

EXCAVATIONS AT THE NABATEAN SITE OF 'EN TAMAR

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INTRODUCTION

The Nabatean site of 'En Tamar is located south of the Dead Sea, 365 m below sea level, 700 m northwest of the spring of 'En Tamar (Arabic *'Ein el- 'Aros*, the 'Spring of the Palm'), 200 m south of Naḥal Zin and c. 12 km northeast of the ancient site of Zoara (modern Ghor es-Safi in Jordan; Figs. 1, 2). The site, which extends approximately 800 m along the western side of Road 2499, is located between Highway 90 to the north and the modern settlements of 'En Tamar and Ne'ot Ha-Kikar to the south.

During roadwork on Road 2499 in December 2005, parts of two structures and a number of modern burials were damaged. Subsequently, a salvage excavation was carried out by the author in December 2006.¹ Following excavation and documentation, the remains were carefully covered over with earth.

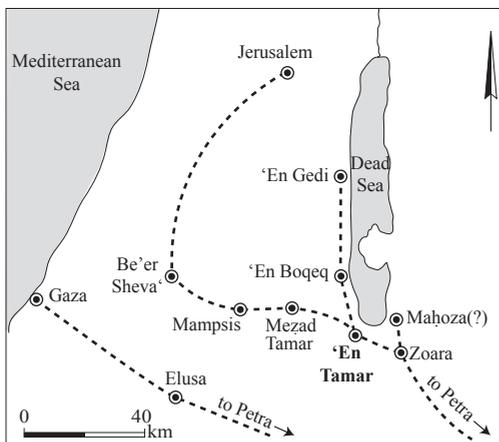
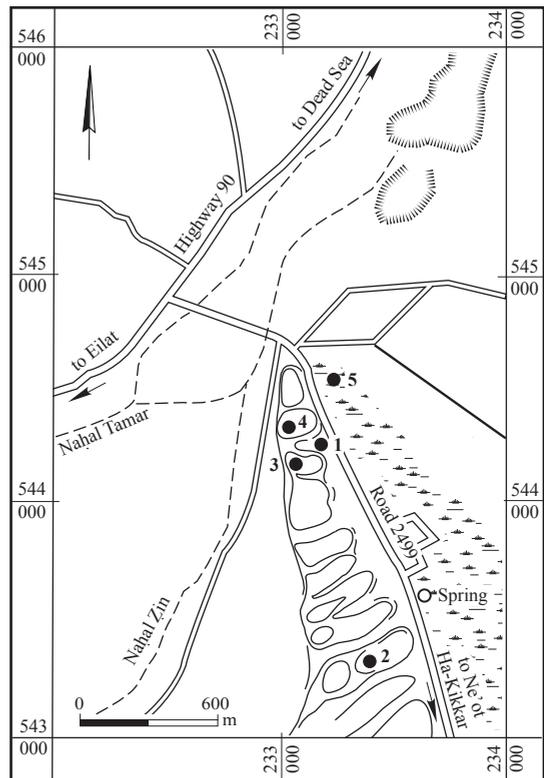


Fig. 1. Location of 'En Tamar and ancient sites along ancient roads in the region.

History of Research

The site of 'En Tamar was first documented by Fritz Frank in 1932 (Frank 1934) and again by Beno Rothenberg in 1960 (Site 50b; Rothenberg 1967). The first excavation at the site was conducted by Rudolph Cohen on behalf of the Israel Department of Antiquities in 1982 (Fig. 2:1; Cohen 1983), during which part of a



- 1 Present excavations, 2006; Cohen excavations, 1982
- 2 Hellenistic fort, Cohen excavations, 1982
- 3 Roman burial caves, Hirschfeld excavations, 2001
- 4 Byzantine chapel, Hirschfeld excavations, 2006
- 5 Early Islamic remains, Seriy excavations, 2001

Fig. 2. The site of 'En Tamar and its vicinity (after Hirschfeld 2006: Fig. 13.6).

structure was uncovered, along with Nabatean coins of the first century CE and Roman coins of the second–third centuries CE. Although no plan of the structure was published, its measurements were given as c. 30 × 40 m. Cohen also excavated a small Hellenistic Nabatean fort about 500 m southeast of the structure on a hilltop overlooking the Dead Sea (Fig. 2:2). The pottery from the structure was later published by Yizhar Hirschfeld together with pottery from his 2001 excavations of nearby burial caves dated to the Roman period (first–third centuries CE; Fig. 2:3) and a cave used as a chapel by monks in the Byzantine period (Fig. 2:4; Hirschfeld 2006). Remains from the Early Islamic period (eighth century CE) were excavated by Gregory Seriy in 2001 on behalf of the Israel Antiquities Authority along the eastern side of Road 2499 (Fig. 2:5; Seriy 2006).

Historical Setting

The site of ‘En Tamar is situated in the region around the southern Dead Sea that was controlled by the Nabateans throughout the Hellenistic and Early Roman periods until the Roman annexation of Nabatea in 106 CE (see Fig. 1). According to Hieronymus of Cardia, a Greek general serving in this region in the late fourth century BCE, at that time the Nabateans collected asphalt from the Dead Sea: “And a large lake is also there which produces asphalt in abundance, and from which they derive not a little revenue” (Diodorus Siculus *Bibliotheca historica* XIX, 94, 10). The main Nabatean settlement in the region in the first century CE was the town of Zoara. The last Nabatean king, Rabbel II (70–106 CE), owned date-palm groves in this area around 99 CE (Yadin 1963:153–154). Ancient documents suggest that date cultivation was the main source of income in the region during the Roman period (Cotton and Greenfield 1995:132). A large Nabatean cemetery was discovered at Khirbat Qazone on the southeastern side of the Dead Sea, which, according to its excavator, Konstantinos D. Politis, was in use from the first through the early third centuries CE (Politis

2007:190). An important road between the Zoara region and the northern Negev existed in ancient times, and increased activity along it in the Early Roman period may have been a key factor for the establishment of the Nabatean settlement of Mampsis (Erickson-Gini 1999:95). In the Late Roman and Early Byzantine periods, the Roman army established a number of watchtowers along this road, which led from the Dead Sea area, passed Meẓad Tamar, ‘En Tamar, Mampsis, ‘Aro‘er, Malḥata, and Be‘er Sheva‘, and eventually reached Jerusalem by way of the Hebron Hills (Fig. 1). Other roads connected Mampsis and the Nabatean settlements in the Negev Highlands, such as Elusa, situated along the Petra–Gaza road (the Incense Road), with the southern coastal cities of Gaza and Ashqelon.

THE EXCAVATION

The 2006 excavations concentrated on the eastern perimeter of the Nabatean structure (Area A), originally revealed by Cohen in 1983, in addition to two areas located next to the modern highway, northeast and east of the main structure (Areas B and C; Figs. 3, 4; Plan 1). An anti-tank trench along the northern perimeter of the site, apparently constructed sometime before the 1983 excavation, destroyed part of the structure, and large amounts of earth were dumped onto the western part of the structure in Area A.

Most of the ceramic finds (see below) and the glass material (see Winter, this volume) discovered above and beneath the floors and in a clay-lined *ṭabun* of the main structure, date to the Late Roman period (second–early third centuries CE). Earlier ceramic material, dated to the Hellenistic and Early Roman periods (second century BCE–early first century CE), along with Nabatean coins from these periods, were found in Area A, mainly in the southern part of the main structure. Four bronze Nabatean coins (IAA Nos. 115683–5), including one of the reign of Aretas IV (9 BCE–40 CE; IAA No. 115682), were discovered in the lower level of Room 3 (L22). The



Fig. 3. 'En Tamar 2006 excavation areas, looking northeast.

