

POTTERY ASSEMBLAGES FROM ZAHAL SQUARE TUNNEL, JERUSALEM

ANNA DE VINCENZ

INTRODUCTION

This paper describes four pottery assemblages retrieved from the excavation in the Zahal Square Tunnel, outside the Old City walls of Jerusalem and northwest of Jaffa Gate (see Weksler-Bdolah, this volume). The earliest pottery found at the site (Stratum IV) was dated to the Byzantine–Umayyad period. An assemblage from earth fills (Stratum II) that covered the Early Islamic-period moat of Jerusalem was dated to the Mamluk period, and the material from two rooms and a floor of a large building in Area C (L3014, L3020, L3010; Stratum I) was dated to the late Ottoman period.¹ Stratum III did not yield ceramic material suitable for dating. The pottery description below is arranged typologically according to strata.

THE FINDS

STRATUM IV: THE BYZANTINE–UMAYYAD PERIODS (Fig. 1)

Large African Red Slip (ARS) Ware Bowl (Fig. 1:1).— A fragment of a large bowl imported from North Africa was discerned among the fine wares. It corresponds to Hayes' ARS Form 107, dated to the first half of the seventh century CE (Hayes 1972:170–171).

Phocaeian (LRC) Ware Bowl (Fig. 1:2).— This bowl has a triangular rim and is decorated with rouletting. It corresponds to Hayes' LRC Form 3F, dated to the sixth century CE (Hayes 1972:329–338).

Fine Byzantine Ware (FBW) Bowls (Fig. 1:3, 4).— The bowl in Fig. 1:3 has a pinched rim and an incised wavy line below it. It corresponds to examples published by Magness (1993:193–194), dated to the sixth–seventh centuries CE. Bowls of this type are common in

¹ I wish to thank Shlomit Weksler-Bdolah for inviting me to study the pottery from her excavation.

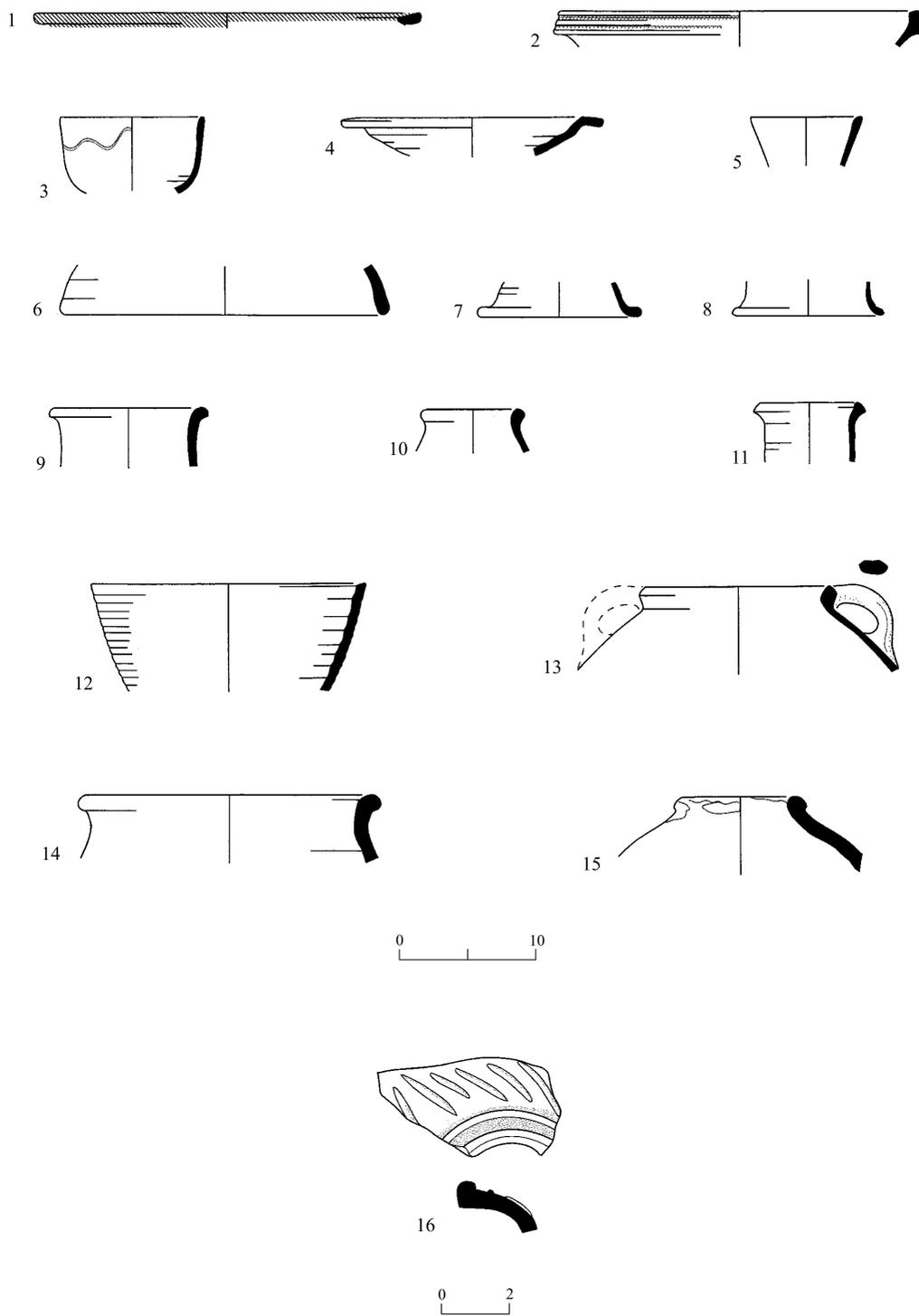


Fig. 1. The Byzantine-period pottery assemblage.

