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## THE USE OF SAN IN THE LUGANO ALPHABET. A SURVEY OF CISALPINE CELTIC ONOMASTICS

The so-called "Lugano alphabet" is a northern Italian script that derives from the Etruscan alphabet. It was used to write Celtic texts belonging to the Lepontic language, uncovered in the centre of the Gallia Transpadana (Lombardy in Italy and Ticino in southern Switzerland), ranging from the $6^{\text {th }} \mathrm{c}$. to the $1^{\text {st }} \mathrm{c} . \mathrm{BC}$, and a later variety called Cisalpine Gaulish, again located in the Transpadana (Lombardy and Piedmont in Italy), whose earliest texts date from the $4^{\text {th }} \mathrm{c} . \mathrm{BC}$, and which represents a later wave of immigrants or invaders. This dialect is distinguished from the former by a few morphological traits, like the patronymic suffix -iknovs. Lepontic -alo-. While the Lugano script is deciphered in its entirety, some pending issues remain as to the actual use of some of its letters, its evolution and possible external influence from related alphabets. This work will address the problem of the so-called "butterfly sign," a letter transliterated as $\langle\dot{s}\rangle$, which shows different shapes, some of them easily confusable with $<m>$, and goes back to Greek san. For the "butterfly sign" a high number of synchronic values and etymological origins has been proposed. The article attempts to show that its use overlaps with that of zeta, transliterated as $\langle z>$. Both may have had a single value, and the reflected phoneme is in both cases a voiceless affricate that goes back to Indo-European $/ \mathrm{st} /$, $/ \mathrm{ts} / \mathrm{or} / \mathrm{ds} /$, to epenthesis of /t/ in a sequence *-ns\#, or to affrication of /d/ in coda position. The author also evaluates the possibility that the occurrence of san and tau gallicum in some contexts, specifically in codas, is due to mere phonemic reallocation not mediated by sound change.

K e y w ords: Celtic languages; Lepontic; Gaulish; Indo-European language reconstruction; Lugano script; sibilant sounds; anthroponymy

The truth emerges more easily from falsehood than from confusion.

Francis Bacon

## 1. The disputed values of san

The "butterfly sign" $<\bowtie>$, habitually transliterated as $<\dot{s}>$ and going back to Greek san, is widely used in the Lugano alphabet, a northern offshoot of the Etruscan alphabet used for writing Lepontic and Gaulish. ${ }^{1}$ The Cisalpine Celtic corpus has been recently enriched by the fragmentary rock inscriptions of the possibly votive site of Carona (Bergamo, Transpadana), ranging from the $4^{\text {th }}$ to the $1^{\text {st }} \mathrm{c} . \mathrm{BC}$, which are probably Celtic. The value of $\langle\dot{s}\rangle$ has been subject to hot debate in recent years. In what follows I am going to undertake a new analysis of $\langle\dot{s}\rangle$. It goes without saying, regional and chronological differences and the conceivable existence of more than one writing tradition are difficult to track down, and the texts can only provide a flat image of historical facts. ${ }^{2}$

As the experience with Italic, including Venetic, Gaulish or Hispano-Celtic dictates, one can hardly expect an entirely consistent use of the signs for sibilants. With this in mind, various attempts to disclose the different uses of this sign have been made in the last fifty years. Most scholars have given up uniformity and combine options at will, which has considerably muddied the attempt to arrive at a consensus for the foreseeable future. They invariably start from seemingly "obvious," but often misleading etymologies, or from random comparisons between materials that in turn lack a convincing explanation, at the risk of incurring the obscura per obscuriora fallacy. It is, as a consequence, difficult to find the leading thread in a number of accounts, and, in spite of the useful compilation of data and hypotheses offered by Lexicon Leponticum, some references have probably escaped my attention. Nonetheless, conceivable, hitherto overlooked connections can still be put forward.

According to recent scholarship, $\langle\dot{s}\rangle$ can be rendering no fewer than eleven phonemes or clusters (for an exhaustive state of the art and judicious criticism, see [Stifter, 2010]):

IE $/ \mathrm{st} />/ \mathrm{t}^{\mathrm{s}} /$ (a popular option, admitted by most authors for a variable number of instances);

IE / $\mathrm{d}^{(\mathrm{h})} \mathrm{t} /$, $/ \mathrm{tt} /\left[\mathrm{t}^{\mathrm{st}}\right]\left({ }^{(?>} / \mathrm{t}^{\mathrm{s}} /\right)$ [Lejeune, 1971; Uhlich, 1999; Stifter, 2010];

[^0]IE /ds/ > /ts/ [Lejeune, 1971; Uhlich, 1999];
IE /di/ [Lejeune, 1971; Rubat Borel, 2006; De Bernardo Stempel, 2009];
Celtic/s:/ preceding /i/ [Lejeune, 1971];
Celtic -ssi- [Lejeune, 1971];
Celtic - $\chi S(i)$ - [Lejeune, 1971; Uhlich, 1999];
Celtic - $\chi s$ - [Morandi, 2004];
Celtic - xti- [Uhlich, 1999];
"Southern" Celtic (comprising Celtiberian and Lepontic) $/ \mathrm{z} /$, $/ \mathrm{d}^{2} /-/ 3 /, / \mathrm{d}_{3} /$ [Schrijver, 2015];

Celtic /d/ [Markey, 2006; Stifter, 2010; 2015].
The value of the letter $\langle\dot{s}\rangle$ is often equated to that of tau gallicum, a number of letters and combinations of letters that denote the Gaulish outcome of two clusters containing dental stops, Indo-European $/ \mathrm{tt}^{2} /\left[\mathrm{t}^{\mathrm{st}}\right]$ and /st/, and then probably represents a single phoneme. It is far from clear that tau gallicum was meant to represent an affricate and not, say, a dental sibilant $/ \mathrm{s}(:) /$ or an interdental $/ \theta(:) / .^{3}$ At any rate, it can be safely ruled out that the various renditions respond to a deliberate attempt to reflect as many different phonetic realisations.

The list of spellings of this elusive phoneme is very long, comprising $<\mathrm{s}>,<\mathrm{ss}>$, $<\mathrm{SS}>,<\mathrm{DD}>,<\mathrm{DD}>,<\Theta \Theta>,<\mathrm{DS}>,<\mathrm{TS}>$, etc. Contrary to most scholars, I would not include $<\mathrm{T}>,<\mathrm{TT}>$ and $<\mathrm{TH}>$ in it: this accumulative procedure has unduly pooled what in all likelihood are different names. ${ }^{4}$
$<\mathrm{TH}>$ is very rarely used for etymological /t/ in intervocalic position. The cases known to me are gnatha and [ $\left.{ }^{3} \mathrm{C}\right]$ athvbodvae. ${ }^{5}$ This probably means that lenition of stops was ongoing, but also, crucially, that it was interpreted as phonemic by a carver who was probably aware of the habitual use of $<\mathrm{TH}\rangle$ in Latin epigraphy for Greek forms, a usage that was spreading for Germanic forms as well. These may accordingly be instances of phonemic overdifferentiation by bilingual speakers. This notion usually applies to speakers projecting the phonemic contrasts of their native language on a second language. But in the ancient world, those who could write at all had been trained in writing Latin, so that interference in the application of Latin writing habits to the expression of their own language is bound to happen.

[^1]Conversely, since the phoneme underlying tau gallicum may not have been in some places dissimilar in place and manner to Greek and Germanic interdental fricatives and the untrained listener may have occasionally confused it with the lenited allophone of $/ \mathrm{t} /,\langle\mathrm{TH}\rangle$ was sometimes used where tau gallicum would be expected, especially in Germanic territory: cf. meththillio [CIL, 13, 11689] (Rheinzabern/Tabernae, Germania Superior), thiron(a) [AE, 1994, 1227] (Malain/Mediolanum, Belgica), Carathovni (four examples in Belgica and Germania).

In sum, I would not say that tau gallicum can be employed for /t/, since I assume that the direction of the (in all likelihood regional) introduction of the digraph $<\mathrm{TH}>$ for a fricative resulting from IE $/ \mathrm{st} /$ or $/ \mathrm{tt} /\left[\mathrm{t}^{\mathrm{s}} \mathrm{t}\right]$ is the opposite.

In several works, Stifter [2010, 373-374; 2015] has come up with a complex interpretation of Cisalpine Celtic $\langle\dot{s}\rangle$ that takes into account the reciprocal influences of writing systems as well as phonetic plausibility. He favours the idea that the sign $<\dot{s}\rangle$ it has two main values: in his view, it is equivalent to tau gallicum (and therefore continues the original clusters $/ \mathrm{tt} /\left[\mathrm{t}^{\mathrm{st}}\right]$ and $/ \mathrm{st} /$ ); in addition, $\langle\dot{s}\rangle$ stands for an allophone of /d/ in codas, where it has undergone affrication: "zur wiedergabe dieses allophons von $/ \mathrm{d} /$ ist $s a n=/ \mathrm{t}^{\mathrm{s}} /$ angemessen," specifically in forms containing the prefix $* a d-$, e.g. the name aśkoneti, gen. sing. [LexLep, TI, 41] (Stabio, Ticino, Transpadana, $2^{\text {nd }}-1^{\text {st }} \mathrm{c} . \mathrm{BC}$ ) and the nom. sing. aśkonetio(s) [LexLep, VB, 22] (Stresa, Verbano, Transpadana), and aśmina [LexLep, NO, 18] (Miasino, Novara, Transpadana, 2 ${ }^{\text {nd }} \mathbf{c}$. BC). He points to some Brittonic parallels, like MCo. peswar 'four' vs. MW. pedwar (< ProtoBrittonic *peduar).

Stifter pointedly notes that the recourse to an enlarged prefix *ads- to explain the deviant rendition of *ad- [Lejeune, 1971, 414; Uhlich, 1999, 280] is circular, since later cognates in the Latin alphabet show no trace of the sibilant: cf. ADGONNA, ADGONNETI (Narbonensis), ADGONETVS (Noricum) and the chieftain's name Adminius, Amminius (Britannia). Furthermore, /d/ is progressively assimilated to the following consonant: in Transpadana, the epithet of Iuppiter in the dedication I(OVI) O(PTIMO) m(AXIMO) / aGGANAI/CO [CIL, 5, 6409] (Pavia/Ticinum, Transpadana) is an obvious cognate of the divine name in matronis / ET ADGANAIS / V(OTVM) S(OLVERVNT) L(IBENTES) m(Erito) [Ibid., 5671] (Eupilio/Galliano, Transpadana). A dative name agGoniae marcellae is attested in [Ibid., 3390] (Verona, Venetia et Histria).

Later on, in Stifter's view, the use of $\langle\dot{s}\rangle$ for /d/ spread to onsets in Lepontic: "in einem zweiten schritt wäre die verwendung von san auf prävokalische stellungen von /d/ ausgedehnt worden." More recently, Stifter [2015, 49] cements this idea by way of an analogical proportion: since $<z>$ was used for $/ \mathrm{t}^{\mathrm{s}} /$ (in Lepontic) and /d/ (in Venetic), we may assume that $\left\langle s^{\prime}\right\rangle$, which was used for $/ t^{s} /$ (in Lepontic and Venetic), over time rendered /d/ in Lepontic, too. However, it is not always clear to me which of the examples he adduces stand, in his view, in coda position, and which stand in onset, since some clusters are a priori compatible with both phonotactic solutions.

There are several reasons why I do not find the last mentioned assertion ( $\langle\dot{s}\rangle=/ \mathrm{d} /$ in onsets) entirely compelling. The value of a proportion operating across different systems through Schriftkontakt, as advocated by Stifter, looks somewhat doubtful, since $<z>$ cannot be proven to render/d/ or even the outcome of /di/ in Lepontic, which is the conditio sine qua non for this process to be called a proportion and not a convergent result (see below). In fact, if contact between scripts had given rise to the borrowing of a letter value from Venetic, I would expect the moribund $\langle z\rangle$, not $\langle\dot{s}\rangle$, to have been revived and put to service to render /d/.

As implied above, Stifter [2015] contends that $\langle\dot{s}\rangle$ denoted $/ \mathrm{t} /$ in Venetic. However, this cannot be taken for granted. Most cases are either not amenable to this explanation (like the divine name śainatei), or point to a contrast of a tense/long $<\dot{s}>$ vs. a lax $<s>$ sibilant (anśores, vesoś), or reflect an etymological sequence $*-t-s$ that is no longer an affricate, but a tense sibilant (veskeś < *uesk-et-s 'feeder') as opposed to <ts> of different origins: cf. vottsom (*uog ${ }^{u h}$ tio-), iants ( $<$ *iant-s, with analogical restoration of the suffix), martsko (with sibilant epenthesis), etc. Especially telling are perhaps the names metśo [LV, 190] (Lagole di Cadore, Venetia et Histria), iiuva.n.tśa.i. [LV, 58] (Este, Venetia et Histria), where $\left.<t s^{\prime}\right\rangle$ may reflect the outcome of - $t i$-, but the carver did not consider that $\langle\dot{s}\rangle$ alone could denote an affricate. Isolated cases like the (nom. sing.) personal name ostiś [Marinetti, 2008, 164] (Auronzo di Cadore) lead one to think of hypercorrection, because the sign was falling out of use and the distinction between two sibilant phonemes possibly too. Venetic, in a nutshell, is not certain to have had a sign for an affricate at any stage. ${ }^{6}$ The Venetic alphabet made use of $\langle\varphi\rangle$ and $\langle\chi\rangle$ for the voiced labial and velar obstruents and reutilised $\langle z\rangle$ to denote $/ \mathrm{d} /$ because no affricate and no intramorphemic sequence /ts/ existed from the beginning of the written tradition, and the letter had no obvious purpose.

Note that, when the Schriftkontakt was allegedly bearing fruit, the western attestations of Venetic epigraphy had already switched to the Latin alphabet, and one wonders why North Etruscan scripts came to converge on this particular point after five centuries of intense epigraphic activity. ${ }^{7}$ Accordingly, the history of the use of $\left.<\dot{s}\right\rangle$ in Venetic cannot be easily compared to that of $\langle\dot{s}\rangle$ in Cisalpine Celtic. The Lugano script apparently did not take advantage of the opportunity to denote voiced obstruents for long: it possibly played around with $\langle\theta\rangle$ for some time, and disregarded the possibility of employing the letter $\langle z\rangle$ when it could; a "last call" attempt to assign the value /d/ to $\langle\dot{s}\rangle$ in Late Cisalpine Celtic, remains unexplained.

Finally, since /d/ was only contrastive in onsets, the functional extension of $<\dot{s}>$ to reflect/d/ in onsets would have virtually eliminated the distinction between $/ \mathrm{d} / \mathrm{and} / \mathrm{t}^{\mathrm{s}} /$

[^2]in writing, which would have counteracted the advantages of acquiring an unambiguous correspondence $\langle t\rangle=/ t /$.

As for the "allophonic" nature of [ $\left.\mathrm{d}^{2}\right]$ in codas, it is reasonably clear that this variant of /d/ had been reassigned to $/ \mathrm{t}^{\mathrm{s}} /$ in coda position; in other words, the contrast between $/ \mathrm{d} /$ and $/ \mathrm{t}^{\mathrm{s}} /$ had been neutralised, which ipso facto accounts for the spelling $\langle\dot{s}\rangle$. The sound [ $\mathrm{d}^{\mathrm{z}}$ ] had simply become a preconsonantal allophonic variant of $/ \mathrm{t}^{\mathrm{s}} /$. Word final $-t^{s} \#$ was probably voiceless in the only cases known to me for reasons that will become clear in what follows. Forms like *gostiio- may have remained trisyllabic, since the base was an $-i$-stem. The etymological sequence $-d-s$ - was probably assimilated to $-t s$-, constituting still another source of the affricate $/ \mathrm{t}^{\mathrm{s}} /$. In sum, I believe all cases of $\langle\dot{s}\rangle$ to be synchronically rendering a single phoneme $/ t^{\mathrm{s}} /$, whatever their origin.

