

POTTERY ASSEMBLAGES FROM GANE TAL

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INTRODUCTION

The ceramics from the excavation at Gane Tal are presented below according to the context of the remains from the different excavation areas (see Arbel and 'Ad, this volume): the Roman circular installations in Areas D1 and D2 (Stratum IV), the Byzantine industrial and storage complexes in Areas E1, E2, D1 and D2 (Stratum III) and the Mamluk structure in Area E3 (Stratum II). This report is organized chronologically and typologically.¹

THE ROMAN PERIOD (Figs. 1–3)

The Roman-period material retrieved from the two circular installations in Areas D1 and D2 (see Arbel and 'Ad, this volume) comprised fragments of bowls, basins, cooking vessels, amphorae, storage jars, jugs and juglets. Several badly preserved fragments of discus-lamp bases and imported lamps were also found; they are described below, but not illustrated.

Bowls and Basins (Fig. 1)

Small Bowl with Inward Folded Rim (Fig. 1:1).— Similar bowls were found at Masada, where they are dated to the end of the first century BCE–first century CE (Bar-Nathan 2006:142, Pl. 26:57), and at Nesher-Ramla (Vincenz 2010: Pl. 8.35:3).

Small Bowl with Inverted Round Rim (Fig. 1:2).— This small bowl with an inverted rim belongs to a group of bowls widespread in the region, especially in Judea, between the end of the first century BCE and the beginning of the first century CE. They continued a tradition of the preceding Hellenistic period (cf. Berlin 1997:73). Many such bowls were found at

¹ Area A was excavated separately; the pottery recovered there was identified by Peter Gendelman and is not included in this report ('Ad 2011; see Arbel and 'Ad, this volume). Also not included here is the pottery from Areas B and C, where tombs were exposed but not excavated, and a few sherds found in accumulations above the southern winepress in Area B2, which could not be clearly related to the structure. Drawings are by Marina Shuiskaya of the IAA.

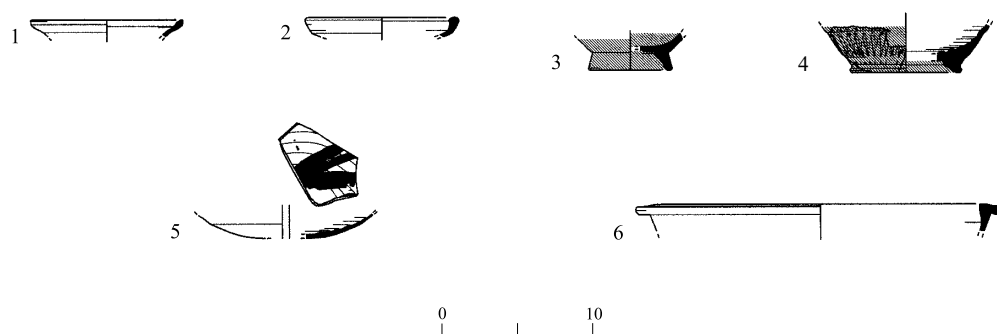


Fig. 1. Roman-period pottery: bowls and basin.

No.	Vessel Type	Locus	Basket	Dimensions (cm) ⁱ	Description ⁱ
1	Bowl	1067	10468	Diam. 10	Very pale brown ware (10YR 7/3); very pale brown surface (10YR 7/3)
2	Bowl	1067	10454	Diam. 10	Very pale brown ware (10YR 7/3); very pale brown surface (10YR 7/3)
3	Bowl	1067	10548	n/a	n/a
4	Bowl or jug	1067	10612	n/a	n/a
5	Bowl	1067	10625	n/a	n/a
6	Large bowl or basin	1067	10643	Diam. 22 Rim 8%	Red ware (2.5YR 5/6) with few small round white inclusions; red surface (2.5YR 6/6)

ⁱ n/a = not available.

Jericho (Bar-Nathan 2002:83–87) and Masada (Bar-Nathan 2006:129–133). Similar bowls were also found at Nesher-Ramla (Vincenz 2010:152, Pl. 8.36:1; 2018: Pl. 6.2.1:1).

Ring Base of Bowl with Red Slip (Fig. 1:3).— This bowl seems to belong to an imported form, possibly of the Eastern Sigillata type, dated to the first century BCE–first century CE. Such vessels were found in Yafo (Tsuf 2018:283–290, Fig. 9.57:926–928).

Base of Lagynos with Molded or Rouletted Decoration and Red Slip (Fig. 1:4).— This base possibly belongs to a *lagynos* of the Cypriot Sigillata type, dated to the mid-first century BCE. It bears incisions and red slip. A similar base was found in Jerusalem (Gunneweg, Perlman and Yellin 1983:50, Fig. 8:112). Such *lagynoi* were found in Yafo (Tsuf 2018:294–295, Fig. 9.60:986–988).

Fragment of Painted Bowl (Fig. 1:5).— This sherd of a Nabatean painted bowl is too fragmentary to be assigned to any of the known types. The presence of Nabatean pottery at a non-Nabatean site located as far north as Gane ʿTal is noteworthy. Another non-Nabatean site that yielded such pottery is Masada, where the Nabatean material was dated from the mid-first century BCE to the end of the first century CE (Bar-Nathan 2006:295–301). A

complete Nabatean bowl was found among a large assemblage of this pottery group from 'En Gedi (Vincenz 2007: Pl. 76).

Large Bowl/Basin with Downward Tilted Ledge Rim (Fig. 1:6).— This example belongs to a simple bowl/basin made of sandy red ware, which was likely locally produced. The date of this bowl/basin is unknown, but it may be similar to that of the other ceramic material with which it was found (see above, Fig. 1:1–5).

Cooking Vessels (Fig. 2)

Closed cooking pots and their lids were among the Roman-period material from Gane Ṭal. Interestingly, carinated casseroles are missing from the assemblage, although such vessels are otherwise typically found in Roman-period pottery assemblages.

Wide-Necked Cooking Pot with Inverted Neck and Folded Rim (Fig. 2:1).— The handle of this cooking pot bears incised nicks. This type may be a variant of the cooking pots found at Machaerus (Loffreda 1996:77–78, Fig. 31), which are dated to the end of the first century BCE–first century CE.

Closed Cooking Pot with Flaring Neck and Grooved Rim (Fig. 2:2).— The body of this cooking pot is squat and globular. These pots are quite common at Machaerus, where they were found in a context of the Herodian period (Loffreda 1996:75–76, Fig. 29:14, 15). This type of cooking pot was found in a *miqveh* at Nesher-Ramla (Vincenz 2018: Fig. 6.2.5:10).

Closed Cooking Pot with Inverted Neck and Rim with Groove (Fig. 2:3).— These pots have a squat globular body and loop handles. The body is ribbed, except for the transition from the body to the neck, which is smooth. Similar pots were found at Nesher-Ramla, where they are dated to the Early Roman period (Vincenz 2010:143, Pl. 8.26:1).

Closed Cooking Pot with Slightly Bulging Neck and Round Rim (Fig. 2:4).— This cooking pot has a squat ribbed body, its upper part is carinated. Large loop handles extend from the rim to below the carination. Pots of this type are quite common at Machaerus, where they are dated to the end of the first century BCE–first century CE (Loffreda 1996:77–78, Fig. 31).

Closed Cooking Pot with Bulging Neck and Everted Thickened Rim (Fig. 2:5).— This cooking pot, made of fine ware, has band handles which are drawn from the rim to the upper shoulder of the vessel and have a flat-shaped section. This type of cooking pot was found at Nesher-Ramla (Vincenz 2018: Fig. 6.2.5:5). Similar cooking pots, dated to the first–second centuries CE, were reported from Masada (Bar-Nathan 2006:159), although their necks are taller and their handles are rounded in section. A likely date for the Gane Ṭal example is the first century CE.

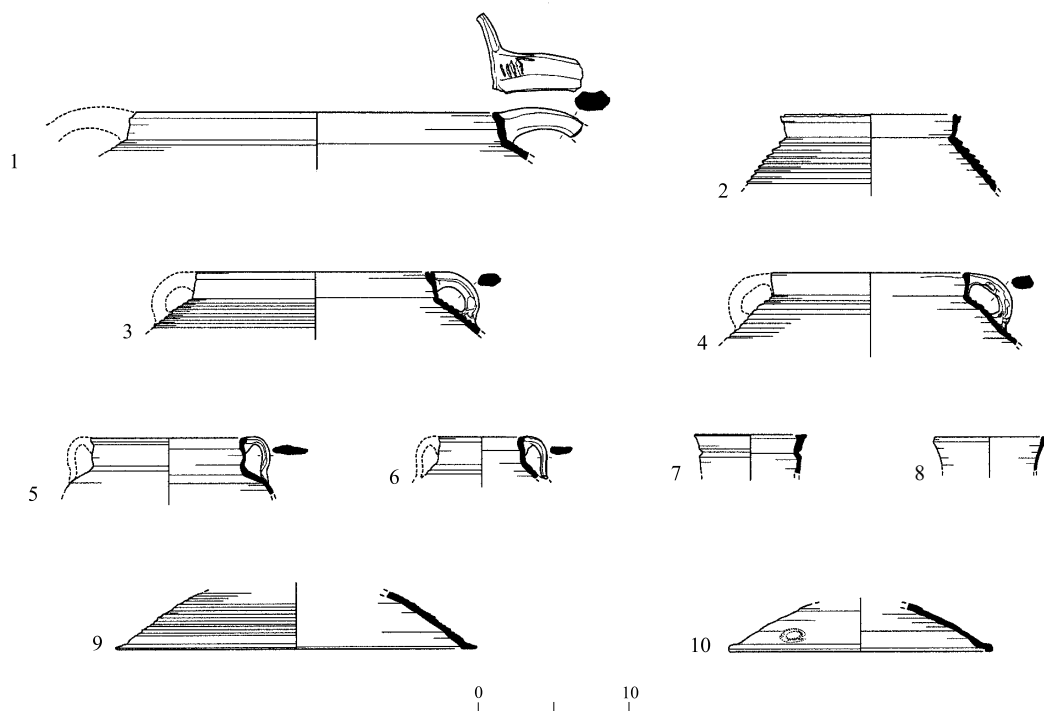


Fig. 2. Roman-period pottery: cooking vessels.

No.	Vessel Type	Locus	Basket	Dimensions (cm)	Description
1	Cooking pot	1066	10594	Diam. 14 Rim 9%	Red ware (2.5YR 4/6–5/6) with few small round and few large angular white inclusions; reddish brown surface (2.5YR 5/4)
2	Cooking pot	1003	10084	Diam. 13 Rim 15%	Red ware (2.5YR 4/6) with few small round white inclusions; light gray surface slip (10YR 7/2)
3	Cooking pot	1006	10054	Diam. 9 Rim 10%	Red ware (2.5YR 5/8) with few small round white inclusions; red surface (2.5YR 5/6)
4	Cooking pot	1040	10319	Diam. 14 Rim 5%	Red ware (2.5YR 4/6) with few small round white inclusions; light reddish brown and pink surface (5YR 6/4 and 7.5YR 7/3)
5	Cooking pot	1067	10560	Diam. 10 Rim 8%	Reddish brown ware (5YR 5/4) with few small round white inclusions; pink surface (7.5YR 7/3)
6	Cooking pot	1067	10410	Diam. 5 Rim 20%	Brown ware (7.5YR 5/4) with few large angular white inclusions; very pale brown surface (10YR 8/2–8/3)
7	Cooking pot	1067	10410/2	Diam. 9 Rim 12%	Red ware (2.5YR 5/8) with few small round white inclusions; pale light reddish brown surface (pale 2.5YR 6/4)
8	Cooking pot	1067	10468	Diam. 8 Rim 10%	Red ware (2.5YR 5/6); light reddish brown surface (2.5YR 6/4)
9	Lid	1007	10132	Diam. 24 Rim 12%	Red ware (2.5YR 4/6) with few small angular white inclusions; red surface (2.5YR 5/6)
10	Lid	1013	10088	Diam. 20 Rim 17%	Light brown ware (7.5YR 6/4) with few small round white inclusions; pink surface (5YR 7/4)

Small, Closed Cooking Pot with Ribbed Neck and Thickened Rim (Fig. 2:6).— In this cooking pot, the band handles are drawn from the rim to the upper shoulder. Although no appropriate parallel for this type was found, it could be a small variant of the previous type shown in Fig. 2:5; therefore, it should be dated to the first century CE.

Small, Closed Cooking Pot with Folded Neck and Flat Rim with Inner Flange (Fig. 2:7).— A similar cooking pot, dated to the first century BCE–first century CE, was found at Ḥorbat Zikhrin (Haddad 2007: Fig. 4:4).

Cooking Pot Made of Very Thin Ware with Slightly Everted Neck and Pinched Rim (Fig. 2:8).— Similar pots, made of fine ware, were reported from Masada (Bar-Nathan 2006: Pl. 29:37–38) and Jericho (Bar-Nathan 2002: Pl. IX:16). The date of the Jericho cooking pots—15 BCE–6 CE—is applicable to the Gane Ṭal example.

