Terracotta lamps from Metropolis in Ionia (Turkey): typological assessment



Abstract: The lamps studied in this article come from Metropolis, a strategically located site between Pergamon and Ephesos, functioning in the Hellenistic and Roman periods. Two different techniques of decorating the surfaces of the lamps were distinguished: Red-on-White and Red Slip. The lamps were dated contextually by terracotta oil lamps of the same morphological type found in the same assemblages. The material spanned a chronological range from the 1st to the 6th century AD.

Keywords: Metropolis, Ionia, Roman period, ceramic, lighting in ancient times, lamp

The assemblage of clay oil lamps from the Roman period coming from the excavation of the site of Metropolis amounts to 2600 complete and fragmentary examples. Between 1989 and 2007, the archaeological project was conducted by Recep Meriç (1992: 237–239), succeeded from 2007 by Serdar Aybek and his team (Aybek, Öz, and Meriç 2009: 123–138). The lamps were classified, studied statistically and selectively catalogued by the present author within the frame of her doctoral research, which was subsequently published (Güngör Alper 2018a).

The ancient city of Metropolis is located in western Turkey, near Yeniköy village in Torbali municipality, approximately 40 km southeast of Izmir, on the way to

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Fig. 1. Location of Metropolis (Google Earth)

	Centuries	1st c. AD	2nd c. AD	3rd c. AD	4th c. AD	5th c. AD	6th c. AD
Red-on-White lamps	Heart-shaped nozzle	-04					
	U-shaped nozzle						
	Ring-shaped nozzle	-0					
l-on-W	Nozzle with volutes						
Rec	Type Ephesos B3						
	Eared-lamps	(standing					
	Heart-shaped nozzle	-00					
	U-shaped nozzle	-00					
	Ring-shaped nozzle		-0				
sdu	Nozzle with volutes	(A)					
Red Slip lamps	Short rounded nozzle						
Red	Eared-lamps						
	Asia Minor lamps						
	Asia Minor lamps			620			
	Asia Minor lamps						

Fig. 2. Typological classification overview (Processing E. Güngör Alper)

Smyrna [Fig. 1]. It was a strategic location in Ionia, inhabited since the late Neolithic period, well endowed in terms of soil fertility and climate (Meriç 2003: 25; Aybek 2008: 9). Excavations have uncovered the Acropolis, Stoa, Theater, Bouleuterion, Roman baths and Byzantine church, as well as several workshops and houses (Aybek, Meriç, and Öz 2009). Lamps were found in public buildings, in the theater, bouleuterion, bath-gymnasium complex, latrine, bath (Han Yıkıgı), the Araplıtepe church, as well as in domestic contexts, in structures like the house with peristyle and houses with atrium (Ada5-Ada7). They were evidently used for lighting interiors.

The present article is a typological assessment of the Roman clay oil lamps assemblage, which is an important part of the small finds originating from the excavations. All the lamps were moldmade and they would have been made on the spot to judge by the clay analyses of both Hellenistic and Roman lamps, which have demonstrated that they were all made of clay from the Menderes Massif. However, no evidence of lampmaking, whether in the form of molds (presumably of plaster or wood) or kilns (either for firing pottery or specifically lamps), has been found so far. The classification was based first on the properties of the slip and subsequently on the form and decoration, hence the division into types by nozzle shape is repeated across classes. The assemblage was divided into two groups: Red-on-White (altogether eight types) and Red Slip (altogether 13 types) and dated by comparison with parallel examples [Table 1]. These were common forms in the Roman period. The catalog is a synthetical approach to a selection of the most important types, illustrated by the best examples from the extensive corpus, following the typological classification used by the author in her doctoral dissertation.

RED-ON-WHITE LAMPS

Red-on-White lamps are characterized by a red slip applied to a white slip acting as the ground. The red slip is usually of a fine quality, its color a flaming red. The clay is brownish in color and micaceous. Of the eight types in this category (Güngör Alper 2018b: 120), six have been identified in the assemblage from Metropolis. The category was widespread in the Mediterranean, but it seems to have been produced either in Ephesos or somewhere in its near vicinity (Perlzweig 1961: 5–6; Ladstätter 2005: 238–239).

HEART-SHAPED NOZZLE = METROPOLIS TYPE ROW 1 (GÜNGÖR ALPER 2018A: 20)

The type takes its name from the characteristic heart-shaped nozzle (Loeschcke 1919: Type VIII, Nozzle type H). Lamps *Cat.* 1 and *Cat.* 2 are plain, differing only in the number of ridges around the discus. The *planta pedis* mark on the base is widespread in the Mediterranean. Lamp *Cat.* 3, which also has the richest set of concentric ridges around the discus, bears decoration in the form of a head in relief, presumably a Gorgoneion or Medusa, occasionally interpreted as a Satyr. This kind of mythological representation is noted in western Anatolian centers like Ephesos (Ladstätter 2005: 251, 345, Pl. 198, K796), Priene (Wiegand-Schrader 1904: Fig. 562, No. 192) and Pergamon (Heimerl 2001: 192, Bei. 6,

Fig. 73). Three dots appear between the nozzle and discus. A mark resembling the Greek letter ϕ is impressed on the base. Parallels permit these three lamps to be dated from the second half of the 1st to the 3rd century AD.

