

WHEELMADE LAMPS OF ROMAN DACIA*

The study** of clay lamps¹ of the Roman Epoch in Dacia has enjoyed of late a marked interest and tendency towards exploring all of the issues pertaining to this particular type of artifacts. An area yet open to research is that of wheelmade lamps; although already part of the general survey of clay lamps, they haven't yet been the object of a specific portrayal aiming at an exhaustive presentation of these items and related aspects. Our survey aims at cataloguing and discussing the lamps of Roman Dacia as afforded by the items published so far as well as by those in display at the Museums of Cluj, Sarmizegetusa, Alba Iulia, Deva which have been partially available for direct scrutiny. The fragments that did not lend themselves to classification or

* We are grateful to Mr. Al. Diaconescu who has suggested the subject for study and who has been kind enough to discuss with us some related aspects.

** In the catalogue below the following abbreviations have been used:

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| <i>Alicu 1977</i> | D. Alicu, <i>Tonlampen-Typen aus Ulpia Traiana Sarmizegetusa</i> , StComCaransebeș 1977, 331-362 |
| <i>Alicu 1979</i> | D. Alicu, <i>Römische Tonlampen aus Sarmizegetusa (Ausgrabungskampagne 1976)</i> , StComCaransebeș 1979, 235-251 |
| <i>Alicu 1994</i> | D. Alicu, <i>Opaite romane. Die römischen Lampen - Ulpia Traiana Sarmizegetusa</i> , București 1994 |
| <i>Alicu, Nemeș 1977</i> | D. Alicu, E. Nemeș, <i>Roman Lamps from Ulpia Traiana Sarmizegetusa</i> , BAR Suppl. Ser. 18, Oxford 1977 |
| <i>Băluță 1965</i> | Cl. Băluță, <i>Opaite romane de la Apulum (II)</i> , Apulum 5, 1965, 277-295 |
| <i>Băluță 1978</i> | Cl. Băluță, <i>Lămpile romane din muzeul județean Hunedoara-Deva</i> , Sargetia 13, 1978, 209-228 |
| <i>Băluță 1983</i> | Cl. Băluță, <i>Lucernele romane din Dacia intracarpatică (teza de doctorat - nepublicată)</i> , Cluj-Napoca 1983 |
| <i>Băluță 1989</i> | Cl. Băluță, <i>Lămpile antice de la Muzeul de Istorie Sibiu</i> , Apulum 26, 237-262 |
| <i>Benea 1979</i> | Doina Benea, <i>Opaite romano-bizantine în colecțiile Muzeului Banatului</i> , Sargetia 14, 1979, 219-224 |
| <i>Benea 1982</i> | Doina Benea, <i>Atelierele ceramice de la Tibiscum (contribuții la istoria atelierelor ceramice din sud-vestul Daciei)</i> , Potaissa 3, 1982, 22-41 |
| <i>Benea 1990</i> | Doina Benea, <i>Lampes romaines de Tibiscum</i> , Dacia N. S. 34, 1990, 139-168 |
| <i>Căținaș 1997</i> | Ana Căținaș, <i>Opaite din colecția Téglás</i> , in <i>Civilizația romană în Dacia</i> , Cluj-Napoca 1997, 172-214 |
| <i>Chirilă, Gudea</i> | E. Chirilă, N. Gudea, V. Lucăcel, C. Pop, <i>Das Römerlager von</i> |
| <i>Lucăcel, Pop 1972</i> | Buciumi, Cluj-Napoca 1972 |
| <i>Dumitrașcu 1990</i> | S. Dumitrașcu, <i>Lămpi romane. Repertoriul colecției secției de istorie a Muzeului Țării Crișurilor</i> , Crisia 20, 1990, 37-96 |
| <i>Gudea 1977</i> | N. Gudea, Gornea, <i>Așezări din epoca romană târzie</i> , Reșița 1977 |
| <i>Gudea 1980</i> | N. Gudea, <i>Castrul roman de la Brețcu. Încercare de monografie</i> , ActaMP 4, 1980, 255-332 |
| <i>Gudea 1989</i> | N. Gudea, <i>Porolissum. Un complex arheologic daco-roman la marginea de nord a Imperiului roman (I)</i> , ActaMP 13, 1989, <i>passim</i> |
| <i>Iconomu 1967</i> | C. Iconomu, <i>Opaitele greco-romane. Colecțiile Muzeului Regional de arheologie Dobrogea</i> , București 1967 |
| <i>Macrea, Rusu,</i> | M. Macrea, M. Rusu, <i>Iudita Winkler, Șantierul arheologic Gilău</i> |
| <i>Winkler 1959</i> | <i>(raionul și regiunea Cluj)</i> , Materiale 5, 1959, 453-460 |
| <i>Oancea 1969</i> | Al. Oancea, <i>Colecția de lucerne greco-romane din Muzeul județean Brașov</i> , Cumidava 3, 1969, 597-610 |
| <i>Popilian 1976</i> | G. Popilian, <i>Un quartier artisanal à Romula</i> , Dacia N. S. 20, 1976, 221-250 |
| <i>Popilian 1997</i> | G. Popilian, in <i>Études sur la céramique romaine et daco-romaine de la Dacie et de la Mésie Inférieure</i> , Timișoara 1997, 7-20 |
| <i>Ștefan 1948</i> | Gh. Ștefan, <i>Le camp romain de Draja de Sus</i> , Dacia 11-12, 1945-1947, 115-144 |

were not relevant to our subject matter have been omitted from our presentation. Indeed, the lamps recovered outnumber the items catalogued in our survey, just as there is room left for further variants. We have limited our research to the geographic area of Roman Dacia for the sake of methodology, keeping in mind at all times the intense trade and travel between Dacia and the neighbouring provinces with a strong impact on the manufacture of the artifacts which can be substantiated for this area.

Wheelmade lamps had been widely distributed in the Greek world prior to the Roman Age. The Roman Empire provided both the geographical area and the ambience for the diffusion of a novel technique – the mould technique – which had first emerged in the Hellenistic world. It is the mould that would facilitate the wide occurrence of the most popular clay lamp types: volute lamps, lamps with discus scenes, and lamps with the maker's stamp (*Firmalampen*) – all of which are Italic. Provincial manufacturing or copying was massive and it spread to include the whole of the Roman Empire and the Greek areas with previously established wheelmade lamp productions of their own. On noting the amplitude of the phenomenon (employment of the mould technique) one would reach the conclusion that “wheel throwing”, one rather primitive and slow and certainly less profitable than the mould technique, would have been abandoned. The mould technique would facilitate mass production of lamps at less costs even while it conformed to fashion demands and suited clients' wishes.

Our endeavour is directed at a classification into types and, wherever possible, at the dating of the varied categories we have encountered. Our wish is to call attention onto this particular type of lamps and verify the suitability of the category to which they have been readily assigned – Late Roman Lamps (whilst they really are a revival of Greek techniques)².

In the following we shall be persuaded that this would-be “crude” technique was in use in Dacia at a time when the province flourished, prior to the economic crisis, and, moreover, that it paralleled a strong local manufacture in the mould technique which was hardly underrated by the Italic or Roman provincial products.

In our efforts directed at operating an adequate selection of the items by typology we have been confronted by a series of difficulties deriving from the morphological diversity of these artifacts. Since the technique set some limits to the realization of a lamp, the artisans compensated by being creative with the lamp components. It was not simply a matter of decorating the discus or stamping the maker's mark, but of altering profiles, handles and nozzles, resulting into lamps displaying blunt or long nozzles, flat or concave disci, with rings round the filling-holes, with lenticular or double-truncated profiles, etc. The alterations do not vary widely, which could explain the difficulty in dating the items.

Research into this category of items has been hindered by these variations, with the result of a wide variety of chronological and typological classifications founded

¹ To avoid any confusion, some technical specifications are in order. Studies devoted by Romanian researchers to clay lamps (*lucerna*) have used varied terms for the same lamp constituents. To avoid misunderstanding, we provide you in the following with our own terminology and their Latin correspondents: *lamp* for *lucerna*, *oil-chamber* for *infundibulum*, *discus* for *discus*, *filling-hole* for *orificium*, *oculus*, *wick-hole* for *myxus*, *nozzle* for *rostrum*, *wick* for *ellyphnium*, *handle* for *ansa*. We have used the term *shoulder* for the area between the discus and the rim of the oil container, and *base* for the underside, the support, of the oil container; if the base is raised in the shape of a cylinder the term *foot* or *base-ring* is employed.

² See, for example, V. H. Baumann, *Așezările rurale antice în zona gurilor Dunării. Contribuții arheologice la cunoașterea habitatului rural* (sec. I-IV p. Ch.), Tulcea 1995, 424 – for a discussion on the decline in the manufacture of lamps decorated with grooves, while admitting that the involution led to a recourse, in the fourth century AD, to the former Greek wheelthrowing technique.

on several criteria. In 1935 Dora Iványi devised five categories for wheelmade lamps: four for long nozzlers and one for raised nozzlers³, obviously a tribute to the canons set by mouldmade lamps. In 1969 T. Szentléleky noted that the base was still low at around the third century AD, whilst by the fourth century it had been raised⁴ – the observation somewhat facilitated his own classification. Much later, in 1989, on researching the items from Carnuntum, Eva Alram-Stern remarked upon the difficulty of drawing up an all-encompassing classification. The author employed two major groups as her starting point: long nozzle lamps and short nozzle lamps⁵. Yet again the nozzle operates as the diagnostic feature for separation into types, in keeping with Iványi's proposal of 1935. Eva Alram-Stern eliminates the handle as a potential criterion, since the handle was added after the body left the mould⁶; should we add that, in most cases, the nozzle too was plastered after the moulding of the lamp, one can only admit to the difficulty of crediting any of the classifications or assignments. More recently, in 1992, G. Kuzmanov on cataloguing the lamps at the National Museum of Archaeology in Sofia allotted a special category to wheelmade lamps based on several differentiating elements, most of which bearing on the discus⁷.

On trying to include in our own classification as many of the diagnosis elements as possible, we reached a conclusion similar to the Bulgarian researcher's. On pursuing a logical line, our analysis has yielded two major classes of lamps with multiple "variants" (or, preferably, "groups" of items). The one major category includes items that fall morphologically within the classical Roman lamp "model" of the first and second centuries AD (the profile is similar to mouldmade Roman lamps with either flat or convex disci). The other category includes items with major alterations in the upper portion, going as far as eliminating the discus, thus entailing the structuring of the entire body around the filling-hole. The changes in the profile bring them close to other pottery (e. g. *bowls*).

The division we have operated with is the result of a lengthy appraisal of differences in the morphology of the lamps under study to the purpose of facilitating their perception. Let us insist, however, that the limits we have set of our own accord are purely didactic and far from imposing some rigid fixed classification. More often than not, the differences between these "groups" are minor, and mainly due to the fact that their manufacture excluded from the start any high degree of standardization, which has rendered difficult any attempt whatsoever at typological division.

Besides the two aforementioned, one further major wheelmade lamp category evolved on the territory of former Dacia (fig. 1, 2). This type is, however, a faithful imitation of the *Firmalampe*, which is why they make the object of a separate presentation. This type occurs solely in the Ulpia Traiana Sarmizegetusa area and could be dated, according to the find-context and surrounding material, to the first decades of the second century AD.⁸

³ Dora Iványi, *Die panonischen Lampen*, DissPann Ser. II, no. 2, Budapest 1935, 16-17, type XXII.

⁴ T. Szentléleky, *Ancient Lamps*, Budapest 1969, 132.

⁵ Eva Alram-Stern, *Die römischen Lampen aus Carnuntum*, RLÖ 35, 1989, 53.

⁶ *Eadem*.

⁷ G. Kuzmanov, *Antike Lampen. Sammlung des Nationalen Archäologischen Museums, Sofia 1992*, 166-167, types XXXIX-XLII.

⁸ The particularity of this type is discussed in detail in the monograph of Sarmizegetusa (now under print).

Type 1 – includes 66 items grouped into eight distinct morphological categories. As mentioned before, these lamps bear a close resemblance to the “standard” classic mouldmade Roman lamps.

Form IA

This group includes items with fairly flat oil-chambers and concave disci. This particular group could fall into the category of lamps with wide filling-hole, no decoration, the so-called “oil lamps”⁹; these items are characteristic for the preservation, with rare exceptions, of the shape of discus ornamented lamps, with round oil chambers and rounded nozzles¹⁰. The fairly large quantity of items of this type has prescribed a further division into 2 groups of lamps: **Form IA₁**, for which the filling-hole is not marked in any special way, and **Form IA₂**, where the filling-hole is set off by a raised ring.

One item of the latter group (no. 17) has allowed for a detailed scrutiny of the way in which these lamps were fashioned making unnecessary the sectioning of the lamp.

First, the lower portion – the oil chamber – was turned on the wheel to which the discus was next added, forming thus the body of the lamp. The nozzles were made by plastering clay to the spot for which they were meant, following which the wick-hole was pierced through the nozzle and the wall of the oil container with a tapered implement. The ring-base was fashioned as for other ceramics (e. g. jugs, bowls, jars etc). The clay for these items is no different than that for the *Firmalampen*, then in use within the province. The ridge round the rim of the filling-hole was realized by splaying the margin, probably at the moment when the discus was attached to the container.

Form IA₁

1) Tibiscum, **fig. 3** (Benea 1982, 37, fig. 16; Benea 1990, 167, fig. 19/124).

Round bodied lamp, shallow, with concave discus and wide filling-hole. The ring-base is convex. Brick-red clay, homogeneous, with grit and mica. Dim.: L=7.2; H=1.8; D=6.2.

Dating¹¹: 3rd century AD (Benea 1990, 167).

2) Ilişua, **fig. 4**, MNIT. Cluj, reg. 19142.

Rounded lamp, shallow, slightly sunken discus, narrow filling-hole. The nozzle in relief bears faint traces of fire which indicates short usage. The item is heavily turned. The lower portion of the oil container is wheel thrown (disposition of pores and grit in a spiral, from the inside towards the outside – an indication of the technique used), on which the upper portion was mounted. Buff-orange, fine, soapy fabric, no slip. Dim.: L= 7.5; H= 1.5; D= 6.5.

3) Draja de Sus, **fig. 5** (Ştefan 1948, 134, fig. 16/5,6).

Trilychnis lamp, round body and flat discus; the discus is bordered by a slightly raised ridge and has a wide filling-hole at the centre. The nozzles are pulled out through the shoulder.

Dating: first half of the 2nd century AD (Ştefan 1948, 134).

4) Porolissum, **fig. 7** (Gudea 1989, 450, pl. XIII/74).

⁹ M. Ponsich, *Les lampes romaines en terre cuite de la Maurétanie Tingitane*, Publications du Service des Antiquités du Maroc fasc.15, Rabat 1961, 36, type VI; L. Lerat, *Catalogue des collections archéologiques de Besançon I, Les lampes antiques*, Annales de Besançon I.1, nr. 2, Paris 1954, ser. 6, 27, pl. XXIII

¹⁰ A. Provoost, *Les lampes antiques en terre cuite. Introduction et essai de typologie générale avec des détails concernant les lampes trouvées en Italie*, AC 45, 1976, fasc. 1, 5-39, and fasc. 2, 550-558, Spec. IV, type 3, 554-557; M. Ponsich (n. 9), type II, 34-35, fig. 3, pl. XVI-XXV.

¹¹ One should note that the chronology for items which display this pointer is that as published by prior research; likewise, the catalogue description is the authorship of the researchers who published them, with the exception of items that we have researched ourselves. Sizes are in centimeters.

Round bilychnis lamp, with slightly concave discus and medium size filling-hole; "the discus is separated from the shoulder by a circular spine." The two nozzles are slightly pulled out through the shoulder. The handle is raised and shaped like a cup or calyx. Light brick-red, smooth clay coated with brown-red slip. Dim.: L= 8.2; D= 6.5.

5) Porolissum, **fig. 11** (Gudea 1989, 45, pl. XIII/40).

Rounded lamp with concave discus and fairly wide filling hole. The nozzle is lost, and the handle is full, disc-shaped and raised. Flat ring-base with two incised concentric circles.

6) Porolissum, **fig. 10** (Gudea 1989, 450, pl. XIII/37).

Round lamp with concave discus and small filling-hole. The nozzle is slightly pulled out, and the handle is broken. Ring-base is flat. Red to grey smooth clay. Dim.: L= 7; H= 2.5; D= 5.5.

7) Brețcu, **fig. 12** (Gudea 1980, 313, fig. 40/8).

Fragment; the front portion of the item is lost. Slightly sunken discus, the handle is broken. Round base, slightly convex. Brick-red, gritty clay. Dim.: D= 6.5.

8) Ilișua, **fig. 5** NMHT. Cluj, reg. 19141.

Round lamp with nozzle in relief and sunken discus. The band handle is raised. The wick-hole is a triangle cut into the discus and bears traces of burning indicating usage. Marks of wheelthrown underside on which the discus was mounted with the junction smoothed out. Orange-buff, dense, fairly smooth clay most of which is worn off; little of the slip is preserved. Dim.: L=7; H(with handle)=3.8; H(without handle)= 2.6; D=5.9.

9) Porolissum, **fig. 9** (Gudea 1989, 450, pl. XIII/34).

Round lamp, with fairly truncated body and flat discus with two incised concentric circles; the filling-hole on the discus is fairly wide. The nozzle in relief pierces the discus. The ribbed handle extends to the edge of the oil container, close to the rim. The ring-base is slightly concave. Light brick-red, smooth clay. Dim.: L=8; H=2; D=6.

10) Potaissa, **fig. 13** (Căținaș 1997, 178, 192, fig. 5/4).

Small round lamp with concave discus and fairly wide filling-hole. The discus is slightly fractured. Dim.: L=7.5; H=2; D=6.2.

11) Potaissa, **fig. 14** (Căținaș 1997, 178, 192, fig. 5/3).

Small round bodied lamp, with concave discus and fairly wide filling-hole. The discus and nozzle are partially broken, and there are three ornamental clay ovules on the line extending from the discus to the shoulder. Dim.: L=7.5; H=2.6.

12) Potaissa, **fig. 15** (Căținaș 1997, 195, fig. 7/6).

Fragment of lamp upper portion with rounded body and concave discus, with four narrow filling-holes. The handle is disc-shaped, and only a small fragment of the nozzle is left.

13) Brețcu, **fig. 16** (Gudea 1980, 313, fig. 39/5,6,7).

Three round lamps discovered in 1925, now lost; only a photograph is left. One can notice that the discus is bordered by a raised ridge or an incised circle. One of them has a wide filling-hole, whereas the other two have narrow ones. The nozzles are in low relief and pierce through the shoulder. The handle is either disc-or ring-shaped.

14) Râșnov, **fig. 8** (Oancea 1969, 600, fig. 4/4).

Whole lamp with "double-convex" profile, flat base and ring handle. Brick-red clay. Dim.: L=7.5; D=6.7; H=2.5.

Dating: 2nd-3rd century AD (according to Iconomu 1967, 110, no. 553 – local variant of the type on p. 121, fig 133).

15) Sarmizegetusa, **fig. 25**, MS, reg. 2064.