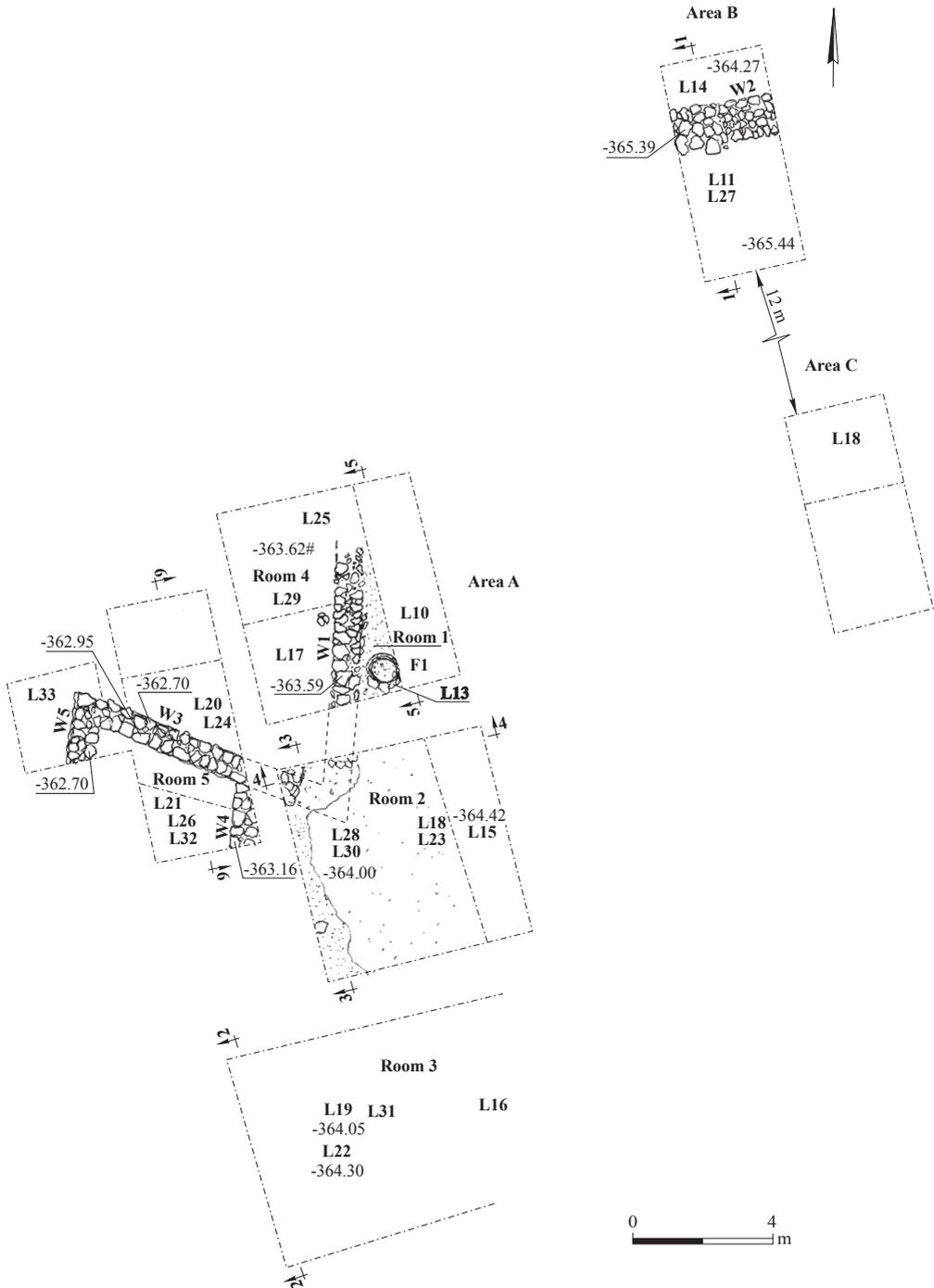


Fig. 4. View of Areas A (background) and C (foreground), looking west.

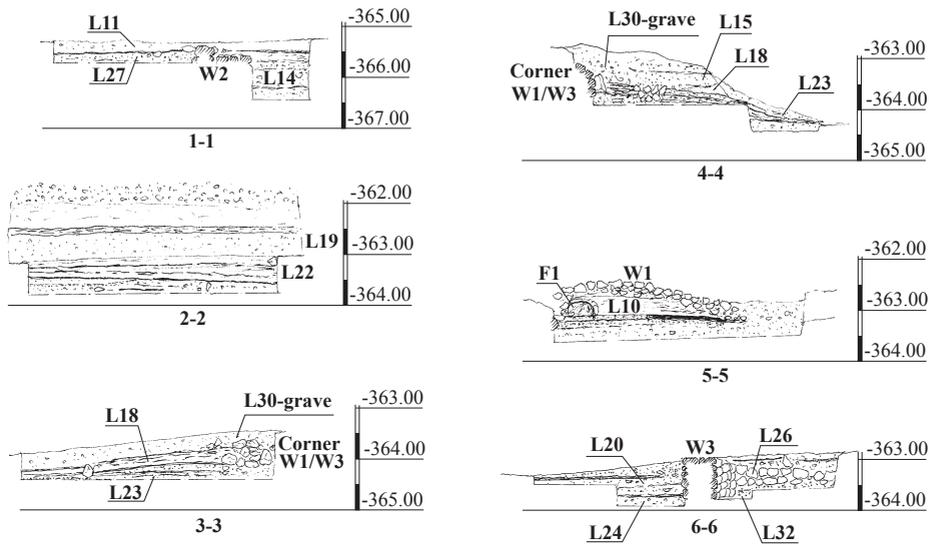
large amount of ash around the Late Roman structure suggests the presence of a bathhouse nearby, perhaps in the unexcavated area to the west. A number of later burials (probably from

the early twentieth century) penetrated into the main structure.

Area B revealed remains of a structure dated to the eighth century CE, which is probably to



Plan 1. Excavation areas and sections (on opposite page).



Plan 1. (cont.)

be associated with the architectural remains discovered by Seriy on the opposite side of the highway. While no architectural features or stratigraphy were revealed in Area C, this area did contain disturbed earth, pottery of the Roman period and building stones.

Area A: The Late Roman Structure

The eastern wall of the Nabatean structure, previously uncovered by Cohen, was completely destroyed by the roadwork in 2005 along with the eastern part of three rooms (Rooms 1–3). The remaining walls, uncovered in the present excavations, were built of small to medium-sized, rounded wadi stones. The northern room (Room 1, L10) was almost completely destroyed to well below the original floor level. Only a clay-lined *ṭabun* (F1; diam. 0.43 m) remained intact, situated close to W1, 0.18 m into the thick plaster floor (Fig. 5). The plastered floor surface in Room 1 was laid over a layer of sterile soil above bedrock (Plan 1: Section 5–5). The ceramic evidence from above and below this floor, as well as in the *ṭabun* itself, point to its construction and use during the second–early third centuries CE (the Late Roman period).

Wall 1 is oriented south–north and extends under the balk into Room 2 (Loci 15, 18,

Fig. 5. Area A, *ṭabun* (F1) in Room 1, looking west.

23) where it originally abutted W3 that runs roughly west to east. The corner where these walls met was destroyed in modern times by a grave (L30) built of flat, upright stones that penetrated into the room (Plan 1: Sections 3–3, 4–4). Most of Room 2 showed signs of intense burning (L23), and the fragmentary remains of a plaster floor were detected along the western side of the room (Fig. 6). The finds from this room include pieces of wood, pottery sherds (Fig. 11), a Roman provincial coin dated to the first or second century CE (IAA No. 115686) and an intrusive part of a glass vessel dated

to the Early Islamic period (see Winter, this volume: Fig. 1:3).

Only a few centimeters of the plaster floor in Room 3 survived the damage (L16). Prior to its destruction by modern roadwork, Room 3 appears to have been partially excavated in the 1983 excavation. In the present excavation, many ceramic sherds and a Nabatean coin of the late first century BCE or early first century CE (IAA No. 11568) were discovered in this room, which were probably deposited there by recent damage.

A square opened on the western side of Room 3 revealed an area devoid of architectural



Fig. 6. Area A, remains of plaster floor in Room 2, looking west.

remains with layers of ash, c. 0.35 m thick, over sterile soil (Fig. 7; Plan 1: Section 2–2). The upper layers (L19) appear to contain almost-sterile, black ash, and a bronze Roman provincial coin (IAA No. 115681). A modern grave (L31) built of flat, upright stones, penetrated into L19. Nearly all of the Nabatean ceramics predating the Roman annexation of Nabatea in 106 CE originate in the lowest layers of L22, including a Judean ceramic perfume juglet (Fig. 10:12); two Hellenistic Nabatean bowls (Fig. 10:1, 2) and a number of Nabatean fine and coarse-ware vessels (Fig. 10:4–7); and a ‘southern’ lamp (Fig. 10:13). The lower layers of L22 also contained brownish ash, remains of decomposed wood, charcoal, date pits, a grinding stone, an iron nail, a bronze ring, and the four bronze Nabatean coins (see above), as well as a number of unidentified coins.

