐎇 on the Frøyhov statuette (KJ 44) can hardly be compared with the Raetic letter 𐎇 in the absence of an archaeological connection.

mixing of characters which does not require further, individual justification, are not necessarily implausible, but hard to maintain against methodologically conditioned criticism or simple disbelief. As things stand now, a conclusive argument for why certain runes should be modelled on letters which are only attested in the Lugano alphabet (e.g. ᛞ), while others find compelling comparanda in letters which are exclusively associated with Camunic alphabetaria (e.g. ᛍ) or marginal Venetic variants (ᚲᚲ), seems remote.

4.2 Writing conventions

While I do not unreservedly subscribe to the claim that writing conventions concerning orthography and text organisation must always be borrowed along with the more obvious or "core" properties (viz. character forms and their values), as claimed by, e.g., Antonsen (1996) and Morris (1988), a cursory look at such conventions in Raetic and Runic writing is in order.

It is difficult to tell whether geminates are reflected in Raetic writing as a rule, but we have two certain cases of spelled-out geminates in ST-1 *eθunnu*° = *eθunnu*° with double *n* at the morpheme boundary and SZ-15.1 *esiunne*, possibly with double *n* through assimilation of *mn*. MA-13 *essθua* also appears spelled with just one sigma (MA-11, MA-12, PA-1); however, double sigma can hardly reflect geminated /s/ before a dental stop. The geminate spelling in BZ-24 *ossurie* should probably be counted among that inscription's epigraphically Latinoid features, but it does serve to show that the Raetic language had geminates which surfaced in Latin spelling. Whether there are more, veiled in the Raetic inscriptions by an orthographic convention, cannot be determined at this point. There are no forms in the corpus where we should definitely expect a geminate, e.g. in names which have comparanda in other corpora or can be etymologised, or in suffixed forms like *eθunnu*°, but no such form is spelled out. Compare perhaps instances in which possible geminates attested in Latin-script documents are reflected by san in Raetic: SZ-15.1 *kapaśu*° with a suffix *-ass-*, BZ-3 *laśa*(*nu*) ~ CIL III 10723 *lassonia*, but neither comparison is certain. In any case, the non-notation of geminates is quite a wide-spread feature in various (also non-alphabetic) scripts, e.g. the Indic scripts, the archaic Latin and the Umbrian alphabet (Buck 1904: 23 f.).

A nasal before a homorganic stop is spelled out in Raetic in SR-2 *enθus* and IT-5 *kleimunθeis*; there is no conclusive evidence that nasals in that position are not written. The only possible instance is SZ-1.2 *eteθa*° vs. SZ.15.2 *enteθa*° – the sequences are obscure, but probably language-encoding; non-spelling of /n/ before the dental stop ([d̨]?) is the best explanation for the variation. Neither geminates nor nasals before homorganic stops are spelled in the Lugano alphabet (Motta 2000: 184).

