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The Epigraphic Stela of Montoro (Córdoba, Spain) Earliest Monumental Script in Iberia?

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"He had seen everything, had experienced all emotions, from exaltation to despair, had been granted a vision into the great mystery, the secret places, the primeval days before the Flood. He had journeyed to the edge of the world and made his way back, exhausted but whole. He carved all his toils on a stone stela." *Gilgamesh*

1. Introduction.

In this article we present an exceptional epigraphic stela found in the vicinity of Montoro (Córdoba, Andalusia, Spain) and currently kept at the Museum in this town. This stela was accidentally unearthed in 2002 by Mr. José María Calleja Serrano while using a tractor to plough the plot adjacent to Torre de Villaverde, a Late Medieval site located about 3 km to the south of Montoro as the crow flies (Figure 1). Without giving any more thought to the stone, at the time of the discovery Mr. Calleja Serrano dragged it to the nearest clearance cairn, located about 50 metres to the NE, on the edge of the field and by the closest track. Lying in this clearance cairn, face down, the stela was found in September 2004 by José Romero Pérez and Jorge Luque Illescas, rangers from the Ministry of Environment of the Andalusian Regional Government (Figure 2). When both rangers turned it over, they observed that it had a series of engraved motifs which they correctly assumed to be of archaeological interest. The following day, and by decision of its director at that time, Mr. Santiago Cano López[1], the stela was transported to the Municipal Archaeological Museum of Montoro-

In February 2012 we learned of the presence of this stela at the Museum of Montoro through a brief review in which it was described as a 'warrior stela' (Rosas Alcántara, 2004). On 13th April 2012, we visited the Montoro Museum and conducted a preliminary inspection of the stone which allowed us to confirm that it is in fact a stela with numerous engraved motifs, although clearly not of the 'warrior' type conventionally

[1] Informative Sheet #113, October 2004, Museum of Montoro.

attributed to the Late Bronze Age and Early Iron Age in SW Iberia. Given the singularity of the motifs and considering the fact that after 8 years of being deposited in the Museum this remarkable piece remained unpublished, the universities of Seville (Spain) and Southampton (United Kingdom) agreed to carry out a project in order to study it. This project, conducted between September 2012 and September 2014, has focused on the characterisation of the piece itself (geo-lithological analysis, digital recording and surface texture analysis as well as epigraphic interpretation of the motifs), and on the field study of the findspot, including intensive surface survey, geophysical survey and excavation of a test pit. Based on the data obtained, an assessment of the significance of this monument is proposed in the context of the origins of writing in Iberia.

2. Description.

2.a. Morphology, Geological Characterisation and Graphic Reproduction.

The Montoro stela has a height of 1.5m, a maximum width of 0.85m and a maximum thickness of 0.31m, meaning that it is, generally speaking, similar in size to the 'warrior stelae' (also known as 'South-Western stelae' (Díaz-Guardamino 2010: 327-340) (Figure 3). With the exception of various scratches on its right side, its state of preservation is quite good: the original stone seems to be completely preserved and the absence of lichens and wear is quite noticeable, suggesting that the stone could have originally been protected in a roofed building, safe from the action of the elements, or perhaps that it was in use for a short time before being buried, or both. As the stela is currently attached to a wall with a metal anchor that is costly to remove, the reverse has not been studied for the time being.

The geological characterisation of the stela is based on a petrographic thin section made from a sample taken from its reverse (Figure 4). This study reveals that the stone is a subarkose of detrital sedimentary origin, with a predominant proportion of quartz and feldspars with some exotic grains such as micas, apatites, metallic ores and phyllosilicates. The grain is of fine sand size with a matrix-supported texture, in some cases supported with shapes ranging from subrounded to angular which are barely classified. Of particular note is the presence of a source of sparite cement of a very fine grain and the great abundance of microfossils, mainly planktonic foraminifera of the globigerina type, miliolids (with a porcellanous shell), as well as the presence of calcareous algae (halimedas), thin-shelled lamellibranchia and echinoderm spines. Rocks of detrital sedimentary origin, more specifically from the coastal facies characteristic of the Upper Miocene, appear in the area surrounding Montoro, which suggests the stela was made locally. It is a rather hard and resistant rock, which has undoubtedly favoured its good state of preservation at present, although its hardness would have also originally entailed additional work for the stonemasons or engravers who worked on it.

The obverse of the piece presents several areas with reddish/orange pigmentation, which raised the question as to whether this was due to the intentional application of pigments related to the engraved motifs, or whether, on the contrary, it had to do with the alteration of the rock. To resolve this matter, a photomosaic of the obverse was made from digitally rectified photographs in order to conduct digital image analysis

and four samples (Em-1 to 4) were taken for their characterisation using X-ray diffraction (XRD) and scanning electron microscopy with energy dispersive X-ray spectroscopy (SEM-EDX). The digital image analysis (see Rogerio-Candelera et al. 2010, 2011 for a complete description of the methodology used) did not suggest intentionality in the presence of the reddish/orange colour (Figure 05). The SEM-EDX analysis detected basically the same elements in the four samples, with silicon predominating in all of them (two of the samples present Mg), with a very low amount of iron; this can be interpreted as impurities in the minerals that make up the base rock and not as pictorial elements that were intentionally added (Figure 06). The analysis using XRD on the previously mentioned samples allows for detection of the presence of calcite (CO_3Ca) and quartz (SiO_2) in the four samples, in addition to anorthite ($CaAl_2Si_2O_8$) in EM-1 and EM-2 and microcline ($KAlSi_3O_8$) in another on them. Anorthite is a variety of plagioclase that is mainly found in limestone that has undergone contact metamorphism. As regards microcline, it is a mineral from the feldspar group which appears in high grade metamorphic veins, hydrothermal veins, as a detrital component in sedimentary rocks and as an authigenic mineral. Therefore, the results from the digital image processing, SEM-EDX and XRD do not suggest the presence of intentionally-added pigments. The reddish/orange stains present on the surface of the obverse are part of the mineralogical composition of the base rock of the stela, or perhaps the result of the migration of amorphous iron oxides due to taphonomic processes.