A fourth room (Room 4) on the western side of W1 was badly damaged, and only a small area of the packed-earth floor in the upper level of this room remained (L17, L20; 1.5 × 1.5 m). Two Nabatean coins were recovered from the upper level of this room (L17), including a coin of the last Nabatean king, Rabbel II, from the second half of the first century CE (IAA No. 115680). Early Roman Nabatean pottery



Fig. 7. Area A, ash layers in L19 and L22, looking west.



Fig. 8. Area A, Walls 5, 4 and 3, looking east.

was discovered in the lower level of this room (L24; see Fig. 10:2, 8, 11), while Late Roman Nabatean ceramics were found in Loci 17 and 20 (Fig. 11). A modern grave (L29) and large animal bones were discovered on the northern side of L17, near W1. The room appears to have been largely destroyed by the anti-tank trench along the northern perimeter of the site.

A fifth room (Room 5) was detected west of Room 2 (L26), enclosed on the north by W3, on the west by W5 and on the east by W4 (Fig. 8; Plan 1: Section 6–6). No definite floors were detected in this area. The modern grave of an infant (L32), buried with a bead and a shell (see below), was discovered near the surface in L21.

The Nabatean structure in Area A appears to have extended further to the west and this area awaits further excavation.

Area B

A wall (W2) and a hard-packed dirt floor (L14; 1.4 m wide) adjoining it on the north were uncovered c. 8 m northeast of Area A



Fig. 9. Area B, W2, looking west.

(Fig. 9; Plan 1: Section 1–1). The wall was constructed of medium to large, rounded wadi stones. This area is probably to be associated with the Early Islamic structure discovered in the earlier excavation by Seriy across the road (see above). The ceramic evidence from Area B (Fig. 12) includes molded, barbotine buff

ware ('Mafjer ware'; Fig. 12:3, 4) and a Roman provincial coin (IAA No. 115677).

Area C

In Area C, traces of scattered building stones and pottery of the Late Roman period (e.g., Fig. 11:26) were uncovered. However, no definitive remains were detected, probably due to the construction of the modern road nearby.

THE FINDS

The finds uncovered in the 2006 excavation, consisting mainly of pottery from Area A dating to the Late Roman period, are illustrated in Figs. 10–13, accompanied by references to the main parallels.

Pottery

Hellenistic and Early Roman Pottery, Area A (Fig. 10)

The earliest material, dating to the Hellenistic and Early Roman periods, was discovered in the structure in Area A, primarily in Room 3 (L22), with a smaller amount of Early Roman vessels in Room 4 (L24). This assemblage includes Nabatean painted fine-ware bowls, plain-ware bowls, part of a Nabatean piriform unguentarium, a globular Judean perfume juglet and parts of a molded 'southern' lamp.

Bowls.— Three Hellenistic Nabatean bowls were discovered in loci mixed with Early Roman wares and a number of Nabatean coins

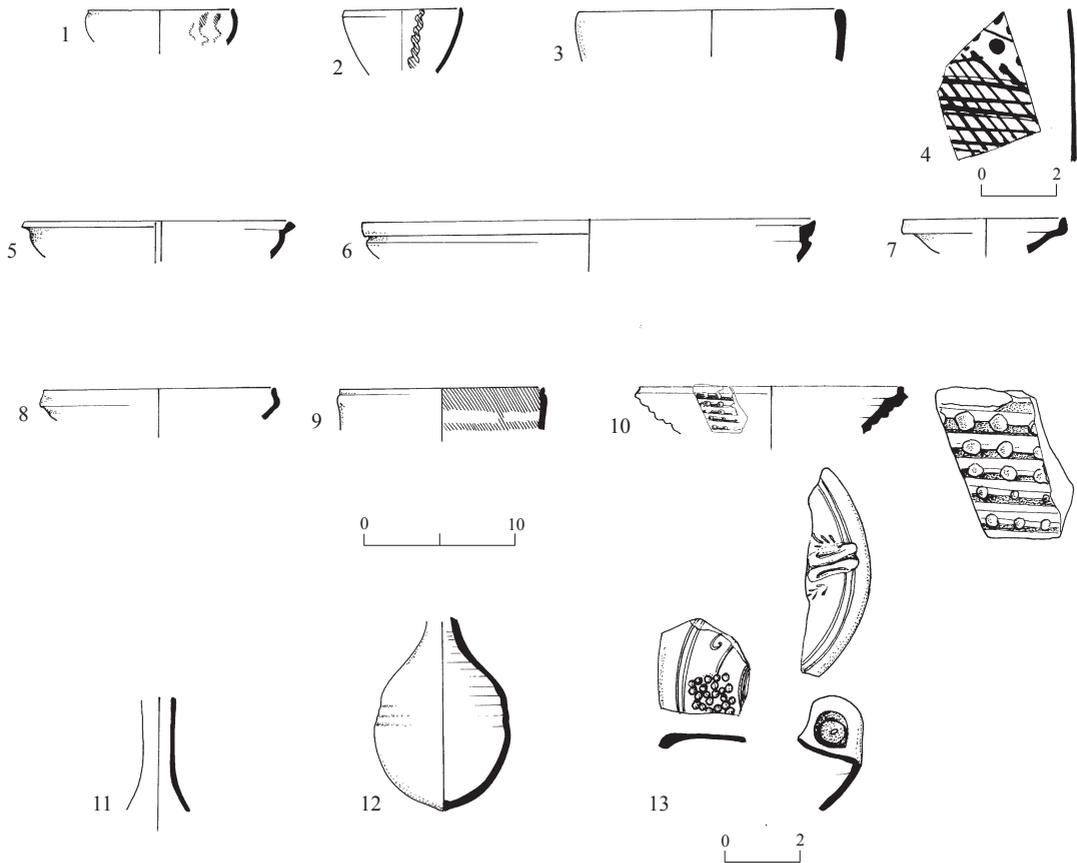


Fig. 10. Hellenistic and Early Roman pottery.

(identifiable coins date to the first century CE). Two bowls (Fig. 10:1, 2) are an early form of Nabatean painted fine ware (NPFW), corresponding to Schmid's Dekorgruppe 1 dated to 150–50 BCE (Schmid 2000: Abb. 73–75), while the third (Fig. 10:3) is an incurved, plain-ware bowl with a reddish slip.

Early Roman Nabatean bowls include a NPFW sherd with hatched decoration (Fig. 10:4), corresponding to Schmid's Dekorgruppe 3a and dated to the mid-first century–80 CE (Schmid 2000: Abb. 89). The other bowls from this period are semi-fine and plain ware, and include two carinated types, one with a

◀ Fig. 10

No.	Object	Locus	Basket	Description	Parallels
1	NPFW bowl	22	25	Red 2.5YR 4/8; red-painted decoration 2.5YR 4/8; fine ware	Dekorgruppe 1 (Schmid 2000: Abb. 75)
2	NPFW bowl	24	32	Red 2.5YR 4/8; red-painted decoration 2.5YR 4/8	Dekorgruppe 1 (Schmid 2000: Abb. 75)
3	Bowl	22	25	Red ware 2.5YR 5/8; slightly micaceous, reddish yellow slip 5YR 6/6	az-Zantur (Schmid 2000: Abb. 40) Nessana (Baly 1962: Pl. XLIX:34 B3).
4	NPFW bowl			Red 2.5YR 5/8; red-painted decoration 2.5YR 4/8	Dekorgruppe 3a (Schmid 2000: Abb. 89) Masada Camp F (Magnez 2002: Fig. 121) Masada (Bar-Nathan 2006: Pls. 55:44–48; 56:49–53) Machaerus (Loffreda 1996: Fig. 46:25–27, 32, 33, 36, 38) Nessana (Urman 2004: Fig. 66)
5	Bowl	22	25	Yellowish red 5YR 4/6; light reddish brown slip on ext. 5YR 6/3; semi-fine ware	
6	Bowl	22	25	Reddish gray 5YR 5/2; occasional gray inclusions; very pale brown slip on ext. 10YR 7/3	
7	Bowl	22	25	Yellowish brown 10YR 5/4; minute gray and white inclusions; pale yellow slip 2.5Y 7/4	az-Zantur, Gruppe 6 (Schmid 2000: Abb. 50)
8	Bowl	24	32	Reddish yellow 5YR 6/6; light yellowish brown slip 10YR 6/4	az-Zantur, Gruppe 6 (Schmid 2000: Abb. 50)
9	Bowl	22	25	Light reddish brown 5YR 6/4; light gray slip on ext. 10YR 7/2; 5YR 5/8 red wash on int.	
10	Bowl	22	25	Pale brown (10YR 6/3); occasional dark gray inclusions; plastic decoration on ext.; unslipped	
11	Nabatean unguentarium	24	32	Red 2.5YR 5/6; light gray slip 10YR 7/2	
12	Judean perfume juglet	22	25	Yellowish red 5YR 5/6; occasional white inclusions; very pale brown slip 10YR 7/3; pale yellow accretion on int.	'Ain ez-Zara/Callirrhoe (Clamer 1997: Pl. 1:13, 18) Jericho, Type J-JT1 (Bar-Nathan 2002: Pl. 10:87; Ill. 39)
13	'Southern' lamp	22	25	Red 2.5YR 4/8; occasional small white inclusions; pinkish gray slip 7.5YR 7/2; two fragments	'Southern' lamp Type 10a (Sussman 2004: Map 2)

