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Abstract

This work is a grammatical compendium of the Celtiberian language, incorporating the data available through 2003. The more relevant phonological and morphological phenomena are reviewed. These demonstrate that Celtiberian is an Indo-European and Celtic language. Abundant epigraphic material is also presented in support of the arguments presented here.

Keywords

Historical linguistics, grammar, Celtiberian, Celtic, Indo-European

Definition

Celtiberian is the name given to an Indo-European language of the Celtic branch. Native inscriptions written in this language have been found in an area of the Iberian Peninsula lying between the headwaters of the Duero, Tajo, Júcar and Turia rivers and the source of the Martín River to the west, south and east, and the middle course of the Ebro River in the north, with a frontier that runs parallel to the right bank of the Ebro, some ten kilometres from the river, and crosses to the left bank to include an area corresponding to a region adjacent to the border between present-day Navarre and Aragon. This territory includes what both the Romans and ancient sources named *Celtiberia*, together with other neighbouring areas belonging, according to the same sources, to the Berones, Pelendones, Arevaces and Carpetanes. This evidence dates from the first and second centuries BC and it does indicate a certain linguistic unity, although it has not yet been possible to distinguish different diatopic units.

We prefer to use the term Hispano-Celtic as a hypernym to include all the linguistic varieties of Celtic spoken in the Iberian Peninsula before the arrival of the Romans (in c. 218

BC, during the Second Punic War). However, the only variety for which we have direct evidenceand about whose Celtic origin there is unanimous agreement is the variety traditionally named Celtiberian, as defined above. In geographic-linguistic terms it could also be called *northeastern Hispano-Celtic.*

In the northwest of the Iberian Peninsula, and more specifically between the west and north Atlantic coasts and an imaginary line running north-south and linking Oviedo and Mérida, there is a *corpus* of Latin inscriptions with particular characteristics of its own. This corpus contains some linguistic features that are clearly Celtic and others that in our opinion are not Celtic. The former we shall group, for the moment, under the label northwestern Hispano-Celtic. The latter are the same features found in well-documented contemporary inscriptions in the region occupied by the Lusitanians, and therefore belonging to the variety known as LUSITANIAN, or, more broadly as GALLO-LUSITANIAN. As we have already said, we do not consider this variety to belong to the Celtic language family.[1]

Finally, in the southwest of the Peninsula there are *stelae* containing inscriptions in a language for which the name TARTESSIAN has recently been becoming more widely used. These inscriptions are difficult to read, and therefore to interpret, although some features have been distinguished that indicate that the inscriptions are written in a Celtic language.[2]
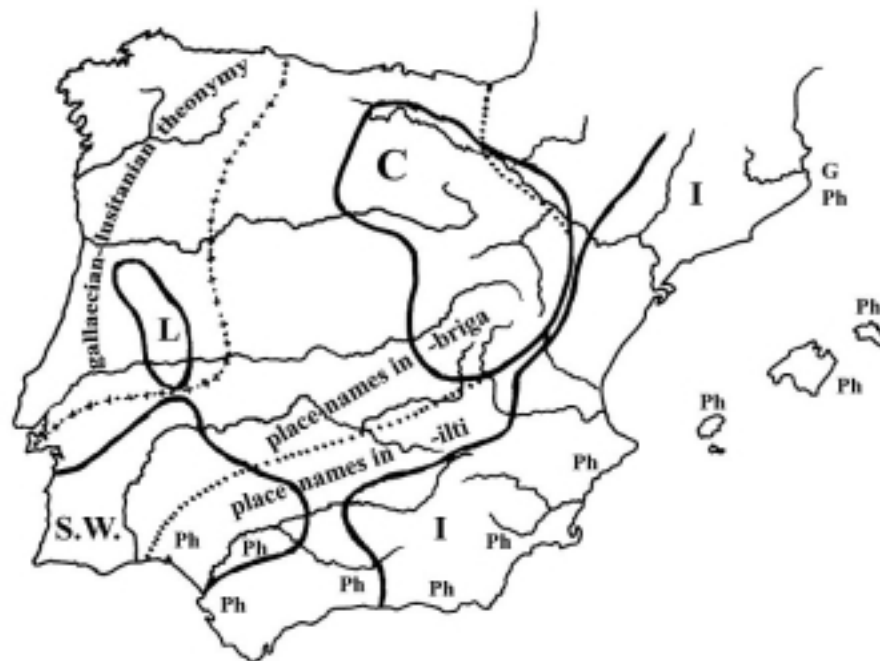

Figure 1. Pre-Roman languages attested in the Iberian Peninsula.

Language	Writing System	Location in the map	Linguistic Classification
Phoenician Punic Lybian-Phoenician	- Phoenician alphabet and variants	Ph	Semitic macro-family
Greek	- Greek alphabet	G	Indo-European macro-family Greek family
Iberian	- South- and north-eastern Iberian semi-syllabary - Greek-Iberian alphabet - Latin alphabet	I	Non-Indo-European
Celtiberian	- Variant of North-eastern Iberian semi-syllabary - Latin alphabet	C	Indo-European macro-family Celtic family
South-west Language or Tartessian	- South-western Semi-syllabary	SW	Indo-European macro-family? Celtic family?
Lusitanian	- Latin alphabet	L	Indo-European macro-family Family?

Figure 1. Map Key

Celtiberian Linguistic Features[3]

I. Phonetics and Phonology

Vowels

1. Language *a/o*

From an Indo-European vowel system with four phonemes, *i, ε, α, u*, there is a shift to a system with five phonemes, *a, e, i, o, u*, with a differentiation between the *a/o* timbres. This is a feature shared with Italic, Greek, Armenian and Phrygian.[4] Later on a system with ten elements develops *ă, ĕ, ĭ, ŏ, ŭ*, and finally, each language alters the system in one or another direction.

2. Treatment of **ā*

In [BBIV, B7] we find **stoteroi**. If the proposed etymology as **stā-tér-oi,* from the root **stā-* 'to be standing, to remain, to be', is correct,[5] we could speak of the shift from **ā > *ō* in an

unstressed syllable. For this to be plausible, we would have to posit that in Common Celtic the vowel *ō split into [ɔ] in stressed position and into [ω] in unstressed position. This second [ω] element fused with etymological *ū, while the first [ɔ] would have fused with *ā and would have phonologized in /ɔ/ or /α/, which could later in Celtiberian have split into /ō/ in an unstressed syllable and /ā/ in a stressed syllable. Thus, *stā-tér-oi > *stɔ́-tér -oi / *stā́- tér-oi > [stōtéroi], <**stoteroi**>.

3. Treatment of *ō

3.1. In non-final syllables: *ō > * ā. For example, O.Ir.[6] *már*, M.W. *mawr* 'grande', Gaulish -*maros* < -*māros* < -*mōrōs* (cf. Gr. -μωρος). We have as yet no irrefutable examples of the step *ō > ā in Celtiberian; **kombalkez** [K.1.1, A1] could be one example. If, as F. Villar has suggested,[7] this form turns out to be a 3rd sing. of the perfect of a root *bʰel- 'to shout, to speak', we would have a shift *ō > *ā in a non-final stressed syllable, since the accent would fall on the root vowel. However, if to this form we add **terturez** [K.0.14] < *tér-tōr-e-t, also a possible perfect, but in this case with reduplication, the root vowel would be unstressed, as the accent would fall on the reduplication, and we would have to accept a shift *ō > *ū in a non-final unstressed syllable.

As K. McCone[8] has pointed out, since in Celtiberian, like in the other Celtic languages, a shift *ō > *ū in final syllables took place, as we shall see later, there is no reason why a shift *ō > *ā in non-final stressed syllables should not also have taken place. Moreover, in the Celtic inscriptions of the western part of the Peninsula there are examples to support this hypothesis, such as the anthroponyms ENIMARI / SEGOMARVS < *-māros < -mōros.[9]

3.2. In final syllables: *ō > *ū. O.Ir. *cú*, M.W. *ci* 'dog' < *kū < kʷō (cf. Skt. *śvā*, Gr. κύων). This shift can be seen clearly in the nominative of stems in *ōn*, **melmu** < *-ōn [K.1.1,

B2]; in the dative singular of stems in *-o*, **-ui** $< *-\bar{o}i$; in the ablative singular of stems in *-o, -ūz <*

-ōd, and in the imperative desinence **-tuz** $< -t\bar{o}d$.[10]

4. Treatment of *ē̆*

The shift *ē̆ > ī* is considered to be a characteristic of Celtic, shared, for example, with

Armenian. It is difficult to put forward a hypothesis as to where Celtiberian stands as regards this

shift, as a lot of different factors are involved, not only specifically concerned with phonetics, but

also with the graphic representation of the sounds.

One good example of the evolution of this vowel could be the preverb *dē-* in **tizaunei**

[K.1.1, A2], an infinitive form, either of a stem *dʰeh₁-* 'set', or *deh₃-* 'give'. Here the shift in

initial syllables seems certain to have occurred. However, the form **tekez** [K.6.1], if it is, as it

seems, the same as the Latin form *fēcit* $< *d^h\bar{e}ket$, would seem to contradict this hypothesis.[11]

In the Luzaga bronze [K.6.1] we find **teiuoreikis**, which may well lead back to a proto-

Celtic form *dēu̯o-rīks*, coming, in turn, from *deiu̯o-rēks*, and which should be read as

[dēu̯orīks/dīu̯orīks]. In this word, Celtiberian would have undergone the shift *ē̆ > ī* in the final

syllable,[12] cf. O.Ir. *rí, ríg,* W. *rhi*, Gaulish *-rix*.[13]

Diphthongs
5. Treatment of diphtongs

Continuing with the word **teiuoreikis** $<$ *dēu̯o-rīks* $<$ *deiu̯o-rēks*, the use of the same

graphic signs in both the first syllable <**tei**> and the last <**reik(i)s**> would seem to indicate that
Celtiberian did not inherit the original diphthong, but instead the already monophthongized form,
as occurred in the other Celtic languages. But this form would still have been in the process of

fusing with *ī*, through an intermediate step *ẹ̄*.[14] That is to say, the spelling **ei** would have been

used to indicate both *ẹ̄ /ī* from an original diphthong *ei*, and *ī* from an original *ē̆*. In other

words, the spelling **ei** could represent an original diphthong, but this does not mean that the
diphthong was preserved phonically at the time the inscription was made.[15] Evidence of this

same process may be seen in western Hispano-Celtic in the theonym[16] found in Chaves (Portugal): DEVORI, dative singular, reconstructed as an *-i* stem in place of †DEVORIGE <

dēu̯orīgē < *dēi̯u̯orēgei̯*.

Other words containing this sequence that are well supported either etymologically or morphologically are, in syllable initial position: **ueizos** [K.0.14], **ueizui** [K.6.1] 'witness, public guarantor', from the root *u̯eid-* 'know', like **ueiziai** [K.0.14]; in syllable final position: the infinitives **ambitinkounei** [K.1.1, A6], **taunei**, **tizaunei**, **uertaunei** [K.1.1, A2], **u̯simounei** [BBIV, A6], as they are also dative singular forms of verbal nouns, in which **-unei** < *-u̯ōn-ei̯*; **kenei** [K.6.1] dative singular of **kenis** [K.6.1] 'people', from an *i*-stem from the root *gen-*. In addition to **kenei** we find GENTE [K.11.1], dative singular of an *i*-stem which agrees with STENIONTE, dative singular of an *nt*-stem, the two supporting at least the first step of the monophthongization process *ei > *ē̜ > ī*.

With regard to the behavior of this diphthong, we should also consider the sequence *ei̯-es* of the nominative plural of stems in *-i*. For if some of the **kentis** in BBIII turn out to be nominative plural, then we shall have to accept the evolution *ei̯-es > *-e-es > *-ē̜s > *-īs*.

An example such as [K.1.1, A4] **boustom** < *gʷou̯-sth₂-om* 'stable' appears to indicate that the original *ou̯* diphthong was maintained in Celtiberian. On the other hand, it may not be too far fetched to suggest that it underwent a process parallel to that of *ei̯*, following the evidence we have of the diphthong *ou̯*, coming from the original *eu̯*, and the evidence from the other Celtic languages. The first step in the shift *eu̯ > *ou̯ > ō* can be classified as Proto-Celtic, but the second did not take place, in K. McCone's opinion[17], until the main dialectal branches began to separate. The secondary diphthong, like the primary *ou̯*, shifted to *ō*, which was maintained in O.Ir., although in the end it underwent certain changes of its own, depending on

the context, and in Brittonic it evolved to *ʉ*.[18] In Gaulish, the diphthong was maintained, to judge from the spellings ⲧⲟⲟⲩⲧⲓⲟⲥ, -ⲧⲟⲟⲩⲧⲁ in the Greek alphabet,[19] ᴛᴏᴠᴛᴀꜱ in the Lugano alphabet, and ᴛᴏᴠᴛɪ- in the Latin alphabet. In a later period it changed to *ō̦*,[20] cf. ᴛᴏᴛᴀᴛɪɢᴇɴ[ᴠ]ꜱ (CIL VI 2407), ᴛᴏᴛɪᴀ (CIL III 8337 and XIII 4177). In the light of forms such as ᴛᴠᴛɪᴠꜱ, ᴛᴠᴛɪᴀ, and the series of the Mars epithet, ᴛᴇᴠᴛᴀᴛᴇꜱ, ᴛᴏᴠᴛᴀᴛɪꜱ, ᴛᴏᴛᴀᴛɪꜱ, ᴛᴠᴛᴀᴛɪꜱ,[21] we are obliged to ask ourselves whether we have before us the final, specifically Gaulish, phase of the closing of *ō̦*, which would be closed, or whether these forms are the result of a linguistic transfer from Latin.

The original *eu̯* diphthong has not been documented up till now in Celtiberian. The shift to *ou̯* does seem certain, as shown in **konbouto** [A.74], from *kom-pleu̯-to-*; **loukaiteitubos** [K.0.7], **loukaniko** [K.1.3, II-3], **loukanikum** [K.1.3, I-14, -45, -46, etc.], **loukio** [K.18.2, -1], perhaps all from *leu̯k-*; **nouantutas** [K.1.1, B-6] (*neu̯m̥-*), **toutam** [BBIV], **toutinikum** [K.1.3, I-7, II-52, III-44] from *teu̯t-*, etc.[22] It was in fact the comparison of this last form with **totinikum** [K.1.3, III-33], together with **kounesikum** [K.1.1, B-1] and the second part of **burikounikum** [K.1.3, II-53], and **konikum** [K.1.3, II-49, III-26] (all names of family groups), which led J. Untermann[23] to believe that the engraver of the third great bronze had a certain tendency to monophthongize this diphthong. If indeed the parallels put forward are correct, what we need to ascertain is to what extent this phonetic process was taking place in Celtiberian. This could be a case of an *in fieri* process, which, judging from the spelling, would seem to point to a monophthongization of *ou̯* to *ō*. Thus, Celtiberian would have developed in a way similar to the Celtic dialects from the west of the Peninsula, where, as B. Prósper[24] has shown, there are good examples of the evolution *eu̯ > ou̯ > ō* like the alternative forms ʙᴏᴠᴛɪᴠꜱ / ʙᴏᴛɪʟʟᴀ, ʙᴏᴅɪᴠꜱ / ʙᴏᴠᴅɪᴄᴀ, ᴛᴏᴠᴛᴏɴᴠꜱ / ᴛᴏᴛᴏɴᴠꜱ.

As far as the other diphthongs are concerned, it would seem that *ai̯*, *oi̯* and *au̯* were maintained, to judge from: **belaiskom** [A.80]*,* **loukaiteitubos** [K.0.7]; **tokoitei** [K.1.1, A1], **stoteroi** [BBIV, B7], nominative plural of an *o*-stem; **tauro** [K.1.1, B7 and 8] (anthroponym).[25]

Laryngeals

6. Result ă from *ħ (laryngeal) in interconsonantal position

Like Lat., Goth., O.C.S., Lith., etc. as opposed to Skt. *i* and Gr. α, ε, o, depending on the laryngeal.[26] For example, O.Ir. *anál*, M.W. *andyl* 'breath, respiration', Skt. *aniti* 'he breathes', Gr. ἄνεμος, from *h_2enh_1-+ -$tleh_2$, -ti, -mos; O.Ir. *arathar*, Lat. *aratrum*, Gr. ἄροτρον − *h_2erh_3-*trom*, etc. The only examples we have in an interconsonantal position in Celtiberian are:

- **tuateros** (Gen. sing.) [K.1.3, III-24], **tuateres** (Nom. pl.) [K.1.3, II-40] < *d^hugh_2ter-, cf. Skt. *duhitar*-, Gr. θυγάτηρ, Toch. B *tkācer*, etc. While Celtiberian has the form **tuater-**, Gaulish (Larzac) has *duxtir*, without *a*. K. McCone[27] thinks that the absence of the vowel may perhaps be due to the word having come from the parallel form without a laryngeal, *dukter,* which explains Armenian *dustr*. F. Rubio[28] points out that in O.Ir. there is a feminine anthroponym *Der-/Dar-, Ter-/Tar-* 'daughter', the equivalent of nouns with *Mac-* 'son', and that this Irish form calls for an earlier form, also without *a.* This variation, a form with *a* and a form without, is also to be found in Sanskrit *duhitár-* and Avestan *duɣδar-*. The reason is that the interconsonantal laryngeal would disappear when the stress was not on the syllable immediately after it, or, if this were the case, when there was more than one consonant between the laryngeal and the stressed vowel. The Celtiberian form would come from *$d^hugh_2tér$- > *dugatér-,* typical of strong cases. This form would fulfil the conditions for the preservation of the laryngeal and its later vocalization (cf. the Sanskrit form). This pattern would then spread to the rest of the paradigm, as seen in the genitive **tuateros**, not †**tuatoros**. In Gaulish, on the other hand, we would have to start from the form of the weak cases, gen. *d^hugh_2-tr- ós,* with the loss of the laryngeal and therefore the non-appearance of the vowel, and the corresponding spread to the whole paradigm (cf. the Avestan form).

- **tatuz** [K.1.1, A8 y A10], if < *$dh_3tōd$, cf. Gr. δότω, Lat. *datō*.[29]

- **tizatuz** [BBIV, B-5], if < **di-d^{h}h$_1$-tōd*, cf. Gr. τιθέτω, its strict cognate.[30]

In initial position **h* before *r̥* + occlusive also vocalizes as *a*, cf. O.Ir. *argat*, O.W. *argant*, Gaulish (Verceil) ARGANTOCO- / ARKATOKO-,[31] Celtiberian **arkato-** [K.0.7] / **arkanta** [K.1.3, III-11] (among other instances on the bronze) < **h$_2$rg̥-n̥t-*, cf. Latin *argentum*, Avestan *ərəzata-*, Skt. *rajata-*; in the same way as before *m̥* + occlusive, O.Ir. *imm*, M.W. *am*, Gaulish *ambi-*, Cib. **ambi-tinkounei** [K.1.1, A6] < **h$_2$m̥b^{h}i-*, cf. Gr. ἀμφί, Lat. *amb-*, Skt. *abhi*, etc.

Sonants

7. Treatment of *ri, li*

**r̥* + K > *ri*, **l̥* + K > *li*[32]

The clearest example is to be found in the development of the root **b^{h}r̥g^h-* 'tall, high, sublime', which has proved so prolific in toponomastics;[33] Cib. **nertobis** [A.50], **sekobirikez** [A.89]. In Gaulish it appears in many toponyms in *-briga*; as an appellative it is preserved in O.Ir. *brí* and W. *bre* 'hill'.[34] It is very difficult to find examples with **l̥* for Celtiberian. One possible case is **konskilitom** [K.1.1, A3] < **kon-skl̥-tó-* a verbal adjective from the root **skel-* 'to cut'. Another may be **pl̥th-* 'wide' (Gr. πλατύς, Skt. *pr̥thus* < **pl̥th$_2$-u-*) > Cib. **let-** (in **letaisama** [A.68] 'the very wide one'); Gaulish *litano-;* O.Ir. *lethan* 'wide', although here Celtiberian requires a form **pletissama*.[35]

8. Treatment of *ar, al, am, an*

Except in the case referred to above, **r̥*, **l̥* > *ar, al.*

O.Ir. *carr*, Middle Gaulish. *car(r)*, Gallo-Lat. *carrus*, Gaulish *Carro-* < *karso-* < *kr̥so-* (cf. Lat. *currus*) and O.Ir. *a-t:baill* 'dies' *balnit(i)* < **g^{w}l̥n(e)h$_1$* (cf. Gr. βάλλει). We do not yet have any examples in Celtiberian.

Parallel to this we should also include here **m̥/*n̥ > am/an*. If we accept K. McCone's proposal,[36] all the Celtic languages vocalize the nasal sonants in *am/an*, with a fronting process in Old Irish, which we shall return to in the section on nominal morphology. Generally speaking, the Celtic languages share this feature with Greek, Armenian, Albanian, Tocharian and Hittite. For example, O.Ir. *cét* (< **kæntom* < **km̥tom*, where traditionally **km̥tom > kemtom*), M.W. *cant*, Celtiberian **kantom** [K.1.1, A4], cf. Skt. *śatam*, Gr. ἑκατόν, Lat. *centum*, Toch. A *känt*, B *kānte*, etc. Other words which may have a voiced nasal sonant in Celtiberian are: **tirikantam** < **-kantm̥* [K.1.1, A1], [BBVI, A1],[37] **tekametam** [K.1.1, A10], **tekametinas** [BB1.A8] < **-dekam-* < **-dkm̥-*, cf. Gaulish *decametos* 'tenth', *petrudecametos* 'fourteenth', Welsh *deg* 'ten', *degfed* 'tenth', O.Ir. *deich n-* 'ten', *dechmad* 'tenth' (traditionally, the Irish form has been said to come from **dekm̥ > *dekem > deich*; while K. McCone suggests **dekm̥ > *dekam > *dekæm > deich*); **kamanon** < **kn̥g-* [K.1.1, A5], **auzanto**, if < **ausn̥to* [K.1.3, 01].

Fricatives

9. Treatment of the sibilant

In two in-depth studies on the use of the letters Ƶ and Ƨ, F. Villar[38] succeeded in explaining the behaviour of the original Celtiberian **s,* and of the whole series of dental occlusives. He also managed to bring some order to what had until then been a most disconcerting area: the spelling and morphology of Celtiberian.

9.1. the original **s* was maintained in:

a) initial position, for example: **sa** [K.6.1], **soz**, **saum**, **somei**, **somui**, **sua** [K.1.1, A2; A8; A8; A7; A1], belonging to the demonstrative paradigm.

b) preconsonantal position. Egs. **kaiskata** [A.49], **belaiskom** [A.80], **barskunez** [A.38] (toponym), **stam** [K.6.1] (demonstrative), etc.

c) absolute final position. For example, the nominative singular of *o*-stems which appear on coin inscriptions, such as **aratikos** [A.61, **arkailikos** [A.62], **ekualakos** [A.63], etc., and any morphological category containing the original

sibilant in this position. In all these cases, the spelling in the Paleo-Hispanic script was S, which we transcribe as **s**.

9.2. **s > z* in intervocalic position: **alizos** [K.0.1], **alizokum** [K.0.2] < **aliso-*. Here the spelling was Z, which we transcribe as **z**.[39]

Occlusives

10. $g^w > b$

The labialization of only the voiced labiovelar is a specifically Celtic phenomenon. Cf. O.Ir. *bith*, W. *byd*, Bret. *bed*, Gaulish *Bitu-riges* < *g^wi(h)-tu-* 'world' (cf. with the same root, *g^w i h₃-u̯ó-s*, O.Ir. *beu*, W. *byw*, Bret. *beo*, Lat. *uiuus*, Skt. *jīváḥ*); O.Ir. *bó* < *g^wōu̯-*; M.W. *bu*; Cib. [K.1.1, A4] **boustom** < *g^wou̯-sth₂-o-* 'cow shed'; [BBIV, A2] **bouitos** < *g^wou̯-i-to-* 'cattle path'.

11. Deaspiration of the voiced aspirated series and fusion with the voiced occlusives

This is a feature that Celtiberian shares with Slavic, Baltic and Avestan. Examples: O.Ir. *beith*, Gaulish *bueti(d)* 'be' < **b^huh-e-t(i)* (cf. Skt. *bhū-*, Gr. φυ-, Lat. *fū-*), and from the same root, perhaps, Gaulish *bissiet* and Celtiberian **bionti**, **bizetuz**, **robiseti** [K.1.1, A7; A5; A8] and **atibion** [BBIV, A5]; O.Ir. *rúad*, M.W. *rud*, Gaulish *Roud-* 'red' < **rou̯d^h-* (cf. Lith. *raũdas*, Skt. *rudhiras*, Gr. ἐρυθρός, Lat. *ruber*); O.Ir. *brí, breg*, W. *bre* (Ancient Breton *Brigantes*); Gaulish *-briga*, Cib. **-brig-** < **b^hr̥g^h-*.