Thus, having ruled out that the stela had been painted, we focused on recording and analysing the engraved motifs. For this, Reflectance Transformation Imaging (RTI), which uses the transformation of the reflectance properties of any surface to enhance the perception of its texture and shape, was used – see Díaz-Guardamino and Wheatley 2013 for a description of the method and several applications to 'warrior stelae' from south-western Iberia. It is an unexpensive, non-contact and robust method for the documentation and interactive visualization of artefacts and is particularly powerful for rendering engravings. To document the obverse of the stela two RTI captures were performed, with an average of 95 photographs each, at maximum resolution and in CR2 and JPG formats. The RTI has allowed us to document and analyse the subtlest details on the engraved surface, including the engraving techniques employed as well as the delineation of the engraved motifs (essential for their epigraphic interpretation), resulting in a synthetic line drawing that sums up our graphic interpretation of the monument (Figure 07).

Regarding the techniques employed, it must first be emphasised that the surface of the stela does not appear to have been the object of previous preparation as it was naturally smooth and regular. In order to engrave the motifs or signs, various techniques were used:

1. Wide, dense and deep pecking: used in 15 motifs-signs, including 10 graphemes (#1-4, 7-9, 11, 13 and 16) and 2 doubtful graphemes (#6 and 10).
2. Incision/pecking and abrading: used in 3 motifs-signs, two of which are graphemes (#14 and 15).
3. Incision and abrading: used in 2 motifs-signs, one of which is a certain grapheme (#12), another a doubtful one (#17);

4. Shallow and/or dispersed pecking: used in 8 motifs-signs of uncertain interpretation, one of which is a concentration of pecking;
5. Cup marks: on the front side of the stela there are different individual or clustered cup marks (#18, 22, 26 and three possible groups of small cup marks which have not been numbered);
6. Possible unfinished motifs (#23, 24 and 31);
7. Plough marks.

In total, 31 engraved elements (individual motifs-signs or groups of motifs-signs-cup marks) have been identified, delineated and characterised, in addition to three possible groups of 'cup marks' that have not been numbered. The use of RTI has been essential in order to: (i) identify shallow motifs that are difficult to see with the naked eye; (ii) identify the superposition of a series of small cup marks; (iii) outline the tentative sequencing of the motifs (Figure 07b).

2.b. Epigraphy.

Of the 31 engraved motifs recognised on the stela, a large majority (#1-11, 19) are located around cup mark #18, with signs #12 and #20, perhaps engraved at an earlier stage, provinding the lower boundary. Signs #13 and #16, probably engraved at the same time as signs #1-11 and #19, close the composition on both sides of the signs first engraved. In this way, signs 13-16 form an imaginary line above which signs #1-12 and #19 appear on a circular arrangement.

Of signs #1 to 21, at least 13 are susceptible to being interpreted as graphemes. Some could be variants of others. Signs #21 to 31 are excluded from this interpretation, with the exception of sign #27.

Signs #1 and 15: Sign #1,  , is attested in the Levantine or Iberian script with the syllabic value /to/ (De Hoz 2010: 618, 739, 742 and 744), as well as by Greco-Iberian writing with the value /s/ (De Hoz 2010: 737). It is worthwhile to consider the possibility that #sign 15, , is a variant of , although the horizontal line that should join together the three vertical lines (numbered 20) is loose, and appears incised between signs #15 and 11[2].

Signs #2, 4 and 8: Sign #2,  , seems to have two parts, including a pecked main body and then an intentional prolongation at the base, carried out in the same manner. The prolongation shows a more disordered, shallow and careless pecking than the main body of the sign, which perhaps suggests this part was rendered by a less expert hand. It is, however, impossible to discern whether they were both produced at the same time or not. The Montoro stela presents, in our opinion, two more variants of this sign.

The first would be sign #4,  , and the second, sign #8,  , for which only distant oriental parallels, such as, for instance, the sign with the value of /h/ from Proto-Sinaitic and Proto-Canaanite inscriptions (see Sass 1988: 183-184) can be found.

[2] More questionable, although it should be noted, is the possibility that sign 5 is a variant of sign 15.

Sign #3,  , finds possible parallels in the sign /bi/ of the Meridional script (De Hoz 2010: 618, 620, 741), in the sign p(i) from South-Western writing (De Hoz 2010: 618, 620) and in the sign /u/ from Levantine or Iberian writing (De Hoz 2010: 618, 739, 742, 744).

Sign #7,  , could find some graphemic parallel in the variant be7 of the Iberian sign /be/ (De Hoz 2010: 743). Although more distant, we will nevertheless point out the similarity with the sign /ṣ/ from epigraphic South Arabian (O'Connor 1996: 101; Stein 2013: 211).

Sign #9,  , has a multitude of parallels both in Iberian and Near Eastern scripts. Limiting ourselves to the first geographical area, we can highlight the parallel in the sign /ta/ from Levantine or Iberian writing (De Hoz 2010: 618), /t(a)/ from South-Western writing (De Hoz 2010: 620, 623), /t/ from Phoenician, etc.

Sign #11,  , presents a possible parallel in the sign /ku/ from Levantine or Iberian writing (De Hoz 2010:618, 739, 742, 743).

Sign #12,  , could reflect both the Phoenician consonant /'/ as well as a variant of the grapheme /a/ from Meridional (SE) writings (De Hoz 2010: 618, 625, 741), from the SW (De Hoz 2010: 620, 623, 625) or from Greco-Iberian (De Hoz 2010:737).

Sign #13,  , finds its best parallels in Iberia in the Phoenician sign /t/, in the variant e4 from Meridional writing (De Hoz 2010: 741), as well as in the variants te12 and te13 from the Iberian sign /te/ (De Hoz 2010: 744).

Sign #14: The circle of the sign  , made with incision/scratching and abrading, does not close in its upper part as the RTI proves conclusively. Even so, the shape of the sign is a striking reminder of the grapheme employed in epigraphic South Arabian to represent the phoneme /ẓ/ (O'Connor 1996: 101; Stein 2013: 211).

Sign #16: The sign  presents a morphology that is similar to that of a sign from South-Western writing with a possible k(i) value (De Hoz 2010: 621). Looking towards the East, it also presents the same morphology as the grapheme employed in epigraphic South Arabian to represent the phoneme /ṯ/ (O'Connor 1996: 101; Stein 2013: 211).