rounded body profile and an everted rim made of semi-fine ware (Fig. 10:5), the other with a sharp carination below a triangular, everted rim (Fig. 10:6). Two other bowls are of common Nabatean plain-ware form with angular body profiles and upright, slightly inverted rims (Fig. 10:7, 8), which correspond to Schmid's Gruppe 6 (Schmid 2000: Abb. 50).

One deep bowl (Fig. 10:9) has upright walls and an upright rim grooved on the exterior. The exterior of the bowl is covered with a gray slip and decorated with bands of reddish wash, and the interior is covered with a reddish wash. An unusual deep bowl has angular walls, an upright rim grooved on the exterior, and a heavily ridged exterior, the ridges punctuated with notches (Fig. 10:10). It is made of a buff ware, and both the ware and the decoration are similar to that of Nabatean strainer jars of the same period (Erickson-Gini 2010:105).

Unguentarium.— The neck of a Nabatean piriform unguentarium (Fig. 10:11) was discovered in L24. Nabatean piriform unguentaria appear to have been produced from the end of the first century BCE until the first half of the third century CE (Johnson 1987:58–64).

Juglet.— A globular Judean perfume juglet (Fig. 10:12) corresponding to Bar-Nathan's Type J-JT1 (Bar-Nathan 2002: Pl. 10:87, Ill. 39) was discovered in L22. This type is assumed to have been produced in the Dead Sea area to package Judean balsam, and such vessels are occasionally found in Early Roman contexts at Nabatean sites along the Petra–Gaza road (Erickson-Gini, in prep.).

Lamp.— Two parts of a decorated mold-made lamp (Fig. 10:13) were found in L22. The lamp has a flat, molded rim, decorated with a raised cluster of grapes. The handle is perforated, pinched and grooved, and attached to the back rim of the lamp. This type of lamp corresponds to Sussman's 'southern' lamp Type 10a, which appears in the region of the Judean Desert,

and according to Sussman, was produced in Jewish settlements in the period following the destruction of the Second Temple in Jerusalem in 70 CE (Sussman 2004:155–156, Map 2). 'Southern' lamps also appear frequently in Nabatean sites in southern Israel in contexts dated to the late first–early second centuries CE.

Late Roman Pottery, Area A (Fig. 11)

Most of the ceramics from the structure in Area A date to the second–early third centuries CE, and were found in association with the floors and the *tabun* (F1). This Late Roman assemblage includes debased forms of Nabatean painted fine-ware bowls and cups, undecorated Nabatean fine-ware and plain-ware bowls, imported sigillata wares, a Nabatean piriform unguentarium, kraters, small jars, storage jars, cooking pots, casseroles, a cooking-ware jug and a sherd of a molded oil lamp.

Bowls.— A number of debased Nabatean painted fine-ware (NPFW) bowls were discovered in the structure (Figs. 11:1–7). These bowls differ from the earlier painted ware bowls of the first-century CE type in that the quality of the ware and decoration appear to have declined. The abundance of NPFW bowls of this type at 'En Tamar corresponds with their predominant presence in contexts of the late second–early third centuries CE at sites along the Petra–Gaza road (Erickson-Gini 2010: Fig. 2.1; in prep.; Erickson-Gini and Israel 2013: Fig. 32). Nabatean plain fine-ware bowls include a common form with angular walls and an upright rim (Fig. 11:8), and two carinated forms (Fig. 11:9, 10). The shallow bowl in Fig. 11:9 with a slightly everted rim, appears to be a continuation of a first-century CE type at Petra (Schmid 2000: Abb. 128–139), and has been found in second-century CE contexts at Oboda and Sha'ar Ramon (Erickson-Gini 2010: Fig. 2:13; in prep.: Fig. 3.53:12). The deep, thin-walled, fine-ware bowl in Fig. 11:10 with a grooved ledge-rim, has parallels at 'En Hazeva and Oboda (Erickson-Gini 2010: Fig. 2:18, 19).

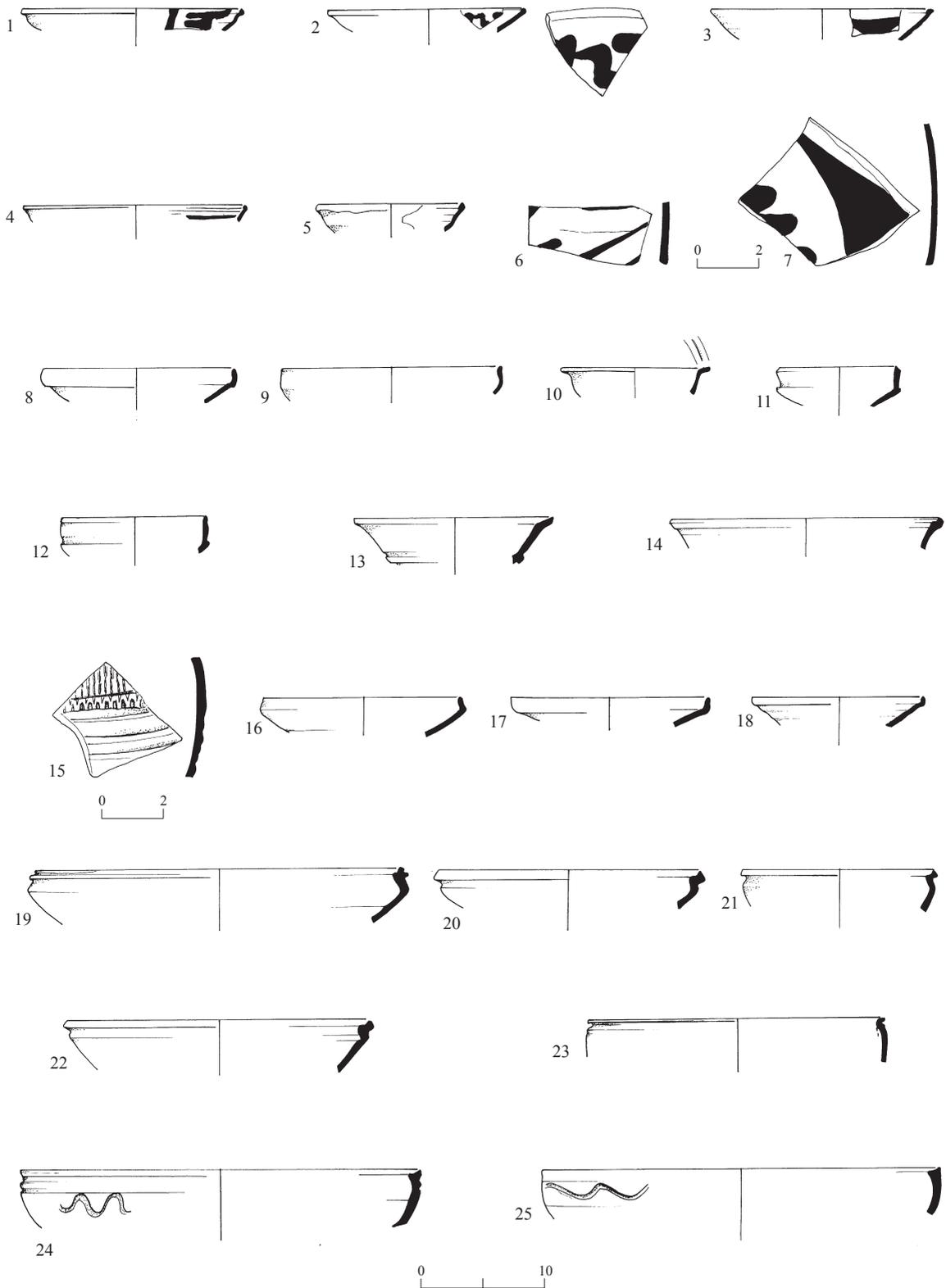


Fig. 11. Late Roman pottery.