Lids (Fig. 2:9, 10).— The ribbed lid with an everted beveled rim (Fig. 2:9) is made of the brittle ware characteristic of cooking pots of the Early Roman period. The other, smooth lid (Fig. 2:10), is made of a fine light brown ware and has a thick flat rim. Both lids have a rather large diameter and therefore, may have belonged to casseroles rather than cooking pots. The fabric of the lids contains exploded air bubbles, indicating that they were made locally. These two lids should be dated to the first century BCE–first century CE. Casserole lids of the Roman period were found at ‘En Gedi (Vincenz 2007:237–238, Pl. 4).

Storage Jars (Fig. 3:1–5)

Storage Jars with Straight Neck and Round Rim (Fig. 3:1, 2).— These rims belong to bag-shaped, cylindrical jars, which usually have a convex base. This jar type was the most common storage jar at Masada, in contexts of both the Herodian period and the Zealot Jewish occupation (Bar-Nathan 2006:52, Pl. 4:19, 20). It is dated to the end of the first century BCE–beginning of the first century CE.

Storage Jar with Straight Neck and Everted Thickened Rim (Fig. 3:3).— This jar is rather small and has a bag-shaped body, a convex pointed base and two loop handles. Such storage jars were found at Masada, where they are dated to the first century BCE–first century CE (Bar-Nathan 2006:60, Pl. 9:51).

Storage Jar with Flaring Neck and Flanged Rim with Groove (Fig. 3:4).— This type of jar has a cylindrical body and a characteristic grooved rim. Two loop handles are attached to the upper shoulder. Jars of this type were quite common at Nesher-Ramla, where they are dated to the first century CE (Vincenz 2010:134, Pl. 8.15:16; 2018: Pls. 6.1.1:7; 6.2.4:7; 6.2.10:3; 6.2.14:4).

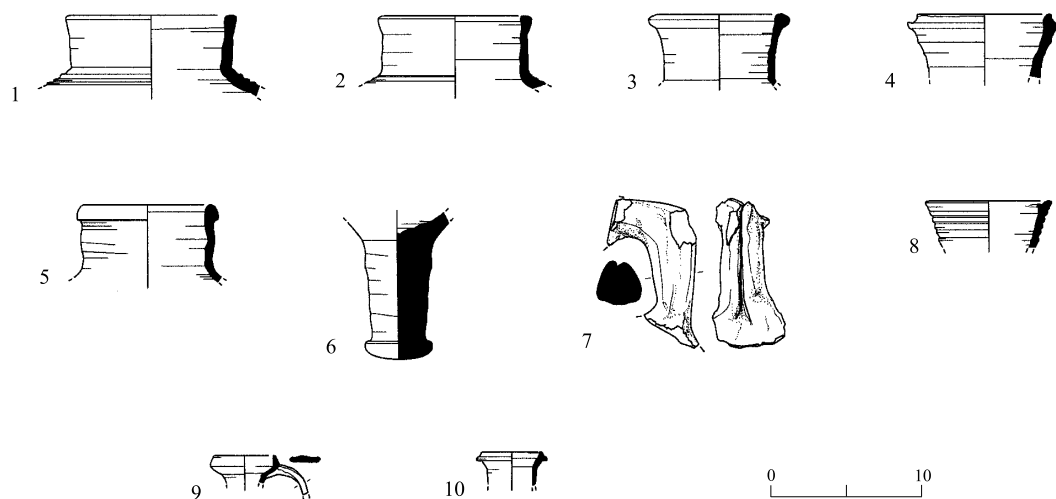


Fig. 3. Roman-period pottery: storage jars, amphorae, jug and juglets.

No.	Vessel Type	Locus	Basket	Dimensions (cm) ⁱ	Description ⁱ
1	Storage jar	1040	10319	Diam. 10 Rim 15%	Reddish yellow ware (5YR 7/6) with few small angular white inclusions; reddish yellow surface (5YR 7/6)
2	Storage jar	1057	10349	Diam. 9 Rim 24%	Red ware (2.5YR 5/8) with thick gray core with few small angular white inclusions; light red surface (2.5YR 7/6)
3	Storage jar	1067	10612	Diam. 10 Rim 27%	Reddish yellow ware (5YR 6/6) with few small angular white inclusions; pink surface (5YR 7/4)
4	Storage jar	1067	10454	Diam. 9 Rim 17%	Brown ware (7.5YR 5/4) with few small round white inclusions; pink surface (7.5YR 7/3)
5	Storage jar	1083	10558	Diam. 8 Rim 50%	Reddish yellow (5YR 6/6) with few small round white inclusions; surface fired to very pale brown buff (10YR 8/2)
6	Amphora	1083	10558	n/a	n/a
7	Jar handle	1083	10558	n/a	Pink (5YR 7/4–7/6) to reddish yellow ware with many small angular and round white inclusions; pink surface (7.5YR 7/3)
8	Jug	1057	10349	Diam. 8 Rim 12%	Pale yellow ware (2.5Y 8/3) with few small angular white inclusions; pale yellow surface (2.5Y 8/2)
9	Juglet	1057	10410	Diam. 5 Rim 17%	Red ware (2.5YR 5/8) with thick gray core; light red surface (2.5YR 7/6)
10	Juglet	1067	10454	Diam. 4 Rim 15%	Red ware (2.5YR 4/6) with few small round white inclusions; light reddish brown surface (2.5YR 6/4)

ⁱ n/a = not available.

Storage Jar with Slightly Bulging Neck and Folded Rim (Fig. 3:5).— These jars have an ovoid body and a convex base. Two loop handles are placed on the shoulder. At Masada, similar jars are dated to the first century CE (Bar-Nathan 2006:62, Pl. 11:61).

Amphorae (Fig. 3:6, 7)

Among the storage vessels found in the excavation, only one fragment was identified as belonging to an imported amphora. A second fragment of an amphora may have been of a locally made type.

Long Solid Toe of Amphora (Fig. 3:6).— This toe probably belongs to an imported amphora of the type known as Carthage Early Roman V (Ostia LI), which can be dated to the first century CE. It may have contained wine from Campania (Bar-Nathan 2006:328, Pl. 66:29) or fish sauce (Martin-Kilcher 1999:420). Containers of this type, described as a Romanized Punic amphora, were found in a fish-salting factory at Nabeul, Tunisia (see Bonifay 2004:99).

Amphora Handle (Fig. 3:7).— Similar handles of locally made amphorae are known from Masada (Bar-Nathan 2006:340, Pl. 72:56), where they are dated to the end of the first century BCE–beginning of the first century CE.

Jugs and Juglets (Fig. 3:8–10)

These vessel forms are rare in the Early Roman circular installations at Gane Tal.

Jug with Ribbed Neck and Grooved Rim (Fig. 3:8).— This jug belongs to a group of Cream Ware vessels well-known in Early Roman-period sites of southern Israel. They are made of cream- or white-colored, porous ware, and are decorated on the body, with incised or applied decorations, and on the rim, with crenellations (for a discussion of this type, see Vincenz 2007:292–293). These jugs can be dated to the end of the first century BCE–first century CE.

Juglet with Cup Mouth Rim and Strap Handle (Fig. 3:9).— This type of vessel, known as a balsam juglet (*tslohit balsam*; Bar-Nathan 2002:51), is a common type of juglet found in Judean sites during the Second Temple period. Numerous such juglets were found at Masada, where they were dated mainly to the end of the first century BCE–first century CE, although they continued until the beginning of the second century CE (cf. Bar-Nathan 2006:190–194).

Juglet with Straight Narrow Neck and Triangular Rim (Fig. 3:10).— A similar juglet was reported from Masada (Bar-Nathan 2006:199, Pl. 33:26); it should be dated to the first century CE.

Lamps

Discus lamps (not illustrated) are characterized by a round flat body, their nozzle is small and short, and they lack a handle. They are made of thin, well-fired ware and are covered with a red, brown or black slip. Their base often bears potters' marks. In addition, they have a sunken discus and a wide rim, both of which are typically decorated. The discus decorations are varied, including animals, mythological figures, erotic scenes or rosettes, and those on the rim can include volutes, ovolos and double-axes. Discus lamps were locally produced in Syria-Palestine, and were widespread throughout that region. Fragments of imported lamps corresponding to Broneer's Type XXV and Loeschcke Type VIII (for an extensive review of these types, see Hadad 2002:19–20) were also found. These imported types occurred regionally from c. 70 into the second century CE.

THE BYZANTINE PERIOD (Figs. 4–8)

The bulk of the ceramic finds retrieved from Gane ʿTal dates to the Byzantine period. A large amount of Gaza wine jars was found, among other types of storage jars. This could indicate the presence of a pottery workshop for the manufacture of such jars at the site; however, no such workshop has been identified yet. Lamps, almost exclusively of the candlestick type, are also abundant in the assemblage. Household wares are rare, and cooking vessels were found in small quantities. Imported fine ware vessels are absent. These characteristics of the Byzantine assemblage indicate a site of a rural or industrial nature during the Byzantine period.

Bowls and Basins (Fig. 4)

Fine Byzantine Ware Bowls (Fig. 4:1–3).— These bowls have either a simple rounded (Fig. 4:1, 2) or an everted round (Fig. 4:3) rim, with an incised wavy line below it. Figure 4:1 is a complete vessel.

These Fine Byzantine Ware (FBW) bowls, first described by Gichon (1974), exhibit a variety of types of ware and surface treatment. Such bowls, as well as other vessels affiliated with this group, such as jugs and juglets, are made of fine, thin ware, which is usually hard-fired. The surfaces are often burnished, and there is often an incised wavy line below the rim of the bowls. Magness (1993:165–171) proposed that Jerusalem was the center of production of FBW. The vessels found at Gane ʿTal are similar in ware to the material found in Jerusalem and thus, they may have been imported from there. These bowls first appeared in the mid-sixth century CE and continued to be produced into the late seventh and eighth centuries (for a discussion, see Magness 1993:193–195).

Handmade Bowl with Thumb-Pressed Decoration and Grooved Rim (Fig. 4:4).— This bowl was probably locally made and may date to the Byzantine period. Such bowls, dated to the Byzantine period, were found at Khirbat el-Niʿana (Vincenz and Sion 2007: Fig. 1:6–8).

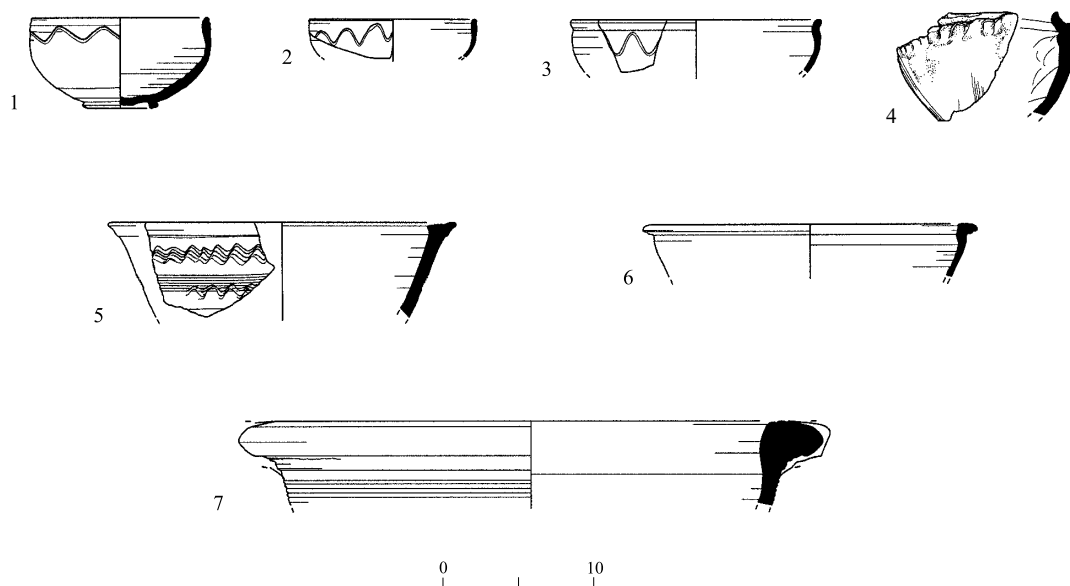


Fig. 4. Byzantine-period pottery: bowls and basin.

No.	Vessel Type	Locus	Basket	Dimensions (cm) ⁱ	Description ⁱ
1	Bowl	1000	10005	Diam. 14	n/a
2	Bowl	1637	15462	Diam. 11 Rim 20%	Light gray ware (hard fired); surface pink to reddish yellow (5YR 7/4–7/6); burnished
3	Bowl	1633	15453	Diam. 16 Rim 10%	Reddish yellow ware (5YR 7/6) with very few small round white inclusions; reddish yellow surface (5YR 7/6); burnished
4	Bowl	1097	10680	n/a	Pink ware (5YR 7/4) with few small angular white inclusions; pink surface (7.5YR 8/3–7/3)
5	Large bowl	618	6053	Diam. 30 Rim 12%	Reddish yellow ware (5YR 6/6) with few small round white and black inclusions; reddish yellow surface (5YR 6/6)
6	Large bowl	618	6041	Diam. 21 Rim 11%	Red ware (2.5YR 5/6–5/8) with few small angular white inclusions; light red to reddish yellow surface (2.5YR 6/8 to 5YR 6/8)
7	Basin	775	7603	Diam. 30 Rim 12%	Reddish yellow ware (5YR 6/6) with few small angular white inclusions; reddish yellow surface (5YR 6/6–6/8)

ⁱ n/a = not available.