Other signs are more questionable in terms of whether they could be graphemes. Signs #6,  , and #10,  , could be independent signs. In that case, at least the would be susceptible to being interpreted as a grapheme as well. But we believe it is rather likely that they are components of the same sign  . Just as with signs# 2, 4 and 8, this sign could represent some type of human figure. By trying to reproduce some type of grapheme, and although some type of comparison can be forced (for instance, with the sign /be/ from Iberian writing - see De Hoz 2010: 742), it does not seem as though suitable parallels can be found for this sign in late 2nd and 1st millennia BCE Iberian or Near Eastern scripts. Sign #17, , does not initially look like a grapheme, although it

seems to have a clear parallel in sign #27,  . Each sign has been engraved using a different technique (#7: incision/abrading; #27: pecking).

As has been seen, it is possible that 2 of the 13 signs considered present variants. More specifically:

Signs			
#1 and 15		 + #20	
#2, 4 and 8			

If this interpretation is correct, 10 signs would be susceptible to being interpreted as graphemes. Signs #10 and #17 (analogous to #27) would be susceptible to expanding this list.

Thus, the epigraphic analysis of the stela of Montoro reveals that many of the engraved motifs are compatible with signs of scripts from the late 2nd millennium and the entire 1st millennium BCE.

3. Landscape Context and Fieldwork.

The findspot of the stela, locally known as Torre de Villaverde, is located in the southern part of the municipality of Montoro on a gentle elevation that is slightly tilted towards the Guadalquivir River (at a distance of about 3 km as the crow flies) (Figure 1). Part of the track next to which the stela was found is a drove way. In the area surrounding the Torre de Villaverde, pre-Roman coins and painted pottery have been found, in addition to Carthaginian coins and Roman pottery and construction material which, in some cases, are kept at the Museum of Montoro. The Torre de Villaverde is a medieval watchtower reconstructed in 1472 in the Late Gothic style by Diego de Aguayo. Next to this tower are the remains of a medieval settlement and the chapel of Nuestra Señora de Los Remedios, dating to the end of the 14th century AD and today abandoned (Figure 8). Although the city of Montoro cannot be seen from the Torre de Villaverde as it is hidden at a lower topographic level, another watch tower, located in La Nava mountain range, in addition to a third tower to the southwest, is visually connected to it, thus strengthening its strategic importance in the control of the surrounding territory.

As was said at the beginning, fieldwork at Torre de Villaverde, including an intensive surface survey, a geophysical survey, and a test pit, was carried out in order to obtain some contextual evidence for the stela (Figures 09 and 10).

A semi-intensive survey was first carried out in the area where, as Mr. Calleja Serrano informed us, the stela was unearthed by the tractor. For this, an area of 4500 m^2 was walked by a team of 5 persons, spaced 7 metres apart to guarantee a good coverage of the ground. The survey included the control and georeferencing of the relative position of the surveyors along the designated transects and of the micro-spatial location of the surface finds using a differential GPS. During this survey, a limited and heterogeneous assemblage of modern and medieval materials was documented, not showing any pat-

tern of concentration nor offering information to characterise the Protohistorical archaeology of the location. Following these results, it was decided to adopt an alternative strategy and to conduct an intensive random sampling in order to obtain a preliminary archaeological characterisation of the area immediately surrounding the findspot. For this, 6 random points were selected (M1-M6), and in each one a circular area with a 1-metre radius was surveyed (6 circular areas measuring 3.14 m^2 each, a total of 18.84 m^2) (Figure 09). All of the archaeological material documented in sampling circles was recorded, weighed and assessed in terms of typology and deposited once again into the ground. The assemblage of materials documented consisted almost entirely of modern and medieval pottery and construction materials. Its concentration (measured by weight, not by number of items) varied in the different areas, increasing as the distance from the Torre de Villaverde decreased.

The magnetic survey was conducted using a Bartington Instruments Grad 601 dual-sensor fluxgate gradiometer, covering four grids measuring 30m on each side (thus covering a total area of 3600m^2) over the spot where, according to the information provided by Mr. Calleja Serrano, the stela was unearthed in 2002. After processing the data obtained it was discovered the area happens to be located over a stretch of the old Málaga-Puertollano oil pipeline, which produced a major distortion in the results, thus greatly complicating their visualisation and interpretation. Despite the major distortion caused by this metal pipeline, the presence of various linear anomalies under the stela findspot was confirmed on the interpreted magnetometry plot, including what seems to be a rectangular building or enclosure measuring about 50m long, in the approximate centre of which the stela was found (Figure 10).

With the aim of verifying the nature of these anomalies, a test pit measuring 2.5 by 1.5m was excavated in what seemed to be the north-western corner of the possible rectangular building or enclosure. This excavation was conducted to an approximate depth of 40cm before reaching the bedrock and did not reveal any wall, wall foundation or any other type of architectural remain (floors or construction material). Only two small, very shallow ditches were identified (between 30 and 50 cm deep), one of which was located on the southern side of the test pit, with an approximate W-E orientation, and the other in the NE corner of the pit, with a NE-SW orientation (Figure 11). The functional and chronological interpretation of these small ditches is very complicated, especially in light of the fact that the material culture collected is extremely scarce and almost completely non-diagnostic. The collection of the 79 pottery fragments, of which 70 are wheel-thrown and 9 may have been hand-thrown, represent the typical dynamic of surface deposits at settlement sites along the Guadalquivir Valley, with very fragmented material presenting concretions. Typologically they include a mixture of very diverse types and chronologies. Among the wheel-thrown pottery, only 7 items present a recognisable shape, in addition to a possible ceramic fragment belonging to a lamp, as well as a few possible fragments of *imbrices* (Figure 12). With the exception of the small rim of glazed pottery, the rest of the shapes can be chronologically ascribed, generally speaking, to the Early Roman Empire. The hand-thrown pottery is limited to 9 possible fragments of non-diagnostic shape.

Unfortunately, by decision of the landowner, it was not possible expand the test pit or to open other new pits. Thus, with the fieldwork data available it is only possible to confirm that there are various geophysical anomalies at the findspot of the stela that, although quite altered due to the construction of the oil pipeline, suggest the presence of a large enclosure or building of approximately rectangular plan and unknown date. The pottery collected from the surface and from the test pit is representative of the occupation of the spot during Antiquity and the Middle Ages, but no clear Iron Age evidence was found.

4. Discussion.

From a graphic point of view, the first question raised by our study is, can the Montoro stela be interpreted as an inscription? And, if that is the case, is it possible to read it and understand it? Before attempting to respond to these questions, the following circumstances must be noted. Firstly, if it is an inscription, there is no identifiable element allowing to establish the point where it begins nor, consequently, the possible direction of writing. Secondly, the signs do not present sufficient consistency to be seen as part of a single, specific writing system: to this date there is no known writing system that can lend coherence on its own to the group of signs visible on the Montoro stela. Thirdly, there is no unambiguous archaeological evidence regarding the original position of the stela, as in how it was placed in the ground[3], which can affect the morphological analysis of the signs.