<i>Cat. 1</i> Inv. No. HM 99-162 Izmir Archaeological Museum	Findspot 99-A Room, outside the southeast wall (-14.15 m)
Dimensions L. 8.8; W. 7.6; H. 4.5 cm	Fabric Clay 2.5 YR 6/6 light red; temper: mica, calcite and sand; outer surface slip 2.5 YR 5/8 red
Parallels	

Heimerl 2001: Group 9, Pl. 11, 456–466 (second half of 1st-first half of 2nd century AD); Heres 1972: Pl. 45,411 (end of 1st-2nd century); Meriç 2002: Pl. 82, L93 (AD 75–100); Perlzweig 1961: Pl. 4,85 (mid 1st century AD); Williams 1981: Pl. 6,130 (second to third quarter of 1st century AD)

Cat. 2 Inv. No. ST 93-52 Izmir Archaeological Museum (Inv. No. 16.833)	Findspot KK (-3.12/-4.20 m)
Dimensions L. 8.7; W. 7.2; H. 3.7 cm	Fabric Clay 2.5 YR 6/6 light red; temper: mica and calcite; outer surface slip 2.5 YR 5/8 red
Parallels See above, Cat. 1.	

Cat. 3 Inv. No. HM-G 02-122 Izmir Archaeological Museum	Findspot C 3	
Dimensions L. 3.6; W. 6.8; H. 0.8 cm	Fabric Clay 2.5 YR 5/6 red; temper: mica, calcite and sand; outer surface slip 5 YR 5/6 yellowish red, 7.5 YR 3/1 very dark gray and white	
Parallels Heimerl 2001: Group 9, Pl. 12, 471 (second-third quarter of 1st century AD); Ladstätter 2005: Pl.		

198, K 796 (second half of the 1st-3rd century AD); Bailey 1988: Pl. 102, Q3060 (Trajanic-Antonine)

U-SHAPED NOZZLE = METROPOLIS TYPE ROW 2 (GÜNGÖR ALPER 2018A: 23)

Lamps with the U-shaped nozzle (Loeschcke 1919: Type VIII, Nozzle type L2) are more common than the heart-shapednozzle kind. The examples presented here are either plain (*Cat. 4* and *Cat. 5*) or bear decoration on the discus, in this case a rosette filling the entire discus. The two with preserved bases bore impressed base marks: a presumed U shape in one case and an I or bar in the other. It seems reasonable to assume that the lamps are dated from the second quarter of the 1st century AD to the 1st half of the 3rd century AD.

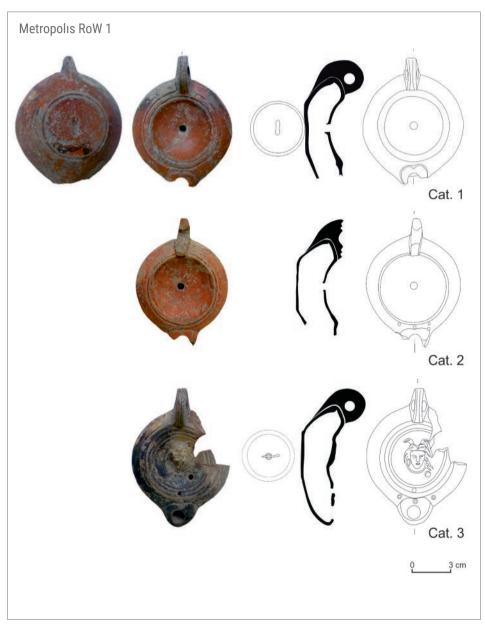


Fig. 2. Red-on-White: heart-shaped nozzle – Metropolis type RoW 1 (Photos and drawing E. Güngör Alper)

<i>Cat. 4</i>	Findspot
Inv. No. ST 93-110	LL 1, south of the Stoa (-5.00 m/-5.40 m)
Dimensions L. 10.7; W. 5.4; H. 4.8 cm	Fabric Clay 2.5 YR 6/8 light red; temper mica and calcite; outer surface slip 10 R 4/8 red

Parallels

Bailey 1980: Pl. 57, Q 1213–Q 1214, Q 1258 (last quarter of 1st century AD, AD 90–140); 1988: Pl. 101, 375, Q 3040 (Flavian–Trajanic); Heimerl 2001: Pl. 8, 329–331 (second half of 1st–first half of 2nd century AD); Leibundgut 1966: 451, 38 (second–third quarter of 1st century AD); Menzel 1969: Fig. 46, 9 (third quarter of 1st–2nd century AD); Ponisch 1961: Pl. XXII, 307 (Claudius or Nero); Waldhauer 1914: Pl. XXIX, 279 (1st–2nd century AD); Williams 1981: Pl. 5, 123 (second half of 1st century AD)

