

# The Pre-colonial Phoenician Emporium of Huelva ca 900-770 BC

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## Abstract

*A large assemblage of materials, dating to ca 900-770 BC, was found during rescue excavations in the city of Huelva. It included several thousand Phoenician and autochthonous ceramics and a group of Attic Middle Geometric, Euboeo-Cycladic Subprotogeometric, Sardinian, Cypriot and Villanovan pottery. Waste materials of ivory, bone, wood and probable stone (agate), copper, silver and iron have also been documented. In addition, Phoenician weights, baetyls and a tin sheet, probably used in the manufacture of bronze were discovered. These finds have implications for our understanding of the pre-colonial period at the beginning of the first millennium BC and once again raise the much debated question of the identity of the biblical Tarsis in I Kings 10, 22.\**

## INTRODUCTION<sup>1</sup>

The modern harbour city of Huelva (ca 140.000 habitants) lies in the South-West of Spain near the Riotinto mining area. Archaeologically, it presents the problems of a modern city, covering the ancient one, with a swift development during the last forty years. In the immediate proximity there are some Final Neolithic and Middle Bronze Age remains. During the first half of the first millennium BC it was the site of an autochthonous-Phoenician community. From the late 7<sup>th</sup> century BC the Greeks knew this city as the emporium of Tartessos (with its king Argantonios). The new excavations have given conclusive evidence for the existence of a Phoenician emporium already in the 9<sup>th</sup> century BC, the earliest in the West to date.

## THE SITE AND FIND CIRCUMSTANCES

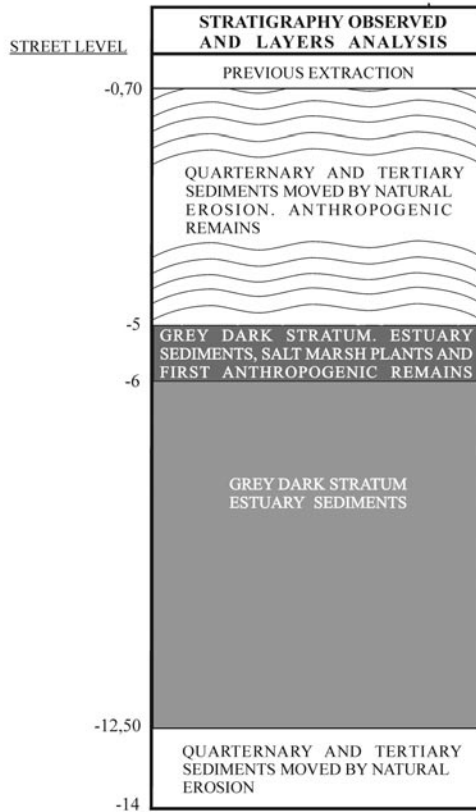
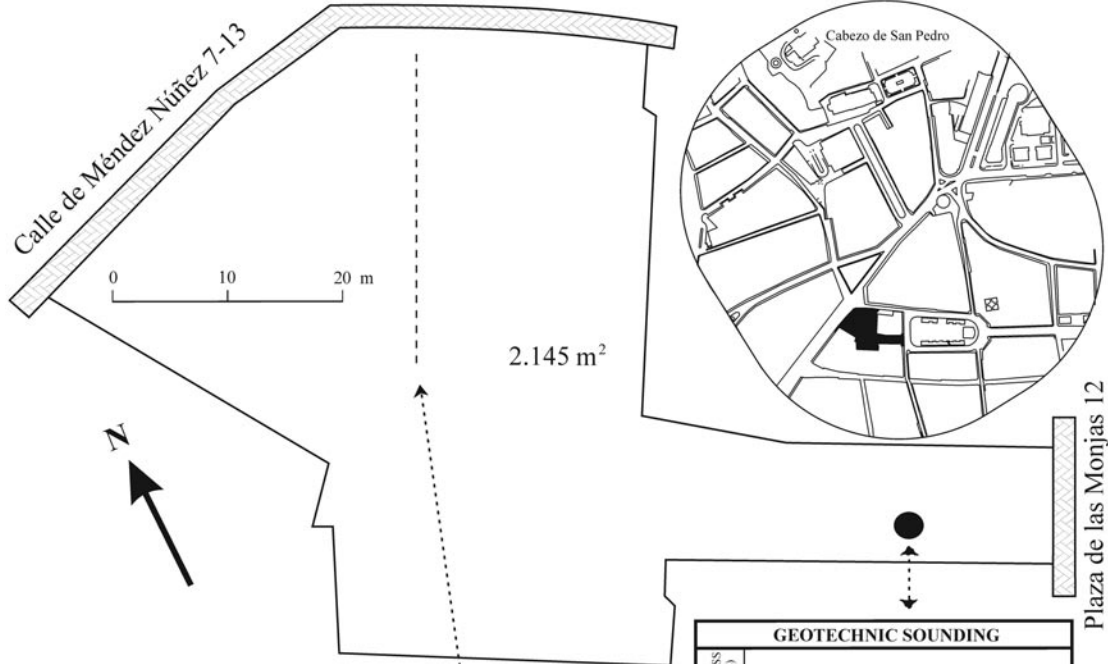
In 1998, rescue excavations were conducted in anticipation of urban restructuring works on a terrain of 2,145 m<sup>2</sup> in the city of Huelva (Plaza de las Monjas 12/Calle Méndez Núñez 7-13; see map). During these investigations, levels of the first half of the 7<sup>th</sup> century BC were reached. Deeper levels were left untouched because ground water appeared. However, when the terrain was pumped dry some time after, this offered the unique possibility to follow up the works and document the oldest occupation levels in this part of the city. The construction firm fenced off the spot with enormous concrete screens and, after the evacuation of the water, proceeded to extract the earth, permitting us to observe the full stratigraphy in

some areas. Based on the resulting knowledge of the lowest layer with human artefacts, situated between about -5 and -6 m and at 2.5 m below the water table, we were able to control the extraction of part of the earth from this layer and recover its materials in a secondary position. The results may be qualified as fortunate, since the very compactness and stickiness of the muddy earth, which formed the stratum, in combination with a characteristic greyish-black colour, favoured its clear distinction from the upper levels. Contamination of the extracted material with later finds can, therefore, be practically discounted. Similarly, the possibility of intrusive material from possible lower anthropogenic levels can be excluded, since virgin soil was encountered directly below. The results presented here, could never have been reached in a regular excavation using the normal archaeological methods, since the mixture of mud and sand in the water would have left any attempt to establish a neater stratigraphical sequence futile. The microscopic analysis of the sediments from this earliest level showed it to consist of fine grained material from estuary sediment, typical plant remains of a salt marsh area and numerous arthropod remains.

## THE POTTERY

The detailed study of the ceramic finds took into consideration all diagnostic fragments that would enable us to identify the type of vessel within each category. We also considered other fragments of interest, particularly for their decoration. When two or more fragments were found to join, we counted them as one.

MAP OF THE CITY CENTER INCLUDING THE SITE



STREET LEVEL

THICKNESS (METRES)	SOIL DESCRIPTION
0,70	PREVIOUS EXTRACTION
2,10	BROWN ARTIFICIAL FILLING CLAYEY MUD GRAVEL, FINE GRAVEL AND ORGANIC CARBONOUS MATERIAL
1,90	BROWN CLAYEY MUD ORANGY BROWN VEINS ORGANIC CARBONOUS MATERIAL DISPERSED FINE GRAVEL
2,00	DARK GREY MUD WITH ABUNDANT ORGANIC CARBONOUS MATERIAL MOLUSCS AND BIVALVE REMAINS DISPERSED PLANTS REMAINS AND DISPERSED FINE GRAVEL
1,50	GREY BROWN SANDY MUD WITH ABUNDANT GRAVEL BROWN AND ORANGY BROWN VEINS
0,30	ORANGY BROWN SAND
1,20	DARK GREY CLAY OF HIGH PLASTICITY WITH SEA FOSSIL REMAINS
3,50	ORANGY BROWN CLAYEY SAND WITH ABUNDANT QUARZITIC GRAVEL AND FINE GRAVEL AND PEBBLES
10,60	LIGHT GREY SANDY MUD CLAYEY LEVELS ORANGY BROWN VEINS SEA FOSSIL REMAINS
15,50	MARLACEOUS DARK GREY CLAY

-38,60



Fig. 1. Jug Tyre type 8.