◀ Fig. 1

No.	Vessel	Locus	Basket	Dimensions (cm) ¹	Description
1	ARS bowl	3024	30108/8	Rim diam. 18 Rim: 5%	Light red ware (2.5YR 7/6); surface: light red slip (2.5YR 6/6)
2	LRC bowl	3024	30108/6	Rim diam. 22 Rim: 8%	Light red ware (2.5YR 6/6); surface: light red slip (2.5YR 6/6)
3	FBW bowl	3026	30121/2	Rim diam. 11 Rim: 21%	Light red ware (2.5YR 6/6) with core; surface: pink (7.5YR 7/3) and burnished bands
4	FBW bowl	3024	30114/3	Rim diam. 18 Rim: 10%	Light brown ware (7.5YR 6/4) with few very small round white inclusions; surface: very pale brown (10YR 7/3)
5	FBW(?) bowl	3025	30114/6	Rim diam. 8 Rim: 12.5%	Gray ware with few very small round white inclusions; surface: light gray slip (10YR 7/2)
6	Bowl-lid	3024	30108/1	Rim diam. 18 Rim: 7%	Reddish yellow ware (5YR 7/6) with few small round black inclusions; surface: reddish yellow (5YR 7/6)
7	Saucer-lid	3025	30115/5	Rim diam. 12 Rim: 17.5%	Reddish yellow ware (5YR 6/6); surface: reddish yellow (5YR 7/6)
8	Saucer-lid	3024	30108/7	Rim diam. 10 Rim: 13%	Light red ware (2.5YR 7/6) with many small round white inclusions; surface: pink (5YR 7/4)
9	Jug	3025	30114/2	Rim diam. 12 Rim: 15%	Light red ware (2.5YR 7/6) with few small round white inclusions; surface: light red (2.5YR 7/6)
10	Jug	3024	30108/3	Rim diam. 8 Rim: 10%	Light red ware (2.5YR 6/8) with few small angular white inclusions; surface: pale yellow (2.5Y 8/2)
11	Jug	3025	30115/2	Rim diam. 8 Rim: 17%	Brown ware (7.5YR 5/3) with few small round white inclusions; surface: pink (7.5YR 7/4)
12	Casserole	3026	30121/6	Rim diam. 20 Rim: 14.5%	Red ware (2.5YR 5/8) with few small angular white inclusions; surface: reddish brown (2.5YR 4/3)
13	Cooking pot	3026	30121/1	Rim diam. 12 Rim: 6%	Red ware (2.5YR 5/6); surface: encrusted
14	Jar	3025	30114/1	Rim diam. 20 Rim: 7.5%	Light red ware (2.5YR 6/6) with few small round white inclusions; surface: pink (5YR 7/4)
15	Gaza jar	3024	30108/5	Rim diam. 8 Rim: 17.5%	Reddish yellow ware (5YR 6/6); surface: reddish yellow (2.5YR 6/6)
16	Lamp	3025	30114/5	n/a	Pink ware (7.5YR 7/4); surface: pink (7.5YR 7/4)

¹n/a = not available.

excavations in Jerusalem, and were found for example at the Giv'ati Parking Lot (Balouka 2013: Fig. 6.4:3; Vincenz 2020: Figs. 3.9:1, 2; 3.11:9; 3.13:9, 10; 3.16:3, 4; 3.17:3; 3.18:3). They were also found in several buildings in the Temple Mount excavations, and dated to the sixth–seventh centuries CE (Adler and Peleg 2007: Figs. 8.4:1, 2; 8.5:3; Peleg and Adler 2007: Fig. 2.1:8, 9). Similar bowls were also found in layers of the late sixth- to the early seventh-century CE church at Khirbat Faṭṭir near Bet Shemesh (Vincenz 2003: Fig. 24:203–206, 209). The bowl in Fig. 1:4 has a downturned ledge rim. It corresponds to Magness' FBW Bowl Form 2C (Magness 1993:198–200), dated to the mid-seventh century CE. This bowl type was also found in the Giv'ati Parking Lot (Vincenz 2020: Fig. 3.6:16). Magness (1993:165–171) proposed that Jerusalem and its surroundings were the production center for these bowls, based on the large quantities found in various excavations in and around the city.

Bowl Related to FBW (Fig. 1:5).— A small deep bowl made of rather fine ware seems to be related to Magness' FBW Bowl Form 1F (Magness 1993:197, Example 3). It should probably be dated to the seventh–eighth centuries CE.

Bowl-Lid or Simple Rounded Bowl (Fig. 1:6).— This fragment has a round rim (Fig. 1:6) and is made of rather fine hard-fired ware, similar to that of FBW bowls. It is most probable that it belongs to a Byzantine-period large bowl-lid of the bell-shaped type; however, as the knob handle of such bowl-lids is missing in the present example, it cannot be unequivocally distinguished from bowls that were common during the same period. Bowls of a similar shape and surface treatment were identified in the Temple Mount excavations (Mazar and Gordon 2007: Fig. 15.7:1). Two such bowls with widely-spaced lines of burnishing that were found under the pavement of the Nea Church and dated to the mid-sixth century CE were mentioned by Magness in her discussion of rouletted bowls (Magness 1993:192, Rouletted Bowls Form 4, Nos. 7, 8). Bell-shaped bowl-lids were found in other excavations in Jerusalem, for example, in Area E of the Jewish Quarter, where they were especially abundant (Magness 2006:185–186, Pl. 7.2). Petrographic analysis of such bowl-lids from the latter excavation showed that they were produced in the kilns of Naḥal Refa'im, dated to the third–fourth centuries CE (Magness 2006:186; see Weksler-Bdolah 2016: Fig. 17:3–9). Many fragments of bowl-lids were also found in a Byzantine-period building in the Giv'ati Parking Lot (Vincenz 2020: Figs. 3.2:16, 17; 3.6:19–24; 3.16:8; 3.22:3).

Saucer-Lids (Fig. 1:7, 8).— Another Byzantine-period lid type has the shape of a saucer and a flaring rim. Such lids were found in several excavations in Jerusalem, for example, in a Byzantine-period building in the Giv'ati Parking Lot (Vincenz 2020: Figs. 3.8:15, 16; 3.10:19; 3.12:18; 3.14:18); in the Temple Mount excavations, in both the monastery and the public kitchen (Mazar 2003: Pls. I.14:3, 4; I.16:1); in Area E and the Nea Church of the Jewish Quarter excavations (Magness 2006: Pl. 7.1:23; 2012: Pl. 9.2: 34); and in the Naḥal Refa'im kilns (Weksler-Bdolah 2016: Fig. 17:1, 2). They were also found at other sites, for

example, Khirbat Faṭṭir, in the church compound (Vincenz 2003:363, Fig. 4:4.4, 4.5), and Khirbat el-Jiljil, in a rock-cut shaft leading to an underground chamber (Vincenz 2005: Fig. 6:15). These lids are generally dated to the sixth–eighth centuries CE.

Jugs (Fig. 1:9–11).— One jug with an everted round rim (Fig. 1:9) is made of fine ware, similar to that of FBW. It is probably related to Magness' biconical FBW Jug Form 1C (Magness 1993:237–239). These jugs, dated from the mid-sixth to the early eighth century CE, have commonly been found at sites in and around Jerusalem. Complete examples of this type were found in the Temple Mount excavations, in the uppermost soil accumulation of a cistern that has been dated to the end of the Byzantine period (Mazar 2003:232, Pl. III.5:3–6). Such jugs were also found in the Byzantine-period public kitchen of the same site (Mazar and Peleg 2003: Pl. I.16:28, 29); the northwestern corner of the Old City Wall of Jerusalem (Weksler-Bdolah 2006: Fig. 7:16–19); and a Byzantine-period building in the Giv'ati Parking Lot (Vincenz 2020: Figs. 3.8:12; 3.9:8; 3.10:18; 3.14:12; 3.27:4–7).