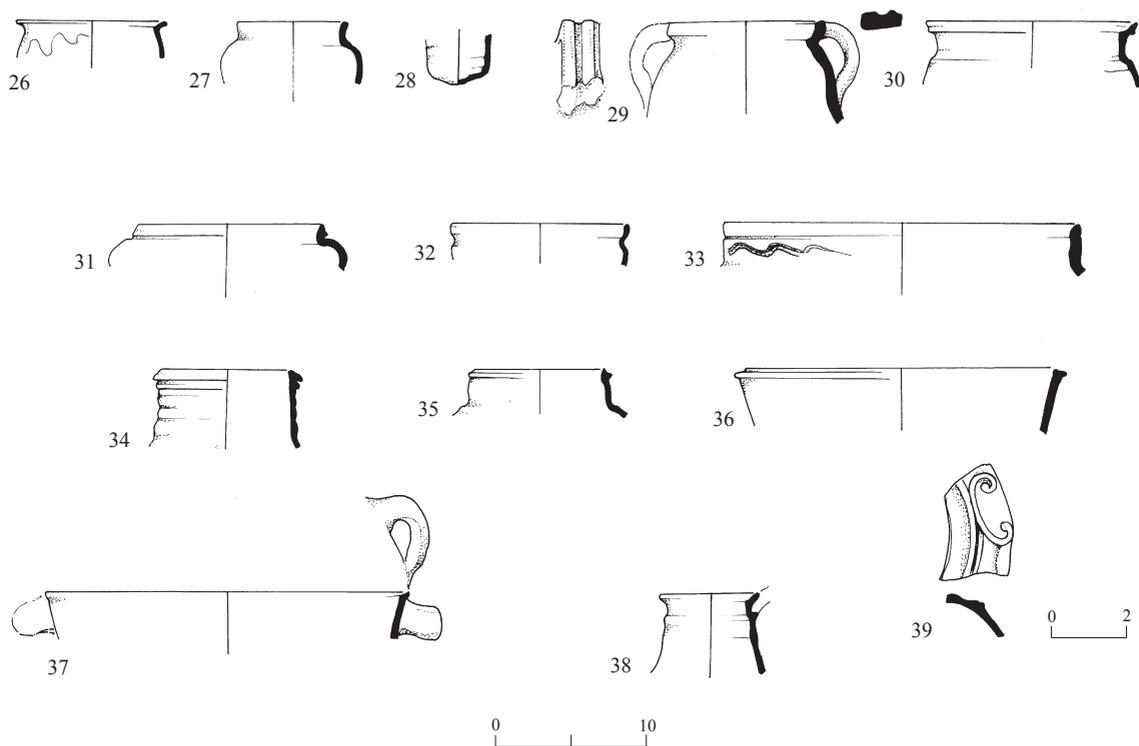


Fig. 11. Late Roman pottery.

No.	Object	Locus	Basket	Description	Parallels
1	NPFW bowl	20	23	Red 2.5YR 5/6; minute white inclusions; reddish brown painted decoration 5YR 4/4	Petra-Zurraba (Zayadine 1982: Pl. CXXXIX: No. 436) az-Zantur, Dekorgruppe 3c (Schmid 2000: Abb. 92, 93) Petra, North Ridge (Bikai and Perry 2001: Fig. 7:9, 10) Aila/Aqaba (Dolinka 2003:136, No. 35) Oboda (Erickson-Gini 2010: Fig. 2:1)
2	NPFW bowl	20	23	Red 2.5YR 5/6; dark reddish brown painted decoration 2.5YR 3/3; pale slip on upper rim	See No. 1
3	NPFW bowl	15	16	Red 2.5YR 5/8; dark reddish brown painted decoration 5YR 3/3; pale slip on upper rim	See No. 1
4	NPFW bowl	20	23	Light red 2.5YR 6/6; red-painted decoration 2.5YR 4/8; red slip on ext. rim 2.5YR 5/6	
5	NPFW bowl	13	13	Brown 7.5YR 5/4; charred int.	Mampsis (Erickson-Gini 1999: Fig. 1.7:5)
6	NPFW bowl	23	26	Red 2.5YR 4/6; dark reddish brown painted decoration 5YR 3/2	
7	NPFW bowl	15	16	Yellowish red 5YR 4/6; red wash on int. 2.5YR 4/6; dark red-painted decoration 5YR 3/3	See No. 1

◀ Fig. 11. (cont.)

No.	Object	Locus	Basket	Description	Parallels
8	Bowl	23	26	Red 2.5YR 5/6; red slip on int. and rim 2.5YR 4/8; fine ware	Mampsis (Erickson-Gini 1999: Fig. 2.3:3) Dibon (Winnet and Reed 1964: Pl. 68:1-3)
9	Bowl	15	16	Red 2.5YR 5/8; numerous white inclusions; fine ware	Oboda (Erickson-Gini 2010: Fig. 2:13)
10	Bowl	20	23	Red 2.5YR 5/8; minute white inclusions; red slip 2.5YR 5/6; fine ware	'En Hazeva (Erickson-Gini 2010: Fig. 2:18, 19)
11	ESA bowl	20	23	Red 2.5YR 5/6; dull red burnish 10R 4/8	Form 50 (Hayes 1985: Tav. VI:18) Oboda (Erickson-Gini 2010: Fig. 2:4)
12	Imitation ESA bowl?	19	22	Red 2.5YR 5/8; occasional medium white inclusions; yellow slip 7.5R 4/4 with red wash on int.	
13	ESA bowl	19	22	Reddish brown 5YR 5/4; dull, dark red burnish 10R 3/6	Form 58 (Hayes 1985: Tav. VII:11) Oboda (Erickson-Gini 2010: Fig. 2:7)
14	Imitation ESA bowl?	15	16	Dark brown 7.5YR 5/6; red slip on int. 2.5YR 4/8; pale yellow slip on ext. 2.5Y 8/2	
15	ESB krater	13	13	Reddish brown 5YR 5/3; reddish brown slip on ext. 2.5YR 5/3; fine ware	Form X38 (Hayes 1985: Tav. XXI:2)
16	Bowl	23	26	Reddish yellow 5YR 6/6; numerous small white and tiny dark gray inclusions; semi-coarse ware	Mampsis (Erickson-Gini 1999: Fig. 2.3:3) Dibon (Winnet and Reed 1964: Pl. 68:1-3)
17	Bowl	16	17	Yellowish red 5YR 5/6; numerous tiny white inclusions; traces of light slip on ext. rim	
18	Bowl	20	23	Light reddish brown 5YR 6/4; occasional tiny white and gray inclusions; very pale brown slip 10YR 7/3	
19	Bowl	20	23	Yellowish red 5YR 5/6; numerous tiny to large white inclusions; pale yellow slip 2.5Y 8/2; red wash on int. 2.5YR 4/8	
20	Bowl	16	17	Very pale brown 10YR 7/4; light brown core; small white inclusions; red wash on int. 2.5YR 5/8	
21	Bowl	19	22	Brown 7.5YR 4/2; charred ext.	
22	Bowl	F1	12	Yellowish red 5YR 5/6; numerous large white inclusions; very pale brown slip on int. 10YR 7/4; red wash on int. over slip	'En Hazeva (Erickson-Gini 2010: Fig. 2:19) Mampsis (Erickson-Gini 2010: Fig. 2:20) Tell Faysal, Jarash (Palumbo et al. 1993: Fig. 11:4, 5)
23	Bowl	19	22	Red 2.5YR 5/8; numerous small to medium white inclusions; light brown slip on ext. 7.5YR 6/4	

◀ Fig. 11. (cont.)