Fig. 2. Jug Sarepta type DJ-11.



Fig. 3. Jug Tyre type 10.



Fig. 4. Jug Tyre type 7.



Fig. 5. Jug Tyre type 9.

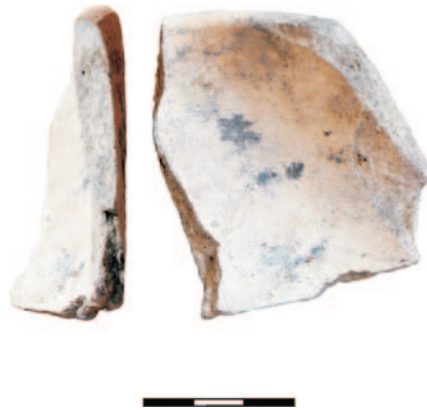


Fig. 6. Jug Tyre type 11.

The 8.009 fragments which were catalogued formed approximately 9% of the total excavated pottery fragments: 4.703 were of local handmade ware, 3.233 of Phoenician tradition, 33 Greek, 8 Cypriot, 30 Sardinian and 2 Villanovan. However, if one would start its calculation from only the rim and base fragments, one would arrive at 3.112 of the Phoenician tradition and 3.000 of the local handmade tradition, that is, they were similarly represented.

#### *Phoenician pottery*

The newly found Phoenician pottery of Huelva looks at first sight very similar to that of Tyre. This fact, in combination with the historical pro-

minence of the Phoenician metropolis in the early expansion, justified the application of the typology of Tyre by Bikai,<sup>2</sup> complementing it in those cases where no good parallels could be found with the Sarepta typology.<sup>3</sup> Although we did not intend *a priori* to make new classifications on the basis of the present material, which would only lead to confusion and obscure the affiliation with the eastern centres, we had to make few exceptions: the Fine Ware vessels (491 rims) for which we adopted a classification based on the morphology; a heterogeneous group that corresponds to the category of 'bowl' (143 rims), of which the typological situation in the Levant is rather disparate; and the category of 'lid' (28 rims), in which some very particular types have been united.

In general, the pottery of the Phoenician tradition shows clay colours and slips, which seem to differ from those published from the East. Without excluding local productions in Huelva, these differences may also be caused by a process of heavy environmental reduction,<sup>4</sup> which results in a change of the possible original reddish or orange colours to white-greyish, as especially seems clear in the Fine Ware plates. Reduction conditions that seem capable of bringing about such changes occur when sufficient organic material accumulates in a sediment deposit under waterlogged conditions. Such were the conditions of the layer in which the pottery was found: an ancient wetland or saltwater swamp on top of which dense vegetation developed that, later, remained below the water table. Several analyses showed pH levels of the sediment ranging between 8 and 9 and an Eh (redox potential) that stayed below -60 mV. One could therefore conclude that, until reliable mineralogical and chemical analyses of the clays have been undertaken, the production places of a large number of vessels will remain difficult to ascertain.

The majority of the Phoenician pottery may correspond to the so-called Salamis horizon of Cyprus, which is equivalent to Rachidieh Tomb IV, Tell Abu Hawan III, Sarepta D1-C2, Tyre Strata X through part of IV, Qasmieh and Knossos. This horizon can neither be recognized at Tell Keisan (except perhaps in Level 6) nor at Sarepta in Sounding X. Khaldeh Tomb 121 and Tambourit probably belong to the last part of this period and continue into the next.<sup>5</sup> If one considers that the most recent (pottery) horizon of Kition is represented at Tyre in part of Stratum IV, the end of the Salamis horizon should not be later than 760 BC, when that Stratum ended.<sup>6</sup>

The jug with ridged-neck and squared rim of type 8 in Bikai's Tyre classification (*fig. 1*) and its near variants (with rounded, triangular and candle holder form rims: DJ-4 until DJ-10 of Sarepta) constitute the most important jugs in the Salamis horizon and we found 32 examples in Huelva. Also recorded are 7 jugs of Sarepta type DJ-11 (*fig. 2*) and three body fragments with vertical concentric circles of Tyre jug type 10 (*fig. 3*).<sup>7</sup> Thirty four fragments of jugs with trefoil rims type 7 of Tyre (*fig. 4*) correspond mainly to those with inverted con-

ical neck and globular body; the more recent bi-conical<sup>8</sup> ones are notably absent, as are types 3, 4, 5 and 6 that in Tyre are not recorded before Stratum IV.<sup>9</sup> Older jugs are represented with a rim fragment with part of the neck attributed to Tyre type 9 (*fig. 5*) and three fragments shaped as Arabic roof-tiles (*fig. 6*), as if they would correspond to 'spouts' of jugs Tyre type 11. In conclusion, the jugs show a lower chronological limit within the Stratum IV of Tyre.

In contrast to the jugs, the plate types that could be distinguished possess in general only limited chronological value, since they occur in several strata of Tyre. Still, being the largest category found within the Phoenician pottery, they offer important information on Phoenician activity in Huelva. Table 1 presents the different plate types found and also the estimates in Strata IV and V of Tyre based on the percentages of the diagnostic fragments.<sup>10</sup> The equivalents of types 8 and 9 of Tyre (*fig. 7.2*) have been taken together, because of the colour changes discussed above. Strata I-III of Tyre have not been taken into account, because their equivalents have not been represented in Huelva, as may be clear from the absence of plates 1-6 of Tyre and other vessels typical of these strata.

There are several factors suggesting that the vast majority of the plates in Huelva have been produced in the period corresponding with Tyre Stratum IV and that they did not continue into the phases of Stratum III: the high number of plates type 7 of Tyre (*fig. 7.1*) present in the sample, which seems to conform better to Tyre Stratum IV than to Stratum V; the minor presence of plate type 10, which dominates Stratum V of Tyre, which may even be over-represented in the table, since we may have listed some rims of Huelva bowls type 2, similar to type 6 of Tyre, under plate type 10; the rarity of plate type 11, which is numerous in Tyre till Stratum V; and the absence of plate types 1 to 6 that are typical of Tyre Strata I-III and are rare in Stratum IV.<sup>11</sup> No less significant for the definition of a *terminus ante quem* is the absence of locally produced plates with narrow rims and Red Slip that characterize the first colonial occupation in several Andalusian sites and that, in Huelva, are found in a later period

Table 1. Plates in Huelva and strata IV-V of Tyre

Plates	1	2	3	4	5	6	7	8	9	8+9	10	11	12	13	14	Total
Huelva							39.21			47.99	9.60	1.86		1.13	0.21	100
Tyre IV	2.60	1.11	1.25	2.22	0.14	1.98	24.34	48.33	9.33	57.66	5.72	2.36		0.62		100
Tyre V							4.36	25.76	21.82	47.58	33.63	12.24	0.88	1.31		100

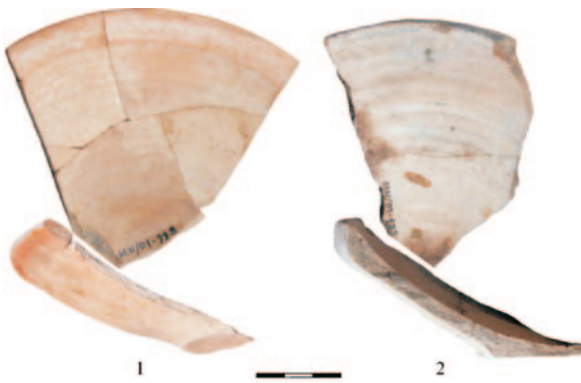


Fig. 7. Plates: 1. Tyre type 7; 2. Tyre type 8-9.