One could of course argue that morphophonemic spelling was imposed somewhere down the line, that is to say, that phonemic contrasts inside the same morpheme would be ignored in writing: in this way, for instance, the prefix $a d$-would be reflected by a single sequence regardless of context. But this could only have been carried out by generalisation of context-free $\langle t\rangle$, and not $\langle\dot{s}\rangle$ (at any rate, no prevocalic instance of $a d$ - that withstands scrutiny is attested yet: see below 3.4.). Celtic dialects in the Lugano alphabet, as a consequence, must have used phonemic writing, which is additionally borne out by the use of $\left\langle s^{\prime}\right\rangle$ for $/ \mathrm{t}^{\mathrm{s}} /$ in the underlying sequences $/ \mathrm{ns} /($ acc. pl .) and $/ \mathrm{nt} /+/ \mathrm{s} /$ (see below).

If we come down to the details, we may ask ourselves if there had been a phonetic reason for the alleged new function of $\langle\dot{s}\rangle$ to denote $/ \mathrm{d} / \mathrm{in}$ onsets. It has been proposed that the choice was due to the fact that early medial [ð] from Celtic /d/ had become a fricative or affricate sibilant phoneme in "Southern Celtic," a category comprising Celtiberian and Lepontic [see Schrijver, 2015, 199]. But to say, as Schrijver does, that "the evidence in favour of $* \mathrm{~d}>$ Lepontic $\langle\dot{s}\rangle$ outweighs the counterevidence" is overoptimistic, given that his only cogent example is the prefix *ad-already considered by [Stifter, 2010], and then only when it occurs in coda position (I shall review other alleged cases below). This idea is irremediably obsolete for Hispano-Celtic, where intervocalic /d/ is reflected by $<\mathrm{D}>$ in Latin epigraphy, and instances of assibilation are late and vanishingly rare, in all likelihood due to auditory errors. ${ }^{8}$ It is also most unlikely for Cisalpine Celtic, where the Latin alphabet would be expected to betray this phenomenon: for instance, the proprietor's mark CALEDONOS (gen.) incised on a bowl [LexLep, MI, 17] (San Giorgio su Legnano, Milan, Transpadana, late $1^{\text {st }} \mathrm{c} . \mathrm{BC}$ ) has no convincing etymology beyond its evident relatedness to the ethnonym Caledones and to the coin legend Caledv [RIG-4, 88-90]. To my mind, its base is a perfect match of L. calidus 'warm,' U. kaleřuf/CALERSV [ST, Um 1, Ia, 20; VIb, 19, meaning uncertain], from *klh $h_{l}$-ed-, and Skt. śarad- 'autumn,' from *kVlh $-e d-$, according to the in-depth analysis by [Neri, 2003, 47]. See below (3.9) for the assumption that $\langle\dot{s}\rangle$ is simply reflecting an intervocalic allophone [ð].
${ }^{8}$ For recent progress in the phonology of Celtiberian sibilants, cf. [Prósper, 2022].

What is the ultimate phonetic cause for a context-sensitive change $-d->-d^{2}-$ ? Sibilant-epenthesis is cross-linguistically rare and usually affects clusters of two voiceless stops, most frequently $-t k-,-k k$ - and $-t t$-. While some accounts believe epenthesis and affrication in codas to be different phenomena, I consider the distinction merely scholastic. ${ }^{9}$ When epenthesis happens, the consonant preceding the syllable boundary is released giving rise to frication, which may be additionally accompanied by stridency. In Continental Celtic, most voiceless stops in coda position had been weakened/fricativised ( $-k t->-\chi t$-), assimilated to the following consonant ( $-t^{s} t->-s s-$, $-t k->-k k-$, possibly -tn->-nn-) or resyllabified (-ti-> -t.ti--, -t.u-> -t.tu-).

Voiced obstruents are comparatively marked in codas. Languages that permit them also have voiceless obstruents. Somewhere down the line, in Cisalpine Celtic, voiced stops were released in codas with concomitant stridency ( $-d->-d^{z}$ ). This could in some models be formulated as a phonotactic constraint against voiced stops in codas. Rule-based models would contend that the affricate is derived by rule from an underlying voiced dental stop when a non-vocalic voiced segment follows. Both approaches are of course merely descriptive. In languages possessing no phonemic affricates, the outcome would only have become phonemic after the affricate was weakened and fricativisation was completed, but Cisalpine Celtic had an affricate $/ \mathrm{t}^{\mathrm{s}} /$, and, as a consequence, emergent affricates were psychologically real.

In most cases, a morphological boundary additionally existed (or was synchronically perceived as such). Affrication counteracted the tendency to assimilation and favoured the retention of morphological distinctions. In addition, heterosyllabic clusters of a stop + a sonorant/approximant at least contain unnatural syllable boundaries, since the second constituent is more sonorous than the former. In teleological models of change, like Natural Phonology, such dispreferred sequences are held to be "repaired" over time by different means: Celtiberian resorted to metathesis, as in the suffix *-edio->-eido-, as did Lepontic with the thematic genitive -os.io $>$-oiso. In the sequences we are dealing with, affrication is the first step in a multi-staged process of lenition, and as a result "calibration" by coda weakening takes effect. See on this notion [Vennemann, 1988, 50].

As a consequence, in the case of -d. $i-,-$ d. $u$-, Cisalpine Celtic resorted to affrication, too. As correctly noted by [LexLep], the name akeśi, gen. sing. [LexLep, VA, 16] (Arsago Seprio, $1^{\text {st }} \mathrm{c} . \mathrm{BC}$ ) is a cognate of Gaulish and Hispano-Celtic AGEDIvs (Oviedo, Hispania Tarraconensis), agedillvs (Gallia, Germania). To this we may add the place name meśiolano [LexLep, MI, 10, 1] (Milan, Transpadana, from *medio= plāno-) 'plain

[^3]in the middle. ${ }^{10}$ Other likely cases will be considered below. No sign of palatalisation is found in Celtic names of the Eastern provinces: cf. ADIATVLLVS (Noricum), LVCOCADIACVS (Savaria, Pannonia Superior), Adiatvrix (Carnuntum, Pannonia Superior), ADIETVMARVS (Andautonia, Pannonia Superior).

The affricate phoneme was weakened over time. We may reckon with a single process of deaffrication that affected codas and onsets differently. In onsets, deocclusivisation of $/ t^{\mathrm{s}} /$ took place. This is comparable to regressive or coalescent assimilation in a biphonemic sequence /ts/, and the outcome may have been perceived as a long/geminate fricative. In codas, by contrast, the affricate was lenited into a nonstrident fricative [ð].

We may now bring to bear some possible parallels. Take, for instance, the case of Old Spanish. According to [Penny, 2004, 90], "when the first consonant of a secondary group was T or D, the Old Spanish result was at first the expected /d/ + consonant. However, in later Old Spanish, neutralization took place between syllable-final /d/ and $/ \mathrm{d}^{\mathrm{z}} /$ in favour of the latter, a process reflected in the replacement of the spelling $d$ by $z$." The affricate was thereupon lenited. This is exemplified by iudicare > juzgar 'to judge' [xuð'үar], portaticum > portazgo [por'taðуo] 'toll(house),' or epithema > bizma ['biðma] 'cataplasm.' The process may have been favoured by the existence of affricates which came to be in coda position after syncope, like vizconde 'viscount' (viz- < L. vice-), or by the analogical emergence of the type $1^{\text {st }}$ person condugo $\gg$ conduzco 'I drive' vs. $3^{\text {rd }}$ person conduce. ${ }^{11}$

On the other hand, Spanish [ $\varnothing]$ in coda position is considered as an allophone of $/ \theta /$ and not of $/ \mathrm{d} /$, because it is both interdental and fricative (it shows more turbulence than the intervocalic approximant [ $\bar{\downarrow}]$ ]. See [Hualde, 2014, 156]. The untrained speaker actually perceives it as $[\theta]$. Along the same lines, one could toy with the uncertain possibility that Cisalpine Celtic $/ \mathrm{t}^{\mathrm{s}} /$ had already become an interdental $/ \theta /$ in prevocalic position, and that [ð] in codas was interdental, too (and then ex hypothesi distinct from

[^4]the intervocalic allophone of $/ \mathrm{d} /$ at that time), which led to its being reassigned to $/ \theta /$. This would explain the "deviant" spelling $\langle\dot{s}\rangle$ without resorting to sibilant epenthesis (cf. below 5.5 on Gaul. BVE円). At any rate, however, there is no independent confirmation of this possibility; note that the interdental realisation of Sp . [ $\varnothing$ ] and [ $\theta$ ] in codas, as outlined above, can be neatly explained through generalised affrication and subsequent fricativisation of post-syncope dental obstruents.

## 2. Cisalpine Celtic forms with $<$ s>

I believe the outcomes of Indo-European $/ \mathrm{tt} /\left[\mathrm{t}^{\mathrm{s}}\right]$ and /st/ to have been different in Cisalpine Celtic, at least at the time when the Lugano alphabet was adopted. In my view, the first had simply become /s:/ in Common Celtic, as transpires from HispanoCeltic (where /st/ is preserved) and Insular Celtic, where both clusters eventually merge as /s:/. This, however, may be a late phenomenon judging by the less than unitary behaviour of Brittonic, on which see [Jackson, 1953/1994, 529-534]. ${ }^{12}$ In (some areas of) Transalpine Gaulish, to judge from the use of tau gallicum, both may have eventually merged as a dento-alveolar or (inter-)dental fricative, though a detailed study that confirms this point and detects regional differences still awaits to be carried out.

In Cisalpine Celtic, consequently, two different letters were used: $\left\langle s^{\prime}\right\rangle$ for synchronic $/ \mathrm{t}^{\mathrm{s}} /(</ \mathrm{st} /)$ and $<s>$ for synchronic $/ \mathrm{s}: /\left(</ \mathrm{tt} /\left[\mathrm{t}^{\mathrm{s}}\right]\right)$. The sequence $-\chi s$ - was perhaps on the way to full merger with $/ \mathrm{s}: /$, and was systematically spelt $\langle s\rangle$. And yet, Gaulish exobna divconis F bears witness to the preservation of the cluster as late as the $1^{\text {st }}$ c. AD [EDCS-08600286] (Stresa, Novara, Transpadana).

Accordingly, a vast number of uninterpreted names spelt with $\langle s\rangle$ may contain IE $/ \mathrm{tt} /\left[\mathrm{t}^{\mathrm{s} t}\right]>/ \mathrm{s}: /$, while others can represent $/ \mathrm{s} /$ or $/ \chi \mathrm{s} /$. Let us examine some cases.
2.1. The name in the gen. sing. pesoui [LexLep, BG, 41.21] (Carona, Bergamo, Transpadana), may be classed as a thematic genitive (or, if the text were an invocation and this form a divine name, a vocative) and traced back to * $b^{h}$ end $d^{h}$-teu-(i)io- 'related to binding,' in phonemic terms /be:s:ouio/-, a derivative of the action noun preserved in OIr. bés 'manners, habits,' the Hispano-Celtic personal name bessvca [CIL, 2, 3097] (Cuenca, Tarraconensis, lost), Skt. bándhu- 'relative', with early loss of /n/ and compensatory lengthening before sibilants.
2.2. The fragmentary personal name [-]peuesa [LexLep, BG, 2.1] (Carona, Bergamo, Transpadana) is tentatively explained by [LexLep] as *ambi-ues- $\bar{a}$. This form has been compared to another name aśuesa in the same area [LexLep, BG, 23]

[^5](Fornovo San Giovanni, Bergamo, Transpadana, $3^{\text {rd }} \mathrm{c} . \mathrm{BC}$ ), taken from *ad-ues- $\bar{a}$ in the footsteps of [Stifter, 2010, 371], who compares ADVESIONi m[---] F(ILio) [AE, 2002, 1728] (Budapest/Aquincum, Pannonia Inferior, 114 DC, an Eraviscus). LexLep has missed an interesting match of this name: demvncio avessonis f(ilio) eravisc (o) [AE, 2016, 2019] (provincia incerta, AD 119). In addition, the isolated AVESSAI [Pais, 1884, 1087:2] (on a bronze fibula, Isera, Venetia et Histria) is the dative form of aśuesa. These examples speak in favour of the idea that there was a general tendency to assimilate and drop the consonant / $\mathrm{d} / \mathrm{in}$ codas. In my view, we can trace these forms back to CCelt. *ad-uessā 'led towards,' ultimately the past participle of *uedh- 'to lead' [LIV, 659].
[-]peuesa may be nearly identical with the nom. sing. apueso(s) in [LexLep, BG, 41, 12] (Carona, Bergamo, Transpadana), and we can trace this name back to CCelt. *amb(i)-uesso-/ $\bar{a}$. In the latter case, either $/ \mathrm{mb} /$ (unlike $/ \mathrm{nd} /$ ) was preserved in Cisalpine Celtic after all, or $\langle p\rangle$ is reflecting epenthesis of a labial stop in a heterosyllabic sequence $/ \mathrm{m} . \mathrm{L} /$ or, conceivably, occlusivisation of the nasal in onset if the antecedent sequence was $/ \mathrm{m} . \mathrm{mu} /{ }^{13}$ Close cognates of this form are MBr. dimiziff, Co. demmedhi 'to marry,' from *to-ambi-ued-o- [EDPC, 406]. An inscription from ancient Scarbantia [EDCS-32300687] (Pannonia Superior) reads tertivs / SAMVES / F(lilvs) an(norvm) $X X / H(I C) E(S T) S(I T V S) P(A T E R) P(O S V I T) F(I L I O)$. The father's name SAMVES is a hapax. In fact, on the available photographs one can discern a triangular interpunct of exactly the same shape, bias and position as the others, separating s and amves. Accordingly, I think the reading is $\mathrm{s}\left(\right.$ ERVVs $\left.^{\text {? }}\right)$. AMVES(I)., possibly a perfect match of our name.
2.3. The name in the gen. sing. alkouesi, on a coin [LexLep, NM, 15] is probably related to the above forms, perhaps meaning '(whose chariot is) drawn by deer/elk' (something not unheard of in Irish mythology, and certainly suitable for a chieftain), if the connection of this form with alkouinos [LexLep, TI, 41] (Stabio, Ticino, Transpadana, $2^{\text {nd }}-1^{\text {st }} \mathrm{c}$. BC) '"white/bright as a deer,' which has a cognate in the dat. sing. alcovindo [CIL, 13, 1551] (Rodez/Segodunum, Aquitania), has anything to recommend itself.
2.4. The personal names aeso(s) [LexLep, NM, 1], aesia [LexLep, VA, 28] (Samarate, Transpadana) are probably related to the root *aiss 'sacred' and might simply continue *aiso-, but more complex possibilities can be envisioned, e.g. a past

[^6]part. *aisd-to- 'revered, worshipped,' directly continued in Italic forms like U. esunu 'sacrifice,' according to [Meiser, 1986, 253]. Cf. [LIV, 260-261, * $h_{2}$ eisd ${ }^{2}$ - 'to worship'] for Goth. aistan 'to respect,' etc.
2.5. The personal name autesai, dat. sing. fem. [LexLep, NO, 19] (Gozzano, Transpadana, $2^{\text {nd }} c . B C$ ) is Cisalpine Gaulish judging by the following sequence karnitus petu[-]. [LexLep] quotes as conceivable cognates the place name avtessiodvri [CIL, 13, 2920] (Auxerre/Autessiodurum, Lugdunensis), Avtessiodvro [Ibid., 2681] (Autun/Augustodunum, Lugdunensis) and the pseudo-gentilic name C(AIO) AVTEStio [CIL, 12, 3462] (Nîmes, Narbonensis). The editors rely on a secondary source that systematically ignores the inverisimilitude of Gaulish inscriptions in the Latin alphabet reflecting the outcome of inherited /st/ as <ST> and tentatively reconstruct a dubious *au-te[p]-stio- (sic!). A cursory glance at any database of Latin epigraphy, however, reveals dozens of cases of a gentilic name Antestius, which immediately discredits AVTESTIO as a scribal mistake or an erroneous reading. Accordingly, we may quietly rule out $/ \mathrm{t}^{\mathbf{s} /}$ for this form. Again, we can play around with several etymologies, like *teg-s-ó- 'having shelter' (from *teg-os-), *tend-tu/i- 'breaking,' etc. avtessiodvro is not even certain to be related, and could reflect * au-texsto-, meaning 'scattered, loosely linked' (see below).
2.6. The Lepontic funerary inscription tisiui : piuotialui : pala [LexLep, TI, 36] (Davesco, Ticino, Transpadana, $3^{\text {rd }} \mathrm{c} . \mathrm{BC}$ ) has been translated as 'monument for X son of Y.' I reconstruct Lep. *dīs-io- from IE * $d^{h} e h_{1}$-es-( $i$ ) io- 'performing ritual, involved in religious activities,' which is a back-formation that occurs in at least one compound name in the Latin alphabet in northern Italy and will be the subject of a forthcoming work. Suffice it to say that it has close cognates in the Latin alphabet: DISIA [AE, 1991, 727] (Caraglio/Forum Germanorum, Liguria, a woman's name in an entirely Celtic onomastic context, whose son is called vlatvn[vs]); disivs [CIL, 3, 1624a; EDCS11301251] (Gigen/Oescus, Moesia Inferior); diso [CIL, 3, 5322] (Leibnitz/Flavia Solva, Noricum). For other cognates, cf. [Prósper, 2018b].
2.7. Finally, I would like to draw attention to an unparalleled name. The two inscriptions containing it were unearthed in the burial site of Cerrione (Biella, Transpadana), and published by [Cresci Marrone \& Solinas, 2013, 28-30, 41-42]. The first one is partly mangled and reads sipiu koil[...]ios [LexLep, BI, 8] ( $100-70 / 60 \mathrm{BC}$ ), where sipiu is a nasal stem and the following form in all likelihood a patronymic. The second reads lukios sipionios [Ibid., 1] (100-40 BC). To my mind, these are likely adaptations of Latin onomastic formulas to Cisalpine Celtic usage. To begin with, the form lukios, and not $\dagger$ loukios, definitely points to this name representing L. Lūcius. Secondly, the equally non-Celtic sipionios, according to Solinas "un derivato in -io- dal tema in nasale sipiŏn-" is strongly reminiscent of L. Scīpiō. This

Roman cognomen may have been adapted as a typical Cisalpine Celtic nasal stem in $-\bar{u}$, -ŏn-os, from which the derivative -on-io- was built. The interesting thing about this is that it strongly suggests that the Latin cluster/sk/, when /i/ immediately followed, had already undergone palatalisation in the area, and that the resulting sequence, possibly pronounced [ $\mathrm{s} \int$ ], was reflected in the Lugano script as $<s>$.