Large Bowl with Flaring Walls and Everted Flat Rim (Fig. 4:5).— The body of this bowl is decorated with combed, straight and zigzag lines. It is made of sandy reddish yellow ware and could possibly be of local manufacture. A similar large and comb-decorated bowl was found at Ashqelon (Israel and Erickson-Gini 2013: Fig. 34:7). Similar vessels, described as basins with a beveled rim, and which exhibited a combed straight line decoration, were

found in the winepresses at Nesher-Ramla (Vincenz 2015: Figs. 5.5.27:14; 5.5.29:13). Based on these parallels, the example from Gane ʿTal should probably be dated to the Byzantine period, possibly the sixth or seventh century CE.

Large Bowl with High Carination and Flat Rim (Fig. 4:6).— This bowl seems to be a variant of the arched-rim basins typical of the Byzantine period. Many variants of this common type are known. It is dated from the end of the third until the sixth century CE (for an extensive discussion of this type and its distribution, see Magness 1993:157–160, 204).

Basin with Thick Everted Rim, Body with Combed Decoration and Loop Handles Drawn from the Rim (Fig. 4:7).— A similar basin, but with a more angular rim, was reported from Caesarea Maritima, where it was found in a sealed context dated to the fifth–seventh centuries CE (Johnson 2008:44, 143: No. 368). Another similar basin, although with a heavy knob rim, was reported from Nesher-Ramla (Vincenz 2015: Fig. 5.31:6).

Cooking Vessels (Fig. 5)

Although cooking vessels were fairly uncommon at Gane ʿTal, their presence alongside several clay ovens (see Arbel and ʿAd, this volume) indicates that food was definitely prepared at the site. Among the cooking vessels are casseroles or cooking bowls (Fig. 5:1–3) and closed cooking pots (Fig. 5:4, 5). A lid with a large diameter (Fig. 5:6) was likely used to cover the casseroles rather than the closed cooking pots. It is unclear which type of lid was used for the closed cooking pots at Gane ʿTal, but one possibility is the lid in Fig. 9:1, made of a different, lighter ware than that of the other lids in the assemblage. Examples of this lid type are known from ʿEn Gedi, where several closed cooking pots covered by such lids were found *in situ* (Vincenz 2007: Fig. 74).

Casseroles (Fig. 5:1–3).— These vessels are shaped like a deep bowl (Fig. 5:1, 3) or a shallow one (Fig. 5:2); the base is rounded or flat, and the rim is beveled to support a lid. They have horizontal, sometimes upturned handles; an example of such upturned handles is shown in Fig. 5:1. Examples of casseroles with downturned handles, known from other sites of this period, were not found at Gane ʿTal. The body of the casserole is either ribbed (Fig. 5:1, 3) or smooth (Fig. 5:2). Although these characteristics do not have a chronological significance, a general attribution of the casseroles to the Byzantine period can be suggested based on their provenance: Fig. 5:1, 2 were found in the domestic/industrial complex in Area D1, while Fig. 5:3 was found in the storage facility in Area E1. A more precise date for the deep casseroles (Fig. 5:1, 3) may be the sixth or seventh century CE (see Magness 1993:211).

Closed Cooking Pot with Bulging Neck and Round Rim (Fig. 5:4).— In this example, large loop handles are drawn from the rim to the upper shoulder and the body is ribbed. This type of cooking pot generally has a globular ribbed body and a round base. A similar cooking

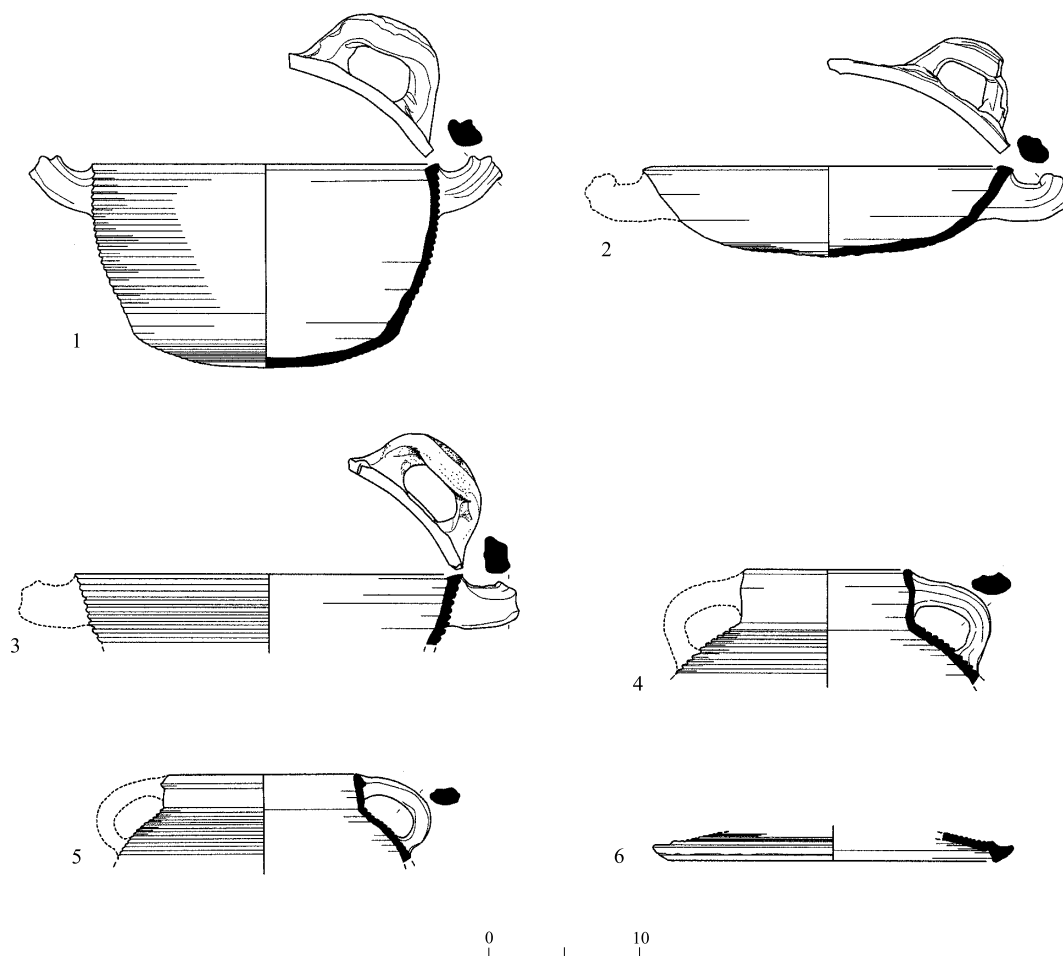


Fig. 5. Byzantine-period pottery: cooking vessels.

No.	Vessel Type	Locus	Basket	Dimensions (cm)	Description
1	Casserole	1016	10264	Diam. 25 Rim 27%	Reddish brown ware (2.5YR 5/4) with few large white inclusions
2	Casserole	1016	10264	Diam. 27 Rim 63%	Reddish brown ware (2.5YR 5/4) with few large white inclusions
3	Casserole	1640	15481	Diam. 28 Rim 12%	Reddish brown to red ware (2.5YR 4/4–4/6) with many small round white and few large round black inclusions; light red surface (2.5YR 5/2)
4	Cooking pot	1571	15225	Diam. 8 Rim 11%	Red ware (2.5YR 4/6) with few small angular white inclusions; red surface (2.5YR 5/6)
5	Cooking pot	261	2539	Diam. 10 Rim 14%	Red ware (2.5YR 5/8) with few small round white inclusions; light red surface (2.5YR 6/6)
6	Lid	1583	15284	Diam. 16 Rim 7%	Red ware (2.5YR 5/8) with few small round white inclusions; yellowish red surface (5YR 5/6)

pot is known from Caesarea Maritima (Johnson 2008:75, No. 878). At 'En Gedi, this type is quite common and is dated to the third and fourth centuries CE (Vincenz 2007:248, Pl. 20:1, 2, and see additional parallels therein).

Closed Cooking Pot with Slightly Bulging Neck and Triangular Rim (Fig. 5:5).— In this example, large loop handles are drawn from the rim. The body of these cooking pots is globular and the base is round. Similar cooking pots were reported from Caesarea Maritima (Johnson 2008: No. 873) and 'En Gedi (Vincenz 2007:281, Pl. 65:6, 8), and are dated to the third–fourth centuries CE.

Lid (Fig. 5:6).— This lid is made of the same brittle ware of the cooking pots. The rim is beveled, as are those of the casseroles described in Fig. 5:1–3, likely to allow the tight sealing of the vessel. The body of such lids may be smooth or ribbed, and usually they contain a raised knob with one or more steam holes. As was the case with the casseroles, no specific date can be suggested for this type of lid, and only a general attribution to the Byzantine period, possibly the late Byzantine, can be proposed (for a discussion of this type of lid and parallels, see Vincenz 2007:248).

Storage Jars (Figs. 6, 7)

The storage jars found at Gane Ṭal, other than the Gaza jars, are all of the bag-shaped type.

Gaza Jars (Fig. 6).— Gaza jars are a well-known group of jars during the Byzantine period (Mayerson 1994; Majcherek 1995). Complete examples from various sites show that these jars have a cigar-shaped body, with ribbing below the shoulders, two small loop handles and a base which is either pointed, a rounded omphalos, flattened or rounded. The Gaza-Ashqelon area was the major center of production of these jars during the Byzantine period, with evidence of a warehouse (Fabian and Goren 2001) and several pottery workshops (Israel 1993:106–107; 1995). Further evidence that these jars were used as containers for the famous Gaza wine produced near Ashqelon—the so-called “wine city”—is the identification of residue on a number of jar sherds (Fabian and Goren 2001:213), as well as the finding of winepresses in association with the pottery workshops (Israel 1993:106–107; 1995; Israel and Erickson-Gini 2013). Large Gaza jar assemblages were also retrieved from pottery workshops at Khirbat Baraqa (Gadot and Tepper 2003), from the Church of Bishop Johannes at Gan Yavne (Rapuano 2016:115–117) and near the winepresses at Ḥorbat Be'er Shema' (Erickson-Gini, Dolinka and Shilov 2015:234–235).

The Gaza-jar sherds from Gane Ṭal were unearthed in several storerooms (see Arbel and 'Ad, this volume). All the jars are made of the characteristic coarse ware, exhibiting clay accretions on the upper part of the body and rim. The body is neck-less, and ribbing occurs near the handles and on the lower part of the body, close to the base. The material from Gane Ṭal includes examples with an omphalos base (Fig. 6:22) or a flattened or rounded base (Fig. 6:19–21, 23). The rim is either simple rounded (Fig. 6:2) or rounded and beveled internally (Fig. 6:3).

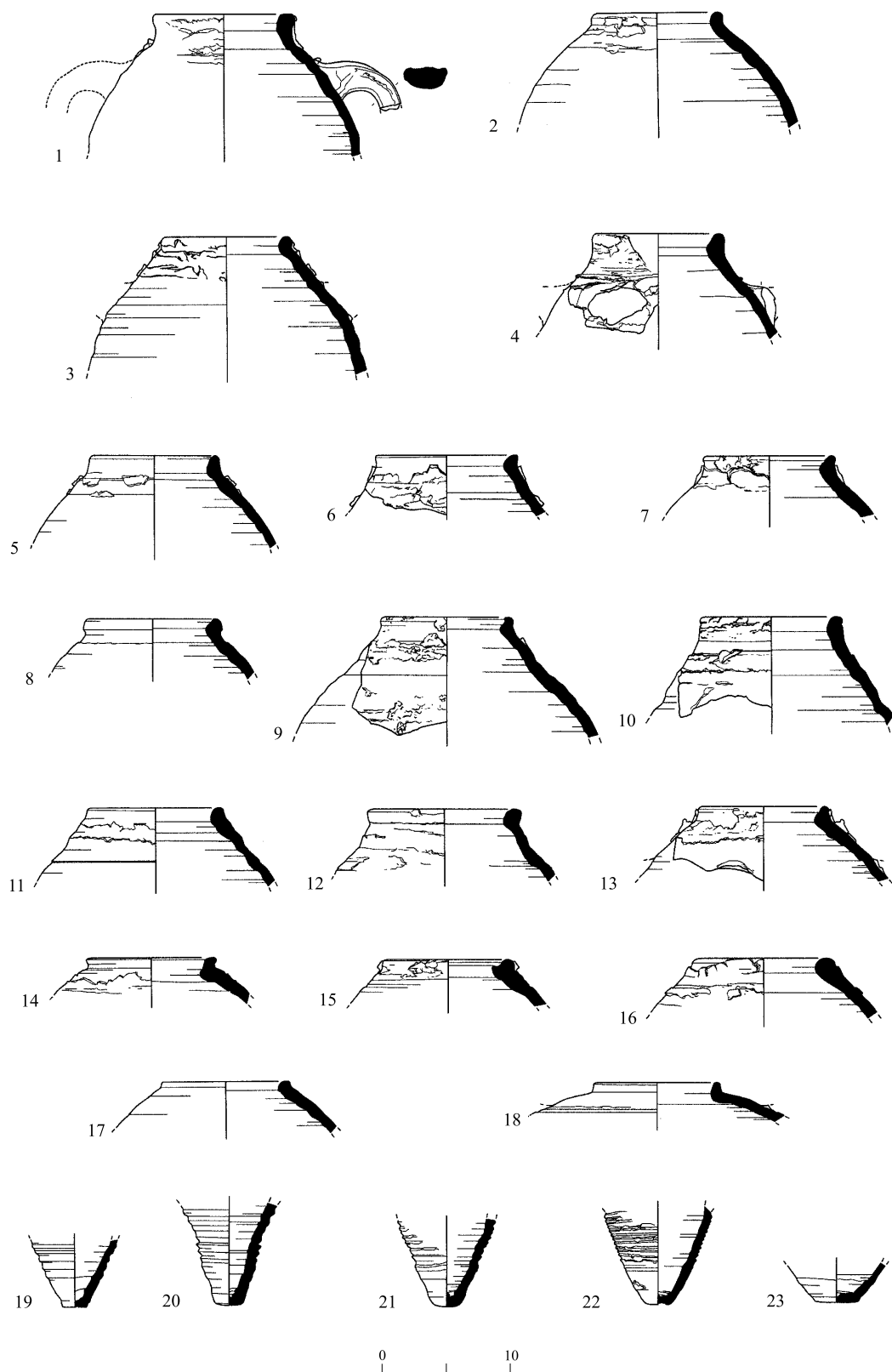


Fig. 6. Byzantine-period pottery: Gaza jars.