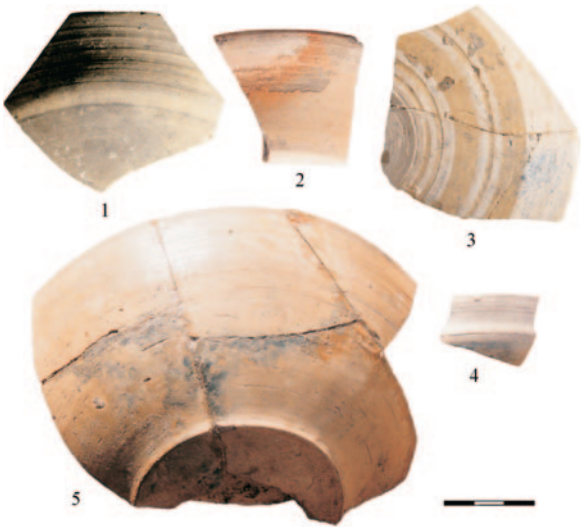


Fig. 8. Fine Ware:  
1. Huelva type 1; 2. Huelva type 2; 3. Fine Ware base type 1 of Huelva; 4. Huelva type 4; 5. Huelva type 3 with Fine Ware base type 2 of Huelva.



Fig. 9. Amphora Tyre type 12.

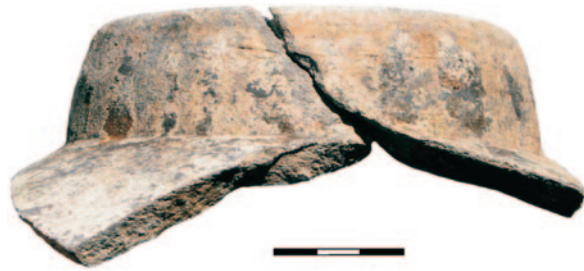


Fig. 10. Amphora Tyre type 9.

than the one under discussion. The prototype of those later plates, which mark a western evolution of the Phoenician pottery repertoire, are perhaps to be sought in plate type 2 of Tyre or from its probable predecessor, type 7.

The analysis of the Fine Ware plates/bowls (491 rims) leads to similar conclusions. As in the Strata V-IV of Tyre, they are of a high quality (fig. 8) without the already degenerating shapes that start to be found in Strata III-I.<sup>12</sup> The high percentage of rims of Huelva Fine Ware type 1 (55.91% of all Fine Ware rims excluding Huelva types 2 and 4 and exceptional shapes) shows a chronological concordance with Tyre Stratum IV, in which rims of Fine Ware type 6 that are generally equivalent to Huelva Fine Ware type 1 reach 7.75% of all diagnostic fragments<sup>13</sup> and up to 41.25% of all Fine Ware rims if one excludes the 'miscellaneous' shapes. However, the disparity of typological criteria suggests that these data should only be used in general terms. The apparent absence of the later types 1 to 3 of Tyre hints at a *terminus ante quem* as well. The absence of Tyre type 7, of which recently an example has been found on another site in Huelva,<sup>14</sup> is less significant in chronological terms, since it is already rare in Tyre.<sup>15</sup>

Next to be discussed are the amphorae of which 52 rims were found. There were 11 examples of Tyre type 12 (fig. 9) and 24 attributed to Tyre type 9 (fig. 10). These rims are in chronological accordance with four bulbous bases type 20 of Tyre (fig. 11). Although the large number of varieties of type 9 make identification only by rim shape a difficult task,<sup>16</sup> for most of the cases very close parallels could be found in the published material of Tyre. Four rims with thickened interior profile (fig. 12) and five shoulder fragments show the same ridges on the shoulder as some amphorae of Tyre type 9 with similar rims,<sup>17</sup> which are associated with the last use of Temple A and the first phase of Temple B in Kommos (circa 900-760 BC).<sup>18</sup> No rims of amphorae type 2 of Sagona were found, although a small number

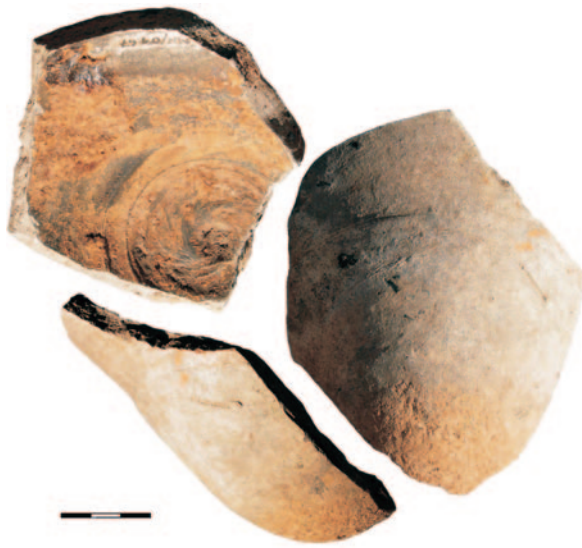


Fig. 11. Base type 20 of Tyre.



Fig. 12. Amphora Tyre type 9 ('Kommos variety').

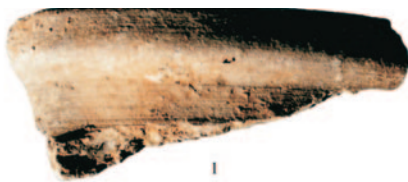


Fig. 13. Nuraghic amphorae: 1. Rim; 2. Base.

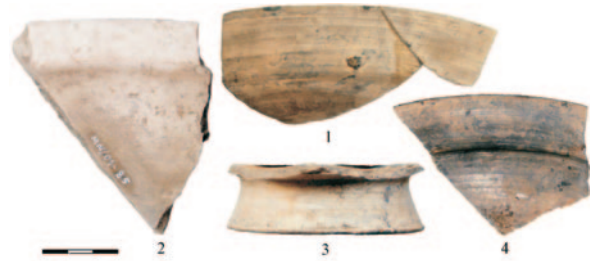


Fig. 14. Bowls:  
1. Huelva type 5; 2. Huelva Type 1;  
3. Base 11 of Tyre; 4. Huelva Type 8.

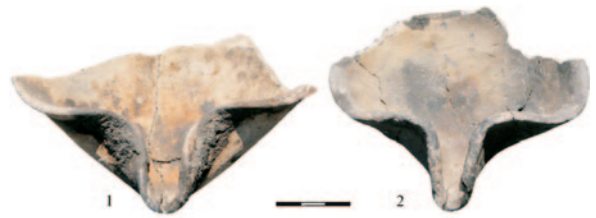


Fig. 15. Lamps: 1. Tyre type 1; 2. Hand-made lamp.



Fig. 16. Askos.

has been discovered in other settlements in the region, probably because their arrival in the West is later than the formation period of the present sample. Nor have pointed bases of Tyre types 18 and 19, which correspond to more recent amphorae, been found.<sup>19</sup> Among the amphorae that are considered to be of western Mediterranean productions, five could be attributed to types T-3.1.1.1/T-3.1.1.2 of Ramón<sup>20</sup> or to forms close to B1/B2 of Bartoloni.<sup>21</sup> There are also three bases of amphora B2 of Bartoloni.<sup>22</sup> Of great interest are nine rims, one base (fig. 13) and four handles of a class initially described by Docter as 'ZitA'. Finds

from Sant'Imbenia on Sardinia<sup>23</sup> lead to a redefinition of both its labels and provenances: the first of the five subclasses, Zita 1 and Zita 2,<sup>24</sup> have been renamed Nuraghic 1 and 2, placing their production in the Nuraghic sphere.<sup>25</sup>