## 3. Cisalpine Celtic forms with <s'>

Several forms containing the sign $\langle\dot{s}\rangle$ have been satisfactorily interpreted as containing the Celtic outcome of the Indo-European cluster/st/, which must have been $/ \mathrm{t}^{\mathrm{s}}$ at the time when the Lugano script was adapted to write Lepontic. Others have been said to continue / $\mathrm{tt} /\left[\mathrm{t}^{\mathrm{st}}\right]$, which I find much less compelling. Finally, some of them have been given no etymology at all.

### 3.1. Celtic *gosti-

Solinas [1998, 145], not mentioned by [LexLep] as I am writing this article, and later independently [Stifter, 2010, 370], have compellingly traced back the personal name kośio [LexLep, VR, 15] (Isola Rizza, Verona, Venetia et Histria, $2^{\text {nd }}-1^{\text {st }}$ c. BC) to *gostiios, itself a derivative of IE * $g^{h}$ osti- 'guest, stranger.' In this case, the scribe has chosen the "butterfly sign," as opposed to $<z>$ in uvamokozis [LexLep, CO, 48] (Prestino, Transpadana, $6^{\text {th }} c . B C$, see below). The proprietor's name in the Lep. gen. sing. रosioiso [LexLep, NO, 1] (Castelletto Ticino, Transpadana, 6 ${ }^{\text {th }}$ c. BC) probably belongs here, too, as proposed by [Prosdocimi, 1991]. The carver does not use a special sign, and thus simply underrepresents the phonemic contrast between $/ \mathrm{t}^{\mathrm{s}} /$, /s:/ and /s/.$^{14}$

Summing up, we have no fewer than three signs for a single etymon, but their use is entirely consistent (except in Prestino, on which see below). Disquietingly enough, another isolated name from the same area and period [LexLep, NO, 29] (Castelletto Ticino, Transpadana, $6^{\text {th }} \mathrm{c} . \mathrm{BC}$ ) reads $\chi o \theta$ ios, and one cannot avoid thinking it could be a variant of the same name after all. The shape of $\langle\theta\rangle$ is unique, descriptively a cross of Saint Andrew enclosed in a circle, as in archaic Etruscan. It could be the case that the carvers did not feel at ease with $/ t^{5} /$ in that area and at such an early date and consequently spelt it either with a dental or a sibilant. Finally, this name is probably continued in the pseudo-gentilic name L(VCIO) GOSSIO [CIL, 5, 7369] (Iulia Dertona/ Alessandria, Liguria).

## 3.2. iśos

The Lepontic pronoun iśos 'this one; the same' [LexLep, VA, 6] (Vergiate, Transpadana, $6^{\text {th }}-5^{\text {th }}$ c. BC) is held to come from *isto- since [Eska, 1991], who

[^7]compared Celtib. iste ... iste 'either ... or' [MLH-4, K.1.1.] (Botorrita), as well as the infixed pronoun in the Cisalpine Gaulish verb tośokote 'placed, erected?' [LexLep, VC, 1, 2] (Vercelli, Transpadana, bilingual text, $1^{\text {st }} \mathrm{c} . \mathrm{BC}$ ).

## 3.3. anareuiśeos

The Cisalpine Gaulish personal name or patronymic anareuiśeos [LexLep, NO, 21, 1] (San Bernardino di Briona, Transpadana, $2^{\text {nd }}-1^{\text {st }} \mathrm{c} . \mathrm{BC}$ ) is interesting on several counts. To begin with, it is a doubly prefixed compound containing *ande and *are, and therefore similar in structure to the coin legend anarekartos [LexLep, VB, 27] ( $4^{\text {th }}-3^{\text {rd }} \mathrm{c} . \mathrm{BC}$ ), an obvious past participle that ultimately goes back to $* k r s$-to- unless it is somehow derived from a secondary stem *kar-, according to [Falileyev, 2019]. In view of $\langle\dot{s}\rangle$, anareuiśeos has been reconstructed variously. [LexLep] favours a morphological structure *and-are-uid-ii-os and a phonemic structure /andareuitseios/, which I find confusing (is an immediate cognate of L. providus, invidus meant?).

The prevalent assumption, however, seems to be that this form goes back to a past participle *and(e)-are-uits-t-ii-o-, and thus constitutes the showcase example of the equation $\left.<\dot{s}^{\prime}\right\rangle=\mathrm{IE} / \mathrm{tt} /\left[\mathrm{t}^{\mathrm{s} t}\right]$. This etymology goes back to [Lejeune, 1971, 410], in the footsteps of [KGP, 103], whose author vaguely declares "an-areviśeos möchte ich auf *And-are-vittdeos zurückführen, das letzte Glied also zu der in Epotso-ro-vidoliegenden Schwundstufe von idg. *uoid-/*ueid- 'wissen' stellen."" This explanation is recently followed by [Uhlich, 1999, 295; Stifter, 2010, 371].

While the attribution to the root *ueid- is quite plausible, the reconstruction of a past part. *uid-tó- is seemingly belied by the Pan-Celtic continuation of *-tst- as /s: /. As we have seen above, the Lugano script reflects this phoneme as $<s>$, never as $\langle\dot{s}\rangle$. In my view, this form goes back to *uid-s-to-. This would presuppose that the desiderative stem *ueid-s- had spread to the rest of the paradigm somewhere down the line. Independent verbs built from this stem are attested thus far in L. $v \bar{s} s o$, -ere, U. revestu ( $3^{\text {rd }}$ sing. fut. imperative) 'to check' ( $<$ *re-ueid-s-e-tōd), Goth. ga-weison, OHG. wīsōn 'to visit, look after' and the reduplicated desiderative *ui-uid-s- of Post-Vedic Sanskrit. ${ }^{15}$ According to [Nussbaum, 2007, 6], the Germanic forms are ultimately desideratives in $-s \bar{a}-$, which is in accordance with the fact that Romance languages presuppose the existence of Latin verb compounds in -visāre (cf. Sp. revisar, etc.). In sum, we may assume that Celtic inherited a past participle *uids-tó-. In fact, it must have existed in Italic, and should have given L. *vīstus, not $v \bar{s} s u s$, created in analogy to the past participle of video, which goes back to *uid-tó-, like Skt. vittá-, OIr. fess, etc.

Indirect support for this idea comes from Celtic onomastics: the personal name akluśamoualos [LexLep, NO, 28] (Dormelletto, Transpadana, 2 ${ }^{\text {nd }} c$. BC) looks like

[^8]a compound personal name with a first member akluśamo-. ${ }^{16}$ At first sight, this name goes back to *ande-klut-isamo-, with syncope of the third vowel favoured by further compounding, and then containing the superlative of the past part. *klutó- 'famous.' Note that we do not even know whether the right segmentation is akluśamo(s) ualos (compound names prefixed by superlatives are at any rate thin on the ground), or even whether these are laudatory epithets and not names. Be it as it may, this would mean that this is a more recent formation than the superlative *klut-amo-: a Celtic personal name clytami (gen. sing.) is well attested in Hispania, Britannia and Dalmatia. In Gaulish, however, the form *klut-isamo- would have been expected to undergo syncopation of the penultimate vowel, however, eventually yielding *klutismo-.

The father's name in a dedication to a woman called LVBamae clvssimi [CIL, 5, 4637] (Brescia/Brixia, Venetia et Histria) probably goes back to a superlative *klust-isamo-, which regularly yielded *kluts ${ }^{5} m o-$ in the Eastern Alpine area. ${ }^{17}$ It may accordingly be taken to mean 'most revered, obeyed, listened to.' This form continues a past part. *k'lus-tó- of the root *ḱleus-[LIV, $336^{\text {'(zu)hören'] (originally a desiderative }}$ present of *kleu- that became an independent root in the proto-language). In fact, *ḱlus-tó- is a perfect match of the OIr. passive preterite ro-closs 'was heard.' ${ }^{18}$

In principle, akluśamo- could be traced back to *klust-isamo-, too, if we accept that western Cisalpine Gaulish was not affected by the changes ${ }^{*}$-isamo- $>{ }^{*}$-izmo- $>$ -ifimo- $>$ *-īmo-, an isogloss running northwards from Sabellic, covering Central and Northern Italy, and affecting first Italic and later Eastern Gaulish, on which cf. [Prósper, 2018a]. Alternatively, akluśamo- may contain a primitive superlative form *klust-amothat simply imitates the widespread *klut-amo-.

Ködderitzsch [1986, 203] appositely compares anareuiśeos with a chieftain's name A A $\eta \rho$ ó $\varepsilon \sigma \tau \circ \varsigma ̧ / A \nu \eta \rho o \varepsilon ́ \sigma \tau \eta \varsigma ~(a c c o r d i n g ~ t o ~ P o l y b i u s, ~ a ~ g a e s a t u s ~ f i g h t i n g ~ i n ~ I t a l y ~$ around 225-223 BC), which he traces back to *ande-ro-vistos 'who possesses great knowledge.' This is difficult to understand for a Gaulish or Lepontic form, however, since Ködderitzsch provides no explanation for the cluster -st-, and the possessive meaning is unfounded. On the other hand, the form must have been remodeled at some point and adapted to Greek phonology. Since the tendency to a metathesis [st] > [ts] is probably due to gestural overlap, we may surmise that Polybius or his immediate sources tended to hypercorrect the Gaulish phoneme $/ \mathrm{t}^{\mathrm{s}} /$ and created a name that sounded like a Greek verbal adjective. If this holds true, it constitutes indirect evidence for *uids-tó-. This may also have been the case with the name Ario-vistus, referring to a chieftain of the Suebi and also to one of the Insubres. Note that, if IE [ $\left.\mathrm{t}^{\mathrm{st}}\right]$ and the outcome of $/ \mathrm{st} /$ had merged

[^9]as Gaulish $/ \mathrm{s}(:) /$ or $/ \theta(:) /$ by the $1^{\text {st }} \mathrm{c}$. BC, its identification with $\mathrm{L} . / \mathrm{st} /$ rather than $/ \mathrm{s}(:) /$ would not be an option anyway. ${ }^{19}$ The only visible alternative, and in my present view the most convincing solution, is that Ariovistus, as often contended, is an entirely Germanic compound *harja-wist-az 'sought after by the army' whose second member would be of the same origin as the one proposed here (this may perhaps be extended to the Dacian chieftain Burebista, etc.). ${ }^{20}$

Still another Celtic name can be brought to bear on this matter: areuiz $[i] e[s]$ on a semis [LexLep, NM, 19] (Arezzo/Arretium, Etruria, 217-197 BC). The transmission is Etruscan (in fact it is an Etruscan genitive form), where $<z>$ rendered $/ t^{\mathrm{s}} /$. Consequently, this is likely to be a compound *are-uits-(i)io-, as advanced by [Rubat Borel, 2006, 206], who directly compares Ariovistus but does not explain the origin of the cluster.

As for the morphology of anareuiseos, some accounts silently sacrifice phonetic and morphological verisimilitude in order to arrive at convincing semantics. Ködderitzsch starts from *uid-tu- 'knowledge.' But a Celtic bahuvrihi compound of this sort would probably not have been suffixless. Its suffixation would have had the form *-tou-(i)ioor, conceivably, *-tu-(i)io- (where -u-would not necessarily have been absorbed by the suffix of appurtenance). Needless to say, this is still more unlikely in the case of A$A \nu \eta o ́ \varepsilon \sigma \tau \circ \varsigma$ and Ariovistus. Lambert [2013, 123-125] ingeniously suggested that the personal name $\alpha v \varepsilon \chi \tau \lambda 01 \alpha \tau \tau \eta \circ \varsigma$ on the inscription of Alise-Sainte-Reine was a modal adjective in *-tei-o-. In the same vein, Falileyev [2019, 128] analyses anareuiśeos as containing *uid-tei-o-. This leaves us with an action noun *uid-ti-, only attested in Skt. vitti- 'obtainment' [cf. NIL, 718]. ${ }^{21}$ While this is compatible with the existence of * uid-tu- in OIr. fiuss 'act of finding out, knowledge' ( $-u-,-o-$, n., later m. $)^{22}$ and MW. gwys 'announcement,' mere hesitation in the rendition of $/ \mathrm{i} /$ after a difficult cluster or an affricate cannot be ruled out. On balance, the vowel $\langle e\rangle$ is best accounted for by assuming that the speaker parsed the sequence as /ui.t ${ }^{\text {si}} \mathrm{i}$ o/- or /ui.tsi.io/-. ${ }^{23}$

[^10]To recap, none of these forms, containing the problematic graphemes Lepontic $\langle\dot{s}\rangle$, Etruscan $\langle z\rangle$, or the equally problematic sequences $\langle s t\rangle,\langle\sigma \tau\rangle$ in the classical sources, can be reflecting the outcome of [ $\left.t^{\mathrm{s} t}\right]$. In addition, one has to resort to underlying action nouns in - $t u$ - or - $t i$ - in order to explain the meaning of these forms as 'possessing wisdom,' since a past partiple *uid-tó- 'seen' or 'known' would be less satisfactory. I think these compounds go back to a past participle *uids-tó- 'sought after,' modified by adverbials or by nouns functioning as agents.

By contrast, a number of partly uninterpreted forms with $\langle\boldsymbol{s}\rangle$ can be explained as containing CCelt. /d/ in coda position or as containing /st/, or both:
3.4. The personal name aśouni, gen. [LexLep, VB, 27] (Stresa, Transpadana, $2^{\text {nd }}-1^{\text {st }} c . B C$ ) is one of the few examples provided by Stifter in which /d/ apparently stood in onset position. But the comparison with OIr. Adomnán ( $<*$ ad-obno- 'having fear'), as he admits, needs special pleading, specifically assimilation of original -bn-, followed by dissimilation $-m n->-u n-$. An equally tentative equation with a personal name axiovno, dat. [CIL, 12, 3215] (Nîmes/Nemausus, Narbonensis), was advocated by [Lejeune, 1971, 431; Uhlich, 1999, 295; Morandi, 2004, 567], under the assumption that $-\chi s i$ - can result in a phoneme or cluster that Lepontic spells with $<\dot{s}\rangle$. This is unfounded and relies on the much disputed equation naśom = naxiom '(wine) from Naxos,' in an inscription from Ornavasso (Transpadana), now read natom by [Stifter, 2010, 370-371] and [LexLep, VB, 3].