◀ Fig. 6

No.	Locus	Basket	Dimensions (cm)	Description
1	1031	10377	Diam. 12 Rim 100%	Light red ware (2.5YR 6/6) with few small angular white inclusions; light reddish brown surface (5YR 6/4)
2	618	6049/1	Diam. 10 Rim 33%	Reddish brown ware (5YR 5/4) with few large angular white inclusions; reddish yellow surface (5YR 6/6)
3	620	6071	Diam. 10 Rim 28%	Yellowish red ware (5YR 5/6) with few large angular white inclusions; pink surface (5YR 7/3–7/4)
4	1572	15250	Diam. 10 Rim 20%	Light reddish brown ware (2.5YR 6/4) with few small round white inclusions; pink surface (5YR 7/3)
5	1104	10681	Diam. 10 Rim 42%	Reddish yellow ware (5YR 6/6) with few small round black inclusions; reddish yellow surface (5YR 6/6)
6	1572	15276	Diam. 12 Rim 15%	Reddish yellow ware (5YR 6/6) with few small angular white inclusions; reddish yellow surface (5YR 6/6)
7	1589	15310	Diam. 10 Rim 30%	Reddish yellow ware (5YR 6/6) with thick gray core and few very small round black inclusions; light reddish brown to reddish yellow surface (5YR 6/4–6/6)
8	775	7610	Diam. 10 Rim 25%	Reddish yellow ware (5YR 6/6) with few small round black and angular white inclusions; reddish yellow surface (2.5YR 7/6)
9	1554	15209/1	Diam. 9 Rim 25%	Red ware (2.5YR 5/6) with few small round black inclusions; light reddish brown surface (2.5YR 6/4)
10	1572	15264	Diam. 10 Rim 35%	Light red ware (2.5YR 6/6) with few small round white inclusions; reddish yellow surface (5YR 7/6)
11	1043	10296	Diam. 12 Rim 12%	Reddish brown ware (2.5YR 5/4) with few large angular white inclusions; light reddish brown surface (5YR 6/4)
12	773	7587	Diam. 10 Rim 25%	Yellowish red ware (5YR 5/6) with lighter core and few small angular black inclusions; light reddish brown to light red surface (2.5YR 6/4–6/6)
13	1007	10024	Diam. 11 Rim 25%	Reddish brown ware (2.5YR 5/4) with few small round white inclusions; light reddish brown surface (2.5YR 6/4)
14	275	2590	Diam. 9 Rim 7%	Yellowish red ware (5YR 5/6) with few small angular white inclusions; light reddish brown surface (5YR 6/4)
15	1006	10419	Diam. 10 Rim 17%	Reddish brown ware (5YR 4/4) with few small angular white inclusions; light reddish brown surface (5YR 6/4)
16	773	7581	Diam. 10 Rim 40%	Red ware (2.5YR 5/8) with few small angular white inclusions; light red surface (2.5YR 6/6)
17	1573	15247	Diam. 9 Rim 17%	Yellowish red ware (5YR 5/6) with few small round white inclusions; light reddish brown surface (5YR 6/4)
18	1040	10336	Diam. 12 Rim 20%	Red ware (2.5YR 5/6) with few small angular white inclusions; light reddish brown surface (2.5YR 6/4)
19	773	7582	Base diam. 2	Light reddish brown ware (5YR 6/4) with few small round and angular white inclusions; pink surface (5YR 7/4)
20	1040	10284	Base diam. 2	Brown and light red ware (7.5YR 5/4 and 2.5YR 6/6) with few small and large round and angular white inclusions; light red surface (2.5YR 7/6)

Fig. 6. (cont.)

No.	Locus	Basket	Dimensions (cm)	Description
21	1589	15319	Base diam. 2	Reddish brown to yellowish red ware (5YR 5/4–5/6) with few small angular white inclusions; light reddish brown surface (5YR 6/4)
22	1572	15250	Base diam. 2	Light reddish brown ware (2.5YR 6/4) with few small round and angular white inclusions; light brown surface (7.5YR 6/4)
23	1573	15265	Base diam. 3.5	Reddish yellow ware (5YR 6/6) with few small angular white inclusions; reddish yellow surface (5YR 7/6)

All the Gane Tal Gaza jars belong to one type, i.e., Majcherek Type 4 (1995:168–169), dated to the sixth and seventh centuries CE, although a wide variety of rim shapes prevails: short-everted and rounded (Fig. 6:3), beveled (Fig. 6:4–8), beveled and grooved (Fig. 6:9), simple rounded (Fig. 6:10, 11), thickened rounded (Fig. 6:12, 16), inverted beveled (Fig. 6:13, 14) and inverted beveled and grooved (Fig. 6:15). Numbers 17 and 18 differ from the other examples shown here in their finer ware and thinner rim, indicating that they may have been produced in a different workshop. The presence of the characteristic clay accretions on the body of these two examples shows that they were locally made. It seems likely that the jars were stored in this area before they were shipped overseas to destinations in the Mediterranean countries.

Bag-Shaped Jar with Straight Neck Thickened Externally or Internally (Fig. 7:1–3).— These bag-shaped jars, which continue the traditional shape of the Roman storage jars, feature a ridge at the bottom of the neck. They can be dated to the second–fourth centuries CE (Magness 1993:223–224, Storage Jar Form 4A). Examples of these jars have been found at Nesher-Ramla (Vincenz 2015: Fig. 5.23:66, 67).

Bag-Shaped Jar with Straight Neck and Round Rim (Fig. 7:4).— This jar was the most common type of storage vessel of the Byzantine period. It has a ribbed, bag-shaped body, a straight neck with a ridge at its bottom and a round rim. Small loop handles are positioned on the upper shoulder. These jars are dated to the fifth–sixth centuries CE (Magness 1993:223–225, Storage Jar Form 4B).

Bag-Shaped Jars with Short Bulging Neck and Everted Pinched Rim (Fig. 7:5–11).— This bag-shaped jar type is ribbed and has two loop handles on the upper part of the body; clay accretions occur below the rim and on the upper shoulder of the jar. It was the most common type of jar during the Byzantine period in Caesarea Maritima (Adan-Bayewitz 1986:91–97; Johnson 2008: Nos. 1034–1036, 1039–1041, 1043, 1044), where it was dated to the fifth–seventh centuries CE (Johnson 2008:88). Such jars may have been used as containers

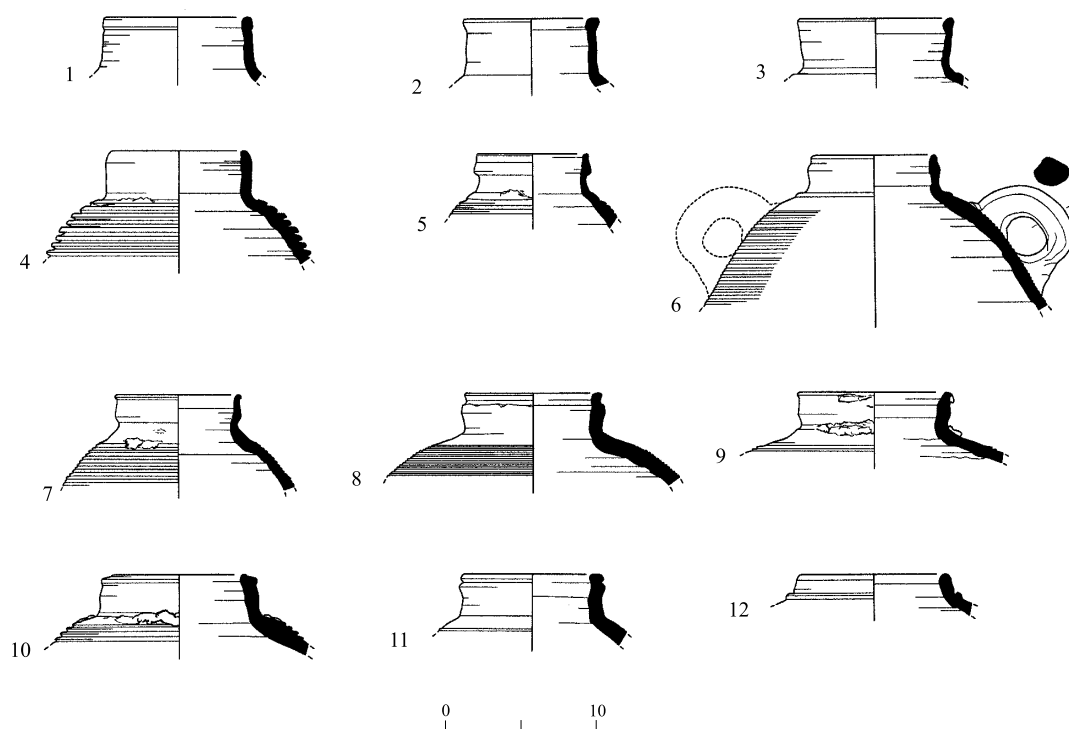


Fig. 7. Byzantine-period pottery: storage jars.

No.	Locus	Basket	Dimensions (cm)	Description
1	1572	15296	Diam. 9 Rim 22%	Reddish yellow ware (5YR 7/6) with few small angular black inclusions; pink surface (5YR 7/4)
2	275	2589/1	Diam. 10 Rim 12%	Light red ware (2.5YR 6/6) with few small angular black inclusions; light red surface (2.5YR 7/6–6/6)
3	262	2574	Diam. 10 Rim 15%	Light reddish brown ware (5YR 6/4) with few small round black inclusions; very pale brown self-slip surface (10YR 8/3)
4	1097	10680	Diam. 10 Rim 12%	Light red to red ware (10R 6/6–5/6) with few small and large round white inclusions; light reddish brown to light red surface (2.5YR 7/4–7/6)
5	781	7613	Diam. 8 Rim 16%	Light red ware (2.5YR 6/6) with few small angular white inclusions; pink surface (5YR 8/4)
6	618	6049/2	Diam. 9 Rim 30%	Light reddish brown ware (5YR 6/4) with few small round black inclusions; reddish yellow surface (7.5YR 6/6)
7	1571	15241	Diam. 9 Rim 20%	Red ware (2.5YR 5/6) with few small round and angular white and few large angular white inclusions; reddish yellow surface (5YR 7/6)
8	1090	10577	Diam. 10 Rim 25%	Red ware (2.5YR 5/6) with few small round and angular white inclusions; light reddish brown to light red surface (2.5YR 7/4–7/6)
9	1557	15532	Diam. 10 Rim 35%	Red ware (2.5YR 5/6) with many large and small round and angular white inclusions; reddish yellow surface (5YR 6/6)
10	1554	15209/2	Diam. 8 Rim 20%	Light reddish brown to light red ware (2.5YR 6/4–6/6) with few small angular black inclusions; pink surface (5YR 7/4)
11	1571	15225	Diam. 12 Rim 10%	Light reddish brown ware (5YR 6/4) with very few very small round white inclusions; pink surface (5YR 7/4)
12	603	6049	Diam. 9 Rim 22%	Yellowish red ware (5YR 5/6) with few small angular white inclusions; yellowish red surface (5YR 5/6)

for wine and/or oil (Adan-Bayewitz 1986:96). This was the most common jar type in the Nesher-Ramla winepresses (Vincenz 2015: Figs. 5.3:1; 5.7:22, 23; 5.9:10; 5.11:9; 5.15:12, 13; 5.23:59–65).

