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LAMP AND TERRACOTTA FIGURINE PRODUCTION IN THE ROMAN PERIOD AT TARSUS-GÖZLÜKÜLE (TURKEY)

This article aims to discuss the recent archaeological evidence for pottery production from the Roman period discovered at Tarsus-Gözlüküle. 70 years after the publication of H. Goldman's seminal study of pottery at this site, excavations conducted by teams led by Prof. Özyar (Böğaziçi University) revealed the presence of a multi-layered production site on the Gözlüküle mound; here, investigations revealed two levels of kilns, a clay processing basin, and a work surface made of production waste dated to the Roman Period. The workshop is small, and it was mainly employed to produce lamps (categorised as groups XVI and XVIII in Goldman's publication) and votive objects. This preliminary presentation of the results of the archaeological research gives an overview of the production and the site dated to the 2nd-3rd centuries AD, which is still being studied and excavated.

Tarsus – Roman period – lamps – votives – production site

Introduction

The prehistoric mound of Gözlüküle is located in the modern city of Tarsus, in the north-eastern part of the coastal plain of Çukurova (ancient Cilicia), at the southern end of the main passageway (Cilician Gates) through the Taurus Mountain range.¹ The site was investigated in the 1930s-1940s by an American team led by Hetty Goldman under the auspices of Bryn Mawr College, and excavations revealed the presence of a settlement occupied from the Neolithic and the Early Islamic Periods. During archaeological excavations, deposits containing terracotta objects from the Roman period were found near two kilns - one round with a tiled floor, and the other with an earthen-baked floor. Both kilns were used for producing lamps and terracotta objects dating back to the 2nd century AD (Goldman 1950: 25-26). In 2001, Böğaziçi University began a new research project on the northeastern part of the mound, and investigations are still ongoing (Özyar 2014). The Roman-period layers in the newly investigated area revealed a workshop for producing votive items similar to the one described by Hetty Goldman in 1950 (Goldman 1950: 25-27). The kilns resemble the second kiln from the 1950s excavation, with similarities in the lamps and small moulded figurines produced. However, the new production site has a more diverse range of anatomical votive offerings and a wider variety of objects manufactured.

Production centre and recent excavation

During excavations conducted between 2007 and 2014, as well as in 2022, an area of the Gözlüküle site in the north-east sector (C7 17) was uncovered (Özyar 2014). This area contained a kiln used for the production of terracotta lamps, terracotta figurines, votives, and other small objects (fig. 1 and 2). The production area was quite simple, consisting of a kiln and a basin for processing clay with water, placed about 3 metres apart. Between these structures, an earthen floor was found, containing pits filled with ash and waste from the workshop. The area around the kiln and basin was poorly preserved due to later Roman/early Byzantine and Islamic pits. No evidence of structures used for the working process or shelves for drying the clay objects was found. The rectangular basin for processing clay with water was made from reused tiles and bricks, and it measured about 1.30 m x 1 m, with an original depth of about 0.80 m. The east side of the basin appeared to have been modified and did not preserve the perimeter wall like the other three sides. On the west side of the workshop, two overlying kilns were found; the newer one was in a poor state of preservation and was removed during the first years of excavations, while the one preserved further down was brought to light in 2014. This one was partially built on a pit containing a dump of waste ceramic material and was removed in 2022. The walls of the second kiln were made with tiles coated with a thick layer of clay fired when in use. The oval-shaped kiln was approximately 1.40 m long and 0.60 m wide on average. The walls were preserved to a height of approximately 0.40-0.50 m. No traces of arches for supporting the firing floor were found, nor was there evidence for perforated floor slabs. The *prefurnio* was open to the north, where excavations revealed a level of ash and charcoal mixed with waste ceramics, probably the result of the cleaning of the firing chamber.