In fact, a more compelling equation offers itself with $\mathrm{D}(\mathrm{IS}) \mathrm{M}($ ANIBVS $) / /$ ASOVNA [CIL, 13, 1280] (Bourges/Avaricum, Aquitania), as already pointed out by [Delamarre, 2014, 7], which can be traced back to a compound of $* a d$ - and a root beginning with ${ }_{s}$-. Mere etymological guesses are *ad-supn-(i)io- ''sleepy'; *souh ${ }_{1}$-ó- ‘impelling'> *souno- $\rightarrow$ Celtic individualising nasal stem *ad-sou- $\bar{u}$ (with generalisation of the lengthened stem vowel) $\rightarrow$ *ad-souӣn-(i)io- [cf. LIV, 138 *seuh - 'antreiben, in Bewegung halten']; or, come to that, *ad-+ a thematic derivative *stomno- of the action noun *stomh ${ }_{l}-m_{0}>$ stomn 'mouth,' $^{\prime}$ as reconstructed by [Neri, 2003, 212, fn. 49], on which cf. now [Vine, 2019].
3.5. Riśos, with a variant reading riśoi, is not explained in [LexLep, BG, 21] (Verdello, Bergamo, Transpadana). According to the criteria followed here, an available etymology is *pri-sth ${ }_{2} \dot{o}-$, a trivial compound of a preverb and an agentive derivative of *steh ${ }_{2}$ ' 'to stand,' and then comparable to G. frist 'period of time, deadline,' and formationally similar to *pro-sth ${ }_{2}$ ó- in OIr. ross 'promontory' and many other forms. Alternatively, it may be an archaic superlative form *pri-is-t $(H) o$-, like the base of L. prīstinus according to [Szemerényi, 1999, 45]. Cf. also L. prīmus 'first,' whatever the ultimate details of its formation.
3.6. The patronymic in the dative maeśilalui [LexLep, NO, 18] (Miasino, Transpadana, $2^{\text {nd }} c . B C$ ) has been explained by [Stifter, 2010, 370] as going back
to *magestu- 'field,' which is plausible and has Brittonic cognates, but presupposes early, unparalleled palatalisation and loss of $/ \mathrm{g} /$. It can also be explained as a very archaic superlative $^{m e h_{2}}$-is-to- 'greatest,' the match of Goth. maists 'most,' in turn replaced by a secondary *maisamo-, ideally from *meh ${ }_{2}$-is-mioho-; cf. [Prósper, 2016, 97-98]. The spelling $\langle a e\rangle$ is problematic, but /ai/ is anyway hardly attested except in endings. MAESIVS is a gentilic name attested in many provinces, which can be traced back to the comparative *meh ${ }_{2}$-is-, and, if it were of Celtic origin, also to the superlative in -isto-. Finally, given the lack of parallels for a sequence $\langle a e\rangle$, this could be a spelling error for $\dagger$ meśilalui, and then its base would be identical to medsilli (Transpadana), messilla (frequent in the East), meddillvs (Aquitania, Germania), favouring the etymological connection with the older form mezu (see below 4.3).
3.7. anteśilu [LexLep, TI, 25] (Locarno, Transpadana, $2^{\text {nd }}-1^{\text {st }} \mathrm{c} . \mathrm{BC}$ ) is an obvious compound. Scholarship, in the wake of [KGP, 278], has limited itself to the descriptive equation of its second member with the sequence-tetsi-, -tessi-, etc., frequently found in Gaulish onomastics. Stifter [2010, 370] takes a step forward and reconstructs *and(e)-te $(\varphi)$ sti- ( $<$ *tepsti- 'heat'), following the interpretation of the Gaulish sequence by [DLG, 294]. The Insular Celtic cognate of this form is often traced back to *tepstu-, in OIr. tess ( $-u$-stem), MW. tess [EDPC, 375], though the Proto-Celtic preform is not easy to explain (see criticism in [Hill, 2003, 276-277]). While this is phonetically plausible, the intensive prefix leads me to prefer a past participle as the second member and ascribe $-i$ - to the suffix. We could then consider *and(e)-teגs-to- 'well constructed, fitted,' a near synonym of the Gaulish divine name andartae ( $<$ *and(e)-ar-to-, Narbonensis), from an enlarged root *tek-s- certainly not attested in Insular Celtic, but present in Gaulish tessillvs, tessilla (Narbonensis, Noricum), Hispano-Celtic (cf. the region name Contestania) and probably in Gaul. Contessilonis (gen., Transpadana) or the base of the pseudo-gentilic names CONTESSIVS (frequent; Narbonensis, Lugdunensis), ANTESSI (gen., twice, Narbonensis, identical to the base of antesilu). This participle is preserved in many other Indo-European languages: cf. L. textus, Skt. tasṭá-, and especially RigVedic su-taștáá- 'well fashioned,' Celtiberian testios [MLH-4, K.1.3] (Botorrita).
3.8. The form aśeś, on two lost gold coins of unknown provenance and date [LexLep, NM, 10, 1-2], is probably an abbreviated name, traced back to *ad=teps$t i / u-$, again involving the word for 'heat' [see LexLep; EDPC, 375], for which a change $-d-t->-t^{s}-t-$ is apparently assumed. In fact, if the complete form has to be reconstructed as Aśeś(ios), the obvious etymology is *ad-sed-(i)io-, meaning either 'resident' or 'possessing a chariot, nobleman,' in fact a typical name for a chieftain: cf. W. assed and the gloss asseda sella quadriiugia [CG1L, 4, 476], as well as MBr. asez 'place to rest or sit on,' on which see further [Koch, 1987, 259-262].

Aśeś(ios) matches a plethora of (mostly Eastern-) Gaulish names: ADSEDI (Noricum), ADSEDILI (Noricum), ADSEDONIS (Noricum), ASSEDOMARI (Noricum),
asseda (Noricum), asediae (Noricum), as well as Hispano-Celtic asedi (Lusitania), etc. Interestingly, some of these names appear on coins: A円ÐEDOMAROS 'great by his chariot(s),' probably a king of the Trinovantes (Britannia) and a@EDIAcos in [RIG-4, 13] (Gallia Belgica), in my view nearly identical to the Lepontic legend. According to Koch, Gallo-Latin essedum 'war-chariot' does not contain a different prefix *en-, but may simply have been mistranscribed by Julius Caesar. The coin legend aśeś(ios) does nothing to contradict this view. In addition, ${ }^{*} e n-s-$, if old, would be rather unlikely to become ${ }^{*} e s s$ - (instead of ${ }^{*} e(n)^{t} s$ - or ${ }^{*} \bar{e} s$ - $)$.
3.9. The enigmatic form ześu recurs in several of the rock inscriptions from Carona (Bergamo, Transpadana): ześu: isti neisu: k[-], [LexLep, BG, 41, 22]; ti ześu, [Ibid., 30]; ześu: poininos: kopenatis: tonoiso [Ibid., 5; zaśu in Casini et al., 2014, 183]. To my mind, it could also be attested in the abbreviated ze(śu) ośoris, read zvośoris by [LexLep, CO, 62] (Casate, Milan, Transpadana, $2^{\text {nd }} \mathrm{c} . \mathrm{BC}$ ), if we allow for the possibility that the letter $\langle e\rangle$ lacks one stroke (that is to say, the carver meant to abbreviate the verb from the beginning, and as a consequence inadvertently left it out before going on to the personal name). Neither a sequence $\langle z v o\rangle$, which contravenes orthographic principles concerning the use of $\langle v\rangle$, nor Rubat Borel's solution [2006, 206], which favours ze but reconstructs an unlikely imperative of the root $*_{\text {steh }}^{2}$-, hold out any promise.
ześu has been cogently classified as a verb form [cf. Casini et al., 2014, 201], specifically a reduplicated preterite. Stifter [2020, 344] further considers it an alternative spelling of tetu /'dedu:/ in Prestino, and [LexLep, s.u. ześu] even puts $<\dot{s}\rangle$ down to an attempt to write the fricative [ $\varnothing$ ] phonetically "if zeta is used for $d$ according to Este orthography and san denotes lenited $\partial$." This is patently unwarranted, since there is no text that shows this combination or, come to that, an ironclad example of either assumption.

This is also disputable for general reasons regarding the nature of writing systems. As far as alphabetic scripts are concerned, deviant spellings often labeled "phonetic spellings" do not reflect a person's aim at phonetic accuracy, but his aim at spelling in a way that matches his own perception of synchronic phonology when a robust orthography is lacking. A typical example is sporadic intervocalic voicing of stops. Another interesting case is phonemic ambiguity: the carver perceives a context-bound sound as a sequence of two phonemes ("unpacking") or parses the wrong phoneme.

By contrast, the design of writing systems hardly ever creates distinctions for allophones, unless these are external allophones or quasi-phonemes, which the hearer can neatly distinguish. ${ }^{24}$ On superficial inspection, this is the case of Celtic

[^11]preconsonantal $[\chi]$, but, again, overdifferentiation can be at play here: the Greeks of the Ionian colonies of Southern France adapted their own alphabet to write Gaulish. In doing so, they overrated the status of $[\chi]$ because it was phonemic in their own language. As a consequence, it obtained a distinct spelling $\langle\chi\rangle$ that over time passed over to the Gallo-Latin alphabet as $\langle\mathrm{x}\rangle$.

With this in mind, one fails to understand why this particular word would always be reflected phonetically, and, in addition, why $\langle z>$ would be used at all (instead of either $\langle t\rangle$ or, conceivably, $\langle\theta\rangle$ ), since there is no single instance of the apparently moribund $<z>$ that stands for a voiced dental stop. The predictable escape route that $\langle z\rangle$ regularly stands for the palatalised outcome of a cluster -di- cannot be applied to the present case without further evidence for: a) an early change [de] > [die], and b) its merger with the outcome of the cluster -di-. If, however, as contended by [Schrijver, 2015], intervocalic /d/ had become a phonemic sibilant, and if the stop /d/ in tetu has been analogically restored in order to ensure morphological transparency, one wonders at the very existence of ześu in Carona, which would testify to a more archaic language stage or to a fictitious dialectal difference.

Though tetu and ześu bear a striking morphological resemblance, they differ as regards consonantism and etymological attribution. According to [Mees, 2020a], "the form zaśu which precedes poininos looks to represent a derivative of *sta- < IE *steh $z_{2}$ - 'to stand,' perhaps with a meaning comparable to Greek $\varepsilon v \dot{\text { v }}-\sigma \tau \alpha \theta$ ńs 'well-built, steadfast, quiet'." That the following poininos should be a divinity and not the personal name of the dedicant in the nominative strains imagination, however. ${ }^{25}$

In my view, ześu is a probable match of Skt. tasthau (and, mutatis mutandis, L. stett̄, stetit). This form may then directly continue *ste-stoh $-e$. It consequently means 'has erected, placed,' and is fronted to the beginning of the sentence because the verb is focalised and belongs to a formular construction. Unless this version of the Lugano alphabet consistently uses $<z>$ for $/ t /$ and $\langle t\rangle$ for $/ d /$, which does not seem to be the case, as we will see below, one is at a loss as to why we find the present distribution. Everything points to $\langle z\rangle$ and $\langle\dot{s}\rangle$ being alternative, in all likelihood successive means of writing $/ \mathrm{t}^{\mathrm{s}} /$. As a consequence, $z e s s^{\prime} u$ may have been considered at some places a more convenient way of writing /'tsetsu:/ than †'seśu for aesthetic reasons, roughly the same that led scribes to avoid $<\mathrm{vv}>$ and $<\mathrm{II}>$ in Republican Latin. On a more general account, $<z\rangle$ could in this system at least have become a positional allograph that delimited

[^12]the word (as, for instance, the two forms of sigma in Greek $\gamma \varepsilon ́ v \varepsilon \sigma 1 \varsigma)$. Positional variants of a grapheme have a definite systemic value in that they serve an indexical purpose.
3.10. The name kuaśoni [LexLep, TI, 27, 1] (Mezzovico-Vira, Ticino, Transpadana, $5^{\text {th }}-4^{\text {th }} \mathrm{BC}$ ), alternatively interpreted as a gen. sing. or as a dat. sing., can be derived from a thematic form attested in Germania much later as a potter's name cvasvs. Near Clermont-Ferrand, a personal name coaso is attested [EDCS-41900105]. All these names may go back to an adjective $* k o(m)=h_{2} e d-s t h_{2}-o ́-~ ' r e a d y, ' ~ r e l a t e d ~ t o ~ L . ~ a ̄ s t u s ~$ 'cunning,' from $*_{2} e d-$ sth $_{2}-u$ - [cf. Vendryes, 1922]. ${ }^{26}$ The Latin form must be originally adjectival, since ${ }^{2} s t h_{2}-u$ - must have meant 'standing': cf. Skt. anu-șthú- 'right,' Lith. atstùs 'distant,' *po-sth ${ }_{2}$-u'- in Toch. B pest 'away,' postäm 'afterwards,' according to Hackstein [1997, 45-50, etc.], *opi-sth ${ }_{2}$-u- in Toch. B epastye, A opäśśs 'skilful, capable' [cf. Hilmarsson, 1986, 203]. And the noun may be back-formed on the ablative $a s t \bar{u}$ (in fact the only form attested in Plautus and other authors).
3.11. The name amaśilu [LexLep, VB, 2] (Ornavasso, Transpadana, $2^{\text {nd }} \mathrm{c} . \mathrm{BC}$ ) could in principle reflect a similar formation $* h_{2} m b^{h}(i)=h_{2} e d-s t h_{2}-o ́-/-u ́->$ CCelt. *amba(d)sto-/-u-> Cisalpine Celtic [am:atso]-, [am:atsu]- 'standing ready on both sides' (possibly related to the pseudo-gentilic name Ambasius). Schrijver [2015, 199] reconstructs * $h_{2} m b^{h}(i)=h_{2}$ edi-lo- and identifies the prefixed noun *adilo- with MW. eddyl 'intention, plan.' However, in Cisalpine Celtic onomastic formulas, -(i)lo- is definitely a secondary suffix, not appended to roots but to names, and forming hypocoristics or patronymics (conversely, if Schrijver were right, we would expect further suffixation). In addition, one wonders at the fact that this patronymic/cognomen is preceded by oletu, which in all likelihood goes back to * $\varphi$ oll-ed $\bar{u}$, with the expected spelling of /d/. A connection with Celtic *ambaxt(i)io- was very tentatively put forward by [Lejeune, 1971, 419, fn. 198 and others in his wake], but as duly observed by Lejeune himself, the assumption of such an early palatalisation is entirely $a d$ hoc. It should be noted that the comparison with the cognomen ambaxivs in [CIL, 13, 6463] does not withstand scrutiny, if only because the inscription is lost and it cannot be ruled out that the correct reading is ambaxtvs, attested in Germania Superior some 100 km away [cf. Ibid., 11774].
3.12. The personal name keleśu [LexLep, VR, 14] (Isola Rizza, Verona, Venetia et Histria, $150-100 \mathrm{BC}$ ) is interpreted by [Solinas, 1998, 145] as an "ipocoristico in *-ōn", built to the root *kelH- 'to excel' (my notation). Rubat Borel [2006, 207] believes $\langle\dot{s}\rangle$ to reflect the palatalised outcome of -ti- or -di-. Still, as in other examples, one is reluctant to posit such an early palatalisation, especially taking into account that Late Gaulish does not overtly show this development, and that the forms in the Lugano

[^13]script show <śi>, as in akeśi and meśiolano. Stifter [2010, 372] believes this name to contain the suffix -edon-. In the same vein, Markey [2006, 157] reconstructs *kel-edon-, from *kel- 'to hit.' This would be unproblematic if, as both scholars propose, the sign for $/ \mathrm{t}^{\mathrm{s}} /$ could denote $/ \mathrm{d} /$ (but see oletu $<*$ oll-ed $\bar{u}$ above, 3.11; as we have seen above for kośio, the texts from Isola Rizza known thus far use $<\dot{s}>$ for $/ \mathrm{t}^{\mathrm{s}} /$ ). But it characteristically tiptoes around the details of word-formation, and presupposes that a secondary suffix can be appended to a root, which is not the case. ${ }^{27}$ It should be based on a noun or adjective, which remains a major problem: Cisalpine -edon- is always built from perfectly recognisable adjectives (in part derivatives or compounds themselves), and is in all likelihood expressive, endocentric and limited to names. ${ }^{28}$ Only the Venetic names kellos ossokos and kellos pittammnikos [LV, 158-160] (Cadore), if they were of Gaulish origin at all, could provide a conceivable base for keleśu (but kellos seems to derive from an anit-root, possibly contained in OIr. cellach 'war').