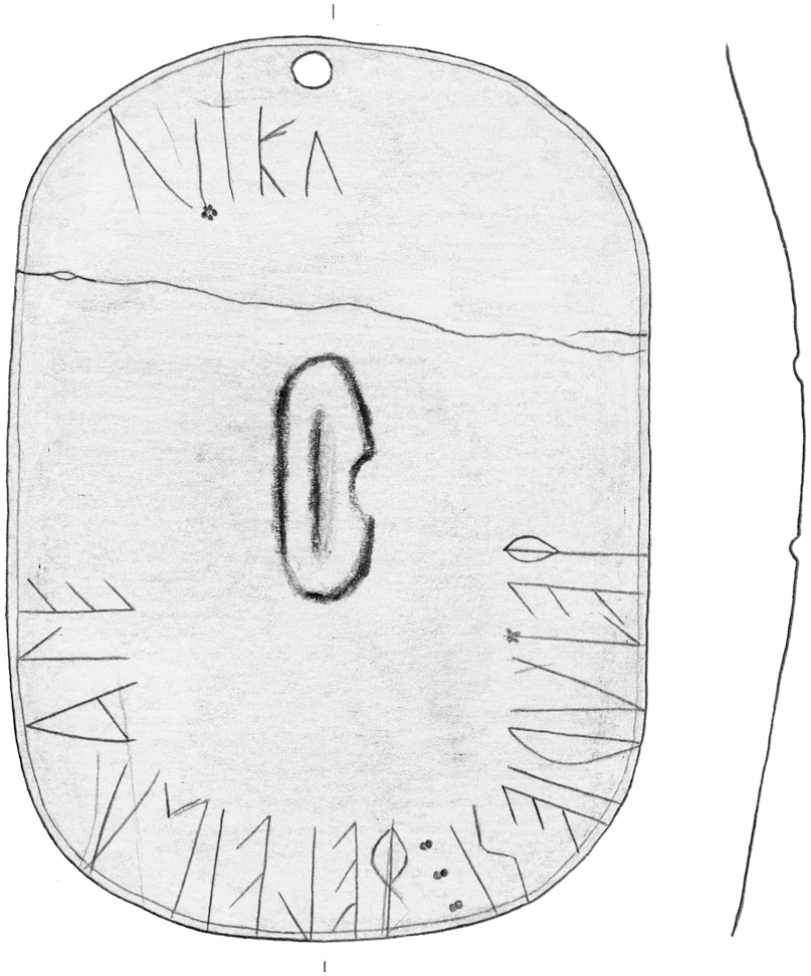


Figure 9. Miniature bronze shield from Meclo (Val di Non) with inscription NO-3 *φelt͡uriesi:φelvinuale utiku*. Castello del Buonconsiglio Trento, inv. no. 4525. Drawing by Gudrun Bajc for TIR

The only Runic feature for which, among the North Italic alphabets, the Raetic script is notable are ligatures, but the similarity here is restricted to this general observation. In Raetic, there are both actual ligatures of letters, and punctuation marks which are inscribed into the letters they mark.[30] Ligatures of letters only occur in the petrographs of Steinberg and maybe in those of Achenkirch,

30. Inscribed punctuation marks are exclusively syllabic puncts (as opposed to word separators). The practice is known from the Venetic north, where puncts are sometimes inscribed into rho and omicron (e.g. Ca 10). In Raetic, they occur mainly in inscriptions from Serso in the

and once in the Val di Non. The petrographs ST-5 (see Figure 6) and ST-6 both have an element ᛣᚾ, which consists of inverted and retrograde nu ᛣ and upsilon ᚾ, writing *n͡u*, more precisely the patronymic suffix *-nu*. In AK-1.11, the reading is doubtful; another ligature may be attested in AK-1.17. It is not clear why just these two letters should be ligated, as other consecutive pairs of letters in the mentioned inscriptions would lend themselves to being combined in the same manner. The same is true for the inscription NO-3 from Meclo in the Val di Non, which contains a ligature ᛇ (retrograde lambda ᛚ and ᛏ), writing *l͡t* (or possibly even *l͡it*?).[31] As in the case of the *nu*-ligature, the bar of the first letter is attached pointing against writing direction. While, in the former case, this is enforced by the shape of the second letter, lambda in NO-3 being retrograde may be taken to specifically indicate the order in which the elements of the ligature are to be read.

Just as in Raetic, ligatures in early Runic are "employed in a random and arbitrary fashion" (MacLeod 2002:35, and 33–36. 61–65 on reasons for bind-runes) insofar as it is usually not evident why an inscription uses ligatures or why two specific runes are ligated, while others are not (e.g., on the Thorsberg chape, ᚷ and ᛗ, but not ᚷ and ᚹ). While bind-runes which include inverted runes occur repeatedly in the older Scandinavian corpus, ligatures of the type MacLeod calls "part-reversed", i.e. ones in which one rune is retrograde, as in both Raetic examples, only occur in unintelligible inscriptions (Table 6 and p. 59) and once in a Continental inscription (Table 9). Ligatures of any kind are, I believe, absent from both the Venetic and the Cisalpine Celtic inscriptions, but they do also occur in Camunic, e.g. in the alphabet row PC 10 from Piancogno: the positions of gamma and delta being interchanged, delta is written in ligature with beta (sharing its last hasta; see Table 1).

Inconsistencies concerning direction of writing and interpunction are frequently cited as features for which the classical Latin alphabet does not provide a model. The direction of writing in the older futhark inscriptions is not fixed, though dextroverse writing predominates even in the oldest inscriptions (about 2:1 according to Seebold 2011:97) and especially in the southern Germanic inscriptions. In Raetic writing, about three quarters of those inscriptions whose writing direction can be determined are sinistroverse. Dextroverse inscriptions occur more frequently on rocks (type-2 petrographs), as well as at Magrè. Real boustrophedon writing, i.e. the lines of one inscription being written alternately

Valsugana and Magrè. The letters into which puncts are inscribed are mu, lambda and rho; the punct can be either a dot or a short stroke.