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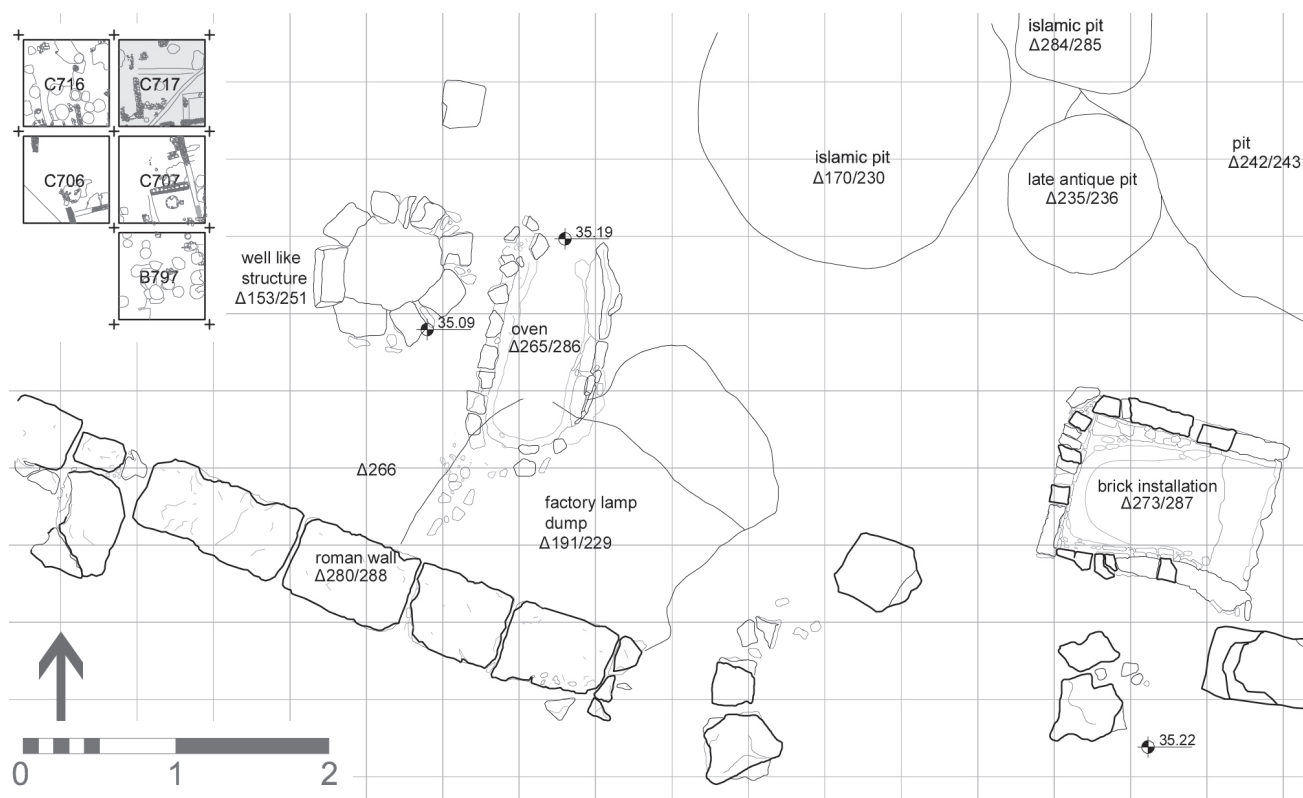


Fig. 1. Plan of the studied area (drawing: E. Ünlü and S. Yalçın).



Fig. 2. Photo of the production centre (taken by P. Maranzana).

Objects produced in the workshop

The workshop in the C7 17 site primarily produced small objects related to the religious sphere. To this date, the study has not been completed, and the information presented in this article is preliminary. Archaeological investigations revealed that the workshop primarily produced lamps, as well as various votive objects. These include anatomical votives (human and animal), food models, masks, and small oval dishes with raised handles. Numerous fragments of small terracotta figurines were also found, but none of them were intact. The objects were produced from moulds that, to this date, have not been identified among the objects studied. The production of the workshop was identified on the basis of the waste deposits found in the area (for lamps they are broken or deformed objects; for terracotta figurines, most of the waste is broken objects). However, the pottery fabrics show recurring characteristics that allow local production to be recognised. Fabrics are fine and homogeneous, with a few small inclusions mainly of reddish orange colour (these inclusions represent the marker of the local production), few sand grains, and rare limestone. The colour of the fabric ranges from yellowish red (10YR 8/8) to pale yellow (5YR 8/4).