A rim fragment (Fig. 1:10) seems to belong to a globular jug, while an everted triangular rim (Fig. 1:11) belongs to a long-necked jug, similar to Magness' Form 1A (Magness 1993:236–237), both dated to the Byzantine period.

Cooking Vessels (Fig. 1:12, 13).— The fragment in Fig. 1:12 belongs to a deep casserole with a flat rim, densely-ribbed body, horizontal handles and a base that is either round or flat. Byzantine-period casseroles have been found in many excavations in Jerusalem, among them at the Temple Mount excavations (Vincenz 2011a: Figs. 8.1:7; 8.2:14; 2011b: Figs. 3.1:3; 3.2:19). Another fragment belongs to a neck-less cooking pot (Fig. 1:13), a variant of Magness' Form 4C (Magness 1993:219–220), dated to the fifth–seventh centuries CE.

Wide-Necked Jar (Fig. 1:14).— This jar has a wide neck and an everted round rim. It is possibly a variant of Magness' wide-necked jar, Form 1 (Magness 1993:235), although the rim in the present example is shorter than the rim in that type. This jar should be dated to the Byzantine period.

Gaza Jar (Fig. 1:15).— The fragment shown here is made of the coarse ware of Gaza jars, and exhibits their characteristic clay accretions on the upper part of the body and the rim. It can be assigned to Majchereks' Type 4, dated to the fifth–seventh centuries CE (Majcherek 1995:168–169). Jars of this type were found in the Giv'ati Parking Lot (Vincenz 2020: Figs. 3.1:19; 3.8:8, 10). This type of jar was found in large numbers at the Byzantine-period Monastery at Khirbat Faṭṭir (Vincenz 2003: Figs. 20:178; 47:404–410).² The presence of these jars in Jerusalem indicates that the renowned Gaza wine that they are thought to have

² In the publication of the assemblage from Khirbat Faṭṭir, the Gaza jars were erroneously identified as wide-necked jars.

contained was consumed in the city; it is also very likely that this wine was consumed in nearby monasteries.

Lamp (Fig. 1:16).— This fragment belongs to the so-called candlestick lamp that was common throughout the Byzantine period. It is decorated with a radiating pattern on the rim, and probably belongs to the larger of two known variants of candlestick lamps. This lamp type is dated to the mid-sixth–early eighth centuries CE (Magness 1993:251–252, Form 3A; Loffreda 1995:11).

STRATUM II: THE MAMLUK PERIOD (Fig. 2)

Monochrome Turquoise Glazed Bowl (Fig. 2:1).— This thin-walled bowl has a pinched rim and is glazed pale turquoise. No comparable material was found.

Monochrome Glazed Bowls (Fig. 2:2–7).— These rounded bowls exhibit a variety of rim types: round (Fig. 2:2), everted pinched (Fig. 2:3), inverted round (Fig. 2:4), sharply inverted round (Fig. 2:5) or flanged (Fig. 2:6, 7). They are monochrome glazed over a white slip. The glaze is of good quality and is either of various shades of green (Fig. 2:2, 3, 6, 7) or yellow (Fig. 2:4, 5). These bowls were most common during the Mamluk period, and can be dated to the second half of the thirteenth–fifteenth centuries CE (Avisar and Stern 2005:12).

Molded Glazed Bowl (Fig. 2:8).— The small fragment in Fig. 2:8 belongs to a molded glazed bowl, a large bowl type that usually has a high trumpet base. Such bowls are glazed over a white slip on both the interior and exterior. The interior is usually monochrome glazed and undecorated, while the exterior bears an intricate decoration often in several registers; the decorations are geometric and arabesque, often including inscriptions. These bowls have been found in large quantities in various excavations in Jerusalem, leading to the assumption that they were produced in the city (Avisar and Stern 2005:22); however, it has also been suggested that they were produced in Egypt (Boas 2006:92). Recent petrographic analysis of several fragments of molded glazed bowls from the excavation at the New Gate in Jerusalem has shown that they were not of local production, although their provenance remains to be determined.³

Glazed Bowl with Sgraffito Decoration (Fig. 2:9).— A rather small rim fragment belongs to a carinated bowl made of red clay. The interior and exterior bear a white slip, and the

³ The excavations at the New Gate in Jerusalem were conducted by Gerald Finkiejsztejn on behalf of the IAA (Permit Nos. A-5497, A-5682). The ceramics from those excavations were studied by the author of the present paper, and the petrographic analysis was conducted by Nissim Golding-Meir. The petrographic results will be published together with the ceramic report.