Trilychnis lamp with double-truncated oil-chamber, and a discus sloping towards the medium filling-hole. The item has no handle and the ring-base is flat. The nozzles pierce through the steeply sloping shoulder. Buff brick-red, dense, smooth clay, covered with orange-red slip, poorly preserved. Dim.: L=8; H=3; D=7.2.

16) Gilău, fig. 26, MNIT Cluj, reg. V 45687.

Lamp with double-truncated round oil chamber and concave discus, heavily turned. The base is flat, and the nozzle shows deep marks of burning. Brick-red, dense, gritty clay. Dim.: L=6; H=2.6; D=5.2

Dating: according to context, 3rd century AD¹².

Of the 16 lamps included here (no. 1-14), lamps 1-3 have no handle, while items 2 and 3 display shallow oil-chambers. Lamps no. 15 and 16 have been included here for their sunken discus, but their double-truncated profile sets them apart from the rest of the group; so far we have no lamps similar to these. Item no. 16, fig. 26, was assigned, according to the stratigraphy context, to the third century AD. No chronology is available for item no. 15, fig. 25, but the diagnostic features are similar to those of other lamps recovered from Sarmizegetusa (**Form A₂**), dating from around mid-second century.

Two of the lamps have the chronology as assigned by the researchers who published them: the item from Drajna de Sus, no. 3, and that from Tibiscum, no. 1. The lamp discovered at the castrum of Drajna de Sus can be assigned to the first decades of the second century AD, in accordance with the age range of the castrum¹³. The lamp from Tibiscum is assigned by Doina Benea to the third century AD¹⁴. Analogies occur among the items from Jidava¹⁵ (fig. 21, 22), among the items from Slăveni¹⁶ (fig. 20), among those from Tomis¹⁷ (fig. 24), of Viminacium¹⁸ (fig. 28) among the items of Gomolava¹⁹, among the items of the National Museum of Archeology of Sofia²⁰ (fig. 27), among those of Sirmium²¹ (fig. 30) – lamp considered

¹² I am grateful to Dan Isac, who has been so kind as to make this item along with stratigraphic data available to me.

¹³ Gh. Ștefan, *Le camp romain de Drajna de Sus*, Dacia 11-12, 1945-1947, 143. Roman troops supposedly abandoned Drajna de Sus in the second decade of the second century AD, under Hadrian, probably in 118 AD.

¹⁴ The wheelmade lamps of Tibiscum have been published by Doina Benea along with the rest of the clay lamps excavated on the site, the majority of which were assigned to the third-fourth centuries AD (Doina Benea, *Lampes romaines de Tibiscum*, Dacia N. S. 34, 1990, 139-168). Clear references to the find-context of lamps of this type are missing or could not be provided, so the chronology was mainly established by analogy with items unearthed in the late Roman strongholds of Gornea, Hinova, Noviodunum. This rather loose chronology has been preferred by many researchers publishing items of this type from Dacia. We maintain our reserve, though, since the wheelmade lamps of Dacia are considered to be the product of a declining technology in the context of the crisis the Roman Empire underwent in the third century AD, and of its aftermath; in spite of the assignation by foreign researchers to the 1-5/8th centuries AD (M. Ponsich [n. 9], 31, fig. 4; 36, 78; A. Provoost (n. 10), 557 – species IV, type 4)

¹⁵ M. Negru, *Some aspects of the lamps discovered in the roman forts of Muntenia*, Rei Cretariae Romanae Fautorum Acta 33, Abingdon 1996, 76, 80, Fig. 2/2, 3- with parallels at Romula, Scornicești, București – The Palace of Justice, Aquincum, Ognianovo, Tomis, Sirmium, Siscia, Intercisa, Emona – dated second-third centuries AD and with bibliography on the analogies.

¹⁶ G. Popilian, *L'atelier de céramique du camp romain de Slăveni*, Oltenia 3, 1981, 40, pl. 10/2, 3.

¹⁷ C. Chera-Mărgineanu, V. Lungu, *Noi descoperiri din necropolele tomitane*, Pontica 17, 1984, 117, pl. 2/15.

¹⁸ L. Zotović, Č. Jordović, Viminacium Nekropole "Više Grobalja", Beograd 1990, 9, fig. 3.

¹⁹ V. Dautova Ruševljan, Olga Brukner, Gomolava, Rimski period (Gomolava The Roman period), Novi Sad 1992, 117, pl. 5/23; 118, pl. 6/24.

²⁰ G. Kuzmanov (n. 7), type XLII, var. 1, no. 364, 365 – items dating from the third-fourth centuries AD.

²¹ J. C. Rubright, *Lamps from Sirmium in the Museum of Sremska Mitrovica*, Sirmium 3, Beograd 1973, 54, no. 152, pl. XV.

by the author analogous to the lamps of Győr, Pannonia²² (fig. 24), among the items of Lauriacum²³ (fig. 29), of Carnuntum²⁴ (fig. 31-33). The items from Carnuntum, no. 595 and 604, have a tall profile, similar to that of the glazed lamps from Sucidava²⁵ (fig. 17-19) – dating from late fourth century and early fifth century AD²⁶. At Tác-Fövenypusztá, Pannonia, similar lamps with nozzles in bolder relief were found in a workshop dating from under Constantine II²⁷ (fig. 34-35).

Since the Draja de Sus castrum dates from early second century AD, it only remains for us to ascertain a similar chronology for the items discovered there, with the implication that the lamps of Form IA₁ had been manufactured as early as the first decades of the aforementioned century. Our assumption as regards the early emergence of the type in early second century is endorsed by the presence of items of type IA₂, which will be analyzed in the following. The absence of stratigraphy and chronological assignation for most of the items in the latter group prevents us from surveying their evolution. Nevertheless, a survey of the glazed items from Sucidava dating back to the fourth-fifth centuries AD may lead to the conclusion that they really are the development of some early items similar to type IA₁.

Form IA₂

17) Sarmizegetusa, fig. 36, unpublished.

Polilychnis lamp, with 9 torches, wheelmade. The lamp is round bodied with a slightly sunk discus and a 2.1 cm wide filling-hole; the discus was attached to the open oil-chamber, which initially was bowl-like, fairly tall, with an in-sloping rim. The nozzles were plastered to the wheelthrown oil-chamber and the wick-holes were pierced from the outside to the inside with a cylindrical tapered implement which left marks on the lower inside walls of the oil chamber. The full, ribbed handle, rectangular, was plastered to the oil chamber. Raised base-ring is typical of other pottery as well: jugs, bowls, jars etc. Inside there are traces left by the throwing wheel, while on the outside there are marks of firing and burning over three quarters of the upper part of the lamp, indicative of extensive use. To this adds up the 1 mm thick deposit of keratin and resinous substance – similar to residue resulting from burning – around the nozzles and the discus. Dense, smooth clay, with mica, picked in brown, coated with an orange-buff slip (the lamp apparently was partially dipped in fluid clay, leaving free the underside). Dim.: L=15.6; H (without handle)=3.8; H (with handle)=5.2; D=1.4.

Dating: early 2nd century AD – (the item was discovered in 1997, on the first level of habitation).

18) Sarmizegetusa, fig. 39, MS, reg. 25518.

Polilychnis lamp, five nozzle, similar to the previous. Raised disc-shaped handle. Fire residue on the nozzles. Deep red-brick, smooth clay, with orange-red slip. Dim.: L=9.6; H(without handle)=3.0; H(with handle)=4.3; D=7.4.

²² Dora Iványi (n. 3), 293, no. 4210, pl. LVII/6; no. 4197, pl. LVI/8; 20 – item no. 4197, from Győr, belongs to type XXII, variant 4; the variant in point was discovered in a grave with coins from Galerius Maximinus Caesar (295-305 AD), Augustus (305-306 AD) respectively. (I. Paulovics, *Die römische Ansiedlung von Dunapentele (Intercisa)*, ArchHung 2, 1927, 114, fig. 28, grave XI).

²³ H. Derringer, *Römische Lampen aus Lauriacum*, Forschungen in Lauriacum 9, Linz 1965, 119, no. 365 = VIII 1001, pl. IX/f.

²⁴ Eva Alam-Stern (n. 6), 286, no. 589, pl. 3,40; 288, no. 4,41; 291, no. 604.

²⁵ D. Tudor, *Sucidava III*, Dacia 11-12, 1945-1947, 166-168, fig. 19/1, 6, 11, fig. 20/1.

²⁶ D. Tudor (n. 25), 167, the items were recovered from under and within the charred waste after the Huns' invasion, with coins dating from late fourth century – early fifth century AD.

²⁷ E. B. Thomas, *Die römerzeitliche Villa von Tác-Fövenypusztá*, ActaArchHung 6, 1955, 120-130, pl. L/14, 16.

19) Sarmizegetusa, fig. 38 (Alicu 1979, 240; Alicu 1994, 45).

Trilychnis round lamp with concave discus and wide filling-hole surrounded by a relief ridge. Slightly pulled out nozzles pierce the shoulder. The handle, probably disc-shaped, is partially lost. The base is defined by a ring. Orange brick-red clay, dense, with grit and mica, with matching (reddish) slip. Dim: L=8.4; H=3; D=6.2.

20) Sarmizegetusa, fig. 37 (Alicu 1977, 354; Alicu, Nemeş 1977, 41, pl. V/4; Alicu 1994, 45-46, fig. 2/49).

Trilychnis lamp, slightly damaged, reconstructed. The lamp is pronouncedly cone-shaped, and is standing on a flat base-ring. The slightly sunk discus has a medium sized filling-hole. Orange brick-red clay, dense, with grit and mica, with orange brick-red orange good quality slip. Dim.: L=8.5; H(without handle)=3; H(with handle)=4.

F.S. - in the Aesculapius and Hygeia complex, Temple A, level I (Alicu, Nemeş 1977, p.42).

21) Sarmizegetusa, fig. 40 (Alicu 1977, 354; Alicu, Nemeş 1977, 41, pl.V/3; Alicu 1994, 45).

Whole lamp; sunken discus and raised disc-shaped handle. The base is defined by a ring. Brown-buff clay, fairly smooth and dense, with grit and mica, is covered with grey-buff slip, mostly worn off. Dim.: L=8.2; H(without handle)=2.3; H(with handle)=3.2; D=5.6.

22) Sarmizegetusa, fig. 41 (Alicu 1979, 240; Alicu 1994, 45).

Round lamp, with broken nozzle and shallow discus with wide filling-hole. Full disc-shaped raised handle is set off by a ring in relief. Heavily turned. Buff-gray clay, coarse, with grit and mica. Dim.: L=7.3; H(without handle)=2.4; H=(with handle)=3.2; D=6.0; D base=3.2.

23) Sarmizegetusa, fig. 42 (Alicu 1979, 240; Alicu 1994, 45).

Lamp similar to the previous, with shallow discus and wide filling-hole. The nozzle is broken; the base is defined by a ring in relief, and the handle is disc-shaped and raised. The lamp is heavily turned and bears traces of secondary firing. Brown-buff clay, fairly smooth and dense, is covered with worn brick-red buff slip. Dim.: L=7.4; H(without handle)=2.4; H(with handle)=3.3; D=6.

24) Tibiscum, fig. 43 (Benea 1982, 37, fig. 16; Benea 1996, 133-134, fig. 23/5).

Bilychnis lamp, with rounded body, concave discus and wide filling-hole encircled by a circular ridge. The nozzles, pulled out, pierce the upper part of the item. The flat ring-base shows marks of secondary firing. Orange-brown clay, spongy, with grit and mica. Dim: L=7.4; D=7.2; H=2.8.

25) Sarmizegetusa, fig. 45 (Alicu 1977, 354; Alicu, Nemeş 1977, 41, pl.V/1; Alicu 1994, 45).

Whole lamp, with slightly concave discus, and filling-hole surrounded by a ring separated from the discus by an incised circle. The nozzle is in low relief and the handle disc-shaped; flat, circular base; Brick-red-buff clay, dense, fairly smooth, with mica and grits, heavily fired; traces on the outside of the deep brick-red slip. Dim.: L=7.5; H(without handle)=2.1; H(with handle)=2.3; D=5.5.

26) Sarmizegetusa, fig. 46 (Alicu 1977, 354; Alicu, Nemeş 1977, 41, pl.V/2, fig. 10; Alicu 1994, 45, fig. 2/41).

Item similar to the previous. Concave discus has a medium sized filling-hole. Traces of the nozzle plastered and then smoothed out. The lamp is heavily turned and over half the surface bears marks of secondary firing. String marks on the base. Deep brick-red clay, fairly dense and rather coarse, with grits and mica. Dim.: L=8.5; H(without handle)=2.2; H=(with handle)=2.8; D=5.6.

F.S. - the Aesculapius and Hygeia complex, Temple A.

Dating: mid-2nd century AD²⁸.

²⁸D. Alicu, *Opaițe romane. Die römischen Lampen - Ulpia Traiana Sarmizegetusa*, București 1994, 45 – the item was discovered in the complex dedicated to the gods Aesculapius and Hygeia, in temple A under the second phase wall, with the second phase of the temple corresponding to the second half of the second century AD, following the Marcomanic wars, thus implying the lamp dates from the same century.

27) Sarmizegetusa, **fig. 47** (Alicu 1979, 240; Alicu 1994, 45).

Small round lamp with shallow discus and wide filling-hole. The nozzle is slightly pulled out and it pierces the shoulder. Circular base is flat and the handle is disc shaped. Orange-buff, smooth, soapy clay. Dim.: L=7.3; H(without handle)=2.1; H(with handle)=2.5; D=5.1.

28) Transylvania, **fig. 52**, MNIT Cluj, reg. 19468.

Circular lamp with flat discus and wide filling-hole. The full, disc-shaped handle is raised. The item underwent secondary firing. Coffee-brown clay, smooth and dense, covered with orange-buff slip. Dim: L=8; H(with handle)=4.2; H=(without handle)=2.4; D=6.3.

29) Sarmizegetusa, **fig. 48**, (Alicu 1979, 250; Alicu 1994, 45).

Lamp similar to no. 27, fig. 47; the nozzle and part of the oil chamber are lost. Brick-red buff clay, smooth and soapy, covered with orange-buff slip of good quality. Dim.: L(after reconstruction)=6.1; H(without handle)=2.1; H(with handle)=2.7; D=4.9.

30) Sarmizegetusa, **fig. 46** (Alicu 1979, 240; Alicu 1994, 45, pl. I, fig. 2/45).

Item similar to the previous, heavily turned. Buff and brick-red buff clay, smooth, with grit and mica, is here and there covered with brown-red slip. Dim.: L=7.1; H(without handle)= 2.1; H(with handle)=2.7; D=5.1.

31) Find-site unknown, **fig. 49**, NMHT Cluj, reg. 19468.

Wheelmade lamp with round shallow body and wide filling-hole displaying a slightly raised rim. The nozzle pierces the discus and is slightly raised. The disc shaped handle is raised. Flat round foot base with string marks. Pronounced traces of smoke indicative of extensive use. Brown-orange clay, smooth and compact. Dim.: L=8.3; H(with handle)=4.5; H(without handle)=2.5; D=6.

32) Brețcu, **fig. 50** (Gudea 1980, 313, fig. 40/7).

Round lamp with shallow discus and wide filling-hole. The nozzle, in relief and displaying a wide wick-hole, is slightly raised from the shoulder. Brick-red, smooth, gritty clay. Dim.: L=8.8; D=6.8; H=2.7

33) Râșnov, **fig. 55** (Oancea 1969, 600, fig. 4/1).

Round bodied lamp with sunken discus separated from the rim by a ridge in relief; the blunt nozzle is bedded in the wall of the oil-chamber. The ribbed handle is full, and the base is flat. Yellowish clay. Dim.: L=8.3; D=6.9; H=3.1.

Dating: 2nd-3rd centuries AD (Oancea 1969, 600).

34) Potaissa, **fig. 54** (Cătinaș 1997, 178, 192-193, fig. 5/1).

Polilychnis lamp, with seven nozzles, slightly concave discus and fairly wide filling-hole. Most of the nozzles are in low relief, almost bedded in the lamp. The handle is lost.

35) Potaissa, **fig. 57** (Cătinaș 1997, 184, 196, fig. 9/3).

Splayed trilychnis lamp with rounded body and flat discus; its fairly wide filling-hole is bordered by a ring mould. Two of the nozzles are broken, and the disc-shaped handle is raised.

36) Gilău, **fig. 53** (Macrea, Rusu, Winkler 1959, 455, fig. 1/16).

Round lamp with truncated body, has a concave discus with a fairly wide filling-hole; the filling slit has a raised rim. The tubular nozzle pierces the shoulder. The handle is broken and the remaining fragment is the shape of a full cylinder. The lamp shows marks of burning (effect of a fire that destroyed the lodge in which it was found). F.S. in the area of the living quarters of the earthen castrum.

Dating: no later than the second half of the 2nd century AD²⁹.

37) Gornea, **fig. 51** (Gudea 1977, 79, fig. 20/10=34/5).

Circular lamp, with the rim set off by a raised ridge. The sunken discus slopes towards the

²⁹M. Macrea, M. Rusu, Iudita Winkler, *Șantierul arheologic Gilău (raionul și regiunea Cluj)*, Materiale 5, 1959, 456 – in the earthen castrum level two coins were unearthed: sesterces from Hadrianus and Antoninus Pius (148 AD)

wide filling-hole, encircled by a ridge. The nozzle in bold relief is large and slightly raised. The handle is broken and the round base is flat. Gray, smooth clay. Dim.: L=8; H=3; D=6.5.

38) Râșnov, fig. 56 (Oancea 1969, 602, fig. 4/5).

Long oval lamp with concave discus and fairly large filling-hole surrounded by a raised rim. The large prominent nozzle lends the lamp its oval shape. The handle is broken.

The items in this group, no. 17-38, are similar to those in the previous group except for a relief rim round the filling-hole. Most of these lamps have been unearthed at Sarmizegetusa (no. 17-23, 25-27, 29, 30), seven of which (no. 17-23) are defined by the presence of ring at the base. Stratigraphic dating has made chronology available.

Item no. 17, fig. 36, - nine-nozzle polilychnis lamp was unearthed from the first dwelling level of the settlement,³⁰ which enables us to assign it to the first half of the second century AD. Lamp no. 20, fig. 37, has been recovered from the Temple of gods Aesculapius and Hygeia on the first dwelling level³¹, while item no. 26, fig. 46, was discovered in the same temple under the eastern stage II wall³²; both stratigraphic chronologies assign them to the first half of the second century AD.

Most items from Sarmizegetusa are similar in realization, clay, firing and dimensions, which indicates some local workshop. According to the chronology of the three aforementioned lamps (no. 17, fig. 36; no. 20, fig. 37; no. 26, fig. 44) this workshop must have functioned from the first half to mid-second century; excavations at Sarmizegetusa have not revealed so far any items that could possibly be assigned to a subsequent period.

Among the items produced by the workshop we can identify two morphological groups defined by the shape of the base. The one is the flat base group (no. 25, fig. 45; no. 26, fig. 44; no. 27, fig. 47; no. 29, fig. 48), with string marks underneath (no. 26, fig. 44), and the other (no. 17-23, fig. 36-42) with a base ring identical to that of other ceramics occurring at Sarmizegetusa, jugs especially. The occurrence of the base ring, uncharacteristic of wheelmade lamps, would suggest that the workshop in question manufactured ceramics that usually display this feature, and the lamps were most unlikely the staple product of the workshop but rather some additional elements in the wide ranging mass manufacture of varied pottery.