As a result, no attempt at reading and interpreting those possible graphemes can be made. In this regard there are two further issues to bear in mind: a) in general, it is impossible to decipher a script without an indication as to how its signs could be read (in addition to that, in this case there is no information of what type of language might be behind them); b) the above problem becomes further complicated if, in addition, only one copy of that writing exists, as would be the case with this stela.

In spite of all of these problems, the Montoro stela seems to present signs that, in our opinion, either belong to or wish to emulate some type of protohistoric script. We consider the second possibility to be more likely. The majority of the signs have possible parallels in southern Iberian Iron Age writing systems: Levantine or Iberian, Meridional, South-Western (also called Tartessian), Greco-Iberian and Phoenician. This circumstance would be consistent with the geographical location of the stela. Nevertheless, for some graphemes there are potential parallels in Levantine and Near Eastern scripts: signs #7, 14 and 16 have parallels in epigraphic South Arabian[4] and sign #2 (= 4 and 8) in Proto-Sinaitic and Proto-Canaanite[5]. In these latter cases, we do not

[3] The stone could have been sitting vertically as is currently displayed in the Museum (and in the figures of this study), since most of the engraved motifs that show a more elaborate finish are concentrated on the upper two-thirds of its surface, while the lower section only displays less elaborate or seemingly unfinished motifs. However, there is no way of ruling out that the stone was placed horizontally since there are no apparent differences in the texture or colour of the surface of the obverse.

[4] Attested from the 11th and 10th centuries BCE onwards (Stein 2013:32-33); the South Arabian alphabetical order is already attested to by cuneiform alphabets from Ugarit and Bet-Shemesh since, at least, the 13th century BCE.

[5] These have highly debated chronologies, but always within the 2nd millennium BC.

claim a direct dependency of the stela's signs on Near Eastern inscriptions; however, this circumstance is indeed a reminder of the (ultimately) Near Eastern origin of all the various Iberian Protohistoric scripts, a point that must be taken into account when carrying out the overall assessment of the stela.

Clearly, although it does not present signs that form a legible and comprehensible inscription, the stela of Montoro could have only been produced in a social context in which writing existed. That is to say that the person or persons who engraved the signs must have been exposed to some type (or types) of writing. It is very likely that those who engraved the signs did not know how to read or write them, although it seems as though they reproduced signs which they knew were graphemes, or which they at least perceived as such. The work involved in the engraving of a rather hard stone into what is indeed one of the largest Protohistoric pre-Latin epigraphic monuments in Iberia, suggests the importance granted to the signs (and graphemes). In addition to that, it is important to note that, with the data now available, it is not possible to rule out that the engraving of the motifs/signs/graphemes was carried out in more than one event or session over an indeterminable period of time[6].

As a hypothesis we suggest that those who engraved the stela of Montoro wished to materialise the prestige that writing had as a communication technology, without necessarily knowing how to use (or wanting to use) the signs as such writing. This hypothesis is partly supported by the very organisation of the signs: on what we interpret as the upper part of the stela, signs #1 to 11 (graphemes) are arranged in a circle around sign #18 (non-grapheme), which consists of 11 cup marks, 10 of which form a circle around the other one. These 11 graphemes which form a circle have signs #12 and 20 (graphemes) as their lower limit, possibly engraved at a different point in time (before or after).

In this regard, there are known cases in which non-literate societies symbolically utilised signs from writings which they have access to. A well-known example in the literature is the silver Phoenician bowl discovered in the Bernardini tomb in Preneste (Italy), which presents a completely Egyptian-like iconography, with the addition of three inscriptions which are Egyptian-hieroglyphic in appearance. The inscriptions were analysed by the French Egyptologist Gaston Maspero, who concluded that “The signs do not form a continued text. They are signs or even complete words that are taken at random and juxtaposed without any concern for the meaning... the cartouches only contain untranslatable signs whose joining does not produce any name” (Maspero 1883: 216). It is possible to assume that the artisan, unknowing of the Egyptian language and writing, utilised these signs solely for their symbolic or decorative value or for their prestige.

In terms of their chronology, given the nature of the engraved graphemes and the features of the immediate landscape, the most plausible chronological-cultural context for

[6] Stelae are monuments that, by their very nature, can be utilised or re-utilised over long periods of time: on the Iberian Peninsula, cases are known of pre-historic stelae that were later re-engraved with Tartessian and Latin inscriptions – see examples in García Sanjuán 2011: 95-96; García Sanjuán and Díaz-Guardamino 2015: 189-196.

the stela of Montoro is the Iron Age. In fact, the hypothesis that the signs could have had a meaning that was more vaguely 'symbolic' than strictly 'grammatical' gains greater credibility in the context of the increasing exposure that, starting during the 9th century cal BCE, local southern Iberian societies had to eastern colonists and traders that utilised the Phoenician script (and perhaps other scripts). Two hypotheses are possible depending on whether we lean towards an Early Iron Age (c. 850-550 cal BCE) or a Late Iron Age (c. 550-200 cal BCE) chronology for the stela.

On the one hand, at present it is considered that the first strong evidence of the regular use of writing in Iberia comes from 8th-7th centuries BCE levels of the Phoenician site of Doña Blanca (Cádiz) (Zamora López, 2005: 174-175). The oldest graffiti from South-Western or Tartessian writing, on the other hand, can be dated back to the early or the middle of the 8th century BCE (Correa Rodríguez and Zamora López, 2008: 189). Of course, this evidence does not prove that those two writings (or others) could not have existed before. A number of (arguably contentious) arguments have been raised in favour of a Late Bronze Age date for the South-Western script (Ruiz-Gálvez 2009: 110-111). In this regard, perhaps it seems too much of a coincidence that, just 3 km to the North of the Montoro stela findspot lies the Late Bronze Age and Iron Age settlement of Llanete de los Moros, the only one in Iberia where confirmed Mycenean pottery, dated to the 14th century BCE, has been found (Martín de la Cruz, 1988; 1990), thus suggesting the probable, early contact of local, non-literate populations with writing. Unfortunately, as was previously discussed, the fieldwork data obtained by us cannot prove a Late Bronze Age or an Early Iron Age context for the stela.

