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HEROM

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# HEROM: YESTERDAY, TODAY AND TOMORROW

## EDITORIAL PREFACE

*Jeroen Poblome, John Lund and Daniele Malfitana*

UNIVERSITY OF LEUVEN, THE NATIONAL MUSEUM OF DENMARK, AND IBAM-  
CNR-ITALY

According to his own epitaph, Publius Vergilius Maro (70-19 BCE) sang of pastures, countrysides and leaders. Rome's most revered poet left us many a famous hexameter, including, on line 284 of his third *Georgica* book, the fragment *fugit irreparabile tempus*, from which the shorthand proverb *tempus fugit* has been derived. Fitting for a great poet his lines may mean more than one thing. “*Fast flies meanwhile the irreparable hour*” was the eloquent translation of the original verse by James Rhoades (1841-1923), while the shorthand version translates somewhat more prosaically into “*time flies like the wind*” or “*time flies when you are having fun*”. Virgil (as he is commonly called) implies that we experience time as stern and restrictive when the pressure is on, and as too fast gone by when those pressures are momentarily less present – a human condition we all share. Difficult to manage as it is, as archaeologists we know all too well that time passes and things come to a certain end. Gavin Lucas kindly reminds us that especially we, as scholars working with the past, should make sure to get our understanding of time right, because “*the way we understand time affects the way we do archaeology*”.<sup>1</sup>

*HEROM. Journal on Hellenistic and Roman Material Culture* was launched in 2012, and we have over the past five years tried as editors to invest our time wisely in order to contribute positively to the kind of archaeology we consider worthwhile pursuing. As much as always, we remain firmly convinced that the study of Hellenistic and Roman material culture requires and deserves its own medium in the ever expanding universe of academic

1. Lucas 2005, p. 1.

publishing. Material studies are different from presentations of excavated or surveyed sites and regions or more historically inclined topics. To most of us involved in the study of Hellenistic and Roman material evidence, our beloved (mostly broken) stuff represents a world on its own, providing unique access to – and perspectives on – wider issues related to our understanding of the past.

Together with Leuven University Press, we are happy to continue to offer HEROM as an international platform for this enthusiasm. Indeed, in the words of another Lucas (George, the father of Star Wars): “if you want to be successful in a particular field, perseverance is one of the key qualities”. HEROM’s core-business is – and will be – wider interpretative studies on how artefacts were produced and used from the time of the Hellenistic Kingdoms and Roman Empire into Late Antiquity. We remain committed to publish papers on the widest possible range of subjects, from conceptual studies in the transdisciplinary domain of material culture studies, to advances in archaeometry and presentations of meaningful assemblages found during the course of archaeological fieldwork. Contributions by young scholars with fresh ideas and approaches are still our favourite.

As in previous years, HEROM will continue to provide a platform for region-, period- or material-specific studies in order to allow one field of study to inspire another and foster more effect by integrating such fundamental work. Integration can be consolidated in thematic issues, for which we remain open to proposals. Reaching a higher level of insight can also be achieved in stand-alone papers, simply from explaining why we find our case-studies to be important and relevant in approaching wider issues related to social, political, religious or cultural developments in the ancient world.

The challenges sketched in our original editorial preface<sup>2</sup> remain as crucial as ever. It is fair to state that in the past issues, especially, aspects of social sciences theory have been validated for Hellenistic and Roman material culture. We consider this to mirror wider developments within the discipline of Archaeology. No doubt, the archaeological record will continue to amaze us in providing the essence for the study of material culture: arbitrary, context specific practices documenting relationships among people and things. In that respect, the value of social and archaeological theory should continue to play a role on HEROM’s pages. In addition, however, we also hope to welcome contributions considering economic practices as well as aspects of economic theory in the next issues.

2. Poblome *et al.* 2012, pp. 7-21.

As announced in our previous editorial,<sup>3</sup> we would especially welcome contributions dedicated to the memory and intellectual legacy of Professor David Peacock, former member of HEROM's scientific committee. His aim was consistently to understand the people of the past – the only topic that really matters in archaeology. He achieved this in pioneering archaeometric studies that made full use of a wide array of chemical and physical scientific analyses, which have affected our lives and careers profoundly, as well as many of those on HEROM's scientific committee and readership.

With the aid of our scientific committee, further enhanced by Dr. Roberta Tomber (The British Museum), we hereby launch an open call for papers in memory of David Peacock (in addition to the excellent volume by E. Sibbesson, B. Jervis and S. Coxon<sup>4</sup>). We wish to elicit studies that may enrich our understanding of how communities and individuals lived, worked and died in the Hellenistic Kingdoms and Roman Empire. We are particularly interested in studies building on his implicit theoretical legacy for combining science and archaeology, dealing with the subject matters at the forefront of his own research: from quarries and other production sites to ceramics and stone artefacts (architectural elements, mill- and grindstones), as well as the networks through which they were distributed.

May David's force be with HEROM!

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3. Poblome *et al.* 2015, pp. 7-9.  
 4. Sibbesson *et al.* 2016.



# A ROMAN DRUNKARD FROM THE ISLAND OF FALSTER, DENMARK

Peter Pentz

THE NATIONAL MUSEUM OF DENMARK

*My fleet has sailed over the Ocean from the mouth of the Rhine eastward all the way to the land of the Cimbri, where no Roman before that time had reached, either by land or by sea, and the Cimbri, Charydes and Semnones and other Germanic peoples in the same area asked for my friendship and that of the Roman people through envoys.*

Augustus *Res gestae* 26.2.4.10

In his autobiography<sup>1</sup> Rome's first emperor, Augustus, proudly reports of his fleet sailing far North to the "land of the Cimbri". The mission took place in year AD 5, and the objective – the domains of the Cimbri – is usually believed to be the current Danish area.<sup>2</sup>

The purpose of the fleet's Northern venture was to find out whether Roman plans for the Empire's expansion to the north would be resisted or supported by the Scandinavians. The Roman military camps were no more than a few hundred kilometers from Denmark's present southern border, and the position of the Northern princes was not without significance.

Whether Augustus actually was right in saying that no Roman so far had set foot this North before his time or not, many Roman finds from the Danish soil, with or without archaeological context, reveal that close contacts between the Roman Empire and Scandinavia were abundant both before and after the time of the emperor's ambassadorial undertaking.<sup>3</sup>

1. The character of *Res Gestae* and its propagandistic bias is much debated, see Leone and Pice 2015 and Malavolta 2009 for discussions.
2. Grane 2007a, p. 8-9.
3. See Lund Hansen 1987 for an overview.

## A Roman drunkard

Recently such an archaeological find was discovered at Holtegård, Falkerslev on the island of Falster (FIG. 1). The islands to south of Zealand, Lolland-Falster and Møn, are particularly rich in finds from the period in Danish ancient history labeled the Early Roman Iron Age, i.e. the first two centuries AD.



FIG. 1. Map showing present –day Denmark. The dots indicate the find spots of the Roman bronze silen and other finds mentioned.

The actual find is a small bronze figure, a bust, depicting an elderly, bearded and bald man with thick lips and a plump nose (FIG. 2). The figure stands out in profile, turned towards the left. A part of his chest is seen, covered by curly hair. Although thick-walled, the figure is hollow (FIG. 3) and the flat-sided reverse indicate that it was intended for fastening on something, the means of fastening not being immediately evident, however. The height is only 4.5 cms.

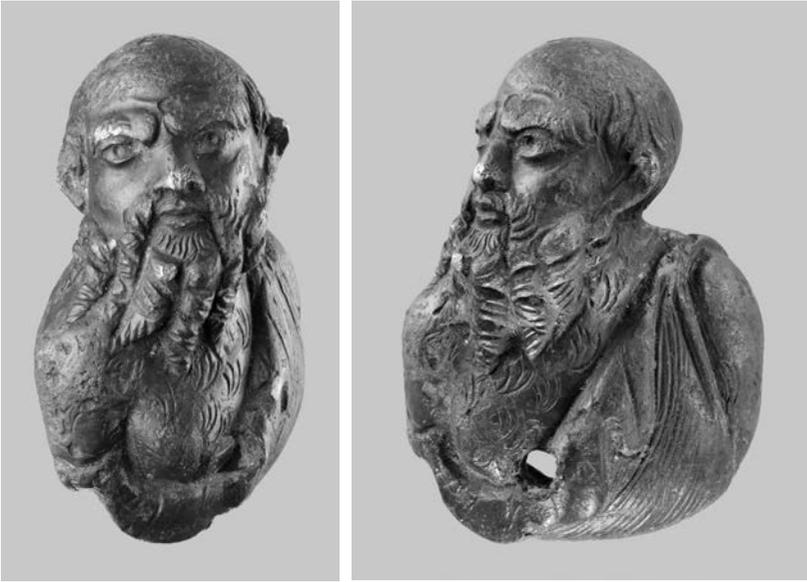


FIG. 2. The Roman appliqué depicting Silenus. Photo: John Lee/The National Museum of Denmark.



FIG. 3. The reverse of the Silenus.



FIG. 4. Bacchus being crowned and the drunk Silenus being carried by members of the wine-god's entourage. Mosaic from El Djem, Tunisia, c. AD 200-250. Photo: Andrew Skudder.

The find was done by means of a metal detector<sup>4</sup>. For more than 30 years, archaeology in Denmark has benefitted from a liberal attitude towards private metal detecting. The finders have a legal obligation to hand over any spectacular and scientifically imperative material found to a government approved museum or to a state museum. In return they will receive a reward, provided of course that the actual find is important. This system has not only produced a valuable quantity of artefacts, but also an increasing number of skilled detectorists with a comprehensive insight into different groups of finds, their identification, age and importance.

When found, the small figure appeared too well preserved and fine for an ancient object, and subsequently the finder at first took it home in the belief that it was completely modern. However, after a couple of years she decided to have it checked at the National Museum of Denmark.

Here it was immediately determined that the small figure was a Roman artefact and did not represent a human, but a so-called *silen* and more specifically *Papposilen*. In Greek mythology the silen was a kind of mentor to the wine god Dionysus. In Greek art, as well as in Roman, he appears together with

4. The figure was found in September 2010 by Hanne Jensen, Værløse. It was purchased by The National Museum of Denmark (inv. no. C39983) in 2014 as Treasure Trove ("Danefæ").

satyrs and other creatures in the cortege of the wine god, usually depicted with some resemblance to the satyrs, but older and more fleshy and plump. Highlighting the old age of the silen, the Papposilen was a stock character in comedies and satyr plays.

In Roman art the silen developed into a unique figure, Silenus, as a follower of Bacchus, the Roman version of Dionysus. He is most often seen uncontrollably drunk, either being supported by other members of the joyous procession, or hanging over the back of a mule (FIG. 4).

## Drunkard and sage

Along with his large consumption of alcohol and his licentious behaviour, the silen also possessed great wisdom. A legend says that the Phrygian King Midas once chased the Silenus, hoping to catch him and acquire the same prudence. When the king finally managed to get hold of Silenus by mixing wine with a local spring, Midas asked for insight about the ultimate happiness of human beings. At first the silen refused to fulfill the king's request, and declared that King Midas would hardly benefit from the answer. The king was not pleased by this reply, and urged the silen to share his knowledge and tell the truth. Under this pressure Silenus responded: The greatest happiness for a man is never to be born, but if born, the best thing that could

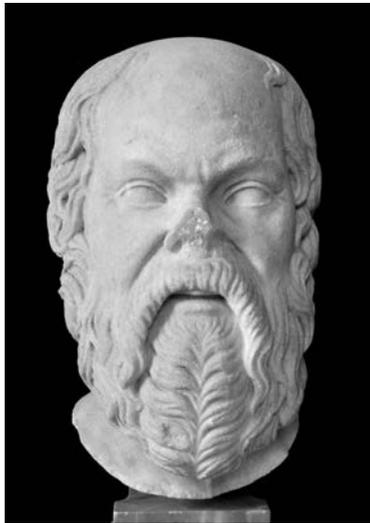


FIG. 5. Marble bust, portrait of Socrates. Roman copy of Greek original. The National Museum, Denmark.

possibly happen to him was to die!<sup>5</sup> – This somewhat pessimistic wisdom of the silen has found place in the thinking and works of famous philosophers throughout history and writers like Schopenhauer, Nietzsche and Heine have all taken inspiration from his words.

The physical appearance of the silen as fat, bearded, baldheaded, with lumpy nose, and bushy eyebrows somehow became the epitome of the intellectual in antiquity. Portrait busts depicting men such as Socrates and Aesop are often seen with the same features as Silenus (Fig. 5).<sup>6</sup>

## Bed Buddy

So the Romans associated the silen both with drinking of wine as well as with wise dialogues. In Roman villas a feast would take place in a *triclinium*, a dining room, where the host and the guests would eat and drink while conversing.<sup>7</sup> According to Roman custom they would recline at the table, usually only two on each bed or couch, a so-called *kline* with a head board or rather a headrest, either for leaning on or for holding cushions in place.<sup>8</sup> The word *triclinium* literally means “three beds,” because the most elementary *triclinium* would have three beds, set-up in a u-shape.

Such beds or couches were usually decorated. These adornments frequently involved characters who in one way or another dealt with the food and wine. The small fatty silen from Falster was originally an appliqué from the headrest, a *fulcrum*, of a *kline*. (Fig. 6 and 7).<sup>9</sup> More precisely it must have been a protome adorning the lower finial of the *fulcrum*. The other end of the *fulcrum* probably terminated in the shape of a mule’s head, the mule that carried the drunken Silenus. In fact, Silenus and the mule almost became part of the “standard design” for the decorated beds.<sup>10</sup> The iconographical combination silen-mule strengthened the Bacchic or Dionysiac quintessence linked to this furniture.

5. This story is seen in Greek art and literature onwards from the 6th century BC, see LIMC, entry “Midas” by M. Miller.
6. Zanker 1999. For early examples see Charalabopoulos 2012, p. 156 and p. 167, n. 29.
7. Dunbabin 2003.
8. Dunbabin 2003, p. 38.
9. Wallace-Hadrill 2008, pp. 427-429 argues that the Roman *klinai* with *fulcrum* should not automatically be associated with the *triclinium*, but might have had other uses in the Roman villa.
10. This iconographical design for the *fulcrum*, with the combination of silen and mule, existed for many centuries. Roman and Hellenistic examples in ivory and bronze, are numerous, see for instance Giacobello 2010, pp. 165-166, Hill 1963, Siebert 1973 and especially Faust 1989 and 1992.

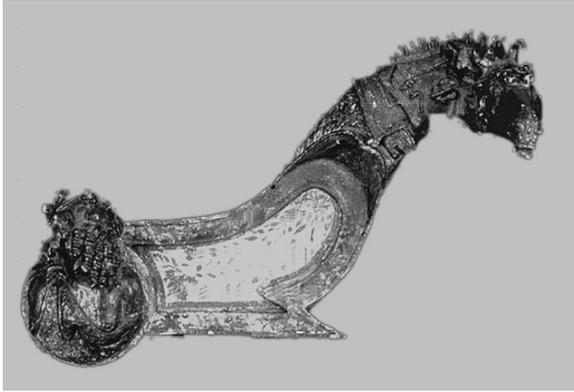


FIG. 6. Fulcrum with silene and mule, from the wreck Formigue C from Golfe-Juan. Roman 1st c. BC. Musée archéologique de Nice-Cimiez.



FIG. 7. Reconstructed Roman couch, the ends of the kline are decorated with bronze fulcra. Allegedly from Chamber tomb near Canossa, 1st c. BC. Walters Art Museum, Baltimore.

Fulcrum appliques were usually glued to a wooden background. A secondary hole below the head of the Falster silene might indicate that gluing had shown insufficient, making additional provisions, a nail or dowel, necessary.

Stylistically the silene can loosely be dated to the first century BC or the first century AD. It resembles a silene from Heidelberg (FIG. 8), in style as well as in size, both fittings being smaller than most other examples.<sup>11</sup> A silene

11. Diehl 1960, Borell 1989, pp. 102-103. Because of the small size of the silene, Diehl suggests that it originates from a fulcrum of a child's kline (Diehl 1960, p. 213). The Heidelberger silene has a height of 6 cms, the one from Falster even less, 4,5 cms. For other examples close

in Römisch-Germanischen Museum in Cologne has an even more obvious closeness to the Falster silen (FIG. 9).<sup>12</sup>



FIG. 8. Bronze appliqué with silen from Heidelberg, front and reverse (after Borell 1989).



FIG. 9. Bronze appliqué with silen in Römisch-Germanische Museum, Cologne (after Franken 1996).

to the Falster silen, see a silen's bust from Lixus (Boube-Piccot 1975, pl. 20), two busts in New York and Baltimore (Faust 1989, pl. 74 and pl. 71) and the one from the wreck of Golfe-Juan (Baudouin *et al.* 1994, fig. 31, p. 50), all having the marbled beard like the Falster silen.

12. Franken 1997, pp. 51-52. Franken dates this silen to the second half of the second century.

Beds, parts of beds, especially fittings and appliques were significant trading commodities in the centuries around the birth of Christ. The Roman Empire was rapidly expanding, and the newly acquired land was soon settled with large representative villas, all of which should have their own triclinium. Several of the many Roman shipwrecks in the Mediterranean, which has been archaeologically surveyed, had a cargo including bronze fittings and other beds parts.<sup>13</sup>

## The road to Falster

The most intriguing question is how and why the silen reached Falster. The possibility that it was brought to Denmark recently as a tourist souvenir exists, but this explanation seems unlikely. On the other hand, one can hardly imagine Falster as being densely covered with Roman villas with fully furnished triclinia. Essentially the problem can be narrowed into the question whether the appliqué was imported into the island as a single piece of bronze, or mounted as a part of a complete couch. The hole at the lower part of the appliqué could indicate that it had been reused, but if so it is impossible to say whether this reprocessing happened before or after the bust was introduced to Falster. Also, for what it was reused, is undeterminable.<sup>14</sup>

Not many complete Roman coaches or beds have survived. A large part of the archaeological material has been found in burial contexts, the body of the deceased having been placed on beds or coaches. Some of the coaches were actually funerary coaches. Probably there were no structural differences between funerary and ordinary everyday couches and a dual function of the couches is likely.<sup>15</sup>

Artistic evidence for the use of coaches in funerary context is abundant. Many Roman and in particular Roman provincial, stone reliefs have survived. The general scheme shows the deceased – acting as in live – reclining alone or rarely with husband or respectively wife on the bed. The setting is in-door, and incidental people, usually slaves, are seen as minor characters, serving wine

13. Such as the wrecks from Mahdia (Hellenkemper Salies 1994), Gulf-Juan (Baudoin *et al.* 1994) and Antikythera (Bol 1972). However, sailing with bed parts was not confined to these two centuries, but took its beginning long before, see for instance the Etruscan wreck from Giglio (c. 600 BC) (Bound 1991).
14. A silen bust found in Zürich-Albisrieden was either designed for something else than a fulcrum, perhaps for decoration a wooden chest, or converted after casting, see Barr-Sharrar 1991, p. 9.
15. Doumeyrou 1989, p. 12.

or other things. In front of the deceased a set table is seen. Such tombstones are especially numerous from the north-western part of the Roman Empire, and the depicted funeral meal is commonly known as “Totenmahl,” i.e. funeral banquet. The iconographical arrangement with Silenus and the mule is appropriate to either setting. Most of the benches on the reliefs of the funeral steles and tombstones look as if they don't have fulcra. However, fulcra are evidentially seen on some of the coaches in Palmyrene Totenmahl-scenes<sup>16</sup>.

## Spoils of war, booty, traded metal scrap?

The alliance which Augustus' ambassadorial envoy should have paved the way for proved to be a total failure. In late summer in year AD 9, that is four years after the visit to the North, Publius Varus' legions were determinedly defeated by the Germanic tribes in the bloody battle at Kalkrieser Berg, located in the Northern outskirts of the Ruhr district. Here you have in recent years found numerous traces of the landmark events, and debris from the violent acts of war – skeletons, weapons and other equipment parts from cars and tools.<sup>17</sup>

Many of the soldiers with the fatal campaigns into Germania were stationed in military camps in Haltern on the river Lippe, one of the Rhine branches. In recent studies of a burial site from one of these soldier's camps remains from no less than six klinai, used for burial of Roman officers were found.<sup>18</sup> In addition to functioning as a platform for the body of the deceased, these beds may also have acted as a kind of accessory in the ritual performance of the funeral banquet, a tangible version of the scenery seen on the Totenmahl-reliefs.

Several archaeological finds suggest that Lolland-Falster and Southeastern Zealand had a fairly close relationship to the Roman Empire in the years around the birth of Christ. Most prominent is the Hoby-burial<sup>19</sup> (FIG. 10 ) from the middle of the first century, with its impressive inventory encompassing equipment for staging a Totenmahl. For the procedural hand wash served a Roman set with a bronze jug and a bronze basin, appropriately having a relief of Venus' *toilette*, and for the meal and drinking other fine Roman artefacts were found in the grave, above all two silver cups with images from

16. Colledge 1976, p. 158. Croom 2010, p. 51.

17. See Baltrusch *et al.*, 2012.

18. Berke 1989/1990, Berke 2011.

19. Friis Johansen 1911.



FIG.10. Artefacts from the Hoby burial, Lolland. The arrangement on the photo does not reflect the actual find situation. In the grave, the two silver drinking cups were standing on the tray, while the jug and the basin for hand wash were found together, reflecting two different phases of the banquet. The National Museum, Denmark.

Homer's *Iliad* and *Ulysses*.<sup>20</sup> Such cups were intended for wine drinking and accompanying conversation, perhaps related to the depictions on the cups. The two Hoby-cups may have belonged to the Roman officer Gaius Silius,

20. Pentz 2013, pp. 234-238, 240-243.

who in AD 14, was appointed as commander of four legions stationed in Mainz, since the name “Silius” is scratched into the bottom.<sup>21</sup>

In the Hoby burial the utensils for hand-washing and the tableware were arranged in two groups, and thus the Roman separation of these two acts of the banquet Totenmahl was thus repeated. The same arrangements have been found in numerous graves without Roman imports, e.g. in the so-called *lerkargrave* (‘pottery graves’) of eastern Jutland.<sup>22</sup>

No klinai or funerary beds as such have yet been found in the Danish area. They are, however, not unknown in other areas outside the Roman Empire,<sup>23</sup> and the idea of the kline-tomb precede Roman practice with centuries.<sup>24</sup> The concept was definitely not an invention of the Romans.

The small Silenus from Falster is the first find of an appliqué for a kline in Denmark, but although the concept of Totenmahl existed here, it is unlikely that the figure comes from a burial, in the light of the overall archaeological picture. But there are several furniture fittings and fittings among the many Roman bronze fittings, which, like Silenus have emerged from the Danish soil, from tools and other equipment. Most of them are stray finds, a few, however, have actually been found in an archaeological funerary context.<sup>25</sup>

The silen from Falster seemingly falls into a group of fittings found in non-funerary contexts, usually stray finds. They were probably imported as curiosities, merchandise or metal scrap, or for re-use. The latter seems to have been the case with a gilded griffin’s head of bronze, found in Vimose, Funen<sup>26</sup>, together with bulks of war booty (FIG.11). When found, in the middle of the 19th century, it was reported that it was mounted on a “pole with a red and blue flag.” Whatever purpose of this pole (a Roman standard or a banner has been suggested), the griffin’s head was reused. Originally it functioned either as a

21. Grane 2007b, Pl. III. Burmeister 2015, pp. 106-107.

22. Claudi Hansen 2013.

23. Such as a death-bed found in a burial in Poprad Matejovce in Slovakia (Lau and Pieta 2014). The Poprad Matejovce burial is from the 4th c. AD, but repeats the traditional pattern of a funeral banquet (for further examples see Lau and Pieta 2014, p. 356).

24. Baughan 2013, p. 177 ff. Naso 2007, surveying a number of archaic funerary ivory- and amber-inlaid beds, mainly from the 6th c. BC, in an area stretching from The Black Sea over the Mediterranean to Baden-Württemberg in Germany, cf. also Fischer 1990 and Verger 2006.

25. Such as the furniture feet in shape of lion’s paws from the Bendstrup burial, perhaps from a Bronze krater stand, see Hedeager and Kristiansen 1982, p. 103-108.

26. Pauli Jensen 2008, p. 219-221.



FIG. 11. Mount in the shape of a griffin, probably from a gladiator's helmet, Vimose, Funen. Photo: Roberto Fortuna/The National Museum of Denmark.

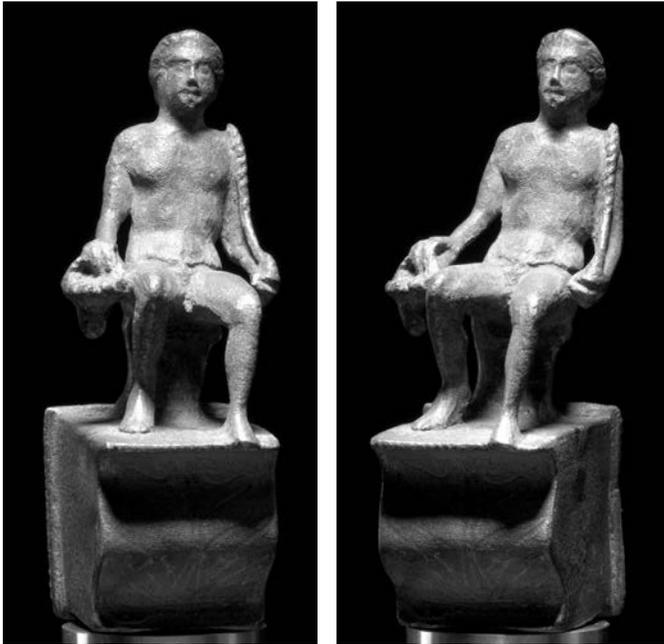


FIG. 12. Wagon bronze mount with either a seated god, a young philosopher or - more likely - Eros with thyrsus and basket, Snøde, Langeland. The National Museum of Denmark. Photo: Roberto Fortuna/The National Museum of Denmark.

furniture-fitting, or more likely as a protome for a gladiator helmet.<sup>27</sup> Other bronze furnishings such as a fitting from a Roman wagon (FIG. 12a,b) found on the island of Langeland and perhaps depicting a young philosopher,<sup>28</sup> can hardly have served any other practical function than its original.

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27. As suggested by Pauli Jensen 2008.

28. For such fittings see Schleiermacher 1996. The counterpart of the fitting would then have shown a representation of an old philosopher. For the iconography of the philosophers, compare with Franken 2007. Usually ancient philosophers are not depicted naked, and another identification could be a seated Eros with a thyrsos and a basket.

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# LATE PUNIC OR EARLY ROMAN?

## A 2ND CENTURY BC DEPOSIT FROM GADIR/GADES (CADIZ BAY, SPAIN)

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### Introduction

Scholars dealing with archaeological sites, texts or any type of historical sources attempt to understand and explain the past as accurately as the current research tools using all available data have made possible. Unfortunately, both archaeologists and historians quite often deal with fragmentary data extracted from material contexts, literary evidence, epigraphy, coins, etc. Thereby, an attempt to build a complete scientific historical passage about an entire culture or period becomes almost impossible on the basis of the discoveries provided by a specific context. The particular information from an item, structure, layer, site, or group of sites could not be representative of a more general historical process. In the same way, the data obtained from literary sources could be very useful for the definition of general trends, but can obscure important features of daily life or other aspects not relevant for ancient authors. Thus, to achieve a better picture of the past, in a scientific way, an important amount of information is needed as well as an interdisciplinary approach combining archaeological and historical data and methods.

As well as the number of variables to analyze, their quality is an important factor in the completion of a real scientific historical inference. On the other hand, historical events and periodization could also be, from an archaeological perspective, excessively rigid and compartmentalized, leaving in the background or completely obscuring key features of cultural change and

interaction (which, by contrast, leave identifiable traces in material culture, settlement patterns, technological evolution, etc.). This contribution intends, based on a particular case study, to reflect on the relation between traditional Classical History and Archaeology. More specifically, we would like to consider the relevancy of the historical frameworks underlined by various terminologies commonly used to refer to certain periods/scenarios of political and cultural transition from the Punic sphere to the Roman Republic.

To achieve these goals an archaeological example has been selected: an unpublished deposit from a pottery workshop (Torre Alta, in San Fernando, Cadiz) located in the territory of one of the major coastal cities of the Western area of the ancient Mediterranean (*Gadir/Gades*), dated within the decades following the Roman annexation of the southern region of Iberia. The data obtained from this context of Torre Alta workshop fit together with the available information recovered in other sectors of the ancient Bay of Cadiz. Previous research on the production areas of the insular *Gadir*<sup>1</sup> suggests a great homogeneity among them (settlement patterns, technological features, etc.), and the continuity of this uniformity at least until the second half of the 2<sup>nd</sup> century BC. Thus, Torre Alta can be evaluated as a prototype of the workshop of Punic and “Late-Punic” *Gadir* (5<sup>th</sup>-2<sup>nd</sup> centuries BC), just one of the dozens located all around the insular territory of the city. At the same time Torre Alta could be considered one of the best-studied regional pottery workshops so far<sup>2</sup>, so the material assemblage discussed provides particular data that can also be evaluated in a much broader way.