Our claim is founded on the fact that it is very unlikely for a workshop, which manufactured lamps exclusively at a time when they were predominantly mouldmade³³, to produce wheelmade lamps in such quantities as to account for the substantial amount we are able to analyze here. This would have been highly unpractical, since it is common knowledge that the mould technique allows for simpler methods, less labour, and ornaments that would suit the customer's wishes or the then fashion, as well as making profit. These are just a few of many elements that speak for the superiority of mouldmade lamps against the wheelmade lamp manufacture of clay lamp workshops.

³⁰Information V. Voişian.

³¹D. Alicu, E. Nemeş, Roman Lamps from Ulpia Traiana Sarmizegetusa, BAR Suppl. Ser. 18, Oxford 1977, 42.

³²D. Alicu, *Precizări privind cronologia unor lămpi ștampilate de la Sarmizegetusa*, Apulum 22, 1984, 77; *idem* (n. 28), 45, phase II of the temple corresponds to the second half of the second century AD, following the Marcomanic wars

³³C. A. Roman, *Reprezentări de măști de sclavi din Noua Comedie în decorația lucernelor "Firmalampen" la Sarmizegetusa*, AMN 34/I, 435-452. There had been intense lamp manufacture in Sarmizegetusa as early as the first decades of the second century AD, which far from restricting to mere copying of types then in circulation rather functioned as an established production of Firmalampen.

The large number of items of the type in question disproves any shortlived penchant for or bent on fashioning wheelthrown lamps on the part of any of the potters employed in the lamp workshop.

The potential presence of an artisan from the Greek-Hellenistic ambience, familiar with Greek wheelmade lamps, who would have put in practice his know-how while adapting it to the idiosyncrasies of early second century lamps, is a mere supposition.

Neither is the hypothesis that wheelmade lamps had a special destination (for instance – offerings for any of the temples in the hallowed precincts of Sarmizegetusa, where most of the items were actually recovered) sufficiently argued.

Among the items with correlated chronology one can find lamp no. 33, fig. 55, discovered at the castrum of Râșnov, that can be loosely assigned to the castrum's own age range – second to third century AD³⁴.

From Gilău there comes a lamp with a band handle, a peculiarity within the group, recovered from among the sherds of an arsoned lodging of the earthen castrum. Judging by the appearance of the coins discovered in the level stratum of the earthen castrum, the lamp could be largely assigned to no later than mid second century³⁵.

The lamps that are closest as regards morphology are the items from Sucidava³⁶ (fig. 63-67), Telița – Valea Morilor (fig. 68, 69)³⁷, (fig. 70, 71)³⁸ and Durostorum³⁹ (fig. 61, 62, 58-60), those in the collection of the National Museum of Archeology of Sofia⁴⁰ (fig. 72, 73) (– items dating from the third to fourth centuries AD)⁴¹. Also similar are the items from Carnuntum⁴² (fig. 79, 81) – regarded by the researcher analogous to those of Győr, Pannonia⁴³ (fig. 94), of Lauriacum⁴⁴ (fig. 75, 76), and again from Carnuntum⁴⁵ – one item considered to be similar with two other from Pannonia⁴⁶ (fig. 77, 80), and Warsaw⁴⁷ (fig. 74).

An 'early' group, with concave disci and rings round the filling-holes, can be singled out among the wheelmade lamps as represented by forms IA₁, IA₂, and one other later group, of Sucidava, higher and glazed; the former were evolved in Dacia as early as the first half of the second century AD.

³⁴ Al. Oancea, *Colecția de lucerne greco-romane din Muzeul județean Brașov*, Cumidava 3, 1969, 600.

³⁵ M. Macrea, I. I. Rusu, I. Winkler (n. 29), 456 – two coins were found in the earthen castrum level: sestertius from Hadrian and Antoninus Pius (148 AD).

³⁶ D. Tudor (n. 26), 166-169, fig. 19/2,6,8,9, fig. 20/2,3.

³⁷ V. H. Baumann (n. 2), pl. XI/4,5.

³⁸ V. H. Baumann, *La céramique utilitaire du IV^e siècle fabriquée par officina romana de Valea Morilor (Telița Département Tulcea)*, Études sur la céramique romaine et daco-romaine de la Dacie et de la Mésie Inférieure, Timișoara 1997, pl. LVII/5,7.

³⁹ C. Mușețeanu, *Ceramica romană de la Durostorum*, București 1992, (unpublished PhD), 168, no. 100-110 – type Villa (= fig. 94, 93); Dora Iványi (n. 3), 291, no. 4168, pl. LVI/10; 293, no. 4198, pl. LVI/9; T. Szentlélek (n. 4), no. 252, 253 – highly in use in Pannonia in the fourth century, perhaps even the fifth century AD), type XI, p. 176 – similar items in the third to fourth centuries occur north and south of the Danube

⁴⁰ G. Kuzmanov (n. 7), type XLI, variant 1 and 2, no. 351-357, 381-383

⁴¹ The dating of these items, as with most wheelmade lamps in this museum, was realized by correlation with the glazed lamps from Sucidava (D. Tudor [n. 26], 166-169, fig. 19/2,7-9; 20/3), which date from the fourth to fifth centuries AD. One should note that the items of Sucidava, indeed late, are glazed and have a tall profile, highly dissimilar to the items of group IA₂.

⁴² Eva Alram Stern (n. 6), 288-289, no. 597, pl. 4,41; 289, no. 589, pl. 4,41; 290, no. 603.

⁴³ Dora Iványi (n. 3), 293, no. 4210, pl. LVII/6.

⁴⁴ H. Derringer (n. 23), 58, 61, no. 352, 354.

⁴⁵ Eva Alram Stern (n. 6), 289-290, no. 600.

⁴⁶ T. Szentlélek (n. 4), 131, no. 253-254.

⁴⁷ M. L. Bernhardt, *Lampki starożytne*. Museum Narodowe w Warszawie, Warszawa 1955, no. 393, T. CXXIII.

One finds it difficult to follow the evolution of form IA lamps as to whether they continued as such or evolved into the fourth-fifth centuries Sucidava items. What we can ascertain is that form IA had been in use in Dacia by the first half of the second century AD, as the products of the substantial production, in the capital and environs, of a local workshop which specialized in them. It is hard to determine what motivated this production strategy, all the more so as it occurred against the background of the mass manufacture and copying of *Firmalampen*, Loeschcke Type X, then in circulation. Why the need for wheelmade lamps, since the mould technique was far simpler and certainly more widely used in local workshops? The large number of items discovered indicate a fairly well established manufacture rather than the isolated efforts of some local artisan. Moreover, many items bear traces of fire, which might indicate more than occasional, if current, use.

Form IB

39) Sarmizegetusa, fig. 82, MS, reg. 3600.

Round lamp, with deep-sunken discus around the wide filling-hole. The fluted nozzle pierces through the shoulder. The ring handle is luted to the waist of the body. The base is flat with string marks. Fire traces on the nozzle indicating extensive use. Buff-brick-red clay, smooth and dense, with grit and mica. Dim.: L=8.7; H=3; D=6.1.

40) Porolissum, fig. 84 (Gudea 1989, 450, pl.XIII/38).

Circular lamp with broken concave discus and fairly wide filling-hole. Nozzle in low relief pierces the shoulder and the discus. Ring handle and circular, slightly concave, base. Brick-red, smooth, gritty clay. Dim.: L=7.7; H=2.3; D=5.8.

41) Dierna, fig. 85 (Benea 1979, 220, fig. 1/2).

Double- truncate circular lamp, with wide filling-hole at the centre of a sunken discus. The large nozzle in relief pierces the shoulder. Flat base and broken handle. 'Red' (perhaps, brick-red) clay is layered with olive-green glaze. Dim.: L=7.8; H=3; D=6.2.

This group includes three lamps, no. 39-41, defined by deep-sunken discs and inward sloping rims.

The item of Dierna, no. 41, fig. 85, considered to be mouldmade by Doina Benea⁴⁸, has been assigned to the third-fourth centuries AD, on account of the glaze and its morphology. Lamp no. 39, fig. 82, from Sarmizegetusa, is analogous to an item in Sofia⁴⁹ (fig. 83) - assigned to the third-fifth centuries AD⁵⁰.

The features of the Ulpia Traiana Sarmizegetusa item are strikingly similar to those of form A₂, discovered at the same site. This would point to a date closer to that of aforementioned lamps than to the item of Dierna. It is also noteworthy that the presence of the green or buff glaze assigns the lamp to approximately the fourth century, when it was a frequent occurrence. Once more, lack of physical and chemical analysis defines the limited scope of the traditional analysis of these artifacts.

Form IC

42) Râșnov, fig. 88 (Oancea 1969, 601, fig. 4/3).

Polilychnis lamp, carelessly made, with large flat discus separated from the shoulder by an incised circle; the filling-hole is surrounded by a prominent ridge. The five nozzles are in low relief.

⁴⁸ Doina Benea, *Opaițe romano-bizantine în colecțiile Muzeului Banatului*, Sargetia 14, 1979, 220.

⁴⁹ G. Kuzmanov (n. 7), 130, 160, type XL, variant 2, no. 358.

⁵⁰ See note 41 for the discussion on the basis for dating the items of Sofia.

The handle is broken; the base is round, large, "in relief" (Oancea 1969, 601). Yellowish, impure clay. Dim.: L=9.4; D=7.5; H=3.5.

Dating: 2nd-3rd centuries AD (Oancea 1969, 600).

43) Băile Herculane, fig. 87, MB, no registration number.

Trilychnis lamp with circular shallow body and flat discus with wide filling-hole bordered by a ring in relief. The edge of the oil-chamber is set off by a raised ridge. Only fragments are left of the nozzles in bold relief; two nozzles are broken. Circular, slightly convex base is fairly high and the handle is lost. String marks on the underside. Grey buff tinted clay, smooth and soapy, with mica. Dim.: L=6.5; H=2.7; D=5.6.

44) Apulum, fig. 86 (Băluță 1965, 291, pl. VI/8-10; Băluță 1983, 32, pl. XLVIII/d).

Circular shallow body lamp with flat discus; the filling-hole on the discus is wide. The edge of the oil-chamber is set off by a raised ridge. The nozzle in relief has a large wick-hole. The ribbed almost rectangular handle is raised. Grey-black, coarse clay. Dim.: L=11; H=2.9; D=7.5.

45) Râșnov, fig. 89 (Oancea 1969, 601, fig. 4/2).

Round bodied lamp with sunken discus separated from the rim by a relief ridge. The nozzle and handle are broken and the base is flat. Brick-red clay, overfired. Dim.: D=6.2; H=2.5.

Dating: 2nd-3rd centuries AD (Oancea 1969, 600).

The four items forming the group, no. 42-45, have flat discs and raised rims setting off the outer side of the discus.

Lamps no. 42, fig. 88, and no. 45, fig. 89, have been unearthed at Râșnov, and can be assigned to the lengthy age range of the castrum, that is the second to third centuries AD⁵¹. The lamp discovered at Alba Iulia (Apulum) has been assigned to the fourth-fifth centuries AD⁵², very probably on account of the features of this poor quality item.

Analogies can be found among the items of Intercisa⁵³ (fig. 91), which is in turn analogous to one other item from Carnuntum⁵⁴ (fig. 90), in Pannonia⁵⁵ (fig. 93, 94), and in Sofia⁵⁶ (fig. 92). Eva Alram-Stern considers the lamp of Apulum, no. 44, fig. 86, to be analogous to a glazed item from Carnuntum defined by a high "torch holder"⁵⁷.

The items in this group are made from poor quality clay and are carelessly fired – these are diagnostic features which could assign them as regards morphology to "late" lamps, following the Roman rule in the province, at a time of sharp decline in the lamp craftsmanship. However, the features do not suffice to fix any 'late' dating, if we take into consideration that the items from Râșnov do not go beyond the third century, while the dating of the Apulum lamp is not sufficiently argued.

Form ID

46) Orșova, fig. 97, MB, reg. 1067.

Round bodied lamp with concave discus and wide filling-hole encircled by a raised rim. The nozzle in relief with wide wick-hole pierces the shoulder. The circular base is close in shape to a glass foot, and the handle is broken. Pink clay picked with brick-red, layered with a yellow-green slip with dark brown spots.

⁵¹ Al. Oancea (n. 34), 600; N. Gudea, I. I. Pop, *Castrul roman de la Râșnov Cumidava*, Brașov 1971, 7, 63-66.

⁵² Cl. Băluță, *Lucernele romane din Dacia intracarpatică* (unpublished PhD), Cluj-Napoca 1983, 32.

⁵³ I. Paulovics (n. 22), 116, pl. II, grave XXI.

⁵⁴ Eva Alram Stern (n. 6), 284-285, no. 585, pl. 40.

⁵⁵ Dora Iványi (n. 3), 293, no. 4198, pl. LVI/9; 291, no. 4168, pl. LVI/10.

⁵⁶ G. Kuzmanov (n. 7), 166, type XXXIX, no. 326-340 - lamps dating from mid-third century AD and fifth century AD.

⁵⁷ Eva Alram Stern (n. 6), 285, no. 584, pl. 40.

47) Gornea, fig. 95 (Gudea 1977, 79, fig. 20/11= 34/4).

Circular lamp with sunken discus and wide filling-hole. The edge of the discus is defined by a raised ridge. The nozzle pierces the shoulder, the handle is broken. Gray, smooth clay. Dim.: L=7; H=3; D=6.5

48) Gornea, fig. 96 (Gudea 1977, 79, fig. 20/9, 34/2).

Circular lamp with raised foot shaped base and rather flat discus encircled by a ridge. The thick raised handle has a median groove and was luted to the ridge. Brick-red, smooth clay with a green coating. Dim.: L=8.5; H=6.5; D=5.6.

The group of lamps having concave discs separated from the shoulder by a raised ridge includes three items, no. 46-48, two of which come from Gornea. Lamp no 48, fig. 96, has a raised base, a stand, which sets off it among the other lamps in its group and among the rest of the wheelmade lamps of Dacia.

The lamp from Orșova is similar to one in Sofia⁵⁸ (fig. 98), - dating from the third to fourth centuries AD.

There are variants of this form from Neviodunum⁵⁹ (fig. 107), Emona⁶⁰ (fig. 102), Warsaw⁶¹, among the items of the Archeology Museum of Zagreb⁶² (fig. 108, 109), Salamina, Cyprus⁶³ (fig. 106), Valeria⁶⁴ (fig. 110), Sirmium⁶⁵ (fig. 104, 103, 105) and Intercisa⁶⁶ (fig. 99, 100, 101).

Since there is few data to go on for the three items depicted above, we can attempt some chronology, based on analogies, around the third to fifth centuries (?) AD. The presence of glaze on one of the lamps recovered at Gornea, no. 48, fig. 96, cannot serve as a chronological pointer.

Form IE

49) Gornea, fig. 114 (Gudea 1977, 79, fig. 34/1).

Circular lamp with flat base and fairly wide filling-hole. The discus displays a concave groove interrupted by the raised disc-shaped handle that extends to the slightly splayed wick-hole. The base is circular, flat. Brick-red, smooth clay is coated with dark-green glaze. Dim.: L=11.5; H=4; D=6.5.

50) Gornea, fig. 113 (Gudea 1977, 79, fig. 34/3).

Lamp similar to the previous. Brick-red, smooth clay, coated with green glaze. Dim: L=11.2; H=4.2; D=6.8.

⁵⁸ G. Kuzmanov (n. 7), 46, 167, no. 344, type XL.

⁵⁹ Sonja Petru, P. Petru, Neviodunum (Drnovo pri Krškem), Ljubljana 1978, 84, grave. 8, tab. LX.

⁶⁰ Sonja Petru, Emonske nekropole, Ljubljana 1972, 167, no. 6, Tab. CIV.

⁶¹ M. L. Bernhard (n. 47), no. 394, pl. CXXIV.

⁶² Branka Vikić-Belančić, Anticke Svjetiljke u Arheologškom Muzeju u Zagrebu, Zagreb 1976, pl. XLII/1-5, XLIII/1-3, 6,7.

⁶³ Thérèse Oziol, Salamine de Chypre VII. Les lampes du Musée de Chypre, Paris 1977, 287-288, no. 880, pl. 48.

⁶⁴ J. Sanchez-Lafuente Perez, Comercio de ceramicas romanas en Valencia, Cuenca 1985, 216, fig. 49/44, pl. XX/44.

⁶⁵ J. C. Rubright (n. 21), no. 153, pl. XV/153, 154, pl. XV/154, XXIV/154, no. 285, pl. XIX/285, pl. XXV/285, type XXII, p. 54 - the item is considered the prototype for glazed lamps of the third and fourth centuries AD.

⁶⁶ E. B. Vago, I. Bona, Die Gräberfelder von Intercisa I. Der spätrömische Südostfriedhof, Budapest 1976, 108, 235, Taf. 25, 1280/1; 110, 236, Abb 139, Taf. 26, 1300/2 - the last item has been assigned to the fourth century AD with the coin from Maximus Daia (312-313 AD) and a fibula with onion heads - type 3 Keller - which was evolved only in 330 AD (E. B. Vago, I. Bona, *op. cit.*, 110, pl. 26, 1300/1, pl. XXXVI/3).

51) Gornea, fig. 111 (Gudea 1977, 79, fig. 20/7, 34/7).

Lamp similar to the previous. Brick-red, smooth clay, coated with green-red glaze. Dim.: 11.2; H=4.2; D=6.8.

52) Gornea, fig. 112 (Gudea 1977, 79, fig. 20/8, 34/8).

Circular lamp with flat base and fairly wide filling-hole, similar to the previous. The rectangular ribbed handle is longer than in the case of the previous. Brick-red, smooth clay, coated with greenish glaze. Dim.: L=11; H=3.8; D=6.7.

This group includes four items, no. 49-52, defined by concave disci encircled by raised ridges interrupted by the handle that connects the shoulder to the rim round the filling-hole; the discus, thus, takes the shape of a horseshoe. The nozzle is tapered, the handle is full and rather disc-shaped. The long nozzle elongates the ensemble, which is oval, closely resembling the typical shape of the *Firmalampen* or the "North-African" lamps. All the lamps in the group were discovered at Gornea, and display morphological, fabric, and glaze similarities. All of these features point to some local workshop running in Gornea. The same fabric and glaze similarities occur in item no. 48, fig. 96, form ID, with the same implication.

Analogous items come from Sucidava⁶⁷ (fig. 116) – dating from late fourth century and early fifth centuries⁶⁸ and the item of Carnuntum⁶⁹ (fig. 117), at Vindonissa⁷⁰ (fig. 115), at Zalalövő⁷¹ (fig. 118) (– the item dates from between 124 and 230 AD).

Considering the features of the items and the similarities with the lamp from Sucidava we could assign for the manufacture of the workshop at Gornea the chronology of the lamp or the age range between the two chronological pointers afforded by the items from Zalalövő and Sucidava (– between 124 AD and late fourth century early fifth centuries). This is valid for item no. 48, form ID, too.

Form IF

53) Buciumi, fig. 126 (Chirilă, Gudea, Lucăcel, Pop 1972, 56, Taf. XLII/6).