12. **g^{wh} > *g^w*

The shift would be Proto-Celtic and later than **g^w > b*. What we have here is a deaspiration of the voiced aspirated labiovelar, a phenomenon that occurred in the whole series of aspirates, as we have just explained. What is particularly Celtic is that there is no fusion of the original **g^w* and *g^{wh}*, but instead, the new voiced labiovelar takes the place of the original one, the result of which can be distinguished clearly. Later, each Celtic dialect was to evolve in one

direction or another.[40] To be precise, O.Ir. $*g^w > g$, *guidimm* 'I pray' de $*g^{wh}od^h$- (cf. Gr. ποθέω);

gorim 'I heat' from $*g^{wh}or$- (cf. Lat. *formus*, Gr. θερμός); Welsh, depending on position and

context, $*g^w > u̯/g^w/g$, Gaulish $*g^w > u̯$, if the form *uediíumi* 'I pray, beseech' (Cham.) can be

explained as $< *g^wed$-$i̯ū < *g^{wh}ed^h$-; Cib. $*g^w > g^w$. The examples, not very reliable, in Celtiberian

would be the name of the family group found in [K.1.3, IV-6] **kuezontikum**, if this word does

contain the root $*g^{wh}ed^h$- which we have just seen for 'pray, beseech';[41] the anthroponym

GVANDOS [K.3.13], [K.3.19], if it comes from $*g^{wh}n̥$- zero grade of $*g^{wh}en$- 'hit, penetrate';[42] and

kortika $< g^wortikā < *g^{wh}$-, with the meaning 'object of exchange', cf. M.W. *gwarthec* 'cattle',

with delabialization of the velar before *o*, if we accept P. Schrijver's etymology.[43]

13. $*p$ > $*f$ > $ø$ in initial and intervocalic position

This is a feature which is generally considered by scholars to be genuinely Celtic, since it

is not a common phonetic change.[44] For example: $*pro$ (Lat. *pro*, Gr. πρό) > Cib. **ro** (**robiseti**

[K.1.1, A8]), Gaulish *ro-* (*Romogillus*), O.Ir. *ro-* (*ro-muir* 'ocean'), W. *ry-* (with different

meanings); $*uper$- (Lat. *super*, Gr. ὑπέρ, Skt. *upari*) > Cib. VIROS VERAMOS [K.3.19] < $*uper$-

m̥mo-, '*uir supremus*'), Gaulish *uertamos* (with the same meaning, cf. also *Vercingetorix*), O.Ir.

for 'over, on', W. *gwor*; $*pl̥th$- 'wide' (Gr. πλατύς) > Cib. **let-** (in **letaisama** 'the very wide'

[A.68]), Gaulish *litano-*, O.Ir. *lethan* 'wide'; $*p\,°ir$- (cf. Gr. παρά) > Gaulish *are-* (*Aremorici*

'those who are near the sea'), O.Ir. *air-*, W. *ar-, er-*, Cib. **are-** in **arekorata** [A.52].[45]

We can represent schematically the phenomena described in 10, 11, 12 and 13:

I	voiceless	voiced	voiced-aspirated
labial	p	(b)	b^h
dental	t	d	d^h
velar	k	g	g^h
labiovelar	k^w	g^w	g^{wh}

II	voiceless	voiced	voiced-aspirated
labial	p	$b < g^w$	b^h
dental	t	d	d^h
velar	k	g	g^h
labiovelar	k^w	--	g^{wh}

III	voiceless	voiced	voiced-aspirated
labial	p	$b < b^h$	--
dental	t	$d < d^h$	--
velar	k	$g < g^h$	--
labiovelar	k^w	$g^w < g^{wh}$	--

IV	voiceless	voiced
labial	--	b
dental	t	d
velar	t	g
labiovelar	k^w	g^w

The new empty cell in the paradigm would partly be filled from Celtic (Brittonic or Celtic P, as opposed to Goidelic or Celtic Q) through the evolution of another phoneme, $*k^w > p$, although we can also find p in the Celtic q owing to other phenomena, such as loans.

14. Similarity in the treatment of *k^w and *$ku̯$

This shift is an earlier one than $*k^w > p$, as is shown by the fact that the sequence $*ku̯$ also underwent the process in the P dialects. In Celtiberian we find the spelling **-kue** $< *-k^w e$, an enclitic conjunction, beside **ekualaku** [A.63] and EQV<u>E</u>ISVIQVE [K.3.3] possibly formed from *$eku̯o$- 'horse', cf. O.Ir. *ech* 'horse', Gaulish *Epona, Eporedorix*. In Lepont. *-pe* $< *-k^w e;$ Gaulish *-c* $< *-k^w e$, with apocope of *-e*, prior to the step $*k^w > p;$ O.Ir. *-ch*.[46]

15. Treatment of the voiced occlusives

In Celtiberian, the voiced occlusives appear to have undergone a process of articulatory weakening in certain positions. As we mentioned in the section on sibilants, the discovery of this behaviour in the dental series of consonants was of great assistance in clarifying Celtiberian nominal morphology. The shifts which have so far been detected are the following:

15.1. original *d > z in

a) absolute final position: ablatives in nominal declensions, with the ending *-d, **arekorataz** [A.52], **usamuz** [A.72], **aratiz** [A.61], **barskunez** [A.38], etc.; **soz** [K.1.1, A2] if it comes from *sod; and imperative forms ending in **-tuz** (**bizetuz**, **oisatuz**, **tatuz**, **tinbituz**, in [K.1.1, A5; A7; A8; A6]), whose ending comes from *-tōd.

b) intervocalic position: **ueizos** < *u̯eidos [K.0.11]; **zizonti** [K.1.1, A7] if it is from *didonti.

c) after a sonant and before a vowel: **burzau** [A.48], cf. BVRDO, BVRDIGALA; **melmanzos** [K.1.3, IV-3], cf. MELMANDVS, in Latin epigraphy.

15.2. original *-t in absolute final position > z: **tekez** [K.6.1] < *dʰēke-t.

15.3. original *-dʰ in intervocalic position > z: **mezukenos** [K.1.3, I-4], etc., cf.

MEDVGENVS < *medʰu-.[47]

The character used in this case is Z, which we transcribe as **z**.

Taking into account the transformation undergone by the sibilant, the relative chronology of these changes may have been as follows:[48]

1º. There would have been three more or less contemporary phases:

a) an allophonic phase of original *s : unconditioned allophone [s] and conditioned allophone [z] in intervocalic position and between sonant and vowel.

b) fusion of *d and *dʰ to *d in Celtic and the appearance of an allophone [ð] in intervocalic position.

c) neutralization of original *t and *d in final position. We can indicate this phonetically by means of the archiphoneme /D/ which would correspond, phonetically, to a voiced interdental fricative, [ð].

2º. There would have been a phonologization of [z] to /z/, when -ss- (coming from *-ss-, *-ds-, *-dd-, *-tt-) would have evolved to -s-.

3º. In principle it would not have been possible for */-z/ < *-s to appear in absolute final

position, but we do find the evolution: - vowel - *s* - short vowel > - vowel - *z* - short vowel >

- vowel - *z*.

4º. Identification of [-ð] (-/D/) resulting in /z/ in final syllables. It seems appropriate to

include this shift at this point in the chronology, because there seem to be cases in which *-d* >

-*z* > - *ø*, like CARACA [K.14.2], **metaama** [K. 24.1], which appear to be ablatives and therefore

to derive from -*ād*. We should also add as an example of loss of -*z*, though from the original

intervocalic *s*, COMEIMV [K.3.3] < -*muz* < *-mosi*.

5º. A chain reaction, so that the allophones of Celtic *d* (coming from I.E. *d* and *d^h*)

also became identical in intervocalic position and in the group sonant - dental - vowel.

Whatever the nature and the order of the phenomena just described, the fact remains that

the fricativization of the intervocalic voiced dental is a process of articulatory weakening. This

would be the first step of the famous process of Celtic lenition, which would appear, in

Celtiberian, not to have affected to the same extent the voiced components of the labial and velar

series. What does not appear to have occurred is lenition of the voiceless occlusives, as can be

seen from the epigraphic evidence in Celtiberian in the Latin alphabet, such as ARCOBRIG

[K.7.3], CALAITOS [K.3.4], although we do find TRIDONIECV from *trito-*.[49]

Throughout the Celtic linguistic *continuum* in the Iberian Peninsula, there is evidence of

the general conservation of an intervocalic voiced velar occlusive, which becomes weaker in

certain sequences as we move westwards, until finally it disappears altogether.

Thus, for example, from an original *g* we find **mezukenos** [K.1.3] (< *med^hugenos*) →

MEDVSINVS (Hinojosa de Duero, Salamanca) → MEDVENVS / MEIDVENVS (*Lusitania* and

Callaecia).

Examples of an original *g^h*, although the vocalic phonological context may be of

secondary origin, may be found in toponymic references containing the segment *b^hr̥g^h*-. These

toponyms follow one of the three following patterns:[50]

1. Nom. **-brig-s*, gen. **-brig-os*, a velar stem found in the Celtiberian area and in the south west of the Celtic area. An example of this is: Cib. **sekobirikez** [segobrigez] [A-89], and its derivates, **sekobirikea** [segobrigia] [K.0.3]. This toponym also illustrates the treatment of an intervocalic voiced aspirated velar consonant, owing not only to the second half of the compound, but also to the first half, as it comes from **seg^h-* 'to have', hence Celtic **sego-* 'victory'. Other examples with this lexeme can be seen in SEGISAMA/**sekisamos** [A.69], SEGONTIA/**sekotiaz** [A.77], SEGEDA/**sekaiza** [A.78].

2. Nom. **-bri-s*, gen. **-bri-os*, an *i*-stem, formed on the previous one, through the loss of the velar stop before the sibilant in the nominative (*-g-s* > *-k-s* > *-ks/-χs* > *-s*) and intervocalic in the remaining cases, especially because it is in contact with *-i-*. In ancient documents we find ERCORIOBRI, LETIOBRI, LVBRI, MIOBRI, all in ablative. This pattern is located primarily in the northwest of the peninsula, especially in Galicia. The disappearance of the velar stop in contact with *-i-* can also be seen in other lexemes such as SESMACAE *< *segisamākā*, SEILI *< *segili* (gen.), DEVORI *< *dēu̯orīgē*. However, there are also cases where the velar stop is preserved, as in the western toponym SEGIDA, the epithet SEGIDIAECO, the toponym *Assegonia < *ad-seg-on-i̯ā*, etc.[51] In the west of the Peninsula the context **-gi̯ + vowel-* would also have facilitated the disappearance of the velar stop, as in APOLOSEGO as opposed to APVLVSEAECO (Cáceres) if it comes from **āpolo-seg-i̯aiko*.[52] something which would not have happened between open vowels, as in MINCOSEGAEICIS.[53]

3. Nom. *-briga*, a Latinized variant of the first pattern, which would have undergone lenition of **g*, but already as a phenomenon of the Celtic substrata, and which would have brought about the ancient words in *-bria*.

The only word in Celtiberian whose etymology appears to have a clear explanation, and in which the intervocalic *-g-* has disappeared, is one that has already been discussed: **tuateres**

[K.1.3, II-39] / **tuateros** [K.1.3, III-23], from de *$*d^hugh_2ter$*-*. The fact that in the same document we find **retukenos** and **mezukenos** [I-4], **sekilos** [I-7, etc**]**, and **sekontios** [I-14, et.], seems to indicate that the phonic context, after *u* and perhaps only before *a*, favoured a particular weakening effect, as noted by F. Rubio,[54] and was not the result of a general phenomenon. As F. Villar had already pointed out,[55] the effects of the so-called Celtic lenition are more clearly visible in the west of the Peninsula than in Celtiberia itself.[56]

We have not yet found data to illustrate the process with *$*b$*.

Consonant Clusters

16. Treatment of the group -nt-.

Spellings such as **kaiskata** [A.49] in contrast with CASCANTVM (present day *Cascante*, Navarra); **sekotiaz lakaz** [A.77] in contrast with Σεγόντια Λάγκα (present day *Sigüenza*, Guadalajara); **aratiz**, **aratikos** [A.61] (Aranda or Arándiga, Zaragoza); **steniotes** [K.17.1] compared to STENIONTE [K.11.1] and **kete** [K.18.2] compared to GENTE [K.11.1] show omission of the nasal consonant before the occlusive. However, there are other words in which the same sequence appears spelled out in full, like como **benkota** [A.38], **konterbia** [A.75], **tirikantam** [K.1.1, A1], **bionti** [K.1.1, A7], etc. This would seem to point, in Celtiberian, to a certain weakening of /n/ before a consonant. In some of the written evidence this weakening is reflected, whereas in others it is not. To judge from the evidence remaining to us in Spanish toponyms, the sequence containing /n/ seems to have predominated.[57]

17. Shift from a non-nasal occlusive before *s* or *t* to a voiceless velar fricative, *x*.

The Indo-European voiceless bilabial occlusive, *$*p$*, was involved, in K. McCone's opinion,[58] in four other phenomena (numbers 17, 18, 19 and 20) besides the disappearance already mentioned (13). Thus, previous to its loss, there was a shift from a non-dental occlusive before *s* or *t* to a voiceless velar fricative, *x*. O.Ir. *sechtmad, ochtmad*; M.W. *seithuet, wythuet*; Gaulish *sextametos, oxtumetos* (cf. Lat. *septimus < $*sept$*-, octauus < $*oct$*-*);[59] O.Ir. *úasal*, M.W. *uchel*; Gaulish *uxse, uxsi, uxsedia* y *uxsello-* 'tall' in *Uxellos, Uxellodunum,* Ουξισαμα, etc. In this last series of examples, we have to start from *$*(o)ups$*-*, (cf. Gr. ὑψηλός 'high', ὕψι 'high

up') > **uks-* > **uxs-*.

Once again, the Celtiberian writing system does not allow us to state with any degree of certainty what point the evolution of these consonant clusters had actually reached. But let us consider some of the data available to us, beginning with the group just mentioned:

17.1. Group *-ps-*: we find the toponym **usamuz** [A.72], superlative of **(o)ups-*. This written form does not throw much light on the phonic expression of the word, as this could be [*uksamuz*], with graphic simplification of the group *-ks-*, whereas if we opt for a written form †**ukasamuz** this simplification would not have taken place. Another possibility would be [*uxsamuz* / *uχamuz*] with the evolution proposed for the other Celtic languages, that is to say, with a voiceless velar fricative, or a voiceless uvular fricative.[60] x/χ does not need to be considered a phoneme, as it could quite easily be an allophonic variant of the voiceless velar occlusive, as in Gaulish. A final option could be [*usamuz*], with total phonic simplification to a sibilant. The Latin transcription VXAMA, datable to c. 153 BC, would, in our opinion, seem to point to one of the first two of these possibilities, and we would even posit a phonetic realization such as [*uxsamuz* / *uχsamuz*], especially if we accept that this evolution occurred before the loss of the voiceless bilabial occlusive, which is well attested in Celtiberian.

17.2. Group *-kt-*: the written form **retukenos** [K.1.3] lends itself to similar considerations as **usamuz**. Here again, the testimony RECTVGENI in Latin epigraphy would incline us either towards [*rektugenos*] or [*rextugenos* / *reχtugenos*].[61]

17.3. Group *-ks-*: it would seem logical to think that if the group *-ks-* resulting from *-ps-* underwent the fricativization of the velar occlusive, then the same would have occurred in the original group. However, in the case of **nertobis** [A.59],[62] it is once again difficult to decide between [*nertobriks*], [*nertobrixs* / *nertobriχs*], or [*nertobris*]. The word SEGOBRIS in Latin epigraphy points to a form [*segobris*], with phonetic resolution of the group.

Finally, we also have **teiuoreikis** [K.6.1]. We have analyzed this form as being

composed of **-rēgs > -rēks*. Basically, two possible interpretations have been put forward. First, this could be a case of maintenance of the group *-ks-*, resolved in writing by means of the syllabogram of the velar consonant with a mute vowel, in this case of the same timbre as that of the preceding vowel. Or, conversely, the vowel could be phonically a full vowel, and therefore the group *-ks-* would not exist.[63] A third hypothesis would be that this is an attempt to represent

x/χ in writing. Just as **bol<u>o</u>ra** [K.1.3, IV-3] seems to be the Latin feminine anthroponym *Flora*,[64] containing a labiodental fricative represented in writing by means of the syllabogram of the labial, in this case an alternative solution could have been worked out for the velar/uvular fricative. Another example of this solution may be **sakarokas** [K.18.4], in a document proceeding from the territory of the Vascones, but which looks grammatically Celtiberian, if it contains the element *sahar*, Basque *zahar* 'old', cf. VMMESAHAR (Lerga, Navarre).

The group *-ks-* appears in the form **es** [K.1.1, A.6] *< *eg^{h}s*, also found in **esankios** [K.1.1, A.9] as opposed to **ankios** and perhaps in **esianto** [K.0.14], **eskeinis** [K.23.2] and **eskeninum** [K.1.3, 02]. [65]

18. Assimilation **p...k^w > k^w...k^w*.

Assimilation occurs in Latin and in part of the territory in which Celtic was spoken, more specifically, in Goidelic. Thus, **penk^{w}e > quīnque*, O.Ir. *cōic*, instead of **pinque* and **ōic*, whereas in Welsh we find *pimp* or in Gaulish *pemp-* in πεμπεδουλα "πεντάγυλλον". There are no examples in Celtiberian.[66]

19. Shift **p > b* between a vowel and a liquid consonant.

In O.Ir *ebraid* 'he will give' *< *ibrāseti < *pibrāseti < *pi-pr̥h$_{2,3}$-se-ti*; *eblaid* 'he will lead' *< *iblāseti < *piblāseti < *piplāseti < *pi-plh$_2$-se-ti*. This is the treatment which may perhaps confirm the reading *[ablu]* and not *[aplu]* for the anthroponym which appears in [K.1.1, A11, B4] **abulu**, *Ablo* in the *Tabula Contrebiensis*, although the genitive, **abulos** *< *abul-n-os* requires a full vowel, as we shall see in the section on morphology, unless we accept a

vocalization of the liquid consonant in *u,* a result not really expected.

20. **p* > *u̯* between a back vowel and *n*.

Of the type O.Ir. *súan,* MW. *hun* < **sōnos* < **sownos* < **suwnos* < **sufnos* < **supnos.*

The shift **p* > **Φ* would have occurred after No. 16, and after No.15, **Φ* > *ø*.[67] On account of various facts: that this is not a common phonetic change, that it takes place at a relatively late date and that it appears in a cell in the paradigm which is empty in languages such as Vasco-Aquitaine and Iberian, this may be a phenomenon from the *substratum* or *adstratum.*[68]

II. Morphology

1. Nominal Morphology

1.1 Morphology of the Noun

o- stems

nominative. In the singular, *o*-stems are, as expected, always *-os*: **bouitos** 'cattle path' [BBIV, A2], **lubos** (anthroponym) [K.1.1, B1], **buntalos** (anthroponym) [K.0.7], **ueizos** 'witness' [K.0.11], ꜰɪʀos ᴠᴇʀᴀᴍos [K.3.19], etc. They are not different from those of other Indo-European languages in general or specifically from the Celtic languages. Within Continental Celtic, Gaulish Σεγομαρος, Ουιλλονεος, *Licnos, Tarvos,* etc. and Cisalpine Gaul ᴛʀᴠᴛɪᴋɴos (Todi), ᴋᴠɪᴛos ʟᴇᴋᴀᴛos (Briona), etc. provide evidence of *-os*. In Insular Celtic, Old Irish[69] shows the evolution from **-os, fer* < **u̯iros.*

If the form **stoteroi,** which appears in [BBIV, B7]**,** comes, as explained earlier, from **stātéroi,* this would seem to confirm that Celtiberian also had the ending *-oi* seen in the other Celtic languages, for example, Gaulish: ᴛᴀɴoᴛᴀʟɪᴋɴoɪ (Briona), ταουτανοι (G-276), ουενικοι (G-279), etc. and O.Ir. *fir* < **u̯irī* < **u̯iroi.*

accusative. Examples could be **boustom** 'stable' [K.1.1, A4] and **karalom** (toponym) [BBIV, A-4], though these could belong to the neuter gender. In general, *-m* is always preserved in final position in Celtiberian.[70] There are some cases in which it seems to have disappeared,

such as **belikio** [A.47], **bormesko** [A.81], but this may have been more for epigraphic than phonetic reasons. The words may have been written in an abbreviated form in these examples, whereas in other inscriptions we find **belikiom** and **bormeskom**.[71] These are nominative singulars of neuter nouns from *o*-stems, with the same form, therefore, as that of the accusative singular of animate nouns.

The same phenomenon does not occur in Gaulish, where *-m > -n* in *o*-stems: νεμητον (G-152), *canecosedlon* (L-10), *cantalon* (L-9), *celicnon* (L-13) (the last three being neuter), *Mapon = Maponon, Pelign = Pelignon*, written in an abbreviated form, in Chamalières. Lepontic, on the other hand, coincides with Celtiberian, cf. VINOM NAŠOM.

There is only one example which can be considered an accusative plural of a stem in *-o-*. That is **matus** in [K.1.1, A6]. Its ending *-us*, could also belong to a *u*-stem. In any case, if this is an *o*-stem, we would have to consider an evolution **-oms > *-ons > *-oss > *- ōs > - ūs*. We have no reliable data for Lepontic either, while Old Irish shares this evolution with Celtiberian, to judge from the form *firu*. Gaulish, however, appears to maintain *-o-*, if the forms TAKOS ('tombs'?, Briona) and *sos* (*sŏs < *sons*) in the demonstrative (Cham.) are accusative plurals, possibly influenced, as K. McCone suggests,[72] by the *-o-* in the rest of the plural paradigm, nom. *-oi*, gen. *-on/-om*, dat. *-obo(s)*. Nevertheless, we also have *tuθθus* (La Grauf.) and *catillus*, which seem to be more in keeping with what appears in O.Ir., *firu < *u̯irūs < *u̯irons*.

genitive. J. Untermann[73] identified the genitive singular of *o*-stems in Celtiberian as *-ŏ* and not *- ī*, as in the other Celtic languages and in Latin.[74] His study was based on, among other inscriptions, the Froehner tessera [K.0.2]:

lubos : alizo/kum : aualo : ke / kontebiaz / belaiskaz

which seems to present a complete onomastic formula, indicated by the [proper noun of the person + name of the family group in gen. pl. + name of the father in gen.sing. + the Celtiberian appellative marker kentis 'son' + the *origo*]. The translation is: *Lubos of the Alisoci, son of*

Avalos, from Contrebia Belaisca.[75]

As to the genitive plural, **-um** is the result of *-ōm*, cf. in the inscription above, **alizokum** 'of the Alisoci', the name of a family group, a category very often found in Celtiberian documents, formed with the derivative suffix *-ko-.*[76]

In the Paleo-Hispanic script we find **ekualaku** [A.63], **kolounioku** [A.67], **tamaniu** [A.79], **tabaniu** [A.90], **oilaunu** [A.56] and in the Latin alphabet TRIDONIECV [K.14.2]. This last word is, to judge from the structure in which it is inserted, a genitive plural, with elision of the final nasal, and it refers to the name of a family group 'of the Tritonieci'. Analysis of the other words is more problematic. Traditionally, they have also been considered genitive plurals with elision of the nasal. F. Villar thinks that **oilaunu** (an *n*-stem) and **tabaniu**, **tamaniu** (an *o*-stem) are instrumental singular forms; but that **ekualaku** and **kolounioku** are genitive plural forms.[77] We agree with his analysis of these two last forms, especially taking into account the Latin evidence: CLOVNIOQ, which corresponds to CLOVNIOQ(VM) 'of the inhabitants of Clunia'. As for the first three forms, in our opinion these are nominative singulars of *n*-stems, in which **-iu** < *iō* < *iōn*.[78]

Gaulish presents *-on* in *neđđamon* 'proximorum' (Banassac), *anderon* 'of the subterraneans' (Cham.), TEVOXTONI[O]N 'of the gods and of men' (Vercelli), which indicates a desinence *-ŏm*, the same one as in O.Ir. *fer* < *ŭirŏm*. Otherwise, we would expect a *u* vowel, with the forms *ŭirun* for Gaulish and *fiur* < *ŭirun* < *ŭirū* for O.Ir. We have no data for Lepontic.

This apparent choice of endings, *-ōm/*-ŏm* for the genitive plural, both in *o*-stems as in the other stems, may not in fact be such, if we accept the explanation offered by K. McCone. According to him,[79] *-ōm > *-ǭm > *-ǫm*, a vowel which would have been retained in Gaulish and Old Irish, while in Celtiberian it would have evolved to *-um*, in order to differentiate itself from the accusative singular *-om*. This result would have been assisted by influence from the

dative plural in *-ubos*, with *-u-* probably from the dative singular, where *-ui* < *- *ōi*, and possibly also from the accusative plural in *-us*. That is to say,

	O.Ir. → *$\underset{.}{u}$irom* > *$\underset{.}{u}$iran* > *fer*
Celtic *$\underset{.}{u}$irōm* > *$\underset{.}{u}$irǭm* > *$\underset{.}{u}$ir̥ǫm* >	Gaulish → *$\underset{.}{u}$irom* > *$\underset{.}{u}$iron*
	Cib. → *$\underset{.}{u}$irum*

dative. The data provided by the texts in Celtiberian suggest that the dative of *o*-stems has the ending **-ui** < *-ōi*, as in the Gaulish forms εσκιγγοριουι (G-70), βαλαυδουι μακκαριουι (G-120), οννακουι (G-122), *Cicollui* and the Lepontic forms TISIVI PIVOTIALVI PALA, METELVI MAEŚILALVI. There are also forms in Gaulish like [βελε]νου (G-24), καρνονου (G-224), *Alisanu, Magalu, Eluontiu* and the O.Ir. *fiur* < *$\underset{.}{u}$irū*, which suggest the ending *-ō.*[80]

ablative. Celtiberian is the only one among the Celtic languages that, for the moment, presents a differentiated ablative. The ending used is: **-uz** < *-ōd*, in *o*-stems, such as **usamuz** 'from Uxama' [A.72].

The formant *-b^h-* should be reconstructed for Celtiberian in the two forms believed up till now to be dat.-abl. pl.: **arekoratikubos** y **tikerzeboz**, both found in the Luzaga bronze [K.6.1].

arekoratikubos would be an *o*-stem, 'for/of the inhabitants of Aregorada'. In fact, from its form this would seem to be an adjective with the suffix *-iko-*, from a toponym **arekorata** [A.52] 'Aregorada', attested also in ablative **arekorataz, areikorataz** [A.52]. The sibilant appears, as would be expected, as a result of an ending *-b^h os*, which we find with the same function, for example in Latin. The only discordant note here is provided by the vowel before the ending. Is it an *ŏ* which for some reason that remains unclear (stress?) close to *u*? Is it an *ō*, by analogy with the dative singular, for example, as K. McCone thinks?[81] Or is it due to a phonetic process, in this case the proximity of a labial, as J.F. Eska suggests?[82]

To this form we should add **akainakubos** [K.1.1, A9], cf. **akainaz** [K.1.1, B5], **loukaiteitubos** [K.0.7] and **beskuauzuetikubos** [K.5.1].[83] Some have also suggested the

reading **nouantu<u>bos</u>** in [K.1.1, B6].[84]

In the case of **tikerzeboz** [K.6.1], A. Tovar considers this form a thematic dative plural, but says that the vowel and the sibilant are problematic. This may not be a dative plural, but perhaps some other part of speech, which for the moment remains unclear.

The ending *$-b^h os$* is also to be found in Lepontic *Vultiauiopos*, but in Gaulish it is not conclusively attested,[85] while O.Ir. appears to have an ending *$-b^h is$*, *feraib* < *$\underset{\textsubring{}}{u}irob^h is$*.