Bag-Shaped Jar with Low Neck and Rounded Rim (Fig. 7:12).— This example has a pronounced ridge at the bottom of the neck, and may be identified as a distinct variant of the bag-shaped jar. Another possibility is that this fragment belonged to a Gaza jar, as shown by an example with a similar short neck from Caesarea Maritima (Johnson 2008: No. 1166); however, the small size of the fragment prevents a definite identification. A possible date for this form is the sixth–seventh centuries CE.

Lamps (Fig. 8)

The candlestick lamp is the main lamp type found at Gane Tal, although examples of a few other types, including Yavne and Samaritan lamps, as well as wheel-made ones, were found.

Yavne Lamp with a Garland Decoration on Rim (Fig. 8:1, 2).— The nozzle of the complete example is decorated with two lines running across it (Fig. 8:1). This type of lamp has a small knob handle, which was described as wart-shaped by Sussman (2007:58). The rim is decorated with a floral design. The lamp fragment (Fig. 8:2) is decorated with drop-shaped dots spread along a line, and has a rather large handle. These two lamps belong to the group of Yavne Lamps (for a discussion of the shape and decoration of these lamps and of their distribution, see Sussman 2007:56–57, Fig. 3).

Samaritan Lamp with Geometric Decoration on Rim (Fig. 8:3).— This complete example belongs to the group of Samaritan Lamps (Type 2) with an almond-shaped body, small wick-hole and filling hole, and a horizontal tongue handle. The disc was broken after being fired. The channel leading to the wick-hole is narrow, shallow and undecorated. The rim is decorated with a geometric design—a zigzag or herringbone pattern, arranged in variable orientations. Such lamps have been unearthed at sites such as Baqa el-Gharbiya (Badhi 2001: Figs. 7, 8), Khirbat el-Ni'ana (Sussman 2007:64, Fig. 6:39) and Caesarea Maritima (Sussman 2008:243–244, Nos. 155–157). They are dated to the late third/fourth–fifth centuries CE (Sussman 2008:243).

Candlestick Lamps (Fig. 8:4–9).— Two variants of this type of lamp are known, small and large, both of which occur at Gane Tal. Two subtypes of these forms can be further distinguished based on their style of decoration: one (Fig. 8:4, 6–9) displays a pattern of radiating lines on the rim and a palm tree on the nozzle, while the other (Fig. 8:5) has a radiating pattern and semicircles on the rim, and has a small knob instead of a handle. In both subtypes the lamps are well-made, and the rim and nozzle decorations are elegantly arranged. In some of the known examples of the first subtype, the palm branches decorating the nozzle seem to be standing on a base. This design was interpreted as representing the

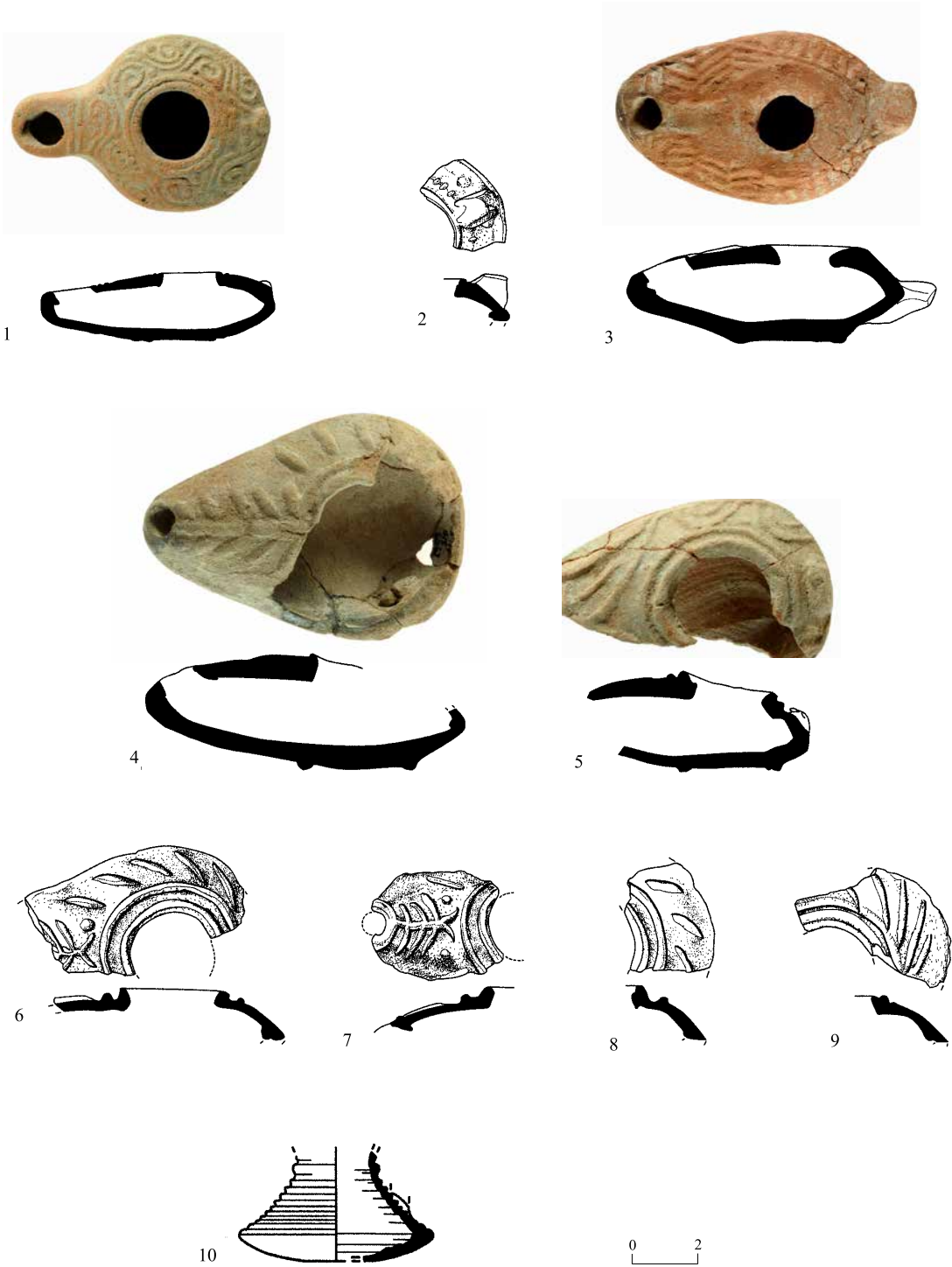


Fig. 8. Byzantine-period pottery: lamps.

◀ Fig. 8

No.	Vessel Type	Locus	Basket	Dimensions (cm)	Description
1	Yavne Lamp	768	7559	Length: 8.0 Width: 5.5 Height: 2.5	Complete; reddish yellow ware (5YR 6/8) with few large white inclusions; geometric pattern on rim and long round nozzle
2	Yavne Lamp	1040	10319	Length: 2.0 Width: 3.1	Pink ware (7.5YR 7/4) with few small angular white inclusions; pink surface (7.5YR 7/4)
3	Samaritan lamp	1608	15396	Length: 10.7 Width: 6.3 Height: 3.5	Yellowish red ware (5YR 5/6) with very few small black inclusions; geometric pattern on rim
4	Large candlestick lamp	615	6062	Length: 11 Width: 7.5 Height: 3.5	Reddish yellow ware (7.5YR 6/6) with very few small white inclusions; radiating pattern on rim; base outlined
5	Small candlestick lamp	1105	10698	Length: 8.0 Width: 4.2 Height: 3.2	Yellowish red ware (5YR 5/6) with very few small white inclusions; half-circle pattern on rim; base outlined
6	Large candlestick lamp	1572	15264	Length: 7.5 Width: 4.0	Reddish yellow ware (5YR 6/6) with very few very small white inclusions; pink surface (5YR 7/4); radiating pattern on rim
7	Large candlestick lamp	1572	15276	Length: 4.5 Width: 3.7	Light red ware (2.5YR 6/6) with few small round white inclusions; reddish yellow surface (5YR 6/6); palm tree flanked by two dots on nozzle
8	Large candlestick lamp	1572	15250	Length: 3.5 Width: 2.7	Reddish yellow ware (5YR 6/6) with very few very small white inclusions; light red surface (2.5YR 6/6); radiating pattern on rim
9	Large candlestick lamp	1007	10132	Length: 5.5 Width: 3.2	Pink ware (7.5YR 7/4) with few small angular white inclusions; surface encrusted; radiating pattern on rim
10	Wheel-made lamp	1509	15021	Width: 7.0 Height: 4.5	Red ware (2.5YR 4/6) with few small round black inclusions; light red surface (10R 6/6); ribbed body

Jewish menorah (candelabra), from which the name of the broader group of lamps derives (Rosenthal and Sivan 1978:116).

The typology and decoration of the candlestick lamps, as well as the inscriptions found on some examples, were studied by various scholars (Kennedy 1963:83–87; Nitowski 1974; Rosenthal and Sivan 1978:116–121; Loffreda 1990). These candlestick lamps were the most common lamp type during the Byzantine period, frequently found at sites in the Jerusalem region and its vicinity, e.g., in the tombs at ‘En Lavan (Vincenz 2020: Figs. 5–8), Naḥalat Aḥim (Kogan-Zehavi 2006) and ‘En Ya‘al (Vincenz 2013). They have also been found farther north, e.g., at Bet She‘an and Transjordan (Hadad 2002:67–68). Magness’ suggestion that candlestick lamps were produced in the Jerusalem area (Magness 1993:176) was reinforced by the discovery of a pottery kiln containing abundant fragments of such

lamps at Zuba, dated to the late Byzantine period (Gibson, Dar and Clarke 2000:29). A large amount of upper and lower molds of candlestick lamps was uncovered at Khirbat el-Ni'ana (Sussman 2007: Fig. 8), located near Gane Tal. These molds may be identified as the remains of a workshop for candlestick lamps, although no other traces of such a workshop, e.g., wasters, were reported at that site.

Wheel-Made Lamp (Fig. 8:10).— A wheel-made lamp manufactured from the common brittle ware of cooking pots is another lamp type produced during the Byzantine period. The body of this lamp comprises a circular oil reservoir. Both the handle and nozzle of Fig. 8:10 have typically broken away due to their attachment to the body after it was shaped. This type of lamp, dated to the sixth and seventh centuries CE, appears mainly in the southern part of the country and is generally absent in northern sites (for a discussion of this type and parallels, see Vincenz 2007:266–267, Pl. 52:4–6). Lamps of this type have been reported, for example, from Ashqelon (Israel and Erickson-Gini 2013: Fig. 39:2) and Be'er Sheva' (Israel, Seriy and Feder 2013: Fig. 16:1, 2).

THE ROMAN AND BYZANTINE PERIODS: MISCELLANEA (Fig. 9)

This section comprises finds that could not be clearly dated beyond a general attribution to the Roman–Byzantine time span.

Lid in the Shape of a Saucer with Everted Hooked Rim and Flat Base (Fig. 9:1).— As mentioned above (see Fig. 5), this type of lid is made of a light buff ware. It was typically used as a cover or seal for jars, but also shown to have been used for covering the cooking pots at 'En Gedi (Vincenz 2007: Fig. 74). These lids may be dated to the Byzantine period (Magness 1993:247). Our example—a complete lid—was found in the upper level of the Roman circular installation of Area D1, where the material was mixed Roman/Byzantine.

Circular Disc-Shaped Stopper Made of Reworked Sherd (Fig. 9:2).— Sherds were reworked into circular discs to fit the necks of various closed vessels. The dimensions of the stopper (diam. 2.2 cm) would suggest that it was used to seal/close a juglet. A cloth is likely to have been used with the stopper to better seal the vessel and to hold the stopper in place. This fragment was found in a Roman/Byzantine context.

Fragment of Mirror Disc (Fig. 9:3).— This fragment displays a central circular depression and several around it, within which mirrors were inserted; the backside appears to have been undecorated. The disc may have originally had a handle for holding the mirror. Mirrors of the same type were discovered in Byzantine-period contexts at 'En Gedi (for a detailed discussion of mirror discs, see Chernov 2007:520, Figs. 52, 53) and Yehud (Vincenz, forthcoming). The mirror disc from Gane Tal was found in the area of the storage facility of the Byzantine period (Area E1).