Amongst the bowls (*fig. 14*), for which we propose a provisional classification in order to facilitate their presentation and discussion, the possible high chronology of a base type 10 of Tyre and 13 bases of Tyre type 11 are noteworthy, since in Tyre itself they have not been found later than in Strata X-2 and VIII, respectively.<sup>26</sup> On the other hand, among the ones with a more recent chronology are bowls of Huelva types 4 and 6 and some other exceptional ones, which may be compared to ones found in Kition-Kathari, attributed to the Kition horizon.<sup>27</sup> However, the limited number does not exclude the possibility that the production of these bowls would have started somewhat earlier, at the end of the Salamis horizon. Still, a dating at the beginning of the Kition horizon would not cause chronological problems for the Huelva stratum discussed here, since such bowls have been recognised also in Tyre stratum IV, that is to say, they may date somewhere prior to 760 BC.<sup>28</sup> In this case, they would be the oldest elements of the Kition horizon, but at the same time the most significant elements of that pottery horizon are missing: mushroom jugs types 3-5 of Tyre, neck-ridge jugs type 2 of Tyre, plates with rims that are concave to the interior of type 1 of Tyre and, perhaps, torpedo amphorae.<sup>29</sup> However, a body fragment with a very straight profile may have belonged to a torpedo amphora, perhaps dating to before 760 BC. No double-spouted lamps, the most recent ones, have been documented in the material finds of Huelva; only lamps with a single spout, which are practically limited to type 1 of Tyre, present in all strata of the Phoenician metropolis and the only one present prior to Stratum V. The handmade lamps found in Huelva exactly imitate this type (*fig. 15*). Neither has there been any trace in Huelva of juglets of Tyre type 1, which is commonly found in the more recent Strata of Tyre, nor of type 4 ones, so typical of the older strata,<sup>30</sup> nor of grey wheel-turned pottery of western origin that start appearing in the settlements of the Iberian Peninsula in relation with the Phoenicians from the middle of the 8<sup>th</sup> century BC onwards. On the basis of the present state of study, several categories of Phoenician pottery do not permit chronological precisions of the sort applied above: lids, supports, pedestal bases and some examples of kraters, terracottas, askoi (*fig. 16*), mortars, tripods and goblets. Some high quality lids appear to fit to bowls

also of high quality which, in reality, should be considered as pyxides.

In conclusion, the Phoenician pottery of the Huelva context extends itself to stratum IV of Tyre although it comes to an end before ca 760 BC. A date of ca 770 BC or slightly earlier seems appropriate and accords well with the palaeographic dates provided by the nine Phoenician inscriptions on the pottery, one on bone and another one on a piece of ivory.<sup>31</sup> This date also conforms well to the information provided by the Greek, Cypriot, Sardinian and local pottery.

#### *Greek pottery*

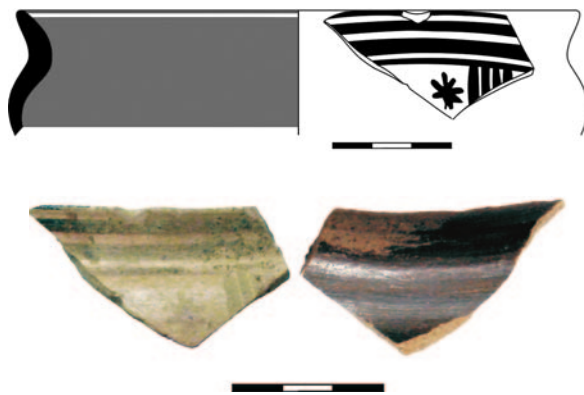
The best chronological information is provided by 22 out of the 33 Greek vessels found in the context: two kantharoi (*figs. 17-18*), two skyphoi (*figs. 19-20*) and a trefoil mouth jug from Attica, and two skyphoi (*figs. 21-22*) and 15 SPG plates with pendent semicircles (*figs. 23-24*) from Euboea or the Cyclades. The chronological value of the other fragments is rather limited and sometimes even the attribution is uncertain. The Attic vases belong to the MG II period, so date to about 800-760 BC.<sup>32</sup> The two Euboeo-Cycladic skyphoi may be attributed to Kearsley's type 6<sup>33</sup> and to the SPG III period. Less precise dates can be obtained for the 15 Euboeo-Cycladic plates, which were perhaps made by the Greeks for a Phoenician clientele.<sup>34</sup> If we follow the typology and chronology proposed by Nitsche,<sup>35</sup> among the eight cases in Huelva in which the rims have been preserved, there would be one example of type B1 (*figs. 23.3, 24.3*) and two of type C1 (*figs. 23.4-5, 24.4-5*), which one would have to assign to the SPG I-II period (ca 900-850 BC). The absence in the sample of Attic LG pottery and of Euboeo-Cycladic skyphoi with chevrons that chronologically follow the skyphoi with pendent semicircles as well as the still more recent Proto-Corinthian vessels and the Euboean bird skyphoi attested in other excavations in Huelva,<sup>36</sup> confirms the lower chronological limit already established on the basis of the Phoenician pottery.

#### *Cypriot pottery*

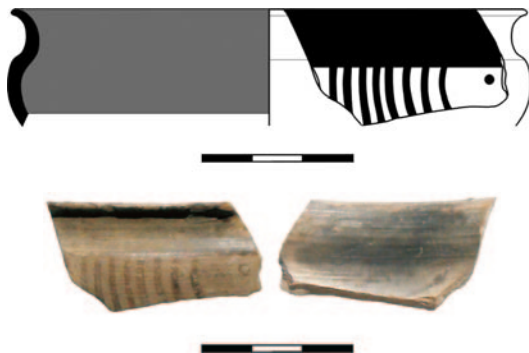
There were five vessels that we consider to be of Cypriot origin (in one case with some reservations). Of particular interest were three Black on Red juglets decorated with concentric circles (*fig. 25*) that may be attributed to types I (III) or II (IV) in Gjerstad's *Swedish Cyprus Expedition* classification.<sup>37</sup> The general type III starts at the end of the Cypro-Geometric II B period and disappears in



Figs. 17 and 18. Attic MG II kantharos.



Figs. 19 and 20. Attic MG II skyphos.



Figs. 21 and 22. Subprotogeometric Euboean pendent-semicircle skyphos.

the Cypro-Archaic II A period, whereas type IV is mainly found in the Cypro-Archaic period with only a limited presence in Cypro-Geometric III B.<sup>38</sup> Although Gjerstad originally dated Cypro-Geometric III to ca 850-700 BC, he later redated its ending to about 725 BC.<sup>39</sup> This chronology has been dated even higher by other authors as Birmingham<sup>40</sup> or Yon.<sup>41</sup> In Crete, where the first Phoenician imports date already to the end of the 9<sup>th</sup> century BC, the Cypriot Black on Red jugs started arriving from about 800 BC.<sup>42</sup> The find of Black on Red II (IV) juglets in a Cretan pithos of the MG period in a tomb from the North Cemetery in Knossos supports the higher dating of the transition of the Cypro-Geometric to the Cypro-Archaic period.<sup>43</sup> With this, the attribution of some of the Black on Red pottery from Huelva to type II should not imply a lower date for them than the rest of the context in which they were found would suggest.

#### Sardinian pottery

The Sardinian vessels, which have been documented in the Huelva sample, do not allow for such precise dating as the Greek vessels. Besides the Nuraghic (ZitA) amphorae discussed above, there are 13 askoi, one bowl, and 15 'vasi a collo' (fig. 26). The overview by Køllund of the Sardinian askoi found in contexts outside Sardinia<sup>44</sup> suggests that the Sardinian pottery reached Huelva in about the same period as the Greek and Cypriot ceramics.

#### Villanovan pottery

Two vessels, a kantharos (fig. 27) and a cup were considered to be of Villanovan origin.