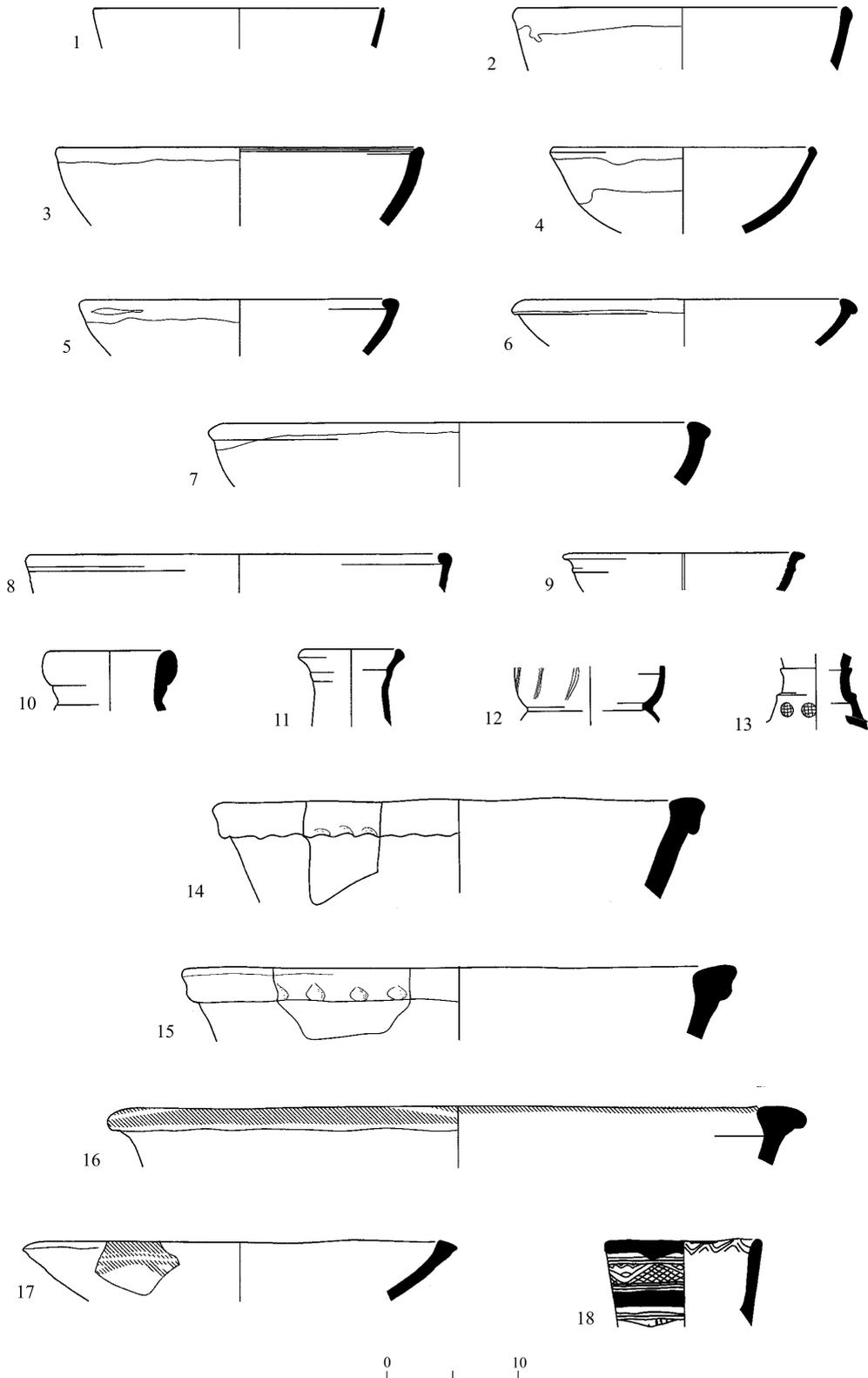


Fig. 2. The Mamluk-period pottery assemblage from fills of the Early Islamic-period moat.

◀ Fig. 2

No.	Vessel	Basket	Dimensions (cm) ⁱ	Description
1	Glazed bowl	50081/23	Rim diam. 16 Rim: 5%	Light brown ware (7.5YR 6/4); pale turquoise glaze on int. and ext.
2	Glazed bowl	50080/13	Rim diam. 10 Rim: 8.5%	Pink ware (7.5YR 8/3); white slip and green glaze on int. and upper ext.
3	Glazed bowl	50081/25	Rim diam. 24 Rim: 7.5%	Light red ware (2.5YR 6/6) with few small round white and large grog inclusions; white slip and green glaze on int. and rim
4	Glazed bowl	50090/3	Rim diam. 16 Rim: 10%	Red ware (2.5YR 5/6) with core and many small round and angular white inclusions; white slip. on int. and upper ext.; dark yellow glaze on int. and rim
5	Glazed bowl	50080/4	Rim diam. 20 Rim: 9%	Pink ware (7.5YR 8/3); white slip and pale yellow glaze on int. and rim
6	Glazed bowl	50081/10	Rim diam. 21 Rim: 5%	Pink ware (7.5YR 8/4); white slip and green glaze on int. and rim, darker on rim
7	Glazed bowl	50081/1	Rim diam. 30 Rim: 8%	Pink ware (7.5YR 8/3); white slip and olive green glaze on int. and rim
8	Molded glazed bowl	50083/15	Rim diam. 18 Rim: 5%	Light brown ware (7.5YR 6/4) with many small round white inclusions; surface: white slip and yellow glaze
9	Glazed bowl	50090/7	Rim: <5%	Reddish yellow ware (5YR 7/6); white slip on int. and ext.; yellow and green splashes below transparent glaze on int.
10	Jar	50090/19	Rim diam. 10 Rim: 17.5%	Pink ware (5YR 7/4) with few very small round white inclusions; surface: very pale brown (10YR 8/3)
11	Jug	50091/22	Rim diam. 8 Rim: 25%	Brown ware (7.5YR 5/3) with few small angular white inclusions; surface: light gray slip (10YR 7/2)
12	Jug	50081	n/a	Very pale brown ware (10YR 7/3) with few small round black inclusions; surface: pale yellow (2.5Y 8/2)
13	Jug	50081/13	n/a	Very pale brown ware (10YR 8/2) with few small round black inclusions; surface: light gray (10YR 7/2)
14	Handmade bowl	50080/11	Rim diam. 40 Rim: 5%	Light red ware (2.5YR 7/6) with many large angular white inclusions; surface: light red slip (2.5YR 6/6)
15	Handmade bowl	50090/2	Rim diam. 38 Rim: 10%	Pink ware (7.5YR 7/4) with many large angular white inclusions; surface: pink to light brown slip (7.5YR 7/4–6/4)
16	Handmade bowl	50089/5	Rim diam. 40 Rim: 10%	Gray ware from burning with many large angular white inclusions; light red slip (2.5YR 7/6) and dark red-painted pattern on int. and rim
17	Handmade bowl	50090/4	Rim diam. 20 Rim: 6%	Gray ware from burning with many large angular gray inclusions; red-painted pattern on int.
18	Handmade jug	50090/1	Rim diam. 14 Rim: 15%	Pink ware (7.5YR 7/4) with medium–small round black inclusions; red-painted pattern on ext. and upper int.

ⁱn/a = not available.

interior is decorated with splashes of green and yellow below a transparent glaze. Although the presence of incised decoration could be discerned on the interior of the bowl, it could not be identified due to the small size of the preserved fragment. The ware of this fragment indicates that it belongs to the group of Graffita Arcaica, imported from Italy (Avisar and Stern 2005:72–73). This group dates to the mid-thirteenth–fifteenth centuries CE.

Storage Jar (Fig. 2:10).— This storage jar with a folded rim is made of pinkish ware. A close parallel for this jar was found in Area A of the Jewish Quarter excavations (Avisar 2003:437, Pl. 19.2:16). Such jars also occur in Yoqne‘am (Avisar 1996b:153, Type 13, and see therein for additional parallels), Khirbat el-Ni‘ana (Vincenz and Sion 2007:38, Fig. 11:4–11) and as far north as Naḥal Ḥaggit (Seligman 2010:138, Fig. 3.17:11). The chronological range of this jar type is between the twelfth century CE and the Mamluk period.