Through the analysis of the items included in this artisanal deposit and its accurate dating it will be possible to discuss the suitability of applying certain widespread-terms in the Mediterranean historiography (such as “neo-Punic”, “Late Punic” or “post-Punic”) not only for the characterization of these archaeological transitional phases but also to define historical periods marked by profound and gradual processes of cultural change (in this case, the “Romanization” of the formerly Punic areas incorporated by the Roman Republic between 206-146 BC).

Additionally, the examination of this archaeological context will make it possible to present a specific example of the material traces of those transitional cultural changes in production and local artisanal practices, as well as in local commercial strategies and even the consumption patterns of the population of the Bay of Cadiz. In sum, a contribution whose main goals

1. García and Ferrer 2001, pp. 26-27; Sáez 2010, pp. 906-912.
2. Sáez 2008.

focus on stimulating the scientific discussion on conceptual issues about the so-called “Late Punic stage”, about the historical/archaeological terminologies intimately connected to the concept and, finally, about the potential of archaeological research (material culture studies) to explore specific essential aspects to supplement the wide-ranging historical outlines.

#### TERMINOLOGICAL AND METHODOLOGICAL ISSUES ABOUT THE “LATE PUNIC” CONCEPT

Spanish and Italian historiographies regularly use the term “Late Punic” to refer to or define a continuation or persistence of Punic culture after the Roman conquest<sup>3</sup>. This terminology was originally created to refer to the transformations of the Punic language after 146 BC<sup>4</sup>, but it was quickly considered more adequate to define the material culture characterized by the continuity of some Punic features during the Roman Era<sup>5</sup>. In the case of the specific study of amphorae, the Late Punic term has been presented as a tool to classify some specific amphoric productions<sup>6</sup>, those which belong to the Punic artisanal tradition but that were produced during the Roman period. To identify this material only as “Roman amphorae” seems a contradiction, as they mainly match with morphological Punic features, and also because some of them are derivative profiles of amphorae types of the Punic *Gadir*. Referring to them as “Punic amphorae” also seems to be inadequate, as their production was developed in territories controlled by Rome. As such, the late Punic terminology has become a possible answer to the challenge this material represented. Later on, Spanish historiography adopted this Late Punic expression to allude to a transitional phase, between Punic and Roman times, and its characteristic material culture. However, although the term has gained some historiographical weight it still needs to be more clearly defined, mainly regarding its chronological and historical framework. Both, the initial and final hiatus of this period are still in dispute. The initial moments of this period change depending on the advance of the Roman conquest of the

3. Ramón 2014, p. 137; Muscuso and Pompianu 2012, p. 2044; Van Dommelen and Gómez 2008, pp. 3-4; Arévalo 2010, pp. 15-22; Arévalo and Moreno, forthcoming.
4. Díaz 1978, pp. 264-270; Zamora 2012. On the basis of graphic criteria the term “Neopunic” was created by epigraphists (Schröder 1869) to characterize graphical symbols and documents, but it does not refer to a chronological, cultural or geographical phase of the Punic language. On the contrary, the term “Late Punic” was in first place used to characterize linguistic, chronological and cultural issues of the formerly Punic territories conquered by the Roman Republic from the 2<sup>nd</sup> c. BC to the 1<sup>st</sup> c. AD. Thus, the term “Late Punic” is more versatile than “Neopunic”, which should be used only in an epigraphical manner.
5. Moscati 1993, pp. 89-95.
6. Ramón 2008, pp. 71-80; Sáez 2008, pp. 527-598.

central and western Mediterranean. Nevertheless, the end of this cultural persistence is even more difficult to define, as some Punic aspects remain perceptible even during the 1<sup>st</sup>-2<sup>nd</sup> centuries AD, as seen in context as traditionalist as the necropolis. A question far more complicated than it seems, namely if we take into account that the “Punic World” was not as culturally homogeneous as we may suspect<sup>7</sup>.

Going back on the specific study of amphorae, we should emphasize that many other terminologies have been applied to the same material, including the term “Neo-Punic”<sup>8</sup>. This expression is nowadays more frequently used in northern European historiography, perhaps as a result of J. H. Van der Werff’s work on the subject<sup>9</sup>. Although this scholar mainly worked on the Roman productions from northern Africa, he has opportunely highlighted the inadequacy of a Roman classification for some of the types that he was dealing with in the Tunisian area. The production of those amphorae groups had taken place during the Roman period (after 146 BC) but their shape was definitely derived from the regional Punic tradition. The term “neo-Punic” also found part of its roots in earlier studies made in North African contexts, particularly linked to the study of ancient coinage and epigraphic evidences<sup>10</sup>. A French military officer and scholar, J. Baradez, identified the continuity of Punic forms and traditions within contexts clearly dating to Roman times<sup>11</sup>. He presented such material continuity in relation to the epigraphic one, constructing a relationship on two clearly different dimensions. As presented, the two cited terminologies are based in differentiated assessments of the relationship between Roman and Punic cultures. Although they mostly refer to the same archaeological material, they imply two very different phenomena.

The “Neo-Punic” term refers to a form of revival of the Punic tradition, or it was –at least– the main sense that could be outlined by the first uses of this same adjective during the nineteenth century<sup>12</sup>. Nevertheless, a noticeable transformation of its semiotic has begun to arise in the last decades. The actual use of the term generates confusion and mix-up between different aspects of the same cultural environment (between language and artifacts). Conversely, the “Late Punic” term alludes to a possible continuation of certain Punic traditions during the Roman era. It translates the idea of a dif-

7. Prag 2006. Van Dommelen and Gómez 2008, pp. 3-4; Arévalo and Moreno forthcoming.

8. Van Dommelen 1998, pp. 35-41.

9. Van der Werff 1977-78, pp. 175-186.

10. Amadasi 2006, pp. 19-22.

11. Baradez 1969, pp. 86-98.

12. Bendala 2012, pp. 15-18.

ferential, yet progressive, cultural integration of the Punic population into the Roman sphere (including every aspect, from economy to religion, politics, language, etc.). From our point of view, the scientific use of one term or another implies very specific assumptions. Even if this kind of debate regarding terminology could seem superficial in relation to the study of a specific pottery context, as the one analyzed in this paper, its relevance should not be downgraded and it can be included in a wider discussion about the gradual process of integration of the former Punic areas of the central and western Mediterranean within the Roman world.

As mentioned before, the use of the “Late Punic” term has become more frequent in recent studies, mainly in the case of Sardinian contexts<sup>13</sup>. The interest in the transition between Punic and Roman times was developed early in the island<sup>14</sup>. Even aside from Spanish and Italian historiographies, the persistence of the Punic culture has been a recurrent subject of interest for many scholars. The long continuation of the “Punic” epigraphy and way of life, centuries after the fall of Carthage, called into question the traditional conception of the supremacy of the Roman culture after the conquest of Northern Africa. Such persistence has been interpreted in various ways, one of them defining it as an active resistance against Roman culture<sup>15</sup>. Nowadays, this Punic cultural continuity is still a major focus regarding this area, a trend well illustrated by the development of recent research on this topic<sup>16</sup>.

Led by the difficulty of the historical understanding of the transition between Punic and Roman cultures, researchers have explored alternative paths to deal with its definition. In this regard, it can be illuminating to emphasize the recent reflections of A. Campus, introducing the “post-Punic” concept<sup>17</sup>. With this term, this scholar tried to explicitly isolate the peculiar cultural environment (composed of a mixture of some Punic and Roman features) that characterized many Punic communities under the Roman rule. Campus remarked on the necessity to define these features and put them into a chronological frame, studying a specific evidence set dated between the 2<sup>nd</sup> century BC and the 4<sup>th</sup> century AD. The contribution of A. Campus is, from our point of view, one of the more substantial on the subject. Firstly, it illustrates that the debate regarding Punic persistence should be extended in many areas

13. Bondi 1990; Ledda 2009, pp. 12-14; Mallica 2012, pp. 2003-2006; Van Dommelen 1998. Many other examples of the “late-Punic” terminology in recent Italian historiography could be cited, but it is not the prior subject of our work.
14. Rowland 1977; Vismara, 1990.
15. Bénabou 1978, pp. 87-88; Bénabou 2005.
16. Le Bohec 2013, pp. 255-258.
17. Campus 2012, pp. 5-33.

around the Mediterranean. Secondly, it underlines the fact that the Roman conquest had a significant impact on the Punic culture, which, accordingly, produced a particular cultural environment of an unprecedented nature.

Nonetheless, despite its brilliant presentation, this study may have highlighted some of the possible flaws of the archaeological and historical study on the subject. Firstly, that the “Punic World” is often analyzed as a homogeneous and consistent area, both politically and culturally, but it seems not to have been the case during Antiquity<sup>18</sup>, and the historical situations that marked the various Punic areas diverge. In his study, Campus approaches the persistence of Punic culture in the same way for cases from Sardinia and from North Africa. However, these two areas had distinctive history and relations with Rome, as there was more than a century between their respective conquests. Moreover, there are various evidences showing that the population we define as Punic, following in this a Greek and Roman conception, was in fact quite heterogeneous. Politically, they were characterized by various civic entities, which kept different degrees of autonomy even under the supremacy of Carthage. Such an idea is illustrated by the differential reactions of the “Punic” communities to the Roman presence during the Second Punic War<sup>19</sup>. For example, previous research has suggested that it was the case for the strait of Gibraltar region, as the “Circle of the Strait” may have been partially apart from the direct influence of Carthage<sup>20</sup>. Focusing on the case of *Gadir*, one of the main centers of the western Punic culture, recent research has provided numerous evidences of a progressive but wide-ranging integration within the Roman culture. Politically the city remained as a close ally of Rome during the uprising of 197 BC, first becoming an autonomous *foederata ciuitas* and long after that a Roman *municipium*<sup>21</sup>. The characteristics of its transitional process from Punic *Gadir* to Roman *Gades* and the availability of a growing set of archaeological evidences linked to this period turns this city as a major case-study among the cities of the so-called Circle of the Strait.

Otherwise, the study of cultural change is often considered in isolation from one set of data. A. Campus followed this method, by proposing a cultural interpretation focused on epigraphic and literary sources. As such, he generalized his analysis, based on a very specific set of data, to a quite diverse

18. Prag 2014, pp. 20-23; Bondi 2014, pp. 60-68.

19. Some remained loyal to Carthage during all the conflict, but others decided become allies with the Romans; the ancient Cadiz could be one of the best examples of the second group (López 2007; Padilla 2010, pp. 262-265).

20. Tarradell 1960, p. 61; Callegarin 2008, pp. 289-299.

21. Padilla 1985, pp. 307-311.

cultural, economic and social environment. One of the key issues here would be that the material sphere is not a passive component of such a system. It is a central and essential component of it<sup>22</sup>, an active systemic input that could even have influenced other dimensions that are not directly related with it. This same idea has been developed by other scholars regarding the change in material culture implied by the traditional Romanization concept<sup>23</sup>.

Beyond these epistemological issues, we think that the material culture studies and particularly amphorae production could be a relevant source of data for a better understanding of cultural change. As active input within the social phenomenon, daily-life artifacts could have directly participated in such process. Thus, the evolution of typologies, esthetics, stamps, *tituli picti*/epigraphy and even of commercial networks could altogether provide essential information concerning cultural change in the formerly Punic coastal cities of the West during Roman rule. In a broader point of view, studies that take into account the productive environment and its connection to an economic model, focusing on the technical issues of the ceramic production, could shed light on the various interaction processes and technological transfer which took place in this transition. Thus, they would help answering the crucial questions of how and why cultural change developed. In the case study we are discussing, such a study would be even more relevant as *Gadir* seems to have been deeply engaged in long distance trade and the production of its amphorae was a reference for the whole western area.

## Results of the Area 4 of 1995 season at Torre Alta

From the last decades of the 6<sup>th</sup> century BC, the Phoenician colony in the Bay of Cadiz turned into a prosperous city with a broad insular territory dedicated to maritime and commercial activities. The urban space identified with Punic *Gadir* was one of the main ports of the western Mediterranean, connecting the Atlantic Ocean and the southwest of the Iberian Peninsula with the most important Mediterranean commercial networks. Fishing and related fish by-products industries were one of the central axes of this urban transformation<sup>24</sup>, a solid pillar for the upgraded maritime economy, generating the urgent need of producing a massive quantity of amphorae for that fishy business. Thus, from the 5<sup>th</sup> century BC a lot of pottery workshops were created around *Gadir*, which produced not only amphorae but also other

22. Latour 2005, pp. 70-82.

23. Freeman 1993, pp. 439-445.

24. Sáez 2014a; 2014b.

products required for commerce and the daily life of the settlement, like red slip, grey and plain wares, storage and cooking pottery and cultic terracottas.

Torre Alta is one of the most excavated and published pottery workshops. The settlement was placed upon a north-facing hill, commanding the northern side of the marshland and the inland of the bay, with a direct visual connection with the city of *Gadir*. The kiln-sites were placed beside an immense clay outcrop and in a very fertile agricultural area, both of them being intensely exploited until the first decades of the 20<sup>th</sup> century. Excavations overlapped after its discovery in 1987<sup>25</sup>, with partial salvage campaigns in 1993-1995, 1997<sup>26</sup> and 2001-2003 that brought to light an important group of kilns and dumping pits. The structures and items uncovered suggest a peak phase of this kiln-site developed between the 3<sup>rd</sup> and 2<sup>nd</sup> centuries BC<sup>27</sup>.

#### THE CONTEXT AND THE SEQUENCE OF TORRE ALTA WORKSHOP

The area studied in this paper is located in the core of the archaeological site, beside a pair of kilns (Kiln 1 and Kiln 2) excavated in the 1987/1988 campaign (FIG. 1). This part of the workshop was more widely excavated again in 1995, including four main areas at the south-east of the kilns, where it was possible to identify a large pit (Area 2, also named Sector I) that could be used for clay quarrying and that was finally filled up with residues from the kiln-site activities during the final stretch the 3<sup>rd</sup> century BC.

Not far away, about fifteen meters to the northeast of this pit another two more excavation areas (3 and 4) were explored, almost in contact with the 1987-1988 Kiln 2. These extension of the areas excavated made it possible to document new structures excavated in the clayish soil, filled up with ceramic sherds and other residues from the kiln-site. Specifically, the stratigraphy of these two areas (FIG. 2) revealed ditch sized pits with about two meters of maximum height and one meter of depth, southeast-northeast oriented, very close to the kilns. In the case of Area 3, items were less abundant, but some evidence related to potter activities from the 5<sup>th</sup>-4<sup>th</sup> centuries BC were documented. It seems possible that the remains of the recognizable structures in these excavation sectors could be connected to the vestiges of a kiln partially preserved (excavated in 2001), being the irregular ditch part of the underground "working pit" located in front of the entrance to the kiln's air corridor.

25. Frutos and Muñoz 1994; García 1998; Muñoz and Frutos 2006.

26. Arteaga *et al.* 2001.

27. For a full report of the excavation results see Sáez 2008.

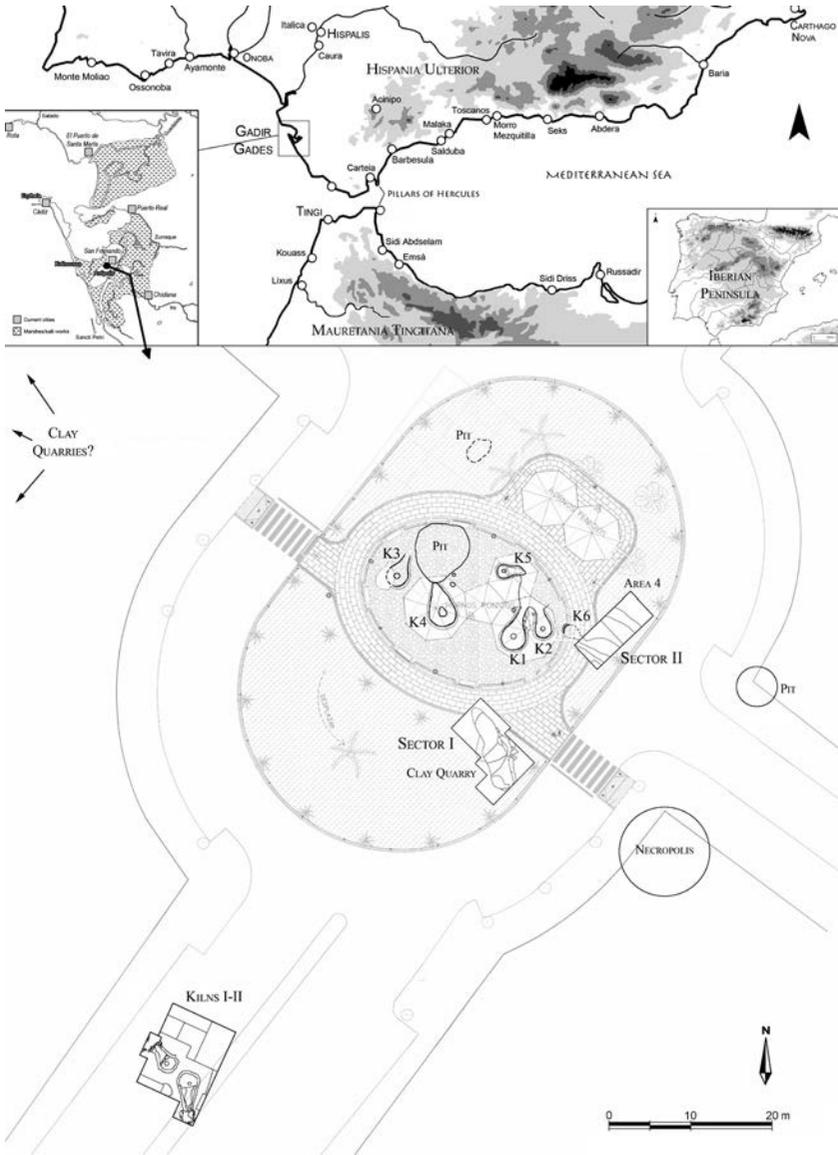


FIG. 1. Location of Cadiz Bay and the site of Torre Alta in the Iberian Peninsula and the region of the Strait of Gibraltar, with main sites cited in the text (above); also, general plan of the pottery workshop remains (after Sáez 2014a).

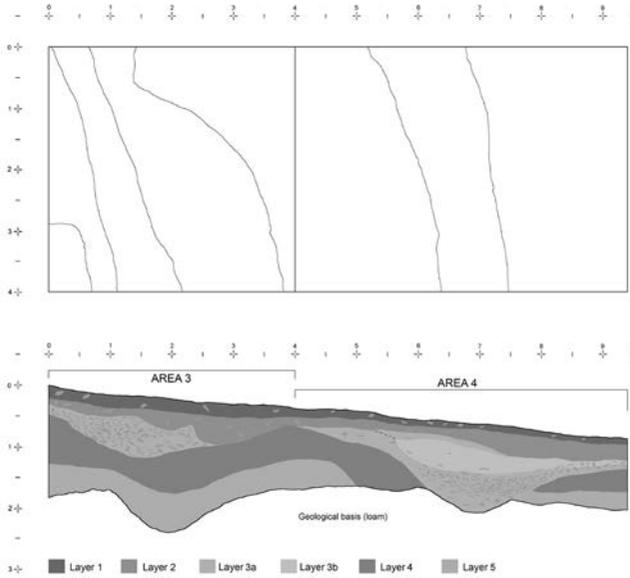


FIG. 2. Plan and stratigraphic section of Sector II (including Areas 3-4) (A) and picture of the ceramic finds of the deposit from Area 4 studied in this work (B) (images kindly granted by Prof. V. Castañeda, UCA).

The context that focuses our attention in this contribution was registered in Layer 3a/b of Area 4, a uniform stratum where, besides discarded ceramics (or discarded as waste), a large amount of grey ash was found (probably

as the result of the cleaning of some nearby kiln). The reduced size of the digging area, as well as the characteristics of the pit (ditch-shaped) do not make it possible to define the specific function of the structure or if it was connected to other nearby cases. Anyway, it is possible to speculate about its relation with an area devoted to clay quarrying for further kilns, which after being abandoned was filled up with various waste and discarded vessels. As we will see, Kilns 1 and 2 can be linked to the same phase of activity of the atelier, whose business seems to continue until the beginning of the last third of the 2<sup>nd</sup> century BC<sup>28</sup>. Likewise, Kilns I-II have been also dated during the same period<sup>29</sup> and seem to have been operating during the two first thirds of 2<sup>nd</sup> century BC. In summary, the pit in Area 4 could be interpreted as a structure that was working in the final stages of the kiln-site, probably being the quarry of the mentioned group of kilns (1-2 and perhaps I-II).

#### THE CERAMIC EVIDENCE

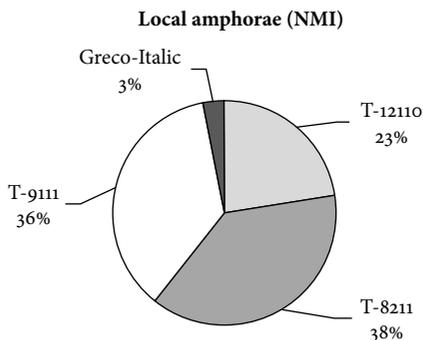
Generally, the ceramic material documented in the pit of Area 4 from the 1995 campaign in Torre Alta is quite shattered, but in good condition to identify the typology of most of the recovered items. One should note the presence of a large amount of vitrified waste, most of it not linked to any typological group/category in particular, even though in some cases some of the individuals have made it possible to verify the production at the kiln-site of some groups or even some stamped productions. As well, it is important to outline as one of the main characteristics of the context the large number of wasters and the fact that it is not a “closed deposit”. As will be explained later, it may have been formed by different items thrown preferentially at the final moment of the clay exploitation of this sector but also by other ceramics removed during the excavation of the pit itself. Even so, the available set of evidence suggests some of the key characteristics of the changes of ceramic production in *Gadir/Gades* during the initial stages of the assimilation within the Roman Republic.

#### *Typological frame and quantifying approach*

Local amphorae clearly dominate the context, with a total amount of 222 individuals. Only one fragment could possibly represent an import (but there are still doubts about the assignation of its fabric and determining its origin).

28. García 1998; Muñoz and Frutos 2006.

29. Arteaga *et al.* 2001; Sáez 2014a.



Among the productions of *Gadir*<sup>30</sup> (which is 51.63% of the total amount of local pottery) one of the most important groups is the one comprised by types T-12110<sup>31</sup>, a traditional Punic family whose early profiles go back to the archaic period. Some of the individuals identified can be clearly classified as residual, like those rims with simple edges tending to triangular shapes (FIG. 3, 1-2) typical of the 4<sup>th</sup> century BC or the earlier decades of 3<sup>rd</sup> century BC<sup>32</sup>. There are a relatively abundance of rounded rims, shoulders with very sharp edges and with a characteristic incision at the exterior side of the rim. These later variants that can be linked to type T-12111/2 (FIG. 3, 3-8), frequent in the production of the workshops of *Gadir* during the better part of the 3<sup>rd</sup> century BC and beginning of the 2<sup>nd</sup> century BC. But the most common type in this context are the T-12112 vessels, an evolved variant of its predecessor, typical of the last two thirds of the 2<sup>nd</sup> century BC and characterized by a fattened rim, a very vertical wall in rim/upper part of the body, a less marked edge on the shoulders and a cylinder-shaped upper half. In many cases, especially in the central decades of the century, features like the external incision seem to continue (FIG. 3, 9-12) although in many individuals this detail is not present at all (FIG. 3, 13, with a non-graphematic post-firing graffito). The presence of different but clearly identifiable wares verifies the production of T-12111/2 and T-12112 in the surroundings of the deposit attested in Area 4 (FIG. 3, 14-17), otherwise thoroughly recorded in other contexts of the workshop<sup>33</sup>. From a quantitative perspective the T-12110 is the third group among the amphorae, with a minimum of 50 individuals (23% of the total of amphorae).

30. Updated additional information about typological and chronological details, commercial distribution and contents of the types recorded in this deposit can be found online in the papers hosted in the website of Project *Amphorae Ex Hispania* (<http://amphorae.icac.cat/tipol/geo/map>).
31. Ramón 1995.
32. Sáez 2008; 2014a.
33. Muñoz and Frutos 2006; Sáez 2008.

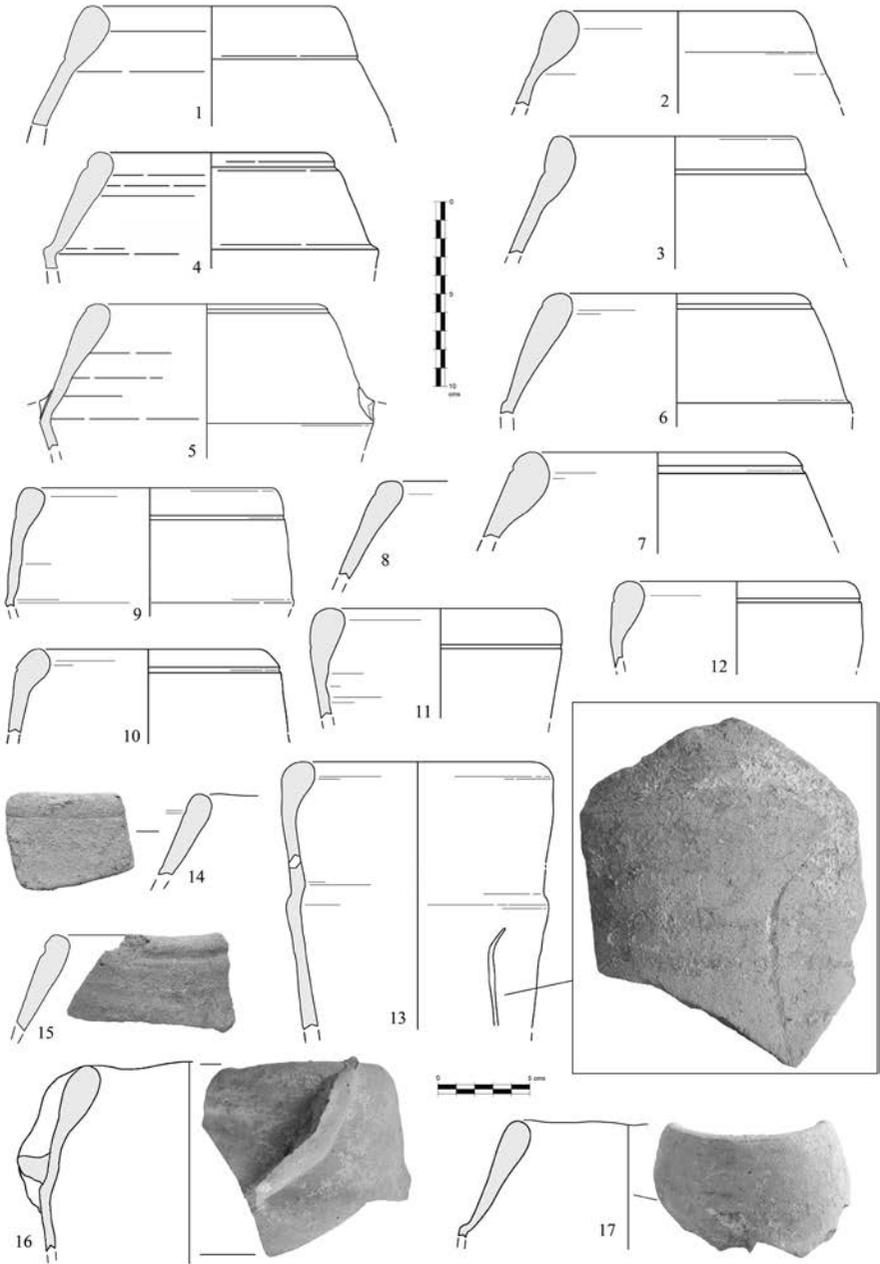


FIG. 3. T-12110 amphorae from Area 4 deposit.

However, the most abundant in the context are the variants of T-8211 type<sup>34</sup>, with a minimum of 84 individuals that results in the 38% of the total amphorae of the context. As in the previous case, also in this group it is noticeable the presence of sherds with typical characteristics of the 4<sup>th</sup>-3<sup>rd</sup> century BC variants, such as wide diameters, edges only slightly distinguished from the body, incisions to reveal this separation of the rims or to indicate the height of the handle location (FIG. 4, 1-4). Within this presumably residual group some of the individuals seem to be a little more evolved, typologically simpler and with a narrower diameter of the mouth (FIG. 4, 5-8), most likely dating to the middle or second half of the 3<sup>rd</sup> century BC. Nevertheless, the most numerous group is once more the one formed by late variants with narrow mouths, short rims separated from the body with a slope, with simplified lines characteristic of the 2<sup>nd</sup> century BC productions (FIG. 4, 9-13). The abundance of deformation but typologically identifiable waste makes it possible to assure that this type was fired in kilns close to Area 4 of 1995 (Fig. 4, 15-19). Although it is not an *unicum* in the workshop, two of these amphorae must be highlighted because of the presence of scratches of little clawmarks attested in the inner surface (Fig. 4, 10 and 16), probably a trace of the usage of this recipients as a refuge by small canids or rodents during the process of drying developed before firing.