Lamps

The lamps produced at the C7 site belong to groups XVI and XVIII, as categorised by Goldman in her publication (Goldman 1950: 95-96, 119). However, new findings have

prompted a revision of the typology and chronology. Group XVI has been divided by Goldman into two main types, A and B. Type A has a low, round disc with a short shoulder, distinguished by a marked ribbing. The nozzle is small, round, and has no volutes. Type B has a flattened shoulder decorated with ovules, as seen in the examples from 1950. Some lamps of Group XVI also have volute decorations on the shoulder. The proposed chronology for these lamps is the 2nd century AD, mainly based on Goldman's stratigraphy, but some decorative motifs on the disc are also seen in the 1st century AD (Goldman 1950: 26, 95). Group XVIII has also been subdivided according to decorative motifs on the disc. The nozzle is fused with the round body of the lamp and sometimes bears traces of scrolls or a heart shape. The body is usually round, but when the nozzle is also added in, the lamp takes an oval shape. This is the most common form in Gözlükule, and it shows a significant decline in the quality of the manufacture, probably due to the use of moulds that were created from other lamps. The proposed chronology for this group is the 2nd century AD, based on the similarities in forms with the previous group.

Recent research, however, demonstrated that all lamps produced in the workshop in area C7 belong to Loeschcke VIII, which dates from the time of Emperor Claudius to, at least, the 3rd century AD (Bussi re and Lindros Wohl 2017: 193-195). The lamps from this new excavation are characterised by the absence of slip and handle; the nozzle is rounded but inconsistent in size. Many of the lamps recovered are intact or in excellent condition, and the most common firing defects are cracks and fractures, mainly located in the upper part of the disc. The lamps are all moulded, however, no mould has been found so far in the C7 excavation. The production of lamps cannot be considered of high quality, as most of the discs have illegible decorations.

Of the lamps found in C7 17, numerous examples belong to the group XVI A of the Goldman type. Some of them are in a good state of preservation, and they show complex disc decorations with images of various types such as Helios or Erotes playing with a lion (**fig. 3a** – Goldman 1950: 127, n. 381; 129, n. 405). However, most examples are missing the disc, a feature likely due to its fragility (**fig. 3b**). This type is found in two versions: 1) with a plain shoulder or 2) with two volute decorations on the two sides of the disc. To this date, this type is the only one that seems to have circulated in the Eastern Mediterranean region, as it is attested, for example, in Cyprus in the 2nd century AD (Bezzola 2004: 70-71, n. 293; Bussi re and Lindros Wohl 2017: 305, n. 437).

Similar to the Goldman XVI lamps, but not documented in her excavation, is a lamp type characterised by an almost flat disc and horizontal shoulder. The figurative decorations on the central part of the disc are accurate and surrounded on the shoulder by a vegetal motif interrupted by three rectangular bands. The quality of the decoration suggests that these lamps were not moulded from other lamps. The nozzle is round, short, and separated from the shoulder by two diagonal lines. Two intact examples have been found to this date: the first shows a lion on the disc and a faded stamp in relief on the base (possibly ΠΙ[ΘΙΜ]ΟΥ); the second presents an image of Hermes with a prancing ram (**fig. 3c-d**). Precise

comparisons for the disc decorations are well-attested in Athens, such as lamp No. 970, dated to the third quarter of the 3rd century. The lamp with Hermes resembles No. 777 and is dated to the first half of the 3rd century AD (Perlzweig 1961: 118, n. 777; 130, n. 970). However, no precise comparisons were found, as all similar lamps have a handle, opposite to those found at Tarsus. Parallels with similar decorations and horizontal shoulders are found in Cyprus between the 2nd and 3rd centuries AD (Desc udres and Harrison 1997: 97, n. 22; Lightfoot 2021: 237-238, cat. 302-304) as well as in Athens and Corinth, and dated up to the 3rd-4th centuries (Perlzweig 1961: 126, 128 n. 876, 908, 924; Slane 1990: 33-34, n. 44, 45 and 54).