Jugs (Fig. 2:11–13).— The jug fragment in Fig. 2:11 has a long neck and a thickened everted rim. A somewhat similar jug is known from Yoqne‘am, dated to the Crusader–Mamluk period (Avisar 1996b:167, Fig. XIII.150:4). The jug fragment in Fig. 2:12 has a bulging neck and an incised decoration; it is made of pale brown ware. Jugs of different shapes with incised decoration were common during the Mamluk period (Avisar and Stern 2005:111, Fig. 46:3–6). The jug fragment in Fig. 2:13 is part of the neck, bearing circular stamps with a grille pattern. This fragment belongs to a very common jug type with a swollen neck and a squat body. This type dates to the beginning of the thirteenth century CE. Its chronology has been firmly established by an example found in the foundation trench of the Ayyubid-period city wall of Jerusalem, sealed by destruction debris of the 1219 CE toppling of these fortifications, and dated to 1212 CE (Shimon Gibson, pers. comm.). It has been suggested that stamped jugs of this type were produced in Jerusalem, based on their large quantities in excavations within the city (Boas 2006:86). A large number of these jugs, mainly represented by sherds of the stamped necks, was found in the Old City of Jerusalem, in excavations near the Lions Gate.⁴

Handmade Bowls, Basins and Jug (Fig. 2:14–18).— Large handmade bowls and basins were a common household item of the Mamluk period. These vessels were mostly undecorated, although they were frequently slipped and wet-smoothed and/or burnished, and in some cases adorned with pie-crust decoration below the rim (Fig. 2:14, 15); a colored painted band on the rim, mainly in red, black or brown (Fig. 2:16); or a red painted geometric pattern on the interior (Fig. 2:17; for an extensive discussion of these types, see Avisar and Stern 2005:88–90). The fragment in Fig. 2:17 has a flattened rim.

⁴ The excavations at the sheep market (Shuq Ha-Kevasim) were directed by David Yeger and Amit Re‘em (Permit No. A-8142). The ceramics were studied by the author.

Handmade jugs were frequently decorated with red or black painted geometric patterns over the entire exterior and upper interior of the vessel (Fig. 2:18; for an extensive discussion of these jugs, see Avissar and Stern 2005:113–116; see also Boas 2006:76–83). Handmade painted vessels began to be produced at the end of the twelfth century CE, their production continuing into the Mamluk and the Ottoman periods. By the Ottoman period, the execution of the shape and decoration of such vessels became considerably coarser.

STRATUM I: LATE OTTOMAN PERIOD (Figs. 3, 4)

Area C, Floor 3010 (Fig. 3:1–5)

Didymoteicho-Style Drip-Painted Plate (Fig. 3:1).— This plate type has a folded rim and is drip-painted under a yellow transparent glaze. It belongs to a very common group of plates and bowls of the late Ottoman period. This group was mainly produced at Didymoteicho in Thrace (Megaw and Jones 1983:244–245, Pls. 29.3, 29.4), although other production sites are also known. The pottery production at Didymoteicho has been dated to the early nineteenth century CE (Bakirtzis 1980:148–149). Such bowls, bearing a yellow glaze, have been found in Ottoman-period sites in Turkey (François 1995: Pls. I–V, VI: three upper sherds). Large quantities of Didymoteicho-style pottery have been found at the Ottoman military compound (the Qishle) in Yafo (Vincenz, in press: Type J-DRIP).

Imported Cooking Pot (Fig. 3:2).— The cooking pot shown here has a deep body and an everted rim. Its interior is glazed light brown. This vessel can be dated to the late nineteenth century CE, a period during which cooking pots were exported to the Levant from production centers such as southern France, especially the town of Vallauris. Such cooking pots are typically glazed on the interior and the upper exterior and exhibit wide handles.

Utilitarian Vessel/Large Jar (Fig. 3:3).— This large coarsely-made vessel called *zir* could have been used for storage, and probably dates to the Ottoman period.

Jug (Fig. 3:4).— This jug, used for pouring water, has a narrow neck, widening at its upper part, an everted thickened rim and a handle that is drawn from the bottom of the neck to the upper shoulder. Similar jugs were found in the Old City of Jerusalem (Da‘adli 2011: Fig. 10:14, 15). This jug type dates to the Ottoman period.

Spout (Fig. 3:5).— This short spout belongs to a water jug (*brik*), and can be dated to the Ottoman period.

Area C, Room 3020 (Fig. 3:6–12).

Soft-Paste Vessels (Fig. 3:6–8).— The technology of manufacturing soft-paste vessels was developed in the eastern Mediterranean during the twelfth century CE (see Avissar and Stern 2005:25). Their production continued into the Ottoman period, when centers such