31. Schumacher p.c. – the name *φelturie* is attested as *φeliturie* in SZ-14, but arguably also without *i* in PU-1 *φelzurie*.

running towards the right and the left, is not attested, though a handful of inscriptions are written in reverse or false boustrophedon, which means that all lines have the same orientation, but are inverted in relation to each other (e.g. WE-3, see Figure 10), while the archaic Runic inscriptions include both real (e.g. on the Tune stone [KJ 72]) and false boustrophedon (e.g. on the Vimose buckle [KJ 24]).[32] For a few Raetic inscriptions it can be argued that the writer changed the way they held the object during the application of the characters, which led to a change in writing direction (e.g. FI-1, MA-13). At least in some traditions, the choice of writing direction seems not to have been of prime importance. On the other hand, single retrograde letters to match Wenderunen are rare (e.g. the abovementioned ligated letters). Alpha and sigma are systematically turned against writing direction in the Sanzeno alphabet and in the majority of cases also in the Magrè alphabet, so that the retrograde forms should in fact be considered the norm. The earliest Runic inscriptions feature a notable number of Spiegelrunen, though only of ᚦ (ᛐ) and ᚹ (ᛘ), which is unkown in Raetic writing.

Figure 10. Inscription WE-3 *lastasieluku* | *piθamnuale*, written in reverse boustrophedon, on an antler piece from Stufels. Amt für Bodendenkmäler Bozen, inv. no. St. 6992

Inconsistent word separation and interpunction are characteristic of Raetic writing, as they are of North Italic writing in general. Word separation in Raetic is only attested in inscriptions written in the Sanzeno alphabet. A space is used to separate words on some of the Sanzeno bronzes (e.g. SZ-1.1), as well as in other Sanzeno-alphabet inscriptions. Separation by punctuation marks uses one to (most often) three vertically arranged dots or short vertical lines (e.g. NO-3, see Figure 9). In the Magrè alphabet, word separation is not performed at all. The separators which begin to appear on rune stones and bracteates in the 4th

32. LexLep registers two real boustrophedon inscriptions in the Cisalpine Celtic corpus (NO·19, VS·1).

century take the form of one to four vertically arranged dots, much as in Raetic and Cisalpine Celtic.[33] However, the only separator in an archaic inscription appears to occur on the Vimose plane (KJ 25), whose inscription, though certainly language-encoding, is not transparent. Word separation strategies by lay-out, such as writing different words in separate lines, in separate places or even on either side of an object, which are employed on, e.g., the Illerup shield-handle mounting II and the Skovgårde fibula, are quite natural and accordingly widely attested. Direct comparisons are difficult in any case, as the motivation for the choices made by the scribe are not always obvious (in Raetic e.g. NO-3 with two words separated by a row of dots and a third one offset).

4.3 Epigraphic culture

It is not a given that the context in which writing is used in a young literate culture is the same as that of the model tradition – the looser the connection between the two systems, or indeed the two cultures, the higher the chance that the script will be put to a different use. That being said, the comparison between the Raetic and the Runic epigraphic culture shows that, much like in the case of the actual letters and the orthography, there is little or only superficial similarity. In both cultures (regarding only the archaic phase on the Runic side), script is used to inscribe shortish texts on portable objects. These texts are predominantly names, applied with varying degrees of workmanship; some contain para-script elements. Many of the apparent similarities are due more to the limitations of modern epigraphy – the obscurity of longer inscriptions and para-script sequences, the overall same problems of reading and interpretation, the uncertainties concerning the context of the few documents which have come down to us – than to a possible interdependence of the two scripts. Those similarities which are real are too general to argue for a connection; name inscriptions on small objects are not exactly specific to these two writing cultures. When going even the least bit into detail, clear differences become apparent.

Letter rows are cited as a Runic characteristic which finds a better inspiration in North Italic than in classical Latin writing by Eichner (2006: 106). Among the North Italic alphabets, alphabetaria are known from all corpora except the Raetic one: the enigmatic Camunic alphabetaria (see Table 1) are the most complete (indeed somewhat overcrowded) specimens; the mostly consonant-only rows on the Venetic bronze tablets belong in the context of writing schools. The Cisalpine Celtic corpus lacks complete alphabetaria, but see above on the sequence *aev*, which is generally taken for a pars-pro-toto alphabetarium – cf. the numerous

33. See https://www.univie.ac.at/lexlep/wiki/separator.

incomplete futhark-inscriptions collected in Düwel & Heizmann (2006: 4–14). The Raetic corpus is the one among the North Italic inscription corpora which, so far, does not include a single, even partial, letter row.