<i>Cat. 5</i> Inv. No. ST 97-39 Izmir Archaeological Museum (Inv. No. 18.399)	Findspot D Room (-5.00/-5.20 m)
Dimensions L. 8.2; W. 6; H. 4.1 cm	Fabric Clay 2.5 YR 6/8 light red; temper calcite and sand; outer and inner surface slip 2.5 YR 5/8 red
Parallels	

See	above,	Cat.	4.
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<i>Cat. 6</i>	Findspot
Inv. No. ST 93-110	LL 1, south of the Stoa (-5.00/-5.40 m)
Dimensions L. 10; W. 5.1; H. 2.9 cm	Fabric Clay 2.5 YR 7/6 light red; temper: mica, calcite and sand; outer and inner surface 7.5 YR 5/8 red and 7.5 YR 7/4 pink

Parallels

Bailey 1965: Pl. X, 218 (middle of 1st century AD); 1980: Pl. 84, Q 2749–Q 2752 (2nd century AD); Deneauve 1969: Pl. LXXIV, 793 (second half of 1st century AD); Heres 1972: Pl. 37, 330 (second half of 1st century AD); Menzel 1969: Fig. 44, 16 (mid 1st century AD); Perlzweig 1961: Pl. 5, 129–130 (mid 1st–2nd century AD)

RING-SHAPED NOZZLE = METROPOLIS TYPE ROW 3 (GÜNGÖR ALPER 2018A: 25)

A raised circle surrounds the wick hole in this type of lamps. *Cat. 7* has a double-row dot decoration on the shoulder. A *planta pedis* stamp appears on the base. Atypically, a short hooked feature on ether side of the nozzle where it joins the discus ring. The other example, *Cat.* 8, bears a relief representation of what has been interpreted as a walking horse figure. Lamps of this type are dated to the 1st and 2nd century AD.

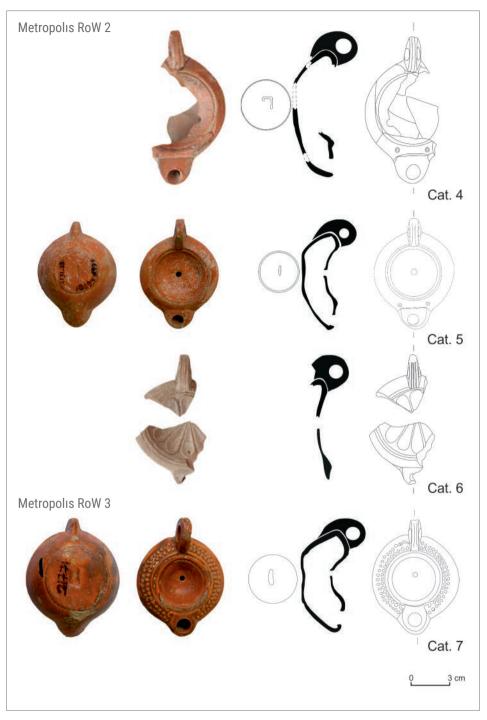


Fig. 3. Red-on-White: U-shaped nozzle – Metropolis type RoW 2 and ring-shaped nozzle – Metropolis type RoW 3 (Photos and drawing E. Güngör Alper)

<i>Cat.</i> 7 Inv. No. HM 02-241 Izmir Archaeological Museum (Inv. No. 21.771)	Findspot L 6, 2002-6 Room (+ 80.71 m, channel)
Dimensions L. 8.5; W. 6.6; H. 4.9 cm	Fabric Clay 2.5 YR 6/6 light red; temper: mica, calcite and sand; outer and inner surface slip 10 R 5/8 red
Parallels	

Loeschcke 1919: 239 (1st century AD)

<i>Cat. 8</i> Inv. No. HM 02-44	Findspot B 1, south of the Bath (+81.20 m)
Dimensions L. 5.7; W. 4.1; H. 2.6 cm	Fabric Clay 10 R 5/8 red; temper: mica and calcite; outer and inner surface slip 2.5 YR 5/8 red
Parallels Bailey 1980: Pl. 1, Fig. 87, Q 759 (late 1st century BC–early 1st century AD); Heimerl 2001: Pls 1,28, 5,174–175, 15,613, 19,866–867, 869 (1st–2nd century AD)	

NOZZLE WITH VOLUTES = METROPOLIS TYPE ROW 4 (GÜNGÖR ALPER 2018A: 26)

The voluted nozzle lamps matched the heart- and U-shaped types in popularity, especially in the times of Tiberius and Claudius, surviving well into the 3rd century AD (Leibundgut 1977: 28). *Cat. 9* is a double-nozzled device with a well-preserved body decorated with nested cir-

cles. *Cat. 10* and *Cat. 11* have semi-volutes on the nozzle. *Cat. 10* is undecorated except for a rare double-leaf motif on the nozzle. The third of the lamps presented here has a series of relief leaves on the shoulder and a relief image of a mythological sea monster or seahorse (Walters 1914: 120) on the discus. These lamps date to the 1st and 2nd century AD.

