

READING THE SOUTH-WESTERN SCRIPT OF IRON AGE IBERIA IN A MASS-MIGRATION CONTEXT: A NEW FRAMEWORK FOR THE DECIPHERING OF THE SCRIPT WITH CASE-STUDIES

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ABSTRACT

The deciphering of the South-Western script of Atlantic Iberia has seen new recent advances but the consensus, to the extent that it exists, has not facilitated the reading, and even identification, of the recorded language. Suggesting new phonemic values ascribed to the signs, taking into account the inroads that both the Phoenician and Greek scripts made into the Iberian Peninsula (a fact which is archaeologically corroborated), I propose a new reading of the inscriptions that actually both offers satisfying, if partial, readings of the inscriptions, and matches their known context and function. I test the hypothesis presented here using as two three-studies: the better-preserved Mealha Nova I and Abóboda inscriptions and the fragmentary Herdade do Pêgo I. This improvement offers new avenues for the reading of the corpus of the South-West script and the understanding of a Proto-Celtic language spoken in the early 1st millennium BCE and through to the early centuries of Roman annexation.

INTRODUCTION

The enquiry into notions and attestations of citizenship in Iron Age Atlantic Iberia within a migration context, inevitably zeroes in on one of the most valuable cultural assets of migration during this period: literacy. Even if the concept of citizenship –the idea of belonging to a particular, civic community – was not introduced through the migration of peoples from the Near East, *i.e.* from regions with comparatively more developed political institutions within urbanized societies that affected local forms of community organization or the share of power

among populations already settled in the Peninsula, it is literacy that allows us to delve into the matter.

Echoing developments at the other end of the Mediterranean, where the Phrygians, Lydians and Greeks developed alphabetic scripts for their respective languages, the Phoenician consonantal script was adapted in Iberia during the period of Phoenician colonization by several groups, independently of one another. As gauged through the epigraphic record, in this period affected by earlier mass migration, several languages and scripts were circulating at the same time in Iberia. This fissiparous, multi-ethnic population, the result of successive migratory waves into the Peninsula, formed a mosaic of populations with distinct ethnic and linguistic identities, some of which survive to the present as distinct linguistic groups (e.g. Basque).

Brief inscriptions on funerary monuments recorded in the earliest script to be developed in Iberia name the deceased and their links to particular places. This so-called South-Western (SW) or ‘Tartessic’ script is attested in inscriptions on roughly-hewn stone stelae used as grave markers and as graffiti on pottery. About 100 inscriptions on stelae are known, *in situ* or dispersed within the original sites. Apart from the stone stelae, the SW script is also found as graffiti on pots. They mostly come from southern Portugal (Algarve, Baixo Alentejo), though fewer are known from western Andalusia, and even Extremadura) (Guerra 2010). The script is consistently associated with locations inhabited by indigenous populations in inland area albeit adjacent to major colonial centres or towns immersed in what is presently-termed Orientalizing culture. Doubts about the end point of the use of the SW script derive from the problematic dating of some of the inscribed artefacts and the uncertainty over its relationship to the locally-developed, so-called Paleo-Hispanic script documented in the legends of coins issued by Salacia (Alcácer do Sal) through to the Roman period (Correia 2004), when several cities struck coins displaying toponymic legends in Latin that preserved the Iron Age city names, such as Ossonuba, Baesuris etc (Fig. 1). In some cases, as on the later issues of Salacia, coins bore legends in both Latin and Paleo-Hispanic scripts.

The Latinization of Hispania Ulterior is seen as a gradual process, spearheaded by the social and financial interests of local elites eager to maintain their status (Estarán Tolosa & Herrera Rando 2024). An oft-occurring omission in these discussions is that this process advanced most rapidly in southern Iberia where the urban populations that quickly adopted the Latin alphabet and language had enjoyed literacy for more than half a millennium by the time that the Roman empire extended its frontiers to Iberia, at the very least in the southern portion of the two new provinces, which also facilitated their inclusion into the empire. Although proscriptions against the use of local scripts never appear to have been legislated by the Roman authorities, the adoption of Latin conferred an advantage, independent of Rome’s desiderata: it provided a *lingua franca* in an Iberia that was inhabited by people that spoke multitudes of different languages and used various scripts. Later attestations in the Latin alphabet corroborates this picture, allowing us to chart the linguistic intricacies that the corresponding Paleo-Hispanic epigraphic record adumbrates. Examining the personal onomasticon and ethnic names of several groups, as they survive in historical and epigraphic sources dating to the Roman period, the identification of a Celtic linguistic substratum among the Lusitani and those that the Romans termed ‘Celtiberians’ – an exonym to differentiate this Celtic group that they

encountered from the inhabitants of Gaul – is indisputable (García Alonso 2008). Since the Celtic language was not a Roman-era development, the epagogic conclusion must be that the SW script was used to write a form of language that by Roman times was considered Celtic.

Far from being a cynosure in studies of literacy in Europe and in the Mediterranean, the SW script possesses the primacy of being the earliest indigenous writing anywhere in western Europe but also in the western Mediterranean, almost of comparable date to the earliest attestations of the Greek language in an alphabetic script. In addition, the subject is of great interest to many other fields that deal with the Bronze and Iron Ages of western Europe, where the investigation into the diffusion of the Celtic language(s) as the result of seaborne migrations or a westward expansion from central-eastern Europe continues to be debated (e.g. Koch *et al.* 2025). With the mass migration of populations from Greek and Phoenician cities, these languages acquired scripts that were locally adapted from eastern Mediterranean ones. This is not to resurrect ideas prevalent in Vallancey's (1772) essay on the Irish language being a "collation of the Irish with the Punic Language", but instead to explain a script used to record a Celtic language within the multi-ethnic historical context.

For any inscription to be read, first the script has to be deciphered, then the language identified and finally, the pinnacle of this process ensues with the aid of historical linguistics. The existing consensus on the SW script is that the first step has been almost accomplished. The vexing problem in this regard is that this deciphering method has not allowed for any reading of the inscriptions, despite the fact that the language is most likely an early form of Celtic. Artefacts inscribed with the SW script continue to be found, yet with little advancement in knowledge on the script *per se*. It has not helped that these ancient inscriptions are published often without the ancient signs as documentation but with their assumed and contested phonemic values, even as there is no consensus on the deciphering of the script. Moreover, it is almost implicitly assumed that there existed some form of state-like oversight from the beginning, tasked with the systematization of the script and that all variants have to reflect some new sound or orthographic combinations of signs. As early documents of a Celtic language written in an earlier form of script, their reading suffers from an ill-guided consensus on the deciphering of the script, on principles established more than half a century ago, which prevents the actual reading of the script. The fact that these SW inscriptions, pertaining to the locally-developed Paleo-Hispanic scripts have not been read despite several decades of intensive research is, as *tentatively* propounded here, due to the erroneous reading of the SW script as a semi-syllabic one, rather than alphabetic, owing to the fact that their study has for several decades adhered to the initial hypotheses devised for a different Paleo-Hispanic script recording a different language, and then applied to the SW script, in the assumption that all Paleo-Hispanic scripts – itself, an umbrella term that masks a modern scholarly presumption on shared unity – derived from a single original script, or were related among them, despite being used to write languages of different language families. This monolithic approach has been compounded by the research area unwittingly turning into the exclusive domain of interlocked groups of researchers whose well-meaning, internal ties functioned as a deterrent from moving on from original premises that over decades have not been entirely successful. This list of observations

is all the more important when still, after 60 years and all this intensive research, these inscriptions cannot be read after all.

Throwing the current consensus on the phonetic values of the signs into a tailspin is not the ultimate aim, but a way for a better, deeper understanding of the script and as a result, the society that used it. Setting out to challenge the assumptions in the current deciphering principles of the SW script may seem futile had it been for the sake of it. As an exploit, the revision is rendered necessary by increasing archaeological finds that show that in the 8th-7th c. BCE, a residential Greek community in Huelva (e.g. Llompart *et al.* 2010), an ancient port situated on the western borderlands of the populations that used the SW script, were leaving dedications to gods in their language and alphabetic scripts – just at the time that the SW began to emerge. This fact, when properly understood, injects a whole new dimension to the phenomenon of the emergence of the script. Here I propose new reading for some inscriptions for which high-resolution photographic material permits the transcriptions of signs, proposing a new transcription for some of them. This provides an avenue for discussing new ways of reading an alphabetic script that recorded a Celtic language, which if deciphered correctly, can open a new window onto a period and region where successive migration movements had resulted in a multi-ethnic Iberian Peninsula by the eve of the Roman colonization, where more than a half a dozen languages and scripts were in use. And in the course of this research, inroads can be made onto neighbouring societies that used the same scripts for another form of Celtic being spoken across the other side of the Pyrenees. In addition, it furnishes results relevant to broader themes, such as the modes of spread of Celtic-speaking populations. The aim is to help move the research forward after decades of rehashing old suppositions that has led to a stultified consensus in efforts to read the language, despite many and several significant advances in the documentation and dissemination of it.

To that end, I test an experimental hypothesis built on the internal evidence of the script itself, its media, but also in the knowledge of the archaeological and historical testimonia that has since emerged, proving beyond doubt that the circulation of Greek alphabets exactly in the region and period where the SW script emerges. I explicate the basis of the initial hypothesis, which departs from recent archaeological finds, build the deciphering model on an existing abecedar, and then test the result using three SW inscriptions. I do not pretend to present a fully developed deciphering system, but reclaim the right to study this material unconstrained by principles that have not exactly worked despite decades of research.

Invaluable to this endeavour have been the epigraphic corpora made available by the Hesperia Banco de Datos (BDHesp),¹ the Adopia database,² the documentation offered by the Proyecto Estelas,³ and the indispensable accomplishment of the encoding of the Paleo-Hispanic fonts (i Ferrer *et al.* 2015; i Ferrer *et al.* 2011) that allow easy dissemination of the inscribed

¹ <http://hesperia.ucm.es/index.php>

² <https://adopia.huma-num.fr/es/home>

³ <https://projectoestela.blogspot.com/>

texts.⁴ In trying to reconstruct the correspondence of the signs/letters among various ancient scripts, some of which preserve unknown or undetermined languages, the International Phonetic Alphabet is not the best tool. My interest here lies in the deciphering of the script and the identification of the language; as to the development of the language itself, the development of phonemes (e.g. Zair 2012), linguists can resume or take up interest when the study of the script approaches a method of being (correctly) deciphered.

PROBLEMS OF CURRENT RESEARCH

The hypothesis of the SW script as semi-syllabic

There continues to be no full consensus on the deciphering of the SW script, and what does exist has not led to the establishing of what language it records, let alone its reading. Its nature as a semi-syllabic system has not been put into question, erroneously as will be postulated here. In particular, there is no agreement as to the phonetic values of all its signs, neither as to the direction of the script. Attempts to stay afloat in this complex linguistic and epigraphic environment by offering an all-encompassing explanation for how the scripts work has not produced a viable proposition that results even in the identification of the language. The notion of the semi-syllabic script first came to prominence with the deciphering of another script documented in Iberia, the so-called North-Eastern script of the Mediterranean coast of Iberia. Dating to almost a century ago, but proven influential, the efforts of Manuel Gómez-Moreno-Martínez led to the decoding of the North-Eastern script, thereby establishing it as a semi-syllabary, whereby only occlusive consonants were represented by syllabic signs. The success conferred legitimacy to the method, buoying its application to several more scripts with alacrity that went unheeded. Several decades have lapsed since seminal studies (e.g. Untermann 1961) on a raft of other Paleo-Hispanic scripts were hailed as a triumph yet without leading to a breakthrough in actually reading the texts, or with readings that have not been fully successful in going beyond isolated words (Untermann 1997). By mainstream opinion, the SW script is the older of the scripts to be developed in Iberia and it does not record a non-Indo-European language (unlike the North-Eastern script), yet the scholarly consensus has assented to the overshoot of the semi-syllabary of the 1920s as a *fait accompli*, even when no meaningful results have been obtained from the reading of the script in this way. Research on numismatics from the pre-Roman/earlier Roman period has contributed to the study of Paleo-Hispanic scripts but the knowledge of their relationship to the earlier South-Western script remains inadequately known. Through successive steps in consolidating these ideas as a scholarly approach, reinforced through intergenerational academic teaching and patronage that results in few willing to relinquish even weak tenets of this approach, especially given the polymathic constitution that it envisages among those who dare study it, an institutionalised acceptance of

⁴ The Paleo-Hispanic typographic fonts used here were developed by Marc Albertí Collado, in the context of the project Estudio Paleográfico, Lingüístico y Funcional del corpus Epigráfico Ibérico (PID2019-106606GB-C33) (Spain) and are freely available online.

a method that has not worked and was not devised for its object of analysis, is now taken to be an unassailable fact. But, is it?

The main tenets of this model consist in that the Iberian language of the eastern region of Iberia was written with a combination of phonemic signs for consonants, and with syllabic signs for stop consonants (plosives) followed by a specific vowel and vowel combinations, so in adopting the Phoenician abjad it became a semi-syllabary, the South-Western script. According to the current deciphering of the SW script, the Phoenician *matres lectionis* were adopted and two more vowels were added (Valério 2008). More recent research has supported the idea that the Phoenician language possessed *matres lectionis*, especially for proper nouns (Lemaire 2008), so on principle this is a plausible hypothesis. According to this reconstruction of the SW script as a semi-syllabary, along with these five vowel signs, 24 additional signs represented consonants, 15 of which were stops, among which velar, bilabial and dental ones, with each of these three categories being represented by five signs, each of which was only paired with a specific vowel. By coupling a specific consonant with a specific vowel, the foundations were laid for the transformation of an abjad into a semi-syllabary, the thinking goes. But curiously, this same reconstruction posits that non-stop consonants were used with any vowel just as in any alphabetic script.

At first sight, it seems strange that under the effect of an abjad coming from Phoenicia and Syria, and under the influence of the alphabet from the Greeks – the main colonizing peoples in Iberia at the time, whose scripts circulated within the ambit of their colonies and beyond – the indigenous inhabitants of south-western Iberia would devise a semi-syllabary for writing a language that was in the Roman period easily accommodated by the Latin alphabet. What would the stimulus and inspiration be for a semi-syllabic script for writing a Celtic language? How would a semi-syllabary have developed? As a half way point between an abjad and Greek? And why, given that the language had so many consonant-vowel combination as known from names and Lusitanian a semi-syllabary would make much sense when it assumed a much greater number of signs? None of the scripts that were beginning to circulate in the Mediterranean took an *abjad* and turned it into a syllabary. Not the Greeks or the Etruscans or the Oscans, for that matter. Far from an unassailable fact, the syllabic character of the SW script remains to be proven in a way that actually both establishes the linguistic family of the language and allows its reading.