Almost equal in number to the preceding group (80 individuals, 36% of the total amphorae), the different variants of type T-9111 uncovered suggest a similar duality regarding the coexistence of residual sherds with others belonging to the later phases of the industrial activity of Torre Alta. Those correspond mostly to individuals with large diameter, generally slightly vertical rims turned to the exterior and with the presence of incisions at the outer side of the upper area of the body (FIG. 5, 1-6). This variant finds formal parallels in contexts at the same workshop (Kiln 5<sup>35</sup>) or at the abandonment layers at the fortified settlement of Castillo de Doña Blanca (El Puerto de Santa María, Cadiz)<sup>36</sup>, helping to date these productions during the second half or last third of 3<sup>rd</sup> century BC. The rest of the material is very fragmented and makes it difficult to precisely identify the chronology, with a prevalence of the typical fattened round rims to the external side characteristic of all the 2<sup>nd</sup> century BC individuals (with some variations about the diameter and the wall inclination) (FIG. 5, 7-21).

34. Ramón 1995, pp. 225-226.

35. Sáez 2008.

36. Niveau 1999.

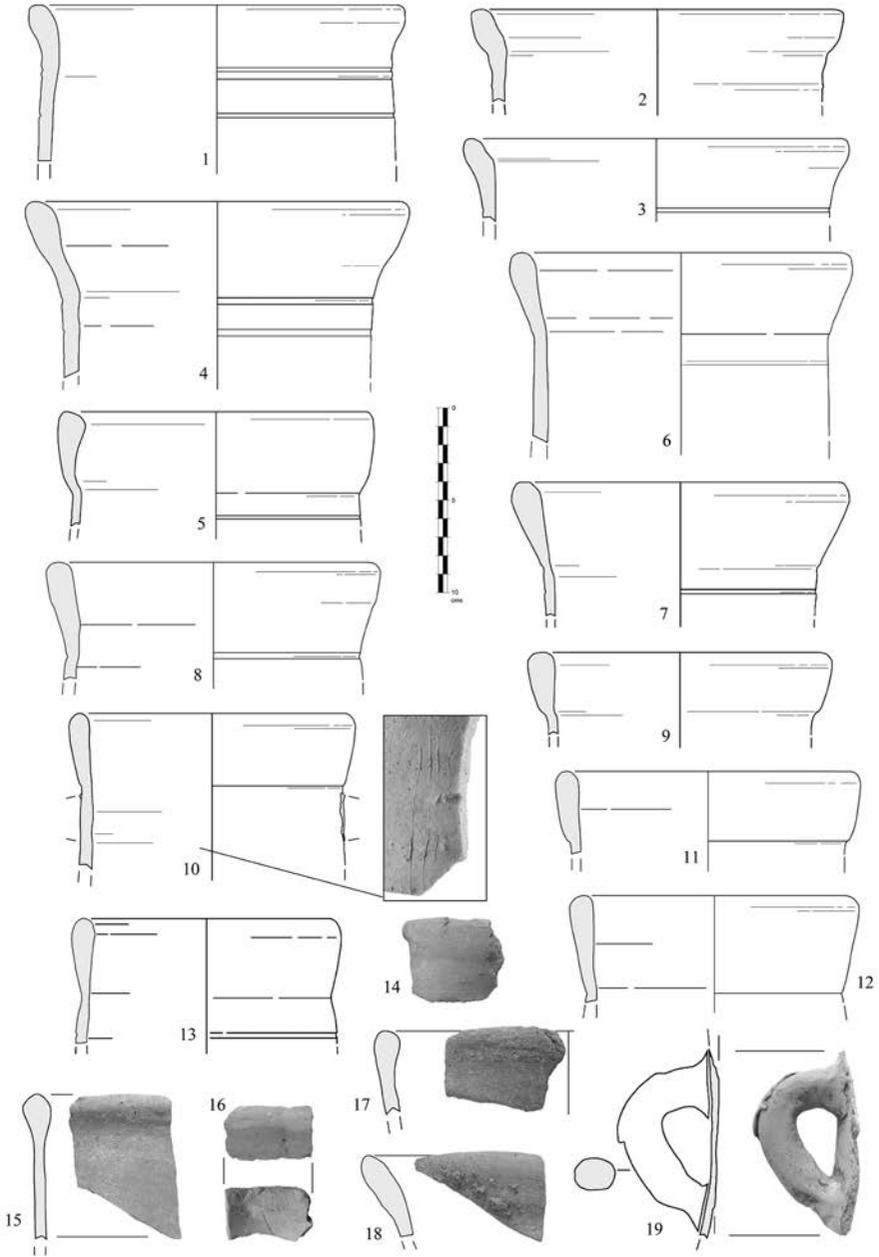


FIG. 4. T-8211 amphorae from Area 4 deposit.

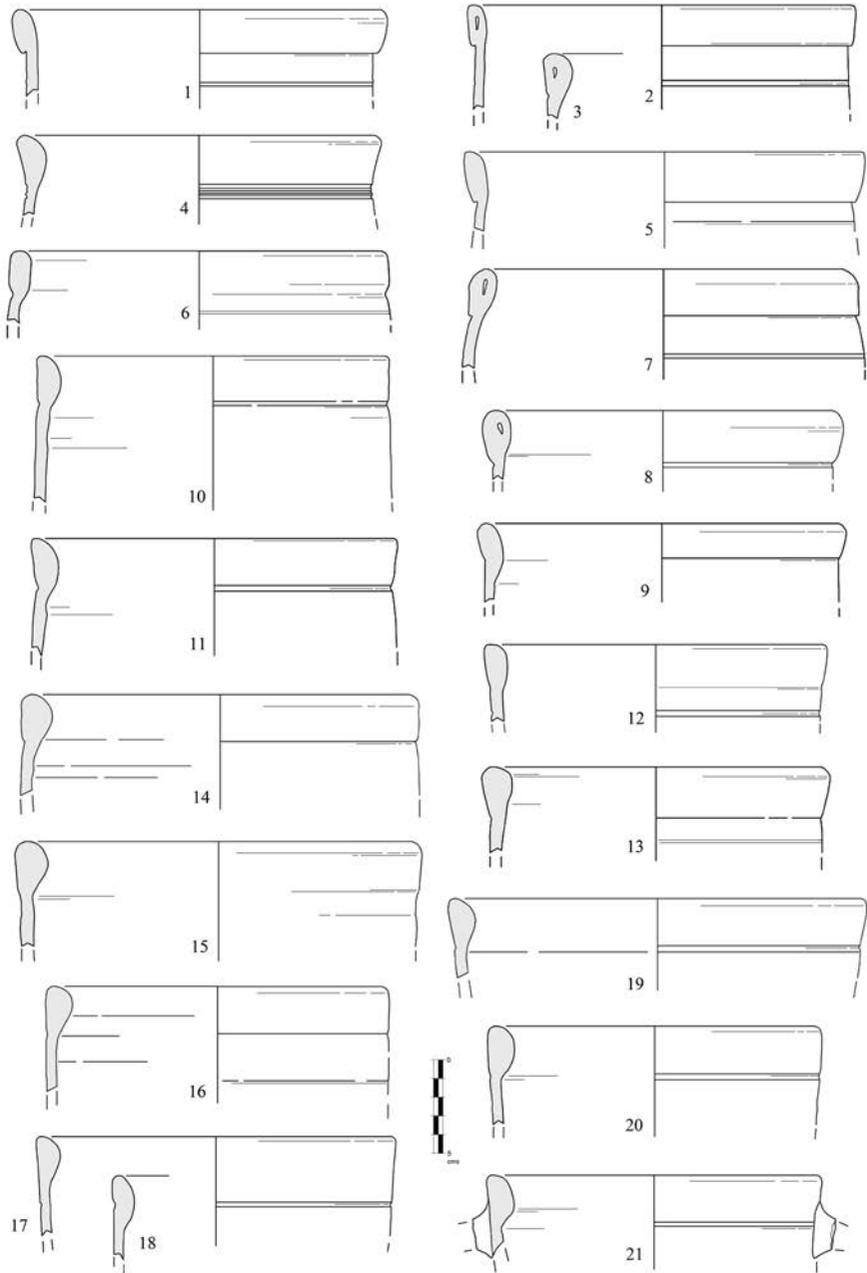


FIG. 5. T-9111 amphorae from Area 4 deposit.

The identifiable vitrified or misshaped sherds corresponding to the late variants of this group are significantly numerous (FIG. 6, 1-10) and certify that the production of this form was developed in the surroundings of Area 4 (possibly, in Kilns 1-2). Some of the most interesting items of the context are included in this group of deformed and discarded vessels. In particular, attention should be drawn to the presence of stamped T-9111 individuals, one well-fired example (FIG. 6, 11) and another one vitrified and slightly deformed (FIG. 6, 1), which together provide a priceless testimony about the relation of Torre Alta with these stamped iconographies.

The first of the stamps (FIG. 6, 11) is only partially preserved close to one of the handles, showing what it seems to be a dolphin inscribed inside a pseudo-rectangular frame, a shape barely attested in other amphorae stamps from *Gadir's* ateliers (as we will see, just another two unpublished examples). Unfortunately, the stamp is only partially preserved. Therefore, it is only possible to appreciate the snailed and ictioform end of a figure that might have represented a dolphin. This motif was inscribed inside a frame with an elliptic module (its shape does not remain complete either). Although it tends to a circle, as the rest of the figurative amphoric seals recorded in local industrial contexts<sup>37</sup> do, possibly imitating the form of the monetary dies.

Moreover, it is especially interesting to ponder the relation between coins and the dolphin motifs attested in the seals of the amphorae from the local pottery workshops. Several amphorae stamped with dolphins have been recovered in other contexts dated in the 2<sup>nd</sup> century BC, such as the fish-salting factory of San Bartolome<sup>38</sup> or the Cuarteles de Varela area<sup>39</sup> (both in Cadiz). The dolphin iconography was widely appreciated all around the ancient Mediterranean and can be attested in numerous artistic representations<sup>40</sup>. It was frequently used as a principal motif in sigillary rings, as suggested by examples from Casa del Obispo<sup>41</sup> (Cadiz) or La Algaida sanctuary<sup>42</sup> (Sanlúcar de Barrameda, Cadiz), and also it can be found on many coinages of Antiquity. In this sense, it should be underlined that the coinage of *Gadir* started showing the motif of the dolphin as a principal icon on their lower denominations, as a fishing/maritime icon related mythologically with the main god of the city (*Melqart-Heracles*).

37. Frutos and Muñoz 1994, pp. 393-414.

38. Sáez 2014a; 2014b.

39. López and Ruiz 2011.

40. Moreno 2009a; Moreno 2011.

41. Perea *et al.* 2004.

42. López and Ruiz 2010, p. 447, Fig. 7.

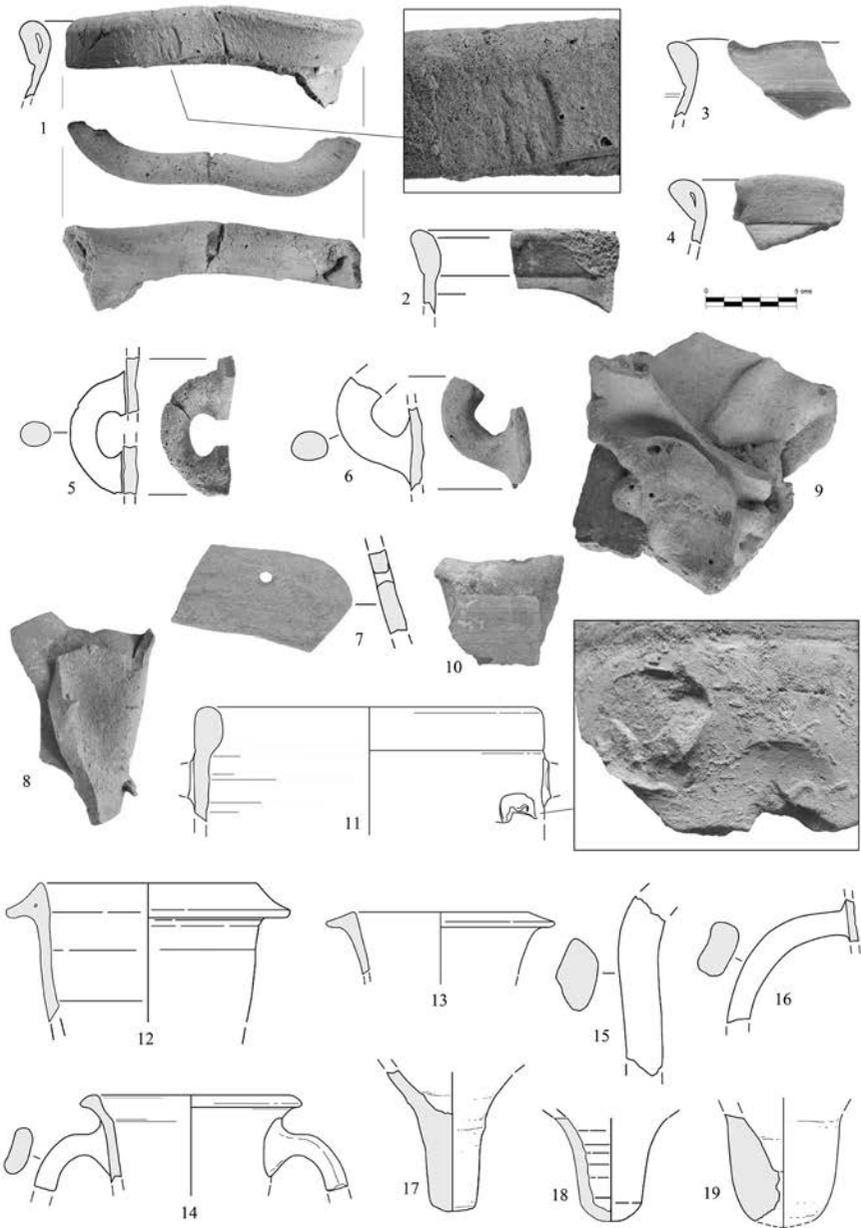


FIG. 6. T-911 amphorae (1-11), Greco-Italic local imitations (12-18) and unidentified amphora fragment (19) from Area 4 deposit.

The reduced volume of coinage of *Gadir's* first monetary series, as well as their common presence in pottery workshops and fish-salting industrial contexts<sup>43</sup>, results in an explanation of how *Gadir* could have become incorporated into the monetary economy. It has been proposed that the temple of *Melqart* could have minted the first bronze series of the city, perhaps in an effort to improve the control of the flourishing fish-salting business. The iconographic meaning of the monetary emblem chosen by the city (the image of the god *Melqart* escorted by two tuna fishes) may support this elucidation, as well as the finding of coins in ritual deposits within the industrial environments<sup>44</sup>. Nonetheless, what is interesting here is to underline that the iconographic motif of the dolphin was strongly linked with the monetary and fish-salting economy of the city at least from the 3<sup>rd</sup> c. BC. This close relation would have remained in later periods, not just by the uninterrupted inclusion of the dolphin in the local monetary iconography but also by the usage of amphorae stamps as the one analyzed here.

Thus, the link between the dolphin and *Gadir's* industrial sphere could be extended further, if we take into account that the most widely used motif for resealing the local coinage was the dolphin. As already underlined by Arévalo<sup>45</sup>, it is also worth emphasizing the linkage between the meanings of these resealing marks and the industrial ambients, reinforced by these new testimonies stamped on local amphorae. Monetary resealings are difficult to explain, as they are marks made after the official mintage. The main reason of this resealing remains uncertain in most of the cases, although present research proposes their use as an indicator of property of specific monetary shipments or, more specifically, in their restriction within a particular mine, industrial, agricultural or fishing facility<sup>46</sup>. In the case of *Gadir*, Arévalo<sup>47</sup> studied the link between the dolphin-type resealing marks and the late-Punic industrial contexts, concluding that the more frequent mark made on local coins was the dolphin, attested in 136 individuals of Alfaro's VI series<sup>48</sup>. These coins were in use mainly during the 2<sup>nd</sup> and 1<sup>st</sup> century BC, although the use of the dolphin-shaped mark is not verified before the 1<sup>st</sup> century BC.

43. Arévalo 2010, p. 188; Arévalo and Moreno 2011, pp. 345-346.

44. Arévalo 2004, p. 517.

45. Arévalo 2006; Arévalo 2010.

46. Arévalo 2000, pp. 37-55; Chaves 1987-88, pp. 613-617; Chaves and Otero 2002, pp. 163-230; García-Bellido 1982; García-Bellido 1986; García-Bellido 1999, pp. 55-70.

47. Arévalo 2006.

48. One bronze coin of this series was also uncovered in the context studied in this work (see below). For general classification of *Gadir's* coinage, see Alfaro 1988.

Dolphin monetary resealing marks have been attested in findings mostly connected to fish-salting and pottery workshops, as well as in funerary contexts of the insular necropolis of *Gadir*<sup>49</sup>. It seems that resealed bronze coins barely circulated abroad, and they have been only discovered in the Bay of Cadiz and isolated individuals in Tarifa, Villamartín and La Algaida (all of them in the current province of Cadiz). The analysis of the distribution of the dolphin-shaped marks in the coinage of *Gadir* supports that its functionality would have been linked to denote property on specific monetary shipments to prevent those marked sets from getting away from the production contexts where they were discovered.

Moreover, it is interesting to underscore that this resealing was always made in the reverses of the coins, the place reserved normally for the inclusion of the official authority that minted the coinage series<sup>50</sup>. The allusion to the authority in charge of the minting is reinforced through an identity iconography sometimes accompanied by epigraphy, as remarked by the well-known bywords *mp'l 'gdr* ("minted by *Gadir*") or *pl't 'gdr* ("by the citizens of *Gadir*") written in the reverses of local coins together with the two tuna fishes. On one hand, this could help to support the idea of dolphin-shaped marks used as a certification of the property of specific monetary shipments by the owners of the industrial facilities, whether they were religious, statal or private. On the other hand, it also strengthens the possibility of the implantation of innovative models of property or administration in those Gadiritan workshops aside the statal/civic organization, or at least not completely dependent of it<sup>51</sup> (a private activity particularly noticeable for the 1<sup>st</sup> century BC).

Getting back to the amphorae stamp, it is obvious that this data set regarding the relation between monetary marks and amphorae stamps is thoroughly suggestive, as was pointed out some years ago<sup>52</sup>. Many different interpretations have been discussed about the function of local amphorae stamps<sup>53</sup>. At this point, the analysis of the new stamp examples with dolphin motifs and their cited connection with the monetary resealings can contribute to clarify this issue. On the basis of these data, it can be proposed that this motif could have been closely linked to the pottery and fish-salting facilities of Cadiz Bay and, in general terms, to the industrial and commercial spheres of *Gadir*.

49. Arévalo 2006.

50. Moreno 2014.

51. Sáez 2008; Moreno and Sáez forthcoming.

52. Arévalo 2004.

53. Frutos and Muñoz 1994, pp. 393-414; Ramón 1995; Sáez 2014a; Sáez 2014b; Moreno and Sáez, forthcoming. See additional reflections in note 35.

This link could have started with the first coinage series of the city (since early 3<sup>rd</sup> c. BC), in which the dolphin was used as a principal emblem. During the 2<sup>nd</sup> century BC, in a context of fully monetarized regional economy, the dolphin remained as the emblem on the quarters of *Gadir's* VI series at the same time that some local amphorae were sealed with dolphin-type stamps.

Leaving behind the iconographic analysis, and also the economic implications of the dolphin motif in the local amphorae production, some more remarks can be added regarding typological issues. Thus, it is the first time that this position of the stamp is documented for the case of T-9111 amphorae of the workshop. This new information suggests that this type of amphora in Torre Alta was stamped at least on the outer surface of the rims, next to the handles and on the handles (the later, recorded only in a context of the late-3<sup>rd</sup> century BC). Thereby the evidence from Torre Alta insinuates that the position of the stamps was not a decisive fact regarding functionality and interpretation. Hitherto the only known parallel for this stamp is on another sample of T-9111 documented in an underwater context at La Caleta (Cadiz), dating from the 2<sup>nd</sup> century BC (and still unpublished). This individual presents a circular frame impressed close to the lower attachment of the handle, showing a dolphin-shaped motif with a complicated iconographic lecture due to its poor preservation<sup>54</sup>.

The second of the sealed individuals represents the definitive confirmation of the attribution of a stamp to the production of Torre Alta, making possible to connect this context with the in-operation and abandonment processes of Kilns 1 and 2, excavated in 1987-1988. In both kilns and its nearest surrounding area were found fourteen stamps on discarded or vitrified fragments, corresponding most of them to rosettes impressed on the body of individuals of T-12112 amphorae<sup>55</sup>. Besides them, at least two cases correspond to rims of the type T-9111 (one of them also over-fired) with impressed stamps on the outer surface, one of them representing the “symbol of Tanit” (2177) and the other two representing a human figure packaging within an amphora and a fish hanging on his back (2179 and 2180). The stamp present in the context of Area 4 of 1995 can be clearly identified as an impression of the same die of number 2179 from the campaign of 1987-1988, in this case on a completely vitrified and deformed rim (FIG. 6, 1). As these set of data suggest, it seem that this stamp could be a late variant of a motif recurrently used at the work-

54. Higuera-Milena and Sáez 2014.

55. Muñoz and Frutos 2006, pp. 758-759, Fig. 9-13.

shop during a few decades<sup>56</sup>, from the final years of the 3<sup>rd</sup> century BC<sup>57</sup> to the central decades of the 2<sup>nd</sup> century BC.

The rosette, representation with clear heliac and divine allusion, and the so-called “symbol of Tanit” (linked to fecundating properties) are typical symbols largely used in the Punic and Gadiritan imaginary and goldsmithing. This fact could help to justify why they were some of the motifs of amphoric stamps in Torre Alta workshop. Nevertheless, the iconography of the “type 2179 die” makes it possible to focus on another interesting iconographic discussion.

The stamp reveals a sketching and coarse picture of a worker of the workshop. This possible artisan was wearing a circular hat and introducing something inside an elongated recipient (placed beside his feet and reaching to his waist), which could be identified as a local amphora. It seems to be a ‘photograph’ of a daily-life scene that would reflect the artisanal activity in which the stamped amphorae was produced and filled. Behind the figure, an ichthyomorphic motif was drawn and, next to the amphora, three globules that represent a branch in other examples. These globules could possibly be alluding to spices or additives (as oil or wine) that would garnish the final product. This iconography was documented in more than fifty discarded or misfired amphorae in Torre Alta dumping pit of Sector I<sup>8</sup>, dating from the late-3<sup>rd</sup> c. BC, so it seems that it was used both during the Barcid and the early Roman stages. On the other hand, it is worth insisting in the originality of this motif, which reflects an artisanal daily-life activity that is not documented in other artistic or literary evidence. The closer parallels of this motif can be found in the coins of other major fish-salting production center in the Mediterranean, the city of Cyzicus<sup>59</sup>.

Coming back to the analysis of other pottery finds in the contexts, these three main groups of local amphorae were supplemented by other minor types, as demonstrated by the presence in the context of some fragments of local versions of Greco-italic amphorae. Some of these are profiles with triangular

56. The function of these stamps in the local workshops is still unclear. Some authors have speculated about their possible connection with administrative procedures of bookkeeping and accounting of the amphorae production of the city ateliers (Frutos and Muñoz 1994). At present the most supported interpretation of these marks points to a possible use as part of a system to distinguish between shipments or groups of vessels, but it cannot be excluded that the stamps might have referred to a particular potter/potters squad, to a oligarchic family involved in the ‘fishy business’ or even to the recipient of the shipment (Sáez 2014a).

57. Sáez 2007; Sáez 2008.

58. Sáez 2007; Sáez 2008. For a more complete analysis of the assemblage, see Sáez 2014a.

59. As example, Von Fritze 1910, Fig. 27.

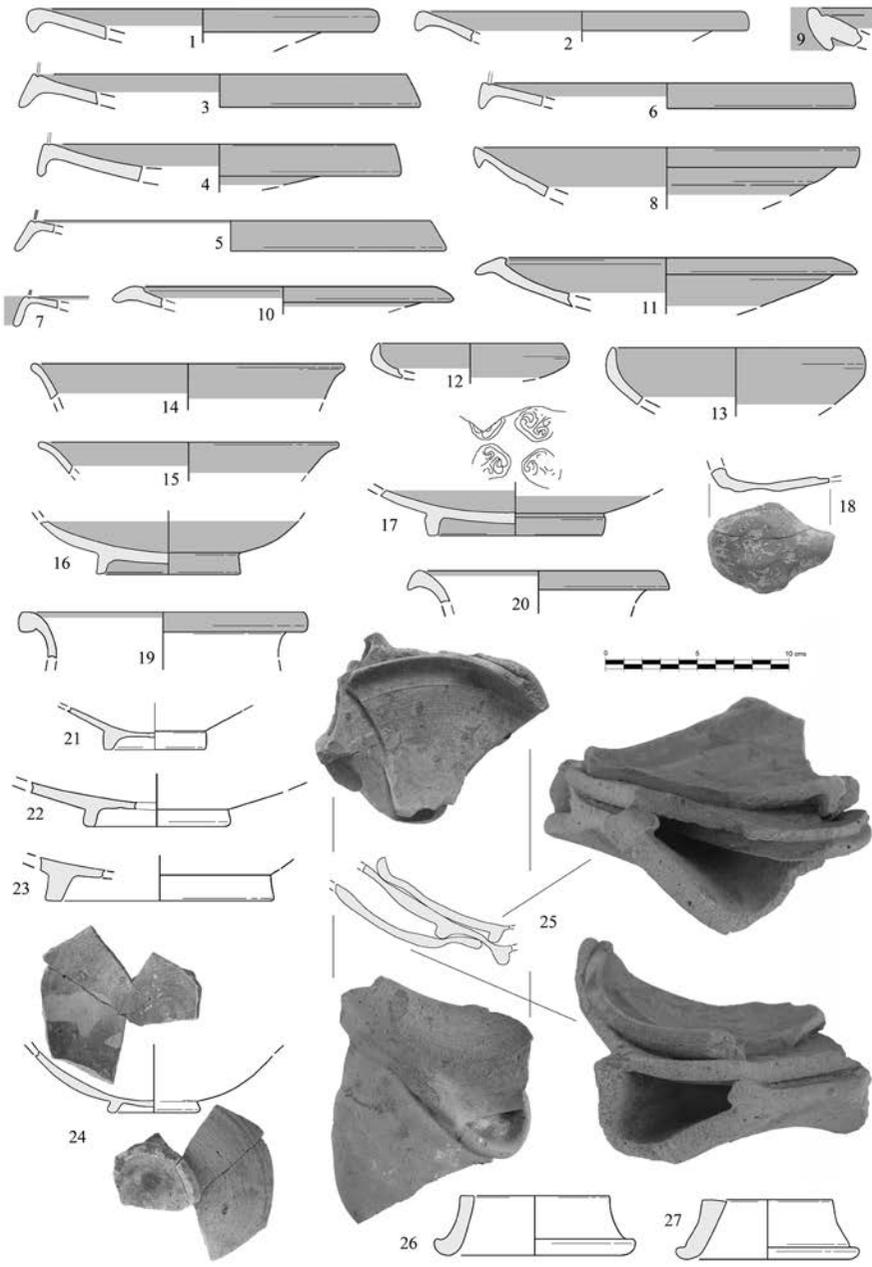


FIG. 7. Local red slip tablewares, including misfired bowls (24-25); also, ring-shaped supports (26-27).

rims that could be a residue from previous production phases (FIG. 6, 12); the small size of fragments of rims (FIG. 6, 13), handles (FIG. 6, 15-16) and feet (FIG. 6, 17-18) illustrates a remarkable diversity of sizes and final morphologies of these imitations. Another individual (FIG. 6, 14) is very difficult to classify due to its size, and it could be identified either as a medium-sized transport amphora or as a table amphora variant with two handles. In any case, it is a minority group, with a minimum of seven individuals (a 3% of the total amount of amphorae). We must add to them only a few fragments with an undetermined typology that illustrate artisanal processes difficult to define accurately, including a wall fragment with a post-firing borehole (maybe as a result of a reparation or the transformation of the amphorae into another secondary tool) (FIG. 6, 7). Also, it is noticeable the presence of a very rounded feet fragment (FIG. 6, 19), with a solid structure, whose fabric suggests that it could be an import (maybe a residual Greek amphora?).