We have no examples for Celtiberian of the other stems. Instances of *ā*-stems are to be found in Gaulish: (ματρεβο) ναμαυσικαβο (G-203 Nimes), ανδοουνναβο (G-183 Collias), γλανεικαβο (G-64 Saint-Rémy), etc.; Old Irish uses the same desinence as *o*-stems: *mnáib*, *túath(a)ib*. Consonant stems are to be found in Gaulish ματρεβο < *$*matri-bo$* < *$*mat\underset{\textsubring{}}{r}b^h o$* (G-64 Saint Rémy);[86] and perhaps in *atrebo* 'patribus' (L-15, Plumergat stela, Morbihan). For Lepontic we can cite ARIVONEPOS, from a nasal stem (< *$-ib^h os$*). In Old Irish we find *ríg(a)ib* < *$*rīg-o-b^h is$*. In the Iberian Peninsula, outside specifically Celtiberian territory, though very close to it, in Ágreda, Yanguas and Clunia we have a form MATRVBOS, in Latin inscriptions, instead of the more widespread MATRIBVS, which could be a case of linguistic interference. This would give us a clue as to the nature of the dat.-abl. plural.

locative. As far as the locative is concerned, none of the Celtic languages provide any sign of this case in any of the stems, except, apparently, Celtiberian, in *o*-stems.[87] This assumption is based on the forms: **sarnikiei** [K.1.1, A9] 'in Sarniquio', **kortonei** [K.0.7] 'in Cortono' and **lutiakei** 'in Luzaga' [K.6.1].[88]

Morpho-syntactic analysis does not provide any other possible interpretation. In the Cortono bronze we find the forms **kortono** and **kortonei**. The former is a genitive of an *o*-stem, whose dative, at any rate, would be †**kortonui** and not **kortonei**. This latter form, therefore, appears to be a locative, so that **buntalos kortonei** would be translated: 'Buntalos in Cortono'.[89] Something similar can be argued for **sarnikiei** and **lutiakei**, formations in *-kio-* and in *-ko-*, and therefore thematic, whose datives should be †**sarnikiui** and †**lutiakui**.

Instrumental. From an analysis of coin inscriptions, F. Villar[90] concluded that in Celtiberian there may have been an expression with a syntagm of the type "[coin minted] by [the city] X".[91] The name of the city would only be expressed in the instrumental case by means of the toponym itself or the adjective derived from it. This case would have the desinence *-ō*, which, if it evolved as expected, would result in *ū*. This would coincide with the Sanskrit form in *-ā* (*aśvā*); Lith.: *-ù < -uo < ō*; and among the Germanic dialects, we find OHG and O.Sax. with *-u < -ō*, all belonging to *o*-stems. In F. Villar's opinion, the words which may be instrumental singular are, as we have already mentioned: for *o*-stems, **tamaniu** [A.79], **tabaniu** [A.90] (both toponyms), **ekualaku** [A.63], **kolounioku** [A.67] (adjectives of origin); in nasal stems **oilaunu** [A.56] (toponym). We have already pointed out that we think **ekualaku** and **kolounioku** can be interpreted as genitive plurals of *o*-stems; **oilaunu**, **tamaniu** and **tabaniu**, nominative singulars of nasal stems.[92] Apart from coin inscriptions, whose analysis is still incomplete, we have **loutu** [K.0.7] and **auku** [K.1.1, A2].

It is thought that in Gaulish instrumental singular is to be seen in the following expressions (both in Chamalières): *naritu rissu* 'by means of the magic script', from *o*-stems, from **-ō*; *brixtia anderon* 'by the magic of the subterraneans', from *-ā* stems, coming from **-ā*, cf. Lith. *-a < *- ā*; βρατου (ουηβρουμαρος δεδε ταρανοου βρατου δεκαντεμ [G-27], Orgon), perhaps from an *o*-stem, though it could also be a *u*-stem.[93]

With regard to instrumental plural, we have no reliable data in Celtiberian to attest to its presence. M. Lejeune thought that in Peñalba de Villastar the reading should be EQVOIS VIQVE [K.3.3], in which the first word would be an instrumental plural of an *o*-stem.[94] J. Untermann seems to have accepted this interpretation, but for the time being it is based on a very doubtful reading. Besides, as F. Villar has noted,[95] we would expect a desinence *-uis* and not *-ois*.

In Gaulish, P.Y. Lambert[96] offers, with many reservations, τοουτιους 'with the fellow citizens' (G-153 Vaison) and *Paullius*, *Primius* together with *dona* (Larzac), which might be

translated as 'wet nurse for the children of Primo'. For *ā*-stems a feminine form *eiabi* 'with them' (Larzac) is given, with the ending *-bʰi*, the same as the one which appears in a form *gobedbi*, usually interpreted as a dative plural, but which may also be an instrumental plural of a dental stem. Another example could be *suiorebe* 'with the sisters' (L-6 Néris les Bains), with opening of the final vowel.

In view of all these data, we can only say that for the moment we do not think that Celtiberian should considered to have had an instrumental case.

Sg.	Celtiberian	Gaulish	Lepontic	Old Irish	I.e.
N.	**bouitos** VIROS	Σεγομαρος *Licnos* TRVTIKNOS		*fer* <**u̯iros*	*-os*
V.	----	*nate?*	----	*fir* < **u̯ire*	*-e*
A.	**boustom**	νεμητον *celicnon*	VINOM	*fer* < **u̯irom*	*-om*
G.	**aualo**	*Segomari* ATEKNATI εσκεγγολατι	*Raneni*	*fir* < **u̯irī*	*-ī*
D.	**ueizui**	εσκιγγοριουι *Cicollui* βελενου *Alisanu*	TISIVI	*fiur* < **u̯ir-ūi*	*- ōi*
Ab.	**usamuz**	----	----	----	*- ōd*
L.	**lutiakei kortonei**	----	----	----	*-oi/-ei*
I.	**tamaniu***?*	*naritu rissu*?	----	----	*- ō?*
Pl.					
N.	**stoteroi**	TANOTALIKNOI ιεμουροι *casidani*	----	*fir* < *u̯irī* <**u̯iroi*	*-oi*
V.	----	----	----	*firu* <**u̯irūs* <**u̯iro-es*	---
A.	**matus***?*	TAKOS *sos* *tuθθus*	----	*firu* <**u̯irūs* <**u̯irons*	*-ons*
G.	**abulokum**	*neďďamon anderon* TEVOXTONI[O]N	----	*fer* <**u̯irom*	*- ōm*
D.	**arekoratikubos**	----	*Vultiauiopos*	*feraib* < **u̯irobʰis*	*-o-bʰ-o/i*
Ab.	----	----	----	----	----
L.	----	----	----	----	----
I.	----	----	----	----	----

Table 1. Paradigm of *ŏ*-stems

ā/ə stems

nominative. These stems have a complexity in Indo-European languages that is, if anything, intensified in the Celtic languages. The first difficulty lies in the length of the final vowel of the nominative. Old Irish has *ā*-stems, such as *túath* < **toutā* < **touteh₂* 'tribe' and *ă*-stems, such as *ben* < **benă* < **gʷénh₂* 'woman'. In principle, we cannot come to a decision as to the length of the vowel in Celtiberian, Gaulish or Lepontic.[97] In any case, the nominative always has the pure stem. Thus, Celtiberian **koitina** (anthroponym) [K.1.3], **kortika** [K.0.5], etc., **letaisama** [A.68] (toponym), **usama** [K.23.2] (toponym); Gaulish ουενιτοουτα κουαδρουνια, in Larzac[98] *Adiega, Seuera;* Lepontic *Pala, Venia Metelikna;* etc.

As we shall see in the cases that follow, Old Irish and Gaulish present a mixture of stems in *-ā* (< **-eh₂*) and *-ī* (**ih₂*), which gives them a personality of their own within the Indo-European linguistic spectrum. It appears that Celtiberian also had *ī-* and *i̯ā*-stems (which are still *h₂*-stems). The former are represented in nom. sing. by **kari** [K.1.3, III-59] and **launi** [K.1.3, II-5] and [Vicente-Ezquerra (1999)], for example. The latter are to be seen in many toponyms and anthroponyms, of the type **uirouia** [A.71], **aunia** [K.1.3, III-27], **sikeia** [K.1.3, II-47], etc. In accordance with our proposal,[99] *ī*-stems have an accusative in **-iam**, as in **kari / -kariam** [K.18.3], like *i̯ā*-stems, **aunia** [K.1.3, III-27] / **†auniam**.

accusative. Celtiberian and Lepontic preserve the final nasal, as is to be seen in Cib. **kortikam** [K.6.1], **toutam** 'settlement' [BBIV, A1], Lepont. PALAM. In Gaulish the same phenomenon occurs in the nasal that we have already seen in *o*-stems: LOKAN 'tomb' (Todi, Cisalpine Gaul), ματικαν (G-151); but also *andognam,* which appears on the Larzac lead plaque together with *Seuerim Tertionicnim*, accusative of *Seuera Tertionicna.* There is also a *liciatim* from *liciatia* and, finally, the controversial form δεκαντεμ/ν.[100]

The O.Ir. form *túaith*, cannot come from a final **-ām*, as this would not explain the palatal nature of the final consonant. K. McCone[101] offers an explanation of this form, as well as of the Gaulish δεκαντεμ/ν and of the form from the consonant stems of the type *materem* (Larzac), if the latter is not a Latinized form. His theory is that there would have been a process

of fronting or closing of vowels before the nasal in pre-consonant or final position, which would have taken place in Proto-Celtic and would have affected *ĕ, *ă* and *ŏ*.[102] In the case at hand, the ending *-ām < *-eh₂-m* would have undergone shortening in this position *-ăm* and then a fronting in *æm*.[103] In consonant stems, after the consonant itself *-m* would be added, which would be in vowel position, *-Km̥*. The Celtic treatment of *m̥* would have been *am*, even in absolute final position, where traditionally it has been agreed that it was *em*. This sequence would also have undergone the fronting just mentioned.

In O.Ir. the evolution would have been *-ām > *-am > *-æm > -em*, a sequence which would have made possible the palatalization of the previous consonant. It would therefore not have been necessary, in the accusative of *ă*-stems, to have recourse to an analogy with *ā*-stems to explain *bein < *ben < *benam < *gʷenh₂-m*, because *bein* may simply have come from *benæm*. Finally, this would also explain the development *-em*, as in *deich < *dekm̥*. The sound *æ* was an allophone of the phoneme /a/, which in Gaulish remained as such in all positions except before a final nasal, where it ended by being interpreted as an allophone of /e/. Thus, we find δεκαντεμ *< dekæntæm < *dekamtam < *dekm̥tām*. The forms LOKAN and ματικαν would still be representing, orthographically, an ending [-æn]. In the case of Celtiberian, on the other hand, the allophone would still be /a/, hence its uniform result, which also appears in the consonant stems, as is confirmed in the word **tirikantam** [BBIV, A1], an *nt*-stem.[104]

With regard to the accusative plural, we can only say that in Celtiberian we find accusative plurals of *a*-stems in **listas**, **titas**, **arznas**, in [K.1.1, A7], though their origin, either from *- ăns* or *- ăs* has yet to be clarified. We have no data for Gaulish (unless the forms already mentioned from Larzac, *indas ueronadas brictas*, etc., could be counted as such), nor for Lepontic. In Old Irish *túatha < *-ās < *-ans* and *mná < *bnās < *bnans< *gʷn-(e)h₂-ns*.

genitive. We find a possible genitive singular in **koitinas** (anthroponym) [K.1.3, II-51] and another in **turuntas** [BBIV, A3] (a toponym? an appellative 'spring'?). Gaulish also has an ending -*as* in αλισοντεας (G-224) and ΤΟΥΤΑΣ (Briona). This would seem to be the oldest ending. Later, there was an intermingling of stems, which gave rise to forms such as *Paullias,* from *Paulla, Adiegias* from *Adiega*, and *Flatucias* from *Vlatucia* (Larzac). In Old Irish we find *mná* < *$*bnās$* < $*g^wneh_2$-s*, from an *ă*-stem, and *túaithe* < *$*totiās$*, from an *ā*-stem < *$*-ieh_2$-s.*

Possible forms of the genitive plural for *$*- ā/ə$ -stems in Celtiberian are: **saum** [K.1.1, A8], perhaps from a demonstrative, and **otanaum** [K.1.1, A4], which may come from *$*-a +$* $ōm$.[105] The O.Ir. form of * *ā*-stems of the type *túath* < *$*toutan$* < *$*toutŏm$*, again calls for a proto-form *$*-ŏm$.* The same occurs with *$*-ă$-stems, as in *ban* < *$*ban-ŏm$.* In Gaulish we have examples in *bnanom/mnanom* 'of the women' (Larzac) and, though somewhat more doubtful, *eianon* (Larzac) pronoun 'of them (fem.)'. We have seen that Sanskrit also has this nasal, explained as having been formed by analogy with these stems. However, a different interpretation is also possible: that we have here a mixture of stems, the expected form *$*banom$* and the *$*bna$*-stem, which appears, for example, in the genitive singular, as P. de Bernardo-Stempel has explained.[106] In any case, the earlier forms imply an ending *$*-ŏm$.*

dative. Celtiberian presents -*ai*, such as **mitai**, **ailai** and **ueiziai** [K.0.14], originally long, if it evolved as expected. We find the same ending in the oldest Gaulish evidence: εσκεγγαι βλανδοουικουνιαι (G-146), although later we have -*i* βηλησαμι (G-153), *Rosmerti* (Lezoux); and in Lepontic: *Sapsutai, Slaniai Verkalai,* etc. The ending is also present in Old Irish in *túaith* < *$*toutāi$* and *mnái* < *$*bnāi$.*

ablative. In *ā̆*-stems, the ending is **-az** < *$*-ād$*, **arekorataz** [A.52], etc.

Sg.	Celtiberian	Old Gaulish	New Gaulish (Larzac)	Lepontic	Old Irish	
					ā-stems < *-eh₂*	*ă*-stems < *-h₂*
N.	**koitina kortika**	ουενιτοουτα	*Adiega Seuera*	*Pala Venia*	*túath < *toutā*	*ben < *benă*
A.	**kortikam**	LOKAN ματικαν δεκαντεμ/-ν	*andognam Severim liciatim*	PALAM	*túaith < *-en < *- ām*	*bein < *brnăm*
G.	**koitinas**	TOVTAS αλισοντεας	*Paullias Adiegias*	----	*túaithe < *-iās*	*mná < *bnās*
D.	**masnai**?	εσκεγγαι βηλησαμι	*in alisiia*	*Slaniai Verkalai*	*túaith < *toutāi*	*mnaí < *bnāi*
Ab.	**arekorataz**	----	----	----		
L.	**kustai**?	----	----	----		
I.	----	*brixtia?*	----	----		
Pl.						
N.	----	*licuias?*	*indas ueronadas brictas?*	----	*túatha < *toutās*	*mná < *bnās*
A.	**listas**? **titas**?	----	?	----	*túatha < *-ās < *-ans*	*mná < *bnās < *bnans*
G.	**otanaum**?	----	*bnanom/ mnanom*	----	*túath < *toutan < *toutom?*	*ban < *banom*
D.	----	ναμαυσικαβο	----	----	*túathaib < *toutabʰis*	*mnáib < *bnābʰis*
Ab.	----	----	----	----		
L.	----	----	----	----		
I.	----	----	----	----		

Table 2. Paradigm of *ā/ə*-stems

i- and *u*-stems

     nominative. We find nominative singular of *i*-stems in **bintis** [K.1.1, B1, etc.], **kenis**

[K.6.1], **kentis** [K.1.3] (x6) and **eskeinis** [K.23.2]. The first of these words appears 14 times on

the B side alone of the first great Botorrita bronze. Various etymologies have been suggested,[107]

but all of them point to a meaning along the lines of 'judge, magistrate'. This reading might turn

out to be erroneous, if J. Velaza's proposal[108] that it should be read **kentis** is confirmed to be

correct. From the point of view of the textual structure, Velaza's reading is perfectly plausible.

Thus, the word would occupy the position already seen for **ke** in [K.0.2]. For example [K1.1,

B1]: **lubos kounesikum melmunos <u>kentis</u>** 'Lubos of the family group of the Cunesici, son of

Melmo'. Otherwise the reading would be: **lubos kounesikum melmunos <u>bintis</u>**, giving 'Lubos of

the family group of the Cunesici, (son) of Melmo, magistrate'.

The word **kentis** is etymologically very clear starting from **gen-* 'to beget, to be born', with an abstract suffix **-ti-*. This is exactly the same form as the Latin *gens* or Old Norse *kind*, in which it preserves the meaning of 'lineage, family'. In Celtiberian the word would have taken on a more specific meaning, and been used to refer to the 'son'.[109] O.Ir. has *macc*, O.W. *map,* while in Gaulish it would seem to be preserved in the form *Maponos*, an epithet for Apolo, which dates back to a proto-form **mak^w k^w o-*, from the word **mag^h o-/mag^h u-* 'young', which is very well preserved in the genitive form in Ogamic *maqqi*.

In the Luzaga bronze [K.6.1], from the same root **gen-* we find the word **kenis**, apparently a nominative, beside **kenei**, which would be its dative. It is clear that it is from the same root, although for the moment its meaning remains uncertain ('family'?, 'people'?). The word **eskeinis** shows every sign of belonging to the same etymological group, formed from the pre-verb **eg^h s-* and with a spelling **-ei-** which has not yet received a satisfactory explanation.

In Gaulish there is Ναμαυσατις, *Liχoviatis, Martialis;* in Lepontic KOISIS, VVAMOKOZIS (< **-g^h osti-s*); in Old Irish *súil* < **sōlis,* 'eye'. For Celtiberian we have no reliable data on nominative singulars of *u*-stems, though the expected form would be *-us*. The same could be said for Lepontic. In Gaulish we find δαγολιτους, λουγους; in Old Irish *mug* < **mogus* < **magus,* cf. Gaulish *Magu-rix*.

It is possible that some of the examples of **kentis** in the third great Botorrita bronze are nominative plurals, so that it is most likely that they come from **-ei̯-es*.[110] If this is so, Celtiberian coincides with Gaulish, where we find a possible nominative plural *-īs* < **-ei̯es* in Νιτιοβρογεις (G-275, Maylly-le-Camp); and with O.Ir. *súili* < **sōlīs* < **-ei̯-es*. We do not have any examples for *u*-stems in Celtiberian, but there is a possible one in Gaulish: the form *Lugoues* (CIL XIII 5078); and in O.Ir. *mogae* < **mogeu̯-es*.

accusative. In Cib. we find **aratim** [K.1.1, A10][111] and **eskenim**, twice in [Vicente and

Ezquerra (1999)]. It seems to be the accusative of the form **eskeinis** noted in the previous section. In Gaulish: *ratin* (L-3), *Ucuetin* (L-13), *arueriiatin* (Cham.). In O.Ir, *súil* < **sōlim*. For *u*-stems we only have data for O.Ir., like, for example, *mug* < **mogum.* We have no documentary evidence in Lepontic for either of the two stems.

As for the accusative plural, we can only mention with any degree of confidence the Old Irish forms, which can be explained from *-ins* and *-uns, *sōlins* > **sūlīs* > *súili, *moguns* > **mugūs* > *mugu.*

genitive. For *i*- and *u*-stems we have no reliable data in Celtiberian, and neither do we have any evidence in Gaulish or Lepontic. **luzeis** [BBIV, A7] might be a genitive singular of an *i*-stem, but the reading is very questionable.[112] In Old Irish, *i*-stems would require a proto-form (*súlo, súla* < **sōlōs*) which has not been clearly explained, as would *u*-stems, like *mogo* < **mogōs* < **mogous*, cf. Latin *senatous*, Oscan *castrous*.

In [K.1.3, III-24] a form **kentisum** appears which, in J. Untermann's opinion, is a genitive plural of **kentis**, with the pronominal desinence **-sōm.* From the point of view of syntax, this proposal would seem aceptable, as the elements are syntactically coordinated: **kentisum tuateroskue** 'of the sons and of the daughter', but it is problematic from the viewpoint of morphology and phonetics. Morphologically, it is not clear why only these stems undergo analogy with the pronoun, whereas *o*- and *a*-stems do not. Phonetically, the intervocalic sibilant does not go through the process that would be expected, that is, a process of voicing.[113]

With regard to *u*-stems, Schmoll proposed a form EDNOVM [K.3.13b] for genitive plural, although this is not the only possibility.[114]

Apart from these two words, we have no further data for the genitive plural of *i*- and *u*-stems, either in Celtiberian or in Lepontic. In Gaulish, as an example of gen. pl. of *i*-stems we find *briuatiom* (L-3) 'of the inhabitants of Briva', which again implies the desinence **-ŏm.* In

O.Ir., *i*-stems present **sōliŏm > *sōlia > súile*. *u*-stems form their genitive plural through

analogy with *i*-stems, e.g. *mog(a)e*.

dative. In *i*-stems, Celtiberian is in line with the expected pure stem, in **kenei** [K.6.1],

ENIOROSEI [K.3.3], for example. There is a form GENTE [K.11.2] in the Latin alphabet, perhaps

the same word as **kete** [K.18.2], which, for morpho-syntactic reasons, must be considered the

dative of a nominative GENTIS, in which the diphthong *-ei* has been monophthongized in final

position.[115] This form GENTE appears in the context STENIONTE DOCILICO / AN GENTE

MONIMAM, where it seems to agree with STENIONTE, dative singular of an *nt*-stem, also with the

same monophthongization **-nt-ei > *ntē*. One possible reading for this inscription is: '*monimam*

for Estenionte, of the Docilicos family group, son of Anidios'.[116]

The same pure stem could explain the Gaulish forms κρειτε (G-213), *Ucuete* (L-13) and

O.Ir. *súil' < *sōlei*. There is no reliable data for Lepontic. Within *u*-stems, LVGVEI [K.3.3] points

to an ending *-uei*, through analogy with *i*-stems.[117] The Gaulish form ταρανοου (G-27) and the

O.Ir. *mug'* suggest a formation in *-ū*.

ablative. In *i*-stems: **aratiz** [A.61], **bilbiliz** [A.73] < **-ĭd* (both toponyms), in which it

is unclear whether the vowel was short or long.[118] **karauez** [A.66] (toponym) could represent an

ablative of a *u*-stem, coming from **-ĕd*.

instrumental. Not attested in Celtiberian.

Sg.	Celtiberian	Gaulish	Lepontic	Old Irish
N.	**bintis** **kenis**	Ναμαυσατις *Martialis*	KOISIS VVAMOKOZIS	*súil < *sōlis*
A.	**aratim**	*ratin* *Ucuetin*		*súil < *sōlim*
G.	**luzeis?**	----	----	*súlo, súla < *sōlōs*
D.	**kenei**	κρειτε *Ucuete*	----	*súil' < *sōlei*
Ab.	**aratiz**	----	----	----
L.	----	----	----	----

I.	**aranti**?	----	----	----
Pl.				
N.	**kentis**	Νιτιοβρογεις	----	*súili < *sōlis < *-ei̯-es*
A.	----	----	----	*súili < *sōlins*
G.	**kentisum**	*briuiatiom*	----	*súile < *sōliom*
D.	----	----	----	*súilib < *sōlibʰis*
Ab.	----	----	----	----
L.	----	----	----	----
I.	----	----	----	----

Table 3. Paradigm of *i*-stems

Sg.	Celtiberian	Gaulish	Lepontic	Old Irish
N.	----	δαγολιτους λουγους	----	*mug < *mogus*
A.	----	----	----	*mug < *mogum*
G.	----	----	----	*mogo < *mogous*
D.	LVGVEI	ταρανοου	----	*mug′ < *mōgu?*
Ab.	**karauez**	----	----	----
L.	----	----	----	----
I.	----	----	----	----
Pl.				
N.	----	*Lugoues?*	----	*mogae < *mogeu̯-es*
A.	----	----	----	*mugu < *moguns*
G.	EDNOVM?	----	----	*mog(a)e*
D.	----	----	----	*mog(a)ib < *mōgobʰis*
Ab.	----	----	----	----
L.	----	----	----	----
I.	----	----	----	----

Table 4. Paradigm of *u*-stems

n- and *r*- stems.

nominative. Within the Celtiberian epigraphic material, masculine anthroponyms make up the largest group of words from nasal or *n*-stems. These Celtiberian anthroponyms present two types of stems: [119]

Type I: It has the lengthened grade vocalism of the nominative in the genitive, as in: nom. **melmu** [K.1.1, B2] < *-ūn < *-ōn, gen. **melmunos**; nom. **letontu** [K.0.8], gen. **letontunos** [K.1.3], etc.

Type II: These anthroponyms do not have the same grade of vocalism, but show, as would be expected, lengthened grade in the nominative and zero-grade vocalism in the genitive, as in nom. **abulu** [K.1.1, A11], gen. **abulos** [K.1.1, B2]; nom. **statulu** [K.1.3, I-3], gen. **statulos** [K.1.3, III-26].

Perhaps **abaliu** [K.1.3, III-25] and **sleitiu** [K.1.3, I-17, etc.] are nominative singulars of feminine anthroponyms, formed with the possessive suffix *-h₃on-* in an earlier *i*-stem. We will discuss the possibility of their being genitive a little later on.

As for **oilaunu** [A.56], **burzau** [A.48] (Borja, Zaragoza), **turiazu** [A.51] (Tarazona, Zaragoza), **tabaniu** [A.90], **tamaniu** [A.79], these are nominative singulars of topopnyms, as we have already explained.

In Gaulish we find *Frontu*, κοννου (G-184), δολου (G-149) and in O.Ir. *brú < *brusōn*; whereas in Lepontic, possibly, TEV (*deiu̯ōn*).

If L.A. Curchin and X. Ballester[120] are right and **kar** [K.7.2], among other places, does turn out to be an *r*-stem, we will have to assume that lengthening also occurs in these stems, as would appear to be suggested by the spelling, in Latin characters, CAAR [Remesal (1999)]. The word **silabur** [K.1.3, A3] also seems certain to be an *r*-stem, although from the context in which it appears it would be the accusative of a neuter noun.[121] This word is also found in the Caminreal bronze [Vicente and Ezquerra (1999)]. In Gaulish (Larzac) *duxtir, matir*; and in O.Ir. *athair* also with lengthening.