On the other hand, Indo-European has a-s-stem *kelH-os from *kelH- [LIV, 349 'aufragen, hochragen'], attested in OCS. čelo, čelese 'forehead' [see Stüber, 2002, 121]. If this isolated form may in fact lay claim to being of Indo-European age, we would expect it to be found elsewhere, at least in derivatives. The obscure L. celeber (-i-) 'numerous, noted, famous,' if from *kelH-es-ri- 'outstanding, excelling,' is likely to be a case in point (cf. L. excello, columen, etc.). ${ }^{29}$ Note also ORus. čelesĭnyj 'main, principal, top.' We may derive the name keleśu from *kelH-es-to- 'having higness,' a regular possessive derivative of the same stem, whose formation matches that

[^14]of sekezos. Interestingly, L. caelestis 'related to heaven' has never found a cogent explanation in formational terms. But it could have been remodelled after caelum on an original *kelH-es-ti-/-o-. ${ }^{30}$ Since the finding place is in Venetic territory, keleśu could even represent the Celtic version of a Venetic name *kelestō.
3.13. Stifter [2010, 372] analyses the personal name śuro [LexLep, MI, 10, 6] (Milan, Transpadana) as an "onomastische entlehnung aus L. dūrus" but, in fairness, one could directly reconstruct the widespread adjective $*_{\text {sth }}^{2}$ u-ro- $>*_{\text {stuh }}^{2}$-ro- 'big, strong,' in Skt. sthūra-, OSw. stūr, L. re-staurāre (< PIt. *stauro- < *stéh ${ }_{2} u r o-$ ). It was probably substantivised after laryngeal metathesis, yielding *stéuh ro- (Av. staora-, Goth. stiur 'bull'), on which cf. [Lipp, 2009, 144-147].
3.14. The personal name ośoris [LexLep, CO, 62] (Casate, Transpadana, $2^{\text {nd }} \mathrm{c} . \mathrm{BC}$ ) is a compound of * rig-' 'prince, chieftain,' whose first member might go back to *po-sth ${ }_{2}-\dot{o}-$ 'firm,' as in ON. fastr, and possibly L. postis 'door-post' (if from *po-sth $h_{2}-i-$ ). The ethnonym Ossismī (Brittany), a transparent superlative, might derive from this adjective, too (cf. attestations and alternatives in [Prósper, 2018a, 126]). The cognacy with the Latin name Ostorius mentioned on [LexLep] is uncompelling, given the existence of a byform Opstorius and the likelihood that these are agent names in -tōr- [cf. GarcíaRamón, 2012, 116]. It transpires from the use of $\langle s\rangle$ in the same form and from many others (especially those prefixed by es-) that an etymology *oxso-rigg- 'king of deer' can no longer be accepted [see Morandi, 2004, 646]. The reconstruction *ordo-r $\bar{g} g$ - 'king of hammers' [Markey, 2006, 155; Stifter, 2010, 372] is equally speculative.
3.15. The feminine personal name koiśa [LexLep, TI, 2] (Giubiasco, Ticino, Transpadana, $\left.1^{\text {st }} \mathrm{c} . \mathrm{BC}\right)^{31}$ is probably identical to the base of coesivs, Coesio, coesia (Transpadana; Venetia et Histria) and possibly koisis [LexLep, PG, 1] (Todi, Umbria). It is tentatively analysed morphologically as *kom-uid-(i)- $\bar{a}$ and phonemically as /koitsa:/ by [LexLep]. While -d. $i->-d^{2}$. $i$ - would be acceptable, this account demands a number of assumptions concerning the very existence of a fricative and its relevance for morphological description, the unexplained absorption of the glide $-i-$ and early loss of intervocalic [u] (in this case, following a morphological boundary). In sum, one would definitely expect to obtain $\dagger$ kouiśia. By the same token, it could be a past part. *ko(m)=uids-tó- 'sought after' (accepting loss of [ū]) or * $k o(m)=h_{2} i s$ - $t o ́-$ 'sought after, vel sim.' (cf. Skt. iștá-) from *h elis-'to look for' [cf. LIV, 260]. Bear in mind

[^15]this was precisely Szemerényi's etymology for L. quaerō, quaesō 'to look for, search' [cf. Szemerényi, 1960, 232-238], which remains more compelling than the existent alternatives. ${ }^{32}$
3.16. A feminine personal name in the dative has been read as arimai and as ariśai [LexLep, TI, 5] (Giubiasco, Ticino, Transpadana, $2^{\text {nd }}-1^{\text {st }} c$. BC). Interestingly, it can be traced back to a superlative in either case. Arimai could be an "Alpine" superlative *arìmo- from * $\varphi$ ar(i)-is-amo- 'foremost,' on which see [Prósper, 2018a], but it could alternatively be a very archaic superlative * $\varphi$ ar(i)-is-to- of the same meaning.
3.17. The accusative plural forms artuaś [LexLep, PG, 1, 4] (Todi, Umbria), siteś [LexLep, CO, 48] (Prestino, Transpadana), which contain the endings *-āns, *-ans, have undergone epenthesis of a stop $/ t /$ intended to block the problematic nasal-fricative transition, yielding ${ }^{*}-a n^{t} s,{ }^{*}$-cents. ${ }^{33}$ This was first recognised by [Lejeune, 1971, 375, 381] and more recently by [Eska, 1998, fn. 17, without reference to former works], and is perfectly reasonable in spite of the dire and ungrounded criticism in [Markey \& Mees, 2003, 154]. In fact, it is the usual realisation of American English -ns\#. Their own solution, "the use of san ... presumably represents gemination of the final $-s$ after loss of the preceding nasal" depicts a nonexistent phenomenon. Even a close alternative, namely -ns\# > -ss\# by regressive assimilation of the nasal to $/ \mathrm{s} /$, is nowadays rejected by professional phoneticians, like [Recasens, 2018, 165-167]. The resulting -( $n)^{t} s \#$ has become phonemicised as $/ \mathrm{t}^{\mathrm{s}} /$ given the existence of a previous affricate phoneme, which explains why it is rendered $\langle\dot{s}\rangle$. To this can be added one case of the sequence $*-t-s \#$ : the athematic name in the nom. sing. birauixes' [LexLep, TI, 13] (Giubiasco, Ticino, Transpadana), from an agent noun in *-et-s or an active part. in *-Vnt-s. In fairness, the final phoneme could have become a tense/long sibilant if we accept an evolution $-n s>-n^{t} s>-n t^{s}>-(n) s{ }_{n}:>-(n) s:$. But the universal spelling $\langle\dot{s}\rangle$ disallows this possibility.

The reasons behind the apparent contradiction between uvamokozis and sites in Prestino are unknown. The last-resort argument that medial and final position, or lexical vs. grammatical items may have been rendered differently simply holds no water (as we have learnt from the way it has arrested progress in Celtiberian phonology and morphology for decades). If $\langle z>$ was felt by that time to be an archaic sign rapidly falling out of use, but not yet confined to ornamental or didactic alphabets, it could mainly have been used for the proper names of the Patrician elites, since it is a well-known phenomenon across space and time that these often impose eccentric, once accepted but now old-fashioned orthography for writing their own names as a token of awareness

[^16]of their superior status. ${ }^{34}$ As remarked by [Carney, 1994, 449] for the English language, "archaism, too, has a value. A spelling which looks old and is out of step with presentday spelling conventions shows that the family is 'old,' in the sense of having a long recorded history," as in Norman French Beaulieu, nowadays ['biu:li].

In sum, Prestino might be a precious testimony of the transitional nature of the "Etruscan" spelling $\left\langle z>\right.$ of the affricate phoneme $/ \mathrm{t}^{\mathrm{s}} /$, especially taking into account that the object and the text inscribed on it were doubtlessly commissioned by uvamokozis himself. And this is to my mind also the reason behind the use of the infrequent sign $<\theta>$ in pliale $\theta u$, whether it stands for /t/ or for /d/ (crucially, Prestino otherwise uses $<t>$ for both). It should be noted that sekezos, azus, and the equally early mezu, may respond to the same aim at marking prestige through archaic spelling. Finally, sexe $\theta u$ on coins [LexLep, NM, 6] ( $4^{\text {th }} \mathrm{c}$. BC), if from *seged $-\bar{u}$, must be a chieftain's name that shares a spelling archaism with the above names in distinguishing voiced from voiceless stops.

### 3.18. pekuśía. A Celtic divine name from Carona?

One of the rock incised inscriptions of Carona reads pekuśia . isos . śuksim [cf. Casini et al., 2014, 190]. The line above has been erased. The editors acknowledge that these forms do not make sense when taken together: according to Motta, pekuśia looks like a nominative singular feminine, isos is a pronoun, similar to iśos [LexLep, VA, 6] (Vergiate, Transpadana, $6^{\text {th }}-5^{\text {th }} c . B C$ ) and śuksim is the acc. sing. of an $-i$ - or an -ih ${ }_{2}$ - stem.

To my mind, pekuśia may be simply be interpreted as a new instance of the divine name Bergusia. In fact, as observed by [Méndez Dosuna, 2007, 367], syllable codas are cognitively less salient than onsets, which leads to their frequent omission in writing (this omission can become institutionalised in writing systems like Mycenaean, which can never be the case with onsets for the same reason). This is, contrary to the traditional assumption, unrelated to phonetic weakening or loss. ${ }^{35}$
bergvisiae (dat.) is the paredra of the god vCVETI in [CIL, 13, 11247] (Alesia, Lugdunensis). This name is also contained in Rhaetic perkusiale [cf. RI, SZ-22]. Since Rhaetic perkusiale is a pertinentive, it could be a divine name to which the text/object

[^17]is offered; cf. [Schürr, 2022]. There is also a number of place names, among which $\beta \varepsilon \rho \gamma o v \sigma i \alpha(C a t a l o n i a, ~ i l e r g e t e s, ~ c f . ~ P t o l e m y, ~ G e o g r . ~ 2, ~ 6, ~ 67) ~ a n d ~ i n ~ G a u l ~ B e r g u s i a ~(c f . ~$ It. Ant., 346, etc.), Bergusium (Bourgoin, Isère). A feminine personal name bergvss(A)e is attested in [CIL, 13, 3285] (Reims/Durocortorum, Belgica).

If the comparative consistency of the examples we have reviewed is anything to go by, one should stick to the equation $\langle\dot{s}\rangle=/ \mathbf{t}^{\mathrm{t}} /$ by reconstructing $*$ bergu- $\mathrm{t}^{\mathbf{t} \dot{a}} \bar{a}$ and ultimately *bergu-istā [cf. Prósper, 2018a, 128], an archaic superlative built from the adjective * $b^{h} e r g^{h}-u-$, * $b^{h}$ ro $g^{h}$-eu- 'high' (cf. the Celtiberian lineage of the berkuakum in [MLH-4, K.18.1]), etc., as opposed to the original, root-based superlative $* b^{h}{ }^{\text {erg }}{ }^{h}-i s-t(H) o$ 'highest' in Skt. barhiṣtha-, Av. barazišta- 'highest,' and the ethnonym Bergistanī in Catalonia, mentioned by (Livy, Ab Urb. Cond., 34, 16). Exocentric derivation by means of-(i)io- may then give us a clue to the actual meaning of the divine name: perhaps not 'the highest,' as in the personal name bergvss(A)E, but 'goddess of the highest realms' or 'goddess of the mountain peaks. ${ }^{36}$

The first interpunct separating pekusia from isos is nowhere to be found on the photograph, and at any rate an incised dot can be easily confused with natural notches. This is why I think an alternative segmentation pekuśiai sos śuksim deserves to be considered. The editors read a ligature $<_{\mathrm{I}}+\mathrm{s}>$ that seems to compromise the separation of words I propose here, but if the inscription is in scriptio continua this is hardly decisive in view of orthographic phenomena typically happening across word boundaries, like avoidance of double letters that belong to the end of the first word and the beginning of the following (as in the vase of Duenos). Alternatively, this could have been caused by sos being an enclitic pronoun. It looks like the inherited anaphoric pronoun *so was recharacterised by a nominative ending. This might be paralleled by sos in Chamalières, usually interpreted as an acc. pl. (for which we would expect $\dagger$ svs, however). suksim is the direct object, probably beginning with a cluster *st-. The sequence $<k s>$ remains unexplained, since $-\chi s$ - would be expected to be reflected as $<s>$. Needless to say, the inscription may be incomplete.

[^18]
### 3.19. $\langle\boldsymbol{s}\rangle$ vs $<\boldsymbol{t}>$ in Carona

As implied above, if we focus on a comparatively late period, we would definitely not expect $\langle t\rangle$ for / $\mathrm{d} /$ in initial or intervocalic position to cooccur with $\langle\dot{s}\rangle$ in the same system, let alone on the same inscription, if the latter had specialised in precisely that function. The identification of ześu (Carona) with tetu (Prestino) crucially depends on that: if we accept this premise, we would definitely not expect $<t>$ for $/ \mathrm{d} /$. The texts from Carona are still awaiting a serious study that does not relent from establishing wide-ranging Indo-European connections and does not automatically ascribe $<t>$ to $/ t /$, as [LexLep] silently does. In what follows, I shall seek to clarify several of them.
3.19.1. [-] ześu: poininos: kopenatis: tonoiso [LexLep, BG, 41, 5] (Carona, Bergamo, Transpadana). What looks like the father's name of the dedicant, poininos, can be plausibly identified with Gaul. donno- 'noble,' and as a consequence challenges the idea that $\langle\dot{s}\rangle$ denotes /d/ except by resorting to unwarranted allophonic writing or to intervocalic /d/ having become a sibilant (see above, 3.9).
3.19.2. Timirios [LexLep, BG, 41, 2] (Carona, Bergamo, Transpadana) may be unproblematically traced back to an adjective * $d^{h} e h_{1}-m i-r o-: ~ c f . ~ A v . ~ d a ̄ m i-~ ' c r e a t i o n, ' ~ '$ possibly Celtib. temei if this is not a thematic locative [MLH-4, K.1.1.] (Botorrita), on which cf. [Prósper, 2008, 66-67].
3.19.3. anio: arpatimoi: risi: riaśana: tanatani: $\hat{[ }[-]$ ueriopoi: iknoiso: oisenu ek[-]etiun :: piuos: upi[-]apauatos: ase: katutiniois: sionpiri [LexLep, BG, 41, 19] (Carona, Bergamo, Transpadana) is obscure in morphological and syntactic terms, and we are thus far unable to segment it in words. However, it probably mostly consists of proper names and perhaps adjectives or office names, and at least we can identify the individual forms. Interestingly, several of them are likely to be compounds.

To my mind, the existence of "Alpine" superlatives in -īmo- in the system of Carona is rendered plausible by arpatimoi('s) in [LexLep, BG, 41, 19] (Carona, Bergamo, Transpadana). This looks like a close cognate of Gaulish names like verpant(vs) [CIL, 13, 1180] (Aquitania), ATEPATO, dat. [CIL, 12, 2905] (Narbonensis). ${ }^{37}$ These, if reliable at all, definitely look like prefixed participles, in my view from *kun-tó- 'sacred.' The prefix * $\varphi$ are- with intensive value has been regularly syncopated, on which see [Prósper, 2019a]. This name may consequently be traced back to a prefixed * $\varphi$ are $=$ kuant-isamo-.

The form tanatani looks like a typical compound in -danno-: cf. platiodannvs, CASSIDANNVS, ARGANTODANNVS, as well as the Celtiberian adjective tanioka-kue [MLH-4, K.1.3] (Botorrita), from an agentive *doh ${ }_{3}-n o ́-$ (or * $d^{h} o h_{1}-n o ́-$ ). As for $<$ tana>-, it is tempting to assume that pretonic $/ \mathrm{o} / \mathrm{and} / \mathrm{a} /$ had merged as a schwa, phonemicised as $/ \mathrm{a} /$, and spelt $\langle a\rangle$. Then we could reconstruct * dé $h_{3}-n o-$ 'present, gift.'