The language recorded in the SW script

For historical reasons, the language can only be Celtic. And if so, the context of the inscriptions is helpful in conjunction with the knowledge of alphabets circulating at the time in the peninsula. Herodotos (*Hist.*), Strabon (*Geog.* 3) and other Greek authors refer to this region, characterized by a dense concentration of epigraphic documents in Iberia, as the land of the Kynetai, bordering the territory of the Keltoi (Celts) within what is now Alentejo and Algarve (Portugal), and the province of Huelva (Spain). Herodotos (*Hist.* 4.49), proud in his own impartiality and inquisitiveness, singles out the Keltoi and Kynetai as the westernmost inhabitants of Europe:

ῥέει γὰρ δὴ διὰ πάσης τῆς Εὐρώπης ὁ Ἰστρος, ἀρξάμενος ἐκ Κελτῶν, οἱ ἔσχατοι πρὸς ἡλίου
δυσμέων μετὰ Κύνητας οἰκέουσι τῶν ἐν τῇ Εὐρώπῃ: ῥέων δὲ διὰ πάσης τῆς Εὐρώπης ἐς τὰ
πλάγια τῆς Σκυθίας ἐσβάλλει.

While knowledgeable enough, his positioning of the Danube in the far west of Europe likely reflects the geographical knowledge of his environment, but the historian is unequivocal in placing the Keltoi and the Kynetai in the far west of Europe. The distance separating Herodotos from the region and its peoples shows again in the naming of the ethnic groups. The historian hedges as regards the second of the two, which shifts twice in his text, a symptom of his unfamiliarity with the ethnonym and its Greek transliteration, and perhaps also due to phonemes alien to the Greek language. The two variants (*Hist.* 2.33, 4.49) allow for some possibilities of reconstructing the ethnonym in the nominative plural, as it would have been transcribed in Greek. The second attestation (*Hist.* 4.49) is straightforwardly restored as *Kynetai (Κύνητας < Κύνηται). But the first mention of this population group in the text (*Hist.* 2.33: Κυνησίοισι) yields the clunky *Kynesioines or less likely, *Kynesioieis or *Kynesioies (Κυνησίοισι < *Κυνησίοινες or *Κυνησιοιεῖς or *Κυνησιοίεις) in the nominative plural according to different possibilities within the third declension of nouns on the basis of the extant dative. Thus, in Greek this population would have been referred to as *Kynetai* or less likely, as *Kynesioines*. An outcome of this confusion must be that Stephanos of Byzantion (*Ethn.* K 265) offered two more variants of the ethnonym: Κύνητες (Kynetes) and Κυνήσιοι (Kynesioi) based on the Κυνητικόν (*Kynetikon*) of Herodoros of Herakleia, who must have had access to Herodotos' work. The first of those gives a Κύνης (Kynes) in the singular.

It is possible that Herodotos' difficulty derived from an ethnic adjective that ended in -ensis/-ense, as known from the numismatic legends of Roman periods, e.g. Tamusiense on coins of Tamusia in Latin, a form of adjectival ending which may not have been totally different to those of the local linguistic substratum. In the first case, Herodotos would have tried to rehabilitate the adjectival noun containing a peculiar to Greek ears, for the ending syllable, *ns cluster according to the third declension of Greek, whereas in the second attestation of the ethnonym the historian would have simplified the word altogether.

Perhaps closer to the actual form of the word would be a hypothetical *cunesensis*, from which Herodotos would have derived his reconstructed Κυνησίωων (masculine nominative), as the attested plural dative of the third declension hints that the noun incorporated the letter -n- in the stem. With reason, one may propose that an ethnic adjective in the source language incorporating the *n* along with a sibilant consonant in the final syllable, which would explain the difficulty Herodotos faced, as a Greek speaker, to render this ethnonym in Greek.

While in the crucial passages these Kynetai are distinguished from the Keltoi (Celts), whether the two groups did not speak dialectal variants of the same language or at least distinct languages along a linguistic continuum with mutual intelligibility is doubtful. Their very name is conducive to a Celtic etymon. Koch (2009) offered a Proto-Celtic (PC) *kwon (κύων), dog, as an etymon. Other possibilities could be offered too. But could it not be that the word *kenget,

‘warrior’ (Matasović 2009, 200) was the source of what Herodotos transcribed as Kynetai? Polybios (*Hist.* 10.7.5) preserves another ethnonym for what appears to be the same population, Κόνιοι (Conii). Later inscriptions in the Lusitanian language written in the Latin alphabet do not contain the strange combination of sounds produced if we are to follow the current deciphering methods that produces no credible results. Rather, the sounds of an Indo-European language come across, one that would easily be recorded with an alphabetic script.

The language of the SW script in relation to Celtiberian and Lusitanian: the case of the personal onomasticon as a basis

Can we approach the SW script with a novel approach, aware that it most likely records a Celtic language? Contemporary epigraphic testimonia are few and far between. Contemporary to the period studied is the inscribed graffiti in the Greek alphabet from Huelva preserve the local name (theonym?) Niethos (Almagro-Gorbea 2004). A grave marker in Phoenician, from a secondary position in Lisbon, present the name and patronymic of an individual which appear to be of a non-Phoenician origin, despite the chosen funerary rite. It has been reconstructed as “Wadbar son of [--]Ibadar” (Neto *et al.* 2016). Roman-era inscriptions from Portugal and Spain in later forms of the spoken language (s), those termed Celtiberian and Lusitanian, are helpful in this regard. ‘Celtiberian’ is an exonym that underlines the linguistic similitude between the populations on either side of the Pyrenees, and Lusitanian is mostly known from Latin-written inscriptions. Our knowledge of these two is too narrow to determine if intelligibility existed between the two (as is the most likely scenario), and their relationship with earlier language recorded in the SW script. That Lusitanian is a later form of the language spoken in 8th-6th c. BCE is the soundest inference as there is no reason to suggest a sudden linguistic rupture between the Iron Age and the Roman colonization, and is further supported by the etymological reconstruction of extant names.

The personal onomasticon of Celtic-speaking populations from Lusitania, Celtiberia and Gaul can be reconstructed in part by Greco-Roman historical and other sources, that record events pertaining to the Second Punic War and the Roman conquest, which however provide adaptations of the original form of local names, and vitally, through a host of inscribed monuments, such as tablets but also coins, mostly in Latin but also in local scripts, which preserve local names. The epigraphic culture imported with the Roman colonization can also be mined for information on personal names, although the majority that survive are Roman, and surprisingly, a highly diverse Greek onomasticon.⁵

Later epigraphic testimonia on the personal onomasticon are of value in determining indigenous names. Roman-era inscriptions in Paleo-Hispanic languages but written in the Latin alphabet or Latin inscriptions preserving local names allow for the reconstruction of the regional onomasticon across the different linguistic domains of the populations inhabiting Iberia, from the precursors to modern Basque (Gorrochategui Churruca 1984) to the possibly

⁵ See *e.g.* adopia: Adopia, adopia.huma-num.fr/es, see Edmondson *et al.*

linguistically-related Iberian language (Moncunill Martí 2021), to Celtiberian (Beltrán Lloris *et al.* 2021; Navarro Caballero *et al.* 2011) and Lusitanian inscriptions (Salinas de Frías 2013). Occasionally, indigenous names are inflected in the original language (Celtic) through code-switching (e.g. invocation of deities with the name given in the dative of the Celtic language inserted in a Latin inscription) (Moncunill Martí 2017). Rarely, inscriptions or graffiti of names in a form of Celtic using the Greek script provide sources for the reconstruction of ancient names.⁶

The personal onomasticon surviving as epigraphic testimonia on stones, lead tablets and rock inscriptions demonstrates continuity from the pre-Roman Iberia to the later periods, and even through to the modern languages, in case for example of Basque, e.g. the Iron Age Aranco > *Aranconis>*Arangonis>*Arangohiz>Arangoiz>Aranguiz /Arangiz (Faria 2024). Practices of intermarriage between people of different linguistic backgrounds are evinced from these records. For example, funerary inscriptions in Latin script of Iberian deceased present names of individuals with a Celtic substratum whose parents names belong to a non-Indo-European substratum (Basque) (Faria 2024).

An important source for the Celtic onomasticon is the *Tabula Contrebiensis*, a long document in Latin inscribed on a bronze tablet and dated to the early 1st c. BCE. It was found at what was ancient Contrebia Belaisca (Botorrita, Zaragoza). Its author asserts that the text was the translation of an arbitration decree between two cities over the digging of a canal, which mentions the names of several Celtiberian officials: Lubbus of the Urdini, son of Letondo; Lesso of the Sirisces, son of Lubbus; Babbus of the Bolgondisces, son of Ablo; Segilus of the Anni, son of Lubbus; of [---]juvolices, son of Uxe[---]; Ablo of the Tindilices.

Another source for the personal onomasticon in Celtic-speaking regions are the names preserved on numismatic legends, often in the Latin alphabet which excludes ambiguity. In the territory under consideration here, the relevant numismatic record is confined to the coins minted by Salacia. Such testimonia preserve the names of the city's magistrates, for example, from coins in the region. If the assumption that the inscribed words are names is correct, then Odacis, Candnil, Corani, were personal names (perhaps presented in abbreviation or inflected form here).⁷ Yet with the exception of these numismatic legends, the aspiring reconstruction of the Lusitanian personal onomasticon on the basis of Roman-era epigraphic documents has not been particularly fruitful in pinning down names that are considered indigenous in SW Iberia. Latin inscriptions from the region where the SW literary culture flourished preserve a preponderance of Latin and, surprisingly, of even rare Greek names, several with the flavour of Hellenistic East, but few personal names that pertain to an indigenous horizon, even in a Latinized form (perhaps except for the cognomen).⁸ Such a marked popularity of Greek names

⁶ An example is the graffito KANIKΩNE on a skyphos from Peyriac-de-Mer (Sigeac, Aude) (Faria 2024). The assumption is that it concerns a name, by analogy with Greek practices. Compare PC *kani-, 'good, nice' (Matasović 2009, 187).

⁷ http://hesperia.ucm.es/consulta_hesperia/numismatica/leyendas.php?id=8&file=file_98.php BDHesp (consulted on 03-10-2025).

⁸ E.g. Nestor; Nice; Nicephor, Nicias, Nicocles, Nicomedes, Nikon, Nicopolis, Nicostratus, Nicotyché, <https://adopia.huma-num.fr/de/names>, see Edmonson *et al.*

that in earlier periods translated Semitic compound names (Theodoros etc) signals the origins of the demobilized veterans settled in the new *coloniae* by Roman authorities, but also the appeal of the new lands to other social strata that followed on. Some of the Greek-speaking families were certainly recent immigrants. This is seen in the way these exogenous individuals represented themselves within the cultural traditions they import into Iberia – of funerary epigrams, legal decrees etc. A grave marker from Roman Balsa, found near Luzia, for example, in a typical Greek fashion commemorates the loss of a year-old infant, Tatianus, born to Euenos and Antiocheis, showing the linguistic fluidity in names, motivated by social mobility reasons (Fraga da Silva 2007, 59). Even a certain individual named Herennius was attested in Alcácer do Sal, and this name occurs in the epigraphic record of many other places in south-west Iberia⁹ – an interesting discovery given the manuscript of the ethnically Herennius Philo's *Phoenician History* said to have been discovered in Portugal,¹⁰ a Phoenician man, living in the Hellenistic East during the Roman empire.

That the new Greco-Roman epigraphic cultures give a biased representation of the personal onomasticon is gleaned from the fact that even from originally major Phoenician colonies only a preponderance of Greek names, followed by Latin ones, survive. Thus, a certain bias in what survives is easy to detect, as Greek and Roman names survive through the epigraphic cultures of their bearers, even if we concede that to a degree the appeal of the foreign names lay with efforts of local elites to secure their social status by mimicking Roman colonists and the culture they brought. Therefore, the onomasticon that would be relevant and helpful for the process of deciphering this SW script is largely absent from the Latin inscriptions.¹¹

⁹ <https://adopia.huma-num.fr/names/989>, see Edmonson *et al.*

¹⁰ On the authenticity of the purported manuscript containing the work of Philon Herennius found in Portugal, see Pappa (2024).

¹¹ See *e.g.* adopia: Adopia, adopia.huma-num.fr/es, see Edmondson *et al.*

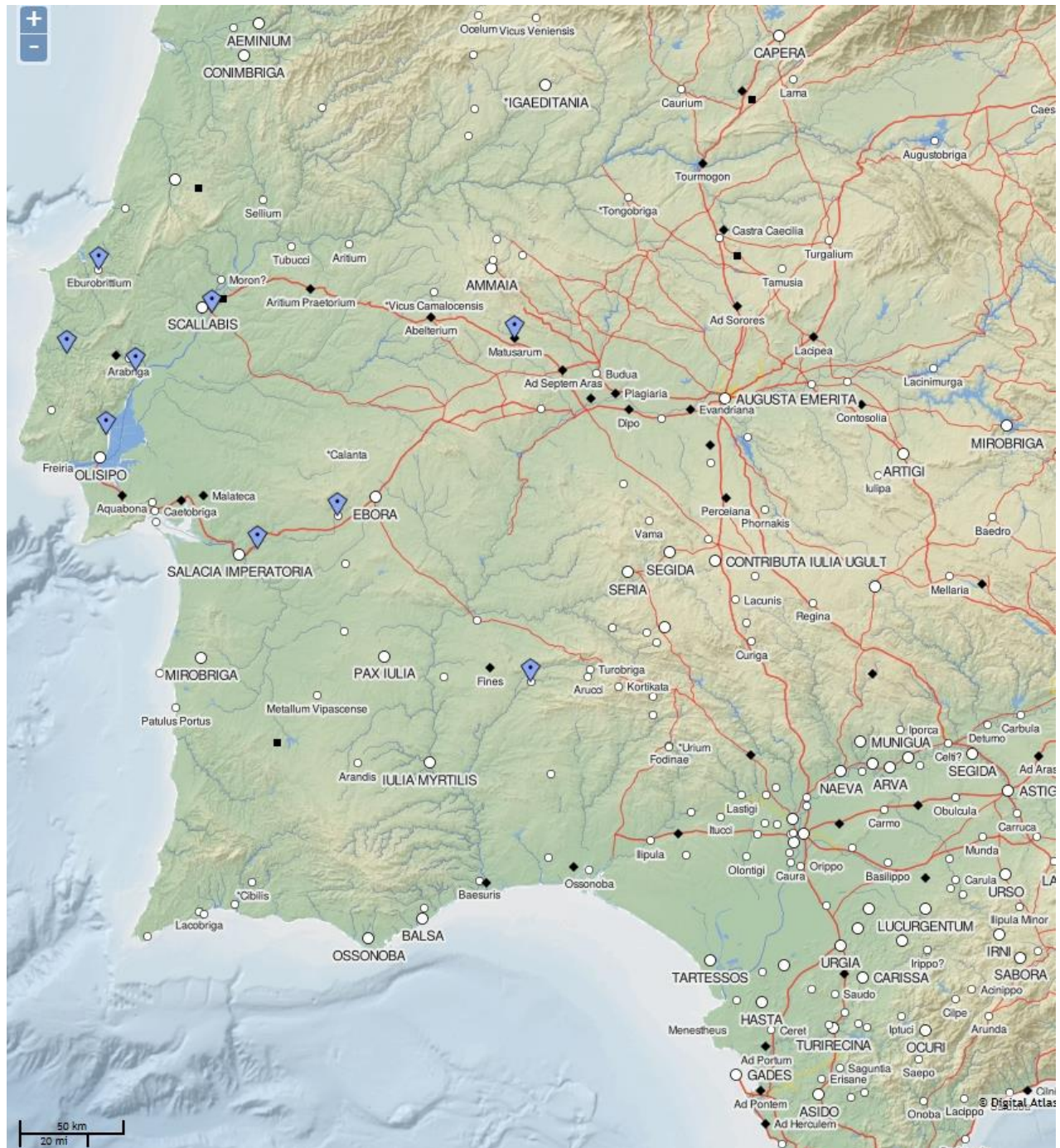


Fig. 1. Map of South-West Iberia during the Roman period with sites mentioned in text. Detail of *Digital Atlas of the Roman Empire* (GeoJSON API), © 2020 Johan Åhlfeldt, Lund, Centre for Digital Humanities, University of Gothenburg, Sweden: <http://imperium.ahlfeldt.se>. Published under the Creative Commons Attribution-ShareAlike 3.0 (CC BY-SA 3.0) license.