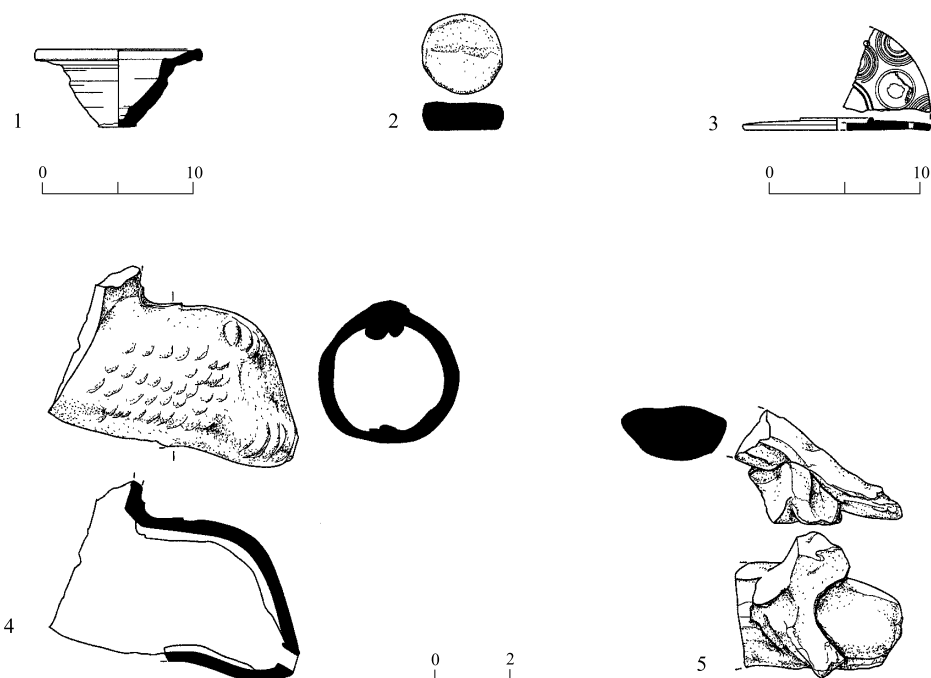


Fig. 9. Roman- and Byzantine-period pottery: miscellaneous.

No.	Vessel Type	Locus	Basket	Dimensions (cm)	Description ⁱ
1	Saucer lid	1040	10311	Diam. 11.5 Rim: 99% Base: 2.8 Height: 6	Light brown ware (7.5YR 6/3) with many small white inclusions
2	Stopper	1091	10630	Diam. 2.2 Width: 0.7	Light red ware (2.5YR 6/8); pink surface (7.5YR 7/4)
3	Mirror disc	1572	15250	Diam. 12.5	n/a
4	Drinking vessel	1068	10477	Diam. 3.7 Height: 5	n/a
5	Figurine?	1608	15390	Height: 4 Width: 4.3	Red ware (2.5YR 5/6) with few small angular white inclusions; pink surface (2.5YR 7/5)

ⁱ n/a = not available.

Drinking Vessel (Fig. 9:4).— This vessel has the shape of a sheep or ram, with the head missing; the opening is at the back of the vessel. These features, together with the fact that the vessel is hollow, suggest that it is a *rhyton*.

During the Roman period, clay drinking vessels were common among the wealthy. They have occasionally been found in excavations. A similar *rhyton* in the shape of a ram was found at Tel Dor (Stern 2000:303–304, Pl. V), where it was dated to the Roman period. The close resemblance between the two vessels suggests that the one from Gane Tal, which was found in an accumulation of the Byzantine period within an Early Roman circular installation in Area D2, should also be dated to the Roman period. These vessels were possibly imported

from North Africa or rather, from the island of Cnidos, which was famous for its wine, also imported to the Levant (Stern 2000:303–304). Two sherds from Caesarea may have belonged to similar drinking vessels (Patrich and Abu Shaneb 2008: Nos. 313, 315).

Fragment of Figurine(?) (Fig. 9:5).— This is an unidentifiable fragment of a ceramic figurine found in a Byzantine context.

THE MAMLUK PERIOD (Figs. 10–12)

The Mamluk material from Gane ʿTal originated in Area E3, where the fragmentary remains of a building were excavated (see Arbel and ‘Ad, this volume). Although only a small amount of material of this period was found, it represents a wide variety of wares and shapes. The assemblage consists of coarse-ware vessels, such as bowls and jars, handmade painted vessels, such as jugs, jars and bowls, and glazed bowls.

Coarse Ware

Coarse, wheel-made bowls and coil-made basins, used in food preparation, occurred alongside the widespread painted bowls of the Mamluk period. These vessels, which were

Fig. 10 ▶

No.	Vessel Type	Locus	Basket	Dimensions (cm) ⁱ	Description
1	Bowl	1510	15076	Diam. 18 Rim 21%	Yellowish red ware (5YR 5/6) with few large and small angular white inclusions; light reddish brown surface (5YR 6/4)
2	Basin	1530	15149	Diam. 40 Rim 7%	Brown ware (7.5YR 5/4) with few small round black inclusions; light brown surface (7.5YR 6/4)
3	Storage jar	1508	15047	Diam. 9 Rim 25%	Yellowish red ware (5YR 5/6) with few small round white inclusions; very pale brown surface (10YR 7/3)
4	Storage jar	1508	15020	Diam. 9 Rim 17%	Light red ware (2.5YR 6/8) with many small round and angular white inclusions; very pale brown to light gray surface slip (10YR 8/2–7/2)
5	Storage jar	1539	15128	Diam. 9 Rim 19%	Red ware (2.5YR 5/6) with few small round white inclusions; surface fired to pink buff (7.5YR 8/3)
6	Storage jar	1553	15211	Diam. 3 Rim 30%	Reddish yellow ware (5YR 6/6) with very small angular white inclusions; light reddish brown surface (5YR 6/4)
7	Spout	1530	15119	Diam. 2	Yellowish red ware (5YR 5/6) with few small round white inclusions; surface with light gray self-slip (10YR 7/2)
8	Flask	1530	15119	n/a	Pink ware (7.5YR 7/4) with few small round white inclusions; pale yellow surface (2.5Y 8/2)
9	Lamp handle	1508	15047	Height: 3.8 Width: 4	Light red ware (2.5YR 6/8) with thin gray core and few small angular white inclusions; reddish gray to weak red surface (2.5YR 5/1–5/2)

ⁱ n/a = not available.

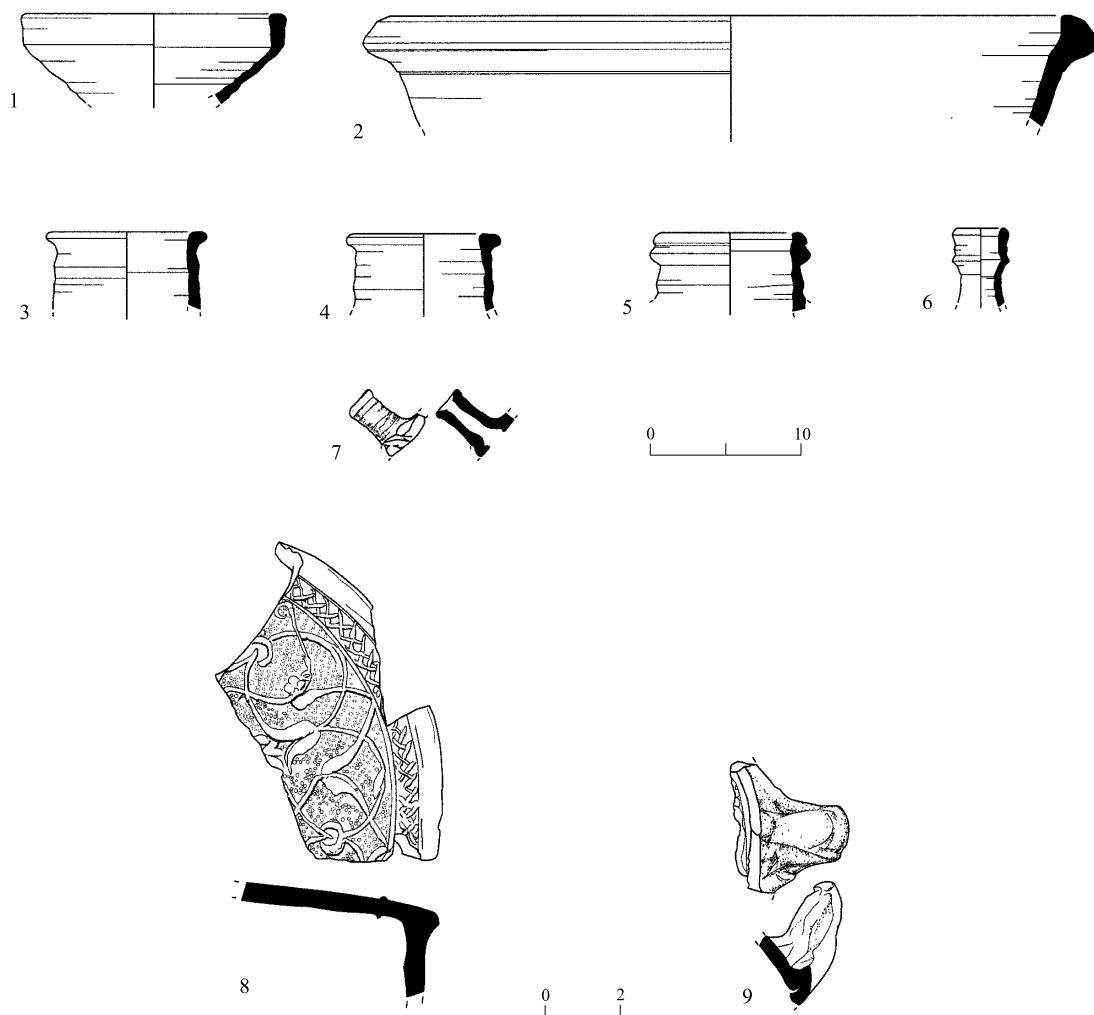


Fig. 10. Mamluk-period pottery: Coarse Ware vessels.

simply shaped and probably locally made, are found in every assemblage of this period, showing minor changes from site to site in the shape of the body and rim. Because of this preponderance of variants, and the fact that the manufacture of such coarse vessels continued well into the Ottoman period, they are not diagnostic in terms of chronology.

Carinated Bowl with Round Rim (Fig. 10:1).— Similar bowls were reported at Khirbat el-Ni‘ana (Vincenz and Sion 2007: Fig. 9), Ge‘alya (Gorzalczany 2016: Fig. 32:1–3) and Ramla, where evidence of local ceramic production has been unearthed (Torge 2011: Fig. 9:6–17; Stern, Toueg and Shapiro 2019:132, Fig. 4:1–8).

Basin with Thick Everted Rim (Fig. 10:2).— Similar large bowls and basins with rims of different shapes were found at Khirbat el-Ni‘ana (Vincenz and Sion 2007: Fig. 10:5–7), Ramla (Cytryn-Silverman 2010: Pl. 9.29:2) and Ge‘alya (Gorzalczany 2016: Fig. 32:8, 9).

Jars (Fig. 10:3–5).— During the Mamluk period, a new type of storage jar was introduced. It retains the bag-shaped or ovoid body of the jars from the preceding period, but exhibits a taller neck and differently positioned handles, typically placed at the base of the neck and sometimes on the upper shoulder of the vessel (for a detailed discussion of this jar type, see Avissar and Stern 2005:102). Only rim fragments of these jars were retrieved from Gane Tal, representing a number of different forms. In Fig. 10:3, the rim is everted and round, and a ridge is placed mid-neck. In another form, the neck is straight and the rim is either everted and rounded (Fig. 10:4) or bulging with a thick profile (Fig. 10:5). These are common forms in the Mamluk period, which were found, for example, at Khirbat el-Ni‘ana (Vincenz and Sion 2007: Fig. 11:25, 31, 34), Ramla (Cytryn-Silverman 2010: Pl. 9.26:1–6, 8–10; Torge 2011: Fig. 13:5; Stern, Toueg and Shapiro 2019: Figs. 5:5; 6:3, 4) and the Ge‘alya cemetery (Gorzalczany 2016: Fig. 31:2, 4–6, 9, and see further references therein).

Jug and Spout (Fig. 10:6, 7).— The spouted water jug became a common vessel in the Middle Ages. It usually has a squat or ovoid body, a long neck, a single handle and a long spout used for pouring, positioned opposite the handle. The rim in Fig. 10:6 is similar to a more complete example found at Khirbat el-Ni‘ana, in which the handle attachment at the bottom of the neck was preserved (Vincenz and Sion 2007: Fig. 12:18). Spout No. 7 probably belongs to a jug as well, although it is short and chubby and not elongated as is typical of spouted jugs.

Molded Flask (Fig. 10:8).— The flask is another common vessel in the Mamluk period. The example shown here has a flat body with a wide, flat shoulder. It is densely covered by an intricate molded decoration, consisting of floral and geometric patterns, reflecting the *horror vacui* typical of Islamic art (for a discussion, see Avissar and Stern 2005:117, Fig. 49:3, 4). Such a molded flask was reported from Ramla (Stern, Toueg and Shapiro 2019: Fig. 7:2).

Lamp Handle (Fig. 10:9).— A common type of lamp in the Mamluk period was the slipper or duck-shaped lamp (see Sussman 2007:69). This lamp type has an almond-shaped body, which was mold-made of two parts. The lower part is rounded and undecorated, whereas the upper part is decorated with geometric and floral patterns, covering its entire surface. The handle was attached to the body before firing and folded over to form a “tail”. Duck-shaped lamps are very common in Jerusalem and may have been produced in its vicinity, as indicated by the discovery of molds and complete lamps at Nebi Samwil (Magen and Dadon 1999:76). They were found at Khirbat el-Ni‘ana (Sussman 2007: Fig. 9) and at Nesher-Ramla (Vincenz 2010: Pl. 8.27:8), and also at sites in northern Israel and in Transjordan (for a discussion of the distribution of this lamp, see Hadad 2002:112).