As plural forms for *r*-stems, we find **ires** [K.1.1, A11] and **tuateres** [K.1.3, II-40]. If the former has no definitive morpho-etymology, the same is not the case for **tuateres,** already discussed in the section on phonetics. What we would like to emphasize here is the fact that the **e** of the syllabogram **te** seems to be a full vowel, judging from the genitive form **tuateros**, which, had the vowel been mute, would probably have been †**tuatoros**. The problem here is what the length and even the timbre of the vowel would be. In nasal stems, there is a generalization of the long vowel: **-u**, **-unos**. Here, on the other hand, the theoretical nominative, if it is in keeping with accepted Indo-European patterns, would in principle be *tuatēr*, with *ē*. If we accept the

shift of this vowel *ē* to *ī*, in Celtiberian we could expect †**tuatir**, cf. Gaulish *duxtir*. In that case, either **tuateres** is formed with the full grade but not lengthened vowel, or we have to consider a possible opening of *ī* before *r̥*, or else this is a defective rendering of **e** for *ī*.

accusative. Not attested in Celtiberian.

genitive. As we have just mentioned, Celtiberian shows an analogical extension of the vocalic grade of the predesinential syllable in the nominative of nasal stems of Type I anthroponyms. Thus, from nom. **melmu** [K.1.1, B2] → gen. **melmunos** [K.1.1, B1]. In Type II, however, we have a nom. **abulu** [K.1.1, A11], but a gen. **abulos** [K.1.1, B2]. An explanation of this may be found in the intervention of an individualizing suffix *-on-*, which has lengthened grade in nom. / zero grade in gen., that is to say, **abulos** < *abullos* < *abul-n-os*, as F. Motta has suggested.[122]

The forms **lukinos** [K.1.3, II-1], **atinos** [K.1.3, II-44] and **elkinos** [K.1.3, III-28] could be gen. sing. of theoretically feminine anthroponyms †**lukiu**, †**atiu** y †**elkiu**. If we take into account what we said above about **abaliu** and **sleitiu**, regarding a nom. coming from *-iōn* < *-i-h₃on*, the formation of the genitive could be understood as starting from an ending *-īnos* < *-i-h₃n-os*, that is, with zero grade vocalism in the suffix.

The phenomenon of generalization of the vocalic grade also seems to take place in **tuateros** [K.1.3, III-24], as F. Villar has posited,[123] and we have already noted above. This is supported, furthermore, by evidence from O.Ir., where a gen. sing. form like *athar* is more easily explained as coming from *pateros* than from *patros*.

The form **eskeninum** [K.1.3, 02] could be a gen. pl. < *egʰs-geni-h₃n-ōm*, starting from a hypothetical nom. †**eskeniu** < *egʰs-geni-h₃on*.[124]

dative. In the Torrijo bronze there is a form **terkininei**, which we think may be the dat. sing. of a theoretical feminine anthroponym, nom. †**terkiniu** < *terkini-h₃on*, attested in Latin alphabet DERCINIO. **terkininei** < *terkin-ih₃n-ei*.

Also possible datives of nasal stems are the infinitives **ambitinkounei** [K.1.1, A6],
taunei, **tizaunei**, **uertaunei** [K.1.1, A2], **usimounei** [BBIV, A6], since after all they are verbal
nouns, in which **-unei** < *-u̯ōn-ei.*

      ablative. As it is likely that **oilaunu** < *oilaun-ōn,* with the individualizing suffix,
oilaunez [A.56] should come from *oilaun-n-ĕd,* with zero grade in the suffix. This is a toponym
which would belong to Type II.[125]

Sg.	Celtiberian	Gaulish	Lepontic	Old Irish	I.e.
N.	**melmu** **oilaunu** === **kar**?	κοννου **Frontu** === *duxtir* *matir*	---- === TEV?	*brú* < **brusōn* === *athair*	*(-)*
A.	---- === ----	---- === *materem*?	---- === ----	*broinn* === *athair*	*-m̥*
G.	**melmunos** === **tuateros**	---- === ----	---- === ----	*bronn* === *athar*	*-os*
D.	**terkininei** === ----	---- === ----	*Piuonei* === ----	*brú* === *athair*	*-(e)i*
Ab.	**oilaunez** === ----	---- === ----	---- === ----	---- === ----	*-ed*
L.	----	----	----	----	
I.	----	----	----	----	
Pl.					
N.	---- === **tuateres**	---- === ----	---- === ----	---- ==== *athair*	*-es*
A.	---- === ----	---- === ----	---- === ----	---- === *aithrea/athra*	*-n̥s*
G.	---- === ----	---- === ματρον	---- === ----	---- === *aithre/athrae*	*-om*
D.	---- === MATRVBOS?	---- === ματρεβο *atrebo*	---- === ARIVONEPOS	---- === *aithrib/athraib*	*-o-bʰ-os* *-o-bʰ-is*
Ab.	----	----	----	----	
L.	----	----	----	----	
I.	----	----	----	----	

Table 5. Paradigm of *n-* and *r-*stems

Occlusive Stems

nominative. nertobis [A.50] and **teiuoreikis** [K.6.1] may be velar stems, although the presence of the final group -*ks* makes it difficult to decide what stage the form is at, as we have already seen in the section on phonology. Gaulish has εσκιγγορειξ (G-207), [ιν]δουτιοριγς (G-111) and the many names ending in -*rix*, such as *Lugurix*, for example, while in O.Ir. *rī* < *rēg-s*.

aleites [K.1.1, A11] may be a nom. pl. of a dental stem. We have no examples for consonant stems in Gaulish or Lepontic, and O.Ir. always requires a desinence *-es*.

accusative. In [K1.1, A1] we find **tirikantam**, which reappears in [BBIV, A1]. We have already commented on this form, whose ending comes from *-m̥*, when discussing the accusative of *ā/ə*-stems.

As far as the plural of consonant stems is concerned, O.Ir. *ríga*, *cairtea*, etc. call for an ending *-ās* < *-ans* < *-n̥s*, as in the examples of nouns referring to Gaulish ethnic groups recorded in Latin, of the type *Lingonas*, *Biturigas,* etc. The treatment in Continental Celtic may have been the same as that of Insular Celtic, but we have no further data.

genitive. One form **tokoitos** [K.1.1, A1] shows the use of the ending *-os* in gen. sing. of dental stems. The same ending is found in **tirikantos** [BBIV A3]. But there is also **steniotes** [K.17.1], a form which, syntactically, should be a genitive[126] but which morphologically is an *nt*-stem, as is indicated by the Latin alphabet form STENIONTE [K.11.1], dat.sing., of which we shall be speaking presently.[127] Therefore, *nt*-stems show allomorphism in the genitive singular, though it is not possible to be more specific as to the full implications of this.

No evidence has yet been found of occlusive stems in Gaulish, unless *andernados* (Larzac)[128] is a gen. sing., or in Lepontic. O.Ir. has the desinence *-os*.

dative. In Celtiberian there seems definitely to be a dat. sing. in -*ei*, for occlusive stems, in **tokoitei** [K.1.1, A4], followed by the postposition **eni** 'in', and [K.1.1, A10]. In [K.11.1] we read STENIONTE, which, from its syntactic surroundings, as we have already noted, must be a

dat. sing. of an *nt*-stem, with monophthongization of the diphthong *ei* to *ē*.

Gaulish has a dat. in *-i*: μαγουρειγι (G-121), ατεμαγουτι (G-122), *Epadatextorigi*, etc., which represents this form of dat.-loc. *-i*. O.Ir. may come from both.

ablative. In occlusive stems, the vowel has the timbre *e*, but we are not certain about the length, **-ez** < *- *ĕd*: **sekobirikez** [A.89] (toponym).[129]

Sg.	Celtiberian	Gaulish	Lepontic	Old Irish	I.e.
N.	**teiuoreikis?** **nertobis?**	-ρειξ, -ριγϛ -*rix*	----	*rí*	*-s*
A.	**tirikantam**	----	----	*ríg*	*-m̥*
G.	**tirikantos steniotes tokoitos**	*andernados?*	----	*ríg*	*-os*
D.	STENIONTE **tokoitei**	αδγεννοριγ(ι) μαγουρειγι ατεμαγουτι *Epadatextorigi*	----	*ríg*	*-(e)i*
L.	----	----	----	----	
Ab.	**sekobirikez**	----	----	----	*-ed*
I.	----	----	----	----	
Pl.					
N.	**aleites?**	----	----	*ríg*	*-es*
A.	----	*Biturigas Lingonas*	*sites*	*ríga*	*-n̥s*
G.	----	----	----	*ríg*	*-om*
D.	----	----	----	*rígaib*	*-o-bʰ-is*
L.	----	----	----	----	
Ab.	----	----	----	----	
I.	----	*gobedbi*	----	----	*-bʰi?*

Table 6. Paradigm of occlusive stems

1.2 Morphology of Adjectives

Everything that has been said so far about the desinences of nouns holds, of course, for adjectives too. With regard to Celtiberian, the type of adjective best attested is, undoubtedly, the denominal adjective with three endings, with the suffix *-ko-*, also clearly of Indo-European origin.[130] The uses of the suffix *-ko-* identified up till now are:

1. derived from toponyms:

    a) the formation of adjectives of origin.

        a.1. There are numerous examples in coin inscriptions, where they refer mainly to the coin, the bronze or the metal. Among them: **aratikos**, **areikoratikos** [A.61], **belaiskom** [A.80], etc., in nom. sing. masc. and neuter.

        a.2. On tesserae, referring to the town that issues the pact, and agreeing with the word **kar**: **uentanaka kar** [K.7.2], **uirouiaka kar** [K.25.1], TVRIASICA CAR [K.27.1], etc. in nom. sing. fem.

        a.3. Referring to the inhabitants, such as **arekoratikubos** [K.6.1], **akainakubos** [K.1.1, A9], **kortonikum** [K.0.13] and **kolounioku** [A.67] from *Arecorata, Acaina, Cortonom* and *Clunia*.

    b) the formation of apositive toponymic adjectives, of the type *urbs lutiaka* from the toponym *Lutia*.

    c) the formation of theonymic adjectives: a use found, especially, in the west of the Peninsula, outside the strict boundaries of Celtiberia. Even so, there is one example to be found within those boundaries in *[Mercurio] Ocnioroco*.

2. derived from anthroponyms:

    a) the formation of a family name: from **abulu** [K.1.1, B4, 8] → **abulokum** [K.16.1].

    b) the formation of a secondary anthroponym: **sekilos** [K.1.3, I-7] → **sekilakos** [K.0.11].

3. derived from appellatives:

    a) the formation of adjectives with appellative force: these are very difficult to determine and also very scarce, given the present state of our knowledge of Celtiberian. Possible examples might be **kustaikos** [K.1.1, A7] from **kusta** [K.1.1, A5] and **kortika** [K.0.5] from **korta** [K.0.14].

    b) the formation of a family name from a place name used as an appellative: **tirikantam** [K.1.1, A1] → **tirikantanko** [K.1.3, IV-10]; †**mutur** → MVTVRRA → **muturiskum** [K.1.3, I-16].[131]

Apart from having the ability to express gender through the addition of a suffix, Indo-European adjectives also underwent gradation. This meant that the adjective acquired, through a new opposition of stems, the ability to express different variations in intensity of meaning. The grades that have been distinguished are the positive, the comparative and the superlative.

One comparative form may be found in **nouiza** [K.1.3, 01], if < *neu̯-is-a*, as F. Villar

suggests.[132]

For the moment, the words which seem, with any likelihood, to contain a superlative suffix are:

a) VERAMOS < **uper- ˚mo-* [K.3.19], VORAMOS, with assimilation of *e* to *o*, in [K.3.7] '*supremus*'. These imply a suffix **- ˚mo-*.

b) **usama** < **uxsama/uχsama* < **uks-ama* < **(o)up-sama* < **(o)up-sm̥ma*, [K.23.2] and **sekisamos** [A.69] < **segᴴes-samo*, with the suffix **-sm̥mo-*.

c) **letaisama** < **letaissama* < **pl̥th-issama* [A.68], with the suffix **-is-sm̥mo-*.[133]

1.3 Verbal Morphology

Personal Forms

Owing, once again, to the characteristics of Celtiberian textual transmission and to its present state as a language which has not been completely deciphered, the best way to detect personal verb forms is by studying the desinences.[134]

primary desinence **-ti*, 3rd sing.:

- **ambitiseti** [K.1.1, A5]: a compound formed with the preverb **ambi-**. In this case, contextual reasons would seem to indicate that the suffix *-s-* may be a thematic subjunctive form[135] or a future from the root **dʰeiɡʰ-* 'form, constitute': **ambi-dʰig-s-e-ti*. It is etymologically related to the form **ambitinkounei** [K.1.1, A6].

- **asekati** [K.1.1, A6]: the preverb in this case is **ad-**. The root could be **segʰ-* or **sek-*. The vowel *-a-* suggests a subjunctive in *- ā-*, which would fit well in the context: **ad-sek-ā-ti*.

- **auzeti** [K.1.1, A10]: once again for syntactic reasons (there is what appears an imperative **tatuz** further on in the text), this might be either a subjunctive or a future, both in any case with the suffix *-s-*, perhaps from a root **au-* 'use'. The word may be related etymologically to **auzanto** in [BB3. 01] and to **auz(ez)**, though in this last form the proposed meaning would not fit well with what appears to be the message.

- **kabizeti** [K.1.1, A3]: a thematic subjunctive form with the suffix *-s-* or a future of the same type from the root **gʰabʰ-* 'take', here, as in Germanic, with a causative meaning 'give':

gʰabʰi-s-e-ti.

   - **kuati** [K.1.1, A8]: this form is also thought to be a subjunctive with the same modal feature -*ā*- as **asekati** and **susati**, although from the context it could also be the present tense of an athematic root. Its etymology is uncertain, and some scholars do not even consider it a verb.

   - **robiseti** [K.1.1, A8]: its etymology is not clear, and various possible origins have been considered: from *bʰeuh₂*-'exist', or from *bheih*-'hit', or from *bʰeidʰ*- 'force, persuade', or even from *bʰeid*- 'cut, split'. What does seem to be clear is the preverb **ro-** < *pro*-, cf. Skt. *prá*, Gr. πρό-, Lat. *pro*, etc.

   - SISTAT [K.3.3]: 3rd sg. of the athematic reduplicated present from the root *stā*-,[136] the same as the Greek ἵστατι. The tense of this form depends on how the final consonant is interpreted. For W. Meid, it is an imperfect and the -*t* represents a secondary -*t*. F. Villar, on the other hand, thinks that the -*t* represents a final -*t* resulting from the loss of the primary desinence -*ti* and that it is therefore a present form. The original secondary desinence *-*t* would have undergone the usual neutralization and later disappearance. That is to say, a similar process would have occurred in Celtiberian as that which occurred in Latin, where the primary desinence *-ti* > -*t* and the secondary desinence *-t* > -*d* > - *ø*.[137]

   - **susati** [K.7.1]: J. Untermann[138] thinks, following M. Lejeune, that this is a verb form, though he provides no translation or etymology. From its appearance it could well be a subjunctive in -*ā*-.

   - **uerzoniti** [K.1.1, A3]: 3rd sing. of the present indicative of a verb with *o*-grade in the base and the suffix *-eie*-, which gives - *ī*- in Celtic. The preverb is **uer-** and the root may be *senh*- 'prepare, carry out': *uper-sonh-eie-ti*.

   After analyzing these forms, some of which can be seen to be compounds with preverbs and others not, it seems that we can say that the distinction found in Insular Celtic between absolute and conjunct flexion did not exist in Celtiberian. Instead, Celtiberian followed the more

	- ŏ	- ā/ə-	- ĭ	-ŭ	-n	-r	-nt	occl.
N.sg.	*-os < *-ŏs* **bouitos**	*-a < *- ā̆* **kortika**	*-is < *-ĭs* **kenis**	---	*-u < *- ōn* **melmu**	*-r < *-(V)r* **kar ?**	---	*-K+s* **teiuoreikis?**
A.sg.	*-om < *-ŏm* **boustom**	*-am < *- ā̆m* **kortikam**	*-im < *-ĭm* **aratim**	---	---	---	*-am < *-nt-m̩* **tirikantam**	---
G.sg.	*-o < *-ŏ* **aualo**	*-as < *- ā̆s* **koitinas**	*-eis < *-eis* **luzeis ?**	---	*-(u)nos <*-(V)n-ŏs* **melmunos**	*-(e)ros< *-(V)r- ŏs* **tuateros**	*-os/-es <*-nt-os/-es* **tirikantos** **steniotes**	*-os < *-K-ŏs* **tokoitos**
D.sg.	*-ui < *- ōi* **ueizui**	*-ai < *- ā̆i* **masnai ?**	*-ei < *-ei* **kenei**	*-uei < *-uei* **LVGVEI**	*-(u)nei < *-(V)n-ei* **terkininei**	---	*-e <*-ei* **STENIONTE**	*-ei < *-K-ei* **tokoitei**
Ab.sg.	*-uz <*-ōd* **usamuz**	*-az < *- ā̆d* **arekorataz**	*-iz < *-ĭd* **aratiz**	*-uez < *-u ĕd* **arauez**	*-(u)nez<*-(V)n- ĕd* **oilaunez**	---	---	*-ez < *-K- ĕd* **sekobirikez**
L.sg.	*-ei < *-ei* **lutiakei**	*-ai < *- ā̆i* **kustai ?**	---	---	---	---	---	---
I.sg.	*-u < *-ō* **tamaniu ?**	---	---	---	---	---	---	---
N.pl.	*-oi < *-oi* **stoteroi**	---	---	---	---	*-(e)res < *-(v)r-es* **tuateres**	---	*-es < *-K-ĕs* **aleites ?**
A.pl.	*-us < -ons* **matus?**	*-as < *- ā̆ns* **listas ?**	---	---	---	---	---	---
G.pl.	*-um < *-ōm* **abulokum**	*-aum < *- ā̆ōm* **otanaum ?**	*-isum < *-is-ōm* **kentisum ?**	*-oum <*-ou-ōm* **EDNOVM ?**	---	---	---	---
D.Ab.pl.	*-ubos<*-(o)bʰos* **arekoratikubos**	---	---	---	---	*-rubos < *-r(o)bʰos* **MATRVBOS ?**	---	---

Table 7. General Paradigm of Nominal Desinences and Endings in Celtiberian

genuinely Indo-European pattern of primary versus secondary desinences.[139]

Secondary desinence, *-t*, 3rd sing.:

This desinence appears somewhat distorted in the inscriptions in Celtiberian script, due to the phonetic processes already referred to, and it is written <z>. For this reason, we should perhaps include in this section forms such as:

- **kombalkez** [K.1.1, A1] and, more doubtfully, [BBIV, A2]: F. Villar[140] ventures a possible verbal origin. It would be a 3rd sing. of the perfect of a root $*b^hel$- 'shout, speak', with a possible root vowel $\bar{o}$ and the introduction of the secondary desinence -*t* in the 3rd sing., as in Latin *uidit*. The most widely held opinion, however, is that it is a noun from the same root, and that it indicates a term with a meaning related to that of 'magistrate'. It would therefore be an abl. sing. of a velar stem.

- **tekez** [K.6.1]: this is generally held to be a verbal form from the root $*d^heh_1$-. For F. Villar[141] it corresponds to Gr. ἔθηκε and Lat. *fecit* (in Arch. Lat. *feced*). It is therefore a 3rd sing. of a root aorist.

- **auz(ez)** [K.5.1] and [K.12.1]: from a sequence **auz** in these two documents, J. Untermann[142] proposes a possible reading of a complete form **auzez** which he considers the third person of a preterite. He reconstructs its etymology, on the basis of the context, as $*aud^h$-$<$ $*h_2eud^h$-, with the meaning 'make a gift' or 'give'. In contrast with this preterite, **auzeti** would, for Untermann, be the form of the present indicative. We have already commented on the fact that its syntactic surroundings would make it difficult to consider **auzeti** a present indicative form. But Untermann's solution for **auz** does seem convincing. Perhaps the two forms are not related.

- **terturez** [K.0.14]: Once again, it is F. Villar[143] who puts forward a morphological explanation for this form. He considers it a 3rd sing. of a reduplicated perfect *tértōret*.

Primary desinence *-nti*, 3rd pl. active voice:

These forms are quite clear, as they seem to be in the present indicative:

- **aranti** [BBIV, A4]:[144] The form would be a 3rd pl., either of an athematic root present,

with the Latin *arant* as an exact cognate, or as a subjunctive *-ā*. Obviously, we are referring to the root *h_2erh_2-* 'plough, work the land'.

- **bionti** [K.1.1, A7]: from the point of view of etymology, this would seem quite likely to be related to **atibion** [BBIV, A5] and **bizetuz** [K.1.1, A5], and, though not so clearly, to **usabituz** [K.1.1, A5], **tinbituz** [K1.1, A6] and **nebintor** [K.1.1, A10]. We would be inclined to favour a root *b^heuh_2-* 'exist', so that this would be a 3rd sing. of a present thematic indicative.

- **tor̯uonti** [BBIV, B7]: 3rd pl. of a present thematic indicative, of a verb made up of a preverb *to-* or *do-* and a root, either from *reu-/$rēu$-/ru-* 'resound, make noise', whence 'proclaim', or from *reu-/$reuə$-/ru-* 'tear', whence 'write'.[145] The form **ruzimuz** [K.1.1, A11] may be related to it etymologically.

- **zizonti** [K.1.1, A7]: this used to be considered the form corresponding to Latin *serunt* from a root *$sē(i)$-* 'sow', a reduplicated thematic present from *si-sh_1-o-nti*. This interpretation has a problem in the first sibilant, as we would expect the form to be written *$*sizonti$*. For F. Villar[146] **zizonti** written /zizonti/ comes from /dizonti/ with a regressive assimilation starting from *$didonti$*. If we accept an etymology evolving from *deh_3-*, *$didonti$* is a present form with secondary thematization *di-dh_3-o-nti*, instead of the athematic *$didanti$ < di-dh_3-nti*.

Secondary desinence *$-nt$*, 3rd pl. active voice:

- **atibion** [BBIV, A5]: 3rd pl. of a past tense. This is a compound form with a preverb *ad-* o *ati-*. The -**bion** sequence may be interpreted as the past form, with a desinence *-nt*, as opposed to the present **bionti** from the root *b^heuh_2-* 'exist', with *-nti*. It remains to be decided whether the final dental consonant is not represented for phonetic reasons, that is, because it had been lost, or for orthographical reasons. If its absence is due to phonetic causes, which we ourselves think is so, this would be a case of the evolution of the secondary desinences similar to that which occurred in Sanskrit:[147]

	Sanskrit	Celtiberian
singular	-t > -t (*abharat*)	-t > -z (**tekez**)
plural	-nt > -n (*abharan*)	-nt > -n (**atibion**)

Secondary desinence *-nto*, 3rd pl. middle voice:

- **auzanto** [K.1.3, 01]: We have already referred to the possible etymological relationship of this word with **auzeti** and with **auz(ez)**. This may be a sigmatic aorist, of the type **au-s-ṇto*. J. Untermann[148] considers it a possible subjunctive in *-ā < *aud^h-ā-nto*.

- **esianto** [K.0.14]: Its ending is identical to that of the previous form. Not all authors consider it a verbal form.

1st pl. desinence:

- **ruzimuz** [K.1.1, A11] generally considered a 1st pl. of a present indicative. With regard to the desinence, F. Villar[149] proposes an evolution **-mosi > *-mozi > *-moz > *-**muz**; W. Meid[150] suggests that it comes from *-mos*, which does not clarify the treatment of the final sibilant. Etymologically, it may be related to the form **toruonti** mentioned earlier.

- COMEIMV [K.3.3]: The most widely held proposal as to its morphology considers this word a 1st. pl. The ending -MV may have evolved either, in F. Villar's opinion, from **-mosi > *-mozi > *-muz > -mu*, with the final loss of this new phoneme, as occurred in the ablative also; or, as W. Meid, suggests, from a form *-mo* , without characterization of the plural *-s*. The most plausible etymology for the root is that of **ei-* 'go'.

Desinence *-tōd*:

The sequence **tōd* was used by some Indo-European languages for the creation of imperative desinences. Thus, for example, in Latin it is the principal mark of the future imperative. It is generally accepted that Celtiberian also used it to form a third person imperative. It would have had to evolve to **-tuð*, to reach **-tuz*, written <-**tuz**>.[151] This ending is found in

the following forms:

- **bizetuz** [K.1.1, A5]: 3rd sing. imperative. Again, we should mention the possible etymological connection with **bionti**, **atibion**, **nebintor**, **tinbituz** and **usabituz**.

- **oisatuz** [K.1.1, A7]: The etymology is obscure.

- **tatuz** [K.1.1, A8, 10]: Some authors are in favour of an etymology *deh_3-* 'give' starting from *dh_3-tōd* and others favour *d^heh_1-* 'place', starting from *d^hh_1-tōd*. We ourselves would opt for the former possibility, and therefore consider the form a 3rd sing. of an aorist imperative.

- **tinbituz** [K.1.1, A6]: Another form in which we find the sequence *-bi-* and its corresponding etymological relations. We can also see two preverbs *$dī$-* 'far, outside' and *en-*.

- **tizatuz** [BBIV, B5]:[152] We consider this form the strict cognate of the Greek τιθέτω. It is a 3rd sing. imperative of a reduplicated athematic present, and therefore comes from *di-d^hh_1-tōd*.

- **usabituz** [K.1.1, A5]: Once again, we find *-bi-* in the verb stem. The preverb may be *usa-* < *$uxsa$-/$u\chi sa$-* < *h_2up-s* 'above'.

Desinence -r.

- **nebintor** [K.1.1, A10]:[153] In this case, the ending *-ntor* seems to point to a 3rd pl. of a middle voice. The initial syllable would be the negative preverb, so that we are left with the segment *-bi-*. Morphological reasons would point to a better alternative *b^heuh_2-*.

Non-Personal Forms
Participles:

- **sleitom** and **konskilitom**, both in [K.1.1, A3]. The two words form the syntagm **silabur sleitom konskilitom**, in which the last two words agree with the first. Both look like verbal adjectives, passive due to the morpheme *-to-*. The most likely etymology for **sleitom** is to derive it from the root *$splei̯$-* 'divide, split', while **konskilitom** is probably from *$skel$-* 'cut', with the

preverb **kom-** perfective in meaning.[154]

     - litom [K.1.1, A1 y A2 (x3)]: The etymology here, again, is obscure, but its meaning may be something like 'lawful'.

Infinitives:

     - ambitinkounei [K.1.1, A6]: Dat. sing. of a verbal noun, composed of the preverb **ambi-** and the root $*d^heig^h$- 'form, constitute', here with a nasal infix. It is therefore related to the form **ambitiseti** [BB1.A5], which appears without the infix. The ending **-unei** < $*u\bar{o}n\text{-}ei$, has already been noted by J. Untermann.[155]

     - taunei, **tizaunei**, **uertaunei** [K.1.1, A2]: These words form a complex syntactic structure, found in the second line of the first great Botorrita bronze: **nekue uertaunei litom nekue taunei litom nekue masnai tizaunei litom soz auku**.