Alternatively, very substantial remains from the Late Iron Age, including Carthaginian and (indigenous) Iberian coins and pottery, have been found in the proximity of Torre de Villaverde (although not in the surveys or the testing pit conducted by us). The period of time between the middle of the 6th and the end of the 3rd centuries BCE was of intense contact between southern Iberian populations and Eastern and North African people who utilised writing. Additionally, throughout the entire last third of the 3rd century BCE, with the Carthaginian military expansion and the subsequent Second Punic War, the Guadalquivir Valley saw the presence of armies which included mercenaries of mixed ethnic origins, many of them undoubtedly familiar with scripts that included signs such as those engraved on the stela of Montoro.

Beyond the hypotheses that can make sense of this exceptional monument from an epigraphic and chronological point of view, the findspot of the stela of Montoro presents characteristics that make it highly significant in terms of landscape. The place is right next to a droveway and is very close to a Guadalquivir river ford, thus highlighting its strategic character within the local communication network. The presence of a late medieval watch tower within just a couple of hundred metres (which is in turn part of a surveillance system for the whole region, including other neighbouring towers), once again reinforces the strategic character of this location. With reference to the landscape, the stela of Montoro presents strong concomitances with the warrior stelae of south-western Iberia, which in many cases have been discovered next to fords, mountain passes and other strategic places, and not far from coetaneous settlements - see discussion in Galán Domingo, 1993; Díaz-Guardamino Uribe, 2010: 373-389; etc. In this

regard, the reference made by Strabo that in Roman times the Guadalquivir River was navigable in small boats somewhat beyond Córdoba (Chic García, 1978: 8) places Montoro in a privileged, geo-strategic position for the connection of waterway and land communication routes during the Late Bronze Age and the Iron Age.

5. Conclusion

Despite the limitations of the epigraphic and contextual analysis, the study conducted has allowed us to make some preliminary conclusions concerning the stela of Montoro. In essence, this stela seems to reflect the complex patterns of interactions that during the Iron Age were established between literate and non-literate communities of southern Iberia. In the Montoro stela, the Iberian tradition of monumental stelae in stone, dating back to the Neolithic, and certainly powerfully expressed during the Bronze Age, was transformed to contain a series of written signs that in some cases are unprecedented in the Iberian tradition, perhaps suggesting a 'foreign' origin, and which, at any rate, were utilised in an 'unorthodox' and non-grammatically meaningful manner. It is interesting that, unlike other early epigraphic stelae known in Iberia (e.g. those with South-Western script), in which signs were almost exclusively incised, the stela of Montoro was carved with a broader variety of techniques, including incision but mainly pecking, a technique that was commonly employed in the local rock art traditions (including 'warrior stelae') of southern Iberia during later Prehistory. At the same time, this exceptional convergence of cultural practices occurs in a place marked by a special landscape, territorial and geo-strategic significance which, owing to the presence of Mycenean pottery, certainly represents the locus of the oldest confirmed interactions between eastern Mediterranean literate and western European non-literate societies.

Acknowledgements

We wish to express our appreciation for the help we have received from a number of people in order to carry out this study. Dr. José Romero Pérez, the Delegate for Culture of the Town Hall of Montoro, and Mr. José Ortiz García, the current director of the Municipal Museum of this town, provided us with everything we possibly needed to conduct the study. Mr. Enrique Fernández Guixot and Mrs. María José López Porras, the owners of the estate where the stela was found, authorised the excavation of the sondage pit.

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List of Figures

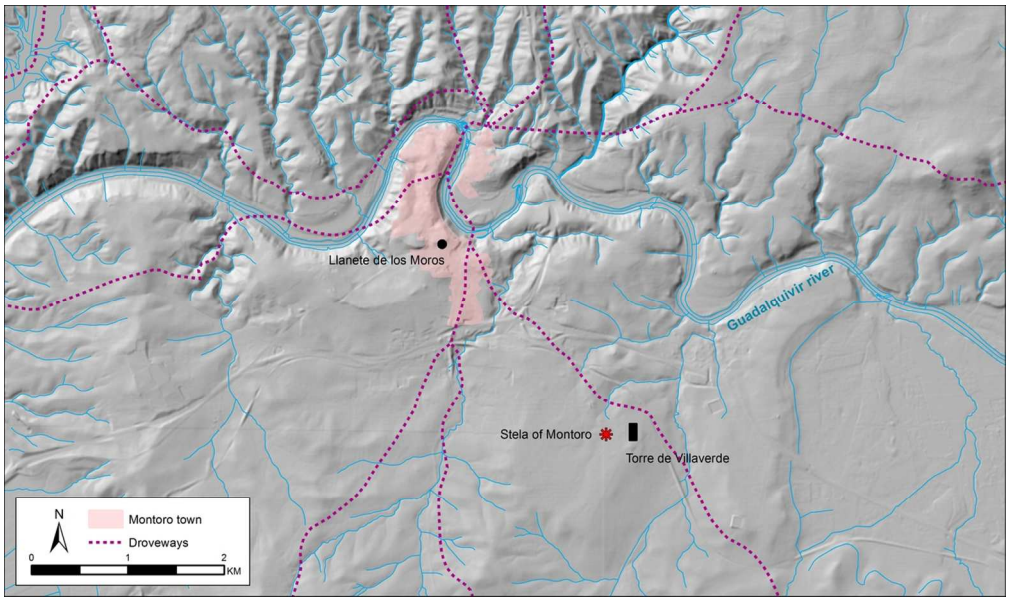

Figure 1: Location of the stela findspot within the Montoro municipality. Design: Marta Díaz-Guardamino Uribe.
117x69mm (300 x 300 DPI)

Figure 2: Original position of the stela as discovered in the clearance cairn in Septem-ber 2004. Photo: José Romero Pérez.
208x155mm (72 x 72 DPI)

Figure 3: The stela as it is currently kept in the Montoro Museum. Photo: Marta Díaz-Guardamino Uribe.
276x516mm (300 x 300 DPI)