Group XVI B proposed in the 1950 classification is represented by only a few examples and is mostly fragmentary, with only one intact lamp. The decorations attested on the discs are rosettes with eight heart-shaped petals (**fig. 3e-f**) and bunches of grapes (**fig. 3g**). The horizontal shoulder is decorated with ovules and is divided from the disc by one or two concentric grooves. There are no precise parallels for these lamps either, but the shoulder decoration associated with rosettes is attested in numerous lamps from the 2nd-3rd centuries AD (Lightfoot 2021: 126-126, cat. 154-155; see also Bezzola 2004: 64-66, type VI.1.a) across the region. This type seems to be particularly similar to the Broneer XXVII type Corinthian lamps also dated between the 2nd and 3rd century AD (Broneer 1930: 90-102; Slane 1990: 28-32).

The most common lamps found in the workshop excavated at C7 are the Goldman XVIII. These lamps typically have a circular body, but in some cases, they have an oval shape. The nozzle is fused into the lamp body, rather than being separated from it. Some lamps have dot, concentric circles, or ovule decorations on the shoulders. Rarer lamps have two volute decorations on the sides of the disc. The disc decorations are generally simple, due to the small size of these pieces (6 to 7 cm long). The subjects depicted on the decorations are varied, and some are clearly legible, such as animals, shells, grapes, flowers, concentric circles, etc. (**fig. 3h-m**). However, the decorations deteriorate in some cases, supporting Goldman's hypothesis that these lamps were used as models for new moulds (probably lamps produced locally and then reused as a mould, in fact, we have different quality levels – **fig. 3n**). No stamps have been found on the materials found to date. However, two Greek letters, ΨΙ, were incuse on the base of two lamps. These lamps have no exact comparisons outside of Tarsus, but similar forms with handles are common throughout the Mediterranean. They are typically dated to the 4th century and are considered to be the transitional form from Middle Imperial to Late Roman lamps.

Terracotta Figurines, Votives and Masks

Many terracotta figurines were found during the excavation, but none were intact. The fabrics and context of the discovery indicate that they are locally produced. All figurines were made using moulds, some using two moulds and others using only one. The back of the figurines bears the imprint of the potter who made the object. Representations of divinities are



Fig. 3. Locally produced lamps (drawings: B. Coukan).



Fig. 4. Terracotta figurines and anatomic votives (drawings: B. Coukan).

rare among the figurines. Among the human figurines made from two moulds are two fragmentary busts of Aphrodite, which have similarities to those found in early 3rd-century AD contexts in Athens (**fig. 4a** – Grandjouan 1961: 7-8). A figurine with a crowned headdress, possibly representing Athena/Minerva, has parallels in Athens up to the 3rd century (Goldman 1950: 313-314; Grandjouan 1961: 8). There are also fragmentary heads of young men wearing Phrygian hats (**fig. 4b** – Goldman 1950: 368; Grandjouan 1961: 14) which may be related to deities.

Numerous fragments of female, male, and children's heads were discovered, and further examination showed that they were made by using a double mould technique. It is uncertain whether they depict the entire figure or just a part. Generally, the female heads are the best outlined and have finely crafted hairstyles (**fig. 4c**). One of the best-preserved female figurines was deliberately crafted without arms (as seen in **fig. 4d** and other bust fragments). The lower part of the body is fragmentary and a through-hole is present at the back, just below the hairstyle. Similar holes have been found in votives representing internal organs, but in this case, no visible organs are depicted (Schörner 2015: 399, fig. 30.2). The figurine's hairstyle provides clues to its chronology, as it is similar to those found in portraits of Julia Domna and in female figures from the Severan age (Bartman 2001: 21-22).

The excavation of sector C7 yielded significant finds of votives, including terracotta human figurines and body part votives such as feet, arms, and an object that may represent an internal organ. Anatomical votives were commonly used in Roman times in Central Anatolia during the 2nd and 3rd centuries AD (Schörner 2015: 401-402). The feet votives found at the site display detailed renderings similar to the female hairstyles described earlier, complete with toes and nails, and in one case, a detailed depiction of a sandal (**fig. 4e**). Arms were also found, but in lower quality than the feet votives. Most of the arms were made using bivalve moulds, but some were made using only one mould. The arms are always depicted bent at 90 degrees with the hands in a fist with the thumb covered by the other fingers (**fig. 4f**). Rarely, an object is held in the hand, appearing to be an offering dish (Marker 2000: 96, C122 – **fig. 4g**). An object of doubtful interpretation is a teardrop-shaped element with three outgrowths and an internal ridge (**fig. 4h**), which is one of the most common votives found at the production site. The interpretation of this object as a human internal organ has not been confirmed by research for this study, and the shape may resemble that of a liver, but the interpretation remains uncertain.