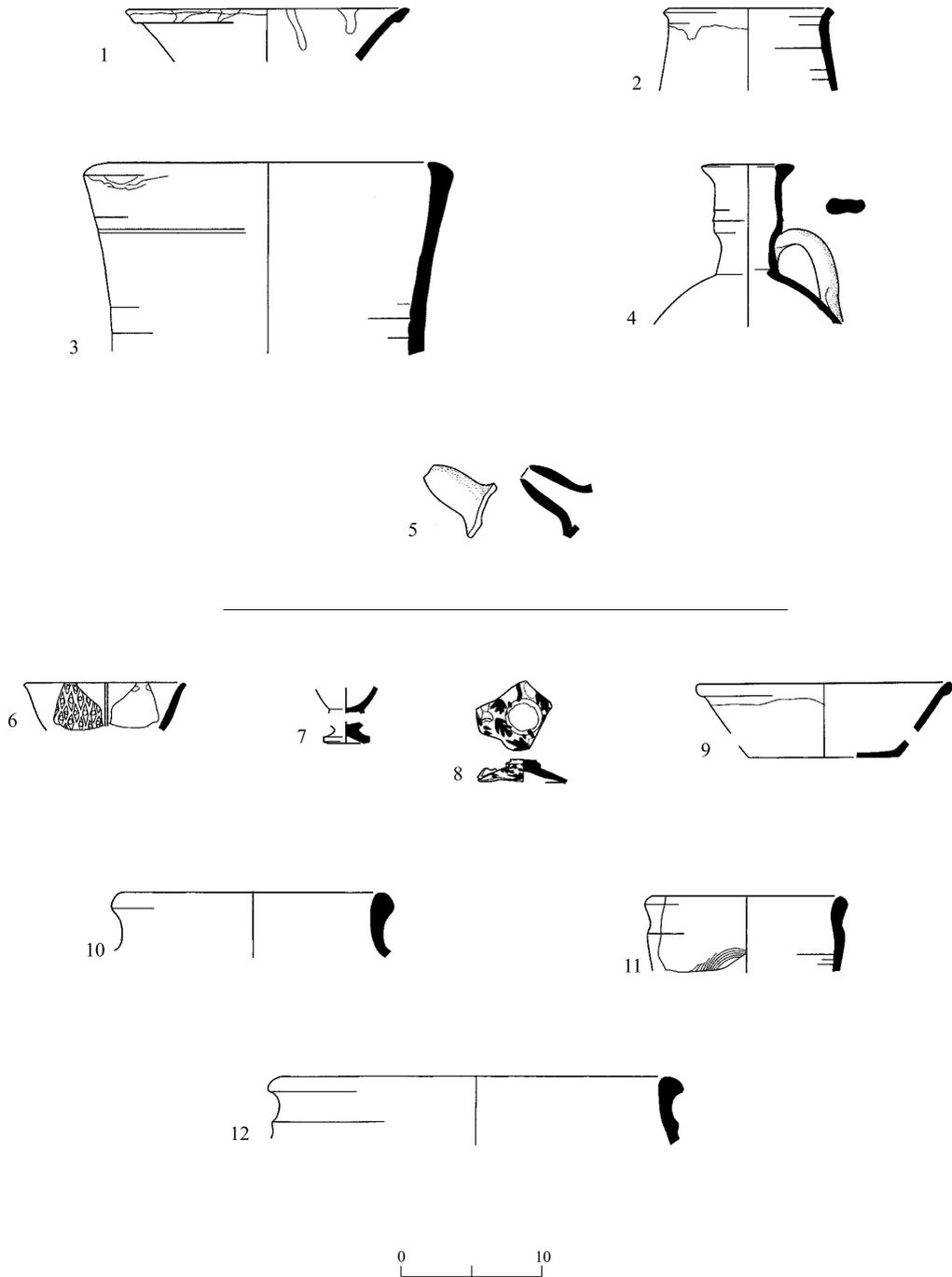


Fig. 3. The late Ottoman-period assemblage from Area C, Floor 3010 (1–5) and Room 3020 (6–12).

◀ Fig. 3

No.	Vessel	Locus	Basket	Dimensions (cm) ⁱ	Description
1	Drip-painted bowl	3020	30132/6	Rim diam. 22 Rim: 11%	Yellowish red ware (5YR 5/6) with few very small round white inclusions; white slip-painted bands below yellow transparent glaze on int.
2	Imported cooking pot	3020	30132/25	Rim diam. 10 Rim: 15%	Light red ware (2.5YR 6/8) with few small angular white inclusions; light brown glaze on int.
3	Jar	3020	30132/38	Rim diam. 24 Rim: 21%	Black ware from burning; surface: pink (7.5YR 7/3)
4	Jug	3020	30131/19	Rim diam. 6.5 Rim: 100%	Light red ware (2.5YR 6/6) with thin core and few small angular black inclusions; surface: reddish brown (2.5YR 5/4)
5	Spout	3020	30132/33	n/a	Light red ware (2.5YR 6/8) with few small round white inclusions; surface: bright green glaze over white slip
6	Kütahya cup	3010	30038/24	Rim: <5%	White soft-paste; bluish/black pattern with red and reddish brown dots under transparent glaze
7	Footed bowl	3010	30040	n/a	White soft-paste with thick white slip and transparent glaze
8	Waster	3010	30040/26	n/a	White soft-paste with blue underglaze paint
9	Albisola bowl	3010	30032	Rim diam. ca. 15	Red ware (2.5YR 5/8); slipped dark brown with strokes of black paint under transparent glaze
10	Jar	3010	30028/13	Rim diam. 16 Rim: 11.5%	Reddish yellow ware (5YR 6/6) with few small round white inclusions; surface: pink (7.5YR 7/3)
11	Jar	3010	30038/12	Rim diam. 13 Rim: 17.5%	Reddish yellow ware (7.5YR 6/6) with few small angular white inclusions; surface: reddish yellow (5YR 6/6)
12	Jar	3010	30040/4	Rim diam. 22 Rim: 11.5%	Reddish yellow ware (7.5YR 6/6) with gray core and few small round white inclusions; surface: reddish yellow (5YR 6/6)

ⁱn/a = not available.

as Iznik and Kütahya operated in Turkey and were well-known for their production of skillfully painted and glazed fine table ware. The fragment in Fig. 3:6 belongs to a small cup with flaring walls and a pinched rim. It is decorated with an intricate pattern in bluish/black with red and reddish-brown dots under a transparent glaze. This small cup probably dates to the eighteenth century CE (Hayes 1992:342). Two fragments belonging to a single vessel are part of a small footed cup (Fig. 3:7). They are undecorated and covered with a

thick white slip and a transparent glaze. The fragment in Fig. 3:8 seems to be a waster of a soft-paste vessel, with small pieces of another vessel adhering to it. It is decorated with blue underglaze paint, while the adhering fragments belonged to a green-glazed vessel. No parallels were found for Fig. 3:8, and only a general date in the Ottoman period can be suggested.

Albisola Brown-Glazed Bowl (Fig. 3:9).— Earthenware bowls, also known as “céramiques à taches noires” (see François 2008:97), have everted walls and a round rim. They are slipped dark brown and decorated with strokes of black paint under a transparent glaze. These bowls were produced in pottery workshops at Albisola, a city in northwestern Italy, near Genoa, which by the end of the eighteenth century CE had as many as 48 pottery workshops producing this type of ware (François 2008:97). These bowls were widely exported throughout the Mediterranean region, and have been found in small quantities in excavations in different parts of the Ottoman Empire. Few fragments of such bowls were found at Yafo,⁵ and one rim fragment was found at ‘Akko (Edelstein and Avissar 1997: Fig. 1:11). These bowls are dated to the end of the eighteenth and the nineteenth centuries CE.

Jars (Fig. 3:10–12).— The three everted round rims shown here belong to large storage jars that are carinated on the upper part of the body. One of these jar fragments (Fig. 3:11) has combed bands on the body. This type of jar has frequently been found in Yafo, occurring in different forms and clays, for example at the Qishle (Vincenz, in press: Fig. 8.5B.1:3, 4). These jars are dated mainly to the nineteenth and probably also the early twentieth centuries CE.

Area C, Room 3014 (Fig. 4)

White Glazed Bowl with Relief Decoration (Fig. 4:1).— This fragment of a white-glazed bowl bears an arabesque decoration in relief. This type of relief-decorated vessel was produced in many German factories and elsewhere in Europe during the nineteenth–early twentieth centuries CE (for examples of molded plates of this type made by the German Meissen factory, see Röntgen 1996:190–191).

Plate with a Blue Underglaze Pattern (Fig. 4:2).— The fragment shown here belongs to a plate with a ledge rim made of light clay, known as faience or majolica. It is decorated in blue over a thick white slip, covered with a transparent glaze. Such vessels, which began to be produced in the sixteenth century CE, were manufactured in various European countries,

⁵ Few fragments come from the excavations on Ha-Zorfim Street in Yafo, directed by Yoav Arbel on behalf of the IAA (Permit Nos. A-5378, A-5577), and the Greek Market, also directed by Yoav Arbel on behalf of the IAA (Permit No. A-7100). The ceramics from both sites were studied by the author of the present paper.