     It is generally agreed that this is the expression of a prohibition, indicated by **nekue ...litom** 'it is not permitted' and that **uertaunei**, **taunei** and **tizaunei** are three infinitives, dative singular forms of verbal nouns, to which the prohibition refers. It is clear that **uertaunei** is a compound of **uer-** < $*uper$- and the simple form **taunei**. There is no agreement as to the etymology. Different roots have been proposed: $*deh_3$- 'give', $*deh_2u$- 'burn', $*deh_2$- 'divide', $*d^heh_1$- 'place'. For **tizaunei** the preferred root is $*s\bar{a}$-, which, beside the privative preverb $*d\bar{e}$- > **ti-**, would have a meaning parallel to Latin $*de\text{-}s\bar{a}\text{-}n\text{-}are$.

     - usimounei [BBIV, A6]: the etymology of this form is very problematic.[156]

2. Pronominal Morphology

Pronouns

Demonstratives and anaphors:[157]

     Until the discovery of the fourth Botorrita bronze, it was thought that the generalization of the $*so\text{-}/s\bar{a}$-stem in the declension of demonstratives was a characteristic specific to the Celtic languages and shared by Celtiberian, as opposed to the heteroclisis in the other languages $*so$-

/to- (cf. Gr. ὁ, ἡ, τό, but Arch. Lat. *sum, sam*). The article in O.Ir. is *ind, ind', an* < **sindos* <

*semdos < **semos-dos* < **semos dʰe* ('one+ particle of place'), *sinda, som* < **so-m.* Gaulish is

son, ison (**ei-/*i- + *so*) acc. sing. masc..; *sos* acc. pl. masc.; *sosin* < **sod-sin* (of unclear

origin), *sosio* < **si̯od-si̯od, eso* < **ei-sod* acc. sing. neut. In Celtiberian the forms **soz** [K.1.1,

A2], [K.0.8], **so** [K.6.1], **sa** [K.6.1] nom. sing. fem., **somui, somei, saum** (these three in [K.1.1,

A8; A7; A8] respectively), seem to indicate a unified paradigm. However, we have found **tas** in

[BBIV, A5 and B7], which can be interpreted as a gen. sing. fem., a nom. pl. fem. or an acc. pl.

fem. of a demonstrative stem **to*, and this could alter our view of the Celtiberian pronominal

system.[158] To these we would have to add the forms **stam** [K.6.1] and **stena** [K.1.1, A3, A6]

which suggest a stem **sto-*.

An analysis of the forms that make up a theoretical paradigm for a stem in **so-* would be

as follows:

- **so**: nom. or gen. sing. masc.

- **soz**: The simplest way to look at this form is as a nom. sing. neut. < **sod.* This is what

would appear to be indicated in **letontu** / **auz**.**soz** [K.0.8], if its interpretation as 'Letondo made a

gift of this' is correct. However, the other syntactic setting in which we find this form ...**soz**

auku... [K.1.1, A2], points to its being a demonstrative agreeing with **auku**, in appearance a

nom. sing. of a nasal stem. If it were not neuter, we would have to consider an evolution **sosi* >

*sozi > **soz**, of which there is as yet no trace in Celtiberian, although there is in Gaulish σοσιν.

- **sa**: nom. sing. fem.

- **saum** < **sa-ōm*, gen. pl. fem and **soisum**, gen. pl. masc. and neut. This pair poses a

series of problems, both phonetic (the interior sibilant of **soisum,** why not **soizum**?) and

morphological (why does this sibilant not appear in feminine?), which for the moment have not

been solved.[159]

- **somei** < **so-(s)m-ei* : loc. sing.[160] Its gender is still to be decided on.

- **somui** < **so-(s)m-ōi* : dat. sing.

As for **stam** [K.6.1], it would seem safe to take it as the acc. sing. fem., especially if we take into account the phonetic context in which it appears, **stam kortikam**, and the presence of **sa kortika** in the same document. Meanwhile, **stena** has been considered a nom.-acc. pl. neut. Its ocurrance in [K.1.3, I-16], as a feminine anthroponym, has somewhat complicated the picture.

Relatives:

Celtiberian has a tonic and declinable relative pronoun, from the stem **i̯o*, like Sanskrit and Greek, as opposed to Gaulish and Insular Celtic, which replaced it with an enclitic and indeclinable *-yo*.[161] The forms we find are:

ios [K.1.1, A10], [BBIV, A7] nom. sing. masc.; **iom** [K.1.1, A5, A7, A10], [BBIV, B4], possible acc. sing. masc., unless it is an adverb or conjuntion; **ias** [K.1.1, A8] acc. pl. fem.; **iomui** [K.1.1, A7] dat. sing. masc./neut., cf. **somui**. As for **ia** [K.1.3, 01],[162] this form is still to be decided on, but this will have to wait until the remaining forms in the two lines have been deciphered. It would seem likely, however, that it may be a nom. sing. fem. or nom.-acc. pl. neut.

Indefinites-interrogatives:

- **oskuez** [K.1.1, A3 y 4]: The final sibilant shows that originally there was either **-d* or an intervocalic sibilant. Once the former possibility is eliminated for syntactic reasons,[163] only the latter remains. Functionally, but not etymologically, it is the same as the Greek form ὅς τις. It comes, according to F. Villar,[164] from **oskʷesi / oskʷeso* > **oskʷezi* > *oskʷez*, that is to say,

os, demonstrative pronoun + *kʷe* enclitic conjunction (cf. Lat. *quisque*) + *so* demonstrative

pronoun. It would, therefore, be a nom. sing., most probably animate, of an indefinite pronoun, 'anyone who, whoever'.

- **kuekuetikui** [K.0.14]: From the ending, it would seem clear that this is a dat. sing. of an *o*-stem. The repetition of the first syllable suggests an indefinite pronoun of the Latin type

quisquis, Osc. *pispis*, Hit. *kuiškuiš*.

Numerals:

A specifically Celtic isomorph is the use of the suffix *-(m)eto-* in certain ordinal numerals. It seems that from the expected form of the ordinal 'fifth' *k^wenk^w-to* (cf. Lat. *quīnctus*, Gr. πέμπτος) the form *k^wenk^{w}e-to* evolved, from which O.Ir. *cóiced*, O.W. *pimphet*, Gaulish *pinpetos*. There was then a re-analysis and a new suffix *-eto-* was created, which, on appearing in the ordinals 'seventh' and 'tenth' changed to *-meto-*. Thus, we find Gaulish *sextametos, oxtumetos, nametos, decametos,* O.Ir. (Ir.) *sechtmad, ochtmad, nómad, dechmad* and W. (Mod.) *seithfed, wythfed, nawfed, degfed* (which may have spread downwards, like O.Ir. *cethramad* 'fourth'). In Celtiberian we find in [K.1.1, A8] **tecametinas** 'tithe', which seems to be formed on **decametos* 'tenth'.

There are in addition three independent words which may be numerals: **kantom** [K.1.1, A4], **tiris** [K.1.1, A6] and **sues** [K.1.1, A5]. The first would be the numeral for 'hundred' **kṃtom*. The second is the acc. pl. masc. **tri-ns > trīs,* cf. Lat. *trīs*. As part of a compound form we find **tiri-kantam** < **tri-kṃtam* [K.1.1, A1]. Another numeral[165] which also appears in compound form is **teka-**, in **tekametinas** [K.1.1, A8] < **dekṃ-et-inā.*

As for **sues**, it is possible that it may be the cardinal numeral coming from **sueks,* from which Gr. ἕξ, O.Ir. *sé* and other forms in Insular Celtic. Gaulish has the ordinal *suexos,* which is indicative of the same proto-form.

Adverbs:

There is general agreement among scholars that the word **sua** [K.1.1, A1] and [BBIV, A2] < **suā,* from the root **sue-/suo,* is an adverb 'in this way, thus'. In the first Botorrita bronze it is followed by **kombalkez**, and in the fourth bronze it may also be, though it is difficult to read **kom<u>bal</u>[.]z**.

In [BBIV, A1] **entor** appears in the syntagm **entorkue toutam,** which we have read as 'and the settlement inside' rather than as 'within the settlement'.[166]

Other possible adverbs are **tamai**, **aiuizas**, **temei, uze**, all in [K.1.1, A, ll. 3, 11, 8 and 9]. Also **aukis** in [K.6.1].

Prepositions:

The following appear as independent forms: **eni** [K.1.1, A4, 6, 7, 9], [K.3.3], **entara** [K.1.1, A9] and **es** [K.1.1, A6].

- **eni** < *$h_1$en(i)*: cf. Lat. *in*, Gr. ἔνι, Osc.-Umb. *en*, Goth. *in*. This is found as an independent word, though it seems also to have undergone a process of agglutination, which may perhaps be seen in the **enitousei** [K.1.1, A9] and ENIOROSEI [K.3.3]. In [K.1.1, A4] it ocurs as a postposition, **tokoitei eni**.

- **entara** This should be likened to Latin *intra* and Skt. antará < *$h_1$ent(e)rā@* In this case it is a preposition of accusative, **entara tiris matus** [K.1.1, A6].

- **es** < *eg^hs* This is comparable to Latin *ex*, Greek ἐξ, ἐκ, indicating separation. In [K.1.1, A6] it seems to take a dat. **uertai**. It also appears as a compound form, **esankios** [K.1.1, A9], though acting as a prefix and not yet as a preposition as in the case of **eni**.

Conjunctions and particles:

The clearest and most obvious are:

- **-kue** < *$*-k^we$*: an enclitic copulative conjunction. Cf. Lat. *-que*, Skt. *ca*, Gr. τε, etc. One example will suffice [K.1.1, A1]: **tirikantam berkunetakam tokoitoskue sarnikio kue sua kombalkez**. There are numerous examples in [K.1.3] and [BBIV].

- **ekue**: This occurs in the Torrijo bronze [Vicente and Ezquerra (1999)] in the sequence **ekue kartinokum ekue lakikum ekue tirtokum**. It appears to be coordinating three genitive plurals, referring to names of family groups. That is why we have considered it a strong coordinating conjunction, similar to Gaulish *etic* < *$*eti-k^we$*, though in this case it would come from *$*et-k^we$*.[167]

- **ne**, a negative conjunction-particle. Cf. Lat. *ne-*, Skt. *ná*, Gr. νε-, etc. The combination of **ne** and **kue** is **nekue**. Thus, [K.1.1, A1 y A2] **sua kombalkez nelitom / nekue to[u]ertaunei**

litom nekue taunei litom nekue masnai tizaunei litom.

- **-ue** < **u̯e*, an enclitic disjunctive conjunction. Cf. Skt. *vā*, Hom. ἠ-(Ϝ)έ, Lat. *-ue*, etc.

For example, [K.1.1, A4-5] **boustomue makasimue ailamue**.

- **iste** appears to be related etymologically to **stena**, although it is generally considered a disjunctive or contrastive particle, especially in [K.1.1, A9] ...**iste ankios iste esankios**. It is not so clear in [K.1.1, A11] **aiuizas kombalkores aleites iste iku̱es ruzimuz abulu**.

- **uta**: a non-enclitic copulative conjunction, cf. Vedic *uta*, [K.1.1, A3 y 4] **uta oskuez stena uerzoniti**... **uta oskuez boustomue makasimue ailamue ambitiseti**..., [K.3.3] ENIOROSEI VTA TIGINO TIATV̱MEI..., and [BBIV, A9 y B2], though the syntactic context is missing.[168]

Prefixes and preverbs:

ambi- < **m̥bi* < **h₂n̥-bʰí* 'around' (cf. Skt.. *abhí*, Gr. ἀμφί, Lat. *amb-*, *am-*, etc.); **are-/arei-** (cf. Gr. περί, Lat. *per*); **kom-** (cf. Lat. *cum*); **eni-**; **es-** < **egʰs-* 'of, from'; **oi-** (cf. Gr. ὄπισθεν, Lat. *ob*); **ro-** < **pro-*, cf. Skt. *prá*, Gr. πρό-, Lat. *pro*; **ti-** (cf. Lat. *de*); **uer-** (cf. Gr. ὑπερ, Lat. *s-uper*); **us-** < **uks-* < **ups-* 'above'.

Conclusion

Fortunately, new documents in Celtiberian are continuing to appear. The data help us to understand the grammar of the language, but the process is very slow because theinscriptions are very brief and have very rigid syntatic structures (coin legends and *tesserae*). The existing older texts that have been known for some time should also be revisited in the light of this new knowledge. Thanks to such work, which is ongoing, we have discovered that a dual writing system can be identified in several Celtiberian documents: [K.23.2], [K.0.7], [K.6.1] and [CT-23A]. This system is characterized by the use of one sign for a [voiceless occulusive + vowel] sequence and another for [voiced occulusive + vowel] sequence. As a result of these discoveries, in combination with the previously known texts, new perspectives continue to open before us.

Endnotes

[1] The written evidence is so deficient in both quantity and quality that that it has given rise to great controversy as to the origin of this language. Among those who consider Lusitanian a Celtic language are, for example, C.H. Balmorí (1935); J. Untermann (1987) and (1997) [from here onwards cited as *MLH* IV = *Monumenta Linguarum Hispanicarum* IV]; D.E. Evans (1993); C. Búa (1997). Among the authors who, like ourselves, do not consider it a Celtic language are: A. Tovar (1985); K.H. Schmidt (1985); F. Villar (1999a); J. De Hoz (1997); J. Gorrochategui (1997); B. Prósper (2002b). If it is not Celtic, it still remains to be classified within the Indo-European group of languages. For an understanding of the linguistic situation of this part of the Peninsula, an essential work is that of B. Prósper (2002b), containing a linguistic analysis of all the epigraphic material about this area known to date, together with a wealth of bibliographic references.

[2] This possibility was first put forward with strong arguments by J.A. Correa (1992).

[3] The most systematic studies of Celtiberian features to date have been J.F. Eska (1989: 139-180); J. Gorrochategui (1991) and (1994a); F. Villar (1995a); (1996a) and (1997); J. Untermann (MLH IV: 386-419); C. Jordán (1998); P. De Bernado (2002). References to Celtiberian documents are given according to J. Untermann. For any inscriptions published after Untermann's work, references are to the first edition. D. Wodtko (2000) is an essential reference work for the different etymologies proposed for Celtiberian. Examples in bold type correspond to documents written in the Paleo-Hispanic sign system (semi-syllabary); those in capital letters correspond to documents written in the Latin alphabet.

[4] Cf. F. Villar (1993c) and (1996b: 184-195).

[5] See. F. Villar et al. (*BBIV*: 113-114). In this study we also proposed an alternative etymology as a form of a demonstrative. The reference *BBIV* is to the *editio princeps* of the fourth bronze *Contrebia Belaisca* (BB = Botorrita bronze), published in 2001.

[6] Linguistic abbreviations used in this work: A. = acusative; O.C.S. = Old Church Slavonic; O.Sax. = Old Saxon; O.H.G. = Old High German; Ab. = ablative; O = Old; O.E. = Old English; O.Ir. = Old Irish; Bret. = Breton; Cib. = Celtiberian; D. = dative; f. = feminine; G. = genitive; W. = Welsh; M.W. = Middel Welsh; Goth. = Gothic; Gr. = Greek; I. = instrumental; I.e. = Indo-European; L. = locative; Lat. = Latin; Lepont. = Lepontic; Lith. = Lithuanian; m. = masculine; n. = neuter; N. = nominative; pl. = plural; Skt. = Sanskrit; sg. = singular; V. = vocative.

[7] F. Villar (1995b: 31-32) and (1997: 931). See the section on verbal morphology.

[8] K. McCone (2001: 487).

[9] Cf. B. Prósper (2002b: 423).

[10] For examples, see the morphology section.

[11] See F. Villar (1997: 900-901) on this similarity.

[12] We refer here to the phonetics, since in the graphic representation **-kis**, the **-i-** is mute. It should be remembered that in a semi-syllabary like that used by Celtiberian, a final phonic group, the occlusive+sibilant of the type [-ks], would be indicated by means of a syllabogram for the occlusive and a phonemogram for the sibilant.

[13] It has sometimes been thought that this formative element can be seen in words such as ☼-**res**, **auzares**, **esozeres**, **tunares**, all found in [K.0.14]; **kombalkores** [K.1.1, A11]; **irorekiios** [K.14.1]. Owing to the etymological problems posed by these words, we prefer to leave them aside for the moment.

[14] Cf. K. McCone (1996: 16-17) and (2001: 488-489); P. De Bernardo (1996: 238-239). D.E. Evans had already put forward possible interpretations such as **dēu̯orēx, *dēu̯orīx, *dīu̯orīx* in (1979: 123). F. Villar (1997: 900-901) classifies the change $\bar{e} > \bar{\iota}$ as a Celtic process *in fieri* in Celtiberian. We will deal with the *-ks* group in final position later.

[15] On this question, see K. McCone (2001: 488-489) and F. Villar and C. Jordán (2004).

[16] Cf. B. Prósper (2002b: 423).

[17] Cf. for example K. McCone (1996: 63-64).

[18] H. Lewis and H. Pedersen (1989: 8 ff.).

[19] <οου> noted /ou/ and <ου> / ū/.

[20] Cf. P.Y. Lambert (2003: 44) [referred to from now on as *LG*], though he gives no examples. Those we offer here are taken from A. Holder (1961-1962: *s.vv.*).

[21] Cf. A. Holder (1961-1962: *s.vv.*).

[22] On this point, see J. Gorrochategui (1991: 7); X. Ballester (1996: 168).

[23] J. Untermann in F. Beltrán and J. De Hoz (1996: 113 and 160) [from now on cited as *BBIII*, as it is the third great Botorrita bronze]. The other diphthong that may have been affected by this characteristic would precisely be *-ei-*, cf. **useizu** [K.1.1, B-7] as opposed to **usizu** [K.1.3, II-9, IV-23].

[24] B. Prósper (2002b: 423-424). In this and a later study (2002a), B. Prósper notes that /*ou̯*/ may have monophthongized at a later date to *ǭ/ū*, as he explains in his morpho-etymological proposal of TIATVNEI [K.3.3] as an infinitive, whose ending came from *-ounei*. This evolution would be quite in keeping with what happened in the other Celtic languages, and even as a phonetic shift it would not be strange (cf. Latin). What does make it less acceptable, however, is the fact that the reading TIATV<u>N</u>EI is not certain, as it would seem rather to read TIATV<u>M</u>EI.

[25] X. Ballester (1996) reaches the conclusion that the diphthongs *ai̯, au̯, ei̯, ou̯, u̯a, u̯e, u̯o*, and most probably, *oi̯* existed in Celtiberian.

[26] Cf. K. McCone (1996: 51-54).

[27] K. McCone (1996:52).

[28] F. Rubio (1999-2000). This would be one more feature shared by Celtiberian and Indo-Iranian.

[29] Cf. F. Villar (1997: 902 and 936), one of the Celtic features well established in Celtiberian, and as a Celtiberian dialectal feature within the group of Celtic languages.

[30] Cf. F. Villar et al. 2001 (*BBIV*: 122-124).

[31] Cf. P.Y. Lambert (2003: 78-80).

[32] Where K = occlusive.

[33] We should remember that it was precisely this segment which W. von Humboldt used in his 1821 work *Prüfung der Untersuchungen über die Urbewohner Hispaniens vermittelst der Vaskischen Sprache* to demarcate the "toponymic area -*briga*" as under Celtic rule in the Iberian Peninsula (see map in Figure 1 for exact area). 140 years later, J. Untermann (1961), in *Sprachräume und Sprachbewegungen in vorrömischen Hispanien*, delimited the el "ilti- area" as being under Iberian rule.

[34] In Gaulish we find in the morphology a form ματρεβο (G-203) < *matr̥-bo.* J. Gorrochategui (1991: 10) thinks that the timbre of the vowel e in this form is due to the influence of the middle timbre of the following vowel, that is to say, of the o in -bo.

[35] With a double sibilant, for reasons to be dealt with in the section dedicated to it.

[36] K. McCone (1996: 48-51; 54-59; 70-79).

[37] Until the appearance of the fourth Botorrita bronze, we thought that **tirikantam** was an -$\bar{a}$ stem. But in the fourth bronze we find **tirikantos** [A3], gen. sing., which rules out the possibility of this word belonging to an -$\bar{a}$ stem.

[38] F. Villar (1993a) and (1995b).

[39] J. Untermann does not accept this evolution, but considers that in intervocalic position the original sibilant was maintained in Celtiberian, and written as Ϟ (sam). Those cases in which the character Ϟ (sigma) was used intervocalically, as in the example given, were due to the evolution of a Celtic voiced dental, coming either from the Indo-European voiced dental or voiced aspirated dental. J. Untermann's transcription as *ð* is quite understandable, since the character's phonic content would have been that of a voiced interdental fricative. The **z** that we use indicates a voiced sibilant. Our reasons for using this character will become clearer when we come to the section on the lenition of dentals.
     The reasons for J. Untermann's proposal may be seen in (*MLH* IV: 382-383 and 394-396) and our own in F. Villar et al. (2001). Recently, K. McCone (2001: 485-486) has adopted J. Untermann's position with regard to the treatment of the intervocalic sibilant. Moreover, he proposes, very cautiously, a possible new origin for some cases of -**z**-, in a context -i + vowel, where the -i-, acting as a yod, would generate a glide which would be indicated by Ϟ. For other possible origins, see most recently P. de Bernardo (2001) and W. Meid (2001).

[40] Cf. K. McCone (1996: 38 ff.) with references.

[41] Cf. F. Villar (1995b: 140) and (1997: 908); and K. McCone (2001: 484-485).

[42] Cf. K. McCone (2001: 484-485).

[43] *Apud* D. Wodtko (2000) *s.v.* **kortika** appears in [K.0.5], [K.0.10], [K.6.1], [K.23.2] and [CP.3].

[44] Armenian is the other Indo-European language which alters *p, though not in the same way. Specifically, in initial position it can actually disappear, but what is to be expected is *p- > p- > h- and *-p- > -$u̯$- Cf. R. Ritter (1996: 25).

[45] Cf. F. Villar (1997: 902). There is also a change here: unstressed i > e, cf. J. Gorrochategui (1991: 4); F. Villar (1997: 937) considers this feature Celtic, not yet consolidated in Celtiberian but rather *in fieri* or a tendency.

[46] Cf. J. Gorrochategui (1991: 14) and F. Villar (1997: 936), who includes it as a feature considered Celtic and completely established in Celtiberian. The use of the same spelling for *k^w and the *$ku̯$ sequence points to a fusion of the labiovelar and the group of velar and semivowel.

[47] d^h does not appear in final position.

[48] This chronology differs slightly from that given by F. Villar, as may be seen in the studies on the sibilant by F. Villar, already referred to, and in C. Jordán (1998: 26-28).

[49] F. Villar (1997) takes the articulatory weakening of the voiced occlusives as a Celtic feature which had not yet been consolidated in Celtiberian, but which was *in fieri* or a tendency, whereas the conservation of the voiceless occlusives, on the contrary, would have been an archaism. There does not seem to be any trace of the voicing of voiceless occlusives in the Celtic dialects of the west of the Peninsula either, as B. Prósper (2002b: 423) explains.

[50] Cf. F. Villar (1995b: 153 ff.).

[51] Cf. B. Prósper (2002b: 210, n. 14), for these and other references on this matter.

[52] Cf. B. Prósper (2002b, 260-261), who gives as a possible etymology *$aplō/ŏk$-$aiko$- >*$aplošeco$-.

[53] As B. Prósper points out (2002b: 423).

[54] F. Rubio (1999-2000: 362-363). This context serves as his basis for suggesting, very cautiously, the same loss in **luanikoo** [K.9.2], **kuati** [K.1.1, A-8] and **+ruaku** [K.1.3, II-37].

[55] F. Villar (1995b: 178-179).

[56] F. Villar (1995b: 179) suggests two, possibly complementary, causes: first, in the west of the Peninsula there may have been influence from another, non-Celtic, language, which gave rise to this phenomenon (especially the voicing of voiceless consonants); and second, in the east, the impact of Latin, which was much earlier and stronger than in the west, may not have facilitated the Celtic lenition.

[57] F. Villar (1997: 937) considers it an *in fieri* Celtic feature. On this phenomenon, see also, more recently, B. Prósper (2002a: 216-220) and, especially, J. F. Eska (2002).

[58] Cf. K. McCone (1996: 44-45), following H.M. Hoenigswald (1973).

[59] In Gaulish, the Gallo-Latin spelling *x* indicates a voiceless velar fricative, cf. P.Y. Lambert (*LG*: 46).

[60] Cf. D. Wodtko (2000: XXIII), and, *s.v.* **usama**, **usamuz**, **retugenos**, **retugeno**, etc.

[61] Other words which could present this evolution are: **ata** [K.0.11] if < **akta*; **litom** [K.1.1, A1, A2] if < **leik^{w}tom*; **teitiakos** [A.57], if < **teiktiakos*. For these etymologies, see D. Wodtko (2000) *s.v.*

[62] Made up of **-b^{h}r̥g^h-*. We can see how the spelling of the group occlusive + vibrant has been resolved by means of omission of the vibrant, rather than by opting for the other two possibilities **-biri-**, cf. **kolounioku**/*Clunia*, or **-bir-**, cf. **konterbia**/*Contrebia*.

[63] Regarding this possibility, cf. D. Wodtko (2000), *s.v.* Etymologically, it would be from the same root, but obviously a different formation, to be precise, an adjective in *-i-*.

[64] Cf. J. Untermann (*BBIII*: 113) and D. Wodtko (2000) *s.v.*

[65] For F. Villar (1997: 937) the simplification of the group would be a feature considered Celtic which had not yet been consolidated in Celtiberian, but were still *in fieri* or clearly a tendency.

[66] On the nouns in the Peninsula of the series *Pent-, Pint-*, from the same root, see. F. Villar (1994), where he reaches the conclusion that they are not Celtic. The phenomenon can also be seen in nouns such as *Querquerni, Quarquerni* < **k^{w}erk^{w}o-* < **perk^{w}o-* 'oak, holm oak', but in the *Gallaecia Bracarensis*, outside Celtiberian territory. Concerning **berkunetakam** [K.1.1, A1] as resulting from **perk^{w}uno-*, though with a non-Celtic treatment, see F. Villar et al. (*BBIV*: 146-148).