Among the discovered votives, there are also examples of animal anatomy. The majority of these are equine and bovine legs (De Cazanove 2013: 24-26). These votives were all made using bivalve moulds. Most of the examples are legs with sketched hooves, but without any details that would suggest they are horses or donkeys (**fig. 5a**). In the case of the only bovine leg identified to this date, there is a greater level of detail, with the hair above the hoof and the depiction of a fleshy membrane behind the knee being particularly well-made (**fig. 5b**). Additionally, there are numerous examples of outspread wings with varying levels of realism and detail (**fig. 5c-d**). In all well-preserved cases, it can be said that they are autonomous votives, as they have no traces of having

been attached to other figures. The typology of these votive objects is not entirely clear, as they could be considered either animal anatomical votives (Marker 2000: 269, 278), or elements associated with deities such as Nike/Victory or Eros, as interpreted in other votive contexts (Marker 2000: 181, 274, 280).

In the wide range of votives produced in this centre, food-related elements were also found. Like the wings, these votives are made by pressing clay into a mould, so the back is not decorated. Presently, three different types of miniaturist food representation have been identified: the fruit basket (**fig. 5e-f**), the grape (**fig. 5g-h**) and what, according to parallels, can be interpreted as a tartlet or an offering tray (Bourgeois 1991: 206, fig. 105; Poli 2005: 130-132 – **fig. 5i-l**). These objects in Corinth are dated from the 5th century BC to the late Roman Period (Bookidis and Pemberton 2015: 135-136, T18-41); in the Italic area miniaturist, terracotta food is known both from funerary and votive contexts dated to the 4th century BC (Poli 2005: 130-132; Cipriani 2015: 49-50).

The artefacts found in the waste pits also include theatre masks, as those found in the nearby Goldman excavation (1950: 346-349). The masks are the largest objects manufactured in the workshop. To date, no intact ones have been found and the fragments are often in a poor state of preservation.

Oval dishes

As already mentioned above, the workshop produces moulded objects, including a small dish type (approximately 13 x 10 cm, with a height of 1 to 2 cm) characterised by a moulded handle. The dish's body, although oval, is made on the wheel, and it has a leaf-shaped solid handle attached to one of its short sides (height of about 5 cm). The handle is moulded, while the vein of the leaf is rawly engraved. All the dishes documented from the C7 contests have palm-shaped handles (**fig. 5m-o**). However, a pale-yellow clay fragment, probably of local production, is on display at the Tarsus Museum, which, instead of a palmette, has the shape of a bearded head of Dionysos. This is a decorative motif that finds numerous parallels; for example, appliques similar to this one are attested in Knidos craters in Roman contexts dated from 20 BC, but are generally attested in contexts from the 1st to the 3rd centuries AD (Hayes 2008: 273-277).

Final remarks

As the study is only at its beginning, and no definitive conclusions can be drawn, the data at our disposal offer unique insight into the productions of this small workshop. Although we have not yet identified the complete structure, the workshop must have occupied a limited space on the Gözlükule mound. These production sites were typically located near cult areas, in city centres and necropolises, where goods were often sold (Cerulli Irelli 1977; Cavalieri Manasse et al. 2016).

The few chronological pieces of information collected allow us to date the archaeological deposit, mostly through a number of *comparanda* of lamps, female hairstyles, and votives. In detail, the main period of production appears to be