Cat. 9 Inv. No. ST-K 1990 Izmir Archaeological Museum (Inv. No. 21. 235)	Findspot North of the Stoa, topsoil
Dimensions L. 10.4; W. 7.7; H. 3.3 cm	Fabric Clay 10 R 5/6 red; temper: micaceus and calcite; outer surface slip 10 R 5/8 red
) 25–75); Broneer 1930: Type XXI, PIs VII–IX, 383–417 (1st century (Augustan–AD 200–300); Meriç 2002: PI. 80, L 77 (AD 0–25)

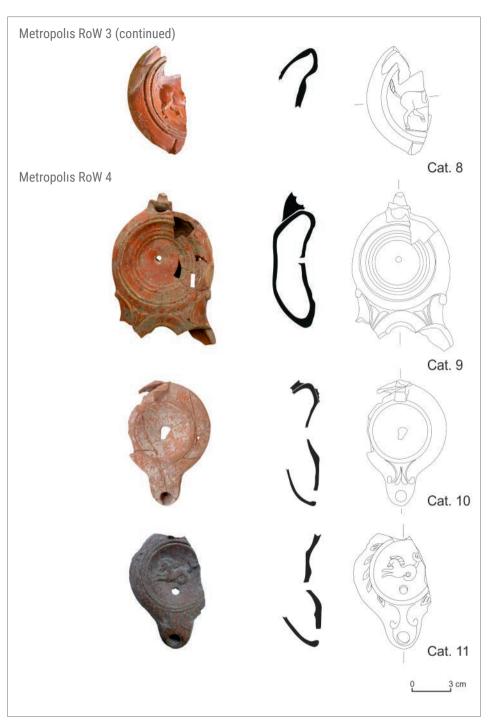


Fig. 4. Red-on-White: ring-shaped nozzle – Metropolis type RoW 3 (continued) and nozzle with volutes – Metropolis type RoW 4 (Photos and drawing E. Güngör Alper)

<i>Cat. 10</i>	Findspot	
Inv. No. ST-93-53	KK (-3.12/-4.20 m)	
Dimensions	Fabric	
L. 11.8; W. 7.5; H. 3.1	Clay 2.5 YR 6/6 light red; temper: micaceus and calcite; outer	
Dia. discus 5.1 cm	surface slip 2.5 YR 6/8 light red	
Parallels Bailey 1988: Pl. 36, Q 1949, Pl. 66, Q 2460 (late 1st-2nd century AD); Hayes 1980: Pl. 39, 324 (late		

Bailey 1988: Pl. 36, Q 1949, Pl. 66, Q 2460 (late 1st-2nd century AD); Hayes 1980: Pl. 39, 324 (late 1st-early 2nd century AD); Heimerl 2001: Pls 5-6, 205-219 (AD 25-300); Ladstätter 2005: Pl. 200, K 827 (1st-2nd century AD)

Cat. 11 Inv. No. HM-G 02-186 Izmir Archaeological Museum	Findspot O 7, Room 3 (+78.84 m/+78.52 m)
Dimensions L. 8.1; W. 5.4; H. 2.8 Dia. discus 4.2 cm	Fabric Clay 2.5 YR 5/6 red; temper: micaceus and calcite; outer surface slip 10 R 5/6 red
Parallels	

Bailey 1988: Fig. 53, Pl. 99 (Flavian-Trajanic), Q 3037; Deneauve 1969: Pl. LXI,608-609 (end of 1st-early 2nd century AD); Ponisch 1961: Fig. 16, Pl. XIII (AD 70-150), 143

TYPE EPHESOS B3 = METROPOLIS TYPE ROW 6 (GÜNGÖR ALPER 2018A: 31-32)

This form is often classified as Loeschcke Type VIII, nozzle type L (U-shaped nozzle), but it was distinguished as type Ephesos B3 by Donald M. Bailey (1988: 366–393). This particular piece is decorated on the discus with a frontal bust of the moon goddess Selene in relief. Considering that her name may be derived from the word "selas" for light (Kerényi 1951: 19, 197), she is quite meaningful as iconography on lighting devices. Lamps of this type can be dated from the second half of the 1st century AD through the 3rd century AD.

<i>Cat. 12</i>	Findspot
Inv. No. HY 05-72-1	H 19, 1; apse (+45.71 m/+43.74 m)
Dimensions	Fabric
L. 8.5; W. 6.8; H. 4.3	Clay 2.5 YR 6/6 reddish yellow; temper: mica and calcite; outer and
Dia. discus 3.8 cm	inner surface slip 2.5 YR 5/8 red
Parallels Bailey 1988: Pl. 102, Q 3065–Q 3068 (Trajanic–Antonine); Brants 1913: Pl. V, 820 (1st–2nd century AD); Ladstätter 2005: Pls 198,K 798–K 799,200, K 826 (second half of 1st–3rd century AD); Mlasowsky 1993: 247, 242 (AD 90–130)	

EARED LAMPS = METROPOLIS TYPE ROW 7 (GÜNGÖR ALPER 2018A: 32-33)

Eared lamps are characterized by two small handles on either side of the body. which may be accompanied by a vertical handle in the usual position. Lamps of this kind were used around the Mediterranean, and were produced in Anatolia

and in Athens, and probably also in Africa, but never in Italy (Bailey 1980: 233). The lamps from Metropolis are all fragmentary. Some have a deeply impressed hole at the base. The shoulder decoration in the presented specimen consists of ovules. This type is dated to the 1st and 2nd centuries AD.