A NEW DECIPHERING APPROACH

A reappraisal of the SW script and the role of Greeks alphabets

Can the SW be read in a different way than the current consensus? Faced with this delicate and risky task may seem daunting, but the ancients unwittingly left a guide for us: their signaries, or if my proposal is correct, their abecedaries. To turn aside from the speculative realm of whether the adoption of the abjad would spur innovations resulting in a semi-syllabic script while under the exposure of the Greek (and likely, Etruscan) alphabets, a departure point may be the extant abecedaries, produced within the same region and time-frame of the extant SW, and often using the same medium (natural schist rocks) which can serve as a guide as to how they were learning and adapting individual sign letters.

Moreover, the documented circulation of several Greek alphabets on the edge of this region inspires confidence. Several of the characters of the SW script are found in identical form in the Cretan and Knidian alphabets, which is significant for the added reason that a votive inscription has been found in Huelva in the Knidian alphabet and that the earliest Greek pottery to be found in South-West Iberia comes from Ionian and Euboea and Crete, a known stop-over in the Phoenician maritime routes west. It is unlikely these were developed independently at the same time. It is documented beyond doubt that a community of eastern Aegean Greeks of different origins lived in Huelva in the c. 7th c. BCE, some of whom operated a potter's workshop. Additionally, at least one Greek votive dedication, found close to the location in Huelva where a Phoenician sanctuary was archaeologically identified, made use of the distinctive Knidian alphabet. Some of the signs in the SW script contain signs which have been considered local developments in Iberia albeit they are identical to those of the Knidian alphabet, as well as others pertaining to regional Greek alphabets, such as the Cretan one. That the Knidian alphabet is attested in Huelva at the time of the emergence of the SW script is significant, as is the correspondence between SW signs and Cretan alphabetic letters, given that the island was certainly a mid-west station on the cross-Mediterranean Tyrians sailing route to their colony in Gadir (Cádiz). Given these factors, the similarity between the graphic signs of the SW scripts and these Greek alphabets cannot from the outset be disregarded as coincidental.

For the purpose of the SW deciphering, among dedications to Greek deities in the Greek language found on Archaic pottery in Huelva there stands out one made in the distinctive Knidian alphabet. Several Greek deities are attested as recipients of dedications, such as Nike, Athena and Hestia (Llompart *et al.* 2010). Vital to the present argument is the discovery of a votive inscription in the distinctive alphabet of Knidos, which shares at least two signs with the SW script. The inscribed cup, of Greek typology, was found in excavations (calle Palacios 7), in the heart of the modern city, in proximity to the locale of a Phoenician sanctuary dating to the same period.¹² The inscription “ΙΑΚΛΕΟΣ ΠΜΙ”, where the first vertical stroke was read

¹² Museo de Huelva.

as a partly legible P (rho),¹³ is reconstructed as *[H]ρακλέος εἰμί*, “I am of Herakles” (Domínguez 2013, 29), with a characteristic boxy sign standing for the initial diphthong (εἰ) of the verb. The pottery found in Huelva, a lot of which comprised cups, was originally classified as Ionian along the types considered East Greek found in Megara Hyblaia in Sicily, on the basis of earlier typologies.¹⁴ In the more recent classification of Ionian cups, these are considered possible productions of colonies in Sicily and elsewhere in the central Mediterranean.¹⁵ In fact, typologically Greek pottery of different styles was produced locally in Huelva, as corroborated by X-Ray Powder Diffraction and Neutron Activation Analysis (González de Canales *et al.* 2023; González de Canales Cerisola & Llompart Gómez 2017, 126).

Originally settled by Lacedaemonians (Hdt, *Hist.* 1.174), Knidos was a member of Doric Hexapolis, along with Halicarnassus (Caria), and the island poleis of Kos, and Lindos, Kamiros and Ialysos on Rhodes, with which it annually convened, affirming ties through religious games to Apollo and Poseidon. Maritime commerce was strong and by the 6th c. BCE, the Knidians had founded a vibrant colony on Lipara (“fat”), one of the Aeolian islands, displaying flourishing theatrical culture by the 4th c. BCE. Through its far-flung maritime connections, Knidos was also one of the founding poleis of the Greek emporion of Naucratis, which was built on the eastern bank of the Canopic branch of the Nile as a collective enterprise of Ionian (Chios, Klazomenai, Teos and Phocaea) and Dorian (Rhodes, Halicarnassus, Knidos, Phaselis) poleis, as well as of an Aeolian (Mytilene) one (Hdt *Hist.* 2.178–80). Given this enduring maritime prowess, it is not surprising that a Knidian left a dedication to the paramount hero of the Dorians, Herakles, in Huelva. It is possible that the Knidian who left a dedication in that alphabet in Huelva came from Lipari or Naucratis, rather than Knidos itself. This is significant as this particular rectangular sign is attested in the SW Mealha Nova I inscription, found at the homonymous necropolis that also yielded a scarab considered Naucratis, at a time that the Knidian alphabet is also found in Huelva and Knidos had co-founded the emporion at Naucratis. Are we to assume that since the Knidian alphabet is attested in Huelva the same signs, such as the rectangular for the εἰ, developed at the same time independently by the native people in the region, becoming part of the SW script?

Of some relevance to the aims of the present investigation is the archaeologically and epigraphically-attested Greek presence in Huelva c. the 7th c. BCE or earlier, which shows the circulation of Greek alphabets locally. It would be interesting to link this information with the abundance of individuals bearing Greek names attested in the Roman-era epigraphic record of south-western Iberia, as noted above. The first assumption is that the multitude of Greek names reported for southern Iberia in Roman epigraphic texts pertain to new immigrants within the mobility afforded or enforced by the Roman authorities. But there is no definitive way to prove beyond doubt that some of these individuals were not actually descendants of earlier migrant communities. The sheer divergence of these Greek names in territories of former Phoenician

¹³ There are some grounds for scepticism regarding this epigraphic emendation, given that the upper curved line of the letter R could not have fit between the vertical stroke allegedly standing for its vertical stem and the next letter, A.

¹⁴ Fully developed in Vallet & Villard (1964a, 85-91); Vallet & Villard (1964b, pl. 72-80).

¹⁵ For this new classification of so-called East Greek cups, see Kerschner and Schlotzhauer (2005).

colonial realms and their adjacent regions may owe something to an earlier migratory movement, only reinforced during the Roman empire.

Greek signs shared with the SW script

The Greek letter *eta* H, η was adopted from the Phoenician 𐤇. Originally, it was used for the original consonantal /h/, but progressively this was abandoned, and a variant of the letter came to denote the first vowel of the letter's name through the acrophonic principle: ie H, η (assumed pronunciation: /ε:/). This evolution is found in the Ionian dialects and Doric dialects of Crete (Jeffrey 1961, 28). Of particular interest here is that Knidos maintained two variants of the Phoenician heth s for both functions: H for the consonantal sound /h/ and 𐤇 for the long vowel denoted in the later classical alphabets by H, η (/ε:/) (Jeffrey 1961, 28). A box sign with an internal cross represented the X, χ (chi) in Euboea, the pottery of which is among the earliest documented in Huelva. The only Greek alphabet where the *heth* sign maintains its earlier Phoenician form, 𐤇, as also attested in the SW, is Crete, but there it denotes the vowel of heta. The cluster of the empty rectangle followed by sigma (S) is used for the /ξ/ in Amorgos and other islands, while the same phoneme is graphically represented by a vertical hour-glass sign in the Knidian alphabet. However, in Sikyon (near Corinth), the vertical hourglass-shape denotes the epsilon, while the *samekh* letter is used as a numeral in Crete. In western Greek alphabets, the hour-glass is the second consonant in a cluster that denotes /ps/.¹⁶ Thus the following signs are shared between Greek regional alphabets and the SW, without a Phoenician precursor:

𐤇 : attested with a vertical orientation in Knidos for /ξ/ (ks)

𐤇 : Attested in Knidos, as a long vowel.

○ : the circle and the semi-circle are both attested in Knidos, probably for allophones of /o/. The alphabet of Knidos is the only Greek one to include a semi-circle.

↓ : with the arrow pointing downwards, it is attested as equivalent to Greek Ψ in alphabets of Megara Hyblaia and Syracuse, and in clusters with ΨS to denote chi in the alphabets of Elis, Achaea and others, the closest parallel for the sign of ↑ in the Espanca tablet (see below)

𐤇 : Crete is the only Greek alphabet to offer this graphic sign, and it denote the *heta* as a vowel

Thus, up to four peculiar signs of the SW script, not inherited directly from the Phoenician abjad, are shared with regional Greek alphabets. Knidos, whose alphabet is attested in Huelva, is the only script, outside the Paleo-Hispanic ones, to offer the blank rectangle, the semi-circle and the hourglass shape as graphic letters which appear on the Espanca abecetary.

¹⁶ For these regional variants of the early Greek alphabetic scripts, see Jeffrey (1961). For recent developments after the discovery of the Methone hypogeum with early Greek graffiti, see Janko (2015).

The Espanca tablet

The Espanca tablet, preserved on a heavy, unworked schist stone of irregular shape, was named after the village where it was found, near Castro Verde in Southern Alentejo (Fig. 2).¹⁷ It was a chance discovery, and as such the find was not associated with a particular archaeological context. The tablet is of large dimensions and would have been too heavy to carry. Therefore, it is unlikely it was meant as a portable abecedary. While almost a unique find, the schist-dominated landscape of the region deters the visual identification of such artefacts. It preserves two signaries, inscribed in parallel across the edge of the surface, from right to left. Although similar, they are not exactly identical, and are thought to preserve a local script, close but distinct to the SW, inspired from the form and letter order of the Phoenician abjad.



Fig. 2. The Espanca signary, Museum da Lucerna (author)

The order of the Phoenician abjad is the following, read right to left:

𐤀𐤁𐤂𐤃𐤄𐤅𐤆𐤇𐤈𐤉𐤊𐤋𐤌𐤍𐤎𐤏𐤐𐤑𐤒𐤓𐤔𐤕𐤖𐤗𐤘𐤙𐤚𐤛𐤜𐤝𐤞𐤟𐤠𐤡𐤢𐤣𐤤𐤥𐤦𐤧𐤨𐤩𐤪𐤫𐤬𐤭𐤮𐤯𐤰𐤱𐤲𐤳𐤴𐤵𐤶𐤷𐤸𐤹𐤺𐤻𐤼𐤽𐤾𐤿𐥀𐥁𐥂𐥃𐥄𐥅𐥆𐥇𐥈𐥉𐥊𐥋𐥌𐥍𐥎𐥏𐥐𐥑𐥒𐥓𐥔𐥕𐥖𐥗𐥘𐥙𐥚𐥛𐥜𐥝𐥞𐥟𐥠𐥡𐥢𐥣𐥤𐥥𐥦𐥧𐥨𐥩𐥪𐥫𐥬𐥭𐥮𐥯𐥰𐥱𐥲𐥳𐥴𐥵𐥶𐥷𐥸𐥹𐥺𐥻𐥼𐥽𐥾𐥿

¹⁷ It is kept at the Museu da Lucerna in Castro Verde.

One of the older, partially-surviving Greek alphabets is known from Eretria (Euboea): [αβγδεϛζηθικλμν]Ϡοπ[- - -] (Janko 2015, 20).

According to Valério (2008), the signary of the table of Espanca, containing two series of letter orders, which are not quite identical, preserve some teaching exercise where an experienced hand wrote the alphabet, and someone repeated the letter forms below. The signary is not fully understood, according to current consensus. On the basis of the number of signs and presence of vowels, it is posited that it reflects a semi-syllabic script, albeit distinct to the SW. Contrary to the interpretation of this inscribed artefact as a teaching exercise is that the two preserved abecedaries, while similar, are not identical. At least the second one preserves a Greek looking $\wedge$, while the quoph-sourced Φ of the outer life resembles the Greek *qoppa*, and the one repeated by the second hand the letter Φ .

The Espanca abecedy suggests the existence of multiple letter forms from multiple abecedaries circulating in Iberia, without a standardized system of denoting sounds much less orthography (as also seen in the diversity of early Greek alphabets). A lack of standardized orthography even with an established alphabet is seen in the Oscan inscription with Greek letters down to classical period (Zair 2016). In fact, the Espanca gives the impression of a competition of knowledge between two people, as to who knew more letters that they picked up from elsewhere. The assumption here is that the users of the Paleo-Hispanic signaries adopted signs from the Phoenician abjad, the Greek alphabet, and perhaps the Etruscan, all of which are regions in contact with south-west Iberia at this time. Several of its features suggest that one or more Greek scripts were used as an influence, in addition to the abjad. Only a few signs of the signary inscribed on the outer side of the stone are not fully legible (Fig. 3).

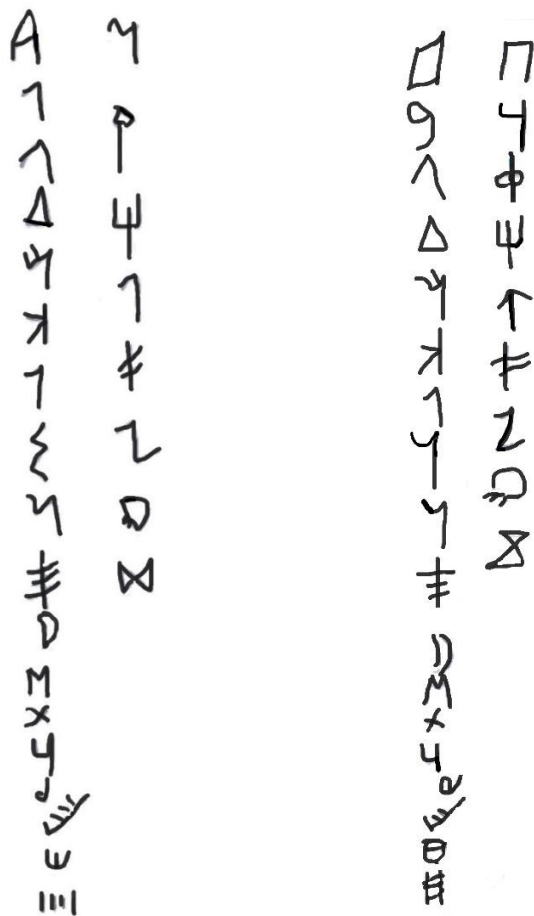


Fig. 3. The “abecedaries” of the Espanca signary: from left to right, they correspond to the outer and inner signary respectively (author)

Several observations on the shape and the order of letter signs can help shed some light on the phonemes that they represented.