Circular shallow lamp, with damaged (wide?) filling-hole. The nozzle is in relief, and the handle is disc-shaped. The circular base is flat. Brown, smooth clay. Dim.: L=9.2; H=2.5; D=7.5.

54) Apulum, fig. 119 (Băluță 1965, 291, pl. VI/12,14).

Relatively globular lamp, with wide filling-hole. Flat, circular base is slightly raised. Grey-sepia clay, quite smooth, with grit and mica. Dim.: L=8.3; H=3.4; D=7.1.

55) Gornea, fig. 120 (Gudea 1977, 79, fig. 34/6).

Lamp with fragments lost, a plan upper part and fairly wide filling-hole. The nozzle is in bold relief and pierces the upper side of the oil-chamber. The circular base is set off by a raised ridge. Grey, smooth clay. Dim.: L=7.8; H=3; D=6.

56) Find-site unknown, fig. 125, (Dumitrașcu 1990, 55, pl. XXVIII-29 a-c).

Wheelmade lamp, with wide filling-hole encircled by a circular ridge. The nozzle is short, and the flaring mouth is meant for a oval wick. The oil-chamber is truncated, with a flat base and a

⁶⁷ D. Tudor (n. 26), 167, fig. 19/10.

⁶⁸ See note 26.

⁶⁹ Eva Alram Stern (n. 6), 286, no. 587, pl. 40.

⁷⁰ A. Neumann, *Lampen und andere Beleuchtungsgeräte aus Vindobona*, RLÖ 22, 1967, 24, pl. XIV/260, type XXII, var. 1.

⁷¹ Z. S. Pongrácz, *Lampen aus Zalalövő (1973-1987)*, AAnthung 42, 1990, 120, fig. 2/62; 137-138.

raised semi-disc-shaped handle, with string marks. Black-grey clay, with grit and organic constituents. Dim.: L=7.3; H=3; D=5.7.

Dating: probably the 4th – 5th centuries AD⁷².

57) Potaissa, fig. 122 (Cătinaş 1997, 195, fig. 7/2).

Small, round-bodied lamp, with fairly flat discus. The handle is broken, and the circular base is flat.

58) Cinciş, fig. 123 (Băluţă 1978, 224, pl. V/42; Băluţă 1983, pl. XLVIII/2; XLIX/2-2a).

Lamp with fluked nozzle with a semi-circular ending, and wide wick-hole. The upper side is level. The handle is disc-shaped and raised. The real dimensions are unknown since only a photograph is left. Buff clay. Dim.: L=6.6; H(without handle)=2.8; H(with handle)=3.6; D=5.1.

59) Romula, fig. 127 (Popilian 1976, 24, fig. 11/5).

Circular lamp with flat upper side and medium size filling-hole. The nozzle in relief displays a wide wick-hole, and the handle is broken. Flat circular base.

Dating: the second half of the 2nd century AD to 3rd century AD (Popilian 1976, 225).

60) Potaissa, fig. 121 (Cătinaş 1997, 183, 194, fig. 8/2).

Round bodied lamp, with flat discus and fairly wide filling-hole. The discus displays a second smaller filling-hole. The raised handle is disc-shaped, and the nozzle is broken.

61) Valea lui Mihai, fig. 124 (Dumitraşcu 1990, 55, pl. XXVIII/30a-c).

Lamp⁷³ with flat discus and not too wide filling-hole; the discus is broken at the centre. Its partially broken nozzle pierces the upper side of the lamp. The oil-chamber is truncated, with small slightly convex base, which makes it unstable, and the band handle is raised. Earth-black, coarse clay. Dim.: L=6.8; H=2.4; D=5.7.

This group includes nine items, no. 53-61, with rather flat upper sides of the oil-chambers, and no discs. The lamp of Romula, no. 59, fig. 127, was assigned to the age span of the *villa* in which it was discovered, that is, from about the second half of the second century to mid-third century AD⁷⁴. Lamps no. 54, fig. 119, and no. 56, fig. 125, have been assigned to the fourth century, fourth-fifth centuries, respectively. The dating took into account the poor quality clay and the degree of firing, similar with most of the items in this group.

There are analogies at Slăveni⁷⁵ (fig. 128), Carnuntum⁷⁶ (fig. 132), Warsaw⁷⁷ (fig. 130), Sopianae⁷⁸ (fig. 129), Zalalövö⁷⁹ (fig. 131) and Lauriacum⁸⁰ (fig. 133). The analogies cover an age-range from the second through the sixth centuries AD, the same with the conclusion reached going on the few data on the lamps of the IF group. Our remark is that this form occurs among the items manufactured in third century Dacia, or perhaps as early as the second half of the second century AD.

⁷² S. Dumitraşcu, *Lămpi romane. Repertoriul colecţiei secţiei de istorie a Muzeului Ţării Crişurilor*, Crisia 20, 1990, 55, by analogy to the items in the Museum of Deva discovered at Cinciş, Strei, Sântămărie de Piatră (Cl. Băluţă, *Lămpile romane din muzeul judeţean Hunedoara-Deva*, Sargetia 13, 1978, 224, pl. V/42-44).

⁷³ S. Dumitraşcu (n. 72), 55, the item apparently is "a local Firmalampen copy with a band handle, type IANUARIUS"!?.

⁷⁴ G. Popilian, *Un quartier artisanal à Romula*, Dacia N. S. 20, 1976, 225.

⁷⁵ G. Popilian (n. 16), 40, pl. 10/4.

⁷⁶ Eva Alam Stern (n. 6), 289, no. 599, pl. 4.41.

⁷⁷ M. L. Bernhard (n. 49), 349, no. 392 - the provenience of the item is Siracusa, the dungeons of St. Giovanni - dating back to the fourth-sixth centuries AD.

⁷⁸ F. Fülep, Sopianae The history of Pécs during the roman era, and the problem of the continuity of the late Roman population, Budapest 1984, 130, fig. 110/13; 332, no. 2379, pl. II/6.

⁷⁹ Z. S. Pongrácz (n. 71), 132, 138, fig. 8/326 - of the type XXII, dating from 124-330 AD.

⁸⁰ H. Derringer (n. 23), 62, pl. 13/1001.

Form IG

62) Apulum, fig. 134, MUAI, reg. 17044.

Wheelmade lamp, with shallow circular body, and wide filling-hole surrounded by a round ridge. The slightly pulled out nozzle is hand fettled to set it off from the body. The handle is disc shaped, and the base is flat with string marks. Yellow-orange (orange-buff), smooth, compact clay, with some mica, is covered with a red slip. Dim.: L=8.7; H(without handle)=2.6; H(without handle)=3.9; D=7.3.

63) Bologna-Resculum, fig. 135 (Gudea 1997 46, fig. 26/1-3).

Circular lamp with wide filling-hole, surrounded by a round ridge. The nozzle is in relief, and the wick-hole is triangular. The rectangular handle is pierced in three spots. Dim.: L=10.7; D=7.3. Dating: third quarter of the 3rd century AD (Gudea 1997, 46).

64) Apulum, fig. 136, MUAI, reg. 351.

Whole lamp with flat body has on the upper side a wide filling-hole encircled by a raised rim. The item has a short nozzle and a fluked disc-shaped handle. The base is flat with an incised circle. The lamp was apparently simmered in paraffin after recovery. The clay is smooth, compact, grey on the outside, brown-buff on the inside. Dim.: L=10.5; H=(with handle)=5.8; H(without handle)= 3.4; D=7.4.

The three items in this group, no. 61-63, fig. 134-136, despite their flat upper sides, are markedly distinct from the previous group by the oversize filling-holes rimmed by raised rings.

The lamp from Bologna-Resculum, no. 63, fig. 108, is defined by its flat, rectangular, handle level with the body, which is a novelty for Roman lamps. The item has been assigned to the third quarter of the third century AD on account of its shape and find-context⁸¹.

The lamps of this group are fairly similar to the item of Alba Regia⁸² (fig. 138), in turn similar to the lamps of type XXII, variant 4, by Dora Iványi's typology⁸³. The item from Alba Regia is different only as regards the base, which, in the case in point, is higher, cylindrical – ("glass foot"), as compared to the flat base of the items in our survey; the chronology for these items, - that is, late third century and early fourth century, reinforces N. Gudea's chronology for item 63, fig. 135. Another similar item is that discovered in Crimea⁸⁴ (fig. 143-145). Close to the group mentioned are the items of Sophianae⁸⁵ (fig. 141, 142), with the remark that the nozzles are longer, and the last two are glazed, and the item from Valeria, Spania⁸⁶ (fig. 140); the last on the

⁸¹ N. Gudea, *Das Römergrenzkastell von Bologna-Resculum. Castrul roman de la Bologna-Resculum*, Zalău 1997, 46.

⁸² K. Szabó, *Die 1977 freigelegten Gräber des westlichen Gräberfeldes von Intercisa*, Alba Regia 18, 1980, 291-316, pl. VII/1, 294, grave 2219.

⁸³ See note 22 for the dating of this variant.

⁸⁴ D. M. Bailey, *A catalogue of the Lamps in the British Museum*, I. Greek, Hellenistic, and early roman pottery lamps, London, 1975, Q 120, Q 121, Q 122, 73. The researcher assigned it to the second century BC as he considered it to be close to a Greek lamp with wide opening discovered on the same spot. Bailey agrees with and assumes this chronology, but when discussing other wheelmade lamps (Q459-462) he admits that they might be late Roman, rather than Greek, lamps, which could hold true for item Q 158 as well as for our item. Item Q 120 is close to Q 119 – Greek lamp, assignable to the second century BC, yet by displaying all the features of the aforementioned Roman lamps and it is, therefore, regarded as falling within the latter group. Items Q 121, 122 (D. M. Bailey, *op. cit.*, 75) are the transition to other shapes of wheelmade lamps, what we named type II.

⁸⁵ F. Fülep (n. 78), 130, fig. 110/14,15.

⁸⁶ J. Sanchez-Lafuente Perez (n. 64), 153, no. 46, fig. 49/46.

list has a narrower filling-hole and a conspicuously truncated oil-chamber. Further similar items are those of Slăveni⁸⁷ (fig. 137) and Jidava⁸⁸ (fig. 139).

Form IH

65) Satulung-Braşov, fig. 147 (Băluţă 1983, 28, pl. XLVI/4; Băluţă 1989, 258, pl. X/3).

Globular lamp, with wide filling-hole and slightly concave discus. The nozzle is broken. A12 fabric, is covered with a H10⁸⁹ slip. Dim.: H=3.2; D=6.9.

Dating: the second half of the 3rd century AD (Băluţă 1983, 27, pl. XLVI/5).

66) Cristeşti de Mureş, fig. 146 (Băluţă 1983, 27, pl. XLVI/5).

Globular lamp with concave discus and fairly wide filling-hole. The base is flat, and there is no handle.

Dating: as previous.

This group includes only two items, no. 65, 66, - globular lamps with sunken discs, no nozzles and no handles. The wick-hole was pierced through either the wall or the shoulder of the oil chamber. Both items were assigned by Cl. Băluţă to the second half of the third century AD, yet, without arguments.

Analogous lamps were found at Carnuntum⁹⁰ (fig. 151), Vindonissa ⁹¹(fig. 156), Sofia⁹² (fig. 149, 152) – these, however, display a truncated taller profile and handles close to those of Warsaw⁹³ (fig. 148).

Type II

This second major category of lamps includes 28 items defined by a morphology differing from that of classical Roman lamps.

Form IIA

67) Sântămărie de Piatră, fig. 153 (Băluţă 1978, 224, pl. V/43 a-b; Băluţă 1983, pl. XLVI, VI/6).

Double-truncated cone lamp, with a wide filling-hole with slightly raised edges. The handle is disc-shaped and raised, and the lamp stands on a ring base. Brown-black, poor quality clay. Dim.: L=6.6; D=5.3; H=2.6.

Dating: second half of the 3rd century – early 4th century AD (Băluţă 1983, 28).

68) Buciumi, fig. 154, (Chirilă, Gudea, Lucăcel, Pop 1972, 56, fig. XLVII/5).

Round, double-truncated cone lamp, with broken discus. The nozzle pierces the oil-chamber at the waist. The item has no handle, and the base is flat and circular. Brown, smooth, clay. Dim.: L=6.8; H=3.5; D=7.

69) Strei, fig. 155 (Băluţă 1978, 224, pl. V/44 a-b).

Double-truncated cone lamp, with wide filling-hole; the rim of the filling-hole is raised and double rilled. The handle is broken. The lamp stands on a base-ring. Greyish, impure, clay. Dim.: L=8.4; D=6.8; H=4.7.

⁸⁷ G. Popilian (n. 16), 41, pl. 11/3.

⁸⁸ T. Cioflan, M. Negru, *Lămpi de lut ars descoperite în castrul roman de la Câmpulung-Pescăreasa (Jidava)*, ArhOlt 11, 1996, 50, pl. 1/5.

⁸⁹ Cl. Băluţă establishes the color of clay and slip by "Nuancier", CEC, Farbkarte, Fédération Européenne de carreaux céramiques, Basel, without forwarding equivalents. As the catalogue is not available to us, we have preserved the author's depiction.

⁹⁰ Eva Alram Stern (n. 6), 288, no. 596, fig. 4.41.

⁹¹ A. Neumann (n. 70), 24, fig. XIV/262.

⁹² G. Kuzmanov (n. 7), 167, type XLII, variant 5, no. 396-399.

⁹³ M. L. Bernhard (n. 47), 346, no. 386, fig. CXVIII.

The first category of this group includes three items, no. 67-69, **fig. 153-155**, with double-truncated cone profiles and oversize filling-holes. All three are made of poor quality clay, sometimes impure, and were mis-fired-fired. The item from Sântămărie de Piatră was assigned by Cl. Băluță to between mid-third century to early fourth centuries⁹⁴, probably on account of the features of the lamp. There are similar items from Slăveni⁹⁵ (**fig. 157**), Jidava⁹⁶ (**fig. 156**) and Sopianae⁹⁷ (**fig. 158**).

Form IIB

70) Tibiscum, fig. 163 (Benea 1982, 37, fig. 16; Benea 1990, 167, fig. 20/131, type XIV). Bilychnis, tri-truncated cone lamp, with wide filling-hole, band handle, and tri-rilled rim. The nozzles pierce the oil-chamber at the waist. Brick-red clay with many impurities, grits and mica. Dim.: L=6.5; D=5.5; H=2.9.

Dating: 4th century AD (Benea 1990, 167).

71) Apulum, fig. 159, MUAI, reg. 414.

Fragmented tri-truncated cone lamp, tall, with flat base and wide filling-hole, surrounded by a mould rim. The handle is tri-rilled, and the nozzle is lost. String marks underneath the base, and the body bears traces of smoke. Orange-buff clay, fairly-smooth, with mica. Dim.: L=7; H(with handle)=5.7; H(without handle)=3.6; D=7.4.

72) Tibiscum, fig. 161 (Benea 1990, 167, no. 127).

Fragment of fairly double-truncated cone lamp; the nozzle and the front part of the lamp are lost. The wide filling-hole is surrounded by a mould rim. The band handle is double-rilled. String marks underneath the base. The brick-red clay has many impurities, grits and mica. Dim.: L=6.2; H=2.4; D=5.6.

Dating: 3rd – 4th centuries AD (Benea 1990, 167).

73) Tibiscum, fig. 162 (Benea 1990, 167, no. 130).

Fragment of shallow, fairly double-truncated cone lamp; the nozzle, handle and the front part of the lamp are lost. The wide filling-hole is surrounded by a mould ring. The circular base has string marks underneath. The orange-red clay contains mica. Dim.: L=5.7; H=3.2; D=7.2.

Dating: as previous.

74) Tibiscum, fig. 165 (Benea 1990, 167, fig. 20/128).

Tall, double-truncated cone lamp with flat base and wide filling-hole with raised and splayed funnel-shaped rim. The nozzle pierces the upper part of the oil-chamber, and is slightly pulled out. The raised handle is broken. The brick-red-brown clay is spongy, rough, with many impurities, micaceous. Dim.: L=6.2; H=22.4; D=5.6.

Dating: 3rd – 4th centuries AD (Benea 1990, 167).

75) Tibiscum, fig. 166 (Benea 1990, 167, fig. 20/129, type XIV).

Truncated cone lamp with wide filling-hole bordered by a ring in relief. The nozzle protrudes slightly, and the handle is broken. Brick-red clay with many impurities, grit and mica. Dim.: L=7.5; H=3.6; D=6.2.

Dating: 4th century AD (Benea 1990, 167).

76) Ilișua, fig. 167 (Băluță 1983, 28, pl. XLVI/7).

Circular trilychnis lamp, with wide filling-hole, surrounded by a mould rim. The shoulder is slightly domed. The band handle is attached to the oil chamber wall and the rim encircling the filling-hole. The nozzles are slightly pulled out, and the circular base is foot shaped.

Dating: mid-3rd century to early 4th centuries AD (Băluță 1983, 28).

⁹⁴ Cl. Băluță (n. 52), 28.

⁹⁵ G. Popilian (n. 17), 41, pl. 11/4.

⁹⁶ T. Cioflan, M. Negru (n. 88), 50, pl. 1/4.

⁹⁷ F. Füleș (n. 78), 27, 322, fig. II/7, no. 2360.

77) Tibiscum, fig. 160 (Benea 1990, 167, fig. 20/132).

Trilychnis lamp, with circular truncated cone body (Benea 1990, 151, type XIV lamps), with wide filling-hole surrounded by a ring in relief. The nozzles are in bold relief, and the handle is lost. Brick-red clay, with many impurities, grits and mica. Dim.: L=7.1; H=2.6; D=5.8.

Dating: 3rd-4th centuries AD (Benea 1990, 167)

78) Sarmizegetusa, fig. 164, MS, no registration.

Fragment of globular lamp; only part of the nozzle, the base and the wall of the oil-chamber. The nozzle is slightly pulled out, and the flat circular base shows string marks. Brick-red, brown, clay, fairly smooth, with grit and mica. F.S.- *forum vetus*.

Dating: 3rd century AD⁹⁸.

79) Potaissa, fig. 168 (Căţinaş 1997, 182, 194, fig. 8/5).

Rounded, curved, lamp with wide filling-hole encircled by a round ridge. The underside of the oil-chamber is conspicuously truncated. The nozzle in low relief pierces the upper wall of the oil-chamber. Deep-grey clay.

Ten items, no. 70-79, with truncated cone bodies and wide filling-hole, surrounded by a raised ring or splayed rim, form this group.

Some of the items were assigned to third-fourth century AD, no. 72-74, fig. 161, 162, 165, no. 77, fig. 160⁹⁹, others to the fourth century AD, no. 70, fig. 163, no. 75, fig. 166¹⁰⁰, or from mid-third century AD to early fourth century AD, no. 76, fig. 167¹⁰¹, – whether the researcher used any extra pointers apart from the morphology or poor quality diagnosis of the items remains unclear. Item no. 74, fig. 165, also recovered at Tibiscum, closely resembles the shape of Type IIC lamps of Romula, which is why we tend to assign the latter the same or close chronology (late second century AD – mid-third century AD).

Lamps no. 72, 73, fig. 161, 162, of Tibiscum are morphologically close to an item unearthed at Slăveni¹⁰² (fig. 169).