[67] It appears that in the group **sp-* the change to **sΦ-* did not occur. In this group, *[p]* could be analyzed as an allophone of **b*. Afterwards, *sp-* > *sw-* in Irish and *sp-* > *Φ-* in Brittonic, cf. K. McCone (1996: 44-45).

[68] Cf. K. McCone (1996: 43).

[69] Among the stems in *-o*, Old Irish presents a vocative singular along orthodox Indo-European lines, which is *fir* < **u̯ire.* The same ending would seem to be present in Gaulish, if *nate* in the *Endlicher Glossary* is a vocative of 'son', cf. P.Y. Lambert (*LG*: 206-207).

[70] This feature is considered an archaism when compared, for example, with the result in Gaulish.

[71] Cf. F. Villar (1997: 915-916).

[72] K. McCone (1996: 63).

[73] J. Untermann (1967).

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[74] Noone has doubts any longer about this identification. But it is a very different matter to try to explain the origin of the desinence. Proposals have been put forward, apart from J. Untermann's own, by E. Hamp (1971); K.H. Schmidt (1976), (1977) and (1991); A.L. Prosdocimi (1991); J.F. Eska (1988), (1989) and (1995). Everything would seem to indicate that there was some kind of influence from the pronominal pattern, though it is not clear exactly what. For a summary of all these proposals, except the last, see C. Jordán (1998: 48-51). The one which, for the moment, would seem to have to be excluded is K.H. Schmidt's suggestion that it came from the ablative ending *-ōd*, along the same lines as in Balto-Slavic. Phonetically, the result would have been *-uz*, as is in fact the case of the corresponding ablative, as we shall see shortly. P. De Bernardo (2002: 97-98) still agrees with Schmidt's hypothesis.

[75] We have suggested recently (Jordán 2003), that **kontebiaz belaiskaz**, ablative singular, does not refer to *Lubos' origo* but to the city from which the **kar**, the friendship pact, originates. The translation we suggest is: '*Lubos from the family group of the Alisoci, son of Avalos. (Friendship) of Contrebia Belaisca*'. The beneficiary of the pact is Lubos, who appears in nominative, as holder of the document.

[76] See. F. Villar et al. Jordán (*BBIV*: 155 ff.).

[77] See the section on the instrumental singular, below. See also F. Villar et al. (*BBIV*: 89).

[78] See the corresponding section, below; also C. Jordán (2001) and F. Villar et al. (*BBIV*: 89).

[79] K. McCone (1996: 57-58, 61); More recently, K. McCone (2001: 487). For a summary of the problems posed by these two endings, see C. Jordán (1998: 53-59).

[80] Cf. P.Y. Lambert (*LG*: 53).

[81] K. McCone (1996: 61), although he had already made this proposal (1992).

[82] J.F. Eska (1989: 141).

[83] Which could possibly be broken up into: **besku auz uetikubos**, cf. J. Untermann (*MLH* IV), 'Besco gave (this) to the Vetici'.

[84] In the case of this form, there is a problem concerning how to read the penultimate character. Having had the opportunity to study it carefully, we have opted for the reading **nouantutas**, which resists morphological analysis. Others have suggested **nouantukos**, nom. sing. The problem lies in the penultimate character: X **bo**, T **ta**, G **ko**?

[85] P.Y. Lambert (*LG*: 55) assumes that the form must be *-obo*.

[86] With possible opening of the vowel *i*, owing to the influence of the middle timbre of the following vowel, as we have already noted.

[87] P.Y. Lambert (*LG*: 53-54) is convinced that the locative existed in Gaulish in *-o* stems, although he has not yet found any definite example to support his hypothesis. He does, however, refer to: *in Alixie* < *-eɾ̃*; *in sinde* (Larzac); *?uo ... derce* (Larzac).

[88] Of the three toponyms, **lutiaka** survives in present-day *Luzaga* (Guadalajara).

[89] Cf. F. Villar (1991: 60).

[90] F. Villar (1993-1995).

[91] In his previous study (1993-1995), the author thought another possible reading could be "[minted] with [metal] X".

[92] On this proposal, see the section in this study on nasal stems and C. Jordán (2001).

[93] P.Y. Lambert (*LG*: 54) does not attempt to give any reliable example of instrumental singular of *o*-stems*;* on p. 58, he is not very sure about the form *brixtia* either; *Maternia* could be an instrumental with the sociative value 'with Maternia'; there is no documentary evidence for the other stems.

[94] M. Lejeune (1955: 16-17).

[95] F. Villar (1993-1995: 335).

[96] P.Y. Lambert (*LG*: 55).

[97] Regarding the examples we provide for Gaulish, P.Y. Lambert (*LG*: 57), takes them to be *ā*-stems.

[98] Cf. P.Y. Lambert (*LG*: 168-169).

[99] Given in detail in C. Jordán (1997).

[100] For the Gaulish data, see P.Y. Lambert (*LG*: 57-58); A.L. Prosdocimi (1989); J. Gorrochategui (1994b: 320-324). A summary of all these explanations is given in C. Jordán (1998: 40-43).

[101] K. McCone (1996: 54-59), on the phenomenon of vowel fronting; pp. 48-51 and 70-79, for its evolution and how it is related to the sonants.

[102] We have already discussed this question when dealing with the gen. pl. of *o* -stems.

[103] It is also possible that the shortening took place after the fronting.

[104] As K. McCone (1996) had foreseen. Cf. F. Villar et al. (*BBIV*: 104-107).

[105] J. Untermann (*MLH IV*: 390) thinks they are gen. pl. of a stem in -*u̯o-*, in which we find the written form **-aum** instead of -*auum* < *-au̯ōm*.

[106] P. De Bernardo (1987: 83). Cf. J. Gorrochategui (1994b: 327-328) for the minor problems posed by this interpretation.

[107] These are given in D. Wodtko (2000) *s.v.*

[108] J. Velaza (1999).

[109] From its use in the third great bronze, J. Untermann (*BBIII*: 119) points to the possibility that the word **kentis** could refer to the 'under-age son'.

[110] Cf. F. Villar (1997: 922-923).

[111] From the context it would appear to be an appelative: **ios urantiom auzeti aratimue tekametam tatuz**.

[112] See F. Villar et al. (*BBIV*: 129-130).

[113] J. Untermann does not find this last point problematic, since, as will be remembered, he does not think that the original intervocalic sibilant suffered any alteration in Celtiberian.

[114] U. Schmoll (1959: 43). The first letter is not very clear. For other morphological options, see D. Wodtko (2000), *s.v.*

[115] See the treatment of this diphthong in the section on phonology.

[116] For other interpretations, see C. Jordán (1998: 197-200).

[117] F. Villar (1997: 923) suggests a desinence *-oṵei*.

[118] Short, along the lines of Avestan, or long, as in Italic.

[119] For an account of this question, see. C. Jordán (2001). The corresponding genitive singulars are explained below.

[120] L.A. Curchin (1994), X. Ballester (1993-1995a).

[121] For **silabur** see J.F. Eska (1989: 96-97) and W. Meid (1993: 113-114), with references.

[122] F. Motta (1980: 130-131). On the problems of the *u* in *bu*, see C. Jordán (1998: 52-53).

[123] F. Villar (1997: 924).

[124] Cf. C. Jordán (2001: 456-457). We should not overlook the forms **eskeinis**, **eskenim**, which obviously seem to be related. In general, the preferred interpretation of **eskeninum** is that it is a gen. pl. of an *o*-stem, a form derived from **eskeinis**, **eskenim**, by means of the suffix *-(i)no*.

[125] We have already commented on the form MATRVBOS as a possible dat.-abl. pl.

[126] It is found in the structure **]ikum steniotes ke rita**, before **ke**, an abbreviation of **kentis** 'son', which would suggest that this is an onomastic formula 'so-and-so, from the family group of the -icos, son of Estenionte'.

[127] In [K.1.3, IV-2] we find **stenio+**, the last part of which is difficult to read. J. Untermann suggests the reading **stenio<u>tes</u>**, considering that it would be a nom. sing. owing to its syntactic surroundings. For the moment, it is impossible to say what sign is missing, if indeed there was another sign, or if perhaps there was more than one. We shall leave further discussion of this form aside for the moment. On this question, see F. Villar et al. (*BBIV*: 105-106).

[128]   P.Y. Lambert (*LG*: 63) is not very convinced about this.

[129]   The fact that spelling appears to be consolidated would lead us to assume that the vowel was a short one, as we would have expected the closing of the *ē*.

[130]   Cf. F. Villar (1995b: 121-152); F. Villar et al. (*BBIV*: 155-190); F. Rubio (2001).

[131]   C. Jordán (1994) and (1999).

[132]   F. Villar (1997: 934).

[133]   **letaisama** and **sekisamos**; the gen. plurals **soisum** and **kentisum**; and the anthroponym **tiokenesos**, gen. sing. of the noun of Greek origin **tiokenes** are the examples adduced by J. Untermann (1999: 638) to support his theory that san expresses both the simple and the geminate sibilant in all positions. In his opinion, both toponyms contain the superlative suffix -*is^{m}mo*-.

[134]   We avoid controversies concerning etymologies as well as temporal and modal classification here, since these questions are dealt with in C. Jordán (1998: 87 ff.) and at greater length in D. Wodtko (2000) *s.vv.* However, we shall refer to specific studies, especially those of J.F. Eska (1989) and W. Meid (1993).

[135]   For a recent study of this isomorph and a dialectological appraisal, see K.H. Schmidt (2001: 602 ff.).

[136]   This is the root proposed by F. Villar for a form **aresta[.][.]** in [K.1.1, A3]. It would be a form made up of the preverb **are-** < *pari*- and the root *stā*-. The end of the word is illegible. Bearing in mind above all the syntactic structure in which the word is found, **soz auku aresta... tamai**, he only goes so far as to say that it is a verb which would mean 'be present' or 'be placed'. Cf. F. Villar (1993b).

[137]   Cf. F. Villar (1995b: 30-33 and 36). In contrast with the general view that this form is a 3rd sing., B. Prósper has recently posited (2002b: 216-220) that it may be a 3rd pl., *si-sth_2-nti* / *si-sth_2-n̥ti*, which would be pronounced [sistãt].

[138]   J. Untermann (*MLH IV*: 409 and 659).

[139]   Cf. J. Gorrochategui (1994a: 319-323) and F. Villar (1997: 933). On this isomorph and its role in the classification of Celtic languages, see, recently, K. McCone (2001: 491).

[140]   F. Villar (1995b: 31-32) and (1997: 931). Cf. also H. Eichner (1989).

[141]   F. Villar (1995b: 31).

[142]   J. Untermann (1999: 640-641). [K.0.8] **letontu** / **auz soz** 'Letondo made a gift of this' and [K.5.1] **beskuauzuetikubos**, divided up, **besku auz uetikubos** 'Besco made a gift of (this) to the Vetici'.

[143]   F. Villar (1995b: 32-33).

[144]   F. Villar et al. (*BBIV*: 126-129).

[145]   Cf. F. Villar et al. (*BBIV*: 124-125), where we propose other possible etymologies.

[146] F. Villar (1995b: 42-43) and again in F. Villar et al. (*BBIV*: 122-123).

[147] On this question, see. F. Villar et al. (*BBIV*: 120-122).

[148] J. Untermann (*MLH* IV: 409).

[149] Already discussed in F. Villar (1993a: 789).

[150] W. Meid (1993: 108-109).

[151] This was the interpretation given by W. Meid (1993: 118).

[152] Cf. F. Villar et al. (*BBIV*: 122-124).

[153] We have already noted in the section on nominal morphology that J. Untermann (*MLH IV*: 403) considers **bintor** a possible noun in -*r*.

[154] J. Untermann (*MLH IV*: 410-411), suggests that anthroponyms and toponyms of the type **berkantikum**, **letontu**, etc. may in fact be participle forms with present participle suffixes -*nt*-, -*nd*- or a past participle suffix -*to*-.

[155] J. Untermann (*MLH* IV: 408).

[156] See. F. Villar et al. (*BBIV*: 125-126) for proposals.

[157] We do not yet have any evidence of personal pronouns in Celtiberian.

[158] F. Villar et al. (*BBIV*: 114-117).

[159] Set out briefly in F. Villar et al. (*BBIV*: 116-117). The analyses we have offered are the most widely accepted.

[160] On the evolution of the group -*sm*- in these forms, see F. Villar et al. (*BBIV*: 115-116).

[161] This feature is one of the reasons adduced by K. McCone (2001: 492-493) for proposing an early separation from the common Celtic language.

[162] This correction was made by J. Untermann (1999: 638-639) and (*MLH* IV: [K.1.3]).

[163] In fact, it seems to function as the subject of a verbal form. Cf. [K.1.1, A3-6] **uta <u>oskuez</u> stena uerzoniti silabur sleitom konskilitom kabizeti kantom sankilistara otanaum tokoitei eni uta <u>oskuez</u> boustomue makasimue ailamue <u>ambitiseti</u> kamanom usabituz ozas sues sailo kusta bizetuz**... We have proposed a translation for the second of these sentences: 'And whoever builds a cow pen, or a fence, or a partition, or a wall, leave the path free. The width be of six feet', cf. F. Villar et al. (*BBIV*: 150).

[164] F. Villar (1995b: 30).

[165] It is also almost certain that we have the numeral 'nine' in **nouantutas** < *neṷm̥-t-*.

[166] For this interpretation, see. F. Villar et al. (*BBIV*: 119-120).

[167] For this analysis, F.Villar et al. (*BBIV*: 119).

[168] To this list we would perhaps have to add here the **iom** described earlier.

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Appendix 1

Writing Systems of the Iberian Peninsula circa the First Millennium BC									
	Colonial Writings				**Hispanic Writings**				
	Phoenician		**Greek**		**Latin**	**South-western**	**South-eastern Iberian**	**North-eastern Iberian**	**Greek Iberian**	**Celtiberian**
										west / east
1	*'aleph*	) [']	*alpha*	A [ā/ă]	A	Ⱶ [a]	Ⱶ [a]	▷ [a]	A [a]	⸜ [a] ▷
2	*bēth*	ᗺ [b]	*beta*	Ϲ, B [b]	B	⊙ [bᵉ]	⌐ [ba]	Γ [bi]	B [b]	[bi] Γ
3	*gīmel*	ᒉ [g]	*gamma*	Γ [g]	C	Λ [kᵃ]	Λ [ka]	Λ [ka]	Γ [g]	Δ [ka] Λ
4	*dāleth*	ᑯ [d]	*delta*	Δ [d]	D	Δ [tᵘ]	Δ [tu]	Δ [tu]	Δ [d]	[tu] Δ
5	*hē*	ᕼ [h]	*epsilon*	E [ĕ]	E	Ⴙ [¿?ᵃ]	Ⴙ [be?]	⧧ [e]		Ⴙ [e] ⵎ
6	*wāw*	ⵎ [w]	*digamma*	Ϝ [w]	F	ⵁ [u]	ⵁ [u]			
7	*zayin*	ⵣ [z]	*dseta*	Z [z]	Z					
8	*ḥēth*	✕ [ḥ]	*eta*	⊟, H [h/ē]	H	Ⱶ [tᵉ]	Ⱶ [te?]	H [o?]	H [e]	H [o] H
9	*ṭēth*	+ [ṭ]	*theta*	Θ [tʰ]		Ⴔ [tⁱ]	Ⴔ [ti]	⊗ [te]		⊗ [te] ◇
10	*yōdh*	ⵢ [y]	*iota*	I [ī/ĭ]	I	ⵠ [i]	ⵠ [i]	ⵠ [i]	I [i]	ⵠ [i] ⵠ
11	*kaph*	ⵊ [k]	*kappa*	K [k]	K	ⵊ [kᵉ]	ⵊ [ke]	ⵕ [ke]	K [k]	ⵕ [ke] ⵕ
12	*lāmedh*	ᛁ [l]	*lambda*	Λ [l]	L	ⵏ [l]	ⵏ [l]	ⵕ [l]	Λ [l]	ⵕ [l] ⵕ
13	*mēm*	ⵉ [m]	*my*	M [m]	M	ⵉ [m]		Ⴓ [m]		ⵕ [m] Ⴓ
14	*nūn*	ⵏ [n]	*ny*	N [n]	N	ⵜ [n]	ⵜ [n]	ⵕ [n]	N [n]	V [n] ⵕ
15	*sāmekh*	ⵚ [s]	*xi*	Ξ [x]	X	ⵌ [s]	ⵌ [s]			
16	*'ayin*	([']	*omicron*	O [ŏ]	O	O [e]	O [e]		◇ [o]	
17	*pē*	ⵕ [p]	*pi*	Γ, Π [p]	P	Ⅱ [bᵒ]	Ⅱ [bu?]	Ⅱ [bu]		[bu] Ⅱ
18	*ṣādhē*	⊂ [ṣ]	*san*	Ⴍ [s]		Ⴍ [ś]	Ⴍ [ś]	Ⴍ [ś]	Ⴟ [s]	Ⴍ [s] Ⴍ
19	*qōph*	ᑫ [q]	*qoppa*	Ϙ [kᵘ]	Q	Ϙ [¿?ⁱ]	Ϙ [¿?]	⊙ [ku]		⊙ [ku] ◇
20	*rēš*	ⵔ [r]	*rho*	P [r]	R	ⵇ [r]	ⵇ [r]	ⵇ [r]	▷/▷ʿ [r/ř]	ⵇ [r] ⵕ
21	*šīn*	$ [š]	*sigma*	Σ [s]	S			ⵎ [s]	Σ [ś]	ⵎ [z] ⵎ
22	*tāw*	⊤ [t]	*tau*	T [t]	T	✕ [tᵃ]	✕ [ta]	✕ [ta]	T [t]	✕ [ta] ✕
23			*ypsilon*	Y [u/y]	V	ⵁ [u]	ⵁ [u]	↑ [u]	V [u]	↑ [u] ↑
24			*phi*	Φ [pʰ]						
25			*khi*	X [kʰ]						
26			*psi*	Ψ [ps]						
27			*omega*	Ω [ō]						
28						�》 [bᵃ]		Ⅰ [ba]		Ⅰ [ba] Ⅰ
29								ⵛ [be]		ⵡ [be] ⵛ
30							↑ [bi]			
31							✳ [bo]	✳ [bo]		✳ [bo] ✳
32						✳ [bᵘ]				
33								Ⴘ [ti]		Ⴘ [ti] Ⴘ

34					∆ [tᵒ]		Ш [to]		[to] Ш
35						↰ [ki]	♪ [ki]		♪ [ki] ♪
36					⋈ [kᵒ]	⋈ [ko]	⊠ [ko]		⊠ [ko] ⊠
37					∺ [kᵘ]				

Appendix 2

Epigraphic Material

Below we present several tables with the Celtiberian epigraphic material. They have been adapted from the ones presented in F. Villar et al. (*BB* IV, 88-101). We have omitted the material that offers no linguistic information; additionally we have included some new inscriptions, especially in the section of the *tesserae*. We present also the complete text of some inscriptions accompanied by photographs or illustrations.

Geographic Abbreviations:
BU = Burgos
CC = Cáceres
CU = Cuenca
F = France
GU = Guadalajara
HU = Huesca
LO = Logroño (La Rioja)
M = Madrid
NA = Navarra
P = Palencia
IB = Islas Baleares
S = Santander (Cantabria)
SO = Soria
TE = Teruel
Z = Zaragoza

Celtiberian Coin Legends				
MLH I [1]	**Legend**	**Morphological Description**	**Classical Reference**	**Location**
I. ā̆/ə-stems				
A.52	**arekorata**	N.sg.		Agreda (SO) or Arguedas (NA)
A.38, 39	**benkota**	N.sg.		unknown
A.64	**erkauika**	N.sg.	*Ergauica*	El Castro de Santaver (CU)
A.41	**iaka**	N.sg.	*Iaca*	Jaca (HU)
A.83	**kaiseza**	N.sg.		Caesada (GU)
A.49	**kaiskata**	N.sg.	*Municp Cascantum*	Cascante (NA)
A.75	**konterbia karbika**	N.sg.	*Contrebia (Carbica)*	Fosos de Bayona, Villavieja (CU)
A.68	**letaisama**	N.sg.		Ledesma de la Cogolla (LO)
A.88	**samala**	N.sg.		unknown
A.78	**sekaiza**	N.sg.	*Segeda*	Poyo de Mara, Calatayud (Z)
A.43	**zekia**	N.sg.	*Segienses*	Ejea de los Caballeros (Z)
A.91	**tamusia**	N.sg.		¿Tamuja (CC)?
A.71	**uirouia**	N.sg.	*¿Virouesca?*	Borobia (SO) or Briviesca (BU)
A.52	**arekorataz areikorataz**	Ab.sg.		Agreda (SO)
A.67	**sekotiaz lakaz**	Ab.sg.	Σεγόντια Λάγκα	Sigüenza (GU)
A.93	**uarkaz**	Ab.sg.	*Uxama Barca*	Osma de Valdegogía (VI)
A.71	**uirouiaz**	Ab.sg.		
II. ŏ̆/e-stems				
A.61	**aratikos**	N.sg.		Arándiga or Aranda del Moncayo (Z)
A.52	**areikoratikos**	N.sg.		
A.62	**arkailikos**	N.sg.	*Uxama Argaela*	c. Burgo de Osma (SO)
A.63	**ekualakos**	N.sg.		Upper Duero or Lower Jalón R.
A.53	**kalakorikos**	N.sg.	*Calagurris Nassica*	Calahorra (LO)
A.54	**kueliokos**	N.sg.		unknown
A.55	**louitiskos**	N.sg.		Upper Ebro?
A.76	**lutiakos**	N.sg.	*Lutia*	Luzaga (GU)
A.56	**oilaunikos**	N.sg.		Upper Ebro?
A.69	**sekisamos**	N.sg.	*Segisama*	Canales de la Sierra (LO)
A.57	**teitiakos**	N.sg.		Atienza (GU)
A.58	**titiakos titiako**	N.sg.	*Tritium*	Tricio (LO)
A.59	**uarakos**	N.sg.		Varea (LO)
A.80	**belaiskom**	N.A.sg.n.	*Contrebia Belaisca*	Botorrita (Z)
A.47	**belikiom belikio**	N.A.sg.n.		Azuara (Z)
A.81	**bormeskom bormesko**	N.A.sg.n.		Jalón Valley or beside the Bornoba R. (GU)
CNH 287 [2]	**ekualakom**	N.A.sg.n.		Lower Jalón or Upper Duero R.

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[1] *MLH* I = J. Untermann (1975).

A.74	**ikezankom**	N.A.sg.n.		Alcalá de Henares (M)
A.75	**kontebakom bel**	N.A.sg.n.	*Contrebia Belaisca*	Botorrita (Z)
A.75	**kontebakom karbikom**	N.A.sg.n.	*Contrebia Carbica*	Fosos de Bayona, Villaviejas (CU)
A.85	**okalakom**	N.A.sg.n.		Oncala (SO)
A.87	**roturkom**	N.A.sg.n.		unknown
A.78.6	**sekaizakom**	N.A.sg.n.	*Segeda*	Durón de Belmonte de Gracián (Z)
A.70	**terkakom**	N.A.sg.n.		Tierga (Z)
A.65	**karaluz**	Ab.sg.		unknown
A.72	**usamuz**	Ab.sg.	*Uxama Argaela*	Osma (SO)
A.84	**metuainum**	G.pl.		unknown
A.92	**titum**	G.pl.		unknown
III. *i*-stems				
A.61	**aratiz**	Ab.sg.		Arándiga or Aranda de Moncayo (Z)
A.73	**bilbiliz bilbili**	Ab.sg.	*Bilbilis*	Calatayud (Z)
A.86	**orosiz orosi**	Ab.sg.		Caminreal (TE)
IV. *n*-stems				
A.48	**burzau**	N.sg.	*Bursaonenses*	Borja (Z)
A.51	**turiazu**	N.sg.	*Turiaso*	Tarazona (Z)
A.38.3	**barskunez**	Ab.sg.		unknown
A.38.1	**baskunez**	Ab.sg.		unknown
A.56	**oilaunez oilaune**	Ab.sg.		unknown
V. Occlusive stems				
A.50	**nertobis**	N.sg.	*Nertobriga*	Between La Almunia and Calatorao (Z)
A.42	**ontikez**	Ab.sg.		unknown
A.89	**sekobirikez**	Ab.sg.	*Segobriga*	Upper Duero
VI. Forms of uncertain morphological classification				
A.56	**oilaunu**	*n*-stem I.sg. *n*-stem N.sg.		Upper Ebro?
A.90	**tabaniu**	*o\e*-stem I.sg. or *n*-stem N.sg.		Débanos (SO)
A.79	**tamaniu**	*o\e*-stem I.sg. or *n*-stem N.sg.		Muela de Hinojosa, Jarque, (Z)
A.66	**karauez**	*u*-stem? Ab.sg.	*Carauis*	Magallón (Z)
A.50	**nertobi**	occl. stem N.sg. or *i*-stem Ab.sg.	*Nertobriga*	Between La Almunia and Calatorao (Z)
A.63	**ekualaku**	*o\e*-stem G.pl.		Upper Duero
A.67	**kolounioku**	*o\e*-stem G.pl.	*Clounioq, Clunia*	c. Peñalba de Castro (BU)
A.82	**kaio**	N.-A.n. sg.		unknown
A.74	**kombouto**	N.-A. n. sg.	*Complutum*	Alcalá de Henares (M)

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[2] *CNH* = L.Villaronga (1994).