- A: an adaptation of the aleph, א
- א, א: an adaptation of the beth, ב, with variants of the signs between the two abecedaries
- ג: an adaptation of gimel
- Δ: an adaptation of daleth, but approaching more the shape of the Greek Δ; than the small rotated triangle of the Phoenician abjad.
- ו: The Phoenician ו, *he*, gave *epsilon*, E, to the Greeks and was lost as an original consonantal sound but in the SW, as clearly shown by the Espanca tablet, there is a brand-new letter-form in the place of *epsilon*, an innovation made locally: ו. This fact alone implies that the adoption occurred with an alphabetic script in mind, where the

5th letter is occupied by a vowel. Conceivably this was more of a short /ε/ sound, than an /i/.

- ¶ & ¶: The three-stroke Phoenician he, ¶, and the similarly-looking yodh, ¶, appear to be visually conflated in the Espanca signary, with the former taking the position of the latter several letters down than its 5th in the Phoenician abjad. In archaic Greek alphabets, Ϝ (digamma), the 6th letter, soon to disappear altogether, represented the voiced labial-velar /w/, with a phoneme inspired from the Phoenician waw, ¶, but imitating the shape of yodh, ¶. It seems likely that in the Espanca signary, the sign ¶ possessed a consonantal value, comparable to the digamma or to the /w/ of the Etruscan alphabet. This explains why a brand-new letter was invented to convey the vowel phoneme in the SW: ¶, since the Greek epsilon had acquired a form too similar to the digamma. That this hypothesis is likely is further strengthened by the order of the letters: ¶ comes before two signs drawn from ¶Θ, thus consolidating the series of f-t-h; found in the Latin alphabet. In early Greek alphabets, such as the one from Samos and Corinth, the letter before signs inspired from teth and heth is Z, but in the Espanca tablet that letter appears third from the end. What seems to be the case here is that the he takes a form between he and yod, probably inspired from the Greek digamma, and is used as Ϝ, before teth and heth, as in modern Latin-derived alphabets: F-T-H. Perhaps we are missing an early Greek intermediary to the Etruscan, as early Etruscan alphabets from Caere, Viterbo and Marsialiana preserve the sequence: FZI-Θ.¹⁸
- The order k-l-m-n-x is shared between the Greek and the Phoenician and the second lines of the Espanca abecedaries, suggesting that ¶ stands for M.
- ¶ ¶ ¶ ¶: the cluster corresponds to ¶¶¶¶, found identical in the Greek alphabet, KAMNE.
- ¶: the SW sign appears where one would expect the circle ayin ¶; in Knidos a semi-circle denotes the /o/ vowel.
- ¶X¶: The sequence, which gives s-t-u, reproduces a letter order partially found in the Phoenician alphabet (where is it r-s-t: ¶¶¶) and partially in the Greek one as P-Σ-T-Y, another clear indication that this was an abecedary that took some of its influence directly from a Greek alphabet where the *ypsillon*, Y follows the *tau*, T.
- ¶: The sign, which appears upside down in the Espanca tablet, must be the equivalent of Phoenician ¶. In the SW inscriptions, it is met as ¶, a Greek P with reverse direction.
- ¶, ¶: The letter signs that in the Espanca tablet assumed their forms from heth and teth, ¶Θ, reverse both the Phoenician and Greek sequences of these two letters. The circular Phoenician teth, ¶, probably pronounced as a heavy /t/, was repurposed as a dental /θ/ in Greek with the similar-looking ¶, is found in the Espanca tablet as ¶ but is hardly used in the extant corpus of the SW script. By contrast, the ¶ became ubiquitous in the SW script, and is used concurrently with the variant devised in Knidos to give the

¹⁸ On extant abecedaria from Greece and Etruria, see Janko (2015; Table 1).

immediately following vowel of the *heta*. That the circular sign is hardly ever attested in the SW inscriptions must be due to the use of χ , an allophone for /t/ in Phoenician, proving of lesser significance in conveying the phonology of the language spoken by the SW users. After all, the Espanca sequence $\aleph, \Theta, \aleph$ follows that of F-T-H- of the Latin alphabet. The sign sequence in the Espanca signary that reverses the Phoenician and Greek sequences of this cluster, a letter order that surprisingly resurfaces in the Latin alphabet, hints at a lost intermediary script, perhaps a regional Greek alphabet that led to the early Italic one. One should also leave the possibility open that the reverse sequence of signs led to a transposition of phonemes, with the SW $\aleph$ acquiring the sound of Phoenician Θ (a rearrangements of signs to phonemes occurred in the adaptation of the Phoenician signs for the Greek letters, whereby the zayin, $\aleph$, came to denote the vowel /i/). The speculation that $\aleph$ may have turned out to denote a dental consonant is then put forward as a possibility.

- $\aleph$: This sign, appearing in the 19th position on the outer abecedary, corresponds to Phoenician $\aleph$, rendered in the reverse direction, a sibilant, allophone for ζ . On the inner abecedary, a possible variant appears on the 20th position.
- Π . Unless due to damage altering the original sign, or bad execution, this is not attested in the SW script and can only be compared with a later form of Greek pi, Π .
- $\aleph$: This is the 14th letter in both abecedaries, but a close variant.
- Φ : Sourced from the Phoenician quoph, Φ , it only appears on the outer abecedary. On the inner one, there is no equivalent, but the Θ sign appears.
- Φ : This is most likely to hold the value of a Greek Φ , / ϕ /, than a qoppa.
- Ψ : This letter may have been adopted from one of the Ionian letters that replaced the cluster of consonants denoting / ψ /. In the Etruscan alphabet, the phoneme represented a plosive /kh/.
- $\aleph$: A visual descendant of the samek, $\aleph$. It is peculiar that the SW script would need to add to the four sibilants possessed by the Phoenician abjad: sibilants, the zayin ($\aleph$) for /z/, samekh ($\aleph$) for /s/, $\aleph$ for /s/ or /ts/ and $\aleph$ for /š/.¹⁹ In the Etruscan alphabet, the phoneme represented by this sign was /z/. Here the parsimonious assumption is taken that $\aleph$ and $\aleph$ were allophones.
- $\uparrow$: The exact sign in the arrow form appears on the inner abecedary as the 22nd sign and in the inner version as the 24th. It is possible that surface damage has caused some signs not to be legible. As an upward-pointing arrow, it is not met in Greek alphabets. A downward-pointing arrow is met in the alphabets of Euboea, Elis, Achaea, Ionian islands to denote / χ /, and in some alphabets of Greek colonies in Sicily, as in the Syracusan, to denote / ψ /. Most likely, given the appearance of the $\aleph$, it denoted / χ /.

¹⁹ The graphic diacritics does not imply a full knowledge of ancient pronunciation of these Phoenician sibilants. Some can be reconstructed by later Latin alphabetic characters, but given the attestation of a later pronunciation, this is only an indication for original phonemes.

- 𐀀: This letter, due to its shape and its place towards the end of the sequence, must preserve a /z/. In the Etruscan alphabet, the phoneme represented by a similar sign deriving from the same letter of the Phoenician abjad, represented /dz/.
- 𐀁: the sign as a broken circle, the sort of omega devised among the Ionians.²⁰ It is perhaps a variant of 𐀂, which appears always in a cluster with 𐀃, perhaps as an early expression of the PC k^w.
- 𐀄: It is attested in some rare regional alphabets. In Knidos, where it is attested in a vertical form, denoting /ξ/

The above shows that our knowledge of the adoption of the Greek alphabet and the Etruscan one is far from complete and that perhaps there were two or three-way interactions in the development of the alphabets as the Espanca tablets preserves sequence of letters present in the Latin alphabet but not in the Etruscan, Greek or Phoenician ones.

A new proposition for the SW script

Several of the Espanca signs are identical to those in regional archaic Greek alphabets from Crete and the Aegean. The cross-reference of the Espanca signary with the Phoenician abjad, as well as with the Greek and Etruscan/Italic alphabets for determining the value of the signs given archaeological evidence that document the circulation of Ionian, Knidian and Phoenician alphabets in the Peninsula, and evidence for trade with Greek-speaking regions and the Etruscans, opens up new possibilities. If we then take the most parsimonious way of reading the SW signs, as done for Greek, Etruscan, Oscan etc, then the proposition that it concerns a syllabic script does not inspire confidence. The fact that after decades of intensive research, there is no agreement on the reading of inscriptions and even the underlying language suggests that the efforts have been placed on the wrong footing. One can argue that it sinks on its own terms. This explains why coin legends in Paleo-Hispanic scripts are yielding supposedly unattested toponyms, which do not correspond to those in Latin on the coins of the same mint, and that inscriptions when vocalized make no sense in any Indo-European language even when all evidence suggest the language spoken was a form of early Celtic. Since such a gift and guide such as the Espanca tablet was left for us, there is little reason to complicate the matter with speculative reasonings, built upon decades of previous speculations, regarding the phonemes of the signs for another script developed to write another language, which is yet to be read. The following points of a deciphering method takes into account several premises, as known from the historical and archaeological record.

Premises

On the language

²⁰ On the shape of omega in Greek alphabets, see Guarducci (1967, 368- 383)

- The language has to be related to the later attested Celtiberian and Lusitanian linguistic continuum
- Comparison with the lexicon and personal and toponymic onomasticon recorded in later eras in Latin and in the Celtiberian language written in Latin - thereby excluding the Lusitanian inscriptions, as currently deciphered to avoid a palimpsest of potentially erroneous inferences building into another) can open a window as to the structure of the language, in terms of grammar and syntax, and on the vocabulary of the combinations of phonemes permitted, *e.g.* *nc*, *ng*, *nd*, *nc*, *nk*, *th*, *gr* etc

On the script

- The parsimonious method for deciphering is the starting premise: the script is alphabetic unless otherwise attested by internal or external evidence peculiar to this particular script. Thus, the departure point is that the script is not syllabic
- The extant abecedaries are not aberrant new scripts but show the process of the 'indigenization' of the new script
- The lack of standardization in the early script does not necessarily mean a multiplicity of spatially overlapping scripts in southern Portugal, but an organic adoption of existing and newly imported scripts. On the current state of knowledge, there were no overarching state structures and no institutional oversight or schools so as to expect for the signs to neatly fit in our tables of signs with their attendant phonemic values. By ignoring this in favour of idealisations, we construct unnecessarily complex rules for scripts in order to fully accommodate every documented sign or combination of signs in a hypothetical, fixed, fully-developed writing system, which is compounded by the fact that variants of signs are artificially created due to our lack of knowledge as to the direction of the script. So, for example, the variants of the same sign, $\aleph$ with the inner bars tilting in reverse directions, are the result of the misidentification of the direction of the script, which if read from right to left result in a sign whose inner bars move downwards from upper right. In reality, only a single variant existed, most likely the one $\aleph$, if the Abóboda reading presented below is correct. Several variants with the bars tilting in the opposite directions are the result of the misidentification of the direction of the script.
- A Greek intermediary must be the missing link to some of the SW signs and their phonemes. While derivation from the Phoenician abjad is certain, PH signaries share an empty rectangular and the hourglass shape signs with Greek alphabets, while some letter shapes are taken from the developed Greek alphabet, not the abjad. That such a signary form appears in southern Alentejo, not much at a distance from Huelva strengthens the connection. A Greek intermediary explains the inclusions of letter forms introduced in the SW script from alphabets developed and used regionally in Knidos and Crete.
- Certain letters are adopted via the Greek alphabet, such as the delta, δ , and the ρ , which imitates the Greek *ro*. Therefore, a Greek intermediary, is necessary to explain the signary.

- The signs $\square$ and $\bowtie$ exist in the Knidian Greek alphabet but not in the Phoenician one, while the new, locally-developed, $\mathfrak{V}$, as the fifth letter and a vowel, can be understood with comparison to an already-developed epsilon, not the Phoenician fifth letter, which is a consonantal sound. A sound inference therefore is that the signs entered the SW script along with the Greek phonetic values. Therefore, a vowel, the sign $\square$ possibly carried a sound close to (/ε:/). This would differentiate it from the existing vowel signs: A, $\mathfrak{V}$, O, $\mathfrak{H}$.
- In addition, the positioning of some of the letters, such as the three final ones, in combination with their shape, hints at their attendant phonemes and suggests the Greek alphabet as an intermediary.
- The pre-final letter of the Espanca tablet, $\mathfrak{U}$, must be an early form or variant of the $\mathfrak{N}$, which by comparison to both form and position in the abecedary/signary must be equivalent to or inspired from the omega (Ω), an invention of the Ionian alphabets, used to connote a long $\bar{o}$. The SW cluster $\mathfrak{N}\mathfrak{H}$ must stand for the reconstructed PC $*k^w$, attested e.g. in $*k^w$ antyo ('flat hill'), $*k^w$ on, 'dog' (Matasović 2009, 174, 181).
- The repetition of same vowel signs connoted exactness in pronunciation when denoting long vowels, a feature seen in the Oscan language written in the Greek alphabet.²¹
- A plausible speculation, since the script arrived with a knowledge of Greek ones circulating, is that since in the early Greek and Etruscan alphabets /t/ is introduced with a straight cross sign, not a rotated X sign taken from the Phoenician taw, the PH scripts may have been influenced from the Greek alphabet, used the boxy $\mathfrak{H}$ as an allophone of /t/, having relegated the guttural /χ/ to the χ . Such a supposition is not supported by the S-T-Y sequence of the Espanca signary, which maintains the Greek alphabetic order for the /t/, unless one assumes that $\mathfrak{H}$ came to represent an aspirated /θ/ by transposition of the original phonemes of teth and heth. Conceivably, the additional stroke on the sign, $\mathfrak{H}$, reflects this transposition of phonemes, with one of the two variants reflecting the original sound of the sign. This theory explains why the Espanca sign, Θ , developed from the original original *teth*, Θ , is rare in the extant SW script. This potentially is the explanation also for why the sequence of this pair signs in the Espanca tablet is reversed from the original Phoenician, with the round teth coming before heth. $\mathfrak{N}$ may have denoted /θ/, coming to replace the Espanca version of the *teth*, which is not really met in the SW inscriptions.