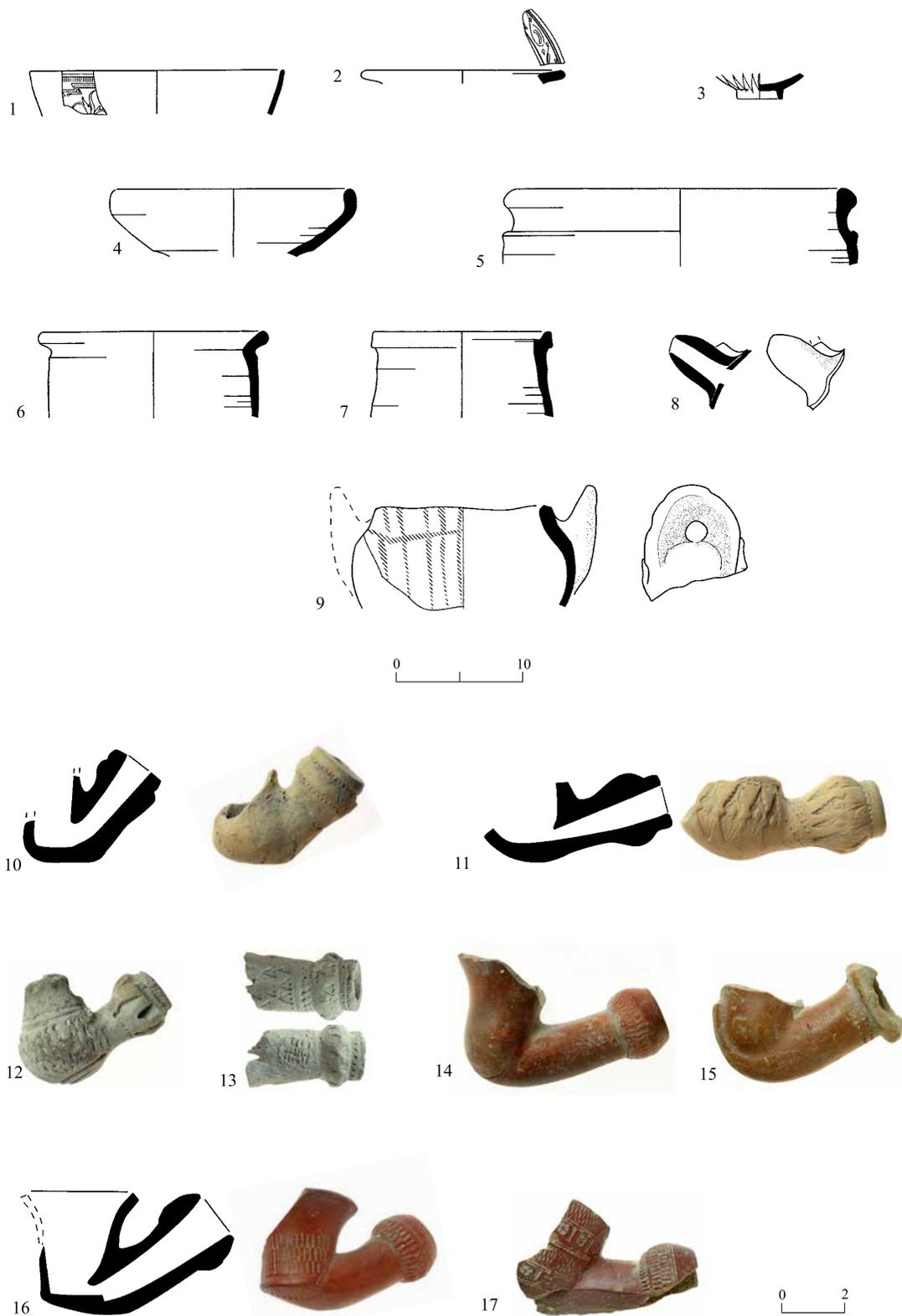


Fig. 4. The late Ottoman-period assemblage from Area C, Room 3014.

◀ Fig. 4

No.	Vessel	Basket	Dimensions (cm) ¹	Description
1	White-glazed bowl	30028/3	Rim diam. 13 Rim: 6%	White hard-paste; molded arabesque
2	Plate	30049/18	Rim diam. 16 Rim: 10%	Very pale brown ware (10YR 8/3); blue painted pattern on thick white slip below transparent glaze on int.
3	Coffee cup	30049/21	Base diam. 3	White hard-paste; blue underglaze painted pattern
4	Bowl	30035/1	Rim diam. 20 Rim: 16%	Reddish yellow ware (5YR 6/6) with many small round white inclusions; surface: reddish brown (2.5YR 5/4)
5	Jar	30035/6	Rim diam. 26 Rim: 9%	Light reddish brown ware (5YR 6/4); surface: light gray (10YR 7/2)
6	Jar	30035/4	Rim diam. 19 Rim: 17.5%	Reddish yellow ware (5YR 6/6) with few very small angular white inclusions; surface: red (2.5YR 5/6)
7	Jar	30035/9	Rim diam. 14 Rim: 12.5%	Reddish yellow ware (5YR 6/6) with few very small angular white inclusions; surface: red (2.5YR 5/6)
8	Gaza Ware jug	30047/1	n/a	Gray ware (10YR 5/1) with few small round white and grog inclusions; surface: gray (10YR 5/1)
9	Handmade cooking pot	30035/5	Rim diam. 13.5 Rim: 20%	Pink ware (5YR 7/4) with many large round white and black inclusions; red-painted decoration
10	Pipe, 17th c.	30035/18	Bowl diam. 2 SO: 0.7 SL: 3.5	Pink ware (5YR 7/4); surface: pink (5YR 7/4); round bowl and short shank; rouletted and stamped decoration
11	Pipe, 17th c.	30035/19	Bowl diam. 1.5 SO: 0.8 SL: 3.5	Pink ware (5YR 7/4); surface: pink (5YR 7/4); round bowl and short shank; rouletted and stamped decoration
12	Pipe, 17th c.	30035/2	Bowl diam. n/a SO: 0.9 SL: 2.6	Light gray ware; surface: light gray; round bowl and short shank; rouletted and stamped decoration
13	Pipe, 17th c.	30035/1	Bowl diam. n/a SO: 0.9 SL: 3.6	Light gray; surface: light gray; short shank; rouletted and stamped decoration
14	Pipe, 19th c.	30090	Bowl diam. n/a SO: 1.7 SL: 5.4	Light red ware (2.5YR 6/6); surface: red slip (10 R 4/6) and burnish; tulip-shaped undecorated bowl; keel outlined with rouletted line and thickened shank end with double rouletted band
15	Pipe, 19th c.	30038	Bowl diam. n/a SO: 1.6 SL: 5	Light red ware (2.5YR 6/6); surface: red slip (10 R 4/6) and burnish; tulip-shaped bowl; thickened wreath with two rouletted lines; keel outlined with rouletted line; maker's mark
16	Pipe, 19th c.	30035	Bowl diam. 4 SO: 1.7 SL: 4.6	Light red ware (2.5YR 6/6); surface: red slip (10 R 4/6) and burnish; tulip-shaped bowl with rouletted decoration; thickened shank end with rouletting; keel outlined with rouletted line
17	Pipe, 19th c.	30035/3	Bowl diam. n/a SO: 1.7 SL: 5	Light red ware (2.5YR 6/6); surface: red slip (10 R 4/6) and burnish; conical bowl with registers with stamped rosettes and rouletted net pattern; thickened end with triple rouletted band

¹n/a = not available, SO = Shank Opening, SL = Shank Length.

including France, Italy and Germany (Savage and Newman 2000:113). The present example should be dated to the nineteenth century CE.