No.	Object	Locus	Basket	Description	Parallels
24	Bowl	16	17	Red 2.5YR 5/8; tiny to medium white and tiny dark gray inclusions; pale yellow slip on ext. 2.5Y 8/2	
25	Bowl	18 (Area C)	18	Yellowish red 5YR 4/6; numerous white inclusions; gray-brown slip on int. 7.5YR 4/6; charred ext.	
26	Cup	L16	17	Red 2.5YR 4/6; dark reddish brown painted decoration 5YR 3/3 also as slip on rim	Oboda (Negev 1986: No. 280; Erickson-Gini 2010: Fig. 2:24) Wadi Musa ('Amr 2004: Fig. 7) az-Zantur (Schmid 2000: Abb. 229)
27	Cup	15	16	Reddish yellow 5YR 6/6; pale yellow slip 2.5Y 8/2; traces of red wash on int. over slip	'Ain ez-Zara/Callirrhoe (Clamer 1997: Pl. 13:23)
28	Unguentarium	20	23	Red 2.5YR 5/8; numerous white inclusions; very pale brown slip 10YR 7/3	Mampsis (Erickson-Gini 2010:237) Petra (Johnson 1987:62, 63, Form IX) Khirbet edh-Dharh (Villeneuve 1990:372)
29	Krater	19	22	Light brown 7.5YR 6/3; occasional medium white inclusions; very worn dark brown slip and burnish on ext.	
30	Krater	10	10	Yellowish red 5YR 5/6; minute white and gray inclusions; very pale brown 10YR 7/4; worn, reddish-brown wash on int. rim	Kiln VI, az-Zurraba/Wadi Musa ('Amr and al-Momani 1999: Fig. 10:16)
31	Jar	15	16	Red 2.5YR 4/8; tiny dark gray and white inclusions; reddish brown slip 2.5YR 5/4 on ext.; charred int.	
32	Jar	19	22	Dark yellowish brown 10YR 4/4; minute white inclusions; pale brown slip on ext. 10YR 6/3	Mampsis (Negev and Sivan 1977: Fig. 8:58) Petra, North Ridge Tombs (Bikai and Perry 2001: Fig. 9:9, 10) Kiln VI, az-Zurraba/Wadi Musa ('Amr and al-Momani 1999: Fig. 11:21)
33	Storage jar	19	22	Pale brown 10YR 6/3; occasional dark gray inclusions; light gray slip on ext. 10YR 7/2 and red wash on int.; white accretions on ext.	
34	Storage jar	20	23	Pale brown 10YR 6/3; light gray core	
35	Cooking pot	20	23	Red 2.5YR 4/6; numerous tiny white inclusions	Type A1a-b (Gerber 1996: Taf. 32F; 1997: Fig. 7) Oboda (Erickson-Gini 2010: Fig. 2:62) Petra ('Amr and al-Momani 1999: Fig. 11:23, 24)
36	Casserole	23	26	Brown 7.5YR 4/4; tiny white inclusions; slightly micaceous; light gray core; reddish brown slip on ext. 5YR 4/4	Oboda (Erickson-Gini 2010: Fig. 2:70) Dor (Guz-Zilberstein 1995: Fig. 6499) Mampsis (Negev and Sivan 1977: Fig. 11:73, 74) Petra ('Amr and al-Momani 1999: Fig. 12:22)

◀ Fig. 11. (cont.)

No.	Object	Locus	Basket	Description	Parallels
37	Casserole	23	26	Yellowish red 5YR 4/6; light brown core; tiny to medium white inclusions; unslipped	
38	Jug	16	17	Yellowish red 5YR 5/6; numerous tiny to small white and light gray inclusions; semi-coarse ware	Petra, az-Zantur (Fellmann-Brogli 1996: Abb. 821, 823)
39	Lamp	16	17	Brown 7.5YR 4/3; very dark brown slip 10YR 2/2	Rosenthal and Sivan 1978:105–108 Sussman 2004: Map 2:11

Imported fine-ware bowls include a small, burnished and carinated bowl (Fig. 11:11) classified by Hayes as ESA Form 50 (Hayes 1985: Tav. VI:18). Although this form is dated primarily to the second half of the first century CE, a number were discovered in early third-century CE contexts in excavations at Oboda (Erickson-Gini 2010: Fig. 2:4). An imitation of this form, found in L19 (Fig. 11:12), was made of a red ware covered with a yellow slip and the interior of the bowl is covered with a red wash. A second ESA bowl (Fig. 11:13), is a deep form with flaring walls corresponding to Hayes' Form 58 (Hayes 1985: Tav. VII:11). This is one of the most common ESA types found throughout southern Israel and Jordan in the second century CE, and the form or variations of it continue to be produced and imported throughout the second century CE. It has also been found in early third-century CE contexts at Oboda (Erickson-Gini 2010: Fig. 2:7), as well as at Ḥorbat Qasra (Erickson-Gini, in prep.: Fig. 3:42). What appears to be a local imitation of this type of bowl (Fig. 11:14) is made of a brown fabric and covered with a red slip on the interior and a pale slip on the exterior.

A single sherd of what appears to be an ESB roulette-ware krater (Fig. 11:15) was discovered in L13. This type of krater is dated by Hayes to the second half of the first century CE–first half of the second century CE (Hayes 1985: Tav. XXI:2). A number of examples have been found at Oboda (Erickson-Gini, in prep.: Fig. 2.2:2).

The Nabatean plain-ware bowls made of semi-fine or coarse-ware fabrics include common forms that first appear in the Early Roman period and continue with variations well into the early third century CE (Fig. 11:16–18). Numerous examples have been found in Late Roman contexts along the Petra–Gaza road (Erickson-Gini, in prep.). Other plain-ware bowls have a carinated form with a heavy groove below a thick, everted rim (Fig. 11:19–22), a form that was particularly common in the Late Roman period and has been recovered from a number of post-annexation sites. Another form has incurved walls and a deep groove below a slightly everted rim (Fig. 11:23–25), and two examples also have incised, wavy decoration below the rim (Fig. 11:24, 25). All these plain-ware bowls are made of red fabrics covered with buff slips.

Cups.— A debased NPFW cup (Fig. 11:26) discovered in L16 is a diagnostic type of the Late Roman period, dating to the late second–early third centuries CE. It has incurved walls and a thin, everted and upturned rim. Examples of this type, made of a thin-walled, red fabric, have been found at most post-annexation sites in the Negev and in Petra, as well as in the kilns in which they were produced near Petra (Zayadine 1982; 'Amr and al-Momani 1999).

A plain-ware cup (Fig. 11:27), made of a reddish fabric covered with a pale slip on the exterior and a red wash on the interior, has parallels at 'Ain ez-Zara/Callirrhoe (Clamer 1997: Pl. 13:23).

Unguentarium.— The lower part of a Nabatean piriform unguentarium from L20 (Fig. 11:28) has parallels from post-annexation contexts at a number of sites, and corresponds to Johnson's Form IX from Petra (Johnson 1987:62, 63).

Kraters.— A wide-mouth krater made of a brown fabric covered on the exterior with a very worn, burnished brown slip, is barrel-shaped with thick walls and an incurved rim, and a grooved handle extends from the rim to below the shoulders of the vessel (Fig. 11:29). A second wide-mouth krater, made of yellowish red ware without a slip (Fig. 11:30), has a carinated profile below the neck and a pointed and everted rim. No exact parallels were found for these two vessels; however, that in Fig. 11:30 resembles a krater uncovered in Kiln VI near Petra (az-Zurraba/Wadi Musa; 'Amr and al-Momani 1999: Fig. 10:16).

Globular Jars.— A small, squat, globular jar with a wide mouth and a short, triangular rim (Fig. 11:31), resembles a vessel discovered in a Late Roman context at Sha'ar Ramon along the Petra–Gaza road (Erickson-Gini, in prep.: Fig. 3.57:1). A second small, globular jar (Fig. 11:32), made of a brown fabric covered with a pale slip, has a more elongated body profile with a wide mouth and a tall, slightly everted rim. Several examples of the latter form have been uncovered in the Late Roman Kiln VI near Petra ('Amr and al-Momani 1999: Fig. 12:21) and at sites along the Petra–Gaza road.

Storage Jars.— One storage jar appears to be a type of large, Nabatean storage jar with a wide, low neck, a wide mouth and incised wavy decoration (Fig. 11:33). No exact parallels were found for this jar. Another jar (Fig. 11:34) has a tall, ribbed neck and a down-turned rim with a heavy groove below it. While no exact parallels were found for this vessel, it appears to be a variation of the bag-shaped jar found throughout the region in this period.