Proposed Method

- The interpretation is aided by the fact that the signs have been read as phonetic, pertaining to an early alphabet where different signs were used to show aspiration or not. The proposition takes into account that some of the signs of the Phoenician abjad entered the Tartessic signary via the Greek one, thereby carrying over phonemic values.

²¹ On this feature in Oscan, see Zair (2016, 190), e.g. *αφαματεδ*.

- The deciphering method begins with a choice of inscriptions that survive in an intact or near-intact state of preservation
- The inscription is read taking into account its positioning on the stela, as an artefact, which gives indications both as to the expected content of the inscription, and the direction of the letter forms, as well as the word segmentation.
- Morphologically related signs are compared to the medium where they appear in determining the direction of reading and the beginning and ending of words.
- Use is made of local abecedaries in deciphering the signs, noting comparable features with both Phoenician and Greek alphabets, and where applicable, Etruscan, all of which are regions within the networks of commerce and social interactions with the Phoenician colonial realm of southern Iberia, immediately to the west and overlapping with the heartland of the SW script.
- Differences in the shape of signs may have been overemphasised by modern researchers, rather than corresponding to different signs. For example, variants of sign forms, exhibiting different directions or extra bars, are not considered distinct signs unless there is no doubt about the direction of the script or there is evidence to prove they concern distinct signs (*e.g.* when both are used in the same, carefully-executed monumental inscription).
- The proposed method then takes into account reconstructions of phonemes in Celtic languages (Table 1), in combination with their corresponding signs (Table 2, Table 3).

	Teneus	Medie	Aspirant	Aspirant
Labial	p	b	ph	bh
Dental	t	d	θ (th)	(δ)
Guttural Palatal	κ	g	ch	gh

Table 1- Expected Phonology of the Language as a form of Proto-Celtic

	Teneus	Medie	Aspirant	Aspirant
Labial	p 𐤕	b 𐤁	φ 𐤑	bh
Dental	𐤔	d 𐤃 𐤅	θ 𐤋	δ 𐤃
Palatal	k 𐤍	γ 𐤅	χ 𐤋	kg, gh
Sibilant	s 𐤑	sh 𐤅	ξ (ks/s) 𐤅 𐤅	

Table 2. Reconstruction of the signs of consonants of the SW script²²

²² This tripartite system, an adaptation of the “smooth, rough, intermediate” (ψιλά, δασέα, μέσα) devised by Greek Hellenistic *koine* grammarians has been used in early reconstructions of Old Irish phonology (a form of Celtic). The IPA system is not suitable to a script in the process of being deciphered because it assumes knowledge of pronunciation that does not exist.

Short vowels	i/e 𐌺	u 𐌾	o 𐌿
Long	i 𐌺	u 𐌾	o 𐌿
Diphthong	ei 𐌺	oi 𐌾	ai 𐌿
Semi-vowels	i (j) 𐌺	u(v) 𐌾	y 𐌿
Liquids	r 𐌺	L 𐌾	
Nasals	m 𐌺	n 𐌾	

Table 3. Reconstruction of some of the vowel signs, liquid and nasal consonants based on expected phonemes if the language were Celtic

THREE SW INSCRIPTIONS AS CASE STUDIES

Two of the best preserved and longest SW inscriptions with a known provenance, including specific archaeological context, are discussed here, in addition to a fragmentary one that preserves a partial inscription.²³ Their selection has been made on the basis of the degree of preservation and length, as well as available photographic material that do not leave ambiguity for the reading of the signs. All three come from different Post-Orientalizing necropoleis in the areas of Ourique, Almodôvar and Castro Verde, pertaining to a cluster of settlement sites and necropoleis situated on low hills and fluvial plains, a typical Baixo Alentejo landscape (Fig. 4).²⁴ Their chronology, although not definitive, falls between the c. 7th c. BCE and the 5th c. BCE and even later, though this date range is by approximation. Despite the rather isolated nature of these settlements, as suggested by the archaeological finds, they furnish the densest evidence for the use of the SW script (Pappa 2023, 172-181). In particular, the region is one of the wealthiest metalliferous zones in Europe, with sources exploited from the Bronze Age to the present day, as in the broader environs of Castro Verde where mining operations continued to the present-day.

²³ A recently identified stela with a long inscription, from S. Martinho (S. Marcos da Serra, Silves), does not avail of close examination remotely due to inadequate photographic material.

²⁴ On these necropoleis in Baixo Alentejo, see Correia da Silva (2015); Torres Ortiz (1999, 115-123).

In the Roman administrative system, the territory covering the areas of modern Ourique and Castro Verde, made up the *civitas Arandis*, as several inscriptions in Latin document.²⁵ Of these, several personal names pertain to the indigenous linguistic substratum, *e.g.* Boutivs, Brocina, Coilicvs, Ebvria, Letondo (cognomen), Mitvlvs, Obbidvs, Tancinvs, following the orthographic spelling of the inscriptions. An individual named Aplondius was also connected to Arandis.²⁶ The latter is also mentioned by Ptolemaios (*Geog.* 2.5), but is named *Aranni* in the *Antonine Itinerary* (AI 426.1), a register of routes and trade stations in the Roman empire (Fig. 5).

In the Iron Age, Baixo Alentejo was the heartland of the Kynetai, which used the SW script, but the language was spoken more broadly as the comparison of the later attested personal onomasticon and toponyms makes clear. During the Roman period, the personal onomasticon, excluding non-Latin and non-Greek known from the broader region (despite the Latinization of their declension) that pertain to the local linguistic horizon give interesting connections to the Kynetai. A *Tamag(i)us* is attested in Conimbriga, modern Condeixa-a-Velha, near Coimbra. The toponym Conimbriga, a compound noun, preserves the meaning of the ‘hill of Conii’. The name *Nothus* survives in inscriptions in several locations: in Lisbon (Olisipo), Cerro del Castillón, Antequera (Singili(a) Barba), Ibahernando (Turgalium), and Lebrija (Nabrisa Veneria). *Nothus* finds some comparison in the Iron Age graffito from Huelva, in Greek, recording the theonym Niethos.²⁷

This suggested linguistic continuity down to the Roman period can offer some possible *comparanda* for the reconstruction of the names and toponyms, if nothing else, from the SW inscriptions.

Mealha Nova (Aldeia de Palhiros, Ourique)

One of the best-preserved inscriptions is the so-called Mealha Nova I, an inscribed stone stela found on a low hill overlooking the Rio Mira and its confluence with smaller streams.²⁸ It was found at what turned out to be a necropolis, which is only partly excavated. Apart from this stela, two additional ones, in a fragmentary state, are known from the site. All three inscriptions were inscribed on slabs of roughly-hewn schist. Of the 16 graves identified at the burial site, all were inhumations in slab-lined rectangular fossas covered by slabs of schist with the exception of one cremation. A nearby settlement known through survey is considered to be the location of the population that used that necropolis. Possibly the tombs were covered by stone tumuli, a feature of other nearby necropoleis, lost over the millennia.²⁹

²⁵ Adopia: <https://adopia.huma-num.fr/ciuitas/1112>, see Edmonson *et al.*

²⁶ Adopia: <https://adopia.huma-num.fr/names/216>, see Edmonson *et al.*

²⁷ On Niethos, Almagro-Gorbea (2004).

²⁸ Estela Mealha Nova I, Museu Rainha D. Leonor (Beja): N.º Inventário: MRDL.2294.

²⁹ On a synthesis of the Mealha Nova necropolis, including the finds, see Tores Ortiz (1999, 116-118).



Fig. 4. The low plains of the Ourique region. Taken in Castro Verde (photograph: author)

Most of the pottery recovered from the site, such as bowls and jars, were hand-made. Some vessels featured incised decoration and two protrusions. The hand-made pottery has parallels with sites elsewhere, such as at Cerro Salomón and the elite necropolis of La Joya, as well as Huelva. Wheel-made pottery also appears, some of which is polished. (Correia 988/89, 89). The grave goods were basic, such objects for personal adornments such as necklace beads (2003.112.10, 2003.112.6, 2003.112.7) and a cornelian-stone pendant (2003.112.5). Among those, the presence of Phoenician or Phoenician-style eye beads is notable as those were typical of Phoenician jewellery (2003.112.9, 2003.112.8), thus suggesting a period following the Phoenician colonization. Other finds included a spear point and spear handle (2003.112.1, 2003.112.2) from tomb 3.

Regarding the dating of the necropolis, Dias and Coelho (1983, 205-206) argued several decades ago that ceramics categorized as “Southwest Final Bronze Age” were found outside the tombs at Mealha Nova, purportedly consisting in the remains of funerary cults held outside the graves, in supposed contradistinction to the Orientalizing ceramics found inside the tombs. This would bring the necropolis closer to an 8th or 7th century BCE date, aligning them with the dating of the stelai, while dating the actual use of the necropolis to 5th c. BCE and later. However, if the graves had been covered by tumuli, then these ceramics would have been enclosed by them. Inside the graves, pottery, jewellery and weapons were found, in small quantities.

That there was no chronological association between the inscribed stelae and the tombs has been posited in the past, with Vilhena (2008) suggesting that the Mealha Nova I stela found at the centre of the necropolis progressively led to the clustering of later-era tombs around the stela. Such a hypothesis, on the basis of typologically dating the hand-made pottery, is too

optimistic. After all, the classification of local, hand-made pottery in the 1980s was not as developed as it presently is, and there was no other evidence to back an independent absolute dating. The ceramics from the site largely consists in coarse hand-made pottery, such as open, shallow bowls with a pair of orifices on either side, presumably for suspension, which implies prior use. During the present author's study of the pottery from several of the (Post-) Orientalizing necropoleis of Baixo Alentejo,³⁰ the type of pottery found would be difficult to use for dating purposes. Mealha Nova yielded this kind of pottery, consisting in a shallow bowl with a pair of orifices on either side.³¹ Further weakening the assumption of the stela predating the use of the locale as a necropolis is that a funerary cult – on the basis of the allegedly earlier pottery found outside the graves – held outside the graves predating the use of the site as a necropolis makes little sense, unless the idea is that the ceramics were used for the heroization of the individuals commemorated on the stelae, around which the graves later developed, perhaps as a form of a worship of the heroized ancestors at cenotaphs. The matter is not settled as independent chronological markers are rare. It should also be noted that the use of the 'Final Bronze Age' is a questionable term when applied to a period of cross-cultural contacts, where a community's Bronze Age was a neighbouring colony's advanced Iron Age, with ample use of iron artefacts that may date to the first centuries of the 1st millennium BCE.

A silver bezel ring carrying a scarab featuring the cartouche of Pharaoh Pedubast (817-763 BCE) from tomb 1 is the only independent chronological indicator, providing a *terminus post quem* for the necropolis: if future examination proves it to be a Naucratic imitation, then date could be even be substantially lower, but then one could question the ability of Naucratic to imitates so closely the Egyptian cartouches. While not insisting on the Naucratic origin of this ring, it should be remarked that Knidians were among the founders of this Greek emporion in Egypt and it may have been via their mediation that it found its way to an indigenous necropolis in the south of Portugal.

The stela and its context

Mealha Nova 1 was found *in situ* by tomb 2, a rectangular fossa covered by a slab (1.20 x 0.60 m) for which it evidently functioned as a grave marker. The inhumation tomb only contained an ornate necklace of 79 beads made of different materials (including glass, amber, limestone and clay) (Torres Ortiz 1999, 117).³² The inscription runs almost all the edge of the stela. Only a few signs, estimated to up to 4 characters, are not legible though past drawings include specific signs as if they had been legible when the stela was discovered.

The rough elongated stela is tapered at the end, presumably with the intention of being inserted into the ground. This fact alone gives an impression of the directionality of the writing, excluding the possibility that its position was a secondary one. An added indication of the direction of the writing is the letter direction itself, although this is not true of all inscriptions.

³⁰ August 2011, National Museum of Archaeology, Lisbon.

³¹ National Museum of Archaeology: MNA No 120, 2007.28.8; Matriznet: 2007.26.1

³² Museu Rainha D. Leonor; N.º Inventário: MRDL.2294.

In addition, in many of these inscriptions, the space between letters varies, with one side of the stela showing a much tighter writing. Resulting from evident lack of the carver's experience, and depending on the direction of the inscription, this asymmetry signifies that either the sculptor underestimated the space needed, thereby inscribing the signs close to one another when running out of space towards the end of the inscription, or conversely, began with a dense writing style and then relaxed, finding that ample space existed for the remaining of the epigram. Of the two propositions, the most likely in the present case is that the inscription was read left to right, in a clockwise fashion, assuming the tapering end was inserted into the ground. Thereby, the basis of the direction followed in the writing is indicated by the letter direction and by the tendency of the carvers to begin inscribing a stela with letters tightly close and then only gradually increasing the spaces as they find in practice that the surface space of the stone is adequate. But the clumsiness of the left side, with signs swirling in and out of an imaginary line and with elongated shapes, in comparison to the neatly executed signs on the right side may also be interpreted as the result of different hands carving the signs into the stone. Probably, a clumsy hand was replaced by a more dexterous one in the course of the action.

The inscription

The inscription is found on the rough schist stela, the 3D reconstruction of which makes it plausible that the tapering end was inserted into the ground.³³ Following the direction as indicated by the shape of the letters and the size of the interstitial spaces, assuming the stela stood as a grave marker, it is read here from lower left to lower right in a continuum. Taking the Espanca abecedary found on a similar slab of schist as a guide, the phonemic values of the inscription, as reconstructed here, is offered as an approximation.

From lower left up to the end of the top of the stela the signs are:

𐌚 𐌚𐌚𐌚 𐌚 𐌚𐌚 𐌚 𐌚𐌚𐌚𐌚 𐌚/𐌚 - 𐌚- 𐌚/𐌚 ??? 𐌚

- The first sign, 𐌚, is not legible on the photograph, but appears in sketches of the stela.
- Transcribed signs: Efnokwanasod– a/th-o-u/w- ???- ks-ks
- *efno*: perhaps related to PC *efino 'right, correct, equal' (Matasović 2009, 113)

The signs on the right side of the stela are:

𐌚𐌚𐌚𐌚𐌚𐌚𐌚𐌚𐌚𐌚𐌚 𐌚𐌚

- Transcribed signs: *drokana* -e-f/p--t-ē/p

The 11th sign on the stela presents one bar across, not two, but an appropriate graphic sign is not available. It is likely after all, that the bar is not clearly legible. At least four signs on the top of the stela are not legible. One is assumed to be 𐌚, from part of its lower shape. The sign

³³ For a different deciphering of the inscription and (contested) reading, see Koch (2009: J.18.1).

following it to the right gives the options seen above, and then only two or two plus a  follow, leading up to the next clearly legible sign at the top right. The word segmentation can only be reconstructed in part. For example, it is unlikely that a word would begin with the letter sign for ks, , since this is unattested in later Celtiberian words attested in the Latin alphabet. On the top right side, a slanted stroke making for an illegible sign perhaps follows from a word to its left across the top of the stela, where the signs are uncertain.