The large quantity of lamps of this form discovered at Tibiscum, displaying the same fabric characteristics and similar morphology indicate the existence of a workshop. However, for lack of clear stratigraphy and chronological pointers it is difficult to ascertain the period when it functioned; although we can accept the rather loose age range aforementioned – third to fourth centuries AD, the few data lead us to the conclusion that the workshop manufactured IIB form lamps in the third century. Our assumption is backed by the fragment no. 78, fig. 164, from Sarmizegetusa, closely resembling the morphology and fabric characteristics of the lamps of Tibiscum, which makes it very likely for them to have been manufactured not by a local workshop but by one in the near proximity, at Tibiscum; the fragment dates back to early third century AD.

Many of the lamps forming this group are made from not so smooth clay and were reduction-fired; these features indicate a slight decline in the manufacture of these lamps. For lack of further information to endorse our theory, we shall restrict ourselves to merely making these remarks.

⁹⁸ The item was discovered in a context dating to the beginning of the Sever dynasty. Information – courtesy of Al. Diaconescu.

⁹⁹ Doina Benea (n. 14), 167.

¹⁰⁰ *Ibidem*.

¹⁰¹ Cl. Băluţă (n. 52), 28.

¹⁰² G. Popilian (n. 16), 41, pl. 11/1.

Form IIC

80) Romula, fig. 173 (Popilian 1976, 239, fig. 11/6).

Tall double-truncated cone lamp, with flat base and wide filling-hole with splayed rim. The nozzle is pulled out and pierces the oil-chamber at the waist. The handle as well as part of the oil-chamber is lost. Brick-red, poor quality clay.

Dating: the second half of the 2nd century – first half of the 3rd century.

81) Romula, fig. 171 (Popilian 1976, 239, fig. 11/8; Popilian 1997, pl. XXIX/1).

The lamp is similar to the previous as regards the form, clay, find-spot, and dating. The item has preserved its rectangular, ribbed handle. (Popilian 1976, 225).

82) Romula, fig. 172 (Popilian 1997, 14, pl. XXIX/2).

The lamp is similar to the previous two; it is a tall double-truncated cone, with flat base and wide filling-hole with a splayed rim. The nozzle is pulled out and pierces the oil-chamber at the waist. The handle is lost, and so is part of the splayed rim of the filling-hole.

83) Romula, fig. 170 (Popilian 1997, 14, pl. XXIX/3).

The lamp is similar to the previous three, only in this case the band handle is rilled; the handle is attached to the upper side of the oil-chamber and the splayed rim of the filling-hole, almost covering it.

The four items forming this group, no. 80-83, are truncated cones in profile and have wide filling-holes, with raised and splayed rims. The lamps are similar as to morphology and clay, which indicates they are the products of one and the same local workshop. Form IIE includes only "Romula" items, whose chronology can be ascertained by the age span of the *villa* where they were discovered; the *villa* was built in the second half of the second century and burnt down during the invasion by the Carpi (245-247)¹⁰³, which is a pointer for the age-range of the workshop which manufactured the aforementioned lamps. Items no. 80, fig. 173, and 83, fig. 170, are similar to an item from Mătăsar, Dâmbovița county¹⁰⁴ – at level M₂ dwelling, dating, according to the numismatics and the fibula discovered there, from the third century AD¹⁰⁵.

A fairly similar form is displayed by the item from Sabratha¹⁰⁶ (fig. 174).

Form IID

84) Find-spot – unknown, fig. 176 (Băluță 1989, 258, pl. IX/4-4a).

Double-truncated cone lamp, with "carination", concave discus and wide filling-hole. The circular base is flat. "A3" clay is covered with a "A11"¹⁰⁷ slip.

85) Apulum, fig. 179 (Băluță 1965, 291, pl. VI/11,13; Băluță 1983, 31, pl. XLVIII/a, XLIX/1-1a).

Double-truncated cone lamp with "carination" and wide filling-hole, encircled by a high, straight ridge. The nozzle in relief pierces the upper side of the oil-chamber, and the handle is broken. The flat, circular base is slightly raised. Dim.: L=7.9; H=4.9; D=7.

Dating: with reserve, 4th century AD (Băluță 1965, 290).

86) Dierna, fig. 177 (Benea 1979, 221, pl. 1/3).

Wheelmade lamp, tall, round bodied, double-truncated cone, with slightly sunken discus; the filling-hole is not wide. The nozzle is pulled out in relief and it pierces the upper side of the oil-

¹⁰³G. Popilian (n. 74), 225.

¹⁰⁴Gh. Bichir, *Geto-dacii din Muntenia în epoca romană*, București 1984, 152, pl. XXXIII/2.

¹⁰⁵*Ibidem*, 87.

¹⁰⁶Elda Joly, *Lucerne del Museo di Sabratha*, Monografie di Archeologico, Libica 9, Roma 1974 42, no. 1328, pl. LVIII/ 1328, – dating from the ninth-tenth centuries AD, as based on an item from Antioch – p. 57).

¹⁰⁷See note 88.

chamber through to the discus; the handle, probably ring-shaped, is partially lost. The body bears marks of fingers and of extensive use. Grey clay, indicates local manufacturing. Dim.: L=7.5; H=5.8; D=5.9.

Dating: 4th century AD – on account of the execution, the clay and the shape (Benea 1979, 221).

Three items have been included in this group, no. 84-86, all double-truncated cones, however dissimilar in the presence or shape of the discus. With lamp no. 84, **fig. 176**, the discus is flat, surrounded by a raised outer rim and a raised ring round the filling-hole. The item from Dierna, no. 86, **fig. 177**, apparently has a concave discus, and the one from Apulum, no. 85, **fig. 179**, lacks the discus entirely. Only the last lamp has been dated, with reserves, to the fourth century AD¹⁰⁸; the lamp is fairly similar to a lamp in the British Museum¹⁰⁹ – dating from the fifth-sixth centuries AD. Another similar lamp could be that of Salamina¹¹⁰ (**fig. 178**) and that of Dinogetia¹¹¹ (**fig. 175**).

Form IIE

87) Buciumi, fig. 181 (Chirilă, Gudea, Lucăcel, Pop 1972, 58, pl. XLI/2).

Wheelmade lamp, globular, with wide filling-hole encircled by a ring ridge. The nozzle pierces through the upper side of the body, and the handle is ribbed. Brick-red, gritty, clay. Dim: L=7; H=3; D=6.

88) Potaissa, fig. 182 (Cătinaş 1997, 182, 193, fig. 8/8).

Globular lamp, fragments, with wide filling-hole, defined by a ring rim. The nozzle and the handle are broken. Black clay.

89) Potaissa, fig. 183 (Cătinaş 1997, 183, 193, fig. 8/4).

Large lamp, with round globular body, and wide filling-hole, encircled by a tall raised ridge (tall neck). The wick-hole pierces the oil-chamber at the upper side; the item does not have a nozzle per se. The lamp apparently has a high, circular base – glass-foot shaped. Dim.: L=8.5; H(without handle)=3.8; H(with handle)=4.7; D=8.7.

90) Apulum, fig. 180, MUAI, no registration number (associated with a coin from Claudius II)

Shallow globular lamp, with wide filling-hole, surrounded by a splayed raised rim. The nozzle is in low relief and pierces the oil-chamber on the upper side. The band handle is raised with three rill moulds. The body and nozzle show traces of smoke indicated extensive use. Sepia-buff with brown-grey spots, clay, spongy, coarse and rough, with grits and mica. Dim.: L=8.5; H=(without handle)=3.8; H(with handle)=4.7; d=8.7.

91) Apulum, fig. 184, MUAI, no registration number.

Shallow, globular lamp, with wide filling-hole, surrounded by a raised rim, slightly splayed, with three mould rills. The nozzle is in low relief, and the disc-shaped handle is fluked. Dim.: L=7.8; H=3.6; D=7.

92) Apulum, fig. 189, MUAI, no registration number.

Fragments of shallow globular lamp; the nozzle, the handle, and the oil-chamber partially, are lost. The wide filling-hole has a raised slightly splayed rim. The underside shows string marks. Black-grey clay, rather spongy, with mica. Dim.: L=7.6; H=3.7; D=7.2.

93) Find-spot – unknown, fig. 186, MCDR Deva, no registration.

Round, fairly globular lamp, with flat base and wide filling-hole; the filling-hole has a raised

¹⁰⁸Cl. Băluţă, *Opaite romane de la Apulum (II)*, Apulum 5, 1965, 290.

¹⁰⁹D. M. Bailey, *A catalogue of the Lamps in the British Museum III. Roman Lamps made in Italy*, London 1988, 418, Q 3341.

¹¹⁰Th. Oziol (n. 63), no. 882, pl. 48/882.

¹¹¹Gh. Ştefan, *Dinogetia I*, Dacia 7-8, 1937-1940, 412, pl. 4/2, fig. 15/1.

rim with two mould rills. The nozzle is pulled out and pierces the body at the waist. The handle is broken, and the underside bears string marks. Dim.: L=9.6; H=4.7; D=7.5.

94) Apulum, fig. 191, MUA1, no registration.

Fragments of double truncated cone lamp, with flat base and a wide "neck" round the filling-hole; its shape closely resembles other ordinary pottery, a bowl, to be precise. The ring handle is luted to the neck and the oil-chamber; the flat base bears string marks underneath. The nozzle is lost. Dim.: L=8.2; H(without handle)=5.5; H(with handle)=6; D=7.5.

The last group of this major category includes eight items, no. 87-94, having in common the globular profile. The rims round the filling-holes are high, straight or splayed, sometimes with two mould rills. The nozzle is in low relief, and is executed by piercing the wall of the oil-chamber and pulling it out; the handle can be either a pierced band or a disc.

At Apulum there apparently functioned a workshop which manufactured globular lamps with splayed rimmed filling-holes, as displayed by items no. 90, **fig. 180**, no. 91, **fig. 184**, no. 92, **fig. 198**, no. 94, **fig. 199**. The workshop could be dated, based on item no. 90 that was unearthed with a coin from Claudius II (268-270), towards late third century.

The lamp of Buciumi, no. 87, is analogous to items in the Museum of Zagreb¹¹² (**fig. 193**, **192**) and an item from Carnuntum¹¹³ (**fig. 190**) - regarded as similar to those of Győr and Satorhely (**fig. 187**), Pannonia¹¹⁴, and types XXXV Broneer and XXII Iványi. The items from Potaissa, no. 87, **fig. 182**, no. 88, **fig. 183**, are similar to a lamp from Novae¹¹⁵ (**fig. 188**), dated fourth-fifth centuries AD. Also similar is the item from Isaccea¹¹⁶ (**fig. 185**).

The coin which accompanied lamp no. 90 from Apulum does not afford an accurate chronology for the age range of the workshop here; they are, perhaps, the last years of the Roman rule in Dacia or shortly after the abandon, when the workshop may have stopped its manufacture. This is merely an assumption, for we are convinced that the facilities did not cease their activity but rather continued to service the Romanized settlers who led their lives by Roman canons.¹¹⁷

Although we are not certain as to what happened after late third century AD and early fourth century AD, the activity of a pottery workshop shortly prior and subsequent to the abandon by the Roman administration offers an image of the Romanized community preserving the customs, mentality, and pursuits from while still a Roman province. The functioning of the workshop necessitated trained staff, with the know-how of fashioning and firing the lamps, complex facilities for processing raw materials and firing products. The spongy, rough clay of these forms, most of which were reduction-fired, indicates some degree of negligence and decline for the entire process of lamp manufacture, however one cannot talk as yet of the total decline of pottery skills.

¹¹²Branka Vikić-Belančić (n. 62), pl. XLIII/4-4a, 5-5a.

¹¹³Eva Alram Stern (n. 6), 291-292, no. 606, pl. 4.42.

¹¹⁴Dora Iványi (n. 3), 269, no. 4250, pl.LVII/8; 296, no. 4251, pl. LVII/7, (type XXIII) - disc. in grave with coin from Constantinus.

¹¹⁵M. Vasić, *Čezara - castrum Novae*, *Starinar* 33-34, 1982-1983, 112, 119, pl. 7/9.

¹¹⁶F. Topoleanu, *Noi descoperiri arheologice la Isaccea*, *Peuce* 9, 1984, 192, pl. VII/3.

¹¹⁷Al. Diaconescu analyzes in his study the wide occurrence of lucernae on the territory of former Roman province Dacia following the Aurelianus epoch, and its implications - Al Diaconescu, *Lămpi romane târzii și paleobizantine din fosta provincie Dacia*, *EN* 5, 1995, 255-299.

The four globular lamps from Apulum, as most items of this form, are morphologically closer to Roman pottery vessels (e. g. bowls) than to clay lamps. These lamps display wide filling-holes with high splayed rims, fashioned apparently for some combustible that was less fluid than the oil used in the previous centuries. This is credible considering that by the end of the Roman rule and the Aurelianus abandon of the province the population is less resourceful, and in the absence of institutions that might ensure economic stability for the area, the trade too is marked by a decline as regards fluidity, substantiality, and staple products.

Under the circumstances, it was only natural for the locals to try to substitute for the shortage of olive oil (early combustible for lamps across the Roman Empire), some local combustibles – grease or animal fat.

The analogous item of Satorhely (fig. 187) endorses the supposition that the items in this form circulated in late third century AD, very probably, the first half of the fourth century AD.



The analysis of the group surveyed here has been hindered by and has suffered from lack of chronological pointers to diagnose the items, largely due to the absence of a thorough depiction of their morphology and physical features, and, especially to the manner of publication. Only partially have these flaws been surmounted, therefore our survey is somewhat eclectic. Fully aware of this, we lay no claim on having made our presentation exhaustive, but rather on having made full use of whatever was available, and thus managed to point out some elements meant to clarify, partially, the issue of the wheelmade lamps of Dacia.

We have noted in our survey that form IA had been evolved as early as early to mid-second century, and that they were manufactured by a pottery workshop in the capital of Dacia, Ulpia Traiana Sarmizegetusa. This manufacture paralleled an intense mouldmade *Firmalampen* production in the area. The mobile, addressees and duration of the production are, as yet, still uncertain, since excavations have been limited to the administrative and religious areas of the capital.

A possible sketch of their evolution or development could be made available by correlating the items of Sarmizegetuse, and not only, with those of Sucidava (fig. 17-19, 63-67) (dating from late fourth century to early fifth century AD).

Another workshop which was identified by the glazed lamps within form IE functioned at Gornea. The lack of chronological pointers for the workshop per se determined that its manufacture be assigned between the two pointers made available by the item of Zalalövő and Sucidava (from 124 AD to late fourth century AD- early fifth century AD). The analysis of the type II lamps certified the existence of a few workshops. One functioning at Romula between the second half of the second century AD and the first half of the third century AD also manufactured form IIC lamps. Another at Tibiscum, during the third century, also manufactured form IIB lamps, whilst still another, at Apulum, manufactured globular form IIE lamps, one of which was recovered with a coin from Claudius II. The aforementioned were not the sole workshops in Dacia. It is very likely that items of this type were manufactured across the entire province in workshops manufacturing ordinary pottery rather than in workshops specializing in lamps only. While the manufacture of these lamps alongside other pottery was only suspected or assumed for early Roman province

Dacia, the same is certain for the end of the Roman rule and the abandon of the province.

A survey of the development of the morphology of lamp forms identifies the changes occurring within, and more obviously, between the two types. The pattern for the morphological development is uncertain, but our presentation has pursued a certain logic – from the items closer to the “classical” form of the Roman lamps to those which lack all elements linking them to the Roman lamps. The order in our presentation was not meant to be, and indeed is not, chronological. One is compelled to admit that several forms within the same type, or belonging to different types, circulated either concomitantly or successively.

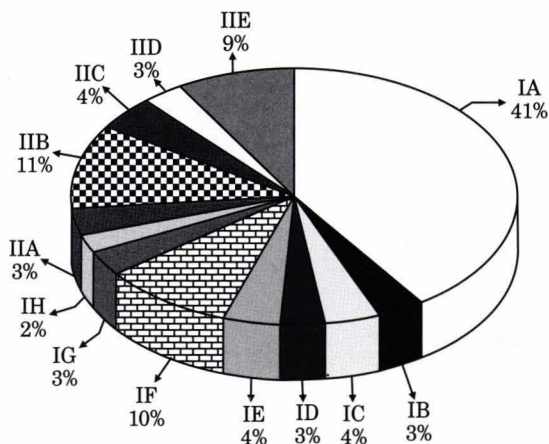
On studying the two forms with chronological pointers (forms IA and IIC), let us note that they display major profile dissimilarities. This, however, does not entail, as one might feel inclined to believe, equally major differences on the time scale. The span between the emergence of form IA in Dacia (“classical”, as suggested above) and the development of form IIC, with major alterations, is hardly a matter of decades. This is a powerful argument in favour of our claim above and an equally powerful motive which urges one to be cautious with assigning some of the lamps, when dating is based solely on the item’s morphology.

The filling-hole of the lamps is the cause for many debates and assumptions. The lamps fashioned with less technology, from less refined, if gross, material, with wide filling-holes, apparently, and logically, belonged to a “late” epoch (third to fifth centuries AD for Dacia), as the results of an age responding to the impact of the economic crisis under which the Roman Empire was staggering, and to a gradual removal of the province from the empire’s economic circuit. Under the circumstances, the widening filling-hole indicated the employment of a less fluid combustible which replaced traditional olive oil, while the lack or shortage of imported oil in the province, was one among several indications of such complex phenomena as marginalization and economic decay. Resorting, under the circumstances, either completely or partially, to some locally available combustible (animal fat – grease) was a logical step, which must have been taken at some point in Dacia, but from what we can tell there is no direct linking between this event and the emergence of wheelmade lamps in Dacia. Our studies have shown that the two episodes are neither complementary nor implicit. Wheelmade lamps emerge at a time of economic thriving within the province, at a time when a more advanced technique (in mould) was widely and successfully employed across the province, at a time when one can hardly speak of a declining technology.

It is also noteworthy that one should not readily apply the “late Roman lamps” formula to wheelmade lamps, nor are there elements that might present this manufacture as a revival of techniques used in the Greek ambience. Moreover, it is very likely that they evolved not necessarily as the products of some workshop specializing in lamps, but as additional products of pottery manufacture. This, apparently, was the case for Sarmizegetusa in the first half of the second century AD, with an extensive, highly specialized, mouldmade lamp manufacture. Moreover, one should also note that these items call for extra attention, since they offer different images with every site, every area, every province. Strong morphological changes occur within a short time range and are mainly caused by very permissive execution techniques, and under inter-regional influences.

No answers have been as yet forwarded for the disappearance of these items. However, we are hopeful that future studies on the cessation of the “industrial” manufacture of lamps or other categories of pottery within the province will yield more

data on the issue here. The disappearance of these lamps must have been a lengthy process, rather amplified in the more remote regions of the Empire. The area north of the Danube, then still under Roman influence, manufactured these lamps as late as the fifth century AD (e.g. Sucidava), perhaps even later. It remains for future studies to answer unsolved issues and yield as complete an image as possible of the development of lamps within Dacia, as correlated with the situation in the neighbouring regions and as compared to other types of artifacts.