Celtiberian Inscriptions on Metal: Bronze				
MLH IV³ **Place of Origin**	**Object**	**Technique**	**Writing System³**	**Text**
K.1.1 Botorrita (Z)	*tabula*	incision	ISS	**tirikantam : berkunetakam...**
K.1.3 Botorrita (Z)	*tabula*	puncture	ISS	**risatioka : lestera : ia tarakuai : nouiza...**
Villar et al. (2001) Botorrita (Z)	*tabula*	incision	ISS	**]tam : tirikantam : entorkue : toutam...**
K.0.7 unknown	*tabula*	incision	ISS	**-]r̲bos : oboi : kortono/ alabo̲i̲ : at̲iko : ueitui...**
K.0.14 unknown	*tabula*	incision	ISS	**kuekuetikui : n̲ekue : es/ ozeres...**
K.6.1 Luzaga (GU)	*tabula*	puncture	ISS	**arekoratikubos : karuo : kenei...**
Vicente and Ezquerra (1999) Torrijo (TE)	*tabula*	incision	ISS	**kelaunikui/terkininei : es/kenim : tures...**
De Hoz (1999) unknown	*tabula*	incision	ISS	**]r/kue/Tutai/batikan/ toulo/isui**
K.0.8 unknown	*lamina*	incision	ISS	**letontu/ auz : soz**
K.1.2 Botorrita (Z)	*lamina*	incision	ISS	**A.]s̲u̲ro/]ntikum /]rkum /]s /]rzonei /]es B.]abi /]kikus /]kionti /]i /]om**
K.9.1 Numancia (SO)	*lamina*	incision	ISS	**mukokaiko**
K.22.1 Calatayud (Z)	*lamina*	incision	ISS	**aki/]s /]n+**
Villar-Untermann (1999) unknown	*lamina*	puncture	LA	DVREITA. SCA TARVODVRE LIGORIQ.
K.0.2 unknown	anthropomorphic *tessera* (right hand)	incision	ISS	**lubos : alizo/kum : aualo : ke/kontebiaz/belaiskaz**
CP-15⁴ Numancia (SO)	anthropomorphic *tessera* (head)	incision	ISS	**ka**
CT-7 unknown	anthropomorphic *tessera* (body)	incision	ISS	**nu - bota? / sbanizo : e / kum : aualo / konku / [ku? ¿...?**
K.15.1 Paredes (P)	anthropomorphic *tessera* (outstretched hands)	puncture	LA	CAISAROS CECCIQ.KR ARGAILO

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³ ISS = Iberian Semy-syllabary; LA = Latin Alphabet.
⁴ For CP and CT vid. M. Almagro-Gorbea (2003).

K.27.1 Olleros (P)	anthropomorphic *tessera* (outstretched hands)	incision	LA	TVRIASICA CAR
K.0.3 unknown	zoomorphic *tessera* (bull's head)	puncture	ISS	A. **sekobirikea** B. **sekobiri<u>k</u>ea**
K.0.4 unknown	zoomorphic *tessera* (bearskin)	incision	ISS	**libiaka**
K.0.5 unknown	zoomorphic *tessera* (bull)	puncture	ISS	**<u>l</u>ibiaka** **kortika : kar**
K.0.6 unknown	zoomorphic *tessera* (wild boar)	incision	ISS	**atulikum**
K.0.9 unknown	zoomorphic *tessera* (dolphin)	incision	ISS	**retukeno : uisal** **ikum**
K.7.2 Monreal (Z)	zoomorphic *tessera* (bear)	incision	ISS	**uenta<u>n</u>aka : kar**
K.14.1 Sasamón (BU)	zoomorphic *tessera* (bull or horse)	incision	ISS	A. **irorekiios monituukoos** **nemaios** B. **aletuures**
K.18.1 Viana (NA)	zoomorphic *tessera* (pig)	puncture	ISS	**berkuakum : sakas**
K.18.2 Viana (NA)	zoomorphic *tessera* (pig's hindquarter)	incision	ISS	**] +iko : loukio : kete[** **]ko**
K.23.2 Uxama (SO)	zoomorphic *tessera* (pig)	incision	ISS	**boruotureka : tureibo/** **eskeinis : kortika...**
K. 24.1 Belorado (BU)	zoomorphic *tessera* (fish)	incision	ISS	**<u>sekee</u>ios : saile<u>t</u>iikoo :** **me<u>t</u>aama**
K.25.1 Palenzuela (P)	zoomorphic *tessera* (bird)	incision	ISS	**uirouiaka : kar**
Marques (1998) unknown	zoomorphic *tessera* (pig)	incision	ISS	**kamasiosuei / ikenionke/** **setantunos**
Marques (1998) unknown	zoomorphic *tessera* (pig)	incision	ISS	**<u>o</u>ilaunika : kar**
Villar (1999b) unknown	zoomorphic *tessera* (sheep's head)	incision	ISS	**<u>u</u>entioko : slaniaz**
Vicente and Ezquerra (2003) Caminreal (TE)	zoomorphic *tessera* (horse)	puncture	ISS	**lazuro : kosokum /** **tarmestutez : kar**

CP-4 unknown	zoomorphic *tessera* (fish)	incision	ISS	**elia : kar : kartilike**
CP-5 unknown	zoomorphic *tessera* (snake)	incision	ISS	**atikika kar : iskinikos**
CP-6 unknown	zoomorphic *tessera* (eagle's head)	puncture	ISS	**aratiko /zkukai**
CP-7 unknown	zoomorphic *tessera* (horse's or wolf's head)	incision	ISS	**okelaka . kar**
CP-9 unknown	zoomorphic *tessera* (horse's protome)	puncture	ISS	**uskika kar**
CP-10 unknown	zoomorphic *tessera* (shell)	incision	ISS	**kaar**
CT-6 unknown	zoomorphic *tessera* (quadruped)	incision	ISS	**turatin**
CT-18 unknown	zoomorphic *tessera* (quadruped)	incision	ISS	**zaltuti / arno**
CT-23A unknown	zoomorphic *tessera* (quadruped)	incision	ISS	**kateiko : kamaikuno : a/rkailika / : kar**
K.7.3 Monreal (Z)	zoomorphic *tessera* (dolphin)	puncture	LA	IKAR ARCOBRIG+./ GO+CIANDO+O.GIDOSQ
K.14.2 Sasamón (BU)	zoomorphic *tessera* (fish)	puncture	LA	TRIDONIECV.CARA/CA DESSVAEONA/NEMAIOSO
Castellano and Gimeno (1999) Ubierna (BU)	zoomorphic *tessera* (bull's head)	incision	LA	ARCAILICA CAR
Castellano and Gimeno (1999) Paredes (P)	zoomorphic *tessera* (dolphin)	puncture	LA	AMBATO VIROVARCO / MV+NOIMO IIILANOSO . LVBOS / CAIRO ANT / M? NNIMV . RI / AMITI . MVM / VIROVACOM
Pellicer (1995) Botija (CC)	zoomorphic *tessera* (lynx?)	puncture	LA	TAIMVSIENSIS / CAR
Remesal (1999) Mesa del Almendro (SE)	zoomorphic *tessera* (dog's head?)	puncture	LA	CAAR . ICVRBICA / SALVANTICA / QVE
CP-17 unknown	zoomorphic *tessera* (bird on high foot)	incision	LA	CILICOS / [¿...?] [¿-?RG]
K.0.10 unknown	geometric *tessera* (parallelpiped)	incision	ISS	**otoni : a/ntir/os/ biltire/i : kor/tika**

K.0.11 unknown	geometric *tessera* (parallelpiped)	incision	ISS	**arekorati/ka : kar/sekilako : amikum : mel/munos/ata/ bistiros : lastiko/ueizos**
K.18.3 Viana (NA)	geometric *tessera* (4 "fingers")	incision	ISS	A. **kubokariam : ueniakum** B. **iteulases / buntunes**
K.18.4 Viana (NA)	geometric *tessera* (4 "fingers")	puncture	ISS	**sakarokas**
Villar and Untermann (1999) unknown	geometric *tessera* (tablet)	incision	ISS	**kateraikina : kar**
CP-3 unknown	*tessera* (recipient)	puncture	ISS	**turiaz/ika / kortika**
CP-8 unknown	helicoidal *tessera*	incision	ISS	**routaikina kar**
CP-13 unknown	*tessera* (column with human top)	incision	ISS	A. **letuikos** B. **likuikum**
CP-12 unknown	*tessera* of brass? (foot)	incision	ISS	**ias / mu /ko**
K.17.1 Gruissan (F)	plate	puncture	ISS	**] ++ikum : steniotes : ke : rita**

Celtiberian Inscriptions on Metal: Silver				
MLH IV Place of Origin	**Object**	**Technique**	**Writing System**	**Text**
K.0.12 unknown	anthropomorphic *tessera* (head)	incision	ISS	**<u>ka</u> tar / le**
K.0.13 unknown	zoomorphic *tessera* (horse protome)	incision	ISS	A. **.kortonikum** B. **tuinikukuei.** C. **.kar.**
CT-8 unknown	*tessera* (shape of a coin)	incision	ISS	**katea**
K.0.1 unknown	*patera*	incision	ISS	**a<u>l</u>izos : azas : balaisokum**
K.11.1 Tiermes (SO)	*patera*	incision	LA	STENIONTE.DOCILICO AN.GENTE.MONIMAM
K.11.2 Tiermes (SO)	*patera*	incision	LA	COVGIO.VISCI CO.MONIMAM

Celtiberian Inscriptions on Stone				
MLH IV Place of Origin	**Object**	**Technique**	**Writing System**	**Text**
K.3.1a Peñalba (TE)	mural	incision	ISS	**kau<u>te</u>r**
K.3.1b Peñalba (TE)	mural	incision	ISS	**<u>ku</u>rula<u>ba</u>l<u>ka</u>r**
K.3.1c Peñalba (TE)	mural	incision	ISS? LA?	**aka** RA
K.3.2 Peñalba (TE)	mural	incision	ISS	**atal<u>e</u> ukebate** **++<u>ko</u>sm̃<u>bake</u>** +++
K.3.3 Peñalba (TE)	mural	incision	LA	ENIOROS<u>EI</u> VTA.TIGINO.T<u>I</u>ATVMEI...
K.3.4 Peñalba (TE)	mural	incision	LA	CALAITO+
K.3.5 Peñalba (TE)	mural	incision	LA	CALAITOS
K.3.6 Peñalba (TE)	mural	incision	LA	CALAITOS
K.3.7. Peñalba (TE)	mural	incision	LA	VORAMOS <u>E</u>DNOVM
K.3.8 Peñalba (TE)	mural	incision	LA	TVRROS
K.3.9 Peñalba (TE)	mural	incision	LA	TVROS
K.3.10 Peñalba (TE)	mural	incision	LA	]IOS
K.3.11 Peñalba (TE)	mural	incision	LA	VE<u>L</u>SAM TI<u>CI</u>NO VERAMOM TVROS<u>O</u>ILOBOS[
K.3.12 Peñalba (TE)	mural	incision	LA	<u>P</u>ANT<u>R</u>+[-]<u>S</u> QVEQVI TVRO<V>
K.3.13a Peñalba (TE)	mural	incision	LA	AIO
K.3.13b Peñalba (TE)	mural	incision	LA	GVANDOS
K.3.14 Peñalba (TE)	mural	incision	LA	TVLLOS CALO<u>Q</u> TV<u>R</u><u>R</u>O <u>G</u>
K.3.15 Peñalba (TE)	mural	incision	LA	+++RSANI<u>R</u>ANDVN
K.3.16 Peñalba (TE)	mural	incision	LA	OBIOS
K.3.17 Peñalba (TE)	mural	incision	LA	TVRROS CARO<u>R</u>VM COTIRIQV<u>M</u>
K.3.18 Peñalba (TE)	mural	incision	LA	TVROS CARORV<u>M</u>.VIROS.VERAMOS
K.3.19 Peñalba (TE)	mural	incision	LA	GVANDOS COTIRIQVM

K.3.20 Peñalba (TE)	mural	incision	LA	MARCOS.MASMI F̲ +++++PRIMI++++
K.3.21 Peñalba (TE)	mural	incision	LA	++LLOS CALOQ
K.10.1 Trébago (SO)	stele	incision	ISS	**matik̲u̲[** **ri[**
K.13.3 Peñalba de Castro (BU)	stele (frag.)	incision	ISS	**++ro+**
K.16.1 Ibiza (IB)	stele	incision	ISS	**tirtanos/abulokum/ letontun/os** **ke beli/kios**
K.23.1 Osma (SO)	stele (frag.)	incision	ISS	**arekubar̲[**
K.26.1 Retortillo (S)	stele (frag.)	incision	LA	]LICVIAMI GMONIM AM
K.13.1 Peñalba de Castro (BU)	gravestone (frag.)	incision	ISS	**kaabaarinos**
K.13.2 Peñalba de Castro (BU)	gravestone (missing)	incision	ISS	**mukuukaaiau**
K.4.1 El Pedregal (GU)	stone	incision	ISS	**kak̲ub̲in̲ka**
K.4.2 El Pedregal (GU)	stone (frag.)	incision	ISS	**baka**
K.8.1 Torrellas (Z)	stone (missing)	incision	ISS	**mata : abiliko[** **man̲ke : saulein+[** **kum : n[---]+s+[--**
K.12.1 Langa (SO)	stone (frag.)	incision	ISS	**retukeno : esto** **++b̲eltis**

| **Celtiberian Inscriptions on Ceramic** | | | | |

MLH IV Place of Origin	**Object**	**Technique**	**Writing System**	**Text**
K.1.4 Botorrita (Z)	fragment of plate camp. B	incision	ISS	] : <u>aultu</u> launi<u>kue</u>[
K.1.5 Botorrita (Z)	plate camp. B	incision	ISS	ezaz<u>u</u> non/zom <u>kue</u> s/tasikum
K.1.7 Botorrita (Z)	fragment of *dolium*	stamp	ISS	bilonike
K.1.22 Botorrita (Z)	fragment of *dolium*	incision	ISS	aburaz
K.2.1 Albalate (TE)	fragment of vessel	incision	ISS	]<u>e</u>tukenosauz<u>a</u>[
K.5.1 Caminreal (TE)	*oinochoe*	incision	ISS	beskuauzuetikubos
K.5.2 Caminreal (TE)	vessel	incision	ISS	A. **kambarokum** B. **ka+** C. **l**
K.9.2 Numancia (SO)	*oinochoe*	painting	ISS	lu<u>a</u>nikoo : koo<u>ri</u>nau
K.9.3 Numancia (SO)	little bowl	incision	ISS	no<u>u</u>antikum
K.9.4 Numancia (SO)	fragment of vessel	incision	ISS	elatunako
K.9.5 Numancia (SO)	fragment of vessel	incision	ISS	areba<u>s</u>ikoo[/s+[
K.9.6 Numancia (SO)	fragment of vessel	incision	ISS	mautiko[
K.9.7 Numancia (SO)	fragment of plate camp. ceramic	incision	ISS	bilonike
K.9.8 Numancia (SO)	fragment of vessel	incision	ISS	]+<u>mkina</u>ao
K.9.9 Numancia (SO)	fragment of vessel	incision	ISS	]sa : a+[
K.9.10 Numancia (SO)	fragment of cup	incision	ISS	oue<u>m</u>[
K.9.11 Numancia (SO)	fragment of little jar	painting	ISS	] ++<u>a</u>iko[
K.19.1 Sádaba (Z)	fragment of vessel	incision	ISS	setiza
K.20.1 Valdespartera (Z)	iberian plate	incision	ISS	statin<u>as</u>
K.21.1 Azuara (Z)	*dolium*	stamp	ISS	memo : bel
Alfaro (LO)	cup camp. ceramic	incision	ISS	]lueikar[
Alfaro (LO)	fragment of *dolium*	painting	ISS	]elikum

K.1.6 Botorrita (Z)	spindle of clay	puncture	ISS	**sesinen M͜o**
K.7.1 Monreal (Z)	spindle of clay	incision	ISS	A **susatikalim** B **uta / as**
K.22.2 Calatayud (Z)	*pondus*	stamp	ISS	**atu**

Appendix 3

Inscriptions

Figure 1a and b.   The First Bronze from *Contrebia Belaisca* (Botorrita, Zaragoza). Drawing in A. Beltrán and A. Tovar (1982) [*BBI*]. (40.5 cm in length x 9.5/10.5 cm in width x 1 cm in thickness). Top, Side A; Bottom, Side B.

Transliteration:
Side A:
1.   **tirikantam : berkunetakam : tokoitoskue : sarnikio (:) kue : sua : kombalkez : nelitom**
2.   **nekue [: to : u]ertaunei : litom : nekue : taunei : litom : nekue : masnai : tizaunei : litom : soz : auku**
3.   **aresta[lo] : tamai : uta : oskuez : stena : uerzoniti : silabur : sleitom : konskilitom : kabizeti**
4.   **kantom [:] sankilistara : otanaum : tokoitei : eni : uta : oskuez : boustomue : koruinomue**
5.   **makasimue : ailamue : ambitiseti : kamanom : usabituz : ozas : sues : sailo : kusta : bizetuz : iom**
6.   **asekati : [a]mbitinkounei : stena : es : uertai : entara : tiris : matus : tinbituz : neito : tirnkantam**
7.   **eni : oisatuz : iomui : listas : titas : zizonti : somui : iom : arznas : bionti : iom : kustaikos**
8.   **arznas : kuati : ias : ozias : uertatosue : temeiue : robiseti : saum : tekametinas : tatuz : somei**
9.   **enitouzei : iste : ankios : iste : esankios : uze : areitena : sarnikiei : akainakubos**
10. **nebintor : tokoitei : ios : uramtiomue : auzeti : aratimue : tekametam : tatuz : iom : tokoitoskue**
11. **sarnikiokue : aiuizas : kombalkores : aleites : iste : ires : ruzimuz : abulu : ubokum**

Side B:
1.   **lubos : kounesikum : melmunos : bintis : letontu : litokum**
2.   **abulos : bintis : melmu : barauzanko : lesunos : bintis**
3.   **letontu : ubokum : turo : bintis : lubinaz : aiu : berkantikum**
4.   **abulos : bintis : tirtu : aiankum : abulos : bintis : abulu : louzokum**
5.   **useizunos : bintis : akainaz : letontu : uikanokum suostuno**
6.   **s : bintis : tirtanos : statulikum : lesunos : bintis : nouantutas**
7.   **letontu : aiankum : melmunos :bintis : useizu : aiankum : tauro**
8.   **[--]tis : abulu : aiankum : tauro : bintis : letontu : letikum : abulos : bintis :**
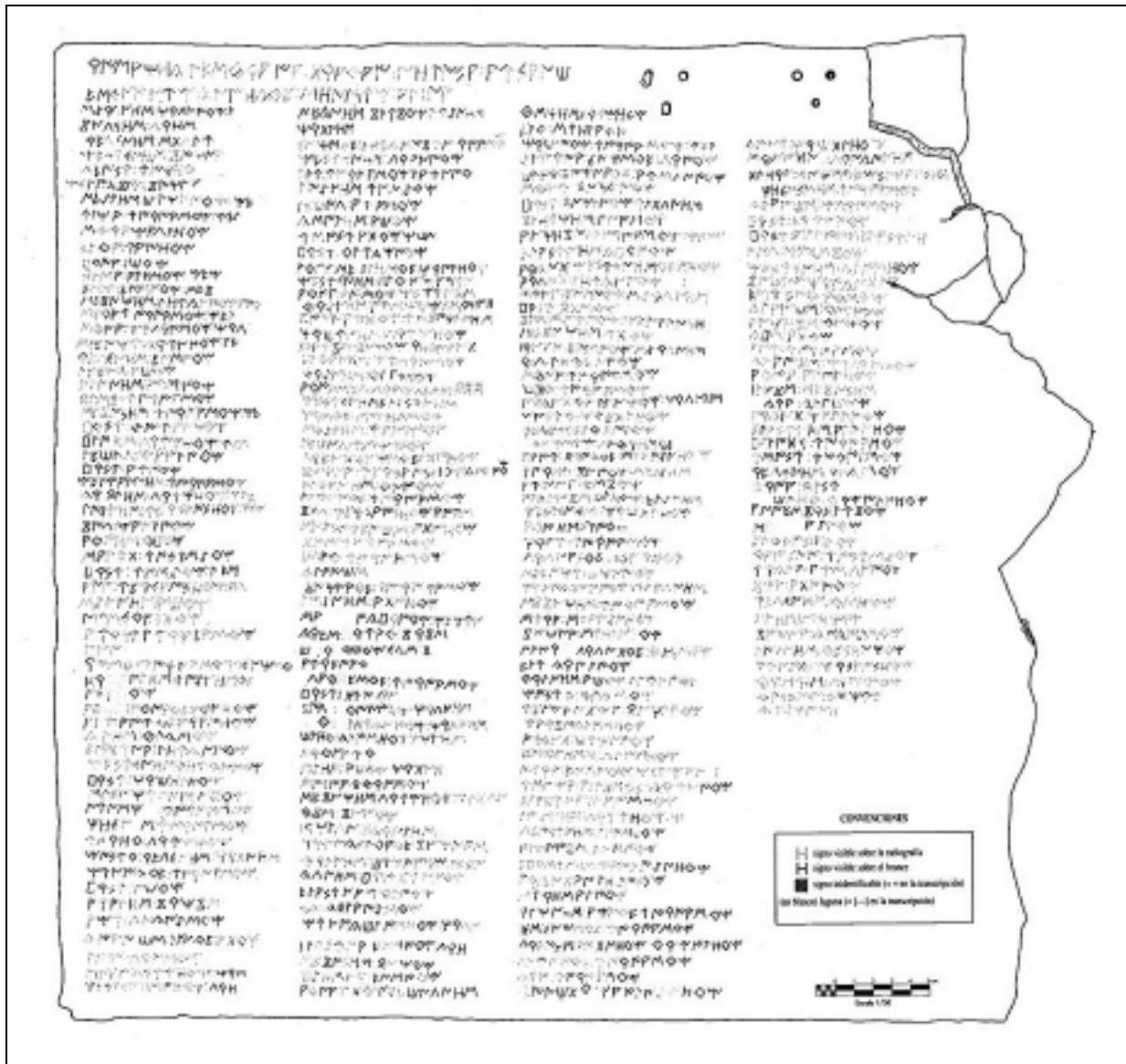9.   **]ukontaz : letontu : esokum : abulos : bintis**

Figure 2. The Third Bronze from *Contrebia Belaisca* (Botorrita, Zaragoza). Drawing in F. Beltrán, et al. (1996) [*BBIII*]. (73.2 cm in height x 51.8 cm in width x 0.4 cm in thickness).

01 risatioka : lestera : ia : tarakuai : nouiza : auzanto
02 eskeninum : taniokakue : soisum albana

I 1	skirtunos : tirtanikum : l(---)		**II 1**	sekanos <u>kolu</u>kokum : lukinos
I 2	kontuzos : turos		**II 2**	tirtanos
I 3	retukenos : statulu		**II 3**	kentiskue : loukaniko uiriaskuùm
I 4	mezukenos : koitina		**II 4**	mezukenos : turanikum
I 5	tueizu : uiroku		**II 5**	elu : uiriaskum : launiku[.?]
I 6	munika <u>:</u> koitu <u>:</u> koitina		**II 6**	likinos : uiskikum
I 7	sekilos : toutinikum me+(---)		**II 7**	letontu : auaskum
I 8	ultia : uiriaskum : m<u>el</u>(---)		**II 8**	kasilos : <u>a</u>tokum
I 9	sura : ma<u>tu</u>lokum		**II 9**	usizu : abokum : titos
I 10	elkua <u>:</u> raiokum		**II 10**	burzu : kulukamikum
I 11	bur<u>i</u>a : batokum		**II 11**	akuia : sekiloskue : tirilokum
I 12	bels<u>a</u> : alas<u>ku</u>[m] : mem(unos)		**II 12**	mezukenos : akikum : memu<u>n</u>(os)
I 13	elkua : ensikum : seko(---)		**II 13**	akuia : alaskum : memunos
I 14	sekontios : loukanikum : aiu(---)		**II 14**	terkinos : austikum : eskutino
I 15	sura : uiriaskum : m<u>el</u>(---)		**II 15**	koitina : abokum : useizunos
I 16	stena : muturiskum : tirtu+(os)		**II 16**	tirtouios : turumokum
I 17	sleitiu : karunikum : le(tontunos?)		**II 17**	elaukos : bentikum : rotenanko
I 18	retukenos : ensikum		**II 18**	elkuanos : muturiskum
I 19	letontu : atokum		**II 19**	terkinos : telazokum
I 20	bilinos : austikum		**II 20**	akuia <u>:</u> statu : turaku : tueizunos/tetoku[m?]
I 21	belsu : uiriaskum		**II 21**	mezukenos : elazunos
I 22	sekonzos : uiriaskum : <u>me</u>(---)		**II 22**	tirtukue : ailokiskum
I 23	burzu : teiuantikum		**II 23**	sekilos : mailikum
I 24	<u>bu</u>libos : turumokum : ul(ta)tu(nos?)		**II 24**	letontu : ustitokum
I 25	letontu : mailikum		**II 25**	turenta : kentiskue : ataiokum
I 26	burzu : auikum		**II 26**	koitina : uerzaizokum : kalmiku/m
I 27	melmanios : uiriaskum		**II 27**	elkuanos : kunikum
I 28	karbelos : turumokum : ulta(tunos)		**II 28**	launikue : uiriaskum
I 29	likinos : uerzaizokum : mem(unos)		**II 29**	koitu : uerzaizokum : aias
I 30	koitu : mailikum		**II 30**	snaziue<u>n</u>tos : ataiokum
I 31	<u>aku</u>ios : tetokum		**II 31**	tais : uiriaskum
I 32	saluta : uizuskikum		**II 32**	bas<u>a</u>ku : uiriaskum
I 33	burzu : uiskikum : le(tontuno?)s		**II 33**	kalaitos
I 34	ana : uerzaizokum : atu(---)		**II 34**	koitinakue : uiriraskum
I 35	sanion : baatokum		**II 35**	likinos : ataiokum
I 36	niske<u>ku</u>e : babokum		**II 36**	sa[-c.3 *or* 4-]i kaburikum : memun(os)
I 37	biurtilaur : alaskum		**II 37**	<u>ka</u>res : +ruaku : korkos
I 38	bini		**II 38**	to[..]r+<u>te</u>tokum : kekas : <u>ko</u>(---)
I 39	<u>r</u>usku : uiriaskum : kentisku<e>		**II 39**	<u>au</u>r<u>e</u>iaku
I 40	or++bilos : likinoskue		**II 40**	tuate+eskue : uiriaskum
I 41	abo++kum		**II 41**	burzu : <u>ba</u>bouikum
I 42	a<u>bu</u>++akuiakue : araiokum		**II 42**	koitu : ku<u>i</u>nikum : tirtunos
I 43	a<u>l</u>u : aiukue : araiokum		**II 43**	[-c. 5-] : loukanikum : tirtunos
I 44	kalos : te<u>l</u>kaskum		**II 44**	toloku : kalisokum : atinos
I 45	elazuna : loukanikum		**II 45**	tarku<u>n</u>biur
I 46	mezukenos : loukanikum		**II 46**	<u>bi</u>balos : atokum : tirtano
I 47	burzu : tirtobolokum		**II 47**	sikeia : beteriskum
I 48	sleitiu : makeskokum		**II 48**	sekontios : turumokum : ultatun(os)
I 49	iunsti+[.] : uiriaskum		**II 49**	tekos : konikum
I 50	tioken+s : uiriaskum		**II 50**	bartiltun : ekarbilos
I 51	uiroku : turumokum		**II 51**	munika elkuakue : koitinas
I 52	mizuku : retukenos : tirtanos		**II 52**	terkinos : toutinikum : leton(tunos)
I 53	munikakue : uiriaskum		**II 53**	katunos : burikounikum
I 54	burzu : atokum		**II 54**	elazuna : ukulikum
I 55	aualos : kortikos		**II 55**	keka : kabelaikiskum
I 56	amu : kankaikiskum		**II 56**	munika : tolisokum : tirtun(os)
I 57	kaiaitos : litukue : abokum		**II 57**	elazuna : ensikum : turo