The remains of local red slip finewares documented in this context (17 individuals, a 4.2% of the total of local ceramics) also provides a similar perspective about the presence of residual material and the combination of traditional typological features with new ingredients added after the Roman annexation. At least two red slip fishplates only varnished in the inner surface and on the rim correspond to productions from the 4<sup>th</sup>-3<sup>rd</sup> centuries BC (FIG. 7, 1-2), possibly coming from the same pottery activities indicated by the aforementioned amphorae developed next to Area 3 and Kiln 6<sup>60</sup>. The rest of the items can be included into the group traditionally known as “Kuass Pottery”, that is, the Hellenistic red slip fineware produced in *Gadir/Gades* from the final stretch of the 4<sup>th</sup> century to late 2<sup>nd</sup> century BC<sup>61</sup>. The most considerable group is the one of the fishplates or Niveau’s type II<sup>62</sup>, all of them with hanging rims with long hanging tabs, incisions at the top and totally covered with red slip (FIG. 7, 3-7). It is possible that other plates, some with stemmed rims of Niveau’s form I (FIG. 7, 8-9) with clear parallels in context of the late-Punic necropolis in Cadiz<sup>63</sup> and also local imitations of the form Lamboglia 36 (FIG. 7, 10-11), could be a reflection of the introduction of Italic profiles in the local repertoire from the last years of the 3<sup>rd</sup> century BC and the initial decades of 2<sup>nd</sup> century BC. The rest of red slip vessels can be summarised as bowls of Niveau’s group IX (*incurving rim bowls*; FIG. 7, 12-13), wide carinated cups (*outturned rim bowls*; FIG. 7, 14-17, the later with four palmettes stamped inside) and a very worn and probably residual Hellenized lamp (form Niveau

60. Sáez 2008.

61. For a very recent update of types and chronologies, see Niveau and Sáez 2016.

62. Niveau 2004a.

63. Niveau 2009, pp. 150-152.

XVII; Fig. 7, 18). Overall, and despite of these residual elements, is clear that the tableware of the context illustrates a moment in which the local repertory started to experiment with significant transformations as a result of the influence of the Italic black-gloss wares, which had started to increase among the imported products to the West and the Atlantic after the Second Punic War.

However, perhaps the most interesting evidence regarding these local red slip finewares are the vitrified and deformed over-fired pieces along some artisanal tools. Specifically, we must emphasize the presence of some bowls or plates showing the characteristic ring-shaped feet, smoothed surfaces and very uniform finishes that apparently could have been used as test-pieces or simply they were not varnished and were discarded before its commercialization (FIG. 7, 21-23). Some discarded vitrified vessels certify the production *in situ* of the “Kuass pottery”, as in the case of one deformed bowl (maybe Niveau’s forms IX or X) vitrified and with some traces of burned varnish inside and outside (FIG. 7, 24). Without any doubt, from a technological point of view one of the most interesting items registered in Area 4 is the accumulation of over-fired bowls, similar to the previous one in type and size; this exceptional piece is formed by three individuals which were stacked one on the others, and that have been united by a faulty firing process that partially melted them (FIG. 7, 25). Besides the fact that this constitutes further evidence of the fabrication in Torre Alta of these finewares, the piece verifies the simple stacking system of these items inside the kilns during the first decades of the 2<sup>nd</sup> century BC. In addition, the presence of ring-shaped supports in the same context (FIG. 7, 26-27), with appropriate diameters for its use at the process of optimization of ware firing (even when they don’t show varnish traces), suggests to us that both techniques could coexist at the workshop at least during the first half of the 2<sup>nd</sup> century BC<sup>64</sup>.

64. Together with similar refused red slip plates and bowls, another ring-shaped support with the same features (but still keeping spots of local red slip as a result of its use) was documented in the nearby of Kilns I-II of 1997 campaign (Arteaga *et al.* 2001). From our current perspective, besides attesting a significant importance of the local production of red slip tablewares in Torre Alta during the 2<sup>nd</sup> century BC the presence of this type of kiln furniture suggest an early Italization of the artisanal methodologies regarding the loading processes of the kilns towards a more standardized stacking and mass-production orientation, as it was being developed in the coeval Italic workshops with black-gloss wares. It must be emphasized that there is no local evidence, direct (ring supports) or indirect (traces of different colours in the inner side of slipped vases), in earlier stages of the production of Torre Alta that suggest an use of this kind of kiln furniture before 206 BC, as was previously proposed by J.-P. Morel (1986) as a general trend in the Punic western ateliers. Thus, these fragments are the first evidences of this type of supports documented in the Gaditan workshops, in which the use of those artisanal tools (and connected ones, such as ceramic prisms or wedges) was not regular until long after the Roman conquest of the region (Gutiérrez *et al.* 2013).

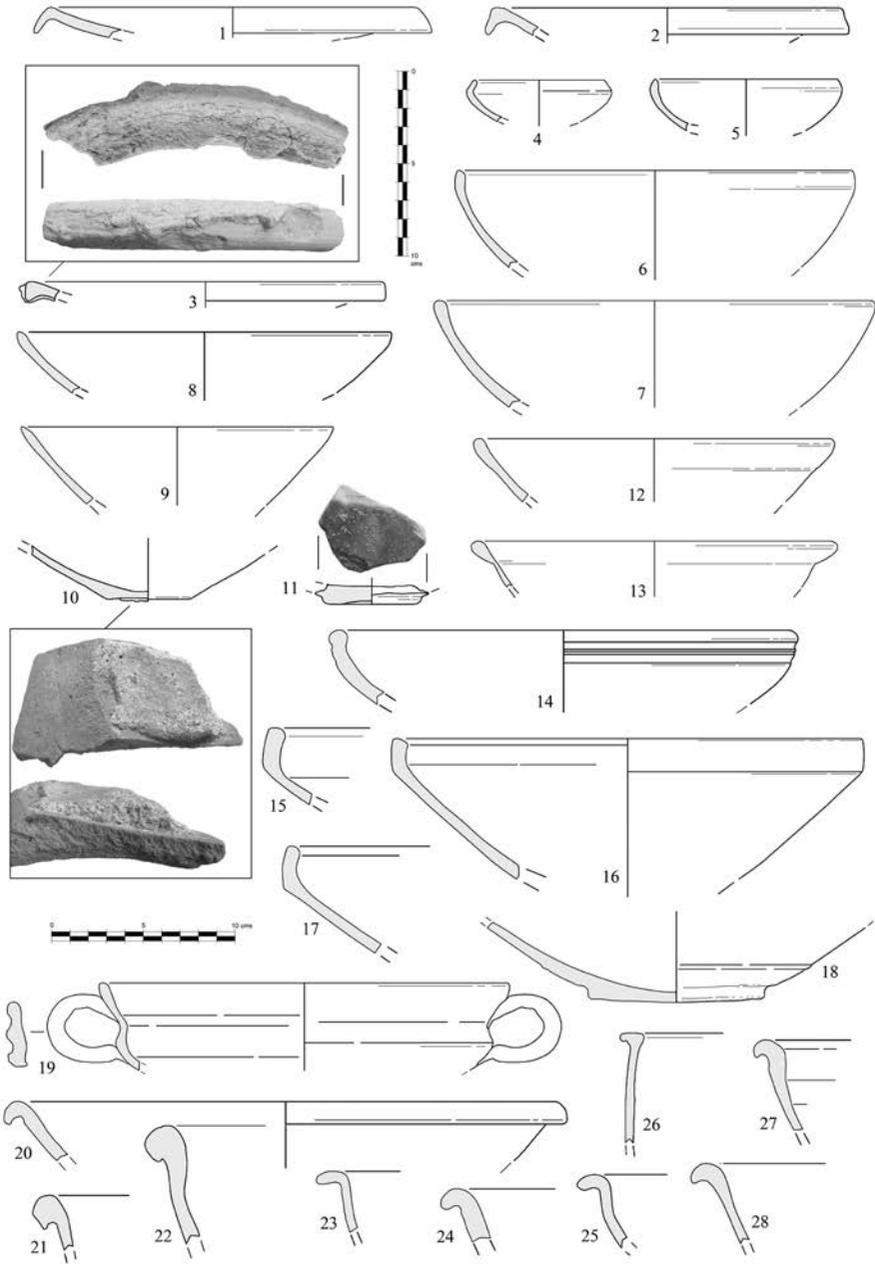


FIG. 8. Local plain wares (fish-plates, bowls, carinated bowls and lekane).

Painted vessels are an almost anecdotal group in the context, as usual in this period in Cadiz Bay ateliers, limited to only two rims of painted medium-sized storage jars (FIG. 7, 19-20) and a wall fragment, the 0.7% of the total of the local productions. However, the plain coarse wares are the second main group after the transport amphorae, with a minimum amount of 173 individuals (40.42% of the local pottery), showing a quantitative trend regarding the minor presence of residual materials in the context and a clear dominance of items linked to the latest phases of the workshop. Among the open forms, the presence of fishplates stands out (FIG. 8, 1-2), and particularly one individual completely covered inside with a white cracked barbotine –also on the rim– that solidified over the piece when it was still in use (FIG. 8, 3). It was probably a plate that could have been used for any artisanal purpose developed at the workshop, maybe during the application of that diluted clay to other products. Thus, the plate was a marketable piece that was selected by the artisans as part of their daily equipment.

Concerning the rest of the plain wares the predominant group is the one composed by bowls, and particularly the simplest quarter of sphere forms included in type GDR-1.2.0 (FIG. 8, 8-11), versions possibly derivative of GDR-1.4.1 (FIG. 8, 12-13, with thickened rims to the outside) or deeper profiles almost hemi-spherical of type GDR-1.3.0<sup>65</sup> (FIG. 8, 6-7). Together with these bowls, less plentiful local versions of small saltcellars or *small bowls* of type GDR-1.1.0 (FIG. 8, 4-5), a group also apparently usual in these deposits of late 3<sup>rd</sup> and 2<sup>nd</sup> century BC<sup>66</sup>. Some vitrified pieces and burned bowls (as FIG. 8, 11) certify the production of this types at the kiln-site; other vessels with adherences attached on the flattened feet of lime/sand mortar suggest the utilization of some elements for artisanal or productive activities that cannot be clarified (FIG. 8, 10: in this case, the flat plane defined by the mortar suggests that the bowl was added to a regular surface, maybe made of organic material and therefore non-preserved).

The rest of the open forms are divided among carinated bowls of type GDR-2.1.0 (FIG. 8, 15-18), “archaic” versions of the same profile with wide incisions in the outer side of the rim (FIG. 8, 14), and above all, deep bowls with different sizes and morphologies of the rims (FIG. 8, 20-28). The first aforementioned group of bowls are very common, present in all kinds of late-Punic contexts from 3<sup>rd</sup> and 2<sup>nd</sup> centuries BC around Cadiz Bay and massively produced at its kiln-sites<sup>67</sup>; on the contrary, the grooved individual – very

65. Sáez 2008, pp. 624-626, Fig. 30.

66. For instance, at the late Punic necropolis of *Gadir* (Niveau 2009, pp. 144-145).

67. Sáez 2008, pp. 626-630, Fig. 31.

likely a residual sherd in this case- is frequently found in pits of the ateliers from the 4<sup>th</sup> century BC, as pointed out for example by various contexts from the kiln-site of Villa Maruja-Janer<sup>68</sup>. The evolved bowls present in the context, classifiable as part of the late-Punic groups GDR-4.2.0 and 4.4.0<sup>69</sup>, could be identified with western Punic versions of *lekane* similar to Rotroff's groups 2-4<sup>70</sup> or even with some variants of the Hellenistic *deep bowl* from the Athenian Agora excavations<sup>71</sup>, verifying a process of adoption of Hellenic forms initiated in earlier periods and specially perceptible among tablewares and kitchenwares<sup>72</sup>.

Local Coarse Ware		
	MNI	%
Large jar	51	29.50
Bowl	46	26.59
Lekane	44	25.43
Small jar	10	5.77
Carinated bowl	8	4.62
Plate-mortar	8	4.62
Vase	5	2.86
Fish-plate	3	1.71
Mortar	3	1.71
Small bowl	2	1.14
Others	2	1.14
Globular jar	1	0.57
Plate-lid	1	0.57
Lamp	1	0.57

The repertoire of open plain wares also includes some evolved mortars linked to type GDR-3.1.2 (FIG. 9, 1 and 7(?)), but mostly plates-mortar of the popular group GDR-3.2.1 provided with projected rounded rims and flat-bottom bases, in some cases with incised concentric grooves in its outer surface (FIG. 9, 2-6). Both groups have been broadly attested to late Punic local pottery production<sup>73</sup>, but another variant registered in the context maybe also linked to deep-mortars group (FIG. 9, 8) and identified as a prototype or test-piece of the workshop. Moreover it is worth noting that this set of mortars points

68. Bernal *et al.* 2003; Sáez and Belizón forthcoming.

69. Sáez 2008, pp. 632-636, Figs. 33-34.

70. Rotroff 2006, pp. 111-113, Figs. 42-49.

71. Rotroff 2006, p. 114, pl. 40, Fig. 50.

72. Sáez 2015.

73. Sáez 2008, pp. 630-632, Fig. 32.

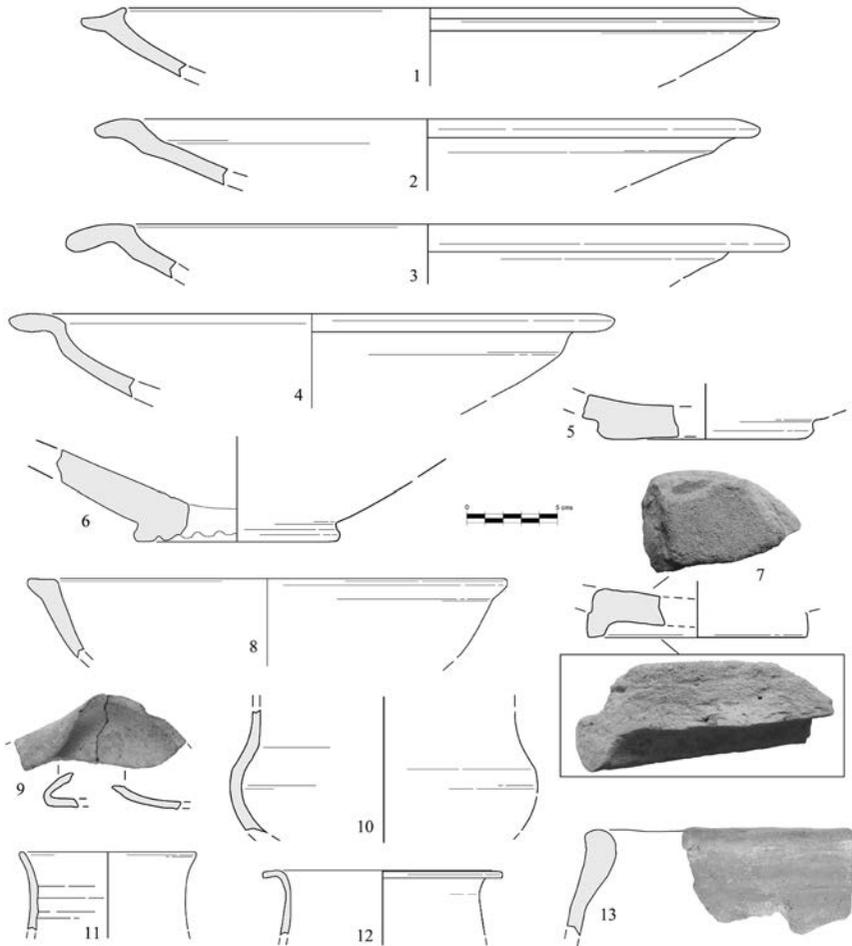


FIG. 9. Plain wares, including mortars and plate-mortars (1-8), lamps (9), vases (10-12) and large recipients (13).

to the introduction of new artisanal procedures: one of the base fragments recovered (FIG. 9, 7) presents a raspy inner surface as a result of the addition to the fabric of a thin layer of diluted clay mixed with quartz sand most likely before firing. The examination of the section of the vessel reveals a “stratigraphy” characterized by the overlapping of both types of local clays. Even though this kind of rough surfaces is not rare among local mortars at least from the 4<sup>th</sup> c. BC, the artisanal techniques used in this case constitute a novelty for

Torre Alta, and may be linked to other innovations already mentioned such as the utilization of ring-shaped supports for stacking/firing red slip tablewares.

Concerning the bigger recipients we must note the presence of a rim of *lekane* or cauldron-shaped vessel with irregular thick walls (FIG. 9, 13) that could have been an item used by potters for production tasks developed in the workshop (especially if we take into consideration the poor quality of the outer surfaces). Other minor coarse ware types attested by only one individual have been not included yet in the available typological corpora, such as a carinated bowl provided with flattened-section handles (FIG. 8, 19) that might find close parallels in some late central Mediterranean Punic productions<sup>74</sup>. Among this minority group of items we must include a storage jar possibly linked to a late evolution of a *chardòn* profiles, with a globular body and a cylindrical neck with a slightly projected rim<sup>75</sup> (FIG. 9, 12); likewise, a lamp with two spouts and clear traces of usage (FIG. 9, 9), a lightning tool produced in this atelier in earlier stages and widely attested in 3<sup>rd</sup> c. BC deposits<sup>76</sup>.

A few drinking vases of small and medium size were found in the context, of types GDR-7.1.0 (FIG. 9, 11) and GDR-7.2.1 (FIG. 9, 10), both massively attested to the 3<sup>rd</sup> century BC production stages<sup>77</sup> but with an extended continuity after 206 BC. Much more abundant are the medium-sized storage jars without handles, essentially linked to “domestic” or multi-functional tasks, with a clear predominance of the “classical” variants of group GDR-8.1.1 with triangular rims and without outer ring feet (FIG. 10, 5-11, including some explicit wasters such as 10). Besides, other variants of medium-size storage vessels have been identified, such as one GDR-9.1.1 (FIG. 10, 1), one GDR-8.3.1 (FIG. 10, 4), a globular profile of type GDR-12.2.2 (FIG. 10, 3), and also a residual rim of a larger *pthos* (FIG. 10, 2) dating from earlier stages of production. In all cases these were types quite abundant during the 3<sup>rd</sup> century BC, particularly in the second half, and almost all seem to have continued to be produced for a significant part of the 2<sup>nd</sup> c. BC. Among these coarse jars, perhaps the most noticeable find could be the GDR-12.2.2 sherd, which can be identified with a local version of Carthaginian jars of types Cintas 224-227.

In the same sense, the presence in the context of some other forms inspired in Central Mediterranean Punic types must be highlighted, including medium-

74. Lancel 1987.

75. A type attested in the late Punic local necropolis (Niveau 2009, p. 127, Fig. 89).

76. The late production of these lamps was highlighted in previous work, see Sáez 2014c.

77. Sáez 2008, pp. 639-641, Fig. 35.

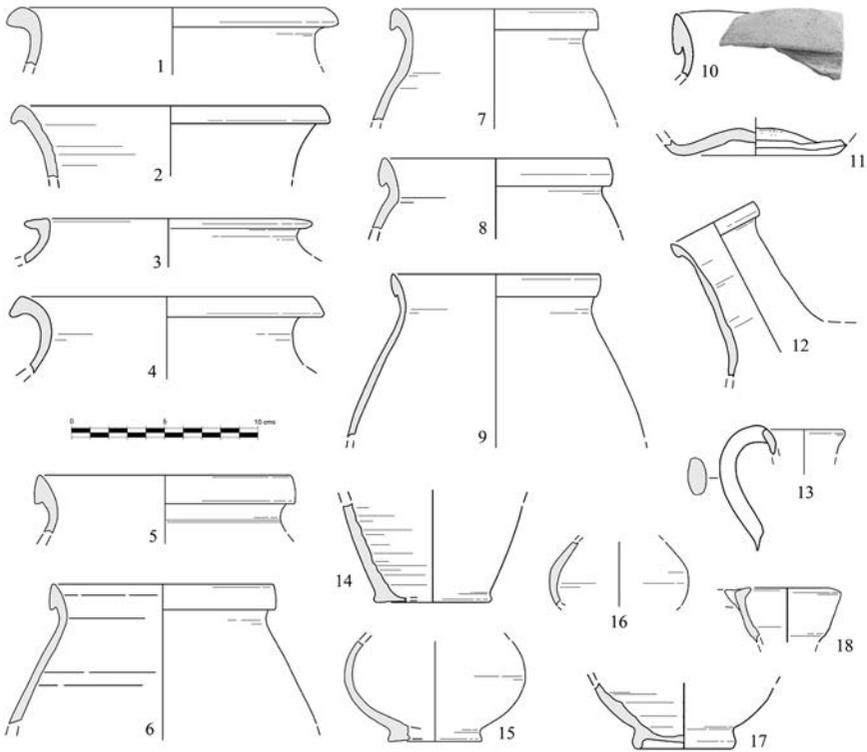


FIG. 10. Plain wares (medium-sized storage jars, little jugs and askos).

sized jars (FIG. 10, 17-18) also attested in Kilns 1-2 and I-II filling deposits<sup>78</sup>, and *askoi*-shaped jars (FIG. 10, 12) similar to the coeval production of Ibiza except for the complete lack of painted designs<sup>79</sup>. The rest of vessels linked to the drinking set can be identified as common late-Punic local broadly produced during the 3<sup>rd</sup>-2<sup>nd</sup> centuries BC, such as the *olpe*-shaped group classified as GDR-10.2.0 (FIG. 10, 13-14) or the little globular jar of type GDR-10.3.0/10.4.0 (FIG. 10, 15-16), both ubiquitously present in almost every type of context of Cadiz Bay from at least the central stretch of the 3<sup>rd</sup> c. BC<sup>80</sup>.

The cooking wares barely represent a 2.57% of the total of local production items (MNI 11), including in this deposit some widely attested Hellenized

78. Muñoz and Frutos 2006.

79. Ramón 2012.

80. Sáez 2008, pp. 645-648.

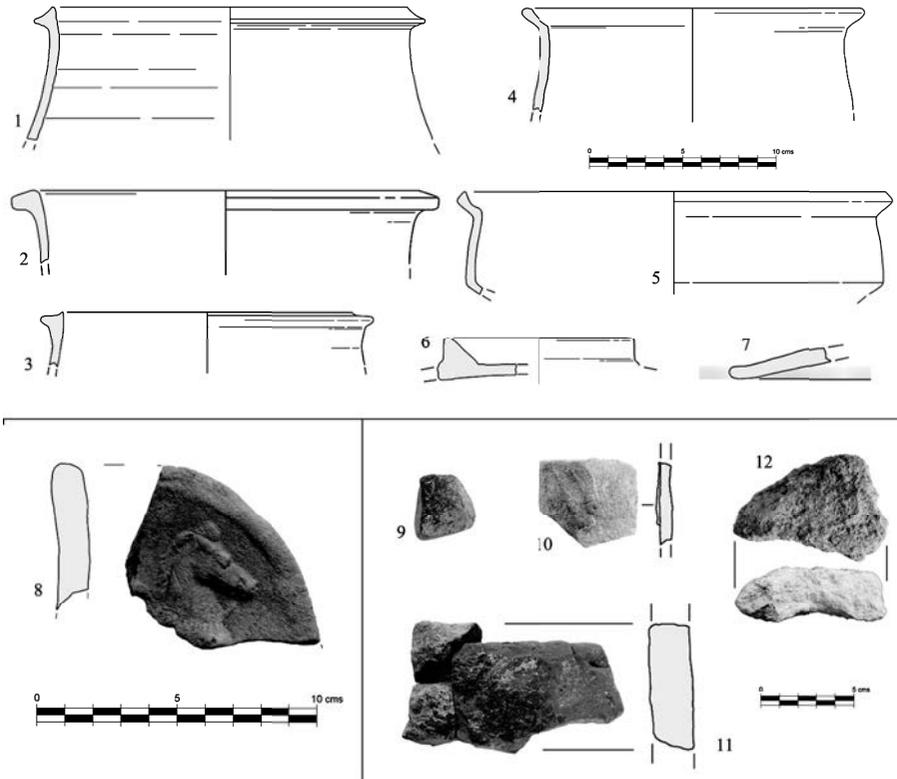


FIG. 11. Cooking wares (1-7), terracotta disc (8), stone (9), clay fragment (10), kiln plaque (11) and lime nodule (12).

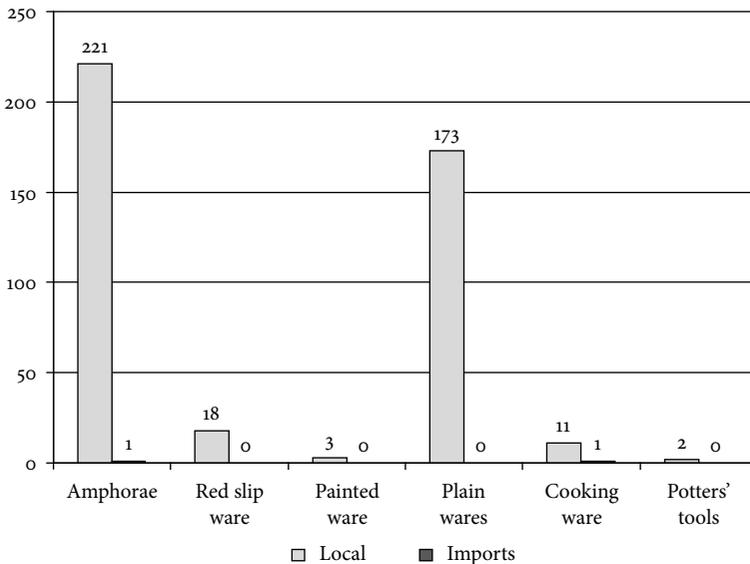
groups of the Gaditan repertoire from the 3<sup>rd</sup> century BC<sup>81</sup>. On one hand, cooking pots of group GDR-12.3.0 (FIG. 11, 1-3), a derived type classified in the Athenian Agora as baggy profile *chytrai*<sup>82</sup>; and on the other hand, more or less deep lopades of type GDR-11.2.1 (FIG. 11, 5) and GDR-11.5.1 (FIG. 11, 4) with bifid rims to support the lids. It is illuminating the presence of an individual with –vesuvian– Italic fabric (FIG. 11, 7) and a local version (FIG. 11, 6) of the plate-lids so-called type Burriac 38.10<sup>83</sup>, that generally were items used together with the large plain Italic pans type Vegas 14 (the production of these imitations is attested in another areas of Torre Alta, such as Kilns 1-2). The imported vessel show evident traces of usage, so it seems probable that

81. Sáez 2008, pp. 649-659.

82. Rotroff 2006, pp. 167-169.

83. Aguarod 1991.

it could have been used as a model for local imitations besides as part of the cooking paraphernalia of the artisans. Thus, the pot should be interpreted as another sign of hybridization of culinary patterns and local cooking pottery, a Romanizing feature of the cultural and economic changes initiated after 206 BC. Nevertheless, these lids produced in central Italian workshops during the 2<sup>nd</sup> century BC, were successfully exported together with the Italic black-gloss tablewares and Dr. 1 amphorae, so this early arrival to the Bay of Cadiz' secondary settlements is not surprising.



Finally, we must underline the presence of sun-dried rectangular brick bars, shattered in all cases, as well as smaller wall tiles (FIG. 11, 13), basic building materials for the walls and the grid flooring of local late-Punic kilns. The deposition of these elements inside the ditch together with abundant amounts of ashes, discarded vessels and vases showing traces of its usage as artisanal gear can be explained only by the close location of the workshop core and the cleaning and repair of nearby kilns. It is very likely that the processing of raw clays would not have been developed in a distant area from Area 4, at least if we take into account that some of the pottery recorded have not-fired clayish adherences (FIG. 11, 11), or the presence in the context of items perhaps connected to the mineral adds used to obtain the final poured-clay mix<sup>84</sup>, such as broken quartzite pebbles or lime nodules (FIG. 11, 9 and 11).

84. Concerning the characteristics and chemical-physical composition of the fabrics of this workshop some preliminary archaeometric approaches have been published in the



FIG. 12. Bronze coin of series VI of *Gadir* found in the context of Area 4 from 1995 Torre Alta excavations (above) and coin of the same type of Museo Arqueológico Nacional (MAN, Madrid).

### *The terracotta mouldmade disc*

Although fragmented, one of the more interesting items recovered in this context is a quarter of a circular terracotta disc (FIG. 11, 8) in which a protome of a flanged horse is represented. Even considering that the portion preserved is little, it can be said that possibly in the disc was represented a complete figuration of a horseman drawn trotting or galloping, looking to the right. Given the size and disposition of the head of the horse with respect to the size of the fragment, it seems that this iconography approaches the one largely typified since the coinage of Hieron II of Siracuse (c. 265-215 BC), where the king was heroized through his equestrian representation.

This type of equestrian performances is quite frequent among the Punic terracotta discs with possible votive or cultural function. Some remarkable examples can be cited, such as the so-called 'horseman' of *Tamuda* (Tetouan, Morocco; uncovered by Tarradell in the early Forties<sup>85</sup>) or the several indi-

last decade (Dominguez *et al.* 2004). This research makes it possible to verify that the loam outcrops rich in lime nodules that constitute the geological base of the area were the main source of raw materials for the pottery production developed in the Punic atelier; this clayish loam soil, which present characteristic foraminifera that allows to trace this Gaditan productions around the Mediterranean, was usually mixed with quartzite grains (sand) and calcite/ferric particles (see also De Francesco *et al.* 2012; Johnston and Sáez forthcoming).