Only two possible words or word segments are recognizable. On the left side of the stela, a word segment or full word which is repeated as a cluster on other stelae (Abóboda; Corte do Freixo; Mesas do Castelinho) is the following:  though the following character in the sequence is uncertain (perhaps, ).³⁴ In the standard reading of the SW as a syllabic one, assuming the script is read right to left, and the third character represents *í*, the word is transliterated as na- *í*- k, cognate with Greek *νάρκη* ('deep sleep'), therefore a formulaic reference to deceased individuals (Koch 2013: J.18.1; Guerra 2010, 106-107; Guerra 2002, 229-230), which seems to fit the content of an epitaph. By contrast, conforming to an alphabetic reading as developed above, and read in the opposite direction, this produces *k^wan-*.

On the other hand, a complete word segment appears on the right side if we read the script as alphabetic and from left to right: *drokana*. An impression that this would fit the known lexicon of Celtiberian is corroborated by the Proto-Celtic etymon **droko*, 'wheel', cognate with Old Irish *droch* (Matasović 2009, 105). The next iconographic sign is not a letter but a circle with outward-protruding spokes, which may actually refer to a spoked wheel. Given the significance of chariots in Celtic eschatology, some relationship of wheels to the grave marker is conceivable. Assuming the identification of a word cognate with "wheel" in the inscription is correct, it is of acute interest that the following grapheme, a circle with "rays" may not be a sun but actually refer to a wheel. Previous interpretations of the symbol considered it as an astral sign or a sun, symbolic of the supposed radiance of the female buried in the tomb. Miniature votive wheels are known by the hundreds in burials from Celtic-speaking regions in Europe, considered symbolic of afterlife ideas on the transmigration of the soul, but the wheel was also the feature of a male Celtic deity, later syncretized with Jupiter, as well as of the Celtic female deity Taranis.³⁵ Chariots were included in Celtic burials known from Gaul and elsewhere. Slightly earlier or contemporary to the emergence of the SW script is the elite necropolis of tomb 17 in La Joya in Huelva,³⁶ which did include entire chariot burials. These are considered an imitation of the Near Eastern-Cypriot cultures of entombing chariots in rich graves, by comparison to the Salamis necropolis on Cyprus, and while the Near Eastern and Anatolian technology and styles of this chariot are unquestionable, its inclusion in the tomb cannot exclude an indigenous belief system.

³⁴ On images of the inscriptions of stela from Corte do Freixo (S. Barnabé, Almodôvar), see Guerra (2002, 229-230). On that of Mesas do Castelinho (Santa Clara-a- Nova, Almodôvar, see Guerra (2017, fig. 6).

³⁵ On the evidence for the Celtic "wheel god", see Green (1979).

³⁶ On the finds and reconstruction of the chariot, see Jiménez Ávila (2018).

Herdade do Pêgo (Santana de Serra, Ourique)

The Herdade do Pêgo I schist stela, bearing a SW inscription, comes from a burial site,³⁷ wherefrom two other SW inscriptions are known in fragmentary form, Herdade do Pêgo I,³⁸ and III.³⁹ The necropolis was located on the south-east hillside overlooking the River Mira, while to the north lay the settlement. Investigations in the region revealed 35 fossa graves. Five of those were excavated, but the funerary remains are too meagre, such as beads, to accurately date or identify the funerary rite followed (Torres Ortiz 1999, 117-118), although some of the pottery appears to imitate Carthaginian shapes, such as the à chardon vases of the 8th-7th c. BCE (Pappa 2023, 179), which are also found in north-west Africa, in the necropoleis of Tangier.

The stela and its context

Information on the exact contexts of these fragments is convoluted. One of the stelae, probably Herdade do Pêgo I given the catalogued dimensions in comparison to the available images, came from tomb 3 according to the catalogued information.⁴⁰ This was one of the richest tombs excavated, containing a sandstone pendant, a belt clasp, a bronze knife and an iron rod. Pottery was found scattered outside the grave (Pappa 2023, 178-180). The stela itself is flattened and incised, following a pattern that is recognisable in one of the most famous stelae, the Abóboda.

The inscription

The stela is preserved in a fragmentary form with the inscription broken in several places.⁴¹ The surface of the stelae is separated into a rectangle contained in an a rectangular, the outer borders both shapes creating the space for the inscriptions that continues inside the rectangle. The only intact word for which word segmentation is clear from the spatial arrangement of the signs on the surface of the stela appears in the centre and seems to record the ethnonym Konii, likely a reference to Polybios' *Konioi* (*Hist.* 10.7.5), whom the Greek historian placed west of the “stelae of Herakles”. The segment below is contained in the inner rectangle, a short continuation from the outer sequence of signs. That it is read in an anti-clockwise fashion, from right to left, is explained spatially: the outer inscription run from bottom left to bottom right by comparison to the other stelae examined here, and then continued inwards into the rectangle for a few more signs, without changing direction:

𐤎 𐤎 𐤎 𐤓 𐤓

³⁷ Museu Rainha D. Leonor (Beja); n° inv.: MRDL.2297

³⁸ Museu da Escrita do Sudoeste (Almodôvar).

³⁹ Museu Nacional de Arqueologia e Etnografia (Lisbon).

⁴⁰ Matriznet 2000.34.1. A publication on the site, however, claim that the stela was found in tomb 4, supposedly secondary. For a summary of reported contexts of the stelae from the site, see Pappa (2023, 178-179).

⁴¹ For an image, see: <https://arquivo.patrimoniocultural.gov.pt/index.php/estela-do-pegno-1>

- Transcribed signs: k-o-n-i-i

From bottom left, and across the top, the signs are:

...] { 0 9 4 1 7 8 7 7 0 4 A 3 7 4 11

- Transcribed signs: ...] m-o-r-i- ξ -o- ξ - ξ - o-n-a-m-n-u-χ

Given that the beginning is not preserved, it is unclear where the first part of this sequence ends a word. That the sequence of signs running along the edge of the right side begins a new word or phrase is evident by the orientation of the signs, which are now written as if to be read from a 90° angle. By contrast, the sign that appears at the end of the previous segment, $\mathbb{H}$, on the top right corner, matches the orientation of the horizontal upper edge, and not the rotated signs on the left edge of the column. Along the right-hand-side edge left, the following signs are preserved from the top and up to the point where the stela breaks:

AX ፳፬ ሃፃሃሃ

a-t-ξ-o-n-r/b-i-i

Abóboda (San Sebastião de Gomes Aires, Almodóvar)

What came to be known as the Abóboda stela, discovered by chance during agricultural works, was the first sign that a necropolis existed in the region.⁴² A farmer's plough hit the artefact on the right side, according to his testimony, which matches the evidence of an excellently-preserved stela except for an indentation on the right side. A small investigation in the area took place after reports of the discovery surfaced by word of mouth (Barros *et al.* 2013, 1161-1162), which identified a funerary urn, emptied of its ashes. This vessel must correspond to urn registered as a hand-made, rim fragment of large ceramic vase with vertical waves, made of reddish-brown fabric.⁴³ Given the disturbed nature of the necropolis, it is unclear if the stela's original context was as a grave marker, though this is the most likely supposition. Therefore, while the possibility remains open that the disturbed grave of the cremated individual and the grave for which the stela was originally intended (or that there was no funerary association), the most probable scenario is that the discovered cremation pertained to the individual commemorated on the inscription. The following investigation on the site took place over 40 years later, bringing to light a small cremation necropolis, with simple fossas, some containing cremation urns (in other cases, the ashes may have used perishable materials). The tombs were stoned-lined on the lateral sides and some shared a common wall. Found in arable land, much of the upper soil at the location had been shifted and mechanically removed over long periods of time. Already disturbed in the past, the tombs, fossas lined with stones, were probably covered by circular or rectangular stone encasements that do not survive, a feature

⁴² For an image of the stele, visit: <https://projectoestela.blogspot.com/2014/11/a-estela-da-abobada-foi-escolhida-para.html> (consulted on 7 October 2025).

⁴³ Matriznet: 2003.101.2

that survives in some of the neighbouring necropoleis of the same date range (Barros *et al.* 2013).

The recent (relatively speaking) archaeological excavations at the site (Barros *et al.* 2013) documented the near-absence of osteological remains in the fossas, only some of which contained funerary urns, leading the archaeologists to infer that the prevailing funerary rite was a secondary cremation burial, following pyres that had led to an almost complete incineration of the deceased. As stated therein, unless the absence of osteological remains is due to post-depositional factors such as the highly acidic soils of the region, the conclusion must be that the local community invested large resources of time and labour (tree felling, transportation etc) for such high temperatures to be achieved. Despite other markers of high status, this fact indirectly suggests that the specific funerary rites followed were costly. The carefully executed stela fits the image. It is to be assumed that the inscription was carefully made and the engraver would not have improvised the signs chosen for the letters during rites that required a lot of resource investment. The stela found proves the point in being exceptionally well-engraved compared to others from the same region.

The transliteration of the Abóboda stela inscription

The inscription is fully intact, with all signs legible. It runs along two series of writing, in part forming a double line on the left side. Most of the surface area of the stela is taken up by a rectangle that serves as a frame for a schematically-rendered male figure holding weapons, including perhaps an axe, in both hands, which scene is framed on the left, upper, and right sides by an inscription. Presumably, the warrior represents the deceased. Epigraphically, the reading is aided by the legibility of the signs, its iconographic theme and the contextual association of the stela with a cremation grave, offering clue as to the possible content of the inscription as a grave marker.

Some observations can be made regarding the direction of the script. The outer line on the left edge of the stela, contains a sequence of tightly-packed signs outside a rectangle. Progressively, as the signs come to the top of the stela, the spaces in between increase and the signs themselves appear more irregularly placed as the carver hugged the upper left corner of the stela. At the middle of the top of the stela, a slanted, elongated cross mark was probably not part of the script. Rather, it may have been a carver's or scribe's mark of testing the stone hardness or more likely, a way to indicate the centre of the surface to be worked on so as to provide a symmetrical image. Such a mark is also found on the stela from São Bartolomeu de Messines, which is preserved in a fragmentary form and appears to depict a female on horseback.⁴⁴ Inside the rectangle, and separated on left, upper and right side by a straight border line, appears the inner inscription.

The direction of writing is from the bottom left side of the rectangle as the stela is viewed, continuing upward along the vertical side, across the top and down the right side, thus in a clock-wise direction, replicating the style of writing attested by the Mealha Nova I

⁴⁴ On this stela inscription with the transcription, see Koch (2009, 32-33, J.4.2).

inscription. The form of the signs aids in the understanding of the direction. In particular, the $\aleph$, on the left side of the rectangle, presents a middle bar tilting upwards towards the right. For what appears to be the same sign on the opposite side of the rectangle to present the same direction in the tilt of the inner bars, the direction of reading has to be the same: either from bottom left to bottom right or the reverse. The first part contains signs close to one another, but the spaces between the signs become progressively wider from the upper side of the rectangle. Thus, in both lines the spaces between increase in width as one moves towards the right, from the upper side of the rectangle giving the impression of a scribe initially fearing for lack of space. The word segmentation is indicated by the physical separation of the signs into the contained spaces of the rectangle sides, with some signs changing direction in the corners of the rectangular artefact by which they appear to indicate they are meant to be read not with the horizontal sequence to the left of the sign on the upper side of the rectangle, but with the signs following along the edge of the right side of the rectangle. The circles may be word separators but this is not certain. Following these considerations of the spatial arrangements of the inscriptions the following reading becomes possible:

Outer left side, from bottom up:

○ ϐ ϑ ζΑ ϐ ○ Α Χ Α Γ ↑ Ν ○

Suggested word segmentation on the basis of expected grammatical and syntactic features:

○ ϐ ϑ ζΑ ϐ ○ Ε Α Χ Α Γ ○ ↑ Ν ○

○ ϐ ϑ ζΑ

- Transcribed signs: O-r-ks-m-a or orks-sa.
- Could it be cognate with PC *orgo, ‘to destroy’, past verbal form, *orxdo, possibly an etymon for *ordo-ā, ‘hammer’; ord: ‘manslaughter’, death, adj. ‘valiantly, boldly’.
- Celtic pers. name: Orgeto-rix (*Caes. De Bell. Gall.* 1.3) (Matasović 2009, 300).
- Compare O.Ir. *orgid*, *ortai* (past participle, passive) (O’Connel 1912, 153).

ϐ ○ Ε Α Χ Α Γ ○ ↑ Ν ○

- Transcribed signs: ro $\mathfrak{f}$ atayolxo or ro $\mathfrak{f}$ atayolθo or ro $\mathfrak{f}$ achayolto.
- The final syllable suggests an Indo-European past tense: compare the participle in Gaelic perfect tense *Ta mi iar bualadh* (‘I have struck’) and *Bha mi iar bualadh* (‘I had struck’) (Stewart 1879, 92) or Greek ἐλόσασθον (dual number, aorist, middle voice).
- The first syllable *ro* may corresponds to verbal particle ‘ro’ added in past verbal tenses in Old Irish (Stewart 1892, 53).
- Comparable Old Irish T-Preterite, (strong verb in -t), 3rd sing., or past participle, with enclitic compound formed by *ro* (verbal particle), followed by verb stem and the final syllable - *to* corresponding to personal pronoun, by analogy to the O. Irish ‘re of possibility’ which comes before the verb stem, e.g. *-rubart* O’Connel 1912, 64-65)

- A preterite ending in this consonant combination is attested in more recent Celtic languages, compare *dognith*, imperfect of *dogni*, ‘does’ (Stewart 1892, 151).
- Alternative reading if to maintain the circle sign as an open -e- as suggested by the SW deciphering consensus: compare the attested Gaulish name Rextugenos and Celtiberian Retukeno (Matasović 2009, 311).

Left side of the rectangle:

𐤀 𐤁 𐤃 𐤄 𐤅 𐤆 𐤇 𐤈 𐤉

- The 5th sign is /s/, represented by a sade -looking sign that is found on the outer line of the Espanca tablet 12 the 19th letter, reversing the direction of the Phoenician original
- Transcribed signs: *χamusifno* or *θasumifno* or *tasumifno*.
- If the third sign from the end maintains a quoph phoneme, then this gives any of the above variants with the ending -qno instead.
- Masculine noun in an oblique case. If this was originally a masculine noun in -os, by comparison to Old Irish an ending in -o denotes the genitive case or some other oblique case (e.g. instrumental, ablative, dative).
- Possible transcription: *Thamusifno*, perhaps related with the historic toponym *Tamusia*
- In the case where the 5th sign is not derived from the sadhe but from mem, possibly the reading is still valid as derivative of a word referencing “*Tamusia*”, with the metathesis of the two consonants, hence rendering the attested toponym *Tamusia*.
- In theory, but almost impossibly, the leftmost letter of the top, horizontal phrase, 𐤀, belongs to this word, so it is a nominative masculine, giving e.g. *Tasumifnos/Thasumifnos* (with the final K as a soft c, connoting /s/, as attested in the Achaean and colonial Greek alphabets) but this is unlikely as the sequence of those letters that follow this are met on other stelae hinting that the K sign belongs to the following word (see below)

Upper side of the rectangle:

𐤀 𐤁 𐤃 𐤄 𐤅 𐤆 𐤇 𐤈 𐤉

- Transcribed signs: *k^wandoix*.
- The 2nd sign is read as imitating here a variant of the omega, introduced in the 7th century in Ionian languages, and corresponding to the final letter of the Espanca tablet. But rather than denoting a long /o/ it denotes a plosive, it conveyed a voiceless,

labialised velar k^w ; perhaps the precursor to *gu* attested in Celtiberian inscriptions in Latin.