<i>Cat. 13</i> Inv. No. ST 97-26	Findspot Room C in front of massive free-standing pillars 17 and 18 (-3.43 m/-4.27 m)
Dimensions L. 4.8; W. 2.5; H. 1.7 cm	Fabric Clay 5 YR 7/4 pink; temper: mica, calcite and sand; outer surface slip 2.5 YR 5/8 red; inner surface slip 5 YR 6/4 light reddish brown
Parallels	

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Bailey 1980: Pl. 38, Q 1092-Q 1096, Pl. 56, Q 1203 (second half of 1st-early 2nd century AD); 1988: Pl. 4, Q 1567, Pl. 72, Q 2625-Q 2627 (second half of 1st-2nd century AD); Bruneau 1965: Pl. 31,4636, 4646 (1st-2nd century AD); Hayes 1980: Pl. 22,220; Heimerl 2001: Pl. 6,236-238 (first half of 1st century AD); Heres 1972: PIs 25,202-203, 28,229, 29,237, 46,425 (1st-2nd century AD)



Fig. 5. Red-on-White: Type Ephesos B3 – Metropolis type RoW 3 and eared lamps – Metropolis type RoW 7 (Photos and drawing E. Güngör Alper)

RED SLIP LAMPS

Red-slipped lamps are common in the Roman period, also at Metropolis. The slip can have a variety of shades depending on the firing. The slip is the same as on the Red-on-White lamps, which represent a special technique of decoration.

HEART-SHAPED NOZZLE = METROPOLIS TYPE K 1 (GÜNGÖR ALPER 2018A: 51)

Few examples of this type have been found in Metropolis. The one presented here, with poorly preserved slip, has a small rosette centrally on the discus and three dots where the nozzle joins the discus. A *planta pedis* mark was stamped on the base. Lamps of this kind were used for a long period of time, from the 1st to the 3rd century AD.

Cat. 14 Inv. No. AKR 04-107 Izmir Archaeological Museum (Inv. No. 23.281)	Findspot Room 2004-5 (+139.70 m)
Dimensions L. 8.6; W. 6.0; H. 3.7 cm	Fabric Clay 5 YR 6/6 red; temper: mica, calcite and sand; outer surface slip 2.5 YR 5/6 red
Parallels Bailey 1988: Pls 14, Q 1705 (second half of 2nd century AD), 84, Q 2747 (AD 80-150), Q 2756 (2nd century AD), 103, Q 3076 (Flavian-Trajanic); Fitch-Goldman 1994: Fig. 80,788 (AD 50-100); Robinson 1959: Pl. 45, J 64 (early 3rd century AD)	



Fig. 6. Red Slip: heart-shaped nozzle - Metropolis type K 1 (Photos and drawing E. Güngör Alper)

U-SHAPED NOZZLE = METROPOLIS TYPE k 2 (güngör alper 2018a: 52)

Red-slipped U-shaped nozzle lamps were found in greater numbers, like the Red-on-White. *Cat.* 15 has a rossette motif decorating the discus, whereas *Cat.* 16 has a plain discus surrounded by a shoulder decorated with three rows of relief dots. This second lamp demonstrates a higher quality even if it is not as well preserved. Note the air vent on the discus of this lamp. The assumption is that lamps of this kind are dated to the second half of the 1st century AD and second half of the 3rd century AD.



Fig. 7. Red Slip: U-shaped nozzle – Metropolis type K 2 and ring-shaped nozzle – Metropolis type K 3 (Photos and drawing E. Güngör Alper)

Cat. 15 Inv. No. LT 00-54 Izmir Archaeological Museum (Inv. No. 20.584)	Findspot Sewage channel (south of the latrine) (-17.29 m)
Dimensions L. 8.1; W. 5.9; H. 4.6 cm	Fabric Clay 5 YR 5/4 dull reddish brown; temper: micaceus, calcite and sand; outer surface slip 2.5 YR 5/3 reddish brown

Parallels

Bailey 1980: Pls 5, Q 1213–Q 1214 (last quarter of 1st century AD), 65, Q 1258 (AD 90–140); 1988: Pls 5, Q 1569 (first half of 2nd century AD), 101, Q 3040, Q 3045 (Flavian–Trajanic); Hayes 1980: Pls 23,321–233 (1st century AD), 26,243 (AD 50–80/100); Heimerl 2001: Pls 7,285–297, 8,298–303 (second half of 1st–first half of 2nd century AD); Miltner 1937: Pl. XII,94, 96 (mid 3rd century AD)

<i>Cat. 16</i> Inv. No. ST 98-191	Findspot K 3 (+2.00m/+3.00 m)
Dimensions L. 7.8; W. 5.1; H. 2.7 cm	Fabric Clay 2.5 YR 6/6 light red; temper: mica, calcite and quartz; outer and inner surface slip 2.5 YR 5/6 red
Parallels Heres 1972: Pl. 35,309 (secor	nd half of 1st-first half of 2nd century AD)

RING-SHAPED NOZZLE = METROPOLIS TYPE K 3 (GÜNGÖR ALPER 2018A: 52-53)

and a shoulder decorated with three rows of relief dots. A parallel from Ephesos (Miltner 1937: Pl. XII, 115–116) can be dated to the first half of the 2nd century AD.