85. Tarradell 1960.

viduals found in *Kerkouanne*<sup>86</sup> (Tunisia). Also, it must be highlighted its recurrent use in the monetary Punic iconography in southern Iberia<sup>87</sup> or in Sicily<sup>88</sup>. On the other hand, it should be underlined that equestrian figurations had an important funerary sense in the tombs of *Tyre*<sup>89</sup> and *Carthage*<sup>90</sup>, as well as in some Iberian funerary contexts<sup>91</sup>, where the transit of the dead to the *Hades* was represented using the motif of the horseman or the *quadriga* (evoking a mundane and terrestrial journey or trip).

Other similar fragments of moldmade terracotta discs were found in the filling layers of the clay quarry located nearby in Sector I. Because of that, it is possible that this fragment could be a residual item produced in an earlier stage of the workshop, before the first quarter of the 2<sup>nd</sup> c. BC. Nevertheless, there is no doubt that the finding in this artisanal context of this terracotta fragment verifies, even in this later period under Roman rule, the production in the workshop of items connected to the Punic cults still practiced in the city<sup>92</sup>.

### **Local bronze coin**

Archaeological excavations in Sectors I and II in Torre Alta have provided a total amount of five coins, four corresponding to bronze individuals of ancient *Gadir* and one dating from the 19<sup>th</sup> century (minted by Alfonso XII), all of them already discussed in diverse works by Arévalo<sup>93</sup>. In the large pit of the Sector I was recovered, on top of the filling layers, a bronze half of Alfaró's series I. During the archaeological campaign of 2003 two more coins of the first series of *Gadir* were found, next to some ceramic offerings (miniaturized amphora, jars, vases, and potter's tools) deposited for the ritual abandonment of Kiln 4. These finds verified that local coins were used in industrial contexts, and added more arguments to support the hypothesis that the local coinage emerged linked to state/cultic ownership of the fish-salting industries of the city. As well, the cultic purpose of the Kiln 4 deposit certified the ritual usage of the local coinage since the earlier stages of its production.

86. Fantar 1966; Fantar 1977.

87. Moreno 2014; Moreno forthcoming a.

88. Moreno forthcoming b.

89. Elayi 2010.

90. Benichou-Safar 1982.

91. Ramos 1986, p. 128.

92. Another significant example can be found in the pottery workshop of Calle Troilo, at Cadiz, where female terracotta perfume-burners and other Punic-type cultic items were produced during the 2<sup>nd</sup>-1st c. BC (Niveau 2010).

93. Arévalo 2004; Arévalo 2006; Arévalo 2010.

Nonetheless, the coin found in the pit of the Sector II of Torre Alta points to a very different context of how coinage functioned. In this case it matches with an isolated and unplanned loss of coinage in an industrial ambient that does not imply ritual connotations, as it seems to reflect the usual circulation of bronze coins in the local workshops. The coin is a unit of the VI.A.1 series (FIG. 12), for which detailed cataloging has been finally accomplished only very recently<sup>94</sup>. It is a bronze of 26 mm (8, 35 g) that shows on the obverse *Melqart-Heracles* (looking left) wearing the skin of the *Nemean* Lion after the coinage of Alexander. Its special relief in the eye socket makes it possible to catalogue it as the “classic style” and therefore to link it to the first emission of the three that compose the VI local series. Thus, it can be dated in the earlier decades of 2<sup>nd</sup> century BC, which perfectly agrees with the dating proposed for the whole context. On the reverse, the coin shows two tuna fish (with heads to the left), and among them were struck a crescent with a globule and a graphem *aleph*. Over and beneath the tuna, the inscription that refers to the property of the monetary production and the identification of the city can be found: *m'pl 'gdr* (i.e. “minted by *Gadir*”).

Summing up, the coin found in the context belongs to the VI series of *Gadir*, produced by the city without significant iconographic changes during the 2<sup>nd</sup> and 1<sup>st</sup> centuries BC (which makes it quite difficult to develop a chronological division of its emissions). Contrary to the first five series, which had a distribution constrained around Cadiz Bay, the VI series multiplied the total volume of minted coins and had major geographical distribution in Iberia and all around the western Mediterranean (in areas such as Numidia, Mauretania, Sicily, the southern French coast or even the British Isles<sup>95</sup>). The VI series coins have been found in most cases in the same areas of the main distribution of local amphorae and red slip tablewares, suggesting a close link between both archaeological evidence and the integration of *Gadir* in a fully developed monetary economy during the 2<sup>nd</sup> century BC. Regarding the “late-Punic” cultural and terminological discussion it is worth noting that this series experimented with an accentuated metrological change of local coinage that facilitated exchange with other economic-cultural Punic and Roman areas<sup>96</sup>.

All this data verifies the important economic/cultural changes linked to the manufacturing and trade of fish by-products carried out in *Gadir* since the early 2<sup>nd</sup> century BC. Nonetheless, these economic alterations may not have implied a parallel and radical cultural change, and for instance the iconog-

94. A few preliminary remarks in Arévalo 2004, p. 516.

95. Alfaro 1988; Alfaro 1998; Alfaro 2000.

96. Arévalo and Moreno, 2011; Moreno 2014.

raphy of this monetary series kept Punic traditional symbols of the city. Thereby, the Hellenistic image of *Melqart-Heracles*, the tuna and the Punic epigraphy were not substituted by a “Romanized” iconographical program until the times of Balbo, Agrippa and Augustus (during the last third of the 1<sup>st</sup> century BC). In this sense, it can be admitted that the VI series of *Gadir* could be the clearest example of the “Late-Punic period”, reflecting the maintenance of the Punic culture and personality while ensuring the adequacy to the Roman economic production and distribution models on a large scale<sup>97</sup>.

#### CHRONOLOGICAL FEATURES AND GENERAL ASSESSMENT OF THE CONTEXT

The presence in the context of a significant quantity of individuals dating from the 4<sup>th</sup>/3<sup>rd</sup> centuries BC makes sense if we consider the vicinity of the possible kiln uncovered in Area 3 and the amount of ceramic material linked to that ditch (including many T-11210, T-12111 and T-8211 amphorae fragments). In any case, the major portion of our material seems to be closely related with the peak stage of the production at the site, dated during the last moments of the 3<sup>rd</sup> and the first half of the 2<sup>nd</sup> c. BC, and in particular to the later part of that long period. Either way, apparently all along the chronological frame represented in the context the production of amphorae was quantitatively dominant, a common feature noticed in most of the workshops excavated in the insular territory of *Gadir/Gades*.

A key aspect that must be considered is the coexistence in this context of traditional local (Punic) shapes and technical characteristics together with some others, on a smaller scale, that were gradually introduced after the inclusion of the Bay of Cadiz in the Roman Republic. The case of the amphorae could be illuminating on this point. The archaeological record shows a clear predominance of Punic profiles such as T-12112, T-8211 and T-9111 over the local imitations of Greco-Italic containers. To the same extent it must be emphasized that the local red-slip tablewares still show during this stage a remarkable closeness to the traditional Punic-Hellenistic repertoires, with only a few samples of the introduction of profiles inspired by the coeval Italic black-glazed tablewares. The local manufacture of lid-plates (connected to cooking pots type Vegas-14) could be another piece of evidence of this timid but early adoption of Italic forms within the local kitchen pottery repertoire and consumption patterns. Almost the same can be stated regarding the artisanal stacking modalities of the pottery inside the kilns due to the presence of two examples of ring-shaped supports, items commonly found in

97. Moreno 2009b; Moreno 2009a; Moreno 2014.

the Republican Italic workshops but not documented in the local pottery-making artisanal practices. In sum, a “hybrid set” from a technical and typological perspective, probably as a direct response to major changes operated in the consumption patterns and the economic strategies of the western city even in these early decades of the 2<sup>nd</sup> century BC.

The pottery assignable to the 2<sup>nd</sup> century BC suggests clear analogies with several contexts already published from Torre Alta. On the one hand, with the filling deposits of the nearby Kilns 1 and 2, and particularly, with the contexts linked to the abandonment of Kiln II of the 1997 campaign; the latter is a context that may be dated in the first third of the 2<sup>nd</sup> century BC, characterized by ceramic materials very similar to those found in Area 4 of 1995 from typological and quantitative point of view. Kilns 1 and 2 were linked to slightly later pottery contexts, in which it can be noticeable the presence of evolved types of the ‘Italicized’ local red slip tablewares, imitations of Greco-Italic profiles close to Dr. 1A, and also some rim fragments attributable to the earliest examples of T-7430 amphorae<sup>98</sup>. It is also worth noting the presence in this last context of some stamps linked to local amphorae production; the iconographies, functions and stratigraphical location of such stamps were already revised<sup>99</sup>, including the so-called ‘sign of Tanit’, rosettes and diverse variants of the same die showing a human figure packaging into an amphora and with a fish next to the back. As has been already pointed out, this motif constitutes a close parallel to a refuse example found in the context studied in this paper. This relation suggests that the waste and refuse pottery linked to the production of Kilns 1-2 could have ended up inside the ditch uncovered in the Area 4 of 1995 campaign, perhaps during the decades of activity of those structures.

The absence of imports makes it difficult to establish an accurate chronological frame for our deposit, although the lack of certain elements of local productions could constitute significant signs to determine the dating. First, the scarcity of local red slip wares imitating the typical repertoire of Campanian A tablewares<sup>100</sup>; Secondly, there are no traces of local Dr. 1A amphorae or of the initial stages of production of the pseudo-Carthaginian T-7430 amphorae (which manufacture would have started in the third quarter of the 2<sup>nd</sup> c. BC). Therefore, it seems that the completion of the filling process of the ditch of Area 4 can be dated in the transition between the first and the second quarter of the century, possibly not far from 180-150 BC. In any case, it is further evidence of the artisanal activities developed in Torre Alta during the initial decades of

98. Muñoz and Frutos 2006.

99. García 1998.

100. Niveau 2004b; Sousa 2009.

adaptation to the new setting caused by Roman annexation of southern Iberia (*Gades* signed a *foedus* with Rome in 206 BC). The local political stage was settled by the failure of the ‘Lybio-phoenician revolt’ of 197 BC and, mainly, by the beginning of the Roman expansion to Celtiberia, northern Andalusia, the mining districts of Sierra Morena and Lusitania (in this case, both by land and by the so-called “Atlantic route” leading to the Tagus-Sado estuary or even northwestern Iberia, as exemplified by the expedition conducted by *Decimvs Ivnivs Brutvs* in 136-132 BC with Gaditan maritime support).

In brief, regarding functional issues we must conclude that the ditch may have been not a proper waste area but the result of continuous overlapping discharges (for a period that cannot be determined) and also the occasional addition of other items fallen into the ditch because of distinct causes, including the close location of the pit to the area devoted to the maintenance and loading of the kilns. It is possible that the profusion of refused sherds, ashes and adobe fragments could be fitting with a regular cleaning of the nearby kiln structures, such as Kilns 1-2, with which a connection has already been established based on the pottery typology and the presence in both contexts of the same amphorae stamps. Additionally, it seems pretty obvious that the industrial activities of the 2<sup>nd</sup> century BC that originated in both the ditch and the accumulation of materials inside it disrupted layers linked to an earlier phase of pottery production activity developed in the surroundings during the 4<sup>th</sup>-3<sup>rd</sup> centuries BC.

## Between two worlds: old pottery for never-ending methodological debates

Torre Alta workshop was just one spot inside a vast specialized area in ceramic production (the so-called *Antipolis* insular area). Dozens of disperse workshops were distributed in this sector, organized rationally in plots following a regular pattern. Presumably, this organized settlement pattern was a response to a specific economic strategy of *Gadir*<sup>101</sup>, which would have been first developed in the Late Archaic period, linked to the raise of salt-fish product trade as a main resource for the city. Concerning the continuity of the Punic economic models in the amphorae production, as already mentioned, this transitional stage is distinguished by the growth of Italian-inspired forms that had a very secondary role in earlier periods. It is also characterized by

101. Luaces 2015, pp. 254-257.

the introduction of some artisanal techniques, such as ring-shaped supports used for the stacking and loading processes. These minor changes should be included in a general scenario characterized by a first continuation of most of the main features of the previous production (kiln types, building material, organization of workshops, amphorae typologies, etc.) and commercial organization (routes, general urban planning, etc.).

The permanence of the industrial landscape suggests that the political integration of *Gadir* in the Roman World did not directly result in major transformations in the economic activities and infrastructure, at least in the first decades after the annexation. In any case the Gaditan society, and particularly its oligarchic elites who were closely linked to maritime trade, constituted a malleable outfit in a permanent state of transformation. The traditional system collapsed just a few decades after that, as can be exemplified by the abandonment of Torre Alta and most of the workshops on *Antipolis* during the second half of the 2<sup>nd</sup> century BC.

These archaeological data describe a scenario characterized by a substantial conservatism regarding the main economic pillars of Punic *Gadir* (e.g., maritime trade, fish by-products, pottery manufacture, etc.). Nonetheless, the studied assemblage from Torre Alta reflects a first phase of adaptation and change to the new political circumstances. The final abandonment of Torre Alta, and many other similar installations, could be another important sign of a second stage of change: a major re-organization of the previous economic infrastructures headed by more Romanized local elites<sup>102</sup>. These overlapping stages evolved during a long-term process, over at least four/five generations, and as a result emerged a partially Romanized productive schema<sup>103</sup>, a hybrid infrastructure that still kept many features of the former Punic local economy at the beginning of 1<sup>st</sup> century BC. This process may be considered in relation to the *foedus* signed with Rome in 206 BC, an agreement that resulted in a strong link between the two communities and that was strengthened by the clever activities of local elites (as exemplified by the Balbus family, getting closer to Roman power but maintaining some independence for local administration and their own businesses).

These reflections on the historical dimensions of our modest archaeological context from Torre Alta highlight the importance of the debate regarding the definition of “late-Punic” concept and its utilization for material culture studies. In the case of *Gadir*, the available archaeological data clearly indi-

102. Mattingly 2013, pp. 38-42.

103. *Ibid.*, pp. 249-252; Chic 2004, pp. 17-25.

cate the existence of a phase marked by the gradual transformation of the production contexts. These changes took place during a long-term period extended between the late 3<sup>rd</sup> and the 1<sup>st</sup> century BC. At the beginning of this interval, *Gadir* was not strictly Roman from a cultural or economic perspective, but it was not entirely Punic either, as the material culture analyzed in this paper suggest. Given this situation, it can be assumed that the adjective “Roman” could hardly be applied to the local coinage or to the amphorae, red slip or cooking wares produced in its workshops. Some specific amphora types appeared during this early-Roman stage, such as T-12112 and T-7433, but both clearly can be included in the later evolution of local Punic artisanal and economic tradition.

One of the amphora group produced in the former western Punic cities can be exceptionally helpful to define the “Late Punic” debate as it applies to the classification and historical interpretation of material culture, in this period and geographical setting. So far, most of the typological studies developed until present have focused essentially on morphological issues, not taking into enough account some technical data (artisanal details and trends) such as fabrics or manufacturing skills. Local versions of Greco-Italic and Dressel 1 amphorae should be included among the late-Punic types, because they were manufactured in the same workshops by the same potters, and with the same clays and firing techniques as all the other “late-Punic” groups cited above (T-9111, T-8211, T-12112, etc.). In this sense, it is worth noting that not only the workshops of the Bay of Cadiz were involved in the production of those imitations of Italic amphorae, as it seems that the regional ateliers concerned included a long list of coastal major ports in both sides of the Strait of Gibraltar region (but also Ibiza or north-eastern Hispania<sup>104</sup>). The Bay of Cadiz has provided numerous examples of local production of Dr. 1A and 1C amphorae<sup>105</sup>, a group that from a quantitative perspective was increasing its importance until reaching a primary position in the initial decades of the 1<sup>st</sup> century BC. In brief, as well as the local production of Italian Campanian tableware, the production in the “late-Punic West” of these Italizing amphorae groups cannot be considered a residual epiphenomenon, but a full-fledged commercial strategy developed by western Punic elites to facilitate access to the Roman Republic commercial networks<sup>106</sup>.

104. López and Martín 2006, pp. 441-44.

105. García 1996, pp. 53-59; Bustamante and Martín-Arroyo 2005, pp. 442-446; Sáez and Díaz 2007, pp. 196-204; López 2008, pp. 46-67.

106. Cibecchini and Capelli 2013, pp. 424-426.

Obviously, this transitional stage did not only take place in the case of *Gadir/Gades* and many other areas formerly Punic, including Tunisia, Sicily and Sardinia, experienced similar processes of changeover from the Punic to the Roman sphere<sup>107</sup>. We should emphasize the complexity of the cultural crossroad for various Punic sites and the relevance of the debate about “cultural hybridity” for these areas, but also that the ancient Cadiz provide plenty of information regarding this transitional moment. From our current perspective, these multiple sources, such as archaeological data related to technical features, consumption patterns, iconography and coinage, need to be considered together in order to generate complete historical inferences about cultural persistence and hybridization<sup>108</sup>.

This contribution does not intend to put an end to this enriching debate about the terminological and methodological approach of this interesting transition period. But some key proposals can be drawn and added to the discussion, even taking into account the specific case study analyzed. Torre Alta is currently one of the most studied and relevant contexts for the analysis of the economy of *Gadir/Gades* (and a reference of this type of industrial installation in the regional historiographical context). Moreover, the former Phoenician and Punic city of *Gadir* was a major political and economic center during the Classical period, and it became one of the main economic centers of the Western Mediterranean during the late-Republican period. The context used in this pages as case study for the discussion of the “Late Punic” conceptual and methodological frame, dated around 180-150 BC, constitutes a helpful example of the first stages of the integration of the city (and the rest of the region) in the Roman Republic economic and cultural sphere. This is just one of the first published examples outlining the progressive change of the cultural setting of the Bay of Cadiz, not an *unicum*, and it should be connected with other sites of this area such as the workshop of Pery Junquera<sup>109</sup>, in the vicinity of Torre Alta, or the well stratified context of Calle Durango<sup>110</sup>. These various contexts evidence early minor changes in the material repertory during the Roman time, adjustments that consistently transformed the local cultural background.

The archaeological data obtained suggests that this transition to the Roman rule was not subject to a real upheaval. On the contrary, the continuity of the

107. Van Dommelen 2005; Van Dommelen 2006, pp. 135-139.

108. Salvi 1990; Webster 2001, p. 214-223.

109. González *et al.* 2001; Arévalo 2004, pp. 517-521; Arévalo 2005; Bustamante and Martín-Arroyo 2005.

110. Niveau 2003, pp. 202-203, fig. 15, dated in the first decades of the 2<sup>nd</sup> c. BC.

previous economic model is recognizable in the material remains of artifacts and production centers, perhaps including the organization of productive spaces in plots in the southern insular territory. The context includes numismatic evidence, amphorae and other types of ceramics, such as plain and cooking wares, and also red slip tablewares (almost all of them locally produced). The local pottery of the assemblage is clearly characterized by a typological and functional continuity of the Punic tradition. However, as already pointed out, some evidence indicates the presence of forms and artisanal techniques that can be connected with the Roman economic practices and procedures. The analysis of this group of items allows noticing clear signs of cultural and economic hybridization, both in forms and techniques, between the Roman and the local Punic traditions. These material data seem to reinforce the idea reflected by the historiography, via the “Late-Punic” concept, about a continuity of the Punic tradition long after the Roman annexation. In short, Torre Alta’s context suggest that most of the population of southern Hispania, included in the Roman Republic since the end of the 3<sup>rd</sup> century BC, remained close to the previous cultural, economic and social practices and to the material expression of such trends; but as well suggest that some Italic ingredients gradually added, as it is noticeable in this context with the production of red slip or cooking wares, or even the Greco-Italic amphorae imitations.

The discussion about the use of “late-Punic” term, or other terminologies such as “neo-Punic” or “post-Punic”, should reach in the near future a ‘pole position’, as it could provide a common conceptual and methodological scenario to define transition and cultural hybridization during the early Roman expansion. However, besides encouraging the terminological debate, the main goal of this archaeological approach has been to emphasize the existence of complex cultural and economic phenomena that can be identified (at least, partially) through the material culture studies. These transitional phases have been overshadowed by a sometimes rigid use of the historical cultural envelopes and chronologies and the heavy weight of classical historiography that sharply separated the Roman and Greeks from other coeval Mediterranean cultures. Quite often, historians had analyzed the ancient Mediterranean as a string of strictly defined periods and cultures, with only slight mutual links. Archaeological finds have provided us facts that suggest a much more complex cultural and social diversity and interaction.

Our contribution about the “Late-Punic” Mediterranean and its conceptual background can be included in a deeper debate, already initiated in this jour-

nal, about “the simultaneous coexistence of diverse culture-systems”<sup>111</sup>, a major topic that exceeds the aims of our modest archaeological approach. Although different in their methods, the interaction between History (understood as a “classical” and theoretical discipline) and Archaeology is as relevant as it is necessary. Cases such as the one discussed in these pages draw attention on the importance of archaeological discoveries, even minor contexts or isolated vessels, to push forward this intricate conceptual and epistemological debate about the interpretation of ancient items and their cultural-historical meaning. In general, artifacts have tended to be used as a passive mirror of historical facts and processes by modern historiography, but it could be more fruitful to use material culture as an active result from its historical environment.

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111. Lund et al. 2013, p. 8.

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# LIFE BEHIND THE POTTERS' WHEEL

## THE SOCIO-ECONOMIC STATUS OF THE ROMAN POTTER IN THE 1ST CENTURY *CIVITAS TUNGRORUM*

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### Introduction

Tongeren (Atuatuca Tungrorum) was the capital of the *civitas* of the Tungri (Gallia Belgica).<sup>1</sup> The settlement was established around 10 BC<sup>2</sup> and was one of the earliest attempts in the north-western frontier zone of the Roman Empire to establish a Roman infrastructure (especially roads), including larger settlements. In the course of the 1st century, the settlement grew and became one of the major urban centres in the north-western part of the Empire. Excavations not only reveal the architectural remains of the wealthy houses (the urban elite) but also sites of artisanal activity. These crafts were conducted both in quarters at the outskirts of town as well as in the town centre.<sup>3</sup>

Within the study of Roman provincial archaeology, the process of Romanisation plays an important role in describing (and aiming to understand) the

1. Although Tongeren was the *civitas* capital (*caput civitates*), during the Flavian period it had not acquired market rights and cannot be described as a Roman city. Therefore the term town and administrative centre is used in this article. After the reforms of the north-western provinces at the end of the 1st century AD, Tongeren became part of the province Germania Inferior. During the 2nd century AD Tongeren got market rights and can be described as a *municipium*.
2. Vanderhoeven 1996, pp. 220-221.
3. Vanderhoeven and Ervynck 2007; Veldman *et al.* 2014.

way tribal societies in the north-western empire changed into (more or less) Romanised groups, of which the cultural remains are found in towns such as Tongeren.<sup>4</sup> Romanisation is a heavily debated subject which, dealing with the find assemblages presented here, may deserve a contribution of its own. Within the framework of this study, the process is not seen as a one way route ('being Roman' imposed from above, or solely adapted from below) nor as a parallel trajectory. It seems better to define the process as a series of trajectories which affected different groups in different regions in various ways and timeframes.<sup>5</sup> This process particularly comes to light when studying the rise of urban centres and the development of urban-countryside relations in different parts of the Roman world. Especially the regions without pre-Roman urban landscapes (such as the later province *Germania Inferior*) provide a good opportunity to study this phenomenon. When focusing upon the 2nd and (early) 3rd century AD, Tongeren can be described as a thriving town supported by a countryside capable of producing surplus production through the economic activity of *villae*.<sup>6</sup> At that moment in time, one may state that the inhabitants of Tongeren (including the rural elite) and huge parts of the economic production system were Romanised. However, how did this process (or - better - these multiple processes) start? Who were the inhabitants of the urban centre in the 1st century and when was the rural surplus production, needed to maintain the urban society, fully developed? Also, what was the provenance of the technological know-how characterising the craftsmanship at Tongeren, at least from the middle of the 1st century AD onwards? Does this knowledge (partly) originate from the background of its inhabitants? Was Tongeren populated by the rural elite, former farmers and their servants, or did a considerable number of its inhabitants come from elsewhere, being Roman civilians, traders and craftsmen, or their descendants? Especially craftsmen form an interesting group, due to the high level of 'semi-industrial' activity (pottery, metal working, building construction) found in 1st century Tongeren, much more developed compared to the contemporary Roman (small) towns in the province.

Although today, in modern western society, entrepreneurship is admired, the artisans themselves are not regarded as members of the upper class. They are merely seen as middle to low class necessities in order to maintain a certain level of urban life. In classical literature, it seems that the Roman elite shared the same opinion.<sup>7</sup> Still, it has to be realised that this view is the result

4. Cf. Roymans 2004; Heeren 2009; Vanderhoeven 1996.
5. Cf. Heeren 2009; Mattingly 2004; Versluys 2014.
6. Cf. Roymans & Derks 2012.
7. Cf. Schiavone 2000.

of the interpretation of texts in which only the upper high class (mainly living in Rome and in the Italian countryside) expressed their point of view. Possibly, in the Roman provinces, especially those far away from Rome, these groups of craftsmen were valued differently. A possible evaluation for this interpretation is the position of workshops in urban centres in the north-western part of the Empire, as they are found throughout the whole centre of these sites, and not only at the outskirts.<sup>8</sup> This suggests that artisanal activity was part of everyday town life, also in the vicinity of the wealthy.

In general, groups of craftsmen are seldomly analysed from a socio-economic perspective. Their products have predominantly been studied, but not the people themselves. This contribution aims to describe the material culture of a group of potters working in Flavian Tongeren. It is known that, at that time, potters were active in town but until recently their kilns were never identified.<sup>9</sup> During recent excavations at the Beukenbergweg, not only kilns were found but also a number of find assemblages containing consumption refuse and remains of the material culture of the potters themselves. In this study, the focus lays on these aspects of material culture and on the possibilities to establish the whereabouts, role and status of the potters within the urban society of Tongeren, in Flavian times.

## The potters' quarter at the Beukenbergweg

The excavation at the Beukenbergweg was situated on top of a hill, and on its western slope (FIG. 1).<sup>10</sup> There are no signs that the area was in use during the Late Iron Age. The earliest remnants found are inhumation graves, probably dating in the first half of the 1st century AD. After that, a potters' quarter was located on the precinct. It remained in use during the Flavian period. In the beginning of the 2nd century the potters moved away, allowing a covering layer to accumulate on top of their industrial remains. This probably occurred during an attempt to create space for the construction of both the wall of the Roman town and an *insula*. Due to the fact that most of the features related to the potters' activities were situated on the slope of the hill, they became covered by a thick soil layer. During the excavation, up to 5 meters of topsoil had to be removed in order to reach the level with features dating to the Flavian period. Because of these (extremely favourable) circumstances it is not only possible to reconstruct almost the entire

8. Duvauchelle 2012; Höpken 2001, pp. 134-135.

9. See, e.g., Breuer 1940; Vanvinckenroye 1967, 1968, 1969, 1991 and Vilvorder *et al.* 2010.

10. See Veldman *et al.* 2014 for the original excavation report.



FIG. 1. Tongeren-Beukenbergweg: Location of the excavation (dark grey area) on a map of 2nd century Roman Tongeren (Belgium). Legend: grey area, wet area around the rivers, dark grey lines, rivers; light grey lines 1st century roads; black lines 2nd century additions to the roads; black dashed line, 2nd century city walls; crosses, cemeteries; triangles and star, potters' and tile workshops.

*chaîne opératoire* of the pottery production, but due to a number of contexts containing consumption refuse, it was also possible to draw a number of conclusions about the socio-economic status of the potters themselves. These assemblages are important for the socio-economic study of Roman provincial craftsmanship because only in rare occasions material culture can be linked to its owners, certainly when taking into account the taphonomic complexities related to the heavy usage of terrains, traditionally encountered within urban archaeology.

The features excavated comprise four wells, two clay pits, four kilns and two refuse pits, while traces of houses were not found (FIG. 2).