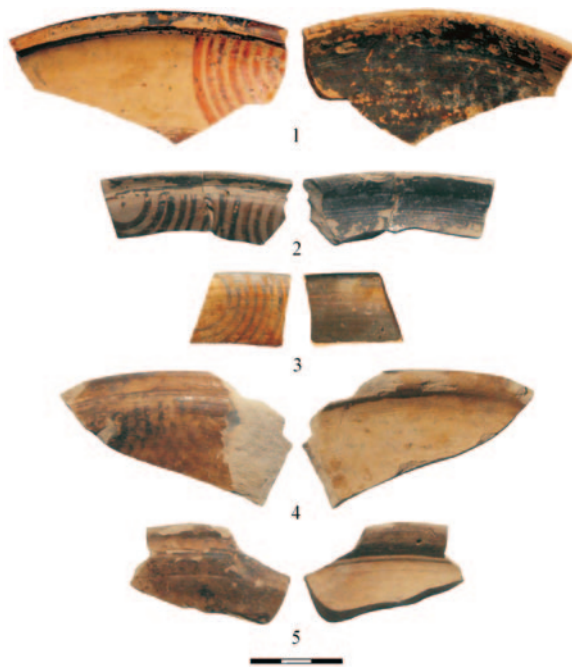
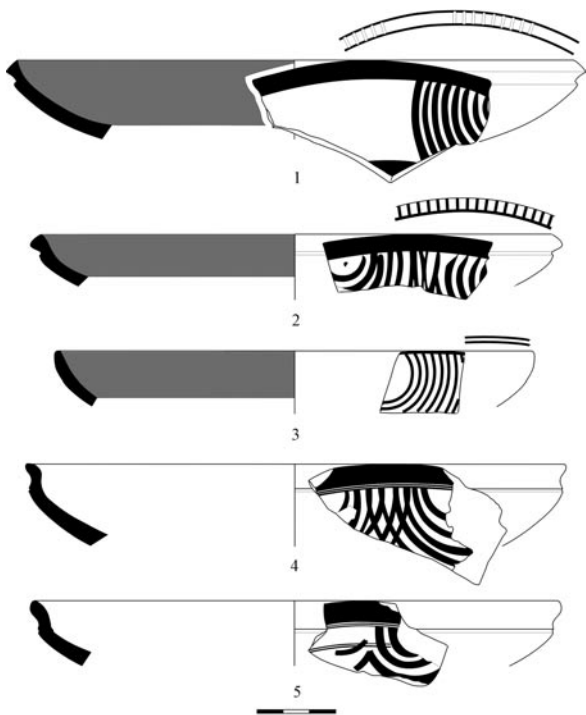
#### Local

The pottery of the local tradition is characteristic for the so-called 'Bronze Final del Suroeste' period (San Pedro phase I). In the light of the new finds, this 'Late Bronze Age period of the Southwest' may perhaps better be called as Iron Age I or Early Iron Age. Not attested in the sample are the developed shapes of San Pedro Phase II or its equivalents in other settlements.

#### THE START OF HUELVA LAYER

The Huelva context shows a rather clear *terminus ante quem*, which corresponds to the first half of Stratum IV of Tyre. Establishing its beginning (*terminus post quem*), however, is much more com-





Figs. 23 and 24. Subprotogeometric pendent-semicircle plates.  
*Euboean*: 1-2. Near to D2 of Nitsche; 3. B1 of Nitsche. *Cycladic*: 4-5. C1 of Nitsche.

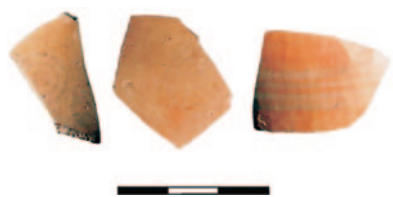


Fig. 25. Cypriote Black on Red jugs.



Fig. 27. Villanovan kantharos.



Fig. 26. Sardinian pottery:  
 1-6. Askoi; 7. bowl; 8. 'vaso a collo'.

plex, because the materials that may yield such a chronology are, not surprisingly, scarce. From the Phoenician pottery side, it may be established by few elements of the so-called Kouklia horizon, which is equivalent to Tell Abu Hawan IV, Khaldeh Tombs 4, 166 and 167, Tell Keisan 9a-8 and 7, Sarepta D and VII, and Tyre XIII-X.<sup>45</sup> They consist of the jug rim fragment with part of the neck attributed to a jug of Tyre type 9; the three fragments that may have belonged to 'spouts' of jugs of Tyre type 11, and, especially, the 11 high rim fragments attributed to amphorae of Tyre type 12, which virtually disappear in Tyre after Stratum

IX.<sup>46</sup> Bikai<sup>47</sup> refers to parallels of such amphorae in Hazor XII and Meggido VIII-VIIB and V, also mentioned by Anderson<sup>48</sup> for his types SJ-7 and SJ-8 of Sarepta, which are equivalent to type 12 of Tyre, together with some examples of SJ-6. Anderson<sup>49</sup> also mentions in this connection Level 9 of Tell Keisan and Stratum IVb of Tell Abu Hawan and extends on the Strata XII-IXB of Hazor. The base of Tyre type 10 and the 13 bases of Tyre type 11 point at a similar early date. In Huelva no 'pilgrim flasks' have been found, nor pottery of the so-called Red Ware, which characterizes the oldest phase of the Kouklia horizon. This predominance of amphorae within the oldest pottery of Huelva, is not surprising in a phase of commercial exchanges in which, perhaps, still no stable Phoenician settlement of importance yet existed in the West. We will not use two examples of plates, which are similar to plate type 14 of Tyre as an argument in favour of a high chronology, since similar rims occur with lamps as well. In any case, the fault of precisions of the chronological framework in the East during the 11<sup>th</sup> till 9<sup>th</sup> century BC obliges us to build in wide chronological margins when trying to establish datings solely based on the Phoenician pottery repertoire. A date at the end of the 10<sup>th</sup> century BC till the first half of the 9<sup>th</sup> century seems reasonable and is in accordance with datings in the beginning of the 9<sup>th</sup> century BC assigned to the bronze deposit of the estuary of Huelva by various radiocarbon analyses.<sup>50</sup> This early date is also compatible with the typology of the bronzes,<sup>51</sup> among which are fibulae of Oriental inspiration. As has been stated above, among the Euboeo-Cycladic plates with pendent semicircles exists one example of type B1 and two of type C1 that Nitsche,<sup>52</sup> attributed to the SPG I-II period (ca 900-850 BC).

#### OTHER FINDS

Together with the pottery, some lithic vessels and utensils have been found: a fragment of an anchor (or a weight?) of bioclastic limestone, a fragment of an alabaster vase, a basalt vase (*fig. 28*), two cores (*fig. 29*) and five stones of agate (raw material of a stone cutter?), three beads (one of amber, one of a cryptocrystalline quartz variety and the third of glass paste; *fig. 30*), and four baetyls cut from a bioclastic limestone (*fig. 31*) and a fifth one of lava stone.

Metallurgical activities have left us with a variety of waste material: bricks of furnace walls (*fig. 32*); tuyères of rectangular and round section (*fig. 33*) and crucibles for copper founding with slag



*Fig. 28. Basalt vase.*



*Fig. 29. Agate cores.*



*Fig. 30. Beads: 1. Amber; 2. Cryptocrystalline quartz; 3. Glass paste.*



Fig. 31. Bioclastic limestone baetyl.



Fig. 34. Crucible for copper.

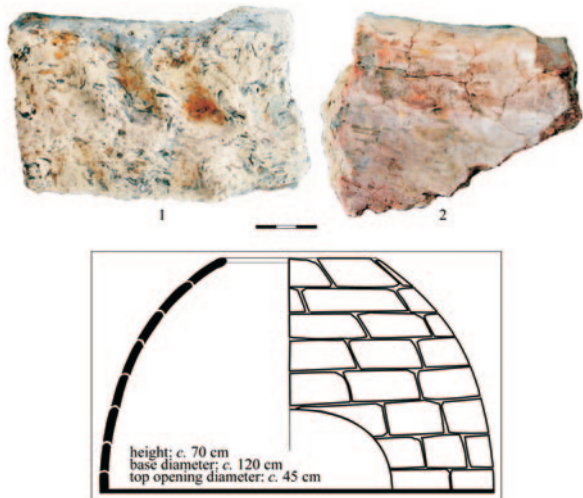


Fig. 32. Furnace wall brick and kiln reconstruction: 1. Brick with finger prints; 2. Brick-edge.

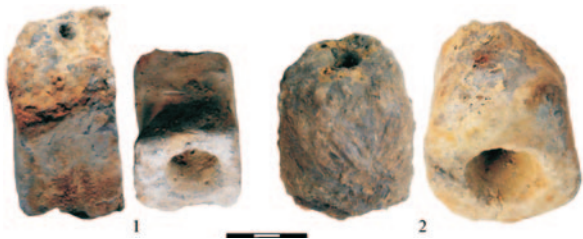


Fig. 33. Tuyères: 1. Square section; 2. Round section.