The lamp presented here is the best preserved of this group. It has a plain discus

<i>Cat. 17</i> Inv. No. HM 99-38	Findspot 33-46, west of the east wall (-11.98 m/-12.35 m)
Dimensions L. 7.3; W. 6.3; H. 2.8 cm	Fabric Clay 2.5 YR 6/8 light red; temper: micaceus, calcite and sand; outer surface slip 10 R 5/6 red; inner surface 2.5 YR 6/8 light red
Parallels	

Miltner 1937: Pl. XII,115–116 (first half of 2nd century AD)

NOZZLE WITH VOLUTES = METROPOLIS TYPE K 4 (GÜNGÖR ALPER 2018A: 53–55)

The three specimens presented here have different kinds of nozzles from rounded to triangular pieces. The body and shoulder forms are similar, although showing slight variations between early and late examples. The early lamps, *Cat. 19* and *Cat. 20*, have narrow shoulders. *Cat. 19* has a rare example of reversed ovules separating the shoulder from the discus. *Cat. 20*, which has a wide nozzle with a curved or obtuse angular termination (terminology from Bailey 1980: 126), is a quality lamp with a fine representation in relief on the discus showing an Eros driving a chariot (for similar decoration, see Leibundgut 1977: Pl. 31, 92; Loeschcke 1919, Pl. IV, 11). All lamps are dated to the 1st century AD by the style of the decoration and by comparison with analogous artifacts.

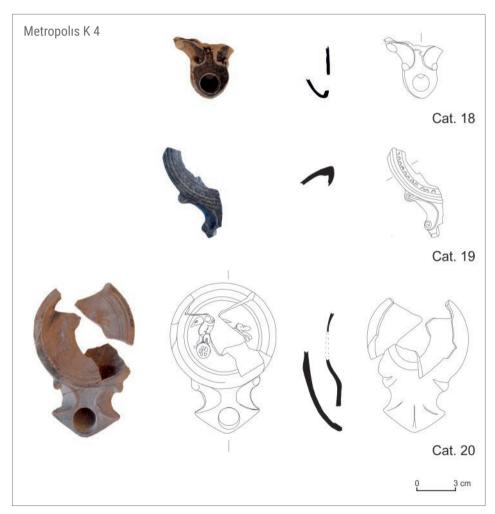


Fig. 8. Red Slip: nozzle with volutes - Metropolis type K 4 (Photos and drawing E. Güngör Alper)

<i>Cat. 18</i> Inv. No. ST 97-23	Findspot Room D, in front of massive free-standing pillars 16 and 17 (-2.65 m/-4.85 m)
Dimensions L. 4.0; W. 4.5; H. 1.8 cm	Fabric Clay 7.5 YR 7/6 reddish yellow; temper: micaceus and calcite; outer surface slip 10 YR 3/2 very dark grayish brown, inner surface slip 7.5 YR 5/4 brown

Parallels

Bailey 1988: Pls 57, Q 2295–Q 2296, 62–66, Q 2364–Q 2453, 75, Q 2682, 98, Q 3010 (second half of 1st century AD); Broneer 1930: Pl. VII,383–417 (1st century AD); Fitch-Goldman 1994: Figs 63–66, 111–123 (1st century AD); Heimerl 2001: Pls 1–2, 31–53 (1st century AD); Ladstätter 2005: Pl. 174, K 414 (1st century AD)

<i>Cat. 19</i> Inv. No. Tİ 07-65	Findspot C' 2, north of the room 2007-1, east of the wall 07-F (+62.85 m/+62.45 m)
Dimensions L. 7.2; W. 1.4; H. 2.6 cm	Fabric Clay 7.5 YR 5/3 brown; temper: micaceus and calcite; outer and inner surface slip 7.5 YR 4/2 brown
Parallels See above, <i>Cat. 18</i> .	

<i>Cat. 20</i> Inv. No. Tİ 07-62	Findspot C' 2, north of the room 2007-1, east of the wall 07-F (+63.20 m/+62.85 m)
Dimensions L. 9; W. 7.6; H. 2.9 cm	Fabric Clay 7.5 YR 6/4 light brown; temper: mica and sand; outer surface slip 5 YR 5/4 reddish brown, inner surface 7.5 YR 6/4 light brown

Parallels

Bailey 1980: Pl. 2, Q 771 (third quarter of 1st century AD); 1988: Pl. 1, Q 1484–Q 1486 (late 1st-first half of 2nd century AD), Q 1488 (first quarter of 1st century AD), Q 1489 (first half of 1st century AD), Q 1490–Q 1491 (AD 20–90), Q 1492–Q 1493 (AD 45–61), Q 1494–Q 1495, Q 1497, Q 1500 (AD 50–90), Q 1496 (AD 20–90), Q 1498 (AD 45–61), Q 1499 (AD 45–90), Q 1501 (second half of 1st century AD), Q 1502–Q 1506 (last quarter of 1st–2nd century AD); Heimerl 2001: Pl. 1,15–21 (Augustan–AD 25–75); Leibundgut 1977: Pl. 31,92 (second quarter of 1st–end of 1st century AD); Meriç 2002: Pl. 79, L 68 (AD 0–25)