Cooking Wares.— The repertoire of Late Roman cooking wares includes a closed cooking pot, several casseroles and a cooking jug. The closed cooking pot (Fig. 11:35) is a Nabatean type that conforms to Gerber's Type A1a-b (Gerber 1996: Taf. 32F; 1997: Fig. 7). Such cooking pots were found in Kiln VI near Petra ('Amr and al-Momani 1999: Fig. 11:23, 24) and in Late Roman contexts along the Petra–Gaza road.

The casseroles include a shallow type with a slightly everted rim and heavy, down-turned handles attached horizontally below the rim (Fig. 11:36), also found in Kiln VI near Petra ('Amr and al-Momani 1999: Fig. 12:22), in post-annexation contexts at sites along the Petra–Gaza road, and in the north, e.g., at Dor (Guz-Zilberstein 1995: Fig. 6.49:9). The second casserole has a deep profile and a grooved rim (Fig. 11:37); no parallels were found.

A cooking jug, made of a semi-coarse fabric, has a carinated neck, a wide mouth, an everted, upturned rim, and a handle extending from the rim to the carination (Fig. 11:38). Cooking-ware jugs and non-cooking-ware jugs are common in Late Roman contexts, as at Petra (az-Zantur; Fellmann-Brogli 1996: Abb. 821, 823), and other sites along the Petra–Gaza road.

Lamp.— The molded rim of a round, Roman oil lamp from L16 has a decorated discus (Fig. 11:39) with a raised, molded volute. This type of lamp is common in assemblages of the second–early third centuries CE in southern Israel, and corresponds to types published by Rosenthal and Sivan (1978:105–108) and Sussman (2004: Map 2:11).

Early Islamic Pottery, Area B (Fig. 12)

Coptic Ware.— Two sherds of painted Coptic-ware bowls (Fig. 12:1, 2) are made of fine ware with an unglazed white paint applied to the interior over which designs in black and white were added. Similar imports have been discovered at Tiberias dated to the Early

Islamic period (775–800 CE; Stacey 2004: Fig. 5.17.1, 2).

Barbotine Ware.— Two sherds of molded, barbotine buff ware probably belong to jugs. One has a raised design of parallel lines and interconnected diamond shapes (Fig. 12:3) while the second has rows of raised leaves (Fig. 12:4). Buff-ware jugs with this type of molded decoration were found in Early Islamic contexts at Khirbat el-Mefjer (Baramki 1942: Fig. 14:2, 3), and according to Whitcomb, should be dated to the second half of the eighth century CE (Whitcomb 1988:64). However, Stacey

proposes a later date in the mid-ninth century CE (Stacey 2004:136–137).

Storage Jar.— This bag-shaped jar with a tall, smooth, incurved neck and a slightly everted rim (Fig. 12:5), corresponds to a type common at Tiberias during the Early Islamic period (Stacey 2004: Fig. 5.34:1, 2, 5).

Cooking Pot.— A closed cooking pot, made of a hard, dark gray fabric, has horizontal shoulders, a short, upright neck, a wide mouth and handles extending upward from the neck (Fig. 12:6). No parallels were found for this vessel.

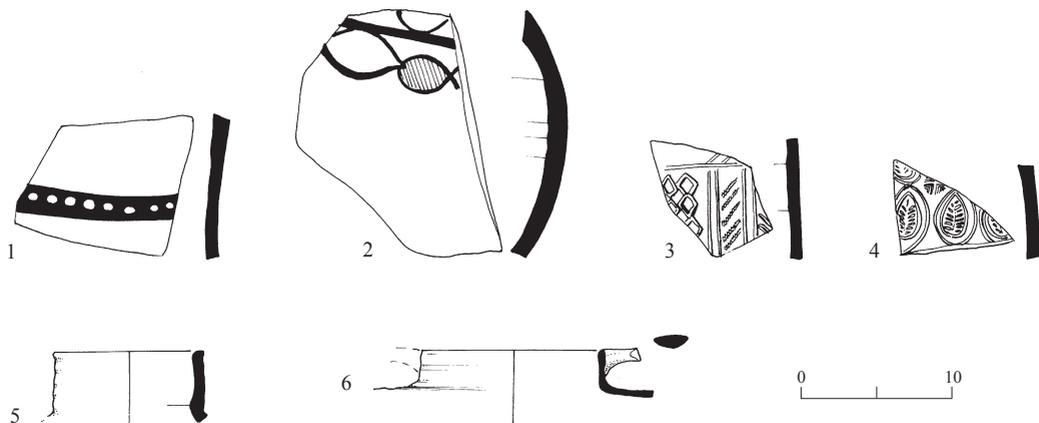


Fig. 12. Early Islamic pottery.

No.	Object	Locus	Basket	Description	Parallels
1	Coptic Ware bowl	11	11	Light reddish brown 5YR 6/4; white and black painted decoration; fine ware	Tiberias (Stacey 2004: Fig. 5.17)
2	Coptic Ware bowl	11	11	Light brown 7.5YR 6/4; very pale brown slip on ext. 10YR 7/3; black and white matt painted decoration on int.	As No. 1
3	Barbotine Ware jug	11	11	Brownish yellow 10YR 6/6; tiny dark gray inclusions; light gray slip 10YR 7/2	Tiberias (Stacey 2004: Fig. 5.48:1) Khirbat el-Mefjer (Baramki 1942: Fig. 14:2, 3)
4	Barbotine Ware jug	11	11	Brownish yellow 10YR 6/6; tiny dark gray inclusions; light gray slip 10YR 7/2	As No. 3
5	Storage jar	27	35	Strong brown 7.5YR 4/6; charred ext.	Tiberias (Stacey 2004: Fig. 5.34:1, 2, 5)
6	Cooking pot	27	35	Dark gray 2.5YR 4/1; dark red core	

Small Finds

Apart from a number of small finds from Area A, Room 3 (L22), including bronze fragments, an iron nail, and pieces of wood and charcoal, finds such as glass beads, shells, and a carved pebble were recovered in several loci, as follows:

Glass Bead.— This heavily charred bead from Area A, Room 2 (L15), appears to be made of green, red and possibly yellow glass (Fig. 13:1).

Melanopsis Shells.— Shells belonging to the freshwater gastropod *Melanopsis* (Fig. 13:2) were discovered in Area B (L27). Such

shells have been found at other desert oases in southern Israel and Sinai, and their appearance is usually associated with aqueducts that transported spring water.

Glass Bead and Shell.— A light orange glass bead and a seawater gastropod, *Cypraea pantherina* (Fig. 13:3), are part of a necklace recovered from the modern grave of an infant in Area A, Room 5 (L32).

Stone Foot(?).— A stone object that appears to be a pebble from the nearby wadi, carved in the shape of a human foot (Fig. 13:4), was discovered in Area A, Room 4 (L17).

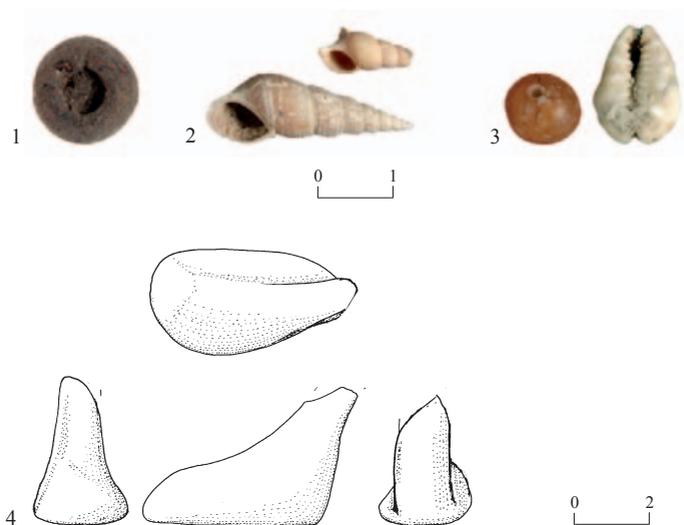


Fig. 13. Small finds.

No.	Object	Area	Locus	Basket	Description	Parallels
1	Glass bead	A	15	16-	Heavily charred, traces of green, dark red and possibly yellow glass swirls	
2	Melanopsis shells	B	27	35	Freshwater gastropod shells	'Ein el-Qudeirat (Bar-Yosef Mayer 2007:293) 'En Yotvata (Erickson-Gini 2012)
3	Glass bead and <i>Cypraea pantherina</i> shell	A	31 (Grave L32)	21	Light orange glass and Red Sea gastropod shell	
4	Stone 'foot'	A	17	16	Carved wadi stone?	