[^19]This would have welcome consequences for riaśana. If this is a name at all, it might go back to a compound (as if from) *priHo=steh ${ }_{2}$-no- 'standing free' < 'having a free standing' (cf. Gk. סv́бтךvos 'un-happy,' Skt. sthāna-, OP. stāna- 'place, standing,' OCS. stanŭ 'camp,' Lith. stónas 'state, condition'), and is possibly related to the widespread Gaulish name talvssanvs 'standing in front'.' This may have some bearing on the etymology of the divine name DEO VERNOSTONO [CIL, 7, 9] (Ebchester/ Vindomora, Britannia, no certain date), which probably still bears witness to a phoneme $/ \mathrm{t}^{\mathrm{s}} /, / \mathrm{s}(:) /$ or $/ \theta(:) /$ that the scribe did not know how to spell. One interpretation of this form as containing a word for 'groaning' sounds pretty far-fetched to me, and one could alternatively consider *uperno=stāno- 'holding a superior position' or, since the first member is only attested in Italic, * uerno=stāno- 'having his seat/standing on the alder tree.' The reasons for the vocalism /o:/ are ultimately auditory: it is the outcome of a dissimilatory process by which /a:/ is occasionally perceived as /o:/ between coronals. See the relevant examples and geographical distribution in [Prósper, 2019b].

All this equally casts doubt on recent etymologies of the widespread divine epithet magvsano that accompanies Hercules (mostly in Germania Inferior; the once attested MAGVSENO can hardly be invoked as a witness). Toorians [2003] understands this name as a compound 'youthful old one' on the strength of the disputed reading of an Early Welsh name mavohe[ni] (Llanboidy, Carmarthenshire, $6^{\text {th }}-7^{\text {th }} \mathrm{c}$. AD), cf. [Sims-Williams, 2003, 371]. The name * magu-seno- would have been adapted to Germanic phonology in that stressed /e/ was perceived as long and finally became West Germanic /a:/. Nonetheless, this may be unnecessary, and a Celtic compound *magu=stāno- 'having a big/powerful seat' or 'standing powerful' ( $\left.<*_{m} g_{2} h_{2} u=s t e h_{2}-n o-\right)$ is equally defensible if we take into account forms like ON. mjok (for which other possibilities can be considered, as S. Neri has kindly pointed out to me) and the Gk. personal names $\left.\operatorname{M\varepsilon \gamma \nu \lambda \lambda \sigma \varsigma ~(<*meǵh~} h_{2}-u-\right)$ and A $\gamma \cup \lambda(\lambda) \circ \varsigma\left(<* m \not g \dot{g} h_{2}-u-\right)$, well attested in epigraphy, mAGVNVS, MAGVLLVS, MAGVRIVS, etc. in Continental Celtic, and *moǵ ${ }_{2}-u$ - in Celtiberian mVgVro, mVgVri (Alcubilla, Soria). The personal names magVsi, magVsia in Gaul, as well as CALVENTIVS / mAVSONIS Lib(ERTVS) [CIL, 3, 14368] (Fladnitz, Noricum) may go back to *mǵh ${ }_{2} u=s t h_{2} O-$. A personal name $\mu \alpha \gamma o u \rho \varepsilon ı \gamma_{1}$ [RIG-1, G-121] (Cavaillon, Narbonensis) could obviously belong here, too, and cannot be traced back to *magu- 'child, servant' with any degree of certainty. ${ }^{38}$

Galatian [ $\mu$ ]ovo $\alpha v$ os $\alpha \rho \tau \iota \kappa v o \varsigma$, a priest of Augustus [Bosch, 1967, no. 35, 51] (Ankyra, 28-29 AD), if the reconstruction of the first letter were reliable at all, could be a cognate of the divine name magVSano, with trivial dissimilation of lenited $[\gamma]$, and could then be traced back to a Gaulish name $* \operatorname{mog} u=t^{s} \bar{a} n o$ - whose first member was refashioned after the living non-compositional full-grade forms. In sum, the exclusive

[^20]ascription of Continental Celtic forms beginning with magu- to the form for 'child, servant' may be a mirage of reconstruction, especially if one has to tiptoe around the fact that the form underlying OIr. mug 'servant,' is not *magu- but probably *mogu[EDPC, 274].

Note, finally, that weakening of medial /o/ in riaśana and tanatani could explain the brescianisch name esdragass(i) [CIL, 5, 4910] (Bovegno/Trumplini, Venetia et Histria), a compound in which medial $-a$ - undoubtedly goes back to /o/.

The form katutiniois is routinely taken from *katu- 'battle' by [LexLep]. Several years ago, in [Prósper, 2016, 35-50] I reconstructed L. cantilēna 'ritual song' as *kantu $=d^{h} e h_{l} n$-eh $h_{2}$ through the stages *kantiðēn $\bar{a}>$ cantilēna, and compared it with Skt. yātu-dhāna- 'wizard.' Lep. katutiniois can be seamlessly traced back to *kantu-dīn-(i)io-, a regular derivative of *kantu-d $d^{h} \bar{e} n \bar{a},-o-$, in turn identical to the Latin form.

### 3.20. New evidence from the necropolis of Oleggio/Cerano

The necropolis of Oleggio in Novara (Transpadana) dates from the $2^{\text {nd }}-1^{\text {st }} \mathrm{c}$. BC. Its epigraphy mostly consists of vases with proprietor's marks. Interestingly, none of the attested names contains $<\dot{s}\rangle$.

There is, however, a number of names with $<t>$ that point to the systematic use of $\langle t\rangle$ for /d/. Some of them are ambiguous: kaputus [LexLep, NO, 13, alternatively read as keputus] (Oleggio, $1^{\text {st }} \mathrm{c}$. BC ) is still uninterpreted, ${ }^{39}$ and yet a quite transparent match of Cabvta [EDCS-53700351] (Gourge, Aquitania), cabvtonis [CIL, 5, 7221] (Bruzolo/Bersuoli, Turin, Alpes Cottiae, $1^{\text {st }}$ c. AD), CABV[TI] [CIL, 13, 2082] (Lyon/ Lugdunum, Lugdunensis). The personal name turokos [LexLep, NO, 10] (Oleggio, $1^{\text {st }}$ c. BC) is plausibly compared with the place name Durocobrivae (Britannia) by [Morandi, 2004, 578-579, followed by LexLep], and traced to *dūro- 'door, forum,' though a connection with *turo- 'strong' cannot be simply rejected out of hand. The form tutiọ[-] [LexLep, NO, 4] (Oleggio, end of $2^{\text {st }} \mathrm{c} . \mathrm{BC}$ )] is persuasively traced back to *dūt-(i)ìo- by [LexLep], though this had already been suggested by [Casini \& Motta, 2011, 464]. ${ }^{40}$ This could be a derivative of the form $* d e h_{3}-t-$, either an agent noun (for which $*$ deh $_{3}$-et- could be equally posited) or an object noun, continued in L. dōs, dōtis 'gift' > 'dowry' that gave rise to possessive compounds reinterpreted as agentive, like the Gaulish divine name menmandvtis 'having the gift of / givers of thought or sense' in the dat. pl. [CIL, 12, 4223] (Baeterrae/Béziers, Narbonensis) or L. sacerdōs 'priest.' ${ }^{41}$

[^21]The above examples tip the balance in favour of consistent use of $<t>$ for $/ \mathrm{d} /$ in Oleggio. A small nearby burial place, Cerano, comes to confirm this. An unpublished bowl coming from there bears an inscription reading sutiuakos [LexLep, NO, 24]. Gambari [2002, 394, fn. 34], followed by [Morandi, 2004, 589], observes that this is an adjectival derivative of a name Sutiuuos, possibly to be compared with the Latin personal name of Gaulish origin Suitius (!), and with Sutta, Suttius, Suttonius. This path seems to lead nowhere, however.

Greek has several compounded nouns and adjectives related to the light of day:
 These forms have traditionally been identified with Skt. su-div-, attested only once in the gen. rocamānasya brhatás sudivaḥ 'of the one shining, standing high, provider of a good day' (RigVeda, 10, 3, 5, said of Agni) and sudivá- 'bringing a beautiful day,' sudivám 'good day' (AtharvaVeda, 19, 8, 3). Accordingly, we may reconstruct a compound $* h_{l} s u$-diu-/diu- [cf. Euler, 1978, 90], which, in line with [Nussbaum, 2014] could be classed as a double bahuvrihi and taken to mean 'having daylight that brings goods.' Were this originally a divine epithet, as in the only athematic example found in the RigVeda, it could be paraphrased as 'by whom daylight provides goods.'

Sutiuakos should then be traced to *su-diu-āko-, in turn probably from a thematicised *su-diu-o-. We can now say without as much as a qualm that $h_{I}$ su-diu-/diú- is a compound of Indo-European age.

## 4. Cisalpine Celtic forms with $<z>$

There are few examples of $\langle z>$ in Celtic forms, and most of them are names. They point to the possibility that the letter $\langle z\rangle$ was consistently used for $/ \mathrm{t}^{\mathrm{s}} /$, at least in some places or at the first stages of experimentation with a new writing system:
4.1. The well-known name uvamo-kozis, universally taken from a compound *upamo=gosti- 'highest guest' or 'having the highest guests,' needs no further considerations. For other renditions of Celtic *gosti-, see above, 3.1.
4.2. The manufacturer's name sekezos from the same area, cf. [LexLep, CO, 57-60; see Morandi, 2004, 643-644] (Prestino, $5^{\text {th }} \mathrm{c} . \mathrm{BC}$ ), has been traced back to *segesto- by a number of scholars [Solinas, 2004, 585-593; Rubat Borel, 2006; Eska, 2011, 102, fn. 33], and is consequently identical to the personal name SEGESSAE [CIL, 5, 4717] (Brescia/Brixia, Venetia et Histria), as already recognised by Eska. This hypothesis is wholesale ignored in the last consulted version of [LexLep], where *seget-io- is preferred in view of SEGETIVs [CIL, 11, 1711] (Florentia, Etruria), following [Stifter, $2015,48]$. This name is, however, well attested in non-Celtic Italy, and possibly not Celtic at all, but a derivative of L. seges 'sown land.' In my view, we are probably dealing with a possessive formation *seg' ${ }^{h}$-es-to- 'having strength, possessing command/
victory,' which derives from *seg'h-os 'strength, victory,' continued in Skt. sahas(and its derivative sāhas- $a$ - 'stormy'), Greek adjectives in - $\varepsilon \chi \eta$ '̆s, Goth. sigis, etc., and the latinised Germanic name Segestēs, -is, the father-in-law of Arminius recorded by several Roman historians, may have the same origin. ${ }^{42}$

This solution has been most recently advocated by [Mees, 2020b, 179], who adds Celto-Etruscan uecezu in the text uecezusezt : aststaz : ұusus [LexLep, GR, 3] (Castaneda, Graubünden, Transpadana, $5^{\text {th }}-4^{\text {th }} \mathrm{c} . \mathrm{BC}$ ) to the list of these Celtic formations, identifies it as a nom. sing., and traces it back to *ueg' ${ }^{h}$ es-to-(n)- (cf. Skt. $v \bar{a} h a s-$ 'offering, worship, invocation'). The rest of the inscription of Castaneda is entirely unclear, however, as is the use of the alphabet and the segmentation of the first word. ${ }^{43}$ In fact, Mees' hypothesis could be supported by an inscription from Gallia Belgica, which reads: m(ARCVS) VEGESONIVS / marcellvs / dicavit [CIL, 13, 4317] (Metz/Divodurum), in which the pseudo-gentilic name is based on the same nasal stem. ${ }^{44}$

In spite of some accounts, the place name Segesta, in spite of being ultimately identical, stands no good chance of being Celtic, in view of both its phonetics and its distribution (the most famous one is Segesta in the territory of the Elymians, in Sicily). Two Alpine cases of Segesta mentioned by (Pliny, Nat. Hist. 3, 131 and 3, 48), one perhaps continued by Sezza (Iulium Carnicum, Venetia et Histria), as well as the Ligurian Segesta Tigulliorum (today Sestri Levante, Genoa) are perfectly likely to represent Italic counterparts of the Celtic form. For all we know, sekezos could even be the celticised version of a name of Venetic ancestry.

As of now, I believe this to be a more convincing solution than the one I previously favoured, namely *seged-(i)ino- [cf. Villar \& Prósper, 2005, 285-286]. This still remains the only reasonable possibility for the Celtiberian place name sekeiza, however. ${ }^{45}$ It is also found in the detoponymic divine epithet SEGIDIAECO [ERPL, 11] (Arlanza, León,

[^22]Tarraconensis) and in the epitaph of F . SPERATA. SEGEDIENSIS [CIL, 2, 988] (Zafra, Badajoz, Baetica). ${ }^{46}$ On the other hand, the personal name sexe $\theta u$, on coins [LexLep, $\mathrm{NM}, 6]\left(4^{\text {th }} \mathrm{c} . \mathrm{BC}\right)$, may go back to ${ }^{\text {seged }} \bar{u}$ or to ${ }^{\text {seget }} \bar{u}$. The cult of a DEAE SEgetae (<*seg-et- 'victorious') is well attested in the Lugdunensis. Stifter [2010, 374, fn. 15] interprets sekezos as /segedos/ and ascribes the use of $<z>$ to the direct adoption of Venetic practice, which has no parallels for all I know. In fact, it is not even certain that a formation *seg-ed- or *seg-edo- has ever existed (for all I know it remains unattested).

While *seg-ed $\bar{u}$ would contain the productive suffix -edon- and can be easily taken to derive from an adjective *sego- 'strong,' found in Celtib. seko [MLH-4, K.1.3] (Botorrita), MW. hy 'bold' and Skt. sahá-, the adjective *seg-ed(i)io- seems to contain a complex suffix -ed(i)io-, and is a likely derivative of *sego-, the noun meaning 'strength' in OIr. seg, Gaul. SEGOMARvs 'great by his strength' (Narbonensis, Belgica, Venetia et Histria), and is consequently comparable to the Italic gentilic names in *-ed(i)io-.
4.3. теzu neтиśus or mezu nemunius in the funerary stele of [LexLep, SP, 1] (Zignago, Liguria, end of $6^{\text {th }} \mathrm{c} . \mathrm{BC}$ ) looks like a sequence of a name and a patronymic. Mezu could be reasonably compared to MEDSILLI (Transpadana), MEDSI(A)E (Noricum), MESSONI (Belgica), MESSVLVS (Narbonensis), and especially to messo (dat., Dalmatia) and the potter's name meddv (Germania Superior). While a connection with *med-tuin OIr. mess 'judgement' is feasible for most of these forms, they can also be grouped with mezu under a reconstruction *meds-ó- 'having measure, taking care' of the same root, since - $d s$ - probably survived long enough to constitute a source of tau gallicum. Cf. L. modestus, U. meřs ( $<$ *med-os) and, with lengthened grade of the root, Gk. $\mu \eta$ ' $\delta \varepsilon \alpha$ 'plans' ( $<{ }^{*} m \bar{e} d e s-$ ), etc. One cannot accept, with [Lejeune, 1971, 498], that this is a single word *medionemōssos 'sanctuaire du milieu,' through -di-> -ts. Note that Venetic metśo [LV, 190] (Lagole di Cadore) could be rendering *metiō, or could, alternatively, be the best way of reflecting the Celtic name that the local engraver found.
4.4. The personal name azus on coins [LexLep, NM, 16] stands a good chance of continuing a CCelt. compound * ad-stu- 'ready ('for combat).' Cf. also ASVS F(E)C(IT)/ CIGETOV(Ti) [CIL, 13, 10010, 181] (origin unknown). ${ }^{47}$ Compound names containing this very form, but using $\left\langle\dot{s}^{\prime}\right\rangle$ instead of $\langle z\rangle$, have been discussed above (3.10, 3.11).