I 58	aba : muturiskum
I 59	barnai : turumokum : tir(tuno?)s
I 60	mezukenos : abokum : turo

II 58	sekonzos : bentikum
II 59	tokiosar : ensikum
II 60	akuia : abokum : letontunos

III 1	testios : turumokum
III 2	elku : suolakue
III 3	tirtanikum : uiriaskum : mel(---)
III 4	kinbiria : kentiskue : turikum
III 5	toloku : koitinakue : austunikum
III 6	stenu : bentilikum
III 7	burzu : bentilikum : ultatunos
III 8	koloutios : biniskum
III 9	antiokos : uiriaskum : melm(---)
III 10	elazunos : kaburikum
III 11	arkanta : mezukenoskue : abokum
III 12	arkanta : loukanikum
III 13	stena : ensikum : skirtunos
III 14	burzu : betaskum
III 15	koitu : samikum : melmanzo
III 16	sekontios : ubokum
III 17	barnai : ensikum : skirtunos
III 18	tetu : loukanikum
III 19	stena : uiriaskum
III 20	toloku : uiriaskum
III 21	arkanta : teiuantikum : tirtunos
III 22	mizuku : tirtobolokum
III 23	retukeno : elkueikikum
III 24	kentisum : tuateroskue
III 25	abaliu berikakue : suaikinokum
III 26	uiroku : konikum : statulos
III 27	aunia : beskokum
III 28	bilonikos : elokum : elkinos
III 29	mezukenos : tirtobolokum
III 30	akuios : alikum
III 31	tiriu : uiriaskum
III 32	turtunazkue : kazarokum
III 33	sleitiu : totinikum
III 34	munika ensikum : skirtunos
III 35	sekontios : uiriaskum
III 36	sura : suaikinokum
III 37	koitina : suoli+kum
III 38	bilir+turtuntakue : telkaskum
III 39	elu karbilikum
III 40	terkinos : atokum : launikue
III 41	mizuku : telkaskum
III 42	melmantama : bentilikum
III 43	markos : kalisokum
III 44	arkanta : toutinikum
III 45	tolokunos : ke(---) : kalisokum
III 46	sura : ensikum : melman bi(---)?
III 47	usama : abaloskue : karunikum
III 48	elazuna : balaisokum
III 49	likinos : turumokum : ti(---)
III 50	tueizunos : binis+kum
III 51	bilonikos : ensikum
III 52	ebursunos : mailikinokum
III 53	arkanta ailokiskum
III 54	suros : alikum
III 55	ultinos : amakue uiriaskum
III 56	babos : kentiskue : uiriaskum

IV 1	kainu : tirtobolokum
IV 2	stenion+ : turikainos
IV 3	bolora : kentiskue : melmanzos
IV 4	tiokenesos : uiriaskum
IV 5	kalaitos : mturiskum
IV 6	burzu : karunikum
IV 7	burzu : abilikum : elazuno
IV 8	litu : makeskokum
IV 9	mezukenos : kalisokum
IV 10	koitina : tirikantanko
IV 11	esueiku : ateskum
IV 12	kalaitos : kustikum
IV 13	antiokos : kustikum
IV 14	kabutu : abokum
IV 15	anu : uiriaskum
IV 16	kalaitos : muturiskum
IV 17	akuia : albinokum
IV 18	balakos : sekonzos
IV 19	kara : kalatokum
IV 20	arkanta : mailikum
IV 21	elazunos : albinokum
IV 22	bubilibor : uiriaskum
IV 23	usizu : uiriaskum
IV 24	retukenos : telkaskum
IV 25	+ri a : belsu
IV 26	toloku : kurmi+iokum
IV 27	anieskor : talukokum
IV 28	s+[-c.3 *or* 4-] alikum
IV 29	elkueis : akikum
IV 30	raieni : uizuskikum
IV 31	urkala : austunikum
IV32	tama : ataiokum
IV 33	retukenos : kustikum
IV 34	bilosban : betikum
IV 35	koitina : kankaikiskum
IV 36	likinos : kuezontikum
IV 37	munika : uerzaizokum
IV 38	terkinos : turanikum
IV 39	teuzesi : kustikum
IV 40	kaukirino

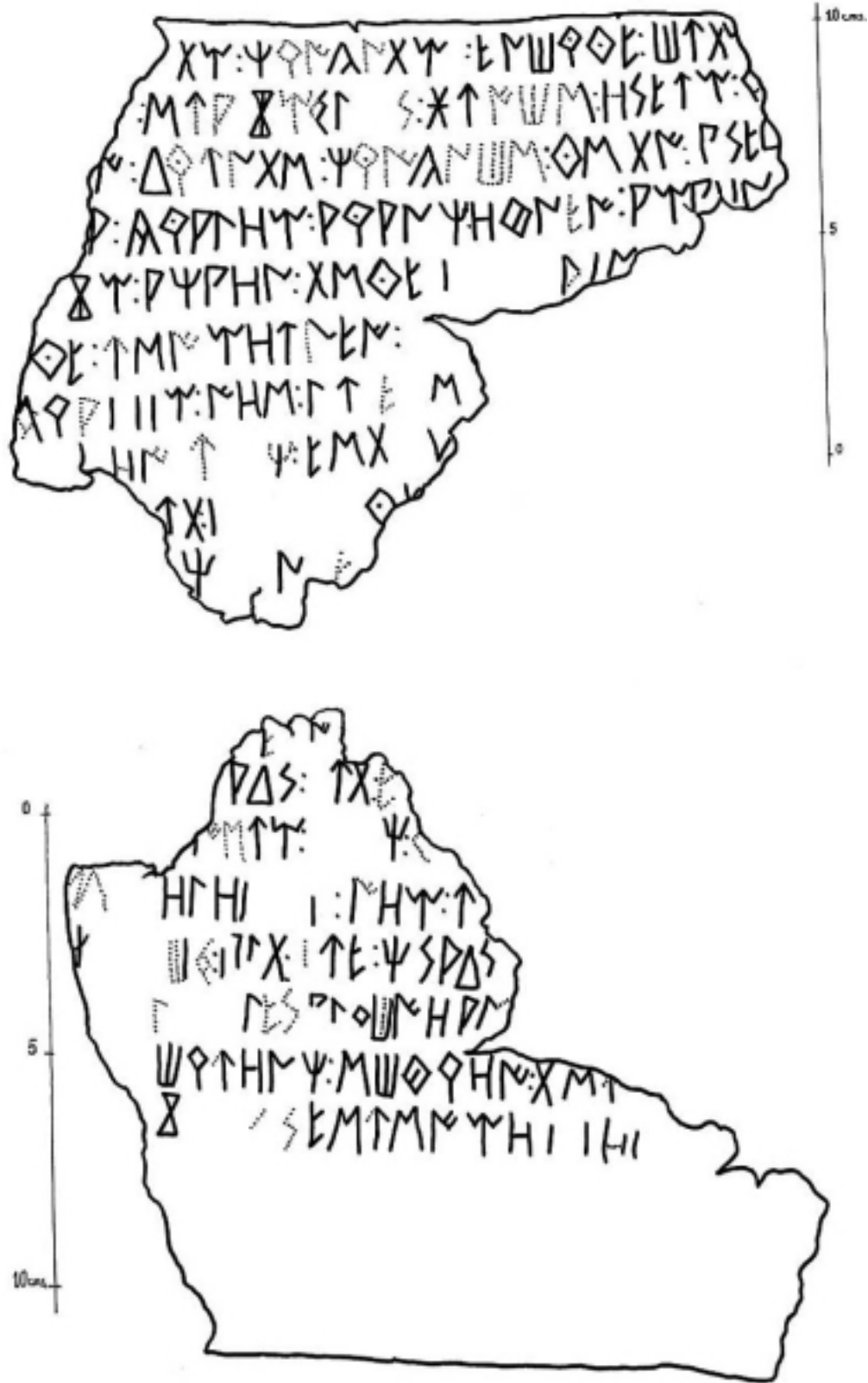| III 57	turaios : litanokum : kurmilokum
III 58	launikue : uiriaskum
III 59	kari : uiriaskum
III 60	kuintitaku : mailikinokum

Figure 3a and b.   The Fourth Bronze from *Contrebia Belaisca* (Botorrita, Zaragoza). Drawing, transcription and transliteration in F. Villar et al. (2001) [*BBIV*]. Top, Side A; Bottom, Side B.

Side A
1. [---]ᚷᛉ : ᛦᛟᛘᛉᚱᚷᛉ : ᛖᛦ�

Side A (transcription in Celtiberian script)
1. [---]ᚷᛏ : ᛘᛟᛛᛉᛜᚷᛏ : ᛖᛙᛃᛟᛟᛖ : ᛃᛏᚷᛏ[---]
2. [---]: ᛙᛏᛘ ᚷᛏᛥᛁ[.]ᛉ : ᛉᛏᛃᛙᛙ : ᛡᛊᛏᛏ : +[---]
3. [---]ᛞ : ᛚᛟᛏᛃᚷᛙ : ᛦᛟᛛᛉᛜᛙᛙ : ᛟᛙᚷᛞ : ᛒᛊᛖ+[---]
4. [---]ᛈ : ᛚᛟᛈᛡᛏ : ᛈᛟᛈᛙᛦ : ᛡᛟᛛᛖᛞ : ᛈᛏᛒ++[---]
5. [---]ᚷᛏ : ᛈᛦᛒᛡᛞ : ᚷᛙᛟᛖ+[-c. 3-]ᛈ[+]ᛙ[---]
6. [---]ᛟᛖ : ᛏᛙᛞᛏᛡᛏᛙᛖᛞ : [---]
7. [---]ᛚᛟᛈᛡᛏ : ᛞᛡᛙ : ᛙᛏ[.]ᛖ[.]ᛙ[---]
8. [---][-c. 2-]ᛡᛞ+ᛏ[..]ᛦ : ᛖᛙᚷ[..]+[---]
9. [---]ᛏᚷ : +[-c. 4-][.]ᛟᛖ[---]
10. [---]ᛦ[-c. 2-] ᛙ[.]ᛖ[---]
Side B
1. [---]ᛖ [-c. 2-] ᛞ[---]
2. [---]ᛈᛚᛉ : ᛏᚷ : ᛖ[---]
3. [---]ᛞᛙᛏᛏ : [-c. 3-]ᛦ : +[---]
4. [---]++++ᛡᛞᛡ+++ : ᛞᛡᛏ : ᛏ[---]
5. [---]+[-c. 3-]ᛙ ᛊ+++ᚷ : +ᛏᛖ : ᛦᛊᛚᛉ[---]
6. [---][-c. 2-]ᛞ[-c. 3-]ᛞᛖᛊ+ᛚ+ᛙᛞᛡᛈᛙ[---]
7. [---][-c. 2-]ᛙ ᛟᛏᛡᛞᛦ : ᛙᛙ ᛟᛟᛡᛞ : ᚷᛙ++[---]
8. [---] ᚷ[-c. 4-]ᛖᛙᛏᛙᛞᛦᛡ++ᛡ+[-c. 3-][---]

Transliteration:
Side A
1. **[---]tam : tirikantam : entorkue : toutam[---]**
2. **[---]: sua kom<u>bal</u>[.]<u>z</u> : bouitos : ozeum : +[---]**
3. **[---]i : turuntas : tirikantos : kustai : bize+[---]**
4. **[---]a : karalom : aranti <u>:</u> otenei : am<u>bi</u>++[---]**
5. **[---]kom : atibio<u>n</u> : taskue+[-c.3-]<u>a</u>[+]<u>s</u>[---]**
6. **[---]kue : <u>u</u>simounei : [---]**
7. **[---]<u>karalom</u> : ios : lu[.]<u>e</u>[.]s[---]**
8. **[---][-c. 2-]oi+u[..]ti : esta[..]+[---]**
9. **[---]uta : +[-c. 4-][.]kue[---]**
10. **[---]ti[-c. 2-] n[.]<u>e</u>[---]**

Side B
1. **[---]e [-c. 2-] i[---]**
2. **[---]atuz :   uta : e[---]**
3. **[---]<u>is</u>um : [-c. 3-]ti : +[---]**
4. **[---]++++olo+++ : iom : u[---]**
5. **[---]+[-c. 3-]<u>toke</u>+++ta : +ue : tizatuz[---]**
6. **[---][-c. 2-]l[-c. 3-]lez+<u>l</u>+<u>toioan</u>[---]**
7. **[---][-c. 2-]tor<u>uo</u>nti : stoteroi : tas++[---]**
8. **[---] ko[-c. 4-]es<u>us</u>imo++<u>o</u>+[-c. 3-][---]**

Figure 4a and b. Tessera Froehner (6.2 cm in length x 4 cm in width x 0.8/1.2 cm in thickness). Photography by J. Untermann *MLH* IV [K.0.2]. Translation in C. Jordán (2003).
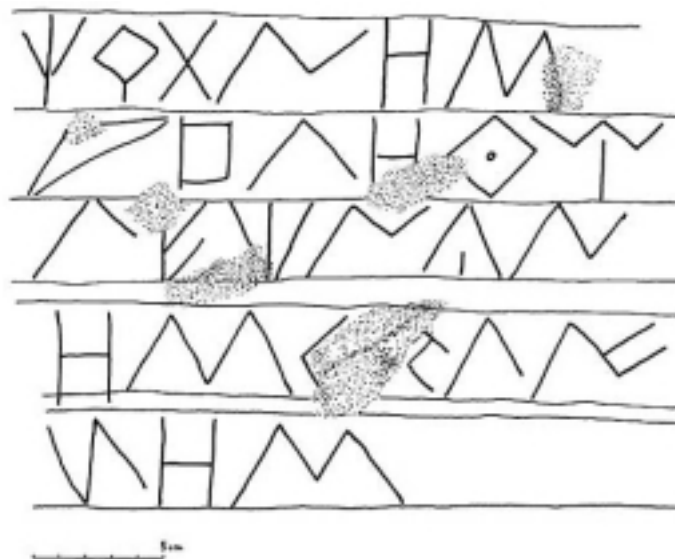
Transcription:

ᒋᛏ፠ᛗ ⠂ ᗡᒋᛟ፠H
◇ᛐ ⠂ ᗡᛏᗡᒋH ⠂ ᒎ
፠ᛗ◇ᒋᗡ፠
ᏯᛏᗡᛃᛉᗝᛏᏝ

Transliteration:
lubos : alizo
kum : aualo : ke
kontebiaz
belaiskaz

Translation:
Lubos, of the Alisoci, son of Avalos. (Friendship) of Contrebia Belaisca.

Figures 5 and 6. Gravestone from Ibiza (31.2 cm in height x 27 cm in width x 6.5 cm in thickness). Photography and drawing in J. Untermann *MLH* IV [K.16.1].

Transliteration:
tritanos / abulokum / letontu/nos ke beli/kios

Translation:
Dirtanos, of the Abuloci, son of Letondo, from Beligiom.

Figure 7.   [K.0.7] Bronze of *Cortonum* (13.6 cm in length x 8.9 cm in width x 0.1 cm in thickness). Drawing in G. Fatás (1985).

Transliteration:
]rbosoboi : kortono :
alabom : ako : ueitui
arkatobezom : loutu
loukaiteitubos : tures
buntalos : kortonei

Figure 8a and b. [K.0.14] Bronze "Res" (7.6 cm in length x 5.1 cm in width). Top, Side A; Bottom, Side B. Drawing in F. Burillo (1989-1990).

Transliteration:

Side A (top)

1. **kuekuetikui : nekue : es / ozeres**
2. **nekue : esianto**
3. **uameiste : ainolikum**
4. **retukeno : ueiziai**
5. **mitai : autom**
6. **ailai**

Side B (bottom)

1. ☼ **res**
2. **tunares : nezokim**
3. **auzares : korta : ?**
4. **akaizokum : metuutos**
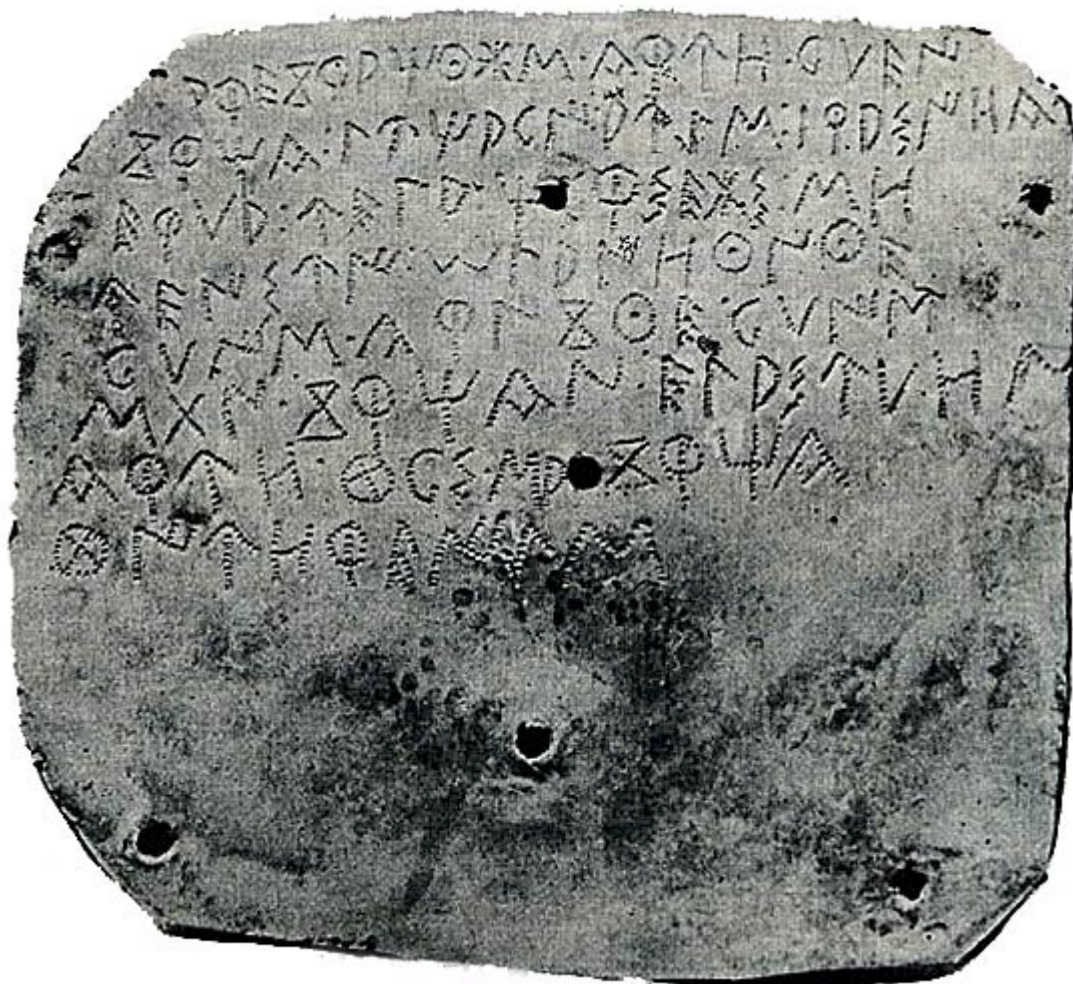5. **terturez**
6. **mozim : tizauiom**
7. **auzares**

Figure 9.   [K.6.1] Bronze from Luzaga (16 cm in length x 15 cm in width). Photo in J. Untermann *MLH* IV.

Transliteration:
arekoratikubos : karuo : kenei
kortika : lutiakei : aukis : barazioka
erna : uela : tikerzeboz : so
ueizui : belaiokumkue
kenis : karikokue : kenis
stam : kortikam : elazunom
karuo : tekez : sa : kortika
teiuoreikis

Figure 10.   Bronze from Torrijo (13 cm in length x 8.8 cm in width x 0.1 cm in thickness). Drawing in J. Vicente and B. Ezquerra (1999).

Transliteration:
1.   **kelaunikui**
2.   **terkininei : es**
3.   **kenim : tures : lau**
4.   **ni : olzui : obakai**
5.   **eskenim : tures**
6.   **useizunos : kotizo**
7.   **nei : lutorikum : ei**
8.   **subos : atizai : ekue : kar**
9.   **tinokum : ekue : lakikum**
10. **ekue : tirtokum : silabur**
11. **sazom : ibos : esatui**

Figure 11.   [K.0.4] *Tessera* in the shape of a bearskin (4.5 cm in length x 3.6 cm in width). Drawing in M. Gómez Moreno (1949).

Transliteration:
libiaka

Translation:
(Friendship) of Libia.

Figure 12.   [K.7.2] *Tessera* in the shape of a bear (4.9 cm in length x 2.7 cm in width). Drawing in M. Gómez-Moreno (1949).

Transliteration:
ue̱ntanaka kar

Translation:
Friendship of Ventana.

Figure 13.   [K.23.2] *Tessera* in the shape of a wild boar (5.5 cm in length x 4.5 cm in width x 0.15 cm in thickness). Drawing in C. García Merino and Mª L. Albertos (1981). Discussed in C. García Merino and J. Untermann (1999).

Transliteration:
boruoture[i]ka : tureibo[s]
eskeinis : kortika
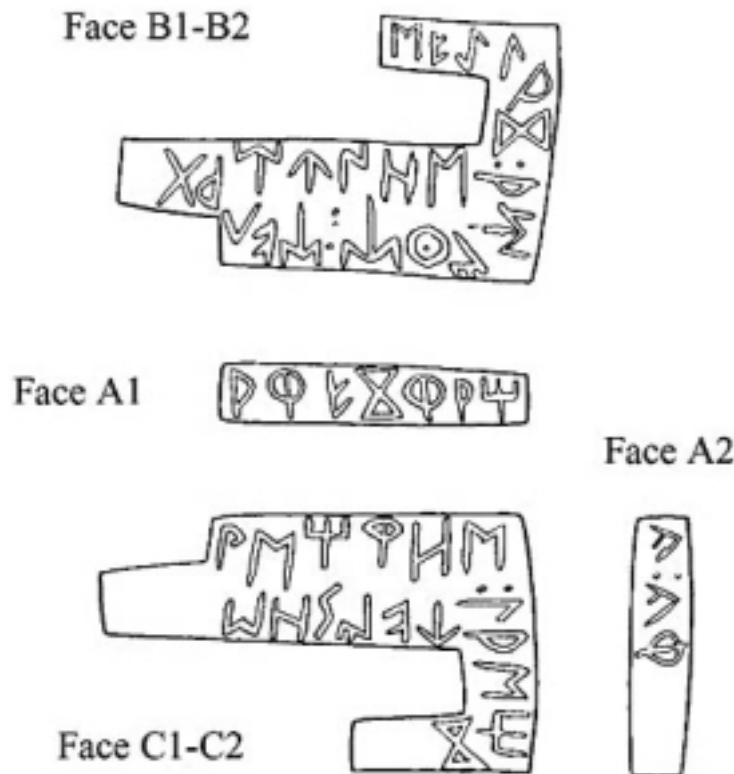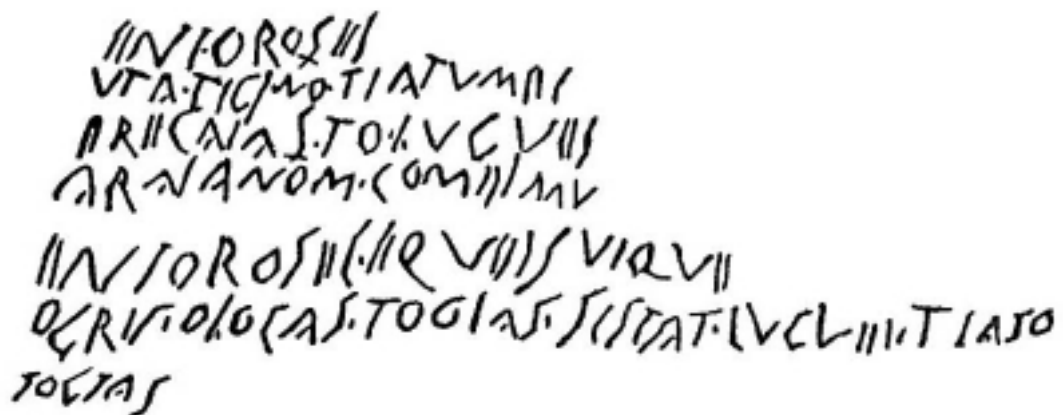**usama : antos**
saikios : baisais
kaltaikikos

Figure 14. [K.0.11] *Tessera* in the shape of a parallelpiped (4.6 cm in length x 2.8 cm in width x 0.6 cm in thickness). Drawing in F. Burillo (1993). Discussed in J. Untermann *MLH* IV (left) and C. Jordán (2003) (right).

Transliteration:

A1	**arekorati**	B1	**sekilako: amikum : mel/munos**
A2	**ka : kar**	B2	**ata**
B1	**sekilako: amikum : mel/munos**	A1	**arekorati**
B2	**ata**	A2	**ka : kar**
C1	**bistiros : lastiko**	C1	**bistiros : lastiko**
C2	**ueizos**	C2	**ueizos**

Translation:

Friendship of the town Aregorada with Secilacus, of the Amici, son of Melmo (ata?). Bistiros, of the Lastici, witness. Translation by C. Jordán (2003).

Figure 15. [K.3.3] The great inscription of Peñalba de Villastar (42 cm in length x 17 cm in width). Drawing in A. Tovar (1955-1956). Discussed in M. Lejeune (1955).

Transliteration:
1. **EN<u>I</u>OROSE<u>I</u>**
2. **VTA . T<u>IGI</u>NO . TIATVME<u>I</u>**
3. **ERECAIAS . TO . LVGVEI**
4. **ARAIANOM . COM<u>EI</u>MV**
5. **EN<u>I</u>OROSE<u>I</u> . EQVEISVIQVE**
6. **OGR<u>IS</u> . OLOCAS . TOGIAS . SISTAT . LVGVEI . TI<u>ASO</u>**
7. **TOGIAS**