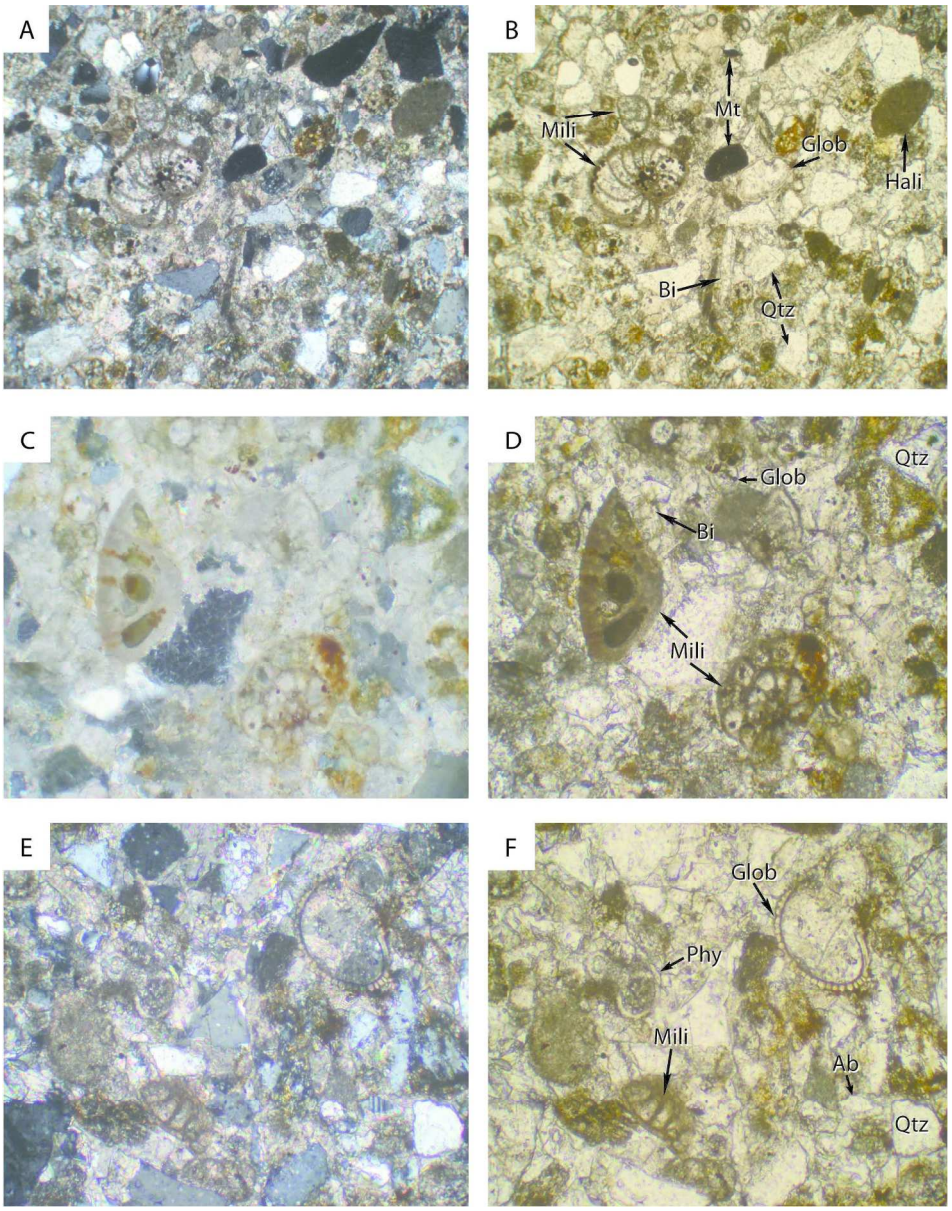

Figure 4: Thin section micro-photographs of the sample taken from the stela. Images A, C, and E are taken with crossed nicols; images B, D and F show the same area of the thin section without crossed nicols. Images are 4X in micro-photographs A and B and 10X for all others. Mill: Miliolids; Mt: Metallic ore, Glob: Globigerine; Hali: Halimeds, Bi: Bivalv; Qtz: Quartz; Phy: Phylosilicates; Ab: Albite. Design: José Antonio Lozano Rodríguez.
201x256mm (300 x 300 DPI)

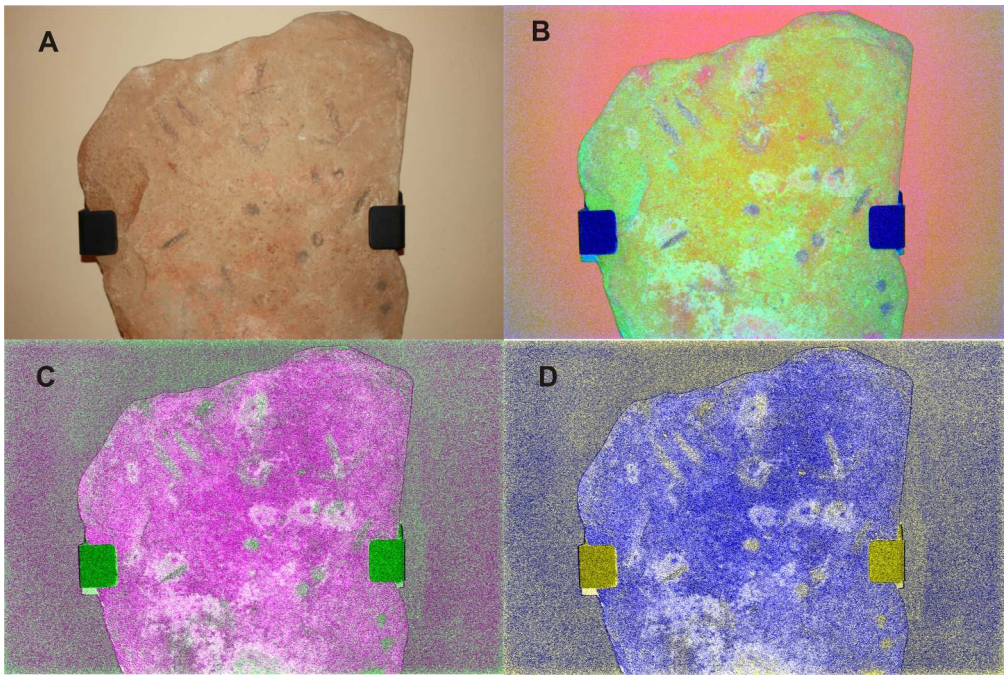

Figure 5: (A) RGB 1628 image, base for the following; (B) false colour image using the three PCA bands (PC123); (C) false colour image pondering the second Principal Com-ponent (PC232); (D) false colour image pondering the third Principal Component (PC 332). Design: Miguel Ángel Rogerio-Candelera.
301x201mm (300 x 300 DPI)