[^23]
## 5. By way of conclusion

This short study has aimed at concinnity and economy in the interpretation of the use of sibilants in the Lugano alphabet, and drawn the following conclusions:
5.1. $\langle z\rangle$ is exclusively used for $/ \mathrm{t}^{\mathrm{s}} /$, the affricate phoneme that comes from $/ \mathrm{st} /$. This includes in a natural class CCelt. $/ \mathrm{st} /$, $/ \chi$ st/ and $/ \mathrm{tst} /$ (for instance from $-d$-st- or $-d s-t$-; this cluster never merged with the outcome of $/ \mathrm{t}^{\mathrm{st}} /$, but with that of $/ \mathrm{st} /$, as in Italic). When $<z>$ cooccurs with $\langle\dot{s}\rangle$ in the same document, this can be put down to the conservative tradition by which patrician names are spelt with old-fashioned orthography. When it cooccurs with $\langle\dot{s}\rangle$ in the same form, it may be due to dissimilative spelling or, possibly, positional allography, but our only case is still doubtful. In spite of its use in Venetic, there is no single case of Cisalpine Celtic $<z>$ that must be traced to /d/.
5.2. $\langle z\rangle$ alternates with $\langle\dot{s}\rangle$ for the same morpheme in different documents: cf. azus but kuaśoni, etc. -kozis but kośio, ұosioiso, perhaps even $\chi o \theta i o s . ~ I n ~ t h i s ~ c a s e, ~$ the sequence -i.t $t^{s}$.io- was comparatively anomalous and unstable, and may have been alternatively realised as [ $\mathrm{it}^{\mathrm{t}} \mathrm{io}$ ] in allegro. But [ $\mathrm{t}^{\mathrm{t}}$ ] was very infrequent in codas. As a consequence, it may have been phonemically ambiguous to the listener, who solved the problem in various ways, by attributing it to $/ \mathrm{t}^{\mathrm{s}} /$, to $/ \mathrm{s} /$ (if he heard $-s . s i-$-) or even to /t/ (if he heard - $\mathrm{t} \boldsymbol{\mathrm { i }} \mathrm{-}$-).
5.3. $\langle\dot{s}\rangle$ can only be used for the context-free outcome of Proto-Celtic /st/ (including /tst/, in all the reviewed cases going back to $-d-s t$ - or $-d s-t$-, with early assimilatory loss of $/ \mathrm{d} /$ ) and for the context-bound outcome of $/ \mathrm{d} /$ in coda position, namely $\left[\mathrm{d}^{\mathrm{z}}\right]$, a variant of $/ \mathrm{t}^{\mathrm{s}} /$. Attested sequences are $-d . g$ - (aśkoneti), -d.m- (aśmina), -d.i- (akeśi, meśiolano, aśeś(ios)) and -d.u- (aśuesa). The cluster - $d^{z i} \underline{i}^{-}$, spelt <śi>, militates in favour of the idea that disyllabic -iio- did not survive the split-up of Celtic. Even considering that our texts encompass more than five centuries, there is no single example that proves that primary or secondary palatalisation of the cluster /di/ was underway. As a consequence, neither $\langle z\rangle$ nor $\langle\dot{s}\rangle$ have ever been used to reflect a palatalised phoneme $/ \mathrm{d}^{i}$. A similar evolution of $/ \mathrm{d} /$ in the clusters $-d . i-$ and - d. $u$ - is found in Cornish; see [Jackson, 1953/1994, 397]. The three-staged evolution -d.C-> $-d^{2} . C->-ð . C->-C:-/-\varnothing C$ - can be seen as a process of lenition in codas.

As for the sequences $-t . i-,-t . u-$, they probably resulted in $-t . t i-,-t . t u-$, through resyllabification and fortition. At any rate, a high number of cases of - ti- were in onset position, where this cluster did not undergo early palatalisation: for instance, the personal name atios [LexLep, VB, 4] (Ornavasso, Transpadana, $1^{\text {st }}$ c. BC) may well go back to either *ant(i)io- or *axt(i)io-. For the latter, cf. Celtib. aisae. viannetiq(vm) CAV[C(ENSI)] / AN(NORVM) . [-] (Sepúlveda, Segovia, Tarraconensis), with a "barred <s>," [see Prósper, 2022, 12]. The same applies to the dative form otiui [LexLep, TI, 34, 2] (Capriasca, Ticino, Transpadana), which is probably related to the father's name
in mascello oxti fil(io) (Beaune, Lugdunensis), to the gen. atiaki [LexLep, CO, 65] (Casate, Transpadana) or to mationa[-] [LexLep, TI, 30] (Aranno, Ticino, Transpadana).
5.4. $\langle s\rangle$ is used for $/ \mathrm{s} /$, /ks/ (realised $[\chi \mathrm{s}]$ ), and /s:/ (mostly from /ts/ and $/ \mathrm{tt} /\left[\mathrm{t}^{\mathrm{s} t}\right]$ ). Conversely, a number of names that are likely to begin with /d/ or have medial /d/ in onsets are spelt with $\langle t\rangle$. The letters $\langle t\rangle$ (for $/ \mathrm{d} /$ ) and $\langle\dot{s}\rangle\left(\right.$ for $/ \mathrm{t}^{\mathrm{s}} /$ ) cooccur in some texts, both early and late.

## 5.5. $<\mathrm{T}>$ vs tau gallicum and the Gaulish verb

Eska [1998] classes the form BVE也 [RIG-2/2, L-98] (Larzac) as one of the very few examples of tau gallicum used for /t/ in indigenous texts, as opposed to BVETID [RIG-2/2, L-100, L-101] (Chamalières, Lezoux). Both forms reflect the subjunctive of * $b^{h} u H$ - 'to be.' Nonetheless, it should be apparent from what precedes that this need not strictly be the case, except as regards diachrony: $\langle\boldsymbol{\square}>$ is not reflecting "the lenited allophone," of Gaul. /t/, but the lenited outcome of Proto-Celtic /t/, which had probably been a lax stop [d] in word-final position since the protolanguage, and was synchronically parsed in Gaulish as $/ \mathrm{s}(:) /$ or $/ \theta(:) /$. Therefore, it can only be reflected by tau gallicum.

If BVETID and BVE® originally contained a secondary ending, like Skt. bhuvat, and continued $* b^{h} u H-e-t$, and not * $b^{h} u H-e-t-i$, this would mean that the secondary ending was on the way to effacement after vowels, but in BVETID the secondary ending was "protected" by an enclitic pronoun. ${ }^{48}$ While IE *- $d \#$ may have been weakened early on, the primary ending *- $t i$ was still preserved as *-t\#. This probably applies to Gaul. RINOTI 'sells' in Rezé (whatever the details: see [Eska, 2014, with references]). Yet, forms like bissiet (Chamalières) and PETIDSIONT (Larzac) have lost final -i\# but preserve the voiceless stop.

IE *-d \# had been dropped earlier in $-s$ - preterites like READDAs [RIG-2/2, L-78] or PRINAS [RIG-2/2, L-32] (La Graufesenque), whereupon remodeled forms like LEGASIT [RIG-2/2, L-79] (Séraucourt) emerged.

In sum, the difference between the Indo-European $3^{\text {rd }}$ person endings $*$-edo $\#$ (secondary) vs. *-eti\# (primary) only lived on in free-standing, unenlarged forms.

While the contexts in which a pronoun followed preserve the original forms of these endings more faithfully, one may be allowed to suspect that this is not how the speaker saw the contrasts. Since final -i\# could hardly be recovered by the speaker, it is probably not correct to speak of a contrast between underlying *-ed\#\# and *-eti\#. In my view, the free forms $-\theta /-s_{\square}^{\#}(>\varnothing)$ (secondary) vs. $-t \#$ (primary) would now be parsed as reflecting the underlying contrast, that is to say, as different morphemes, and the basic lexical structure of BVEÐ would be similar to $/ \mathrm{bu} /+/ \mathrm{e} \theta /$. By contrast, forms followed by enclitic pronouns beginning with a vowel would be derived by rule from the free forms; the added morphemes would consequently become the context for
${ }^{48}$ Cf. more on bVETID in [McCone, 1991, 118-123].
neutralisation, by which both underlying /e $\theta /+/ \mathrm{i} /$ and $/ \mathrm{et} /+/ \mathrm{i} /$ surfaced as $/ \mathrm{eti} /$. In other words, "rule inversion" had taken place (for this notion, see [Vennemann, 1972]). The situation in Gaulish may have been quite similar to that of Celtiberian, where we find secondary $3^{\text {rd }}$ p. sing. ${ }^{*}-d \#>-\theta /-s_{g} \#(>\varnothing)$ vs. primary $-t i \#$ (probably still preserved in documents in the Iberian script) $>-t \#$ [see Prósper, 2022].

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## ABBREVIATIONS

Languages

| Arm. | Armenian | Gaul. | Gaulish | Lith. | Lithuanian |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Av. | Avestan | Gk. | Greek | MBr. | Middle Breton |
| CCelt. | Common Celtic | Goth. | Gothic | MCo. | Middle Cornish |
| Celtib. | Celtiberian | IE | Indo-European | MW. | Middle Welsh |
| Co. | Cornish | L. | Latin | O. | Oscan |
| G. | German | Lep. | Lepontic | OCS. | Old Church Slavic |


| OHG. | Old High German | OP. | Old Persian | Skt. | Sanskrit |
| :--- | :--- | :--- | :--- | :--- | :--- |
| OIr. | Old Irish | ORus. | Old Russian | Sp. | Spanish |
| OL. | Old Latin | OSw. | Old Swedish | T. | Tocharian |
| ON. | Old Norse | PIt. | Proto-Italic | U. | Umbrian |
|  |  |  |  | W. | Welsh |

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## ИСПОЛЬЗОВАНИЕ БУКВЫ «САН» В АЛФАВИТЕ ЛУГАНО (ПО ДАННЫМ ЦИЗАЛЬПИЙСКОЙ КЕЛЬТСКОЙ ОНОМАСТИКИ)

Так называемый алфавит Лугано - это разновидность североиталийского письма, восходящая к этрусскому алфавиту. На нем создавались тексты на лепонтийском языке, использовавшемся в VI-I вв. до н. э. в центре Транспаданской Галлии (совр. Ломбардия в Италии и Тичино на юге Швейцарии). Использовалась также его более поздняя разновидность, именуемая цизальпийским галльским языком, который имел хождение на территории современных Ломбардии и Пьемонта, а самые ранние тексты на нем датируются IV в. до н. э. Он представляет собой язык более поздней волны кельтских иммигрантов (захватчиков). Этот более поздний диалект отличается от первого несколькими морфологическими особенностями, такими как патронимический суффикс ikno- вместо лепонтийского alo-. Хотя письмо Лугано полностью расшифровано, остаются некоторые нерешенные вопросы, касающиеся реального фонетического значения некоторых его букв, его эволюции и возможного внешнего влияния со стороны родственных алфавитов. В данной работе рассматривается проблема так называемого знака-бабочки, буквы, транслитерируемой как <'s’, которая имеет различные формы (некоторые из них легко спутать с <m>) и восходит к букве «сан» архаического греческого алфавита. Для «знака-бабочки» предложено большое количество синхронных фонетических значений и историко-этимологических интерпретаций. Автор статьи предпринимает попытку показать, что его использование пересекается с употреблением буквы «дзета», транслитерируемой как $<z>$. Обе они могли иметь одно значение,

и отраженная фонема в обоих случаях представляет собой глухую аффрикату, восходящую к индоевропейским /st/, /ts/ или /ds/, к эпентетической /t/ в последовательности *-ns\# или к фрикативной /d/ в позиции слоговой финали. В статье также обсуждается возможность того, что появление «сан» и «тау галликум» в некоторых контекстах, особенно в финалях, происходит из-за простого фонематического перераспределения, не связанного со звуковым изменением.

Ключевые слова: кельтские языки; языки Цизальпийской Галлии; лепонтийский язык; галльский язык; реконструкция праиндоевропейского языка; алфавит Лугано; свистящие звуки; антропонимия


[^0]:    ${ }^{1}$ A list of abbreviations is placed at the end of the article. Texts conducted in the Latin alphabet are rendered in small capitals; texts in the Venetic and other varieties of the Etruscan alphabet are in italics. Celtiberian texts are cited according to $M L H$. Special thanks are owed to Alessandro Morandi, Sergio Neri and Luciano Favini for their generous suggestions and help.
    ${ }^{2}$ Here the reader may be reminded of recent discoveries regarding at least three subtypes of the Iberian script for Celtiberian, namely the "traditional one," the dual script (in my view limited to the Arevaci, however) and that of the Vasconian mints.

[^1]:    ${ }^{3}$ By contrast, an affricate $/ t^{\theta} /$ is unlikely, given that it is never found contrasting with $/ t /$ except involving slight differences in place of articulation, but only as a variant, conditioned by context or speaker, or in fact the habitual realisation of / $\mathrm{t} /$. See [Kehrein, 2002, 6, 21-23]: "Such variation is expected from a phonetic point of view, since the difference between a sound perceived as a stop and one perceived as a non-strident affricate is gradient rather than categorical, i.e. a matter of the duration of stop release." For a slightly different interpretation of the phonetics of tau gallicum, see [Eska, 1998].
    ${ }^{4}$ For instance, melito is simply not Celtic and cannot match any forms with tau gallicum; VIrotvs is attested in Hispania and consequently contains /t/.
    ${ }^{5}$ Respectively [RIG-2/2, L-119] (spindle-whorl of Saint-Révérien, Nièvre, Lugdunensis), where tau gallicum $<\mathrm{ÐD}>$ is also attested, and [CIL, 12, 2571] (Mieussy, Haute-Savoie, Narbonensis).

[^2]:    ${ }^{6}$ By contrast, Sabellic made use of $\langle z>$ for an affricate. For instance, Oscan is known to have a sibilant from primary $*-t / k-s$, and an affricate for post-syncope $*-t / k(V) s$, as illustrated by the nom. sing. meddiss 'civil servant' (<*med(V)-dik-s), nom. pl. $\mu \varepsilon \delta \delta \varepsilon \varepsilon \xi$, or húrz 'garden' ( $<{ }^{*} g^{h}$ ortos).
    ${ }^{7}$ Cf. for instance [LV, 144] (Este, Venetia et Histria, $2^{\text {nd }}-1{ }^{\text {st }}$ c. BC).

[^3]:    ${ }^{9}$ The showcase example is of course the Indo-European rule $-t t->-t^{5} t$-. In fact, affrication prevents assimilation across morphological boundaries, as in *opiko->*opsko- (>*of'ko-) > *osko- 'Oscan' ('O $\pi$ ıкоí vs. Oscū) or Venetic *mart-iko- > *mart'ko-> martsko 'Martian, related to Mars' (Monte Manicola), as opposed to L. *mart-iko- > *martko- > Marcus. This was more likely to happen in clusters prone to assimilation, specifically those with a velar in onset (for instance, -tk- is more likely to become directly $-k k$ - than $-k t$ - to become $-t t$-).

[^4]:    ${ }^{10}$ Even if it was still pronounced [medzio]- in the late $3^{\text {rd }} \mathrm{c}$. BC, this form would easily have been interpreted by the Romans as their own word for 'middle' (it soon became an important Roman metropolis). The Latin counterpart of this form upon the conquest of the area may still have been closer to [medi.io] in stilted registers, which later evolved into [meði] by fricativisation and syncope in a polysyllabic form, or adaptation to current Latin phonotactics (cf. Medilano in the Tabula Peutinger, which must have been close to contemporary pronunciation) and finally into Milano. This tendency is also visible in comparable cases like Noviomagus, today Nijmegen (Novimagvs occurs already in Latin epigraphy).
    ${ }^{11}$ Most recently, MacKenzie [2022] has made an ingenious case for $\langle z\rangle$ being the product not of phonetic change, but of allocation of $[\mathrm{\delta}]$ in codas to a new phoneme $/ \delta /$. In turn, this phoneme is the outcome of an intervocalic evolution $/ \mathrm{ti} /, / \mathrm{ki} /, / \mathrm{k} /$ (before $/ \mathrm{e} /, / \mathrm{i} /$ ) $>/ \mathrm{dz} />/ \mathrm{z} />/ \mathrm{d} /($ which only at that point, as opposed to previous accounts, merged with the outcome of its postconsonantal variant, through $/ \mathrm{ts} />/ \mathrm{s} />/ \theta /$ ). Apico-dental / $/$ / would have failed to merge with the intervocalic allophone of $\mathrm{Sp} . / \mathrm{d} /$, apparently held to have been an approximant, as in present-day Spanish, which means it would have reached the last step before effacement half a millennium ago. In my view, the listener would be hard pressed to tell the difference (in the absence of further cues beyond turbulence/duration), since the phonemic contrast / $\delta /$ —/d̃/ does not exist anywhere [cf. Olson et al., 2010, 210].