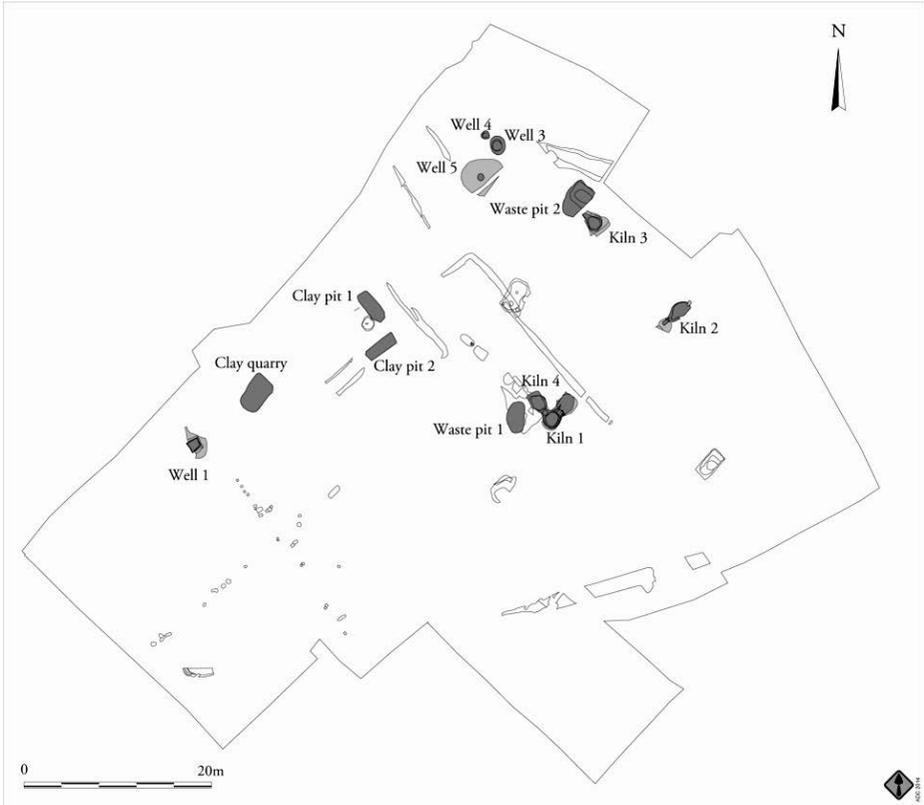


FIG. 2. Tongeren-Beukenbergweg: Overview of the potters' quarter including the features discussed.

It is beyond the scope of this article to discuss the entire range of pottery produced in the potters' quarter. The typology of the wares has been published elsewhere and will only shortly be presented here.<sup>11</sup> It is known from a number of consumption sites that the potters from Tongeren produced various cooking and communal wares. However, the over 60.000 sherds from the kilns and waste pits now provide a more refined picture of the pottery production at the 1st century town. It is now clear that, next to the cooking wares and communal pottery, also Gallo-Belgic wares, fine wares and cultic ware were produced at Tongeren.

11. See for a more detailed overview of the product range: Geerts *et al.* 2014; Geerts *et al.* forthcoming; Veldman and Geerts 2014.

The assemblage recovered in the potters' quarter shows a strong similarity to the wares found at consumption sites.<sup>12</sup> Pottery produced on the site comprises *terra rubra* beakers, *terra nigra* pots and plates, white slipped jugs, storage jars, *mortaria* and amphorae, and reduced cooking pots and *balsamaria*.

Before the Beukenbergweg excavation Gallo Belgic ware was not considered to be produced in Tongeren. Although the waste of this, now established production cannot be used for the evaluation of the material culture of the potters themselves, the close correlation between the items from Tongeren and that from other production sites such as Cologne, Xanten and Nijmegen (the three also being the major administrative centres of their civitates during Flavian times) provides an indication of the social background of the potters themselves (see below).<sup>13</sup>

## The material culture of the potters

As mentioned, most of the ceramics from the excavation derives from the production process. However, in the refuse pits, finds associated with the everyday life of the potters were also identified. One of the wells was filled with material that can be ascribed to the consumption patterns of the potters themselves (FIG. 3). Due to the favourable preservation, organic finds, such as archaeozoological and archaeobotanical material, were also recovered from the pit. The well was presumably filled at the moment the potters left the area, when the area was cleaned, as potters usually were obliged to do by contract.<sup>14</sup> Those contracts describe the duties and rights of the potter to his 'employer' and came in three varieties: land leases, contracts on the output of the kiln and a combination of both.<sup>15</sup> It has been argued elsewhere that those (mainly Egyptian) contracts closely resemble the organisation of the South-Gaulish *terra sigillata* industry.<sup>16</sup> By extent similar practices could have occurred in the north-western part of the empire, including Tongeren.

The assemblage from the well may shed light on the material culture and social status of the potters, especially when compared to other well-known assemblages from excavations in the centre of Tongeren, dating to the same period. The oak construction of the well could be dated by dendrochronology

12. Deru 1996, pp. 171-172; Hanut 2010.
13. Haalebos 1992; Höpken 2005; Liesen 1994.
14. Mees 2002.
15. Cockle 1981; Mees 2002, pp. 209.
16. Haalebos et al. 1991, pp. 81.

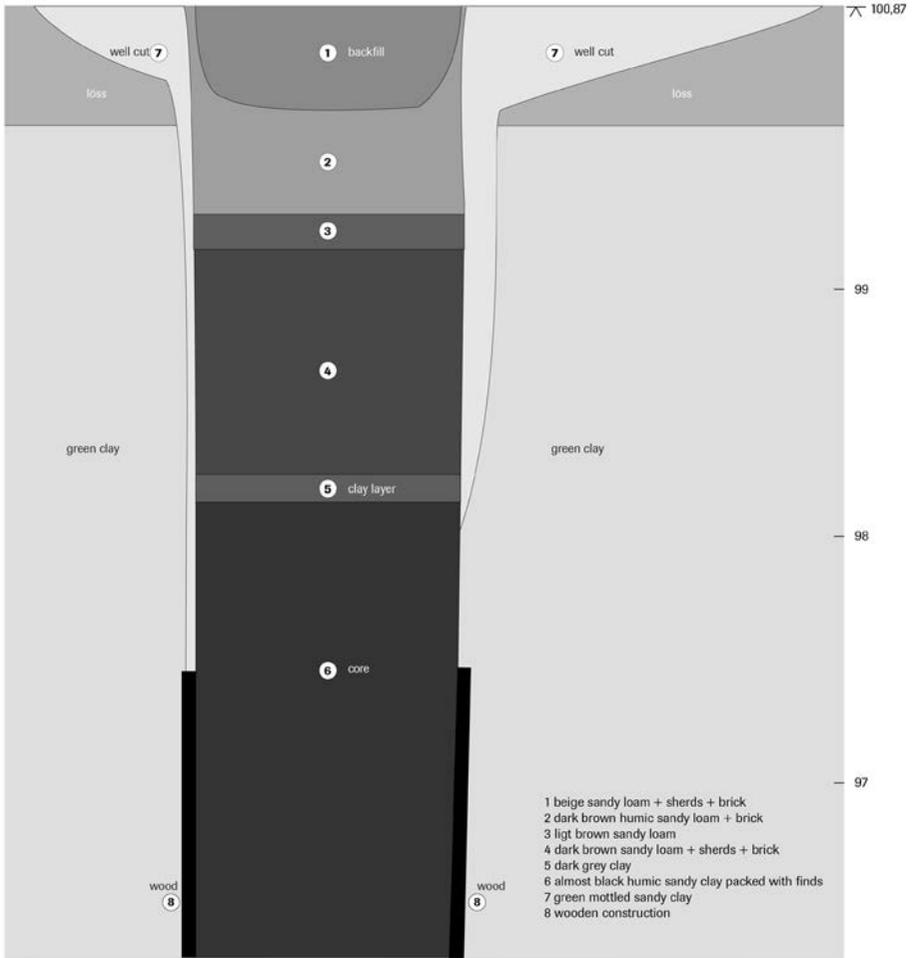


FIG. 3. Tongeren-Beukenbergweg: The well used by the potters.

to AD 71, just after the Batavian revolt. Around this time the potters' quarter must have been put into use and the dating of the pottery waste and the filling of the well suggest the site being functioning for almost two decades.<sup>17</sup> This means that the material culture studied here can be dated towards AD 90.

17. The feature is interpreted as a well but it's possible that in its final stage this well was used as a cesspit.

## POTTERY

In total, the well contained sherds from 115 vessels (FIG. 4). Two thirds of these sherds are clearly wasters associated with local production. Those wasters are characterised by cracks, disfiguration and discolouring. All the other pottery found was imported and these vessels give most insight into the potters themselves. Of course, the wasters may have been used as well, as discoloured vessels are not marketable but still perfectly usable. This is also the case with some of the slightly disfigured vessels. Similar practices of the use of lower quality products are observed within other parts of the Roman Empire.<sup>18</sup>

The *amphorae* and Halterner Kochtöpf indicate that the potters had access to Spanish olive oil, wine from Gallia Narbonensis and delicacies from the Ardennes, or the region between Sambre and Meuse.<sup>19</sup> *Amphorae* from other contexts indicate that the craftsmen also had access to Mediterranean fish sauce.<sup>20</sup> Next to these larger transport vessels some fine wares were discarded in the well, i.e., a colour coated beaker from Cologne, Pompeian Red ware and *terra sigillata* from La Graufesenque. About one sixth of the total amount of sherds consists of *terra sigillata*, i.e., several plates Dragendorff 15/17R, 18 and many small cups, Dragendorff 27, 33 and 35. Four potters' stamps date the assemblage to the (late) Flavian period.

The pottery from the well indicates that the potters had access to various food products and relatively large quantities of luxurious pottery like the *terra sigillata*. Although this pattern is less obvious within the other features in the potters' quarter, due to the large quantities of wasters, similar pottery has been discovered there as well.

## BOTANICAL REMAINS

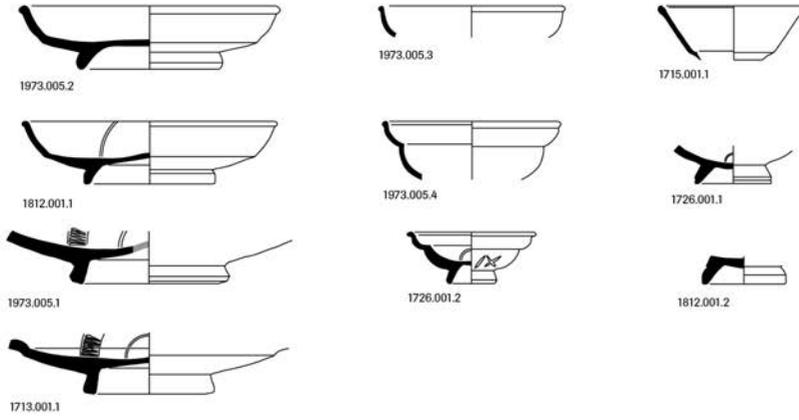
The waterlogged conditions of the well resulted in the preservation of a large quantity of botanical macroremains, providing detailed information on the

18. Peña 2007, pp. 33-34 and 193-208 with further references.

19. The Halterner Kochtöpf is a vessel used for the transport of delicacies, as evidence from Nijmegen suggests (Lauwerier 1993; Lauwerier 1995; Tuijn 1998), but this one vessel cannot be used as evidence that all such vessels were used solely for that purpose, see Lepot and Vilvorder 2015, pp. 240.

20. Fragments of Beltran IIA amphorae have been recovered from one of the kilns. Fish sauce was imported from the Mediterranean during the Flavian period. Only during the 2nd and 3rd century AD, there is evidence of production in the north-western Roman Empire, see Van Neer *et al.* 2010, pp. 175-179 for an overview.

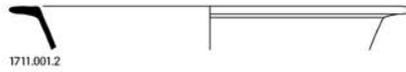
terra sigillata



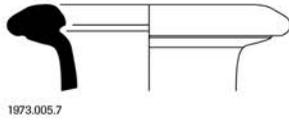
mica dusted ware



Pompeian Red ware



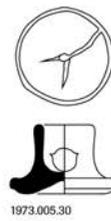
amphora



jug



candelabra?



cooking ware

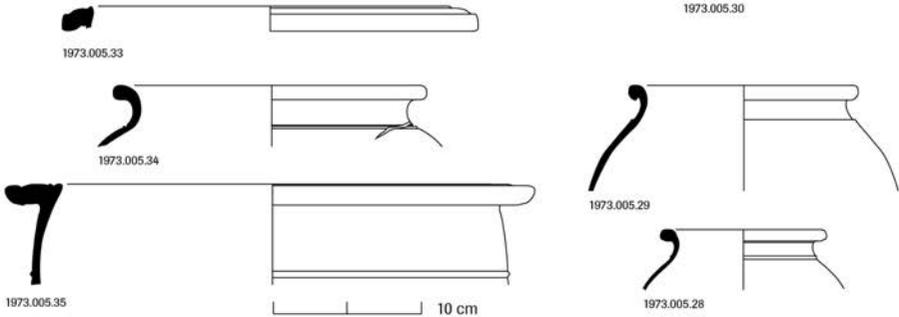


FIG. 4. Tongeren-Beukenbergweg: The pottery from the well.

plant-based part of the potters' diet (TABLE 1).<sup>21</sup> For example, bran fragments of cereals were abundant in the record. These fragments were probably deposited in the well as part of human excrements. Due to the strong fragmentation of these remains, it was not possible to determine what kind of cereals these concerned. Pollen grains of cereals were also present in the well. These likely originate from thrashing activities at or near the site, which suggests that local processing of cereals took place. Botanical remains further include a large variety of indigenous fruit species, such as cherries, wild strawberries, apples, pears, sloes, elderberries, raspberries and blackberries. These species, as well as hazelnuts, could all be gathered locally. The Roman inhabitants introduced cultivation of fruit species, such as apples, pears and cherries, in orchards. Plums and walnuts, both Roman introductions, were also grown in orchards. The herbs dill and coriander are Roman introductions as well, thus reflecting additional Roman influence on the potters' diet. Finally, remains of both grapes and figs were abundant amongst the contents of the well. Figs were imported from the Mediterranean region, and probably grapes as well.

TABLE 1. An overview of the botanical remains from the well. M = macroremain sample, P = pollen sample. + = 1-10, ++ = 11-100, +++ = 101-1000, ++++ = > 1000.

	Sample nr.	1716	1725	1912
Latin name	English name	M	M	P
<b>Cereals</b>				
<i>Cerealia indet.</i>	Cereals		++++ fragments	++
<i>Panicum miliaceum</i>	European millet		+	
<b>Herbs</b>				
<i>Anethum graveolens</i>	Dill		+	
<i>Coriandrum sativum</i>	Coriander	+	++	
<b>Legumes</b>				
<i>Vicia faba</i>	Broad bean			+
<b>Fruit</b>				
<i>Ficus carica</i>	Fig	+++	++++	
<i>Fragaria vesca</i>	Wild strawberry		++	
<i>Malus domestica/</i> <i>M. sylvestris/ Pyrus</i> <i>communis/ P. pyraster</i>	Apple/Pear		++	
<i>Prunus avium</i>	Sweet cherry		+++	
<i>Prunus spinosa</i>	Sloe		+++	
<i>Prunus domestica</i>	Plum		++	
<i>Rubus fruticosus</i>	Blackberry	++	++	

21. van Asch 2014.

	Sample nr.	1716	1725	1912
Latin name	English name	M	M	P
<i>Rubus idaeus</i>	Raspberry		+	
<i>Sambucus nigra</i>	Elderberry	+	++	
<i>Vitis vinifera</i>	Grape	+	++	
<b>Nuts</b>				
<i>Corylus avellana</i>	Hazelnut		+	
<i>Juglans regia</i>	Walnut		+	

### ANIMAL BONES

Amongst the 964 animal remains, those representing consumption refuse derive from cattle, sheep or goat (with both species present), pig, roe deer, hare, domestic fowl, a dove species, a swan species and perch.<sup>22</sup> Cattle was the most important meat supplier (57%) followed by pig (23%) and sheep or goat (20%).<sup>23</sup> The slaughter age of the animals indicates that the cows had served as dairy producers before they were slaughtered while other cattle bones show the pathologies characteristic for a life as traction animals. Only a small number of cattle was slaughtered at a young age. The same is true for the sheep (and goat) that must primarily have been kept for their wool. Wild animals and domestic fowl were present within the daily diet but only on a small scale. Within the group of consumed mammals, wild species only amount to 1%.

One of the roe deer bones was worked and should thus not be regarded as consumption refuse.

### GLASS

Five pieces of glass comprise a dark green game counter, and blue and yellow pieces with external ribs. These ribbed fragments are too thin to represent pillar-moulded bowls; presumably these fragments are of thin walled vessels, *ollae*, bowls or flasks (with or without handles), maybe even drinking glasses.<sup>24</sup> These vessel types are common for the Flavian period and all represent tableware.<sup>25</sup> Sixteen other glass fragments, from features related to the work-

22. van Dijk and Rijkelijkhuisen 2014, table 12.3.

23. The total number of finds for these three groups is 350: van Dijk and Rijkelijkhuisen 2014, table 12.3.

24. Hanut 2006, pp. 18 fig. 6, les principaux types de la période flavienne.

25. Ribbed glass *ollae* were intended for use at the table, not for storage or cooking. Glass storage vessels are more common, and tablewares are less common, in the 2nd century AD, see van Lith and Randsborg 1985, pp. 463.

shops, comprise one pillar-moulded bowl, three bottles,<sup>26</sup> a melon bead, and many non-diagnostic body sherds. It is not surprising that the potters had access to glass vessels, as Tongeren was located on the roads from Cologne to Boulogne-sur-Mer, and from Xanten to Lyon, and thus was connected with the glass manufacturing and market sites of Cologne and Lyon, two main glass centres in the Northwest.<sup>27</sup> During the Flavian period, glass was no longer reserved for the elite, making it possible that the potters could afford commodities such as glass vessels. It is clear from the finds that the potters had access to most types of glass vessels available in Tongeren.<sup>28</sup>

#### METAL

Within the well, three metal objects were found: a *fibula*, a bell and a piece of a lock. The *fibula* resembles the Almgren 2 and 16 types and can therefore be dated in the second half of the 1st century AD.

#### LEATHER

The sole of a right shoe has also been found in the well. It has a slender appearance, with a large number of shoe nails and presumably had a closed vamp. When compared to other shoes, the piece appears to have been well executed and was much slimmer than examples from the harbour at Velsen (the Netherlands).<sup>29</sup>

#### WOOD

Due to the waterlogged conditions in the well, various wooden objects have been preserved, ranging from a trough and two well executed plugs, to twenty fragments of writing tablets (FIG. 5). The latter were broken along the graining of the wood. In between two of the more complete tablets, a bronze plaque was enclosed. Unfortunately, none of the tablets, wood or bronze, contained any discernible traces of writing.

26. These bottles were often used in the north-west as table wares, as is demonstrated on (grave)reliefs (Landesmuseum Bonn, Rijksmuseum voor Oudheden Leiden) and in the Simpelveld sarcophagus; van den Dries 2007, pp. 72.

27. van den Dries 2007, pp. 15; Hanut 2006, pp. 16.

28. van den Dries 2007, pp. 85; Hanut 2006, pp. 16 and 18.

29. van Driel-Murray (Leiden University) personal communication.

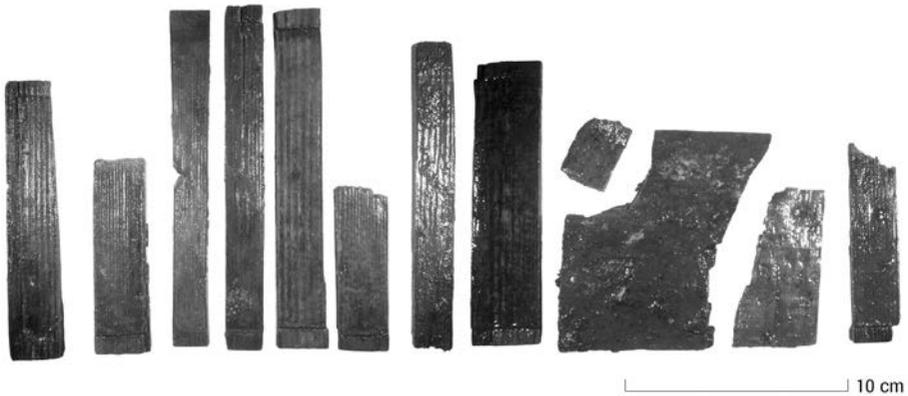


FIG. 5. Tongeren-Beukenbergweg: The writing tablets from the well.

## Discussion

### THE FIND ASSEMBLAGE COMPARED TO OTHER KNOWN FIND ASSEMBLAGES FROM TONGEREN

Within the centre of the Roman town of Tongeren, several excavations have taken place which can be compared to the site at the Beukenbergweg.<sup>30</sup> At the Kielenstraat, not only the earliest traces of Tongeren were found, but also a detailed chronology of habitation phases could be established for the 1st century AD.<sup>31</sup> These phases were defined on the basis of the stratigraphy of the site, while several cultural and palaeo-ecological assemblages representing these phases were also distinguished (see below). Later excavations produced results that backed up and refined these results.<sup>32</sup>

On other sites, the combination of a 'rich' urban architecture dating from the Flavian period, and find assemblages indicating craft activities in the centre of Roman Tongeren is interesting. In the Hondstraat, a luxurious porticus house was excavated and within its backyard pits were found containing thousands of fragments of cattle bones. These indicate the processing of animal bones on an almost industrial scale.<sup>33</sup> An excavation at the Elisabethwal (in the neighbourhood of the Hondstraat) also revealed traces

30. Cf Vanderhoeven 1996; Vanderhoeven 2013, pp. 392.

31. Vanderhoeven 1996.

32. Vanderhoeven 2013, 398.

33. Vanderhoeven and Ervynck 2007.

of the processing of animal products, i.e. tanning and (probably) hornworking.<sup>34</sup> Nevertheless, the buildings from this excavation were of a considerable status. Within Roman Tongeren the workshops of craftsmen and 'rich' living quarters were thus clearly mixed, even when these crafts were not free of odours.<sup>35</sup> It has been suggested that they were used for different functions at different times of the year<sup>36</sup> but, at the moment, this cannot be proven.

What do these observations mean for the interpretation of the data from the Beukenbergweg? The remains found in the well give an insight into the potters' daily life but, unfortunately, there is no comparable assemblage which produced all the material discussed above, implying that we have to look at a variety of other archaeological assemblages in order to find out more about the socio-economic position of the potters within the urban society of Tongeren.

Comparing the pottery used by the potters with other assemblages within the town is not without risks. As there is no evidence that the potters lived in the workshops, their pottery is by no means directly comparable to a regular household assemblage, possibly explaining the lack of storage and cooking vessels. Nonetheless, a number of preliminary observations can be made. Most of the pottery (and glass ware) consists of tablewares, mainly *terra sigillata*. Some of the other transport vessels show that the potters had access to Spanish olive oil, fish sauce from the Mediterranean, wine from southern Gaul and delicacies from the Rhineland. Possibly, they did consume those foodstuffs during the workday, at the workshop on their *sigillata* plates, and took their drinks in glass bottles.

When the pottery assemblage from the well is compared to other Flavian contexts from the town, differences can be seen.<sup>37</sup> The pottery from period III at the Veemarkt, covering the Flavian period and the early 2nd century AD, comprises vessels and types similar to the finds from the Beukenbergweg well. However, following the subdivision made for the Veemarkt assemblage, a comparison of the percentages of table ware, kitchen ware and storage vessels shows striking differences between both sites (TABLE 2), even taking into account that the assemblage from the well is smaller than the Veemarkt assemblage. The large amount of table ware from the Beukenbergweg is possibly not unexpected, as the workshop is the location where the pot-

34. Vanderhoeven and Ervynck 2007.

35. Vanderhoeven 2013, pp. 402.

36. Vanderhoeven 2015, pp. 206. This analysis includes the data from the Beukenbergweg excavations.

37. Vanderhoeven *et al.* 1993, pp. 174-175.

ters worked and ate. In contrast, the Veemarkt was part of an *insula* where food was not only eaten but also stored and processed, leading to a different composition of ceramic remains. Although most of the differences can be explained by the use of the area, some differences nonetheless remain striking. In the well, virtually no drinking vessels have been found, as is the case with storage vessels and, to a lesser extent, kitchen ware. It may be the case that the potters did not cook their food at the workshop, or that they used some of the wasters. The possible use of wasters indeed hampers the interpretation of the pottery assemblage because these vessels might have had a functional use, while it is hard to differentiate them from the 'true' discarded wasters. In conclusion, the potters seem to have had access to similar vessels as the people living in the town proper, while, at the same time, the large amount of luxury table ware remains striking.

TABLE 2. Comparison of the pottery assemblage of the well in the potters' quarters to that from the Veemarkt.

		Veemarkt			Beukenbergweg		
		N	%	Total %	N	%	Total %
<b>Table ware</b>	Terra sigillata	40	5		25	16	
	Colour coated	60	8		1	1	
	Terra rubra	1	1		6	4	
	Terra nigra	33	4		26	17	
	Beakers	7	1				
	Pompeian red ware				2	1	
	Halterner Kochtöpf	4	1		3	2	
	Mica dusted ware	4	1		6	4	
				<b>21</b>			<b>45</b>
<b>Kitchen ware</b>	Smooth walled ware	315	42		2	1	
	Cooking ware	99	13		71	44	
	Mortaria	17	2				
				<b>57</b>			<b>45</b>
<b>Storage vessels</b>	Dolia	16	2				
	Amphorae	152	20		15	10	
				<b>22</b>			<b>10</b>

The poor preservation of botanical remains at Roman Tongeren makes it difficult to interpret these finds. Still, the plants identified from the well are similar to those previously found in the town centre, although the dating

of the contexts is not always comparable.<sup>38</sup> These results indicate that the potters had access to the same products, including imported fruits, as the Roman citizens living in the town centre.

When the data from the well at Tongeren is compared to data found in rural settlements (of Flavian date), it can be concluded that the Tongeren complex is relatively rich and diversified. Most of the herbs and fruits with a Mediterranean provenance have also been found in rural, Gallo-Roman contexts but most of these date from the 2nd or even 3rd century AD.<sup>39</sup> This pattern refers to the differences between town and countryside (at least during the Flavian period) but does not tell anything about the social status of the potters within town. Still, it is clear that in a period during which the diet did not alter much in rural settlements, the potters of Tongeren were accustomed to a more Mediterranean way of living.

A recent review of the main archaeozoological assemblages from Tongeren demonstrates the potential of the animal remains to trace differences in purchasing power or status between several sites within town.<sup>40</sup> Regardless of the broad dating ranges applied, of the chronological differences between the sites, and only taking into account general waste contexts, there is a gradual declining trend in the consumption of pork, from the centre of town towards its periphery. The same is true for the consumption of the meat from wild mammals. Both proxies indicate a lower purchasing power, and thus social status, for the people living (or working) at the edge of town. Another characteristic of the Beukenbergweg assemblage, i.e. the low frequency of young animals in the slaughtered populations of cattle and sheep and goat, proves to be a general pattern in all Roman general waste contexts studied from Tongeren.<sup>41</sup> This pattern can thus not be seen as an indication for a low purchasing power of the local potters.

Although no texts were found on the writing tablets, it can be assumed that the potters were literate people and used writing as part of their commercial activities.<sup>42</sup> However, little is known about literacy in the north-western part of the empire. Derks and Roymans claimed the majority of the people in

38. Cooremans in press; Vanderhoeven *et al.* 1993.

39. Cooremans in press.

40. Ervynck *et al.* in press.

41. Ervynck *et al.* in press.

42. That (some) contemporary potters were literate is shown by the numerous graffiti from La Graufesenque (Millau, France), see for instance Marichal 1988. The first evidence of literate potters in the *civitas* is found in Heerlen, see Van Kerckhove and Boreel 2014, pp. 259 and 271 and Haalebos 1997, pp. 31-33. During the 2nd and 3rd century AD the

the Batavian settlements to be literate to some extent, a conclusion based upon the study of so-called seal boxes.<sup>43</sup> Most of them, however, are dated in the late 1st and 2nd century AD. The spread of literacy was probably caused by communication of soldiers and veterans with their homeland. The finds at Vindolanda, and recently at the Dutch fort of Vechten, point towards a frequent use of administrative documents within the military.<sup>44</sup> A (basic) knowledge of the Roman (literate) administration also seemed to be a necessity for the rural populations. It can be assumed that a basic knowledge of Latin developed over time. Within the Batavian frontier zone, this knowledge spread from the end of the 1st century AD onwards but within Gallia Belgica and Lugdunensis (especially the latter), it probably may have spread much earlier. From a social point of view, the finds of writing tablets do not contribute much to the discussion of social status but the artefacts indicate that, in the early years of the Flavian period, the potters were literate.

POTTERY PRODUCTION IN TONGEREN AND THE RHINELAND:  
A GROUP OF WANDERING CRAFTSMEN?

The production of pottery in several central locations in the Rhineland region can be seen as an example of a creative boom during the Flavian period. The end of the great military campaigns into the Rhineland, during the reign of Tiberius (AD 14-37), brought an end to the import of Italian pottery. This not only made it possible for the South-Gaulish *sigillata* industry to flourish and develop, but also was a stimulus for the pottery production in the Rhineland. During the reign of Claudius (AD 41-54), the Roman border, the Limes, was secured and many forts were constructed. These forts needed supplies and thereby stimulated the local economy and pottery production. During this period, the pottery production in the Rhineland acquired its own distinctive character.<sup>45</sup> The subsequent Batavian Revolt (AD 69/70) did not cause a break in the pottery development in the larger region; the scale and vessel shapes increased in variety through time. The first workshops were small in size and in close proximity to military forts or (small) vici, but during the 1st and early 2nd century the number of workshops increased.<sup>46</sup> With the growing demand of pottery, workshops started

evidence of literacy amongst craftsman is more common, see for instance Aubert and Raepsaet 2011, pp. 155-156.

43. Derks and Roymans 2002.

44. Bowman *et al.* 2010; Derks and Vos 2015.

45. Haalebos 1992, pp. 365.

46. Clerbaut 2010, pp. 55.

to serve a larger, more regional market. Most workshops were then clustered near vici or the large urban centres in the region.