Handmade Cooking Pots

Cooking Pots (Fig. 11:1–3).— The cooking pots of the Mamluk period have a characteristic globular shape, a short everted neck and ear-shaped handles—a hallmark of the cooking pots of this period—which are either round or pointed and have a pierced hole in the center. These pots are usually not painted and, only occasionally, display a single painted band on the rim. They are, however, highly burnished, as is the case with the three examples shown here, and frequently decorated with pie-crust bands on the body and with incised patterns on the handles. These cooking pots continued to be produced in the Ottoman period, showing minor morphological changes in the shape of the neck. The rims of such cooking pots were found, for example, in Mamluk-period Ramla, where such pots were locally produced (Cytryn-Silverman 2010: Pl. 9.30:3, 7; Stern, Toueg and Shapiro 2019: Fig. 2:3, 4).

Handmade Geometric Painted Ware

Handmade painted wares displaying geometric designs in various shades of red and/or black are part of the Mamluk ceramic repertoire. Studies and typologies dealing with these vessels include those of Sauer (1973: Fig. 4:144–148) and Khadija (1992), as well as more recent descriptions in excavation reports—among them Yoqne'am (Avisar 1996:132, 138–139, 168–169), 'En Gedi (Vincenz 2007:262–265) and Naḥal Haggit (Seligman 2010)—and in Avisar and Stern's (2005) catalogue of Crusader, Ayyubid and Mamluk pottery. These wares were locally produced, as shown by petrographic analyses of samples from Jerusalem, sites in northern Israel and Tell Hisban, Jordan (Gabrieli, Ben-Shlomo and Walker 2014).

The handmade vessels are of a rather thick ware and coarse fabric. A wide variety of organic and inorganic inclusions are found in the clay, including the commonly used straw, from which cavities were formed during the firing process, small stones and ceramic pieces. The closed types of this group of vessels (table jars and jugs) were usually shaped over a sack filled with wet sand, which sometimes left a cloth impression on the inner part of the vessel. They are decorated on the outside, including the handle, and sometimes also on the interior upper part of the rim. The open vessels, usually coil-made (e.g., bowls and basins), are decorated on the inside, and at times on the upper, exterior part of the rim and on the base. Once the vessel was shaped and leather-hard it was wet-smoothed and then slipped. The slip ranges in color between cream, pink and yellowish, according to the color of the ware. Painted decorations were applied over the slip, using colors such as red, reddish brown, purple, brown and sometimes, black. The surface of the vessel was burnished to intensify the visual effect of the decoration. Frequently, the surface of the vessel is divided into panels filled with the decoration. The styles of decoration are varied and include a wide range of geometric patterns, leaving as little vacant area as possible (*horror vacui*). According to Khadija's (1992:348) description of the decorative motifs of Ayyubid/Mamluk ceramics:

Some of the most typical aspects include: the alternating pattern of dark paint and light background, the *horror vacui*, or the filling of space, and the combining of various motifs to create a sense of rhythm and energy. These geometric features create a unique style of Islamic pottery...

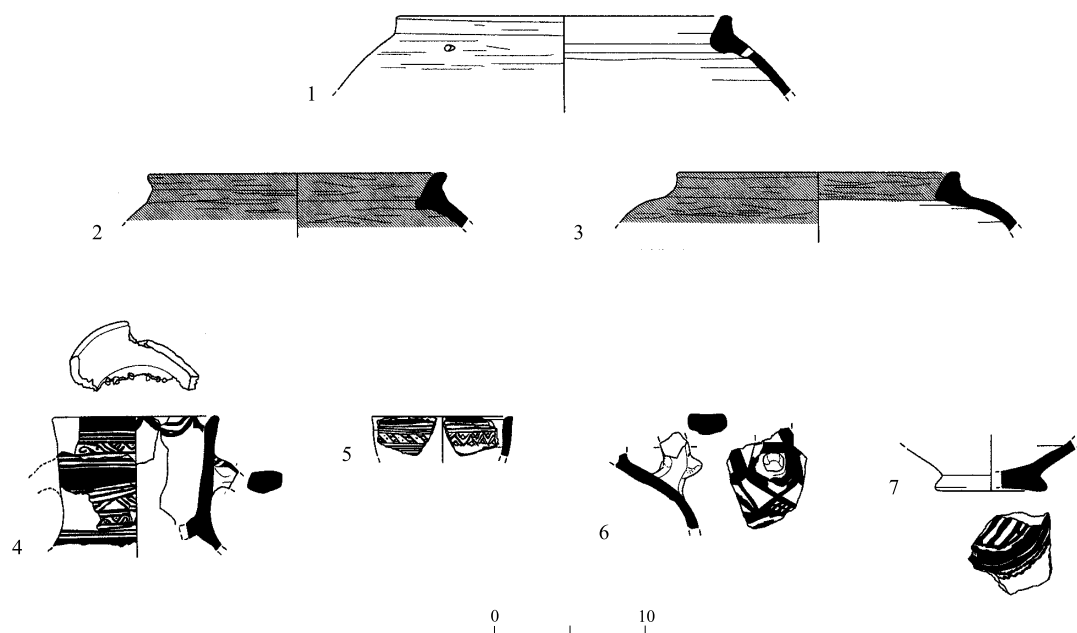


Fig. 11. Mamluk-period pottery: handmade cooking pots and painted vessels.

No.	Vessel Type	Locus ⁱ	Basket	Dimensions (cm)	Description
1	Cooking pot	1547	15162	Diam. 20 Rim 12%	Light reddish brown ware (5YR 6/4) with thick gray core and many small round white and quartz inclusions; light brown surface (7.5YR 6/3); burnished
2	Cooking pot	1525	15089	Diam. 16 Rim 12%	Reddish yellow ware (5YR 6/6) with thick gray core and many small round and angular white and quartz inclusions; reddish brown surface (5YR 5/4); burnished
3	Cooking pot	1509	15021	Diam. 18 Rim. 14%	Red ware (2.5YR 5/6) with thick gray core and many small round and angular white and quartz inclusions; light reddish brown to reddish brown surface (2.5YR 6/4–5/4); burnished
4	Jug	1510	15049	Diam. 10 Rim 20%	Pink ware (7.5YR 7/4); pink surface slip (7.5YR 7/4); light red paint (2.5YR 4/2); burnished
5	Jug	n/a	n/a	Diam. 6 Rim 20%	Light red ware (2.5YR 6/8) with many small round and angular white and quartz inclusions; pink surface slip (7.5YR 7/4); light red paint (2.5YR 4/2)
6	Jug	1547	15154	n/a	Reddish yellow ware (5YR 6/6) with many small and large round white inclusions; gray surface with light red paint (2.5YR 4/2)
7	Jug	1508	15034	Diam. 7	Gray with many small round and angular white and quartz inclusions; very pale brown surface slip (10YR 8/2); reddish brown paint (2.5YR 4/3)

ⁱ n/a = not available.

Regarding the date of the handmade vessels, those decorated with geometric patterns are ascribed to the thirteenth and fourteenth centuries CE, although simple undecorated handmade bowls already began to be produced during the late eleventh century CE (cf. Avissar and Stern 2005:88). These vessels continued to be produced in the Ottoman period, but the design gradually became coarser and less elaborate. It seems that in several villages near Ramallah, handmade vessels were still being produced at the beginning of the twentieth century (Einsler 1914).

Jugs (Fig. 11:4–7).— These vessels usually have an ovoid body, a flat base and a long neck, which can be straight or flaring. The rim is simple rounded or pinched. Usually the vessels are entirely covered with a geometric decoration, often organized in registers. They have one handle, which is of the loop or elbow type, drawn from mid-neck and decorated. In most cases, the upper, interior part of the rim is decorated as well. Sometimes these jugs have a strainer located at the junction of the neck and body, or slightly higher. In some of the jugs the base is also decorated (Fig. 11:7). The diameter of most of these jugs is between 12 and 14 cm.

Glazed Ware

Monochrome Glazed Bowls (Fig. 12:1–5).— Glazed bowls are a common component of the Mamluk-period assemblage from Gane Ṭal, alongside the handmade painted and Coarse Ware bowls. These bowls are all monochrome glazed in either green or yellow. The glaze is usually applied over a thin white slip, covering the interior of the bowl and its rim and dripping over the exterior. The shape of these bowls is simple, with flaring walls and often a round or beveled rim. Avissar and Stern (2005:12–20) discuss a variety of rim forms of these bowls. The Gane Ṭal assemblage includes the following forms: bowls with slightly curved sides and a round rim (Fig. 12:1), for which parallels are known from Ramla (Cytryn-Silverman 2010: Pl. 9.31:5) and Yoqne‘am (Avissar and Stern 2005: Fig. 5:3); bowls with a ledge rim, which are either shallow (Fig. 12:2) or have a round body (Fig. 12:3), and for which a parallel is known from Ramla (Stern, Toueg and Shapiro 2019: Fig. 10:1); and bowls decorated with a white slip covered by a yellow or green transparent glaze (Fig. 12:4). The fragment shown in Fig. 12:5 belongs to a cooking bowl and is glazed on the inside; it has a flat rim and horizontal handles (see Avissar and Stern 2005:97, Fig. 41:4–9).

Imported Glazed Ware (Fig. 12:6).— Imported glazed ware vessels are rare at Gane Ṭal, likely due to the rural character of the site, and are represented by a few small fragments, as the one shown in Fig. 12:6. The base of this bowl belongs to a soft-paste form, decorated with a bright turquoise color below a transparent colorless glaze. Possibly, this fragment belongs to a vessel produced in Syria, from where soft-paste vessels were imported during the fourteenth century CE (cf. Avissar and Stern 2005:29).

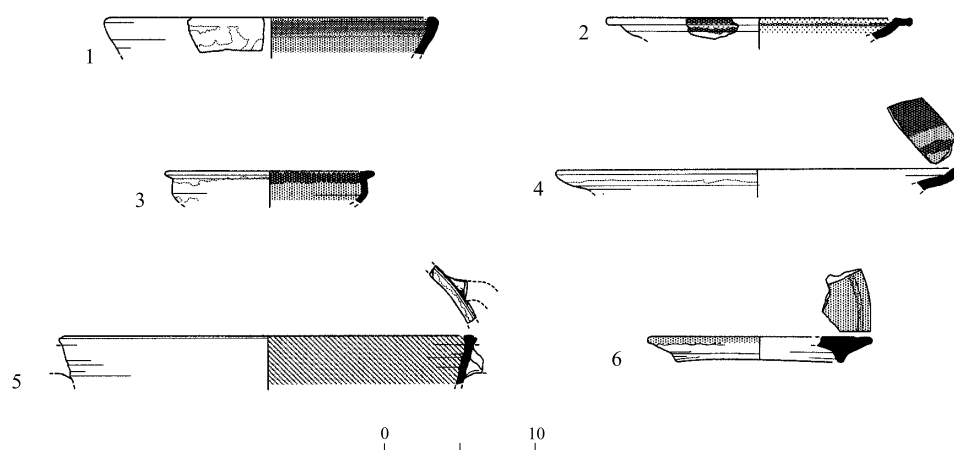


Fig. 12. Mamluk-period pottery: glazed vessels.

No.	Vessel Type	Locus	Basket	Dimensions (cm) ⁱ	Description
1	Bowl	1510	15040	Diam. 20 Rim 8%	Light red ware (2.5YR 6/6) with thick light gray core and few small round white inclusions; very pale brown slip (10YR 8/2); green glaze on int. and rim
2	Bowl	1527	15127	Diam. 18 Rim 5%	Red ware (2.5YR 5/6) with few small round white inclusions; yellow glaze on int. and upper ext.
3	Bowl	1527	15127	Diam. 16 Rim 12%	Light red ware (2.5YR 6/8) with few small angular white inclusions; yellowish green glaze on int. and rim
4	Bowl	1527	15127	Diam. 22 Rim 6%	Brown ware (7.5YR 4/4) with few small round and angular white inclusions; white slip and transparent green glaze on int.
5	Frying pan	1540	15163	Diam. 22 Rim 7%	Light red ware (2.5YR 6/8) with few small round white inclusions; transparent glaze on int. and rim
6	Flat bowl?	1527	15127	n/a	Yellow ware (10YR 8/4); turquoise glaze on int. and upper ext.

ⁱ n/a = not available.

CONCLUSIONS

The analysis of the pottery assemblage from Gane ʿTal shows that it belongs to three periods: the Roman, Byzantine and Mamluk. Whereas the Byzantine-period material occurred in all of the excavation areas, the Roman-period material was found only within the two circular installations excavated in Areas D1 and D2, and the Mamluk material, only in Area E3.

The Roman-period assemblage is characteristic of the first century BCE–first century CE, the closest parallels coming from well-dated contexts at sites such as Masada and Machaerus.