Wheel made lamps from Dacia. Quantitative chart

Abbreviations:

MB - The Museum of Banat, Timișoara

MDCR - The Museum of Dacian and Roman civilization

MNIT - The Museum of the History of Transilvania Cluj Napoca

MS - The Sarmizegetusa Museum

MUAI - The Union Museum of Alba Iulia

Translated by Diana Cotrău

Table of the chronological pointers of wheelmade lamps

Form	Item number	2nd cent. AD				3rd cent. AD				4th cent. AD				5th cent. AD				6th cent. AD			
		150				250				350				450				550			
I A *1	No. 1-38	*	*	*	*	°	°	°	°	°	°	°	°	°	°	°	°				
I B	No. 39-41					°	°	°	°	°	°	°	°	°	°	°	°				
I C	No. 42-45	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°				
I D	No. 46-48		°	°	°	°	°	°	°	°	°	°	°	°	°	°	°				
I E *2	No. 49-52		°	°	°	°	°	°	°	°	°	°	°	°	°	°	°				
I F	No. 53-61		*	*	*	*	*	°	°	°	°	°	°	°	°	°	°				
I G	No. 62-64			°	°	°	°	°	°	°	°	°	°	°	°	°	°				
I H	No. 65,66					°	°	°	°	°	°	°	°	°	°	°	°				
II A	No. 67-69					°	°	°	°	°	°	°	°	°	°	°	°				
II B	No. 70-79		°	*	*	°	°	°	°	°	°	°	°	°	°	°	°				
II C *3	No. 80-83	°	*	*	*	°	°	°	°	°	°	°	°	°	°	°	°				
II D *4	No. 84-86					°	°	°	°	°	°	°	°	°	°	°	°				
II E *5	No. 87-94			°	°	°	°	°	°	°	°	°	°	°	°	°	°				

Table symbols:

- * - dating with chronological pointers
- ° - dating lacking reliable chronological pointers
- ? - uncertain or unknown situation

*1 workshop at Sarmizegetusa; *2 workshop at Gornea; *3 workshop at Romula; *4 workshop at Tibiscum; *5 workshop at Apulum

Both symbols ° and ? occurring in the same case indicates either that the presence of the form in that particular age range was established by analogy with fairly similar items from other provinces of the Empire, or that the researchers have not sufficiently argued the chronology.