Secondly, the Raetic writing culture was based on cult. A handful of single names in the genitive (BZ-2 *enikes*, WE-1 *lavises*, IT-2 *χaisurus*, VN-8 *χaris*) may be owner's inscriptions, one of the longer inscriptions (PU-1) may be a secular text, and a considerable portion of the inscriptions cannot be interpreted with certainty, but there can be no doubt that Raetic writing in its origin and function is tied to ritual traditions. As far as we can see, workman's inscriptions are not a Raetic text type, the only possible language-encoding example being SZ-17, SZ-38 *sχsi*, whereas this is the one type which can be conclusively argued for the earliest Runic inscriptions (the *wagnijo*-group). Disregarding the more or less substantial number of "magic" inscriptions, explicitly votive texts in the sense of dedications in the context of institutionalised cult practices, the most important Raetic text type by far, are notably absent from not only the archaic, but the entire Runic tradition.[34] Correspondingly, the objects which are inscribed are different. In the archaic Runic corpus, weapons stand out as supports, beside objects of everyday use; in Raetic, the largest group of supports is votive objects which do not have an everyday function, such as bronzes, antler pieces and bones, followed by objects with a ritual function (situlae, simpula, etc.). The only pieces of armament in the Raetic corpus are defensive, viz. the helmets (SL-1, SL-2), and these, found in Slovenia and inscribed in various alphabets and languages, are situated at the margins of Raetic epigraphy. Even funerary inscriptions, which appear to have become so important only secondarily in Runic, are thin on the ground in Raetic. In short, a connection between Raetic and Runic writing could only be assumed within a theory like that proposed by Rix (1992), which works with Runic scribes who had very limited access to the model script's context and culture. For scholars who prefer a North Italic model to explain the Runic script's restricted use in comparison with the Latin alphabet's large literary scope, the Raetic corpus does not serve.

5. Conclusions

I have chosen the Raetic inscription corpus for comparison with that of Runic primarily for the fact that it is – from my point of view – the most thoroughly studied one among the North Italic corpora with regard to alphabet variants and writ-

34. See Mees 2013 for an interpretation of verb forms in Runic as dedicatory in a "magico-religious" context.

ing conventions. Even if one accepts the possibility of script mixture (as I do), an understanding of (or at least arguable opinion on) how various characters in different functions relate to each other within the alphabetic/orthographic systems of Northern Italy should be a minimal requirement for the formulation of a theory about how the runes, in turn, relate to them. As has, I believe, been shown above, Raetic epigraphy is of value to the study of the runes only insofar as contrasting one's own material with data of a similar kind is a useful occupation for epigraphists and philologists who want to put their analyses and interpretations into perspective. Neither the Raetic alphabets nor any of their individual elements serve as sources for the futhark.

I want to stress, though, that this result should not be taken as a comprehensive rejection of the North Italic theory. I consider the Venetic derivations of Haas (1965) to be negligible, and the pan-North Italic ones of Rix (1992) and Mees (2000) to be somewhat too impressionistic, but the above list of comparandum does reveal concentrations of similarities such as the type-2 petrographs and the Camunic corpus – in the case of Raetic, these point beyond the local traditions, but then the Raetic corpus was never the focus of the North Italic theory. The original North Italic theory according to Marstrander – who excluded the Raetians on the grounds that they resided in "isolerte fjelddaler" (1928: 100) – focused on the Lugano and Sondrio alphabets, which remain the best candidates. The reader will certainly have noticed the frequency with which specifically the Camunic alphabetaria were mentioned as containing letter forms – though sometimes of archigraphemes which are not obviously appropriate – which are similar or identical to rune forms. Examples for this have already been noted and pointed out (e.g. Schumacher 2007: 336). Markey & Mees (2004) argue for a close relationship between the Lugano and Sondrio alphabets; Eska & Wallace (2011)[35] interpret the second part of the Voltino inscription (BS·3) as the only attestation of a local alphabet which incorporates epigraphically Celtic, Camunic and Latin features. While the scattered inscriptions written in the Sondrio alphabet are well studied (though little understood), the petrographs of the Valcamonica await their comprehensive publication. It remains to be seen whether there are systems that combine the abovementioned virtues to form a character inventory which could serve as a model for the Runic script.

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