Fig. 35. Tin sheet with perforations.

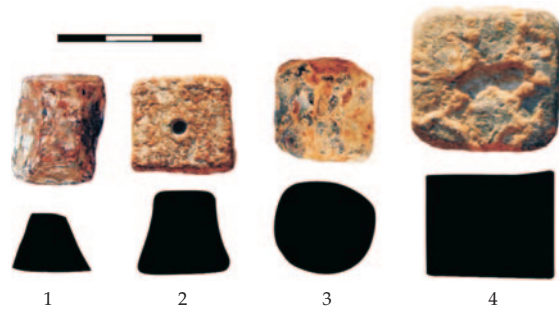


Fig. 36. Lead weights. 1. 4.49 g (1/2 shekel); 2. 9.54 g (1 shekel); 3. 9.59 g (1 shekel); 4. 26.62 g (3 shekels).

material still sticking to the interior surface (fig. 34). The crucibles are practically identical with those excavated on some oriental sites like Tell Dan.<sup>53</sup> The Huelva context also contained some clay moulds and one sandstone mould for casting; slag material of copper, silver and flat-curved of iron; small lead sheets and drips, which may

perhaps be associated with the process of silver cupellation, and a very intriguing sheet of tin with perforations (fig. 35), which are interpreted to have been made with a punch in order to obtain always equal quantities of tin for the copper alloy process. In addition, finished objects of copper/bronze and lead have been found, which may be associated

Fig. 37. Golden earring.

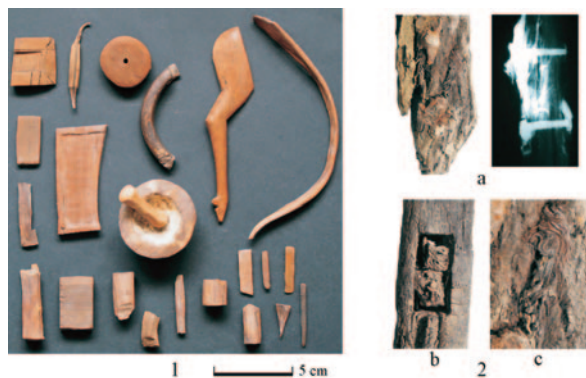


Fig. 38. 1. Wooden objects; 2. Ship remains: a. Iron plaques and nails; b. Joints; c. Esparto grass.

with metal working activities. Especially worth mentioning are four weights (fig. 36): one topped off pyramidal of 4.49 g (half a shekel), one similar shape of 9.54 g (one shekel) with a hole pressed in its base, a cylindrical of 9.59 g (one shekel) and a cubical of 26.62 g (three shekels) with a straight impression. A golden earring (fig. 37) and iron sheets, fixed to the planking of a boat with iron nails have also been found (fig. 38.2a).

A large amount of woodworking waste gives evidence of the existence of carpenters' workshops. The worked wood in question is almost exclusively pine (*Pinus pinea*). Among the worked wood several functional categories could be distinguished. These included tools for carving, weaving, ships construction, cosmetic and writing utensils (pinax/writing tablet?), polishers for pottery and a fragment of a ritual spoon in the shape of a deer leg (fig. 38.1). Another artisan activity that could clearly be documented in the finds is the working of ivory: 816 fragments of ivory cutting as well as some finished products (about 20% of the total) with a total weight of 2.23 kg, and a large part of an elephant tusk of 3.265 kg. Among the finished ivory pieces several categories could be distinguished: carving, cosmetic utensils, writing utensils (?) (fig. 39). Bone objects were also present. These consisted of piercers, a button, worked astragals for play or ritual, and a bull or cow's rib fragment with rounded edges and



Fig. 39. 1-2. Ivories; 3. Elephant tusk.

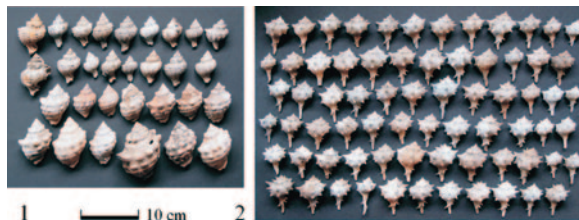


Fig. 40. 1. *Murex trunculus*; 2. *Murex brandaris*.

numerous traces of wear on its ends, which may have been used as a tool in for example modelling of pottery. There were also fragments of horns and antlers, which had been neatly cut (including an antler pendant), a pendant possibly of a bear's tooth and ostrich egg fragments. These show that a variety of animal remains were worked in the settlement.

The agricultural activities in and around Huelva may also be grasped from the finds. From the palaeobotanical side one has evidence for wine grapes (*Vitis vinifera*), figs (*Ficus carica*) and grain (*Hordeum*). Cattle-breeding is attested with cows (*Bos taurus*), goats and sheep (*Ovis aries* and *Capra hircus*), pigs, horses, dogs, birds and others that still await a specialized analysis. Hunting is attested with remarkably few specimens. The remains

of deer (*Cervus elaphus*), wild boar (*Sus scrofa*) and rabbit (*Oryctolagus cuniculus*) occur only sporadically in the sample. Fishing has been attested with quite a variety of species: meagre (*Argyrosomus regius*), braize (*Pagrus pagrus*), gilthead sea bream (*Sparus aurata*), ray (*Raja sp.*), sardine (*Sardina pilchardus*) and cuttle-fish (*Sepia officinalis*). Crustacean and remains of chelonian shells, numerous murex shells (*Murex trunculus* and *Murex brandaris*) (fig. 40) and of gasteropod (*Littorina littorea*) and bivalve molluscs (*Ostrea edulis lamellosa*, *Mytilus scaphoides*, *Venerupis decussata*, *Solem marginatus*) were also discovered. A fragment of an amphora with fish scales sticking to the interior surface may suggest that conserved fish had been imported or prepared in Huelva too.

#### WHO TRANSPORTED THE GREEK POTTERY FOUND IN HUELVA?

Both in the east and the west of the Mediterranean, several classes of Greek pottery have been found which according to the conventional typochronology date before ca 760 BC and thus antedate the founding of Phoenician and Greek colonies (leaving aside the Phoenician colony of Kition at the end of the 9<sup>th</sup> century BC). These materials are considered to represent a pre-colonial period and their distribution has been mainly attributed to Euboean enterprise, less commonly to Phoenician initiative.

In Pithekoussai, a Euboeo-Cycladic chevron skyphos from the Valle di San Montano necropolis and several fragments from the Gosetti dump of the acropolis belong to the oldest Greek finds from the island; they may even date to a period prior to the establishment of a fixed base.<sup>54</sup> It seems, therefore, that in the period of the Euboeo-Cycladic chevron skyphoi, at the end of the MG II period and not much later than 750 BC,<sup>55</sup> the Euboeans were already moving around in Western waters. The chevron skyphoi are preceded by the Euboeo-Cycladic skyphoi with pendent semi-circles, the production and distribution of which antedates the Greek settlement on Pithekoussai. This class of vessels certainly belongs to the pre-colonial period.

In the East, the Greek pottery repertoire starts with some Euboean PG vessels, which are followed by few plates with pendent semi-circles attributed to the SPG I-II period,<sup>56</sup> a significant number of skyphoi and Euboeo-Cycladic plates with pendent semi-circles of the SPG III period and skyphoi, pyxides and various Attic kraters of the MG I-II period.