SHORT ROUNDED NOZZLE = METROPOLIS TYPE K 5 (GÜNGÖR ALPER 2018A: 56-57)

The short rounded nozzle with an arching line on the top characterizes this type, which is classified as type Loescheke VIII, nozzle type K. The two well preserved examples shown here have relief dots in different symmetric configurations on the shoulder and a discus decoration in the form of a relief figure of Eros playing on a double flute. The lamps are dated to the 1st and 2nd centuries AD.

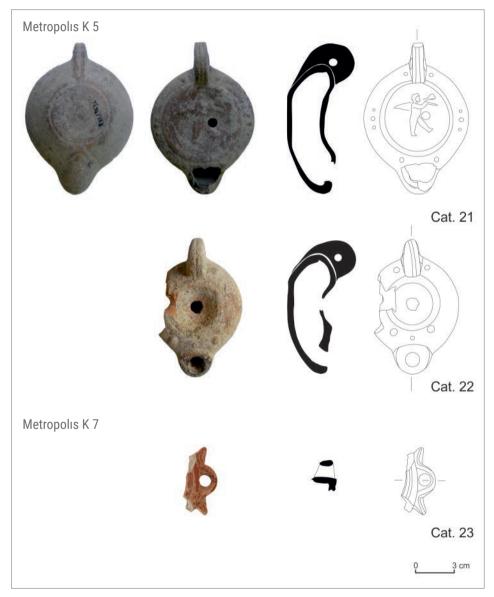


Fig. 9. Red Slip: short rounded nozzle – Metropolis type K 5 and eared lamps – Metropolis type K 7 (Photos and drawing E. Güngör Alper)

<i>Cat. 21</i> Inv. No. Tİ 94-103 Izmir Archaeological Museum	Findspot Scene IV, topsoil
Dimensions L. 10.2; W. 7.1; H. 4.6; Dia. discus 4.4 cm	Fabric Clay 7.5 YR 7/3 pink; temper: mica, calcite and sand; outer and inner surface slip 5 YR 5/3 reddish brown
Parallels Bailey 1988: Pls 42, 0 2011	(second half of 1st century AD), 101, 0 3045 (Flavian–Traianic),

Bailey 1988: PIs 42, Q 2011 (second half of 1st century AD), 101, Q 3045 (Flavian-Trajanic), 104, Q 3092, Fig. 17 (Trajanic-Antonine), Q 2762, Q 2905 (2nd century AD); Deneauve 1969: PI. LXXXII,901 (1st century AD); Heres 1972: PI. 31,260 (second half of 1st-first half of 2nd century AD); Menzel 1969: Figs 31,19, 44,12, 46,8, 47,8, 12 (1st-2nd century AD); Bailey 1980: Fig. 19, Q 1288 (AD 90-140)

<i>Cat. 22</i>	Findspot
Inv. No. YE 01-01	G 10, door threshold
Dimensions	Fabric
L. 9.8; W. 5.9; H. 4.9;	Clay 2.5 YR 7/8 light red; temper: micaceus and calcite; outer
Dia. discus 3 cm	surface slip 2.5 YR 4/6 red and 2.5 YR 6/6 light red
Parallels Bailey 1980: Pl. 56, Q 1202	(third quarter of 1st century AD), Q 1204 (AD 50-80); 1988: Pls 42,

Bailey 1980: PI. 56, Q 1202 (third quarter of 1st century AD), Q 1204 (AD 50–80); 1988: PIs 42, Q 2011 (second half of 1st century AD), 101, Q 3045 (Flavian–Trajanic), 104, Q 3092 (Trajanic–Antonine), Q 2762, Q 2905 (2nd century AD); Deneauve 1969: PI. LXXXII,901 (1st century AD); Heres 1972: PI. 31,260 (second half of 1st–first half of 2nd century AD); Menzel 1969: Figs 31,19, 44,12, 46,8, 47,8,12 (1st–2nd century AD)

EARED LAMPS = METROPOLIS TYPE K 7 (GÜNGÖR ALPER 2018A: 57)

Handles are the main surviving (and identifiable) element among the fragments of lamps found at Metropolis. These "ears" are either solid or perforated, as in the case of our specimen. This part of the lamp was generally attached after molding. Eared lamps were used from the 1st to 3rd century AD.