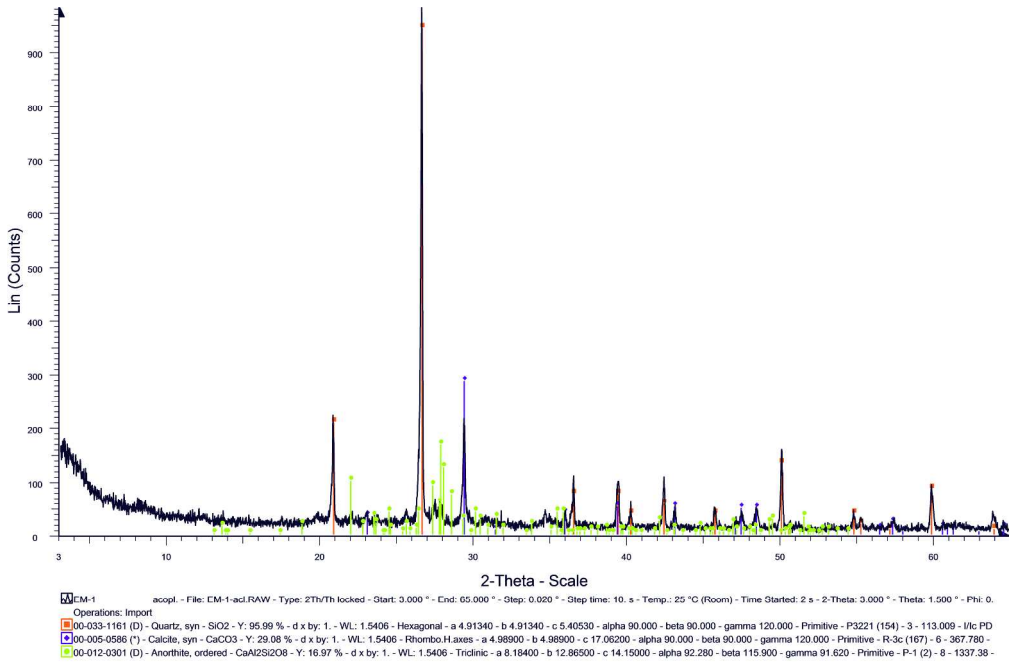

Figure 6: X-ray difractogram of sample EM-1. Design: Angel Justo Herbez.
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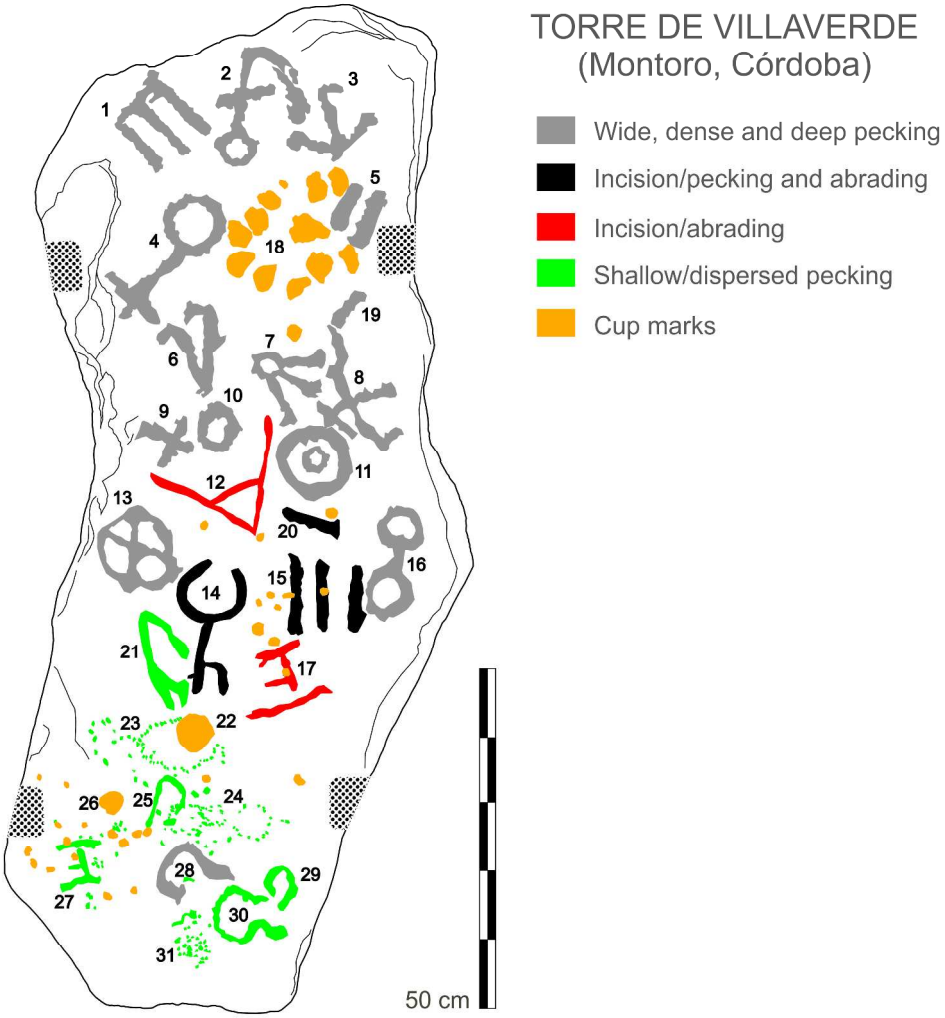

Figure 7: Synthetic line drawing of the stela's obverse with the numbers given to all motifs-signs (a) and a tentative sequencing of the execution of the motifs-signs (b). Design: Marta Díaz-Guardamino Uribe. 357x387mm (300 x 300 DPI)

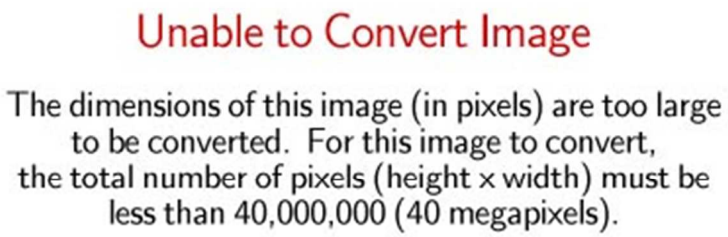

Figure 7: Synthetic line drawing of the stela's obverse with the numbers given to all motifs-signs (a) and a tentative sequencing of the execution of the motifs-signs (b). Design: Marta Díaz-Guardamino Uribe.