In the West, a few Euboeo-Cycladic skyphoi with pendent semi-circles have been found, in Italy and its islands. Remarkable for its antiquity is the skyphos with pendent semi-circles of Kearsley's type 5 found in the Nuraghic complex at Sant'Imbenia (Alghero, in the northwest of Sardinia), which is attributed to Phoenician commercial activities.<sup>57</sup> A Cycladic MG I amphora appeared in a tomb in the Fusco cemetery of Syracuse, but in a context of LG.<sup>58</sup> Corinthian MG I and MG II, collected by I. Malkin,<sup>59</sup> were found at Otranto, Vaste, and Porto Cesareo (all in Puglia), and a Corinthian 'protokotyle' with chevrons of the end of the MG in Incononata, Metaponto.<sup>60</sup> As for Attic MG II, only a krater<sup>61</sup> fragment had been discovered at Huelva. To this repertoire we may now add the new Attic and Euboeo-Cycladic finds from Huelva, which include Euboeo-Cycladic pendent semi-circle type 6 skyphoi. The contextual chronology of the Huelva finds favours the critics of a late attribution of pendent semi-circle skyphos type 6 to the second half of the 8<sup>th</sup> century BC.<sup>62</sup> What also argues against a late distribution is its absence in Pithekoussai.<sup>63</sup>

Let us return to the thorny question of who transported these Greek vases. Its attribution to Euboean enterprise and navigation contrasts with the attribution to the Phoenicians of the distribution of the Attic MG II kraters in Amathus, Hama, Tyre and Samaria and the Attic krater of Huelva.<sup>64</sup> Of course, in the case of Huelva, it seemed unthinkable to allow for a Greek presence at the beginning of the 8<sup>th</sup> century BC, since neither the literary sources nor the archaeological record gives any clue. This throws more doubt onto the attribution of Euboeo-Cycladic material in the East to Euboean navigators. It certainly does not explain why, during the century between the first Euboean PG vases of Tyre, Amathus and Tell Hadar and the supposed foundation of Al Mina by the Euboeans, the latter would have kept visiting the Cypriot and Levantine coasts without securing any kind of territorial base. This proposition is made even weaker by the fact that Al Mina at that moment was not an Euboean colony as had initially been proposed. Some 15 years ago, after having considered the Greek finds in the Mediterranean, Boardman concluded: 'The Euboeans' later well-attested exploration of western shores should not leave us surprised at the possibility of earlier voyages... It can seriously be doubted only when finds of orientalia comparable in date, quality and quantity to those of Euboea are forthcoming from other Greek sites, or indeed other parts of the Mediterranean.'<sup>65</sup> In Huelva,

not only have these Eastern finds now appeared, but also they have been encountered in an archaeologically rich Phoenician-indigenous context.

#### THE SARDINIAN CONNECTION

There are several archaeological classes that seem to confirm the relations between Sardinia and Andalusia. To these remains, one now has to add the Nuraghic (ZitA) amphorae discussed above, 13 askoi, a bowl and 15 necks of 'vasi a collo'. But, who transported these vessels? Certainly, the presence of Nuraghic amphorae and 'vasi a collo' make a stronger case for Sardinian navigations to the Iberian Peninsula than the Euboeo-Cycladic skyphoi and plates with pendent semi-circles support Euboean operations in the western Mediterranean during the pre-colonial period. However, the Sardinian vessels of Huelva are embedded in a Phoenician context. In fact, all types and associations that could also be documented in Crete are present in Huelva: amphorae with bulbous base, jugs with squared rim, Bichrome jugs decorated with vertical concentric circles on the body, Cypriot Black on Red jugs and Sardinian askoi; of these, one handle is remarkably identical with that of the askos in the so-called goldsmith's tomb of Tekke (*fig. 26.4*).<sup>66</sup> Therefore, it is very likely that at the same time, the Phoenicians could have transported Sardinian pottery to Crete and Huelva.

Lastly, we have the Phoenician inscription on the Nora stele in Sardinia with its toponym Tarsis (tršš) and some of the ancient sources (Paus. 10.17.5; Sol. 4.1) suggesting that Norax, the mythical founder of Nora, although he had arrived from Tartessos (Huelva), may well have been a Phoenician.<sup>67</sup> Perhaps, the original version of this legend mentioned Tarsis and not Tartessos.

#### HISTORICAL SIGNIFICANCE OF THE EARLIEST SETTLEMENT OF HUELVA. TEXTS AND ARCHAEOLOGY

Few years ago, Bikai concluded after having studied the Phoenician pottery from Kommos: 'It is now undoubtedly only a matter of time before much earlier materials are identified in the far west.'<sup>68</sup>

Huelva represents the birth and the consolidation of an emporium that was dependent on some foreign agents, whose interests lie far from the wandering adventures of fortune seekers. During a long period of slow evolution, in which the archaeological repertoire has mainly been represented by amphorae, follows a sudden develop-

ment from the beginning of the 8<sup>th</sup> century BC. The reasons that motivated the Phoenicians to settle themselves permanently in Huelva are reflected in the finds: specialists of all kind settled themselves, including metallurgical specialists, potters, carpenters, ivory workers, stoneworkers and masons (wall of San Pedro<sup>69</sup>), etc. These settlers interacted strongly with the indigenous world and introduced changes in the exploitation of the territory, making use on a large scale of the existing resources in the area (mines used for the extraction of different metals) and importing from other regions overseas (ivory). The existence of copper, silver and iron secured its principal interest: the provision of silver that developed in the years thereafter to a gigantic scale to the benefit of Tyre, not only on the basis of its intrinsic value but also on account of its function as a sort of pre-monetary currency.

Significant in respect to the scale of these extractions is a simple comparison between the somewhat more than 4.000.000 tons of copper slag on Cyprus dating to the pre-Roman and Roman activities and the 6.600.000 tons of (mainly silver) slag in the Riotinto area over the same period.<sup>70</sup> Also, with respect to the ivory, the new data from Huelva give us information on the role of the site and, moreover, expand on the notion of a 'secondary centre' labelled by Barnett,<sup>71</sup> which is a place where no elephants exist, but where an easy provision of ivory tusks transported overseas is possible, for further export. The waste material shows with certainty that Huelva was not only a place for the transshipment of the highly estimated raw material, but also the base of specialized ivory workers, a fact which on a general level brings about significant difficulties regarding the stylistic location of these workshops. Within the 'Syrian school', the one from Hama has been characterized by waste (off-cuts and unfinished products), as in the case of Huelva.

Later, at the end of the 7<sup>th</sup>, the same settlement, inhabited by people of indigenous and Phoenician origin, became heavily industrialized and reached a densely urbanised extension of some 20 hectares, being known to the Greeks as Tartessos and called a commercial-emporium (Hdt. 4.152), city (Avien. *Or. Mar.* 290) and city-emporium (Scymn. 160). It may be clear that this 'emporium' refers to a date much later than the finds we have presented here archaeologically. Closer to the beginning of these finds, ca 900 BC, is the information provided by the hitherto rather polemically interpreted verse in the *Old Testament*:

'For the king (Solomon) had at sea the ships (fleet) of Tarsis with the ships (fleet) of Hiram; once every three years the ships (fleet) of Tarsis came bringing gold and silver, ivory and apes and peacocks' (1 *Kings* 10.22).

This line implies, according to some interpretations, a Tarsis / Tarshish in the Far West dating to the period of King Hiram of Tyre and King Solomon of Israel, and more plausibly in the first decades of the second half of the 10<sup>th</sup> century BC (no mention to Tarsis ships in relation with the voyage to Ophir in I *Kings* 9.26-28; 10.11-12). However, the text poses some difficulties, as for example with the indecipherable Hebrew *hapax* interpreted as 'peacocks', although it does not appear as such in the Septuagint and for which there exist other possibilities,<sup>72</sup> or the polemical figure of Solomon, who is probably overvalued by the deuteronomist authors. As in the case with other biblical passages, it has been suggested that two traditions have existed that in this case have merged into one. One of these traditions erroneously attributed to Solomon, whose figure should stand out favourably, the ownership of a fleet. On the other hand, Bunens<sup>73</sup> could also be correct, when he suggested the interpretation, in accordance with some readings, that we should not imagine a collection of ships (fleet), but only one vessel. In any case, for different reasons it seems very unlikely to identify these ships (or ship) with those that travelled to Ophir.<sup>74</sup>

The new Phoenician finds from Huelva, which are the oldest ones found in the West to date, are remarkably close in date to Hiram and Solomon, in fact, only a difference of a few decades, if any. It is therefore not impossible that already in the period of Hiram a fleet (or even only a single ship) had arrived on an occasional or on a regular voyage ('once every three years') in Huelva.