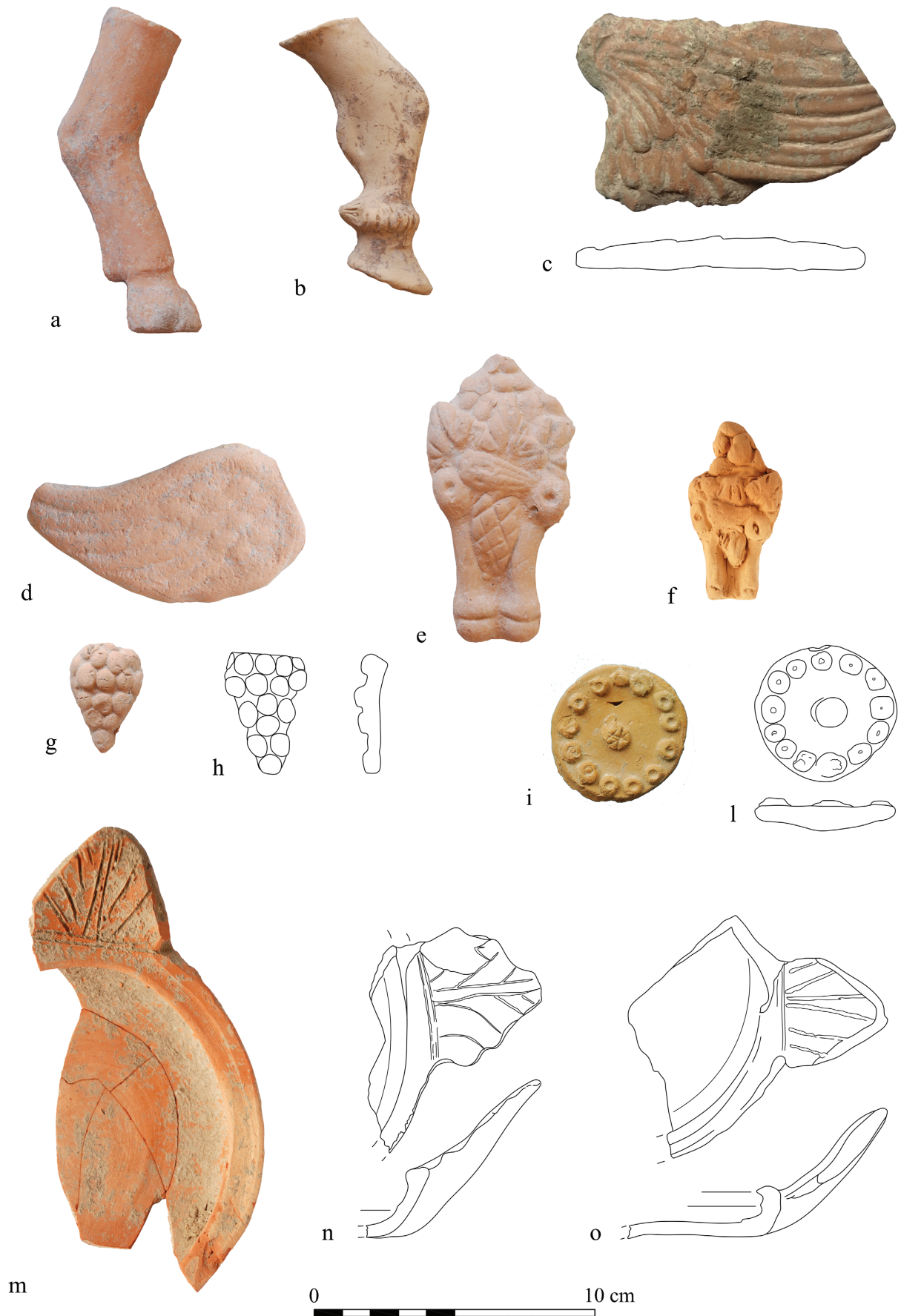


Fig. 5. Votives and oval dishes (drawings: c, h C. Mondin; l, m, n B. Coukan).

in the 2nd and 3rd centuries AD, which is further confirmed by preliminary numismatic finds that are currently being studied. Some elements, such as lamps from Goldman's Group XVIII, with types that begin to elongate and move from circular to oval in shape, may suggest that there was a continuation of production into the 4th century AD, a fact that may point to a decline in the quality production that anticipates the closure of the workshop.

The lamps produced in this workshop find few comparisons in the available literature, as they only exist for some well-made lamps of the 2nd-3rd century AD, such as for the iconography of the discs produced in Attica. At the site of Tarsus, these models are clearly adopted, although they are adapted according to local aesthetic choices. In particular,

the characteristics that distinguish them from other lamps are the absence of the handle and the lack of slip. These details make this production very recognizable, thus, and enable us to postulate that it was essentially intended for local trade; indeed, only in Cyprus, lamps (Goldman Group XVI A) probably produced in Tarsus have been found so far.

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