- The direction of writing is left to right, as the last letter is placed obliquely due to lack of space.
- With the presently accepted values of the SW script, the word gives: ki- í-a-n-tu-e-i-s, kifantueisis. There are no viable propositions for an etymological origin of this word, which must be a single word as it stands alone in the horizontal line of the stela. By contrast, if we take the script to be alphabetic, this gives: k^w andoex/ Kandoix.
- Possibly it is a masculine nominative singular ending in -x. Compare several Gaulish names ending in -x, such as Vercingetorix, attested on coins.⁴⁵ A certain Vercingetorix, of the Arverni tribe, was the famous 1st c. BCE Gaulish nemesis of Julius Caesar (*Bell. Gall.* 7) while another Celtic ruler, Cingeto-rix (Jul. Caes. *Bell. Gall.* 5.4.3), probably meaning ‘warrior king’, is a good analogy probably both for the ending and the stem of k^w andoix. Also compare the masc. sing. Oscan $[\mu]αμερ εκς$ (a praenomen), preserving the same Indo-European ending (Zair 2016, 206).
- The sequence $\lambda\lambda A\lambda$ is attested is also attested on at least three other stelae, thereby weakening the supposition this refers to a personal name.
- If cognate with PC*kenget, ‘warrior’ (Matasović 2009, 200) it may have meant ‘warrior’.
- Alternatively, could it be derivative of the word that led to the Greek ethnic noun *Κύνης* (Kynes) (on the basis of Steph. Byz. *Ethn.* K 265)?
- If a personal name, it may be an early form of *Guandos*, an individual whose full name was Guandos Cotiriquim, inscribed in Latin characters, as known from the rock inscriptions of the Celtiberian sanctuary at Peñalba de Villastar (Aragon, Spain) (Navarro Caballero 2011, 107; HEp. 9, 558).
- If cognate with *kentu, ‘first’; derived from *ken; ‘to begin’ (Matasović 2009), it may relate to the Gaulish name Cintu-gnatus and to the component of an onomastic formula in Celtiberian inscriptions pertaining to the tribe of Arevaci; preserving (according to current deciphering methods) the word *kentis*, interpreted as a “son of”, which may be semantically and etymologically related to the reconstructed PC etymon in connoting primogeniture in inscriptions, e.g. tirtanos / kentiskue: loukaniko / uiriasku|m in the *Tabula Contrebiensis* of the ancient town of Contrebia Belaisca (Botorrita, Zaragoza) (Botorrita II.2-3).⁴⁶ The cognomen *loukaniko* may refer to a man of Lucanian origin, see *λουκανοι* in Oscan.⁴⁷
- A possible connection with the Celtic deity Condatis, a god of the confluences of rivers, known mostly from Britain and northern France, fits the landscape of the Abóboda

⁴⁵ BNF Notice n° FRBNF44802340, <http://ark.bnf.fr/ark:/12148/cb44802340z>.

⁴⁶ On this formulaic naming, see Navarro Caballero (2011, 207).

⁴⁷ On the attestation of *λουκανοι* in Oscan with a possible meaning of ‘Lucanian’, see Zair (2016, 205).

necropolis, overlooking the confluence of three streams and rivers, and of the adjacent burial sites, but not the cult of healing given the funerary context.⁴⁸

- The connection of K^wandoex with the ethnonym Kynetai need to be further explored. In one of the two versions of the ethnonym Herodotos (*Hist.* 2.33) there was an emphasis on the sound *s* in the final syllables, perhaps rendering a strong sibilant in the original language, as reconstructed here.

Right side of the rectangle:

𐌸 𐌹 1 A 𐌸 𐌹

- The word is read right to left, following the direction of the letters (note the upward tilt to the right of the bar strokes in 𐌸).
- Transcribed signs. uχluði / uthlauði.
- Suggested etymology: the term may be a past form of PC *sladyo, ‘to slay’, attested in Middle Welsh as lladd, lladdawd (preterite).⁴⁹ Compare PC *sladyū; 1st sing., active voice, present in reconstructed declension.⁵⁰
- The first two signs (uχ or uth) would be explained as a verbal compound of the preterite. The basis for this is that the archaic preverb *uss is postulated for verbal compounds in Irish and Welsh, therefore going back to a shared Celtic formation, connoting the preterite of the deponent verb (passive/middle voice but active in meaning).⁵¹
- The final syllable in uχluði / uthlauði may be comparable to *-to* in 3rd pers. Sing. dental preterite/past imperfect, *sladyeto, active voice imperfect and *sladyetor for the corresponding person in passive voice present (the past tense is not reconstructed).⁵²
- This hypothesis of a verbal prefix, which has been postulated for Old Irish and Welsh as a shared element going back to a common Celtic substratum from a linguistic perspective, finds support in a verbal formation contained in a Lusitanian inscription written in Latin characters.⁵³ Discovered at Cabeço das Fráguas (Pousafoles do Bispo, Guarda, Portugal), an Iron Age hillfort, the inscription records what appears to be a votive dedication, in formulaic speech stipulating sacrifices of a community. The inscription (see **Appendix**) attests to a verbal form with this compound in an earlier form of Celtic, verb *usseam*, probably meaning “they ate”, by comparison to Old Irish past participle passive *eisse* (*ithid*) (O’ Connol 1912, 107).

⁴⁸ On Condatis as a Celtic water deity in Brirain, see Alcock (1965).

⁴⁹ On this reconstructed word, see Matasović (2009, 345).

⁵⁰ <https://en.wiktionary.org/wiki/Reconstruction:Proto-Celtic/sladyeti#References>

⁵¹ On this archaic preverb, see Russel (1998).

⁵² <https://en.wiktionary.org/wiki/Reconstruction:Proto-Celtic/sladyeti#References>.

⁵³ On the stele and the transcription of the inscription provided here, see Alfayé & Marco Simón (2008, 230).

Tentative translation of the inscription

The translation of the term *Thamusifno*, if a civic adjective, aids with the identification of the locale of *Tamusia*, a city known from coin legends,⁵⁴ which is thought to refer to the settlement excavated at *Villasviejas del Tamuja* (Cáceres), although this equation with *Tamuja* is not incontrovertible. Even if the cause of the sudden flourish of minting activities in Celtiberian towns during the period of early Roman infiltration in the region proceeded from war-related expenses or tribute payments to the Romans, still the city affiliations preserved on the legends can be retrojected into the past, in terms of preserving toponyms.⁵⁵ The pre-Latin legend coinage of *Tamusia* (*Villasviejas del Tamuda*, Extremadura) depicts on the obverse a male head with two dolphins, while the reverse features mounted warriors with spears. The numismatic legend in Latin makes for an unequivocal identification: *TAMVSIENSI*. The toponymic Paleo-Hispanic legend on the coins minted by this city is not conducive to direct comparison with the stela inscription because it is in the much later script used by Celtiberian tribes just prior to or early during the time of Roman incursion: *X ʷ 4 M M ↑*. On Celtiberian coins, the reverse legends almost always correspond to the toponym of the minting city or to the related adjective (denonym) or ethnonyms), such as in the present instance. How could *Tha-mu-ni-fno* and *Tamusiensi* stand in the same language or a language close to that spoken in by the SW script users as the same ethnic adjective? Even with the putative syllabic character of the script used by Celtiberians, it is impossible to derive *Tamusiensi* from the existing legend, as it is deciphered by consensus. The syllabic deciphering gives *tamaniu* for what in Latin is *Tamusiensi*. Found wanting, this method of deciphering is yet to be revised, and the problematic aspects remain inadequately addressed even as the script is considered deciphered although even bilingual coins present severe difficulties in accommodating the principles of deciphering with the expected form on the basis of the Latin equivalent. A partly satisfying solution is to argue that as coin legends, the Paleo-Hispanic words elided final and even intermediate signs, as often was the practice on Greek numismatic legends, and that in addition, the Latin legend presents a Latin ending for the local city affiliation. Even with these caveats, the existing legend, *X ʷ 4 M M ↑*, even read as syllabic, gives: *Ta-mu- d-ni-s*, with the final letters of the last syllable elided, standing for a spoken *Tamusifno*, *Tamudifnios/ Tamudifnies* or *Tamudifnis*. Such a form would be comparable to transcribed *Tha-mu-si-fno* on the *Abóboda* stela of a few centuries prior.

Given the location of *Tamusia*, and the ending in *-o*, corresponding to an oblique case, the *Tamusifno* could be read here as the agent of the action, the subject of the verb. “The warrior was slain by the *Tamusian*”. But whether the agent of the death needed to be signalled on a

⁵⁴ On the legends of *Tamusia*, see BDHesp:

http://hesperia.ucm.es/consulta_hesperia/numismatica/leyendas.php?id=9&file=file_98.php (consulted on 21-07-2025).

⁵⁵ On Paleo-Hispanic coin legends, see Ripollès & Sinner (2019).

grave marker of the deceased, rather unheroic for a slain warrior, has to be left open given the degree of knowledge we possess over this society. There exist some 300 km distance between the necropolis and the assumed location of Tamusia but both were within the Lusitanian territory by Roman time.

Given the context, the text is not to be read necessarily as a sentence. The outer line may simply give generic information, a sort of “died by violence” message. The inner quadrangle, with three sides inscribed appears to correspond to a sentence: “The Tamusian warrior was slain”.

○ ϐ ϑ } A ϐ ○ ϑ A X A ϐ ○ ϑ ○: Orksma roḡatayolθo (outer line on the left side): “with axe/by force” (preterite verb in 3rd pers. sing). Alternatively, the second word is a personal name.

⋈ A } ϑ ϑ ϑ ○ ϑ ○: Thamusifno (inner left side of the quadrangle): Tamusian (*i.e.* from Tamusia)

) | ϑ A ϑ ϑ ○ ϑ ϑ: kwandoix (top of the quadrangle): warrior

ϑ ϑ 1 A ϑ ϑ ϑ: uθlaudi (right side of the quadrangle): was slain

A possible but not unproblematic translation is the following:

“By axe *RoFaxayolto* (3rd sing. preterite *or* pers. Name). The Tamusian (ie. from Tamusia) warrior was slain.”, or if we are to take the literal meaning of the first word, as the proposed etymology here suggests, it gives: “Destroyed *RoFaxayolto* (3rd sing. preterite *or* pers. Name). The Tamusian (ie. from Tamusia) warrior was slain”



Fig. 5. Map showing stations of the *Itinerarium Antonini Augusti*. By M. Ditter, D. Löb, digitized network of the *Itinerarium Antonini*, www.tabulae-geographicae.de

APPENDIX

Alfayé & Marco Simón (2008) report the context of the inscription Cabeço das Fráguas (Pousafoles do Bispo, Guarda, Portugal), on the surface of a granite outcrop, and its content. It was found on a stone surface, in Latin character but in the Celtiberian language, at a site considered to be a local sanctuary. It reads the following:

oilam.trebopala | **indi**.porcom.labbo |
comaiaim.iccona.loim|**inna.oilam.usseam**. | trebarune.
indi. taurom | ifadem[-]|reve.tre[.

Singling out the repetitive terms highlighted in bold, we have a formula that allows for a tentative, partial translation (untranslated terms in bold) according to the following suggested vocabulary glosses:

- **oilam**: ‘oil’, compare modern Gaelic *ùill* (‘oil’) or cognate with PC **olyo* ‘all’ (Matasović 2009, 298).
- trebopala: this word probably translates as settlement or the pad of a settlement. Compare PC **trebā* (Matasović 2009, 388), settlement, and the attested in Greek characters Oscan word *τρεβας*. Trebo: settlement. Compare Oscan *τρειβιφομ* and trebe, the name of an Umbrian (Zair 2016, 225-226), derived from the same root as *τρε<β>ω*. If pala is a loan from Latin, this may refer to ‘swamp’. Code-switching with Latin has been attested many times in these Lusitanian inscriptions. The reference here may be to a body of water used for religious purposes by a community.
- **indi**: while a demonstrative pronoun fits the noun followed, the word may be a verb, cognate with PC **indo*, ‘to light up’ (Matasović 2009, 171), in this context referring to the act of burning in a sacrificial pyre
- porcom: pork
- labbo: lamb
- comaiaim: **kom-are-(yo)*: in the direction of, in the presence of, Old Irish, *comair*
- iccona: from PC **ikka*, ‘cure, salvation’ (Matasović 2009, 171)
- **loim**
- **inna**: perhaps a demonstrative pronoun (fem.), by analogy to *indi*.
- usseam: it is suggested this is a past form of the verb ‘to eat’. Compare Old Irish past participle passive *eisse* from *ithid* (O’ Connol 1912, 107)
- trebarune: compare the cognate *trebopala* above as sharing the first compound, followed by *rūnā*: ‘secret magic’ (Matasović 2009, 316). Perhaps the word referred to religious official, or “druid”-like figure.
- taurom: bull
- **ifadem**[-]: incomplete word
- reve: incomplete word
- **tre**[: incomplete word

oilam.trebopala | indi.porcom.labbo |
comaiam.iccona.loim|inna.oilam.usseam. | trebarune.
indi. taurom | ifadem[-]|reve.tre[.

“all this settlement burns pig and lamb in the direction of healing. **Loim.** All. Ate. The priest
burns bull. **ifadem[-]|reve.tre[.**”

FINAL WORDS

Going against the grain has merit when a reconfiguration of the approach shows some potential. In advocating for the alphabetic nature of the earliest Paleo-Hispanic script, my endeavour should not be seen as confrontational but rather as a reassessment of earlier theories that have not adequately explained the material, backed up by information that has become available since. For the chasm that exists between the current consensus and the ability to read the script requests the dethronement of some principles on which the entire superstructure was built. A constant supplication to previous research accomplishments is limiting when it does not allow new data, tools and knowledge to be fully utilized. Allowing the stagnation to linger, despondent at the prospect of fully deciphering and reading the script, as if irredeemably arcane and impenetrable as a writing system, despite its known source script(s) and the likelihood that it records a Celtic language, is unseemly defeatist, a surrender to self-imposed limitations and rigidity of thought due to assumptions made more than half a century ago, with the then state of knowledge, as if along with the earlier publications on the subject some interdictions had been put in place that need never be questioned. Honouring and even lionizing our predecessors should be an opportunity to match their inquisitiveness and will to advance, rather than condensing new research in obsequious repetitions of past modes of thinking without questioning previously expressed ideas, in the process risking adding to palimpsests of erroneous assumptions. To challenge some of these earlier tenets is to demonstrate the tremendous capacity of the accumulated data and research methods to shed light on a script that has remained recalcitrant to us.