#### NOTES

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<sup>1</sup> This contribution resumes for an English readership the most important aspects of the excavation publication *El comercio fenicio precolonial de Huelva: ca 900-770 a.C.*, by F. González de Canales, L. Serrano and J. Llompard, with some references to *Del Occidente mítico griego a Tarsis-Tarteso: Fuentes escritas y documentación arqueológica*, by F. González de Canales. Both studies were pub-

lished in December 2004 by Editorial Biblioteca Nueva of Madrid.

<sup>2</sup> Bikai 1978.

<sup>3</sup> Anderson 1988.

<sup>4</sup> Dunbar/Rodgers 1957, 212; see also Mason 1966, 170-171.

<sup>5</sup> Bikai 1987, 67, table 2.

<sup>6</sup> Bikai 1981, 33.

<sup>7</sup> Bikai 1978, 40.

<sup>8</sup> Bikai 1987, 49-50.

<sup>9</sup> Bikai 1978, 35, table 6A.

<sup>10</sup> Bikai 1978, table 3A.

<sup>11</sup> Bikai 1978, table 3A.

<sup>12</sup> Bikai 1978, 26.

<sup>13</sup> Bikai 1978, table 4A.

<sup>14</sup> Gómez Toscano *et al.* 2002, 317, fig. 3.1.

<sup>15</sup> Bikai 1978, table 4A.

<sup>16</sup> Bikai 1978, 46.

<sup>17</sup> Bikai 2000, 309-10.

<sup>18</sup> Shaw 2000, 1100, fig. 8.2, 6, 8.

<sup>19</sup> Bikai 1978, pl. XCV.18-19.

<sup>20</sup> Ramón 1995, 180-2, figs 30-31, 155-156.

<sup>21</sup> Bartoloni 1988, 32-3, fig. 4.

<sup>22</sup> Bartoloni 1988, 32-3, fig. 4.

<sup>23</sup> Oggiano 2000, 241-2.

<sup>24</sup> Docter *et al.* 1997, 18-22.

<sup>25</sup> Docter 1998; 1999, 93, table 4.

<sup>26</sup> Bikai 1978, table 11A.

<sup>27</sup> Bikai 1987, 55, 62.

<sup>28</sup> Bikai 1981, 33.

<sup>29</sup> Bikai 1987, 56.

<sup>30</sup> Bikai 1978, table 9.

<sup>31</sup> For their reading and palaeographical dating we thank M. Heltzer of Haifa University.

<sup>32</sup> Coldstream 1968, 330.

<sup>33</sup> Kearsley 1989, 101-2.

<sup>34</sup> Coldstream/Bikai 1988, 39.

<sup>35</sup> Nitsche 1986-1987, 32.

<sup>36</sup> Cabrera/Olmos 1985.

<sup>37</sup> Gjerstad 1948.

<sup>38</sup> Gjerstad 1960, 107-108.

<sup>39</sup> Gjerstad 1974, 118.

<sup>40</sup> Birmingham 1963, 40.

<sup>41</sup> Yon 1976, 14 no. 2.

<sup>42</sup> Coldstream 1986, 324.

<sup>43</sup> Coldstream 1984, 131, 136.

<sup>44</sup> Køllund 1992-1993, 202.

<sup>45</sup> Bikai 1987, 67.

<sup>46</sup> Bikai 1978, 45, table 10A.

<sup>47</sup> Bikai 1978, 45.

<sup>48</sup> Anderson 1988, 192-194.

<sup>49</sup> Anderson 1988, 290 nos 281-282, 284, 289.

<sup>50</sup> Almagro Gorbea 1977, 524-525.

<sup>51</sup> Ruiz-Gálvez 1995a, 79; 1995b, 510.

<sup>52</sup> Nitsche 1986-1987, 32.

<sup>53</sup> Biran 1994, figs 105-106, pls 21, 23.

<sup>54</sup> Ridgway 1981, 51-56, nos 2-9; 1997, 108; see also Coldstream 1995, 257-258, 260-261, 266.

<sup>55</sup> Coldstream 1995, 261; see also Ridgway 1997, 108.

<sup>56</sup> Nitsche 1986-1987, 31-44.

<sup>57</sup> Ridgway 1995, 77, 80-81.

<sup>58</sup> Kourou/Stampolidis 1996, 715-716.

<sup>59</sup> Malkin 1998, 85.

<sup>60</sup> Orlandini 1982; see also Coldstream 1982, 216-217.

<sup>61</sup> Shefton 1982, 342-343, pl. 30a.

<sup>62</sup> Descœudres/Kearsley 1983, 52; Kearsley 1989, 128.

<sup>63</sup> Popham 1994, 26.

- <sup>64</sup> Coldstream 1983, 203.  
<sup>65</sup> Boardman 1990, 178.  
<sup>66</sup> Vagnetti 1989.  
<sup>67</sup> Guido 1963, 194.  
<sup>68</sup> Bikai 2000, 311.  
<sup>69</sup> Ruiz Mata *et al.* 1981, 178-194, 259, pls III-XII.  
<sup>70</sup> González de Canales 2004, 238-239.  
<sup>71</sup> Barnett 1982, 15.  
<sup>72</sup> González de Canales 2004, 215.  
<sup>73</sup> Bunnens 1979, 63-64.  
<sup>74</sup> González de Canales 2004, 196-206.

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## Corrections to “ivory”

816 pieces of ivory, both elaborated and cut remains, were recovered from 7-13 Méndez Núñez St. / 12 Las Monjas Sq., forty of which were analysed (Consejo Superior de Investigaciones Científicas and Universidad Complutense). Some time later, a sample of piece number 39.3 was also submitted. The result of all the samples analysed yielded ivory. For this reason, piece 39.3 ended up being described as an elephant tusk instead of a horn as the macroscopic appearance suggested (González de Canales *et al.* 2004, 166). However, a kind letter from F. Poplin (Muséum National d’Histoire Naturelle, Paris) and the resemblance of this piece to another one from Al Mina, which also had been mistaken with an elephant tusk until its further identification as a horn (in Francis and Vickers 1983, 249), drove us to request a revision. We were informed that the original sample of the piece was insufficient for a concluding analysis. Therefore, according to its morphology, we would be facing the inner bony nucleus of a *Bos genus* (*primigenius?*) horn. Please see below for picture, design and a more precise measurement of this piece. About the incision shown near its proximal end, it is similar to the one from Al Mina and, as reported by Poplin (2000, 2-3), most likely worked with a saw. The hypothesis put forward by this author remarking the fact that the cut might have been done in order to separate the outer keratinous coat from the internal bony structure is very suggesting. This keratinous coating might have various applications (perhaps to make a musical instrument called oliphant, as Poplin himself suggests).

Francis G.D./M. Vickers 1983, ‘Ivory tusks’ from Al Mina, *OJA* 2(2): 249-251.

González de Canales Cerisola F./L. Serrano Pichardo/J. Llompарт Gómez 2004, *El emporio fenicio precolonial de Huelva (ca. 900-770 a.C.)*, Madrid.

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A second issue involves a new study showing that two thirds of the 32 pieces analysed come from hippopotamus teeth, of which a Near Eastern origin could be verified in one instance, whereas the rest comes from Asian elephant tusks (Marzoli and al. 2016). If this is the case, the Phoenicians might have brought in raw ivory to be manufactured in Huelva. Against a former argument, this cannot be used to justify the biblical allusions to ivory imports from Tarshish. However, the Tarshish-Huelva connection is not discarded, since the Phoenician artisans and dealers established in Huelva would not be prone to refuse elephant ivory from neighbouring Africa.

Marzoli, D./A. Banerjee/V. Marcos Sánchez/L. Galindo San José 2016, Elfenbeinwerkstätten in Huelva und La Rebanadilla (Málaga), den ältesten phönizischen Niederlassungen auf der Iberischen Halbinsel, *MM* 57, 88-138.