When the potters' products from Tongeren are compared with other workshops known from urban centres in Germania Inferior (Heerlen, Cologne, Xanten and Nijmegen), striking similarities can be observed, both in dating and range of products.<sup>47</sup> Pottery production at Nijmegen and Heerlen also started after the Batavian Revolt<sup>48</sup>, whereas the production in Xanten, Cologne and Tongeren started earlier but received a new impulse during the same period.<sup>49</sup>

Although it is not the case that all workshops produced identical types of pottery, Gallo-Belgic wares, jugs, cooking wares, *mortaria* and *dolia* were common in all centres, and similar in shape. Other pottery types, such as colour coated wares, mica dusted wares, face pots, *balsamaria* or *sigillata* imitations, were produced in a number of those workshops as well. The production of Gallo-Belgic wares was mainly confined to Gallia Belgica, with most of the production centres situated in Northern France and Belgium, as well as Germania Inferior.<sup>50</sup> The vessel forms were mainly derived from (Italian) *terra sigillata* but Central Gaulish Celtic influences can also be identified, albeit in a minority of the vessel forms. Whether the potters in Tongeren were influenced by the potters from the Rhineland in producing Gallo-Belgic wares or by potters from further south in Gallia Belgica cannot be determined, although the latter is more feasible, since the production of Gallo-Belgic wares has a longer tradition there.

It has been suggested that the production of colour coated ware in Cologne only started after potters from Nijmegen arrived there, at the end of the 1st century AD.<sup>51</sup> Pottery in Tongeren was produced in the same tradition as the pottery in the Rhineland; similar vessel shapes were in use in regions that extended well beyond the borders of the *civitas*.<sup>52</sup> The fact that potters relocated during the Flavian period has been proven to a minor extent.<sup>53</sup>

47. See for instance Höpken 2005, pp. 57; Vilvorder *et al.* 2010, pp. 253-254.

48. Hendriks 2014, pp. 182; Van Kerckhove and Boreel 2014, pp. 275.

49. Höpken 2005, pp. 56-57; Liesen 1994, pp. 141; pers. com. A. Vanderhoeven (Agentschap Onroerend Erfgoed).

50. Deru 1996, pp. 263-264.

51. Höpken 2005, pp. 57.

52. Lepot 2012, pp. 312; Lepot and Espel 2010, pp. 236.

53. Not only does the stamped *terra sigillata* evidence wandering potters in the north-western part of the Roman Empire, as first described in detail by Hartley in 1977. Also stamped *mortaria* show a movement of the Atisii potters from the Rhône valley to Bavay during the Flavian period, see Vilvorder and Vanderhoeven 2001, pp. 70-71.

Although the possibility exists that a number of potters relocated after the Batavian Revolt, to establish new workshops near the larger urban centres, a local tradition and the influences by traded pottery can have been the instigators of the production of similar vessels throughout a larger region.

#### POPULATING THE NEW CITIES: WHERE DID THE POTTERS COME FROM?

After the pacification process in the north-western part of the Empire, during the reign of Augustus, it was Claudius who developed a first concept of a Limes. In the present day The Netherlands, the origins of several forts along the Rhine, together with early, urban-like centres such as Oppidum Batavorum (Nijmegen), can fit into this scheme. In present day Germany, the Roman colonies of Xanten and Cologne (both founded in Augustan times) were raised and further developed in close connection to a military presence. These sites seem to represent early administrative centres, although for Tongeren, as for Oppidum Batavorum, direct proof for this theory is still lacking.

Several excavations at Tongeren, especially those carried out at the Kielenstraat, give insight into the origins of the founding population of Tongeren.<sup>54</sup> Vanderhoeven states that, after a military involvement, the regional elite of the Tungri inhabited the new town. First, their dwellings were not different from traditional rural houses (of the Alphen-Ekeren type) but within a generation the first Romanised buildings were constructed.<sup>55</sup> It can be concluded that, with these developments, the rural population became 'urban' and that the production of rural products for a large part disappeared from the urban centre. Consequently, the initial success of Tongeren as an urban (administrative) centre was probably due to the presence of local elite groups in the first half of the 1st century AD. Vanderhoeven states that this rapid urbanisation can be explained because the hinterland of Tongeren was more receptive to urbanisation than the 'Germanic' Rhineland.<sup>56</sup> During the (pre)-Flavian period not only Romanised houses appeared but also large amounts of artisanal activities, fitting within the Romanised way of life (see above). Contrary to the potters' quarter, these artisanal activities did not exclusively settle in the outskirts of Tongeren but also appeared in the central part of town.<sup>57</sup> After the initial phase of the town development, any involvement of the military seems to have remained absent, apart from the veterans

54. Vanderhoeven 1996; Vanderhoeven 2013.

55. Vanderhoeven 1996, pp. 242.

56. Vanderhoeven 2001, 176.

57. Vanderhoeven and Ervynck 2007.

returning home after their military duty (the *civitas* of the Tungri had to maintain three *cohorts* and an *ala*).<sup>58</sup>

When the building styles and material culture from Tongeren are compared with the rural settlements in the vicinity, a number of differences can be noted. Although it is known from several villa sites that the first habitation phase took place in the first half of the 1st century, the indications for stone building before the Late Flavian period are scarce.<sup>59</sup> Although in the second generation of the development of Tongeren, the Alphen-Ekeren house plans disappeared from the urban centre (see above), evidence for surplus production is still lacking for the same period. Probably, some surplus production existed but one may question whether (in the early years) this was enough to support the urban development at a stage as has been witnessed in Tongeren.<sup>60</sup>

The level of artisanal activity in the newly founded city, although not as high as during the 2nd century AD, became an important factor in the urban life of Tongeren in the course of the 1st century. As stated, their presence was not only found at the outskirts of the urban centre but also in the central parts, and in close connection to Romanised buildings. With this growing importance of artisanal activity, new (technical) knowledge about the urban way of life (e.g. building techniques, production of consumption goods) was introduced. With the specialised knowledge of the Roman army (garrisoned at the Rhine frontier) on a nearby distance, it seems most likely that groups outside of the territory of the Tungri (tradesman and craftsmen) played part in the development of the urban centre. The influx of these specialised people, probably being more 'Romanised' than the indigenous people at that time, reached a peak after the Batavian revolt, a time when the Romans paid close attention to the (re)development of the north-western border zone of the Empire. In that respect, also the deliberate politics of the Roman administration, to 'pacify' the province by investing in its economy, played an important part in the development of centres like Tongeren.

As for the social status of the potters (perhaps even craftsman in general), it may be concluded that the everyday diet and consumption did not differ much from the other inhabitants. The omnipresence of their activities (even

58. Possibly veterans coming out of service can be seen as a catalyst for some of the changes in consumption patrons and building styles. E.g. Woolf 2000 and Roymans 2004.

59. Roymans *et al.* 2011.

60. Cf. Kooistra 1996; Kooistra 2009. The development of the agrarian villa economy was starting up in the Flavian period.

including activities such as tanning, which would nowadays not be allowed in the centre of cities) may indicate that craftsmen had a considerable status. What is lacking, however, is information about their social position.

## Conclusions

The site of the Beukenbergweg at Tongeren yields an interesting find complex that can be attributed to a group of potters active during the 1st century AD. It is rare that within (Roman) urban archaeology find complexes can without doubt be attributed to groups of artisans themselves. This enables research into the social status of the artisans within the context of the development of the administrative centre of Tongeren. Questions were raised about the social status of the artisans and their background in a part of the Roman Empire without an urban tradition before the arrival of the Romans.

From the find complex of the Beukenbergweg it may be concluded that:

- The ceramic assemblage does not differ from other, contemporaneous ceramic assemblages from Tongeren. At the same time, the finds suggest a way of living that is (not yet) found in contemporaneous rural settlements.
- The glass finds also point to a certain prosperity and access to an inter-regional market, and thus underline the statements made for the pottery.
- The archaeobotanical remains show Mediterranean influences, which suggests that the potters not only had a taste of Mediterranean food but also had access to it. These Mediterranean influences are not found in Flavian complexes in the rural settlements.
- The archaeozoological finds indicate a lower purchasing power compared to the complexes known from the centre of Tongeren. Tentatively, this may be explained by the fact that there are no indications that the potters lived near their workshops. Perhaps only the leftovers of sober meals during working hours were found, while evening meals at home were of a higher culinary status?
- The finding of writing tablets suggests at least a basic knowledge of writing and administration. Although it is possible that a (basic) knowledge of literacy is also to be found in the rural settlements, the evidence for this is dated in the 2nd century instead of the Flavian period, as attested by the Beukenbergweg finds.

For the indigenous people, the arrival of the Romans in the north-western part of their Empire led to a process of integration into the Roman world. Part of this process was the creation of a government system in which admin-

istrative centres (the later Roman towns like Tongeren, Keulen, Xanten and Nijmegen) played a vital role. These urban centres became the arena of the (regional) elite groups who had their economic basis on the rural countryside (especially the Roman *villae*). Vanderhoeven suggested that, from the earliest days on, the elite of the Tungri was involved in the development of Tongeren.<sup>61</sup> Although these observations are not challenged here, it is suggested that other phenomena also played a major role in the shaping of these administrative centres, especially during their early days. The 1st century AD saw the development of an urban economy based on non-indigenous building techniques and craftsmanship. Also the material culture (both in cultural and dietarian terms) differed from the one found in the rural settlements. In fact, it may be questioned whether the potential of the rural countryside to create a surplus production was sufficient to maintain the level of urban life found at Tongeren. It can be concluded that a considerable part of the population of Tongeren (and this is probably also the case for other urban centres) was not of indigenous origin, explaining the differences in diet and material culture between town and countryside. This non-indigenous part of the urban population most probably consisted of craftsmen and businessmen. There are no indications that these groups were directed by the Roman administration. Probably, they were itinerant craftsman always looking for new opportunities. Especially during the Flavian period there were indeed ample opportunities in a developing market. The close resemblance between numerous Flavian pottery assemblages in the different administrative centres suggests that during this period numerous specialised craftsmen found their way into the urban populations of the north-western Empire.

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61. Vanderhoeven 1996.

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# LIDDED BOWLS

## A NEW VESSEL FORM IN THE ANCIENT CITY OF XANTHUS

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### Introduction

All the vessels analysed in this study were obtained from a location on the southern slope of the “Roman Acropolis” in the north of Xanthus. Here are two adjacent structures which are today called the “Lycian Structure” and the “Annex Place” (FIG.1). Today, access to the structures is through the dipylon in the eastern end of the main street of the city (Decumanus) and via a sloping path in the north of the square.

The first comprehensive survey of the Lycian Structure, termed the “Structure with Dromos” by the French excavation team that was conducted researches in the city up to 2010.<sup>1</sup> Then, the Turkish excavation team began in 2011.<sup>2</sup> Having taken over the excavation research, the Turkish excavation team gave more focus to the Lycian Structure as well as understanding the function and the periods it was in use. With its partially remaining polygonal and isodomic walls, enclosing areas 17x18.50m the structure, which is located in the residential area of the town center, stretched over a 350m<sup>2</sup> area.<sup>3</sup> Blocks that comprise the walls are approximately 2m long and 1.20m wide.<sup>4</sup> In the interior, there is a second wall layer that is composed rubble over the roughly

1. des Courtils and Cavalier 2001, p. 154, fig. 6.1, no 5; des Courtils 2003, p. 88.
2. For excavation reports until 2014 see: Varkıvanç 2012, p. 55; Varkıvanç 2013, pp. 63-66; Varkıvanç 2014, pp. 65-68; Varkıvanç 2015, pp. 55-62.
3. Varkıvanç 2013, p. 66.
4. Varkıvanç 2012, p. 55, figs. 2-3.

cut facades of polygonal blocks. Beam slots that can be seen on some blocks on top of the walls imply that the structure may have had a wooden second storey. Due to the study that has been done on the interior of the structure, the rubble interior of the walls was found in the north-eastern corner of the structure, as well as the diversion in the walls from the original situation on the south eastern corner due to the later usage. A 3m wide porch and a 13m long ramp are present on the south of the structure.<sup>5</sup> The study that has been done on the base of the ramp walls shows later usage, additionally during this study uncovered metal pieces shows this area was used as a workshop in which metal and wood were shaped.<sup>6</sup> Archaeological and architectural evidence showing that the area was used as a workshop during the Byzantine period were found on the upper levels of the outside of the western wall in 2012.<sup>7</sup> An “Annex Place” was unearthed during excavations on the western side of the main structure in 2012-2014. The base of the main rock also the base of the place which sizes 2.75x5m, is reached approximately 8m below of the remaining uppermost level of the western wall of Lycian Structure. Having three openings without any door jamb, the Annex Place is divided into three separate compartments divided by thick isodomic interior walls.

The walls inside are tied to the main rock on which the main structure is located, but they do not continue beneath the main structure. On the other hand, the thick wall on the south of the Annex Place is smoothly tied to the main structure, and this shows that both structures were built simultaneously. The entrance to the annex is via 85cm wide and 3,70m tall doors on the west wall, and parts of the partitioned area do not permit access into each other. It is understood that the upper sections of the interior walls were removed at the latest during the Early Roman Period. The door openings, which are found at a parallel layer with the filling layer, which contains the Roman Period finds, were covered in rubble. By dismantling the walls in between the openings the place was made whole. The study that has been done to date together, along with architectural and archaeological finds shows that this monumental structure was constructed in the Early Classical Period and was in use until the Middle Byzantine Period. Although the finds and excavation reports of the area, where to date excavations remain incomplected have been are shared with researchers,<sup>8</sup> but the final outcome will only be reached after excavations have been completed.

5. Varkıvanç 2012, p. 55.

6. Varkıvanç 2013, p. 66, fig. 7.

7. Varkıvanç 2013, pp. 63-66.

8. Varkıvanç 2012, p. 55; Varkıvanç 2013, pp. 63-66; Karademir and Kökmen 2014, pp. 65-68; Karademir 2015, pp. 3-4.



FIG. 1. Lycian Structure from Xanthus (Xanthus excavations archive).

The homogenous layer of approximately 3.50m of soil containing broken ceramics and stones, was observed during the 2013 excavations carried out in trench, Annex Place/BK-7. This showed that the site was deliberately filled. Bordering the northern end of this fill is a wall which appears to have been built after the Annex Place which was no longer in use.<sup>9</sup> An amphora handle taken from the mortar indicated that the wall was built, at the latest, in the Early Roman Period. The heavily ceramic infill was found to be level with the end and the beginning of the wall. A terracotta volute lamp without a handle was recovered from the bottom level of the fill, was crucial for dating this infill. On the disc of the lamp is the portrait of Bacchus with a chaplet of long taenia upon his head. Although not a copy, a similar representation can be seen in the British Museum.<sup>10</sup> Evaluated in O. Brooner's Group 22, this lamp with its typological counterparts can be dated from the 1st century BC to the 1st century AD.<sup>11</sup>

9. Karademir and Kökmen 2014, p. 66.

10. Bailey 1988, pl. 9, fig. 13, Q840.

11. Brooner 1930, pp. 76-78, type 22, fig. 34, profile 5; Bailey 1988, type A, group iii; Civelek 2008, pp. 118-19, A2.

Amongst the ceramic fragments found in this infill are a few examples of red figure ware dated around the 5th and 4th centuries BC as well as two lamp fragments from the 3rd century BC. The remaining ceramics consisted of: chytridion, stamped amphora handles, terra sigillata vessels and Megara bowls, these finds are characteristic of the second half of the 2nd century BC and the beginning of the 1st century BC. Thus, in view of this rich group of ceramic evidence, we can assert that this fill, consisting of only a few examples dating from the Classical Period, was probably made in the period between the second half of the 2nd century BC and the 1st century AD. Further, the construction of the wall in the north indicates the Early Roman Period, which also supports this proposed dating. The subject of our study is a group of bowls and lids found within the fill amongst the many other ceramic fragments mentioned above.

When the studies relating to ceramics in the region of Lycia are examined, it appears local ceramics to date have not been studied as much as those of the earlier period.<sup>12</sup> The earliest examples of local production in the region, with Patara being the centre, are a group of “commercial amphora” dated to between 400 and 350 BC.<sup>13</sup> In the Late Hellenistic Period, when the local production of ceramics increased, the “lykion vials” appear, a distinctive vessel form used to store ointment.<sup>14</sup> The “spherical unguentaria” of the Late Hellenistic-Early Roman Period are termed “Eşen Type” unguentaria as they are particularly found in Patara, Tlos, Xanthus and at the Letoon.<sup>15</sup> Some bowl<sup>16</sup> and jug forms of the terra sigillata group, were determined to be of local production dating from this same period.<sup>17</sup> In addition, in another study of the daily ceramics of Patara, certain forms of local production were analysed. Studies of their fabric and production residues, were carried out using chemical and petrographic analysis.<sup>18</sup> In the ancient city of Cibyra in the northwest of Lycia, apart from “mould made”, a group of unguentaria, dating from the Late Roman-Early Byzantine Period was determined to be of local production, which suggests the presence of an active workshop at Cibyra dating from the Hellenistic Period until the end of the 6th century AD.<sup>19</sup> Another study of the local production of some ceramics dating from the Late Roman-

12. Işın 2011.

13. Dündar 2012.

14. Işın 2002; Işın 2006, p. 100; Işın 2010, figs. 12d-e.

15. Dündar 2008, pp. 27-30.

16. Işın 2008, pp. 169-70.

17. Uygun 2011, pp. 16-17.

18. Ünlütürk 2011.

19. Özüdođru and Dündar 2007.

Early Byzantine Period was carried out in 2009.<sup>20</sup> The finds obtained through a long-term survey conducted in the ancient city of Balbura show local production in the Hellenistic Period.<sup>21</sup> The studies concerning the ceramics in the ancient city of Xanthus have mostly contributed to the knowledge of Geometric, Archaic and Classical Period pottery.<sup>22</sup> A group of common ware kitchen vessels from the ancient city of Xanthus were evaluated as being of locally produced material in a study conducted by E. Pellegrino in 2007.<sup>23</sup> Recently, a study of the local ceramics from the Roman and Early Byzantine Period in the cities Xanthus, Letoon and Limyra was published. This study determined the quality of the local ceramics by checking the fabric of the kitchen vessels through microscopic and X-Ray Fluorescence analysis.<sup>24</sup> We believe that the vessels analysed and introduced in this study will not only make a contribution to the knowledge of the ceramics of local production but also to the general literature on ancient ceramics.

The common features of the ceramics which form the subject of this study are medium sized bowls and lids which have a pair of small holes near to the rim and another pair of holes in the same position directly across from them (FIG. 2). The simple form of the vessels fit well with the general typology of other bowls and lids yet they differ due to the opposing holes on their rims. None of the examples analysed in this study are decorated. On two examples, a substantial amount of brownish red slip is observable (FIG. 3-4). The interior of the vessels is seems to be fully coated while the exterior carries the slip only around the rim. These examples where the vessels



FIG. 2. Bowl and lidded bowl from Xanthus (Xanthus excavations archive).

20. Japp 2009.

21. Armstrong 2012, pp. 35-41.

22. Metzger 1972; Lemaître and Alary 2007; Yener-Marksteiner 2007.

23. Pellegrino 2007.

24. Lemaître *et al.* 2013.

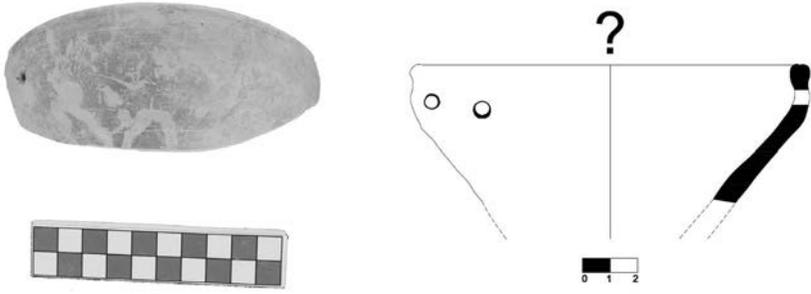


FIG. 3a-b. Bowl fragment with remains of glaze from Xanthus (Xanthus excavations archive).



FIG. 4a-b. Plate fragment with remains of glaze from Xanthus (Xanthus excavations archive).

are slipped using the dipping method were very popular in the Hellenistic Period.<sup>25</sup> However, the poorly preserved slip on some of the other examples indicates that they were not produced to a high quality.

The fabric of these vessels, containing mica, sand and calc particles, is soft fired and of fine porosity. It is reminiscent of the clay of the Xanthus/Eşen Valley at first sight, but also shows similarities with clay of Patara Channel.<sup>26</sup> Its main color in all the examples is as follows: (10 YR 8/3 very pale brown) but on some examples they can be seen to have pinky, yellowish and greenish tints, depending upon the firing process. In this context, besides fabric similarity, certain features indicated poor workmanship, such as the traces formed when the bowls were cut from the potter's wheel. Clay residues left on their body and the remaining scraps caused by the piercing process before firing suggest that those examples were locally produced ceramics (FIG. 5-6). However, within the framework of current research and publications, it is very difficult to determine whether these ceramics were produced in Xanthus or were imported from another city. This question cannot be answered yet.

25. Rotroff 1997, pp. 156-60. For selected examples see: Romano 1994, p. 69, pls. 16-18; Tezgör 2003, pl. 31, 3.

26. Ünlütürk 2011, p. 78, pl. 12, fig. 6.

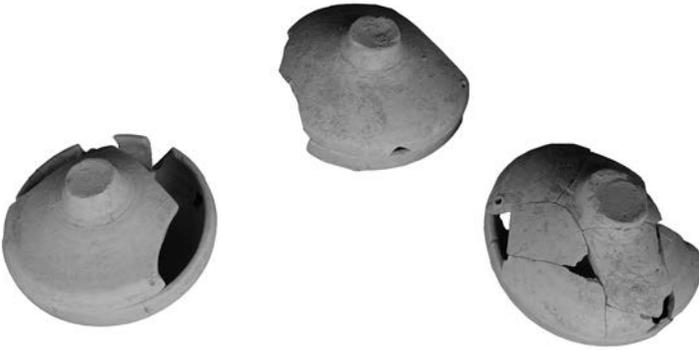


FIG. 5. Lids showing remains of clay from Xanthus (Xanthus excavations archive).

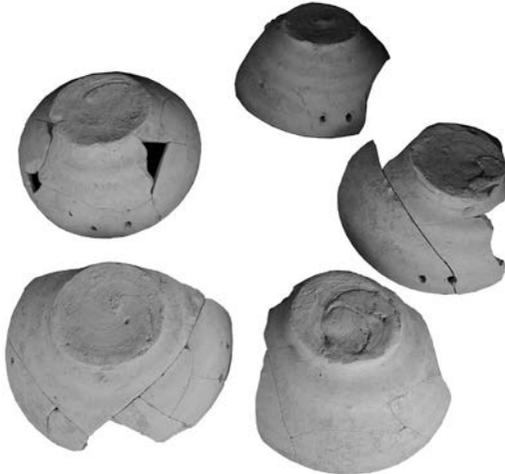


FIG. 6. Bowls showing traces of workmanship stages from Xanthus (Xanthus excavations archive).

Whether they were used only in Xanthus or also common in the neighbouring cities in the Xanthus Valley.

The rim diameters of some of these bowls and lids appear to correspond with each other. These examples are listed as follows (FIG. 7): (CAT. 1 (13cm), CAT. 8 (12.4cm) - CAT. 14 (13.1cm); CAT. 2 (13.7cm) - CAT. 13, 16 (13.6cm); CAT. 3 (14.4cm) - CAT. 10 (14cm), CAT. 11 (13.9cm), CAT. 15 (14cm); CAT. 4 (12.8cm), CAT. 5 (12.2cm) and CAT. 7 (12.8cm) - CAT. 9 (12.4cm).

## Lids

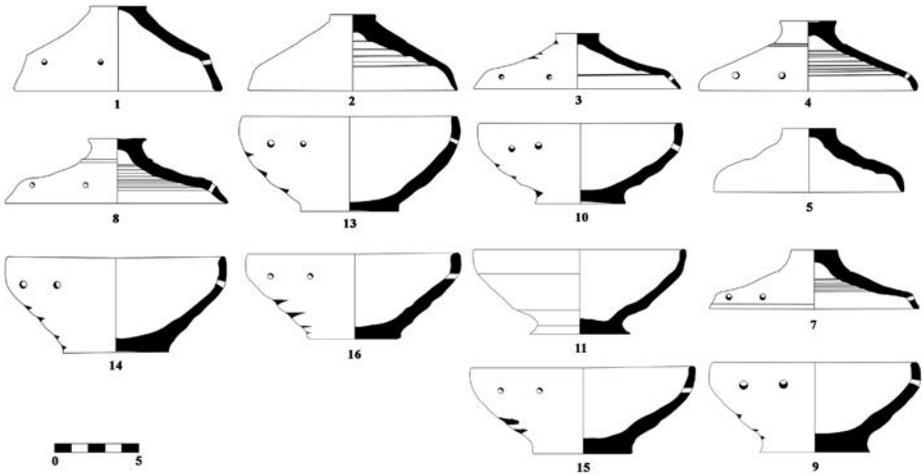


FIG. 7. Compliance of the lids and bowls (Drawings and arrangement by authors).

Within the scope of this study, eight examples were analysed. The lids were all flat topped, non-profiled and low knobbed and had a flaring body profile turning downwards at the transition to the rim. The transition from the rim to the body could be either sharp (CAT. 1, 3, 7, 8) or smooth (CAT. 2, 4-6) profiled. The rims of the lids are slightly incurved in two examples (CAT. 4, 6) are almost upright in one example (CAT. 5), and flared in the remaining five examples. In addition to the examples with little or no groove (CAT. 1, 6), some lids have either sharp or smooth lined grooves on both external and internal surfaces (CAT. 2-5, 7, 8) (FIG. 7). The lids with a bowl-like form have a distinctive cavity on the interior, directly beneath the knob. There are two pairs of holes near the rim and opposite each other. In the examples forming CAT. 2 and CAT. 5, those pieces with the holes could not be found. However, as those examples are very similar to the other lids in terms of the clay quality, workmanship and dimensions, they have been evaluated together with the others in this catalogue.

The rim diameters vary from 11.7cm to 14.4cm, the knob diameters from 2.8cm to 3.5cm, and their height from 3.6cm to 5.5cm. At the transition from the body to the rim, two different profiles were observed. In five examples, the rim flares out more, turning with a sharp angle (CAT. 1-3, 7, 8), while in the other three examples the rim is incurved with a gentle turn (CAT. 4-6).

However, as the context of these finds was a “fill”, it is not possible at present to determine whether a chronological development created those features.

## Bowls

Amongst the vessels analysed, bowls constitute a very important group. Although they are abundant amongst the fragments obtained, only eight partially completed examples are described in this study. The rims of some examples are slightly incurved (CAT. 9, 10, 12, 14), others make a right angle transition to the body (CAT. 11 and FIG. 3a, b) (FIG. 7). In almost all of these examples (CAT. 9-11, 13-15), the body slowly flares out drawing a convex arch and joins with a narrow, flat and low base.<sup>27</sup> Among the examples, only CAT. 11 has a sharp transition from the body to the base. There are four holes positioned close to the rim of these bowls: two are just below the rim and two are on the opposite side. The rim diameters of the bowls vary from 12.4cm to 14cm, the base diameters from 5.2cm to 6.6cm, and their height from 5cm to 5.6cm.<sup>28</sup> In CAT. 11 and 12, the sections with holes could not be found, however, as these examples are very similar to the others in terms of the quality of the clay, the workmanship employed and in their dimensions, they were evaluated within the catalogue.