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The photographic image of Fig. 1 was obtained during a study of artefacts undertaken at the Museum da Lucerna (Castro Verde) in 2012, with the permission of then Director Dr Manuel Maia for use in all future research output, during the author's VENI project funded by the Netherlands Organization for Scientific Research.

REFERENCES

Abbreviations

Adopia: *Atlas Digitale Onomastique de Péninsule Ibérique Antique*, <https://adopia.humanum.fr/es/atlas> (ed. Edmondson et al).

BDHesp: *Banco de Datos de Lenguas Paleohispánicas Hesperia*, <http://hesperia.ucm.es/index.php>.

BNF: Bibliotheque Nationale de France.

HEp.: *Hispania Epigrafica*, <https://revistas.ucm.es/index.php/HIEP/index>

Ancient References

AI: *Itinerarium Antonini Augusti et Hierosolymitanum*, ed. Parthey & Pinder,

Jul. Caes. *Bell. Gall*: Julius Caesar, *Commentarii de Bello Gallico*, ed. Damon.

Hdt *Hist.*: Herodotos, *Ἱστορίαι*, ed. Godley.

Polyb. *Hist.*: Polybios, *Ἱστορίαι*, ed. Büttner-Wobst.

Ptol. *Geog.*: Klaudios Ptolemaios, *Γεωγραφικὴ Ὑφήγησις*, ed. Müller.

Steph. Byz. *Ethn.*: *Stephanos of Byzantion*, *Ἐθνικά*, ed. Billerbeck.

Strab. *Geog.*: Strabon, *Geography*, ed. Radt.

Bibliography

Alcock, J. P. 1965. Celtic Water Cults in Roman Britain. *Archaeological Journal*, 122(1): 1-12.

Alfayé, S.; Marco Simón, F. 2008. Religion, language and identity in Hispania: Celtiberian and Lusitanian rock inscriptions. In R. Häussler (ed.), *Romanisation et Épigraphie. Études Interdisciplinaires sur l'Acculturation et l'identité dans l'Empire Romain* (Archéologie et Histoire Romaine, 17), Montagnac, 281-305.

Almagro-Gorbea, M. 2004. Niethos – Néit: the earliest documented Celtic god (c. 575 BC) and the Atlantic relationships between Iberia and Ireland. In H. Roche; E. Grogan; J. Bradley; J. Coles; B. Raftery, B. (eds), *From Megaliths to Metals: Essays in Honour of George Eogan*. Oxford: Oxbow Books, 200-208.

Barros, P.; Melro, S.; Gonçalves, D. 2013. A necrópole da Idade do Ferro da Abóbada (Almodôvar). In J. Jiménez Ávila; M. Bustamante; M. García Cabezas (eds), *Actas del VI Encuentro de Arqueología del Suroeste Peninsular (Villafranca de los Barros, 4-6 de octubre de 2012)* (Encuentro de Arqueología del Suroeste Peninsular 40). EXCMO. Badajoz: Ayuntamiento de Villafranca de los Barros, 1158- 1177.

Beltrán Lloris, F.; Jordán Cólera, C.; Díaz Ariño, B.; Simón Cornago, I. 2021. The Novallas bronze tablet: An inscription in the Celtiberian language and the Latin alphabet from Spain. *Journal of Roman Archaeology* 34: 713-733.

Billerbeck, M. eds, tr. 2014. *Stephani Byzantii Ethnica. Vol. III: K–O*. (Corpus Fontium Historiae Byzantinae 43/3). Berlin; Boston: De Gruyter.

Büttner-Wobst, Th., ed. 1889-1904. *Polybii Historiae*. Vol: I–IV: Leipzig: Teubner.

Correia, V. H. 1988/1989. A estação da Idade do Ferro do Porto das Lages (Ourique, Beja). *Portugalia* 9-10: 81-90.

Correia, V.H. 2004. Moeda, epigrafia e identidade cultural no ocidente peninsular pré-romano. In F. Chaves Tristán.; F. J. Garcia Farnández (eds), *Moneta qua Scripta. La moneda como Soporte de Escritura* (Anejos de Archivo Español de Arqueología XXXIII). Seville: Consejo Superior de Investigaciones científicas; Universidad de Sevilla; Fundação El Monte, 267-290.

Correia da Silva, P.M. 2015. As Necrópoles da I Idade do Ferro do Baixo Alentejo – Contributo para o seu Melhor Conhecimento. Master's thesis in Archaeology. Universidade Nova de Lisboa.

Damon, C., ed., tr. 2025. *Caesar. Gallic War* (Loeb Classical Library 72). Cambridge, MA: Harvard University Press.

Dias, M.M.A.; Coelho, L. 1983. Objectos arqueológicos dum túmulo de incineração da necrópole proto-histórica da Herdade da Favela Nova (Ourique), 197-206. *O Arqueólogo Português*, Série IV, 1: 197-206.

Domínguez, A.J. 2013. Los primeros griegos en la península ibérica (s. IX-VI a.C.): mitos, probabilidades, certezas. In M. Pas De Hoz; G. MORA (eds.), *El Oriente Griego en la Península*

Ibérica: Epigrafía e Historia (Bibliotheca Archaeologica Hispana 39). Madrid: Real Academia de la Historia, 11-42.

Edmondson, J.; Navarro Caballero, M.; Prévôt, N. eds., ADOPIA (<http://adopia.huma-num.fr>) (2022-06-12).

Estarán Tolosa, M.J.; Herrera Rando, J. 2024. The rise of Latin in Hispania Ulterior, third century BCE to second century CE. In A. Mullen; A. Willi (eds), *Latinization, Local Languages, and Literacies in the Roman West*. Oxford: Oxford University Press, 84-114.

Faria, Marques de A. 2024. Crónica de onomástica paleo-hispânica (32). *Revista de Arqueologia Portuguesa* 26-27: 113- 137.

Ferrer i Jané, J. ; Moncunill, N.; Velaza, J.; Anderson, D. 2011. The proposal to encode the Northern Palaeohispanic script. <https://www.unicode.org/L2/L2019/19332-north-palaeohispanic.pdf>

Ferrer i Jané, J.; Moncunill, N.; Velaza, J. 2015. Towards a systematisation of Palaeohispanic scripts in Unicode: synthesising multiple transcription hypotheses into two consensus encodings. *Palaeohispanica* 15: 13-55.

Florenzano, M.B.B. ed. 2023. *Ocupação territorial e definição de fronteiras no Mediterrâneo antigo* (Livro 5 do Laboratório de Estudos da Cidade Antiga). São Paulo: Intermeios.

Fraga da Silva, L. 2007. *Balsa, Cidade Perdida*. Tavira: Campo Arqueológico de Tavira.

García Alonso, J.L. 2008. Ethnic names in Hispania: In J.L. García Alonso (ed.), *Celtic and Other Languages in Ancient Europe*. Salamanca: University of Salamanca, 88-101.

Godley, A.D. 1920. *Herodotus, with an English Translation*. Cambridge, MA: Harvard University Press.

González de Canales Cerisola, F.; Llompart Gómez, J. 2017. Producción de cerámicas griegas arcaicas en Huelva. *Archivo Español de Arqueología* 90: 125-145.

González de Canales, F.; Mederos, A.; Montaña, A.; Llompart, J. 2023. Cerámicas griegas arcaicas de inspiración eolia manufacturadas en Huelva, España. *Onoba. Revista de Arqueología y Antigüedad* 11: 133-142.

Gorrochategui Churrua, J. 1984. *Estudio sobre la Onomástica Indígena de Aquitania*. Bilbao: Universidad de País Vasco.

Green, M. 1979. The worship of the Romano-Celtic Wheel-God in Britain Seen in Relation to Gaulish Evidence. *Latomus* 38 (2): 345-367.

Guarducci, M. 1967. *Epigrafia Greca*. I. Rome. Cosiglio Nazionale delle Ricerche.

Guerra, A. 2002. Novos monumentos epigrafados com escrita do Sudoeste da vertente setentrional da Serra do Caldeirão. *Revista Portuguesa de Arqueologia* 5 (2): 219-231.

- Guerra, A. 2010. Algumas observações sobre a escrita do Sudoeste. *Xelb* 10: 105-113.
- Guerra, A. 2017. Epigrafia e imagem nas estelas epigrafadas do Sudoeste. *Acta Palaeohispanica* 12: 95-113.
- Janko, R. From Gabii and Gordion to Eretria and Methone: the rise of the Greek alphabet. *Bulletin of the Institute of Classical Studies* 58 (1): 1-32.
- Jeffrey, L. 1961. *The Local Scripts of Archaic Greece. A Study of the Origin of the Greek Alphabet and its Development from the Eighth to the Fifth Centuries B.C.* Oxford: Clarendon Press.
- Jiménez Ávila, J. 2018. The chariot from tomb 17 in the Orientalizing cemetery of La Joya, Huelva (1971-2016). In M. Botto (ed.), *De Huelva a Malaka. Los Fenicios en Andalucía a la Luz de los Descubrimientos más Recientes*. Rome: Consiglio Nazionale delle Ricerche, 183-215.
- Kerschner, M.; Schlotzhauer, U. 2005. A new classification system for East Greek pottery. *Ancient West & East* 4 (1): 1-56.
- Koch, J.Y. 2009. *Tartessian. Celtic in the South-west at the Dawn of History* (Celtic Studies Publications XIII). Aberystwyth: The David Brown Book Co.
- Koch, J.T.; Fauvelle, M.; Cunliffe; Liang, J. 2025. *Presenting Counterpoints to the Dominant Terrestrial Narrative of European Prehistory*. Oxford: Oxbow Books.
- Lemaire, A. 2008. Les “matres lectionis” en phénicien. Nouvelles orientations. *Res Antiquae* 5: 455-464.
- Llompart, J.; Orta, E.M.; Garrido, J.P.; González De Canales, F.; Serrano, L. 2010. Discusión en torno a la lectura y soporte de una inscripción griega arcaica con dedicatoria a la diosa Hestia hallada en Huelva. *Huelva en su Historia - 2ª Época* 13: 3-14.
- Matasović, R. 2009. *Etymological Dictionary of Proto-Celtic*. Leiden: Brill.
- Moncunill Martí, N. 2017. Indigenous naming practices in the Western Mediterranean: the case of Iberia. *Studia Antiqua et Archeologica* 23(1): 7-20.
- Moncunill Martí, N. 2021. Variación y continuidad en la onomástica personal de los iberos (s. V a. C. -II d. C). *Palaeohispanica* 21: 435-465.
- Müller, K, ed. 1883. *Claudii Ptolemæi Geographia*. Paris: Alfredo Firmin Didot.
- Navarro Caballero, M; Gorrochategui Churruca, J.; Vallejo Ruiz, J.M. 2011. L’onomastique des Celtibères: de la dénomination indigène à la dénomination romaine. In M. Dondin-Payre (ed.), *Les Noms de Personnes dans l'Empire Romain: Transformations, Adaptation, Évolution* (Scripta Antiqua 36). Bordeaux: Ausonius Editions, 89-175.

Neto, M.N.; Rebelo, P.M.; Ávila Ribeiro, R.; Roch, M.; Zamora López, J.Á. 2016. Uma inscrição lapidar fenícia em Lisboa. *Revista Portuguesa de Arqueologia* 19: 123-128.

O'Connel, F.W. 1912. *A Grammar of Old Irish*. Belfast: Mayne, Boyd & Son, Ltd.

Pappa, E. 2023. Picking up letters quite quickly: the first literacy in western Europe during the early 1st millennium BC vis-à-vis the international setting of its origins and its local uses. In

Pappa, E. 2024. Fraud or fiasco? Philo's Nine Books of Φοινικικά ('Phoenician Affairs') vis-à-vis Mediterranean archaeology and beyond: a reappraisal long overdue. *Revista do Museu de Arqueologia e Etnologia* 42: 69-142.

Parthey, G.; Pinder, M., ed. 1848. *Itinerarium Antonini Augusti et Hierosolymitanum*. Berlin: Nikolai.

Radt, S. ed., tr. 2002-2010. *Strabons Geographika*. Vol 1-9. Berlin: De Gruyter.

Richardson, J. S. 1983. The Tabula Contrebiensis: Roman law in Spain in the early first century B.C. *The Journal of Roman Studies* 73: 33-4.1

Ripollès, P. P.; Sinner, A.G. 2019. Coin evidence for Palaeohispanic languages. In A. G. Sinner & J. Velaza (eds), *Palaeohispanic Languages and Epigraphies*. Oxford: Oxford University Press., 365-395.

Russell, P. 1988. The Celtic Preverb USS and Related Matters. *Ériu* 39: 95-126.

Salinas de Frias, M. 2013. Personal onomastics and local society in ancient Lusitania. In J.L. García Alonso (ed.), *Continental Celtic Word Formation: The Onomastic Data*. Salamanca: University of Salamanca, 17-35.

Stewart, A. 1879, 2nd ed. *Elements of Gaelic Grammar in Four Parts*. London: Simpkin, Marshall & Co.

Torres Ortiz, M. 1999. *Sociedad y Mundo Funerario en Tartessos*. Madrid: Real Academia de la Historia.

Untermann, J. 1961. *Sprachräume und Sprachbewegungen im Vorrömischen Hispanien*. Wiesbaden: Harrassowitz.

Untermann, J. 1997. *Monumenta Linguarum Hispanicarum*, Band IV. *Die tartessischen, keltiberischen und lusitanischen Inschriften*. Wiesbaden: Dr. Ludwig Reichert Verlag.

Valério, M. 2008. Origin and Development of Palaeohispanic scripts: the orthography and phonology of the Southwestern alphabet, *Revista Portuguesa de Arqueologia* 11: 107-138.

Vallancey, C. 1772. *An Essay on the Antiquity of the Irish Language; being a Collation of the Irish with the Punic Language*. Dublin: S. Powell.

Vallet, G. and Villard, F. 1964a. *Mégara Hyblaea. 2. La Céramique Archaique. Texte*. Paris: E. De Boccard.

Vallet, G. and Villard, F. 1964b. *Mégara Hyblaea. 2. La Céramique Archaique. Planches*. Paris: E. De Boccard.

Vilhena, J. 2008. As armas e os barões assinalados? Em torno das necropolis monumentais do “Ferro de Ourique”. In J. J. Ávila (ed.), *El río Guadiana en época post-orientalizante* (Anejos de Archivo Español de Arqueología XLVI), 101-134. Mérida: Consejo Superior de Investigaciones Científicas, 377-398.

Zair, Nicholas 2012. *The Reflexes of the Proto-Indo-European Laryngeals in Celtic*. Leiden; Boston: Brill.

Zair, N. 2016. *Oscan in the Greek Alphabet*. Cambridge: Cambridge University Press.