SUMMARY

The 2006 salvage excavation carried out at 'En Tamar revealed evidence that the main structure in Area A should be dated to the Late Roman period, following the annexation of Nabatea in 106 CE. In addition, firm numismatic and ceramic evidence of an earlier Nabatean occupation was discovered in the southern part of the structure, in lower levels unrelated to any architectural features; the nature of this earlier Nabatean occupation is unclear. The pre-annexation finds include Nabatean coins pre-dating 106 CE, accompanied by Nabatean pottery dated to the Hellenistic and Early Roman periods. These artifacts may have originated in an earlier structure located elsewhere in the vicinity of Area A, or in an earlier phase of the same structure, as suggested by Cohen (1983). The presence of Hellenistic Nabatean pottery in Area A is of interest, as the previous excavations failed to detect it, although a Hellenistic Nabatean fort was excavated by Cohen 0.5 km south of Area A. The area in the vicinity of Area A may have been cultivated using spring water transported to the fields by aqueducts, as was the case in a third-century BCE farmhouse beside a spring located near a Hellenistic Nabatean fort of the same period at 'En Raḥel in the western 'Arava (Israel and Nahlieli 1982). The presence of aqueducts at the site of 'En Tamar can be inferred by the discovery of freshwater gastropod shells (*Melanopsis*; see Fig. 13:2), a common find in aqueducts transporting spring water at desert sites such as Moyat 'Awad and 'En Yotvaṭa in the Negev (Erickson-Gini 2012) and 'Ein el-Qudeirat in northern Sinai (Bar-Yosef Mayer 2007:283).

The presence of Judean wares in what is predominantly a Nabatean ceramic assemblage in the Early Roman period at 'En Tamar is not unusual, as Judean wares, particularly perfume containers and oil lamps, are common finds at Nabatean sites in southern Israel and even at Petra. 'En Tamar is located along a main artery between Zoara and Mamphis, near the ancient

border between Judea and Nabatea (see Fig. 1). This border was probably located somewhere south of the site of 'En Boqeq, where perfume-processing facilities of the first century CE were uncovered (Fischer, Gichon and Tal 2000). The Judean perfume juglet found in an Early Roman context at 'En Tamar is a type described by Bar-Nathan as the most common juglet in Judea and in the Herodian palaces at Herodium, Masada and Jericho, particularly in contexts associated with the First Revolt (Bar-Nathan 2002:163–164). The cultivation, production and trade of Judean balsam (*opobalsam*) in the Dead Sea region were undoubtedly of major economic importance for local communities in the classical period.

During the first century CE, the cultivation of Judean balsam spread to 'En Boqeq (Erickson-Gini 2007:48) and other localities around the southern shores of the Dead Sea (Hepper and Taylor 2004). In the early fourth century CE, Eusebius referred to the cultivation of dates and balsam in Zoara: "It (Zoara) is on the shore of the Dead Sea and a garrison of Roman soldiers is posted there, but it is also inhabited by its own citizens, and in its vicinity the balsam and the palm-tree grow, a token of its ancient fertility" (*Onomasticon* 42:1–5). At this time, a significant Jewish community was present in Maḥoza (Maḥoz 'Aglatain) on the southeastern shore of the Dead Sea in the vicinity of Zoara in Arabian territory. According to Cotton, documents from the Judean Desert of the early second century CE reveal intimate ties between Jewish families in 'En Gedi and those living in Maḥoza (Cotton 2006:25*). She suggests that members of Jewish families from 'En Gedi relocated to Maḥoza during the First Revolt when the *sicarii* raided the site in 68 CE, and during the struggle that took place there between the Jews and the Romans over the production of Judean balsam (Cotton 2006:26*). The continued existence of a Jewish community in Zoara is attested to by frequent references to Zoara in Talmudic literature in the Late Roman period and also by the presence of Hebrew and Aramaic tombstones of Jews from the Byzantine period (Breslavsky 1955:383–

386). However, there was also a substantial Nabatean community there well into the Byzantine period (Politis 2007:188).

The finds associated with the structure in Area A of 'En Tamar include coins of Trajan, Hadrian and Marcus Aurelius and city coins of the late second–early third centuries CE discovered in the previous excavation by Cohen. The ceramic evidence from both excavations includes a range of Nabatean vessel types produced mainly at Petra in this period. Thus, based on the coins and pottery from both excavations, the structure can be dated to the Late Roman period (second–early third centuries CE). The rock-cut burial caves near Area A excavated by Hirschfeld also date to this period, and probably belonged to the inhabitants of 'En Tamar.² These were tombs of a number of individuals, including men, women and children, buried with grave goods that indicate a high standard of living. Hirschfeld noted the presence in one of the burials of a leather sole and bronze nails of the *caliga* sandal worn by Roman legionaries (Hirschfeld 2006:182). The abandonment of the site in the early third century CE fits a pattern of abandoned sites that was observed in a number of sites in the Negev (Erickson-Gini and Israel 2013:51), possibly due to the spread of epidemic.

The Early Islamic presence at the site of 'En Tamar was first detected by Seriy in 2001. The abundance of spring water near the site, and its location on a main artery, several kilometers northwest of the town of Zoara, apparently attracted settlement also in the eighth–ninth centuries CE. Zoara was an important town throughout the Early and Middle Islamic periods, as attested by the frequent references to the Dead Sea as the 'Sea of Zoara' by Arab geographers (Breslavsky 1955:391). Anastasius

of Sinai visited Zoara and the nearby Byzantine fort (*Tetrapyrgos*; probably the site of Qasr Tlal) in 700 CE and reported that slaves and prisoners (including Cypriot prisoners of war) were brought to work the land belonging to the Arab conquerors (Breslavsky 1955:391).

The remains of an impressive Byzantine dam next to Naḥal Zin, approximately 200 m to the northwest of 'En Tamar, exhibit constructional repairs in the form of diagonally placed stones (Hirschfeld 2006: Fig. 13.12), a common modification made to Byzantine dams in the Negev Highlands during the Early Islamic period.

Finally, in recent times, Area A was used as a burial ground. A member of the local settlement of Moshav Ne'ot Ha-Kikar informed the author that these were reportedly the graves of a community of Africans living in the vicinity in the early twentieth century. According to Breslavsky, who studied the geography of the region in pre-state Israel, African slaves were brought to work in the sugar-cane industry around Ghor es-Safi in the Middle Ages (Breslavsky 1955:251). During the Ottoman period, this community, called the *Ghoranah*, were virtual serfs of the Bedouin living in the mountains around Kerak, in particular the Majali family, and they were forced to pay a kind of tax, the *hawah*, which was essentially protection money. Under the British administration, the situation of the poverty-stricken members of the *Ghoranah* improved considerably when they were freed from paying the *hawah* tax to the mountain Bedouins. However, Berslavsky reports that in his days the community was being exploited in other ways (1955:254–255). Today, the descendents of this community still live in the region and work in the potash industry and agriculture in Jordan.

NOTES

¹ I wish to thank all those who contributed to the publication of this report of the 2006 excavation at 'En Tamar (Permit No. A-4956). The plans and sections were drawn by Avi Hajian. The coins and other metal finds were cleaned by Gali Biner. Adrian Ganor reconstructed a number of ceramic vessels. Carmen Hersch drew the pottery, glass and small finds, with supplements by Anna Dudin. Tamar Winter (this volume) contributed the glass report, Robert Kool and Donald Ariel provided information on the coins, and Yossi Nagar examined the human remains on site. The site was photographed by the author, and the small finds were photographed by Clara Amit.

The excavation was carried out by workers from Rahat, and children and teachers from the local primary school in 'En Gedi participated under the direction of Revital Zechariah on behalf of the Negev Archaeological Center of the Israel Antiquities Authority Southern Regional Office.

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² The late Yizhar Hirschfeld showed me the ceramic evidence from the burials prior to publication, and in my opinion the material dates to the late second–early third centuries CE. This date is supported by the date of the glass vessels also discovered in the burials, as published by Hirschfeld himself, and contradicts the 'first–second centuries AD' date that he attributed to the pottery in his article (Hirschfeld 2006:181).

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