Both the form and the diameter of all the vessels evaluated in this study were closely similar to each other, as if made by the same hand. Within this context, all of the bowls obtained will be analysed within the same typology.<sup>29</sup> Bowls of this form had been produced from the 4th to 1st century BC and had been widely used in Egypt and South Levant region, particularly in the 3rd and 2nd century BC.<sup>30</sup>

Although examples of incurved rim bowls are encountered in literature, the bowls with four opposing holes have not been previously recorded. For example, the bowls and plate-like vessels from the city of Xanthus and other sites only had one or two holes. Among the ceramics obtained from the

27. For incurved-rim bowls generally have a low base, see: Hayes 1991, p. 26, fig. 14.
28. For rim diameters see: Edwards 1975, p. 27.
29. These bowls were called “incurved-rim bowls” and, typologically, were derived from the Attic form in the 4th century BC. Also the form has been widely seen at all Hellenistic settlements in the Eastern Mediterranean area, see: Goldmann 1950, pp. 155 and 156; Hayes 1991, p. 26; Rotroff 1997, p. 161, footnote 53; Berlin 2001, pp. 27 and 30, figs. 2.6-2.8; Hudson 2011, p. 3, figs. 2, 7-18.
30. Berlin 2001, p. 30; For general information on incurved rim bowls, see: Crowfoot *et al.* 1957, pp. 248-51, fig. 49.

city of Xanthus, there is a fragment of bowl with two adjoining holes on the rim from the Archaic Period.<sup>31</sup> As the bases of the bowls uncovered in Xanthus are cut with a string, it is not easy to determine the date through using the base profiles. Consequently the rim profiles were chosen for comparison. Bowls with a similar rim profile were found in Anatolian cities such as: Balboursa<sup>32</sup>, Ephesus<sup>33</sup>, Knidos<sup>34</sup>, Sagalassos<sup>35</sup>, Cappadocia<sup>36</sup> and Tarsus<sup>37</sup>. They were also found in Cyprus/Nea Paphos<sup>38</sup>, in the Athenian Agora<sup>39</sup> in the Northern Levant, in Syria-Beirut<sup>40</sup> and in Egypt.<sup>41</sup>

One small fragment that we obtained showed a different rim and body profile (FIG. 3b). The averted rim of the bowl is slightly curved inward. The body appears to narrow towards the base, but what kind of base is unknown. On the outer surface of the bowl, including the rim, some traces of brown slip were observed (FIG. 3a). As the precise rim dimensions and typology of this bowl cannot be quantified and also its base is not preserved, it is difficult to find any parallels. Also the dimension of this bowl cannot be measured but the dimensions of similar examples vary between 18-30cm.<sup>42</sup>

Another ceramic piece found in this infill is of a plate, with a poorly preserved rim. This artefact, together with the coated example mentioned above, appear as a second form different from the inverted rim bowls (FIG. 4a-b). The rim, which is slightly everted outward<sup>43</sup> and the body, which is broad and shallow, joins with the narrow, low and ring-shaped base at a gentle angle. The two adjacent holes just below the everted rim remain intact. The body, which is slightly curved from the rim to the base, is shallow. The

31. Yener-Marksteiner 2007, fig. 4. 10.
32. 2nd and 1st century BC: Armstrong and Roberts 2012, pp. 241-44, fig. A 1, no 1121.
33. Meriç 2002, pp. 25-29, pl. 1.
34. A smaller echinus bowl dated to between 200 and 60 BC: Kögler 2014, pp. 157-158, fig. 1.
35. Poblome *et al.* 1993, pp. 114 and 118, fig. 93, no 170.
36. Dated to the Early Imperial Period, see: Abadie-Reynal 2003, p. 103, pl. 71, no 7.
37. Goldmann 1950, pp. 155-56, fig. 180, no 51.
38. Dated to Early Hellenistic Period to the middle of the 1st century AD, see: Hayes 1991, pp. 26-27, figs. 44, no 47, fig. 45, no 18, fig. 49, no 62, fig. 53, no 41, 43, fig. 57, no 26, 34, 38, fig. 59, no 5-6; Papuci-Władyka 1995a, p. 251, pl 6, H1, H9, H14; Hayes 2003, pp. 448, 452, 454, 470-71, fig. 2, no 2, fig. 3, no 20, fig. 13, no 124.
39. Rotroff 1997, pp. 162-63, 343, 420, 454, fig. 63, no 1025, fig. 103, no 1736.
40. Among the glazed echinus bowls imported from cities like Cnidus and Rhodes there are of similar forms dated from the 3rd and the middle of the 2nd century to the beginning of the 1st century BC, see: Élaigne 2007, fig. 3, no. 516-97, fig. 6, no 874-2, fig. 18, no 98-600.
41. Poludnikiewicz 1995, pp. 299-301, pls. 3a, 12a-c; de Paepe and Gratien 1995, pp. 62-67, pl. 3, no 9.1.
42. Wintermeyer *et al.* 2004, p. 141, fig. 68.
43. For these rim forms see: Kögler 2010, pp. 133-137, fig. 71b.

height of the plate is 3.8cm, the rim diameter is 17cm, and the base diameter is 6.2cm. The dimensions of such plates are generally between 14cm and 22cm, although some examples can reach 28-30cm.<sup>44</sup> Although plates with a similar form are commonly seen between the 3rd century BC and the 1st century BC<sup>45</sup>, there is no example known from the 1st century AD onwards. Those simple shaped plates with everted and projected rims were very popular during the Hellenistic Period.<sup>46</sup>

Due to the broken rims the two aforementioned examples cannot be evaluated as a lidded bowl or as a plate with four holes. Nevertheless, as they have similar fabric (color, contents, firing technique and etc.) as the other examples, and as they also indicate different vessel forms of a local manufacture, it seems worthwhile mentioning them in this study. Moreover, the plate example provides dating evidence for the lidded bowls, which from the main subject of this work.

## Conclusion

Although the form of the Xanthus lids and the bowls with holes is compatible with the general typology, no identical examples have been discovered. When taken as a whole, the groups of lidded bowls have parallels, although having four holes makes them a unique group. The primary context of this ceramic group, which appears to be of local production in terms of workmanship, fabric and form, cannot be determined due to being found in pieces in the infill. We can, however offer hypothetical suggestions for the form and the function of these artefacts recovered at Xanthus.

44. Edwards 1975, p. 38; Rotroff 1997, p. 149; Rotroff *et al.* 2003, p. 30, no 64-68; Wintermeyer *et al.* 2004, pp. 125 and 138.
45. Rotroff 1997, p. 149, footnote 20; Ateş 2003, p. 114, footnote 429, pl. 16, no 105; Rotroff *et al.* 2003, p. 26, footnote 13; Wintermeyer *et al.* 2004, p. 125, fig. 1193-Te. 4. 34; Kögler 2010, p. 134; Poblome *et al.* 2013, p. 201.
46. Wiegand and Schrader 1904 p. 424, fig. 541, no 81; Crowfoot *et al.* 1957, pp. 248-60, fig. 55; Edwards 1975, pp. 35-37, 41, pl. 4. 104, pl. 5. 136; Heimberg 1982, p. 47, pl. 15, no 327; Pinkward and Stammnitz 1984, pp. 123-33, pl. 37, no K132; Thompson and Thompson 1987, pp. 6, 92-96, fig. 82; Poblome 1993, p. 122, pl. 97, no 1C-140-142; Romano 1994, p. 69, pl. 16-18; Mandel 1996, pp. 61-62, pl. 21,1-3; Rotroff 1997, pp. 149-50, 318, pl. 66, fig. 52, 740; Ladstätter and Lang-Auinger 2001, pp. 75-76, 79, pls. 49, 22-25; Vaag *et al.* 2002, p. 206, pl. 49, no K140; Ateş 2003, p. 114, pls. 16 and 105; Ladstätter 2003, p. 41, fig. 6; Wintermeyer *et al.* 2004, pp. 125 and 138, figs. 179, 254, 181, 183, 1192-1195, 1341, 1345; Coulton 2012/2, pp. 241-44, fig. A1. 1126; Poblome *et al.* 2013, p. 201, fig. 5, no 5; Römer-Strehl 2013, pp. 8 and 11, figs. 36b, 39g; Kögler 2014 pp. 157-58, fig. 1; Oransay 2014, pp. 48-50, fig. 5; Körsulu 2014, p. 112, fig. 50, no 43.

Considering the fabric, form, workmanship and the holes on opposing sides close to the rim, it is almost certain these artefacts belong to each other and are “lidded bowls” (FIG 8a-b). There are a number of examples of lidded form vessels in antiquity such as: the *lopas*<sup>47</sup>, the *lopadion*<sup>48</sup>, the *pyxis*<sup>49</sup>, the *lykinik lekanis*<sup>50</sup>, the *pyre lekanis*<sup>51</sup> and the *lekanides*.<sup>52</sup> The main function of lidded bowls is “to preserve their contents”. In respect to their general form and dimension, the Xanthus lidded bowls show similarities with the lidded bowls found in the pyre in the Athenian Agora.<sup>53</sup> Especially, example 1258, which has a flat handle, slightly incurved lid and convex body.

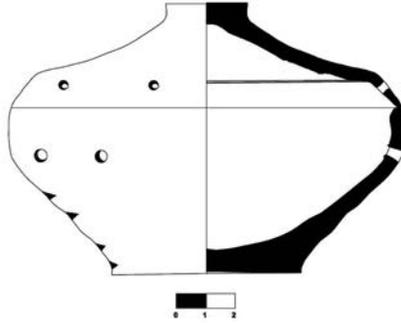


FIG. 8a. Lidded bowl from Xanthus. Cat. 3 and 14 (Xanthus excavations archive).



FIG. 8b. Lidded bowl from Xanthus. Cat. 8 and 14 (Xanthus excavations archive).

47. Rotroff 2006, pl. 69, no 661, 670, 733.

48. Sparkes and Talcott 1970, pl. 87, no 1483-91.

49. Rotroff 1997, pp. 188-91, figs. 75-77, no 1214-45.

50. Rotroff 1997, p. 214, pl. 110, fig. 86, no 1445-54.

51. Sparkes and Talcott 1970, pl. 42, no 1243; Rotroff 2013, p. 3, fig. 1.

52. Edwards 1975, p. 95, pl. 18. 556 a-b, pl. 57. 556-556b.

53. Sparkes and Talcott 1970, pl. 42. 1248-76.

It is known that the incurved bowls were used as storage vessels, as well as being employed as serving vessels.<sup>54</sup> In this respect, a group of local finds discovered during the excavations in a Roman Period house dating from the first century AD at Sardis are striking. Amongst the finds scattered both inside and outside the house were a covered chytra and incurved rim bowls. One of the bowls, placed on top of the other, was used to preserve the items inside, which were an egg, a coin and some metal finds resembling needles. In view of the items contained in these bowls and the location they were found in, these vessels have been evaluated as being used as ritual/votive deposits in order to protect the house. Ironically the house collapsed in an earthquake in 17 BC and was then rebuilt.<sup>55</sup> This find in Sardis raises the possibility that the Xanthus lidded bowls would have served a similar purpose. In other words, they were used to contain/hold object employed as ritual/votive deposits.

Holes in artifacts are known from ceramic vessels in antiquity. Apart from using the holes to hang decorated plates on the wall, holes were also used to hang utensils in daily use in the kitchen. The holes placed close to the rim on vessels such as bowls and plates were used to hang them up. Holes were also used to engage the bowl-like lids on the large vessels such as urne and kernos.<sup>56</sup> In addition to this, multiple holes in small sized vessels like bowls and plates were pierced in order to repair them in antiquity.<sup>57</sup> These holes can be located anywhere in the body of the vessel and a single vessel can have more than four holes. Such repairs can easily be seen, with the metal residue left in the holes visible in some examples.<sup>58</sup> However, the holes in these Xanthus lids and bowls are always placed close to the rim, side by side, each pair facing the other. Therefore, it is evident these holes were not pierced for the purpose of repair. Further, these paired holes clearly show that they were made when the clay was still moist, before the vessel was fired. Thereby indicating the function of these vessels, which these paired holes were associated with, was known to the producer. Therefore the holes were associated with the primary function of these vessels and consequently, cannot be associated with some secondary function.

As the Xanthus lidded bowls have only four holes, which are not placed on the body but close to the rim, it seems improbable that they were used for

54. Poblome *et al.* 2013, p. 199, fig. 5, no 3.

55. Cahill 2014a, p. 4, fig. 1; Cahill 2014b, pp. 58-60; Cahill 2015.

56. Thompson 1934, p. 449; Schaus 1985, p. 64, pl. 21. 357 and 360; Poludnikiewicz 1995, p. 300, pl. 14b; Fuglesang 1997/98, pp. 67 and 74, fig. 11; Kocybala 1999, p. 59, pl. 35, no 207-09; Claustre *et al.* 2013, p. 105, type C1.

57. Bilde and Handberg 2012, figs. 9, 12a-d. For other study on repairing of pottery see: Warner-Slane 2011; Tomber 2011; Rotroff 2011; Peña 2011.

58. Bilde and Handberg 2012, figs. 9, 12d.

burning incense. Further, the common rim profile, which enables the connection, is not observed on the Xanthus lids and bowls. This leads us to think that the opposing holes on both lids and bowls were pierced to enable them to be attached together. It seems likely that the lids and bowls must have been tied together by means of a cord drawn through the holes placed close to the rim in both forms (FIG. 9 and 10). Moreover, it seems probable that these lidded bowls were hung through these holes to a higher place, in order to protect the material deposited inside (FIG. 11).

There are no examples of bowls attached in a similar way observed in antiquity. However, examples from the Modern Period in the British Museum



FIG. 9. Lidded bowl from Xanthus. A suggestion for the tying of cord (Xanthus excavations archive).

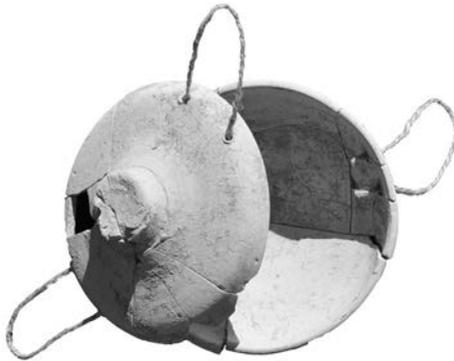


FIG. 10. Lidded bowl from Xanthus. A suggestion for the tying of cord (Xanthus excavations archive).



FIG. 11. Lidded bowl from Xanthus. A suggestion for tying and hanging the vessels (Xanthus excavations archive).

provide an insight into the way they could have been tied together. Dating from the 20<sup>th</sup> century AD, the hemispheric lids and bowls of the African tribes are tied together through strings put through the two holes placed below the rim.<sup>59</sup> There are some other examples dating from the Middle Ages in the British Museum, where the two parts of the vessel were tied together with string-in various ways.

The quality of these Xanthus bowls leads us to think that these were not high-grade products to be widely distributed and traded. However, it seems most probable that there was small-scale trading of these vessels within the region. Those bowls with a moderately thick wall and clay residue would have been used only for a short period of time. As they were lidded, their primary function must have been to preserve/store the items put in them. However, the fact that they were not produced in a robust way would seem to suggest that they were not used for a long period of time, like a cooking vessel or an amphora, nor for long term storage. Furthermore, there are no traces of burning, which could suggest that they were not used for cooking. The people living in

59. [http://www.britishmuseum.org/research/collection\\_online/search.aspx](http://www.britishmuseum.org/research/collection_online/search.aspx), search for: Af1911, 1215.6. a (07.07.2015).

Xanthus must have used the lids and bowls tied together in order to contain certain items. Taking into account the fact that these vessels are shallow and the holes are placed close to the rim, the items contained in them would perhaps have included: small quantities of food or spice, honeycomb, dried fruits, medicinal herbs such as ointment and balsam or dry foods, such as grain.

The items, found during the excavations in the Roman house in Sardis suggest the covered bowls were used to keep ritual/votive deposits. This leads us to think that the lidded bowls of Xanthus may also have served this same function i.e. keeping safe ritual/votive offerings. Indeed, the fact that these artefacts were tied together from both sides corroborates this theory. Nevertheless, as any evidence for primary context of these vessels at Xanthus has not occurred, for today we cannot state with any certainty that these artefacts were produced to preserve ritual/votive deposits.

Vessels similar to those found at Xanthus, the bowls with two holes just below the concave rim but with a ring-shaped base are found at Tell Timai, Egypt.<sup>60</sup> These examples that are of local production, and common in the Eastern Mediterranean, are dated to between the 3rd and 1st century BC.<sup>61</sup> Recovered from the same site, some other similar bowl examples but without holes have been dated to the middle of the 2nd century BC.<sup>62</sup> Among the artefacts found in the Athenian Agora there are some examples of a similar form<sup>63</sup>, but none of them are identical.

Consequently, it becomes difficult to date the artefacts analogically and their findspot makes it even harder. In this context, the decisive factor in the dating of these lids and bowls with holes from Xanthus is at present the find context described above. However, the date range given of between the second half of the 2nd century BC and the 1st century AD is proposed for the date of the layer of the fill from which these vessels were recovered. This should also be valid for the lidded bowls and this proposed dating of this vessel type is supported by the increase in ceramic production in the area during the Late Hellenistic and Early Roman Periods.

60. Hudson 2011, fig. 2; also on web <http://www.levantineceramics.org/wares/245>.

61. Hudson 2011, pp. 2-3, fig. 2, no 7-18.

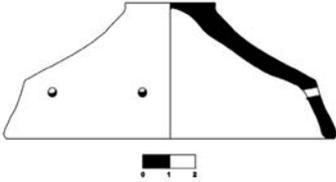
62. Ochsenschlager 1967, p. 3, figs. 14 and 15.

63. Hayes 1991, p. 26, fig. 14.

## Catalogue

All drawings were produced by the authors. The colour description follows Munsell Soil Color Charts (2000).

### 1. Lid



Rim diameter: 13cm

Height: 5.3cm

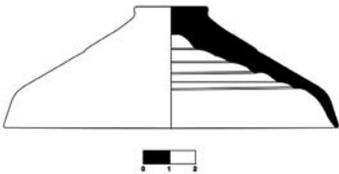
Knob diameter: 3.5cm

Partly restored. The low, flat and non-profiled knob is attached to the body at a sharp angle. The lid flares towards the rim and then turns sharply inwards. Close to that curve is a pair of small holes and another pair of holes in the same position directly across from them.

**Fabric:** Fine, a very small amount of mica, sand and calc particles. Very pale brown (10YR 8/3).

**Compare:** No other comparative artefact has been found.

### 2. Lid



Rim diameter: 13.7cm

Height: 5cm

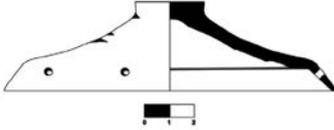
Knob diameter: 3cm

Partly restored. **The** low, flat, non-profiled knob is attached to the body at a sharp angle. The lid flares slowly towards the rim **and then** turns gently inward. On the inner **side** of the lid are sharp grooves. As it is broken the holes cannot be seen. Nevertheless, considering the fabric and the form, we conclude that it belongs to the same group.

**Fabric:** Fallow with greenish hue, fine, a very small amount of mica and calc particles. Very pale brown (10YR 8/3).

**Compare:** Retroff 1997, fig. 80, no 1287.

### 3. Lid



Rim diameter: 14.4cm

Height: 3.8cm

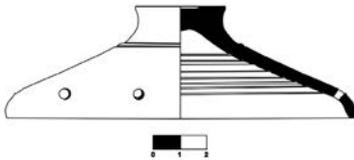
Knob diameter: 3cm

One piece found. The lid has a low, flat and non-profiled knob attached to the body at a sharp angle before slowly flaring towards the rim and then sharply turning inward to have a broad and shallow form. On the inner side of the lid are thick grooves, traces of which can also be seen on the outer side. Placed at the transition from the body to the rim are two adjacent holes.

**Fabric:** Fallow with greenish hue, fine, a very small amount of mica, sand and calc particles. Very pale brown (10YR 8/3).

**Compare:** No other comparative artefact has been found.

### 4. Lid



Rim diameter: 12.8cm

Height: 4.1cm

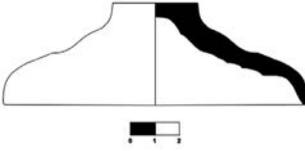
Knob diameter: 3.3cm

Near complete. The lid was found in pieces and has been restored. Attached to the body at a gentle angle is a low and flat knob, the upper part of which protrudes slightly. The lid gradually flares towards the rim, and then gently slopes down. At the point where the knob joins the body is a fine profile and on the rim are two adjacent holes. There are thick grooves on the inner side.

**Fabric:** Fine, a very small amount of mica, sand and calc particles. Very pale brown (10YR 8/3).

**Compare:** No other comparative artefact has been found.

### 5. Lid



Rim diameter: 12.2cm

Height: 4.1cm

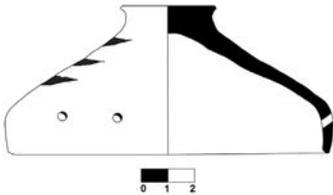
Knob diameter: 3.4cm

Partly restored. With a low, flat knob attached to the body at a gentle angle, the lid gradually flares towards the rim and then slightly turns inward. There are smooth, thick grooves on the inner side, which can also be seen on the body. The section with holes could not be recovered, but, due to the similarity of the form and the clay, the lid is considered to belong to the same group.

**Fabric:** Fine, a very small amount of mica, sand and calc particles. Very pale brown (10YR 8/3).

**Compare:** Rotroff 1997, fig. 86, no 1451 and 1453.

### 6. Lid



Rim diameter: 11.7cm

Height: 5.5cm

Knob diameter: 3.5cm

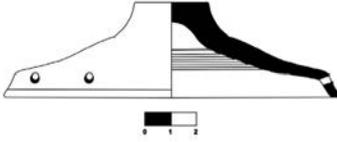
Partly restored. Attached to the body at a gentle angle is a low and flat knob, the upper part of which, protrudes slightly. The lid gradually flares towards the rim and then gently turns inward to have a curved form.

**Fabric:** Fine, a very small amount of mica, sand and calc particles. Very pale brown (10YR 8/3).

**Glaze:** Some slip marks on both the interior and the exterior.

**Compare:** Sparkes and Talcott 1970, pl. 42, no 1258 and 1263; Rotroff 1997, fig. 86, no 1451, 1453; Rotroff 2006, pl. 46, no 329; Boulter 1963, pl. 39, D5; Vapur 2011, fig. 9, no 76.

## 7. Lid



Rim diameter: 12.8cm

Height: 3.6cm

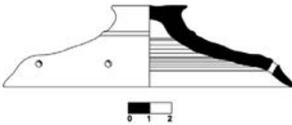
Knob diameter: 2.8cm

Partly restored. At the point where a low and non-profiled knob is attached to the body at a gentle angle there is a sharp groove. The lid gradually flares towards the rim and sharply turns inward to become wider at the lip. Placed at the transition from the body to the rim are two holes, whilst on the opposite side one preserved hole remains.

**Fabric:** Fine, a very small amount of mica, sand and calc particles. Very pale brown (10YR 8/3).

**Compare:** No other comparative artefact has been found.

## 8. Lid



Rim diameter: 12.4cm

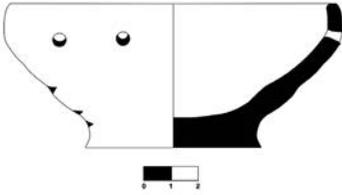
Height: 5.4cm

Knob diameter: 3.5cm

Partly restored. The knob with a convex top is flat and non-profiled. There is a fine profile at the point where the knob joins the body. It flares towards the rim and then turns sharply inwards to have a shallow and broad form. On the inner side of the lid are thick grooves, traces of which, can also be seen on the outer side. Placed at the transition from the body to the rim are two adjacent holes; one is preserved intact the other is half-preserved.

**Fabric:** Fine, a very small amount of mica, sand and calc particles. Very pale brown (10YR 8/3).

**Compare:** No other comparative artefact has been found

**9. Bowl**

Rim diameter: 12.4cm

Height: 5.4cm

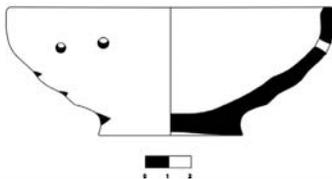
Base diameter: 6.6cm

The bowl has been heavily restored. The rim of the bowl is slightly incurved, and makes a convex transition to the body. The body narrowing with a right angle is gently attached to the narrow, low and non-profiled base, which slightly flares out at the bottom. The inner side of the bowl has a concave profiled. There are smooth grooves both on the interior and exterior of the body. Below the rim are two pairs of opposing holes.

**Fabric:** Fallow with greenish hue, fine, a very small amount of mica, sand and calc particles. Very pale brown (10YR 8/3).

**Glaze:** Slip mark around the rim. Reddish yellow (5YR 6/8).

**Compare:** Hayes 1991, figs. 44, no 47, fig. 53, no 41, fig 57, no 38; Hayes 2003, figs. 2, no 2, fig. 3, no 20; Élaigne 2007, fig. 6, no 874-2; Kögler 2014, fig 1.

**10. Bowl**

Rim diameter: 14cm

Height: 5.5cm

Base diameter: 6.2cm

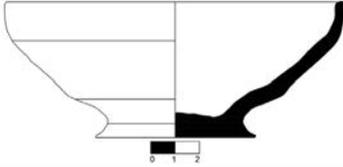
Partly restored. The upright, profiled rim joins the body, which is slightly sloping down and is gently attached to the narrow, very low and non-profiled base, narrowing at a right angle. The base becomes hollow towards the centre. At the transition from the rim to the body there are two holes. It is assumed that there were two other holes on the opposite side.

**Fabric:** Fallow with greenish hue, fine, a very small amount of mica, sand and calc particles. Very pale brown (10YR 8/3).

**Glaze:** Red slip marks around the rim. Reddish yellow (5YR 6/8).

**Compare:** Hayes 1991, figs. 49, no 62, fig. 57, no 26, fig. 59, no 5; Élaigne 2007, fig. 6, no 874-2; Kögler 2014, fig. 1.

### 11. Bowl



Rim diameter: 13.9cm

Height: 5.5cm

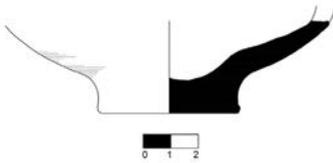
Base diameter: 6.6cm

Partly restored. The upright rim joins the body, which gradually narrows and is gently attached to a concave profiled base. Although the sections with holes are not preserved, it has been judged as being within the same group in terms of clay quality, color, dimensions, general form and workmanship.

**Fabric:** Fine, a very small amount of mica, sand and calc particles. Very pale brown (10YR 8/3).

**Compare:** Hayes 1991, fig. 53, no 43; Hayes 2003, fig. 13, no 124.

### 12. Bowl



Rim diameter:-

Height: -

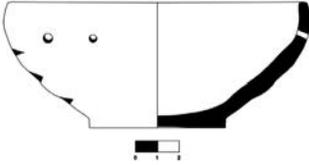
Base diameter: 5.2cm

Found with a complete base but only the lower part of the body, the bowl does not show the entire profile. However, considering the clay quality, color and workmanship, it has been judged as belonging to this same group. The base is low, flat and non-profiled. It gently joins the body, which appears to flare towards the rim. Due to the base diameter, it is assumed to be a bowl.

**Fabric:** Fine, a very small amount of mica, sand and calc particles. Very pale brown (10YR 8/3).

**Compare:** No other comparative artefact has been found.

### 13. Bowl



Rim diameter: 13.6cm

Height: 5.1cm

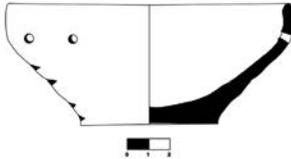
Base diameter: 6.2cm

Partly restored. The slightly concave rim joins the body arching gently. The gradually narrowing body is attached to the low, flat and non-profiled base at a right angle. At the transition from the rim to the body are two pairs of holes facing each other.

**Fabric:** Fallow with pinky hue, fine and a very small amount of mica, sand and calc particles. Very pale brown (10YR 8/3).

**Compare:** Hayes 1991, figs. 45, no 18, fig. 57, no 34; Rotroff 1997, fig. 63, no 1025.

### 14. Bowl



Rim diameter: 13.1cm

Height: 5.5cm

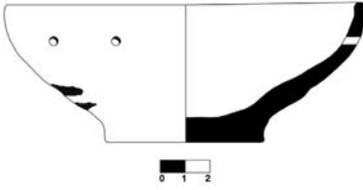
Base diameter: 6.3cm

Partly restored. Slightly concave rim joins the body arching gently. The gradually narrowing body is gently attached to the low, flat and concave base. At the transition from the rim to the body are two pairs of holes facing each other.

**Fabric:** Fallow with pinky hue on the inner side and greenish hue on the outer side, fine, a very small amount of mica, sand and calc particles. Very pale brown (10YR 8/3).

**Glaze:** Some slip marks around the rim.

**Compare:** Hayes 2003, figs. 2, no 2, fig. 3, no 20; Élaigne 2007, fig. 6, no 874-2; Kögler 2014, fig. 1.

**15. Bowl**

Rim diameter: 14cm

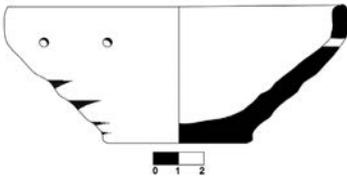
Height: 5.6cm

Base diameter: 6.4cm

Partly restored. The upright, profiled rim joins the body arching slightly and gradually narrowing body is attached to the low, flat and non-profiled base at a gentle angle. At the transition from the rim to the body are two adjoining holes and it is assumed there were two more holes facing these on the opposite side.

**Fabric:** Fine, a very small amount of mica, sand and calc particles. Very pale brown (10YR 8/3).

**Compare:** Hayes 1991, fig. 59, no 6.

**16. Bowl**

Rim diameter: 13.6cm

Height: 5.3cm

Base diameter: 5.9cm

Partly restored. The slightly concave rim joins the body arching gently. The gradually narrowing body gently joins the low and flat base. At the transition to the body are two pair of holes facing each other.

**Fabric:** Fallow with pinky hue, fine and a very small amount of mica, sand and calc particles. Very pale brown (10YR 8/3).

**Compare:** Hayes 2003, figs. 2, no 2, fig. 3, no 20; Élaigne 2007, fig 6, no 874-2; Kögler 2014, fig 1.

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