The large Byzantine-period assemblage is associated with the large-scale industrial activity at the site (see Arbel and ‘Ad, this volume). The vessel repertoire is limited, mainly

comprising storage vessels, which indicate the existence of a storage facility. It is likely that the storage jars found here were produced on-site or in the vicinity of Gane Ṭal, although no evidence of a pottery workshop was uncovered in the excavation. The jar types present at the site are well-known, exhibiting many minor variations in form. The presence of bowls and cooking pots, although not as common as would be expected, indicates a residential area alongside the industrial activity.

The assemblage of the Mamluk period, although relatively sparse, presents a rich variety of vessel types and decoration styles, including locally produced handmade wares, which are a frequent find in rural sites of the Mamluk period in the region. Another example of such a diverse assemblage of mainly locally produced wares of the Mamluk period is known from Ḥorbat Bet Loya.² Unlike at that site, however, at Gane Ṭal glazed material is very common, probably obtained from production centers in major sites in the region, such as Lod, Yafo (Jaffa) or Jerusalem. In spite of this evidence for regional exchange, the material from Gane Ṭal is generally characteristic of a rural settlement.

REFERENCES

- ‘Ad U. 2011. Hafez Ḥayyim (Southwest). *HA-ESI* 123 (March 6). http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=1637&mag_id=118 (accessed August 24, 2011).
- Arbel Y. and ‘Ad U. This volume. An Agricultural Settlement and Cemetery from the Roman, Byzantine and Mamluk Periods at Gane Ṭal.
- Adan-Bayewitz D. 1986. The Pottery from the Late Byzantine Building (Stratum 4) and Its Implications. In L.I. Levine and E. Netzer. *Excavations at Caesarea Maritima, 1975, 1976, 1979—Final Report* (Qedem 21). Jerusalem. Pp. 90–129.
- Avissar M. 1996. The Medieval Pottery. In A. Ben-Tor, M. Avissar and Y. Portugali. *Yoque ‘am I: The Late Periods* (Qedem Reports 3). Jerusalem. Pp. 75–172.
- Avissar M. and Stern E.J. 2005. *Pottery of the Crusader, Ayyubid and Mamluk Periods in Israel* (IAA Reports 26). Jerusalem.
- Badhi R. 2001. Remains of a Bathhouse and Other Structures at Baqa el-Gharbiya. *‘Atiqot* 42:57*–71* (Hebrew; English summary, p. 325).
- Bar-Nathan R. 2002. *Hasmonean and Herodian Palaces at Jericho; Final Reports of the 1973–1987 Excavations III: The Pottery*. Jerusalem.
- Bar-Nathan R. 2006. *Masada VII: The Yigael Yadin Excavations 1963–1965; Final Reports. The Pottery of Masada*. Jerusalem.

² The material from excavations at Ḥorbat Bet Loya, directed by Oren Gutfeld, was studied by the author and is being prepared for publication.

- Berlin A.M. 1997. The Plain Wares. In S.C. Herbert ed. *Tel Anafa II, i: The Hellenistic and Roman Pottery* (JRA Suppl. S. 10). Ann Arbor. Pp. ix–xiv, 1–244.
- Bonifay M. 2004. *Études sur la céramique romaine tardive d'Afrique* (BAR. Int. S. 1301). Oxford.
- Chernov E. 2007. Metal Objects and Small Finds from En-Gedi. In Y. Hirschfeld. *En-Gedi Excavations II: Final Report (1996–2002)*. Jerusalem. Pp. 507–543.
- Cytryn-Silverman K. 2010. The Ceramic Evidence. In O. Gutfeld. *Ramla: Final Report on the Excavations North of the White Mosque* (Qedem 51). Jerusalem. Pp. 97–211.
- Einsler L. 1914. Das Töpferhandwerk bei den Bauernfrauen von Ramallah und Umgegend. *ZDVP* 37:249–260.
- Erickson-Gini T., Dolinka B.J. and Shilov L. 2015. A Late Byzantine Industrial Quarter and Early Islamic-Period Finds at Ḥorbat Be'er Shema'. *'Atiqot* 83:209–248.
- Fabian P. and Goren Y. 2001. A Byzantine Warehouse and Anchorage South of Ashqelon. *'Atiqot* 42:211–219.
- Gabrieli R.S., Ben-Shlomo D. and Walker B.J. 2014. Production and Distribution of Hand-Made Geometric-Painted (HMGP) and Plain Hand-Made Wares of the Mamluk Period: A Case Study from Northern Israel, Jerusalem and Tell Hisban. *JIA* 1:193–229.
- Gadot Y. and Tepper Y. 2003. A Late Byzantine Pottery Workshop at Khirbet Baraka. *Tel Aviv* 30:130–162.
- Gibson S., Dar S. and Clarke J. 2000. The Archaeological Setting and the Surrounding Landscape. In R.P. Harper and D. Pringle. *Belmont Castle: The Excavation of a Crusader Stronghold in the Kingdom of Jerusalem* (British Academy Monographs in Archaeology 10). Oxford. Pp. 21–32.
- Gichon M. 1974. Fine Byzantine Wares from the South of Israel. *PEQ* 106:119–139.
- Gorzalczany A. 2016. A Mamluk-Period Settlement and Cemetery at Ge'alya, near Yavne. *'Atiqot* 86:69–110.
- Gunneweg J., Perlman I. and Yellin J. 1983. *The Provenience, Typology and Chronology of Eastern Terra Sigillata* (Qedem 17). Jerusalem.
- Hadad S. 2002. *The Oil Lamps from the Hebrew University Excavations at Bet Shean* (Qedem Reports 4). Jerusalem.
- Haddad E. 2007. A Burial Cave from the First–Second Centuries CE and Double-Arcosolia Tombs from the Fourth–Fifth Centuries CE on the Fringes of Ḥorbat Zikhrin. *'Atiqot* 56:45–57 (Hebrew; English summary, pp. 74*–75*).
- Israel Y. 1993. Survey of Pottery Workshops, Naḥal Lakhish–Naḥal Besor. *ESI* 13:106–107.
- Israel Y. 1995. The Economy of the Gaza–Ashkelon Region in the Byzantine Period in the Light of the Archaeological Survey and Excavations of the '3rd Mile Estate' near Ashkelon. *Michmanim* 8:119–132 (Hebrew; English summary, pp. 16*–17*).
- Israel Y. and Erickson-Gini T. 2013. Remains from the Hellenistic through the Byzantine Periods at the 'Third Mile Estate', Ashqelon. *'Atiqot* 74:167–222.

- Israel Y., Seriy G. and Feder O. 2013. Remains of a Byzantine and Early Islamic Rural Settlement at the Be'er Sheva' North Train Station. *'Atiqot* 73:51*–76* (Hebrew; English summary, pp. 138–140).
- Johnson B.L. 2008. The Pottery. In J. Patrich. *Archaeological Excavations at Caesarea Maritima, Areas CC, KK and NN; Final Reports I: The Objects*. Jerusalem. Pp. 13–206.
- Kennedy C.A. 1963. The Development of the Lamp in Palestine. *Berytus* 14:67–115.
- Khadija L. 1992. Designs on Painted Ayyubid/Mamluk Pottery from Rujm el-Kursi, 1990 Season. *ADAJ* 36:345–356.
- Kogan-Zehavi E. 2006. A Burial Cave of the Byzantine Period in the Naḥalat Aḥim Quarter, Jerusalem. *'Atiqot* 54:61*–86* (Hebrew; English summary, pp. 160–161).
- Loffreda S. 1990. The Greek Inscriptions on the Byzantine Lamps from the Holy Land. In G.C. Bottini, L. Di Segni and E. Alliata eds. *Christian Archaeology in the Holy Land: New Discoveries; Essays in Honour of Virgilio C. Corbo, OFM* (SBF Collectio Maior 30). Jerusalem. Pp. 475–500.
- Loffreda S. 1996. *La ceramica di Macheronte e dell'Herodion (90 a.C.–135 d.C.)* (SBF Collectio Maior 39). Jerusalem.
- Magen Y. and Dadon M. 1999. Nebi Samwil (Shmuel Hanavi-Har Hasimha). *Qadmoniot* 118:62–77 (Hebrew).
- Magness J. 1993. *Jerusalem Ceramic Chronology: Circa 200–800 CE* (JSOT/ASOR Monograph Series 9). Sheffield.
- Małcherek G. 1995. Gazan Amphorae: Typology Reconsidered. In H. Meyza and J. Młynarczyk eds. *Hellenistic and Roman Pottery in the Eastern Mediterranean: Advances in Scientific Studies (Acts of the II Nieborów Pottery Workshop, Nieborów, 18–20 December 1993)*. Warsaw. Pp. 163–178.
- Martin-Kilcher S. 1999. Karthago 1993: Die Füllung eines frühkaiserzeitlichen Pozzo. In F. Rakob ed. *Karthago III: Die deutschen Ausgrabungen in Karthago*. Mainz. Pp. 403–434.
- Mayerson P. 1994. The Gaza 'Wine' Jar (*Gazition*) and the 'Lost' Jar (*Askalônion*). In P. Mayerson ed. *Monks, Martyrs, Soldiers and Saracens: Papers on the Near East in Late Antiquity (1962–1993)*. Jerusalem. Pp. 346–351.
- Nitowski E.L. 1974. Inscribed and Radiated-Type Byzantine Lamps. *Andrews University Seminary Studies* 12:18–34.
- Patrich J. and Abu Shaneb M. 2008. The Clay Objects. In J. Patrich. *Archaeological Excavations at Caesarea Maritima, Areas CC, KK and NN; Final Reports I: The Objects*. Jerusalem. Pp. 303–332.
- Rapuano Y. 2016. The Pottery from the Church of Bishop Johannes at Ḥorbat Barqa, Gan Yavne. *'Atiqot* 84:115–118.
- Rosenthal R. and Sivan R. 1978. *Ancient Lamps in the Schloessinger Collection* (Qedem 8). Jerusalem.
- Sauer J.A. 1973. *Heshbon Pottery 1971: A Preliminary Report on the Pottery from the 1971 Excavations at Tell Hesbân*. Berrien Springs, Mich.
- Seligman J. 2010. *Naḥal Ḥaggit: A Roman and Mamluk Farmstead in the Southern Carmel* (IAA Reports 43). Jerusalem.

- Stern E. 2000. *Dor, Ruler of the Seas: Nineteen Years of Excavations at the Israelite-Phoenician Harbor Town on the Carmel Coast*. Jerusalem.
- Stern E.J., Toueg R. and Shapiro A. 2019. Mamluk and Early Ottoman Pottery from Ramla: Defining Local and Imported Fabrics. *Atiqot* 96:129–170.
- Sussman V. 2007. The Clay Oil Lamps from Khirbat el-Ni‘ana. *Atiqot* 57:53–72.
- Sussman V. 2008. The Oil Lamps. In J. Patrich. *Archaeological Excavations at Caesarea Maritima, Areas CC, KK and NN; Final Reports I: The Objects*. Jerusalem. Pp. 207–300.
- Torge H. 2011. Remains of Buildings and Workshop Stores(?) from the Mamluk and Ottoman Periods on the Outskirts of Ramla. *Atiqot* 67:91–118 (Hebrew; English summary, pp. 91*–92*).
- Tsuf O. 2018. *Ancient Jaffa from the Persian to the Byzantine Period: Kaplan Excavations (1955–1981)* (The Jaffa Cultural Heritage Project Series 3; Ägypten und Altes Testament 89). Münster.
- Vincenz A. de. 2007. The Pottery. In Y. Hirschfeld. *En-Gedi Excavations II: Final Report (1996–2002)*. Jerusalem. Pp. 234–427.
- Vincenz A. de. 2010. The Pottery. In S. Kol-Ya‘akov. *Salvage Excavations at Nesher-Ramla Quarry*. Haifa. Pp. 121–168.
- Vincenz A. de. 2013. Ceramic Oil Lamps and Vessels from the Burial Cave at ‘En Ya‘al, Jerusalem. *Atiqot* 76:123–134.
- Vincenz A. de. 2015. The Roman, Byzantine and Early Islamic Pottery. In V.W. Avrutis. *Wine Presses at the Nesher-Ramla Quarries: A Thousand Years of Winemaking*. Haifa. Pp. 99–185.
- Vincenz A. de. 2018. The Pottery and Small Finds from the Ritual Baths, the Hiding Complexes, the Tombs and the Bathhouse at Nesher-Ramla. In S. Kol-Ya‘akov. *Salvage Excavations at Nesher-Ramla Quarry (2008–9 Excavations)* II. Haifa. Pp. 131–234.
- Vincenz A. de. 2020. Ceramic Vessels and Oil Lamps from the Burial Cave at ‘En Lavan, Naḥal Refa’im. *Atiqot* 98:103–122.
- Vincenz A. de. Forthcoming. Pottery Assemblages from the Excavations in Yehud, Zvi Ishay Street. *Atiqot*.
- Vincenz A. de and Sion O. 2007. Two Pottery Assemblages from Khirbat el-Ni‘ana. *Atiqot* 57:21–52.