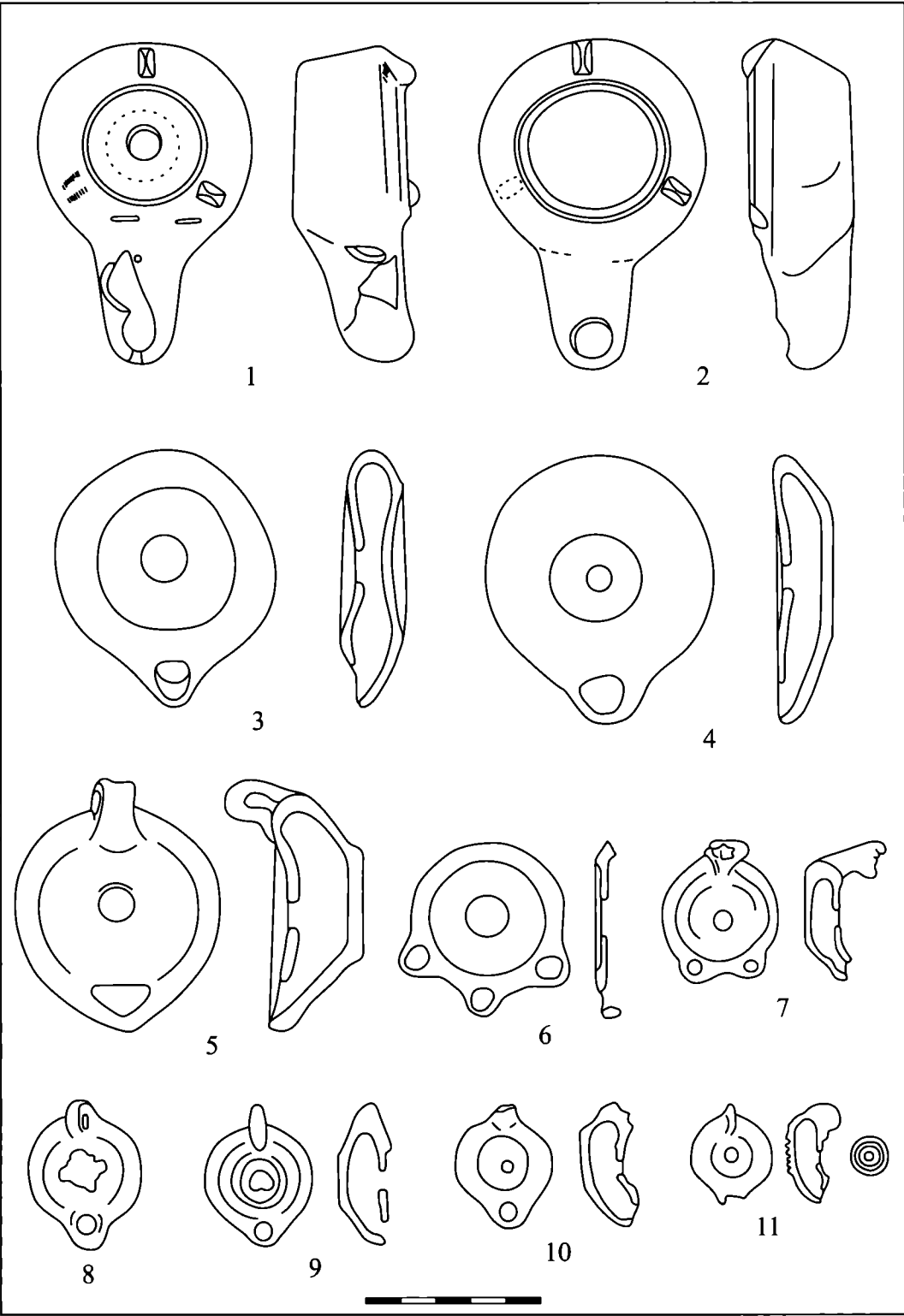


Fig. 1 - 11

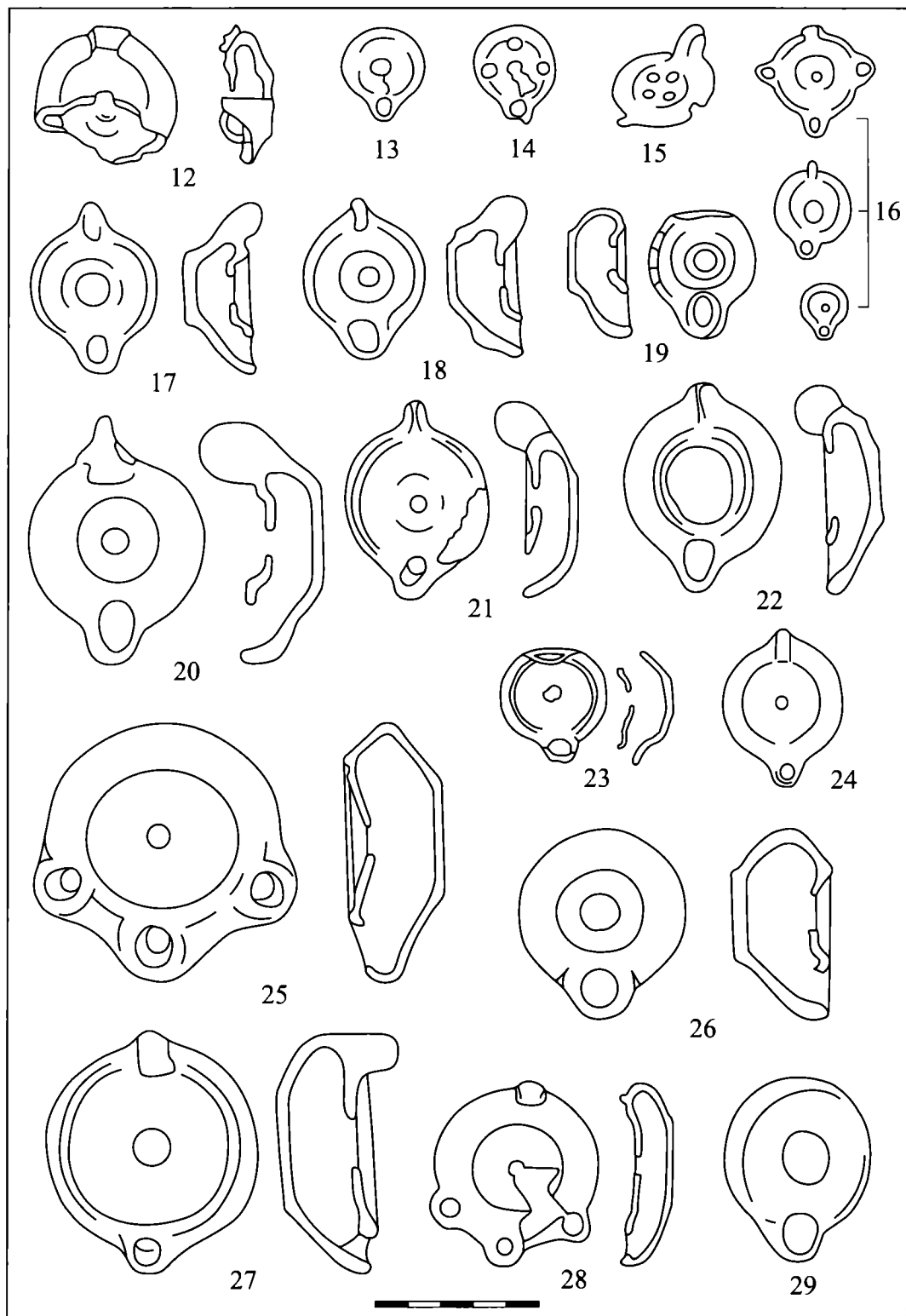


Fig. 12 - 29

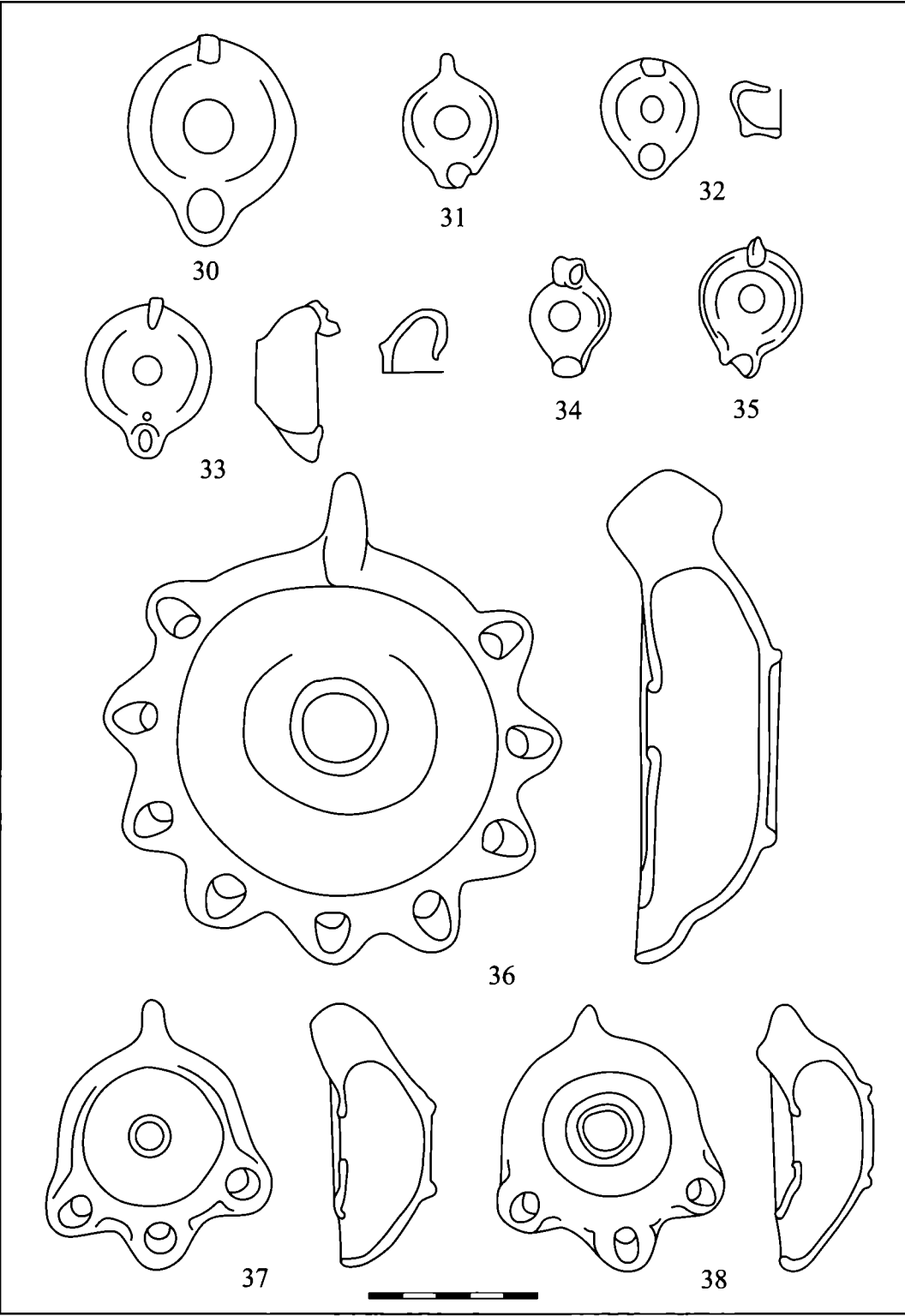


Fig. 30 - 38

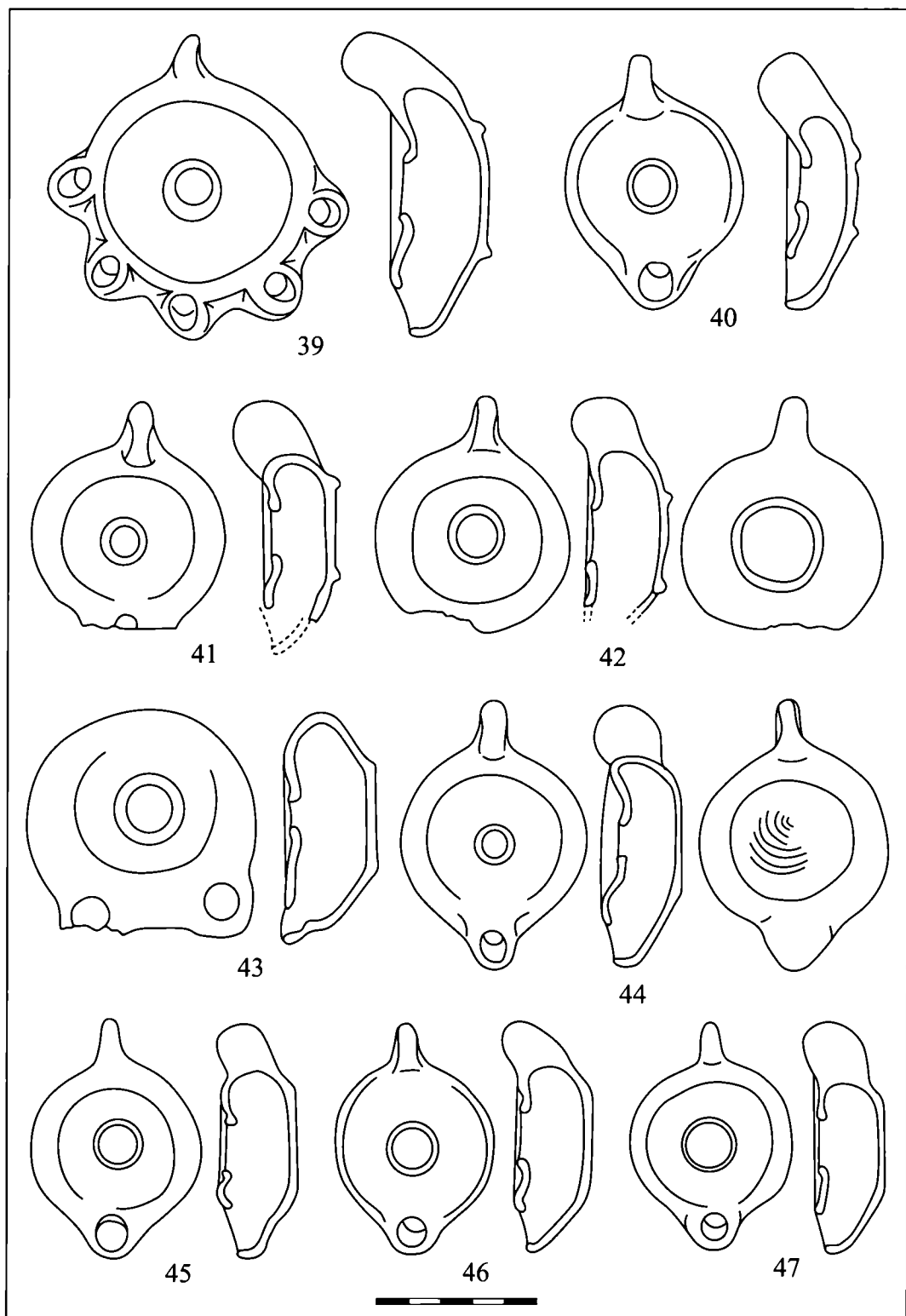


Fig. 39 - 47

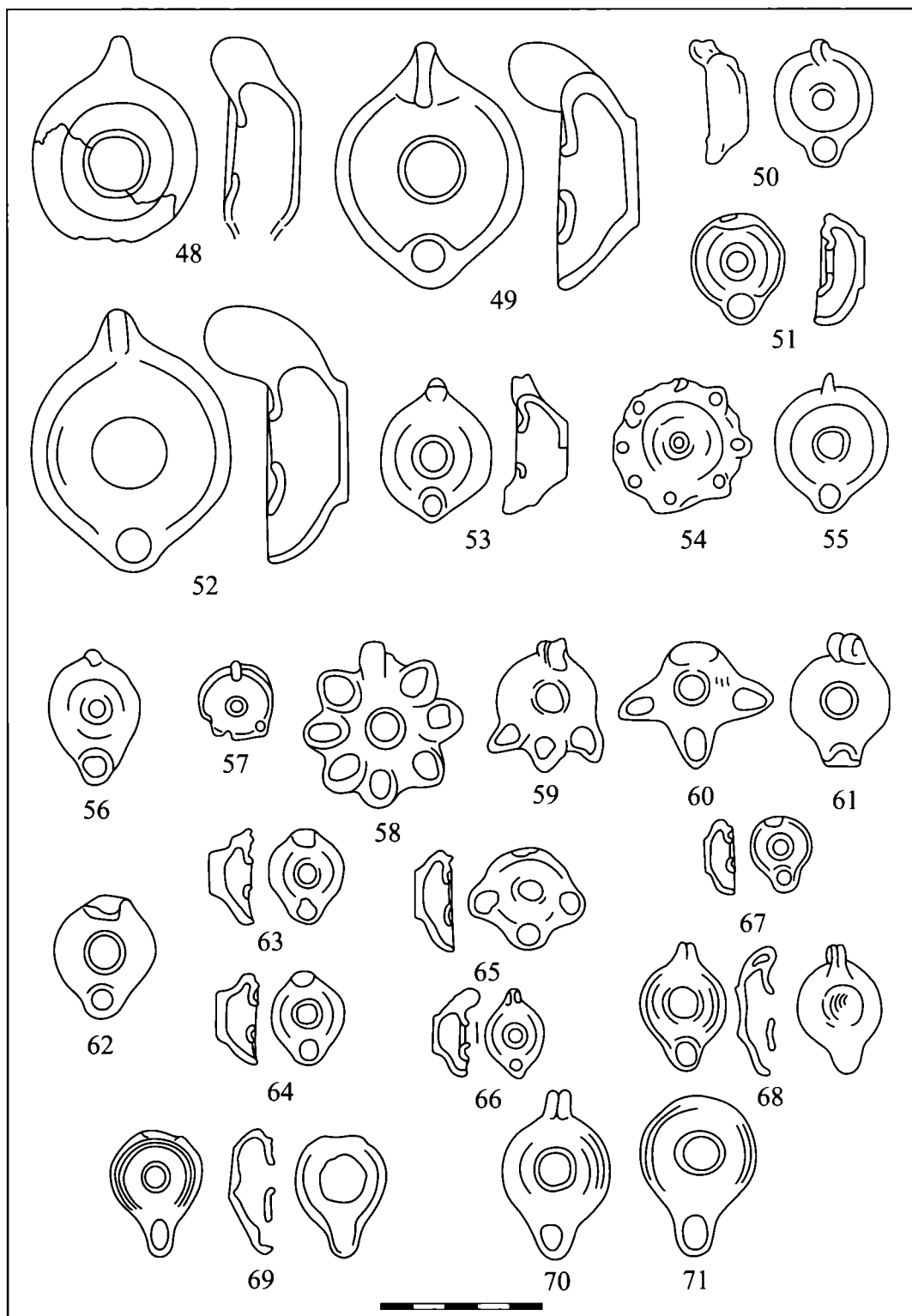


Fig. 48 - 71

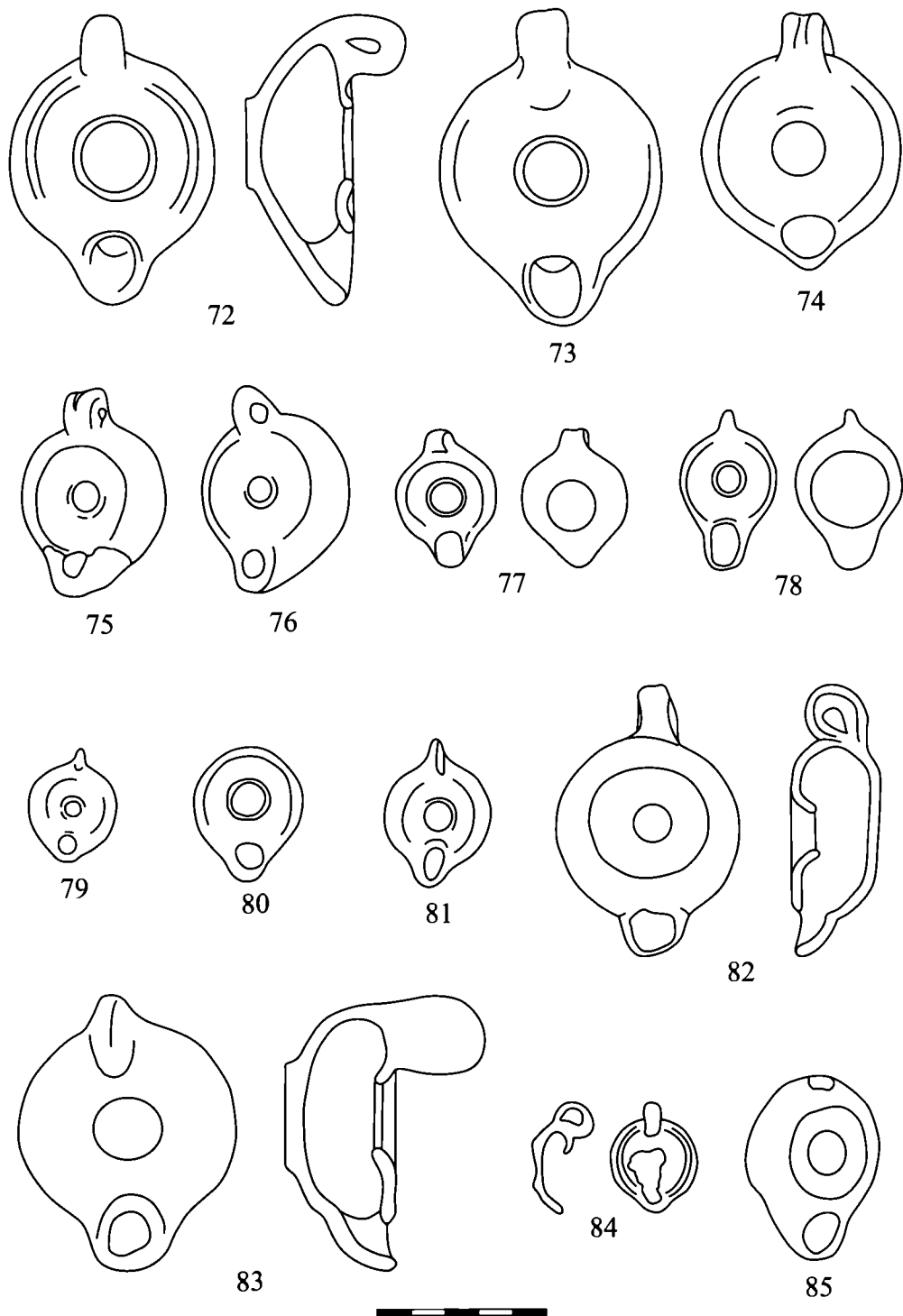


Fig. 72 - 85

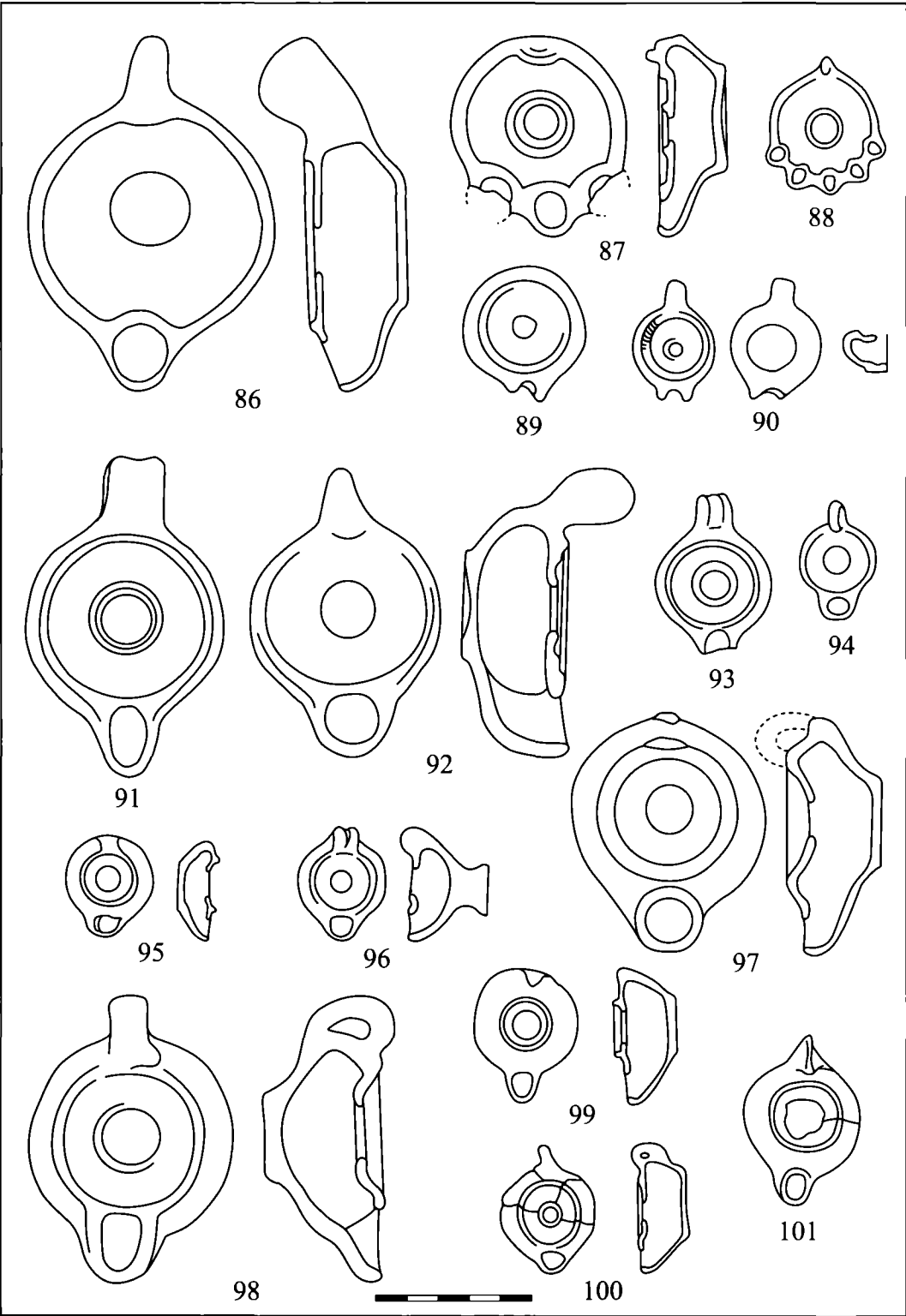


Fig. 86 - 101

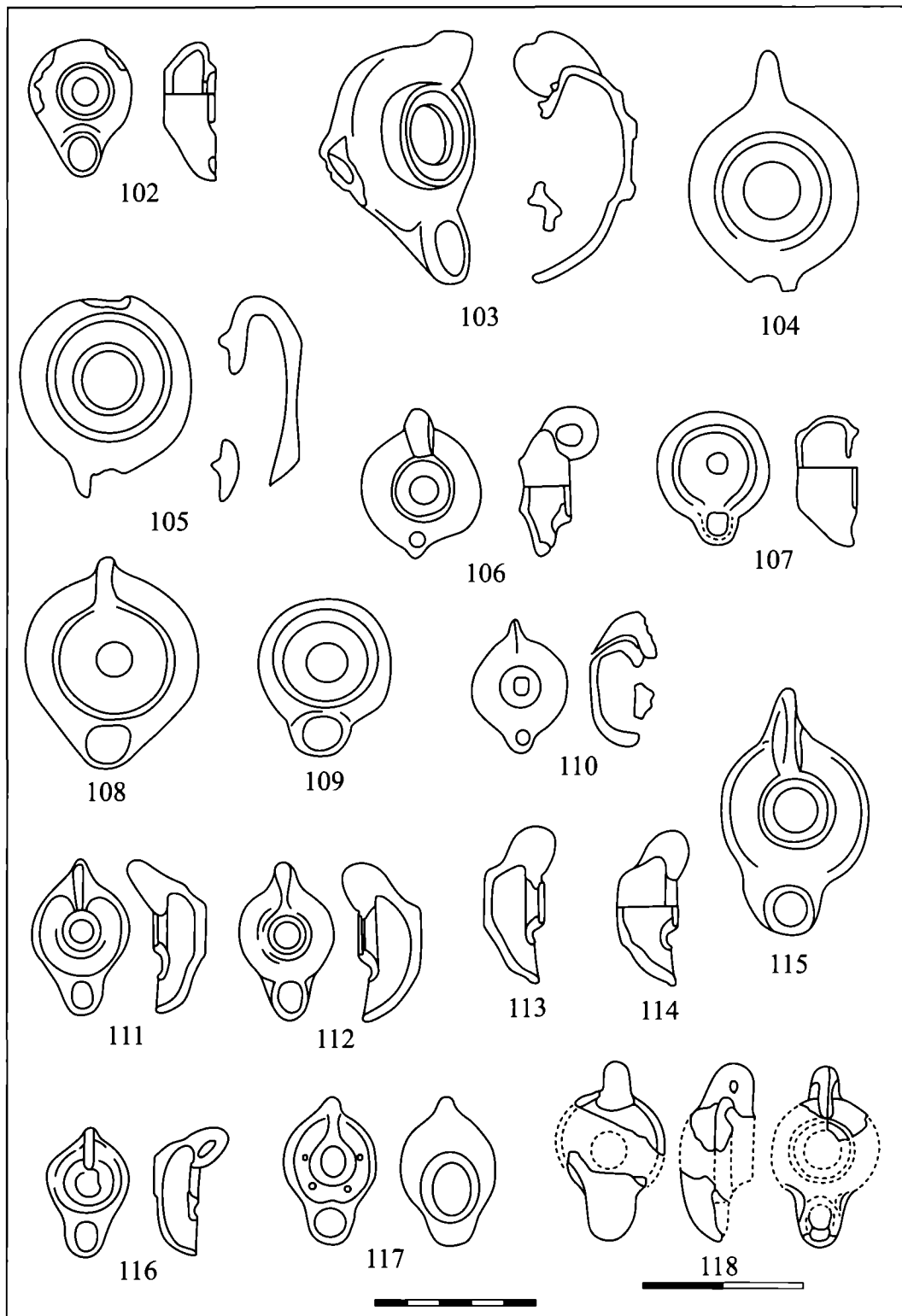


Fig. 102 - 118