<i>Cat. 23</i> Inv. No. LT 00-57	Findspot Latrine (-16.65 m, top of brick base)
Dimensions L. 4.8; W. 2.2; H. 1.9 cm	Fabric Clay 5 YR 7/6 reddish yellow; temper: micaceus and calcite; outer and inner surface slip 10 R 4/6 red

Parallels

Bailey 1980: Pls 38, Q 1092–1097 (second half of 1st–early 2nd century AD), 56, Q 1203 (AD 50–80); 1988: Pls 4, Q 1567, 72, Q 2625–Q 2627 (second half of 1st–2nd century AD); Catling and Catling 1992: Pl. 269, L 555 (late 1st–early 2nd century AD); Heimerl 2001: Pl. 6,236–238 (first half of 1st century AD); Meriç 2002: Pl. 81, L 84–L 85 (AD 75–100)

ASIA MINOR LAMPS = METROPOLIS TYPES K 10, K 12-K 13 (GÜNGÖR ALPER 2018a: 59-61, 62, 63)

This type of lamps has an almond-shaped body, a narrow channel from discus to nozzle (seen on *Cat. 24*), scrolling tendrils and a bunch of grapes on the shoulder. There are tongues on both sides of the channel. Handles were solid, ending in a fishtail with a dot in the middle, as in fragment *Cat. 25*. These two lamps belong to the 4th and 5th centuries AD. Another Asia Minor lamp form, *Cat. 26*, has a small discus around the filling hole, arching lines on the shoulder and a cross between the discus and nozzle. This par-

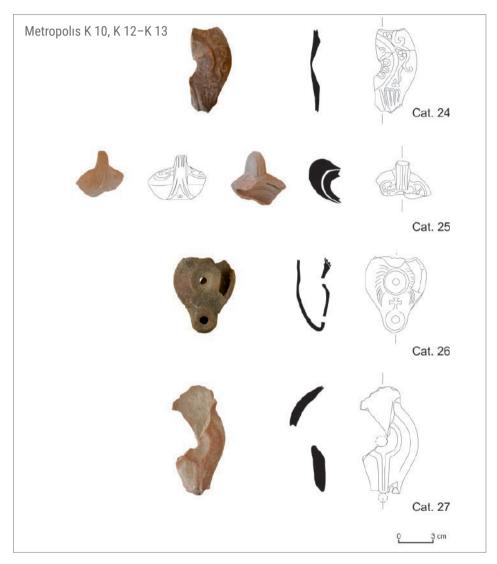


Fig. 10. Red Slip: Asia Minor lamps – Metropolis types K 10, K 12–K 13 (Photos and drawing E. Güngör Alper)

ticular piece can be dated to 4th and 5th centuries AD. Fragmentary *Cat. 27* represents one of the latest lamps. The relief line around the discus passes onto the

nozzle to form a narrow channel; otherwise the lamp is undecorated. The same form can be seen among Ephesos lamps. This lamp belong to the 5th century AD.

<i>Cat. 24</i>	Findspot
Inv. No. Tİ 98-17	B' +2 and B' +3 (-19.05 m/21.98 m)
Dimensions L. 6.9; W. 3.2; H. 0.8 cm	Fabric Clay 5 YR 4/3 reddish brown; temper: micaceus, calcite and sand; outer and inner surface slip 5 YR 5/3 reddish brown

Parallels

Güngör Alper 2015: Pl. 1,5,11 (4th-5th century AD); Miltner 1937: Pls IV,580-582, VIII,1461, 1479, 1506, 1511-1513, 1516, 1530, 1549-1552, 1554, 1557, 1561-1562, 1565-1566, 1577, 1585, 1594, IX,1586, 1593, 1600, 1605, 1608-1609, 1616, 1633, XIII,174 (5th century AD); Perlzweig 1961: Pl. 44,2805 (5th century AD), 2806 (late 5th-6th century AD)

<i>Cat. 25</i> Inv. No. Tİ 07-86	Findspot B' 4, east of the 07-D and 07-E walls (+66.50/+65.00 m)
Dimensions L. 2.8; W. 4.9; H. 3.7 cm	Fabric Clay 5 YR 7/6 reddish yellow; temper: micaceus and sand; outer and inner surface have no slip, 7.5 YR 7/4 pink
Parallels See above, Cat. 24.	

<i>Cat. 26</i> Inv. No. Tİ 07-01	Findspot A 2, west of scene (+68.25 m/+68.05 m)
Dimensions L. 6.4; W. 5.2; H. 2.9 cm	Fabric Clay 5 YR 5/3 reddish brown; temper: micaceus and sand; part of outer surface 10 R 5/4 weak red, upper part of outer surface slip 10 R 4/1 dark reddish gray; inner surface 5 YR 5/3 reddish brown
Parallels Bailey 1988: Pl. 110, Q 3163 (AD 500-600); Baydur-Seçkin 2001: Pls LVI,42, LVII,44,51 (mid 3rd-	

early 5th century AD)

<i>Cat. 27</i> Inv. No. LT 00-57	Findspot Latrine (-16.65 m, top of brick base)
Dimensions L. 8; W. 4.2; H. 2.5 cm	Fabric Clay 2.5 YR 6/8 light brown; temper: micaceus, calcite and sand; outer and inner surface slip 2.5 YR 7/6 red
Parallels Miltner 1937: Pls IX,1863, XIV,325 (5th century AD); Kuzmanov 1992: 121,308,311 (4th-5th century AD)	

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