[^5]:    ${ }^{12}$ Schrijver [1995, 407-429] has made an ingenious case for intervocalic -st- yielding -ss- in ProtoBrittonic and word-initial -st-yielding -st- after consonants and -s-after vowels. Be it as it may, this cannot be a very early development, since it is unable to explain such cases as vernostono (see below).

[^6]:    ${ }^{13}$ The same probably applies to the enigmatic sapsutai [LexLep, VB, 3] (Ornavasso, Transpadana), where $\langle p\rangle$ can by no means be taken to spell IE /p/. Its obvious cognates are SENSVTA (Belgica), SENSVTAE (Intercisa, Pannonia) and sesvta (Carnuntum, Pannonia). If the IE sequence was /ans/, the outcome would be CCelt. /a:s/. The base of this form is impossible to identify, but if it was *smpsu- or *smp ${ }^{p}$ su- (with epenthesis for morphophonemic reasons, like L. sumpsî), all the deviant spellings would be justified. On a simple assumption, this name could go back to *sm-sūu-tó-, and *sm- was still associated with the outcome of *smHo- 'together.' The assumption of early syncope in a preform *smHo=suH-tó- 'born in summer' (cf. samognativs in Dacia, samogeni in Belgica and Aquitania) is attractive but slightly ad hoc.

[^7]:    ${ }^{14}$ This is apparently not accepted by [LexLep], where other possibilities are considered.

[^8]:    ${ }^{15}$ Only in the middle part. vivitsamāna- and the $2{ }^{\text {nd }} \mathrm{p}$. sing. pres. ánuvivitsasi, with the meaning 'to find' [cf. Heenen, 2013, 226-227].

[^9]:    ${ }^{16}$ For the segmentation akluśamo-ualos with a second member *ualo- 'prince,' cf. [LexLep, s.u. akluśamo-ualos]. In his edition of this text, Gambari [2007] had favoured a Celtic patronymic akluśamoualos, but the underlying structure remains unexplained and is not transparent to me.
    ${ }^{17}$ Notice that, if the geminate $/ \mathrm{s}: /$ (or its immediate antecedent $/ \mathrm{ts} /$ ) were in fact Common Celtic, due, for instance, to the contact of two dental segments, we would expect an early syncopation *kluss-isamo-> *klussamo-.
    ${ }^{18}$ On the fate of this root in Celtic, see [Schumacher, 2004, 413-416].

[^10]:    ${ }^{19}$ For instance, one could trace both the personal name viddvcvs (Belgica) and visvcivs, the frequent epithet of Mercurius, to *uid-tu-(i)ko- 'possessing/characterised by wisdom.'
    ${ }^{20}$ Note that Gk. $\neq \sigma o \varsigma$ can be seamlessly traced back to a verbal adjective *uid-s-uo-. The original semantics would be something like 'looking like,' possibly at home in compounds like íó $\theta \varepsilon$ sç. On the other hand, its base could be a desiderative adjective *uid-s-u- of the type that became productive in sanskrit, and similar, except for $-s-$, to the adjective *uid-u- in Av., Skt. vidú- 'knowing' and *uidu- 'knowledge' in Arm. giwt, Skt. vídu-, originally an acrostatic formation, which forms the base of Gk. Пo $\lambda$ v́ $\delta$ os (with/i:/) 'much knowledge' from *uid-uo-; cf. [Rau, 1998].
    ${ }^{21}$ The solution favoured by [De Bernardo Stempel, 2009, 178]: "genitivo di tema in -i-composizionale *ande-are-wid-t-i-s 'che ha in sé dei segni"" is hardly admissible, not least because the "multiformis"-type she is referring to requires an underlying noun, not clearly specified in her account.
    ${ }^{22}$ Cf. [eDIL, s.u. 1 fis, fius].
    ${ }^{23}$ [LexLep] recognises the lowering of the glide in a suffixal sequence -io->-eo- as one of the few phonetic traits separating Cisalpine Gaulish from Lepontic, as in komoneos uarsileos [LexLep, TI, 40] (Stabio, Ticino, Transpadana, $2^{\text {nd }}-1^{\text {st }} \mathrm{c} . \mathrm{BC}$ ). But, if anokopokios in S. Bernardino is anything to go by, and -eo- has a patronymic value, its immediate antecedent could have been -iio-, which in turn could have been generalised from patronymic derivatives of individual names in -i, io-, as in Italic.

[^11]:    ${ }^{24}$ See [Méndez Dosuna, 2017]. Some alleged cases of "allophonic spelling," like Latin <Q>, were never intended to write allophones, but were simply inherited from previous versions of the alphabet, where they never had such a role, but responded to overdifferentiation on the part of the Phoenician scribal schools that adapted the alphabet to Greek phonology. Cf. [Méndez Dosuna, 1993]. Over time $<\mathrm{QV}>$ became a digraph for the voiceless labiovelar.

[^12]:    ${ }^{25}$ If this adjectival form is derived from a place name or oronym, it may have given rise to both a personal and a divine name (which is no such thing, but an epithet of Iuppiter, identified with the divinity of the Grand St Bernard which was called Summus Poeninus, and not certain to represent syncretism with an indigenous divinity). Pace [Casini et al., 2013, 161], who unaccountably identify this name with a Celtic divinity Penninos, and [Mees, 2020a], the dedication reading Poenino ieureu (the editors read ieuiseu) is not certain to mean ' $(\mathrm{X})$ dedicated to Poininos,' containing a Celtic verb, a latinised dative form, and no dedicant's name. A simple Poenino(s) ieureu 'P. dedicated (this)' is a defensible alternative.

[^13]:    ${ }^{26}$ For the long vowel, due to the action of Lex Lachmann, cf. aAstvtieis in the Faliscan "inscription of the cooks" [CIL, 1, 364] (Civita Castellana/Falerii, Latium, $2^{\text {nd }} c$. BC).

[^14]:    ${ }^{27}$ The root, possibly represented in OIr. claidid 'to dig,' is *kelh ${ }_{2}$-. The divine name svcellos does not mean 'good smiter' and is no longer a comparandum; there is no Celtic *kello- 'hammer,' and the simplex, a fortiori decompositional -kello- has probably never come into existence. Cf. Prósper [2015, 36].
    ${ }^{28}$ Cf. pliale日u (Prestino) from a patronymic in -alo-, derived from a name that is attested in Lep. plios [LexLep, MI, 26] (Milan, Transpadana); oletu from * $\varphi$ ollo- 'great,' the coin legend $\kappa \alpha \lambda \varepsilon \tau \varepsilon \delta o v$ [RIG-4, 91] from *kaleto- (<*klH-eto-) 'cold,' hard,' DRVTEDO (Aquitania) from *drūto- 'fool,' vassedo (Lugdunensis) from *uposso- 'servant,' svobnedo (Belgica) from *su-obno- 'a good-fear' (derisive?), malledo (Belgica), from * mallo- 'lazy,' Caratedo (potter's name, widespread), possibly from *karant- 'loving,' minedo (Lugdunensis), from *mīno- 'gentle,' vindedo (Germania), from * uindo- 'white,' DVBNEDV (Lugdunensis), from *dubno- 'deep,' donnedo (Transpadana), from * donno- 'noble,' tovtedo (Lugdunensis), from *touto- 'north-, left,' etc.
    ${ }^{29}$ L. celeber is a puzzle, however. It should theoretically have evolved into *kolebri- early on if this derivation is right. And yet, we find the same phenomenon in forms like scelestus 'criminal' (obviously from scelus) and probably celer 'fast.' Nussbaum [1999] has suggested that *sk- constituted a fronting context for the following vowel, and consequently prefers *kelis-ri-> celeber, *keli-ri-> celer (ultimately from *kelh, $i-r o-$ ), but, in that case, I would expect the same blocking effect in tolerare $<*$ telas $\bar{a}-$, cf. [Nussbaum, 2007]. We may be allowed to surmise that, in a sequence *(s)Kete-, the root vowel underwent vowel-to-vowel roundness assimilation, similar to the so-called "alacer"-rule. The usual, later analogical processes have blurred the picture, wherefrom scelus and holus 'vegetable' ( $\left.<{ }^{*} g^{h}{ }^{h} l^{\prime} h_{3}-o / e s-\right)$ beside OL. helus (if Paulus is reliable at all) and molestus $\ll *$ melesto- (with /o/ from the expected outcome of *mel-os-). Most recently, Imberciadori [2023] comes to similar conclusions and reconstructs celeber as *kelh $l_{l}$-es-ri-'having bustle,' an external derivative of the $s$-stem *kélh -oles- 'push(ing); bustle' belonging to *kelh-' 'to push, urge.'

[^15]:    ${ }^{30}$ All former accounts resort to special pleading anyway: according to [Weiss, 2020, 340, fn. 95], it "may be formed after agrestis or alternatively it may have -sti- from the root *steh ${ }_{2}$ ' 'to stand,' i.e. 'residing in the sky,' but the medial -e-would require an analogical explanation." In fact, if the form went back to *caelestris, one does not see why the influence of terrestris would not have sufficed to preserve the original suffix unchanged.
    ${ }^{31}$ Reading by [Morandi, 1999, 161].

[^16]:    ${ }^{32}$ The observation "yet the preverb *ko(m)- is usually still recognizable as such" in [EDLIL, 503] is contrary to fact.
    ${ }^{33}$ See the full references in [LexLep, ss.uu.] and [Stifter, 2010, 370]. The details are not quite clear, however, and I shall address the issue in a forthcoming work.

[^17]:    ${ }^{34}$ Cf. Sp. Navasqüés for Navascués, Luxán for Luján, where the pronunciation is not affected, or L. Caecilis, Clodius, influenced by or belonging to Sabellic, for Caecilius, Claudius.
    ${ }^{35}$ See an interesting instance of this phenomenon in Italic in Faliscan votenosio for intended $\dagger$ voltenosio [cf. Montedori, 2022]. Cf. also Celtiberian memunos [MLH-4, K.1.3.] (Botorrita), for "correct" melmunos [MLH-4, K.1.1.B], possibly titos if from *trito- [MLH-4, K.1.3], the detoponymic titiako(s) for †tirtiakos (<*tritiāko-) [MLH-1, A.58], kontebiaz for $\dagger$ konterbiaz [MLH-4, K.0.2], O. faleniias for falerniias [ST, Cp 28] (Capua), mA(R)TIALI [CIL, 2-13, 439] (Segobriga, Cuenca, Tarraconensis), PO(R)TANT [CIL, 11, 259] (Ravenna), mame(R)Tino, mame(R)Tinvs [CIL, 13, 6711] (Mainz/Mogontiacum, Germania Superior); [CIL, 6, 21213] (Rome), me(R)CVRIO [CIL, 13, 1125] (Poitiers, Aquitania); [AE, 1930, 9] (Alba Iulia, Dacia), etc.

[^18]:    ${ }^{36}$ In a former work [cf. Prósper, 2018a, 128-129], it was suggested that superlatives based on $u$-stems, which are comparable to the present case, give Gaulish -uisso- and eventually -usso- through glide absorption (this is a more general process also affecting -(V)u-iko-, etc.). This seems indeed to be the case in Central Gaul and Britannia, where we find the personal names bergvsse (dat., Belgica), cintvssa, cintvssi (Britannia, Belgica), but gintvssae (Noricum), and olvssa (Britannia), from CCelt. *bergú-isto- 'highest,' *kintú-isto- 'first' and * $\varphi o l u$-isto- 'highest in number, vel sim.' Intriguingly, names found in Noricum have undergone reintroduction of -i-: cf. Bodvisso from *boduo- 'most victorious' (Noricum), elvissvs, elvissa (Noricum, Germania, etc., < * pélu-it'o-) vis à vis elvssivs (Aquitania, < * $\varphi$ elu-itso-), cIVISSI, gen. [AE, 2008, 1006] (Zollfeld/Virunum, Noricum), if from *kiH-uo- 'deep grey' (cf. OIr. ceó 'fog,' ON. hý 'fuzz,' OCS. sivŭ, etc.) This looks like an innovative trait roughly separating some areas of Eastern Gaulish from Central and Western Gaulish (though the evidence is far from consistent). The same applies to the superlatives in -is-amo- built from $u$-stems: we find olvsami (gen. sing., Chartres) but elvima (Noricum, from * $\varphi$ elu-isamo-), with the "Alpine Celtic" evolution -isamo-> -izmo- > -ihmo- > -īmo-.

[^19]:    ${ }^{37}$ In spite of the eclectic approach of [DLG, 246], the gen. sing. sopati [AE, 1994, 1220] (Lugdunum) is an obvious spelling or reading error for sopatri, and DIOPANTO, dat. [CIL, 12, 4581] (Narbonensis) stands for Greek diophanto.

[^20]:    ${ }^{38}$ The dedications to the deabvs magisenis [AE, 1980, 653a] (Strassburg) and hercvil magiso [AE, 1989, 531] (Deneuvre/Donobriga, Belgica) are at any rate not identical and cannot be traced back to *magu-seno-.

[^21]:    ${ }^{39}$ No proposals are found in [LexLep] or Morandi [2004, 580]. Gambari [2002, 390] reads keputus and compares the gentilic name Cepidius.
    ${ }^{40}$ Note also inutu, if from *in-dūt- [LexLep, TI, 49] (Giubiasco, Ticino, Transpadana, $3{ }^{\text {rd }}-1{ }^{\text {st }} \mathbf{c}$. BC), and cf . [LexLep] for other etymological connections.
    ${ }^{41}$ This name is possibly matched by the Italic names dotivs, dotia [CIL, 10, 5673] (Latium et Campania), Dotianvs [CIL, 3, 7424] (Moesia Inferior), which could be taken from Greek סo七ós, however.

[^22]:    ${ }^{42}$ For instance, Solinas [2004, 591] speculates with a suffix -st- that is difficult to apply to this case for formational reasons: her "base onomastica *seg(e)-," to which -t- (in sexe $\theta u$ ) and -st- (in sekezos) have been attached, is merely descriptive and uninterpretable in historical terms.
    ${ }^{43}$ Mees takes it for granted that $\left\langle_{\mathcal{C}}>\right.$ reflects $/ \mathrm{g} /$; since the final word $\chi u s u s$ probably begins with $/ \mathrm{g} /$, too, one has to allow for allography based on Early Etruscan practice.
    ${ }^{44}$ One wonders if the third form, aststaz, could be a way of writing the outcome of a root participle in the nom. sing. ${ }^{*} h_{2} e d=s t e h_{2}-n t-s / s t h_{2}-n t-s$, instead of a $3^{\text {rd }}$ pers. sing. preterite of unclear morphology, as assumed in [LexLep], Mees [2020b], etc. If, as contended by Mees and former works, this form were ultimately identical to Skt. ásth $\bar{a} s$ 'erected,' from *-sth $\bar{a}-s-t$, its final phoneme would have been spelt with $<s>$, see below 5.5. The final form $\chi u s u s$, in view of its medial $<s>$, can be traced back to * $g^{h} u d-t u$ - 'action/ object of pouring,' which is what the flagon was for after all, and is a match of L. fūsus 'act of pouring' [cf. LIV, 179]. This form could in turn go back to a neo-root ${ }^{*} g^{\prime} e u-d h_{3}-$, which would constitute a Germanic-Italic-Celtic innovation. In that case, aststaz रusus would simply mean 'the present flagon.' Unless we are dealing with two disconnected nominative phrases, vecezu could be a thematic instrumental functioning as agent, but this would fall short of explaining sezt.
    ${ }^{45}$ Edited as sekaiza in [MLH-1, A.78]. The reading was corrected by [Rodríguez Ramos, 2002]. The updated reading of the Celtiberian form and my etymology for the Celtiberian and Lepontic forms is found in [De Bernardo Stempel, 2009, 178], who does not bother to offer any references.

[^23]:    ${ }^{46}$ Contrary to the views of successive editors, medial $<\mathrm{I}>$ does not have to be expurgated at all, since this city cannot be the Roman Segeda (Saragossa), itself from *segeid $\bar{a}$, which is attested as sekeiza and results from an earlier Celtiberian *segedi $\bar{a}$ by metathesis.
    ${ }^{47}$ Lejeune [1971, 486] thought of further connections with Gaulish compounds, like DIASTVMARVS (Noricum), diassvmari (Dunaujvaros, Pannonia Inferior) which is not entirely evident to me. His suggestion that the alternative reading iazus, if correct, might be reflecting * $d \bar{l}$ - $a t^{5} u-/-a s s u$-, is attractive but not provable.