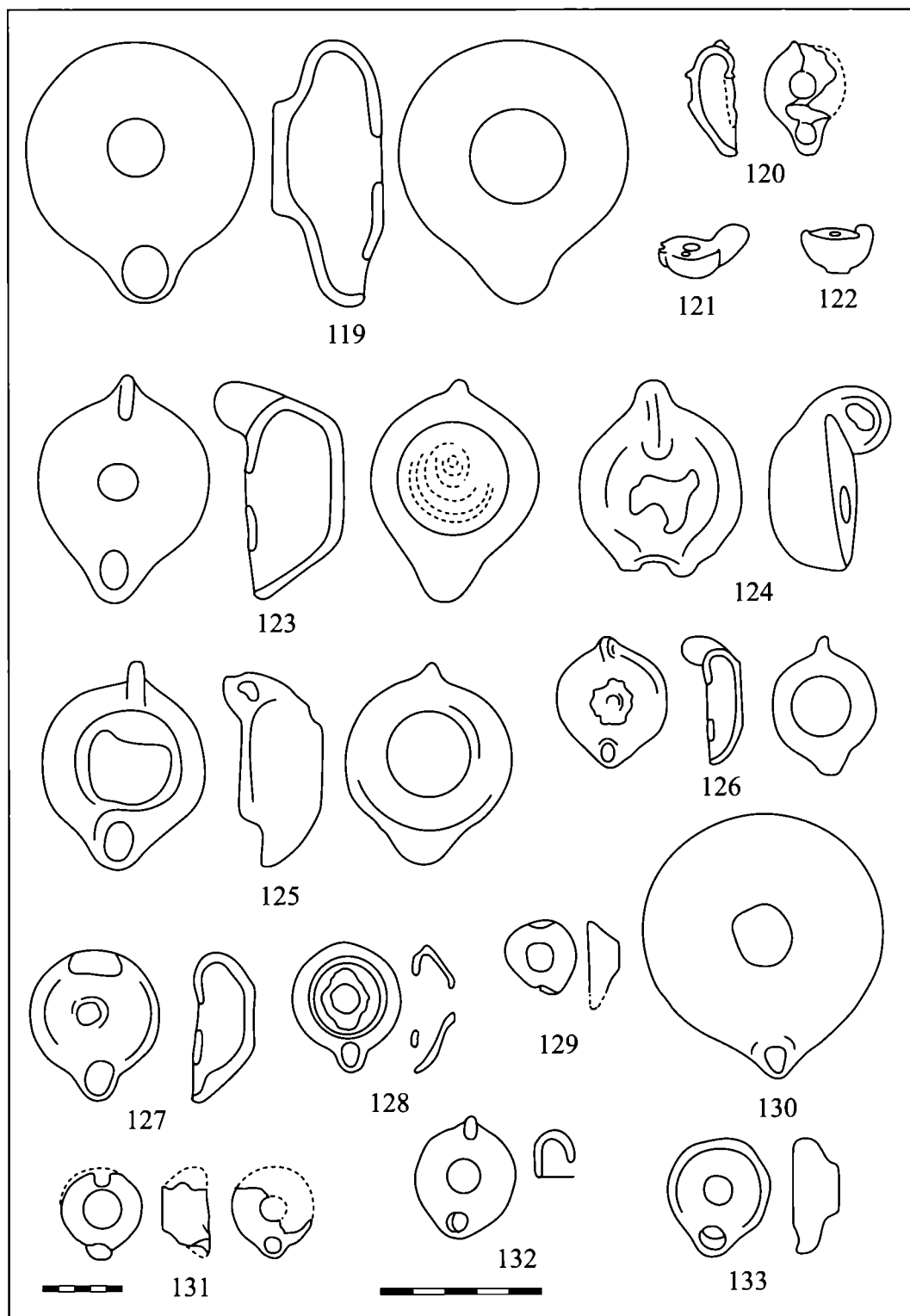


Fig. 119 - 133

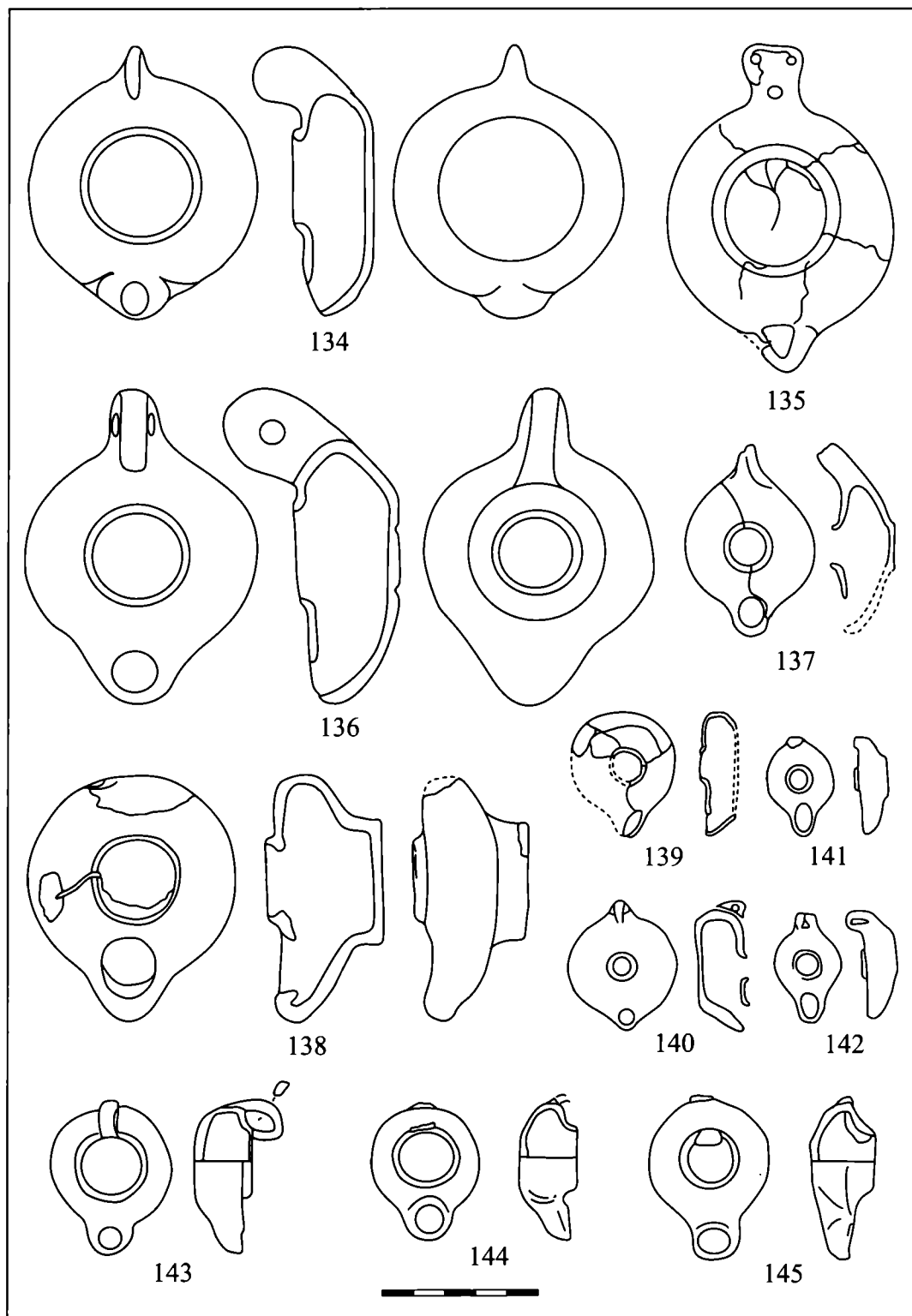


Fig. 134 - 145

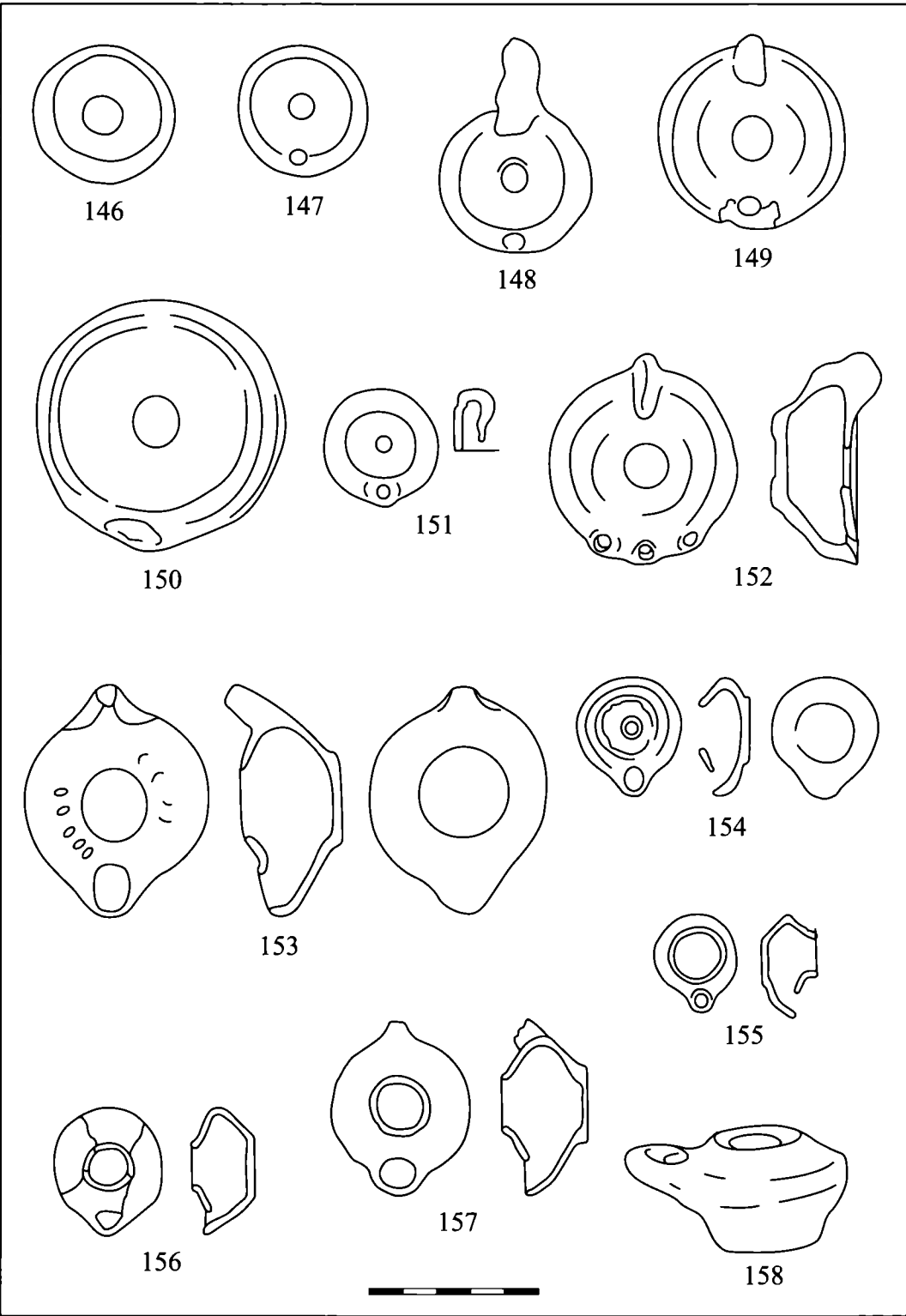


Fig. 146 - 158

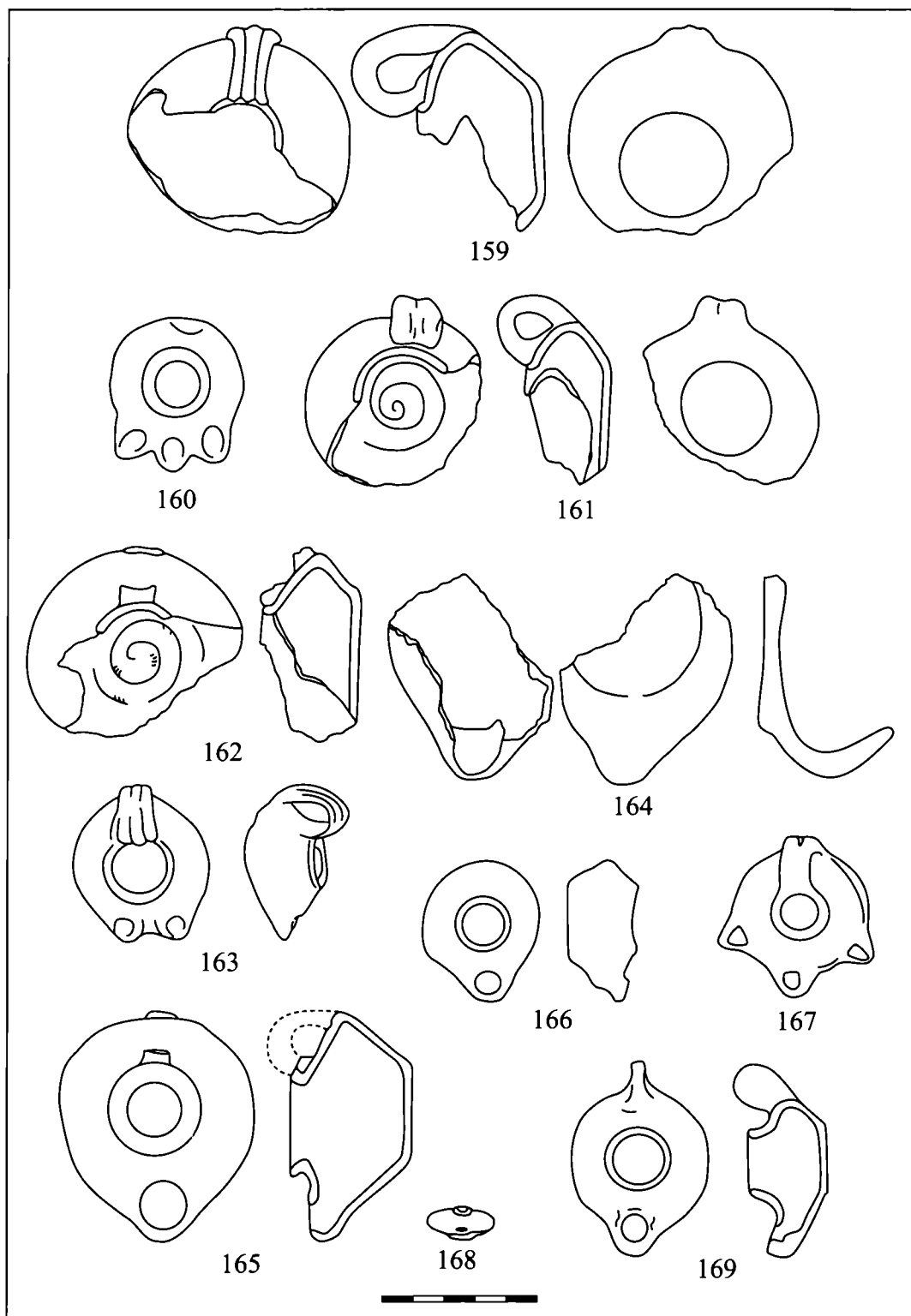


Fig. 159 - 169

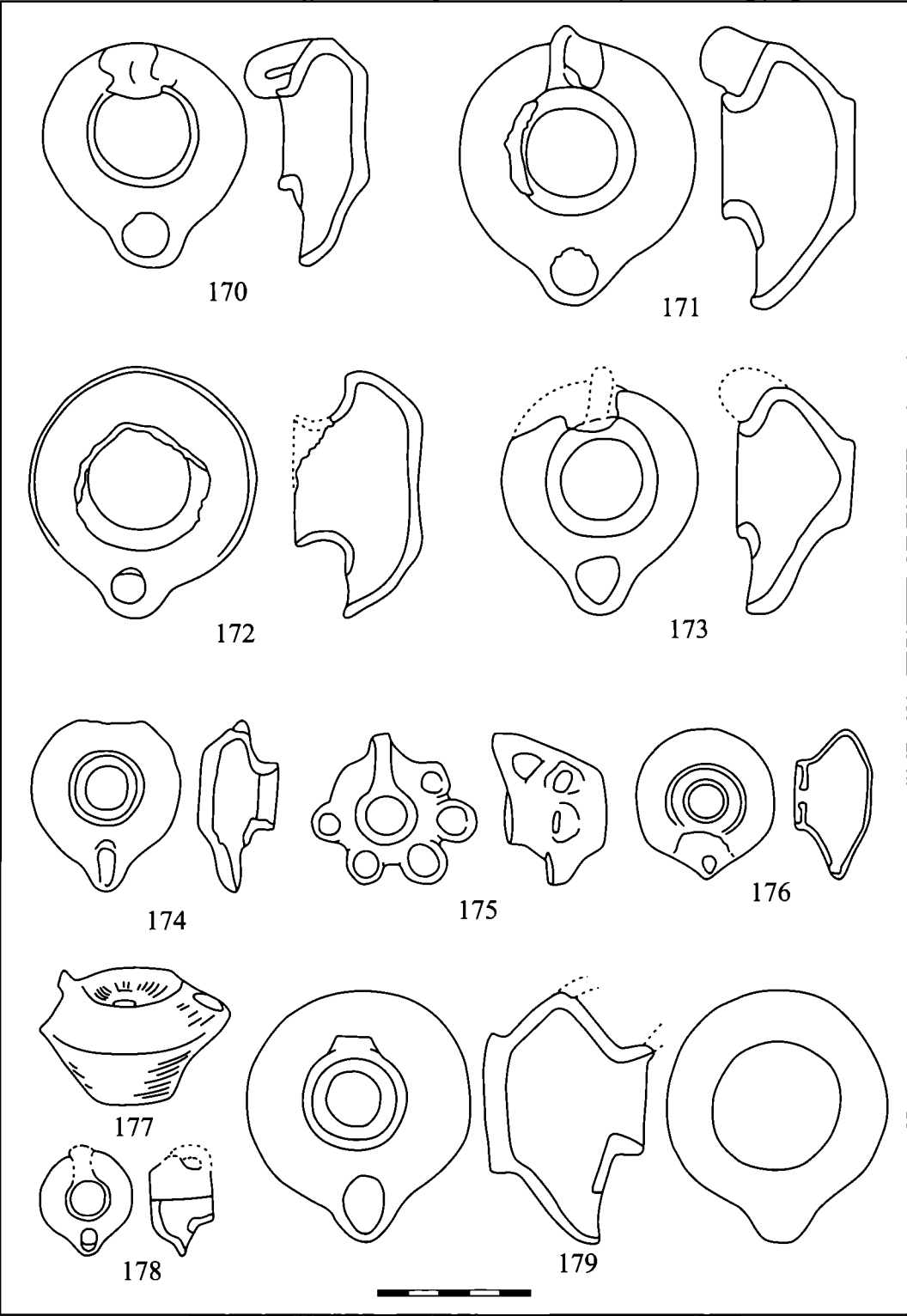


Fig. 170 - 179

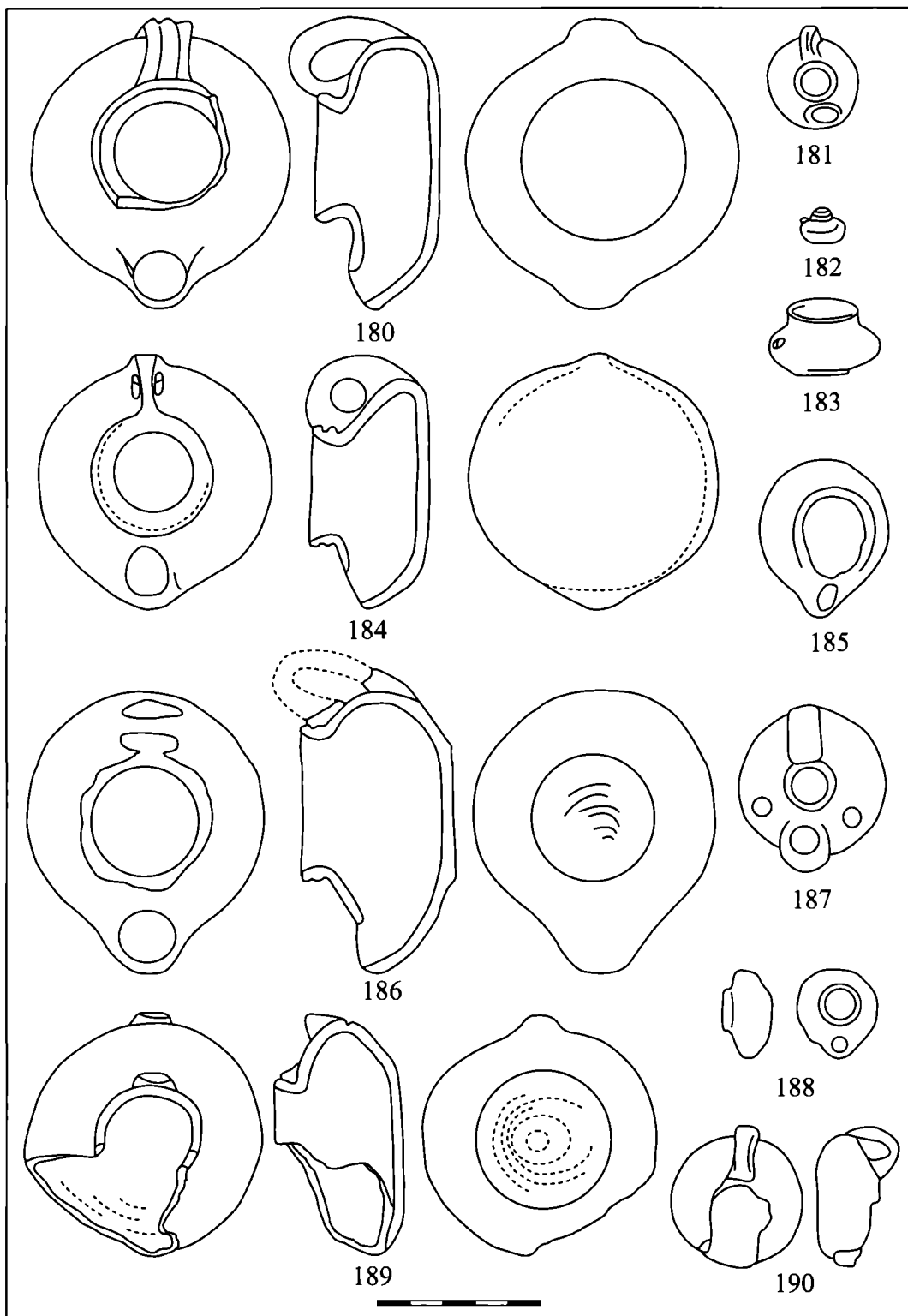
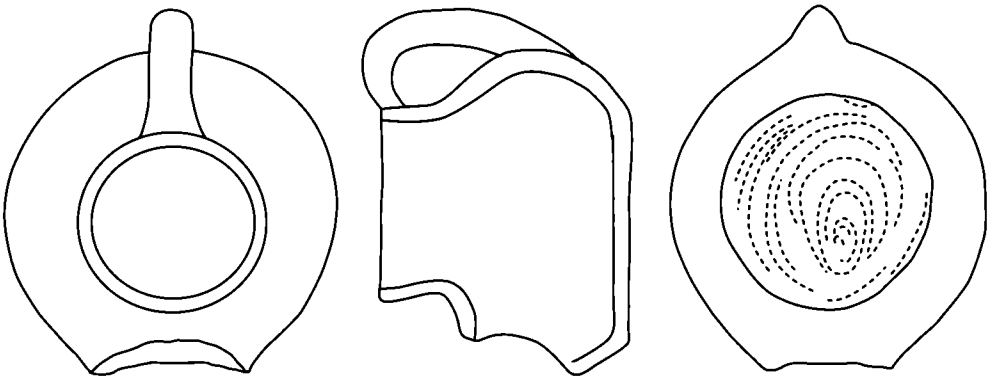
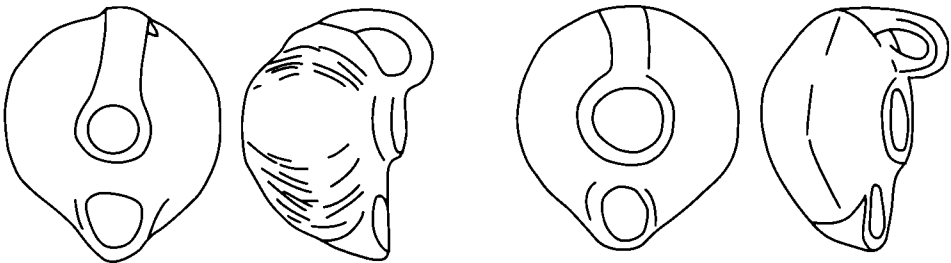


Fig. 180 - 190



191



192

193



Fig. 191 - 193