Figure 8: General view of Torre de Villaverde from the north-east. Behind the tower is the chapel of Nuestra Señora de los Remedios. Photo: Leonardo García Sanjuán.
1507x1004mm (72 x 72 DPI)

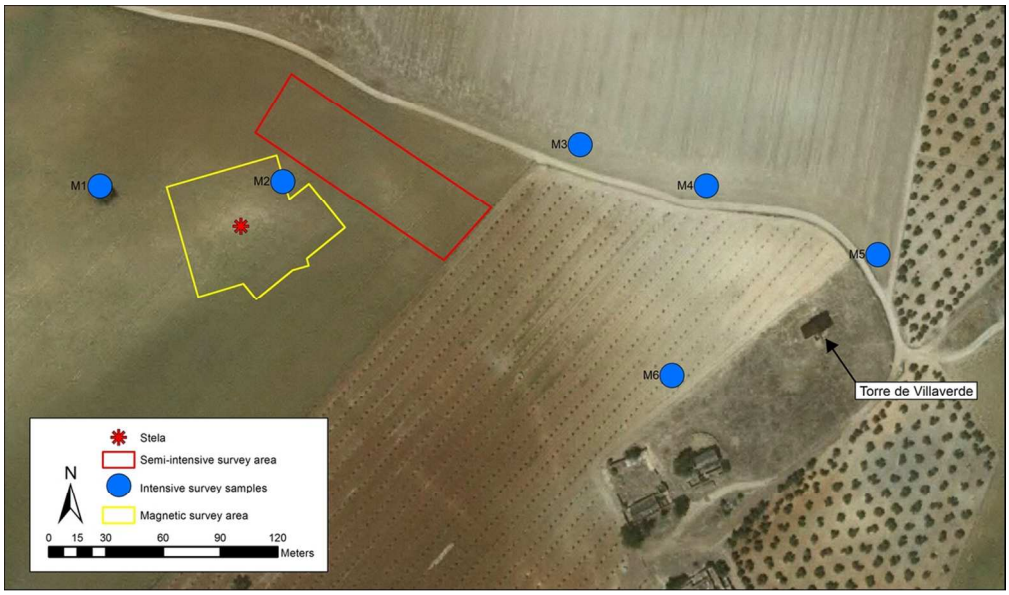

Figure 09: Plan showing the survey areas. Design: Marta Díaz-Guardamino Uribe.
105x61mm (300 x 300 DPI)

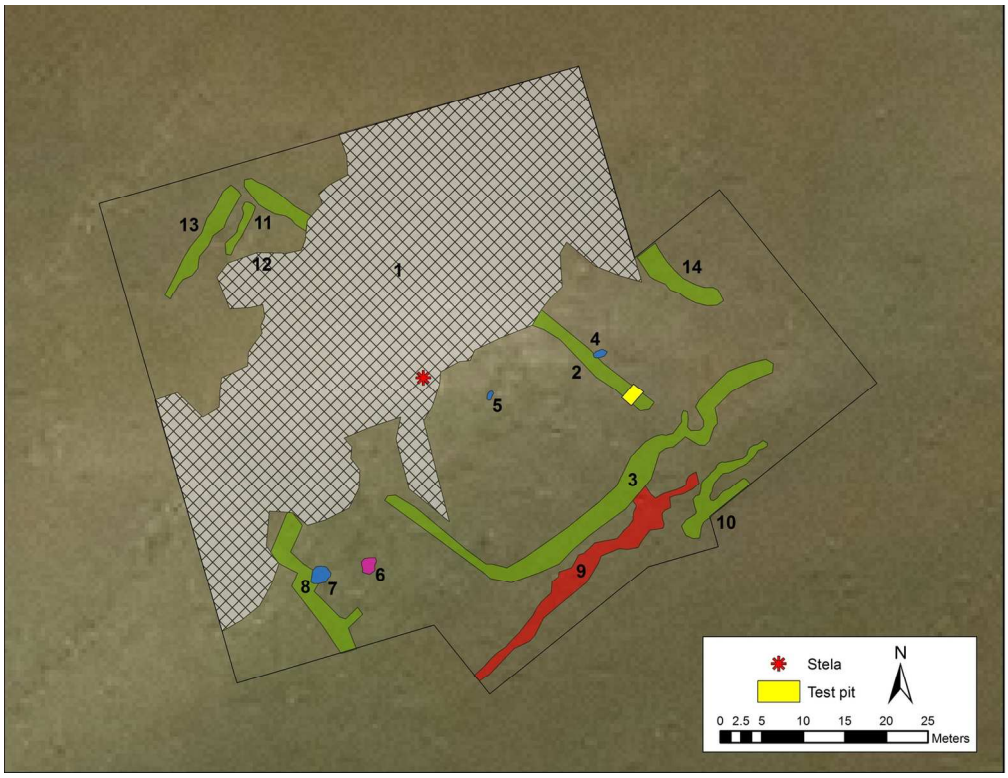

Figure 10: Interpretation of the magnetometric survey. Each anomaly is numbered separately. Anomaly number 1 is the disturbance caused by the oil pipeline. Design: Kris Strutt, Dave Wheatley and Marta Díaz-Guardamino Uribe.
146x112mm (300 x 300 DPI)

Figure 11: Test pit at the stela's findspot. Photo: Leonardo García Sanjuán.
1507x1004mm (72 x 72 DPI)

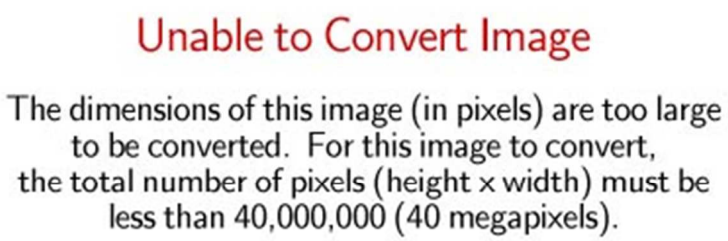

Figure 12: Diagnostic ceramic material found at the stela's findspot. Drawing: Manuel Casado Ariza.