Base of Coffee Cup (Fig. 4:3).— This small ring base belongs to a Turkish coffee cup, decorated with a blue underglaze zigzag pattern. Turkish coffee cups were produced in large quantities for the Oriental market by European factories, beginning in the eighteenth century CE. Most of these cups do not bear a factory stamp and thus, it is difficult to identify their manufacturer. The present cup, which is made of hard-paste, should probably be dated to the nineteenth century CE.

Coarse Ware Bowl (Fig. 4:4).— This coarse ware bowl has an inverted round rim. This type of simple bowl began to be produced in the Mamluk period (Avisar and Stern 2005:82, Fig. 35:7–10), continuing into the Ottoman period. Coarse ware bowls made of a variety of clays were found in the Qishle in Yafo (Vincenz, in press: Figs. 8.5A.1:1–4; 8.5B.1:1). A similar bowl was found in the Old City of Jerusalem (Weksler-Bdolah 2006: Fig. 4:8).

Jar (Fig. 4:5).— The jar in Fig. 4:5 is carinated and has an everted round rim; it belongs to the same type as Fig. 3:10–12.

Jars or Cooking Pots (Fig. 4:6, 7).— Two fragments have an everted beveled rim; one is slightly carinated below the rim (Fig. 4:6) and the other has an interior groove below it (Fig. 4:7). As the base of these two fragments is missing they might belong either to jars or to locally made cooking pots, imitating the shape of imported cooking pots (for a discussion of imported cooking pots, see Stern 2016:87–88). The interior groove on Fig. 4:7 indicates that this vessel had a lid.

Gaza Ware Spout (Fig. 4:8).— This spout, belonging to a pouring or drinking jug (*brik*), was made of Black Gaza Ware. This common type of Ottoman-period vessel is known from the eighteenth–early twentieth centuries CE (Israel 2006:146–161).

Handmade Cooking Pot (Fig. 4:9).— This handmade cooking pot has a globular body, an inverted round rim and large horizontal, pulled-up, ear handles positioned on the shoulder; the ear handles are pierced. The exterior of this pot is covered with a light slip and decorated with a red-painted pattern. While similar cooking pots are known from the Mamluk and early Ottoman periods, the present example should probably be dated to the late Ottoman period, in the nineteenth–early twentieth centuries CE. The Mamluk–early Ottoman-period cooking pots are mostly undecorated, except for a slip which may cover the exterior and interior of the pot; their neck is also sharply everted (Avisar and Stern 2005:94–95). Such an undecorated cooking pot, dated to the early Ottoman period in the sixteenth–seventeenth centuries CE, was found in the Old City of Jerusalem (Wiegmann 2016: Fig. 5:6). The neck in the present example (Fig. 4:9) is lower than in the early

Ottoman-period cooking pot, reinforcing the suggestion that the present example is of a later date in the Ottoman period.

Ceramic Smoking Pipes (Fig. 4:10–17).— Ceramic smoking pipes, the so-called *chibouks*, have commonly been found in archaeological sites of the Ottoman period, and extensively studied at sites such as Athens (Robinson 1983; 1985) and Sarayhane, Istanbul (Hayes 1980; 1992:391–395). Sporadic finds of clay tobacco pipes from sites in Israel have been published in various excavation reports, while more extensive reports were published on the material from Yoqne‘am (Avisar 1996a), Belmont Castle (Simpson 2000), Tel Jezreel (Simpson 2002), Jerusalem (Simpson 2008), Banias—a possible production center for pipes in northern Israel (Dekkel 2008:117–118) and ‘Akko, from the flour mills in the Ridwan Gardens (Shapiro 2016) and the Hospitaller Compound (Shapiro, forthcoming). Baram (1996) also examined pipes from a number of Ottoman-period sites.

Seventeenth-Century Pipes (Fig. 4:10–13): These pipes are very small and have a small rounded bowl and a short shank with a stepped ring. In the earliest examples, the decoration consists mainly of rouletted bands, while in those dated to the later part of the seventeenth century and possibly the beginning of the eighteenth century the decorations are stamped. The pipe in Fig. 4:10 is made of light pink ware and bears only rouletted bands around the shank end (for parallels, see Simpson 2000: Fig. 13.1:5, 6; 2002: Fig. 1:1, 2; Dekkel 2008: Fig. 4.4:1–4, 8; Vincenz, in press: Fig. 8.6:1–3). Another type of pipe, also made of light pink ware, is densely decorated with stamped leaves and rouletted bands (Fig. 4:11). The two pipes in Fig. 4:12, 13 are made of light gray ware and bear many stamped decorations and rouletted bands (for parallels, see Simpson 2000: Figs. 13.1:14–21; 13.2:22–31; 2002: Fig. 1:3, 4; 2008: Fig. 268:7–28).

Nineteenth-Century Pipes (Fig. 4:14–17): Pipes of the nineteenth century are usually made of reddish ware and often have either a tulip-shaped bowl (Fig. 4:14–16) or a straight and high one (Fig. 4:17). They are slipped red and burnished, and may be either undecorated (Fig. 4:14, 15), or decorated with rouletting (Fig. 4:16) or stamped patterns (Fig. 4:17). The pipe in Fig. 4:15 bears an unintelligible pipe maker’s mark. These examples either have a long shank with a thickened swollen end that often bears rouletted bands (Fig. 4:14, 16–17) or a simple thickened shank (Fig. 4:15). Examples of pipes with a tulip-shaped bowl were published by Simpson (2000: Fig. 13.6:122–137; 2008: Fig. 269:49, 50), Weksler-Bdolah (2006: Fig. 13) and Vincenz (in press: Fig. 8.6:73–75, 79).

CONCLUSIONS

As in other excavations conducted outside the walls of the Old City of Jerusalem, the excavation in the Zahal Square Tunnel yielded ceramic material of the Byzantine–Umayyad, Mamluk and late Ottoman periods. The earliest pottery at the site was dated

to the late Byzantine period (Stratum IV), while the latest was dated to the late Ottoman period (Stratum I). Due to the nature of the excavated area, only a small amount of pottery was recovered; however, it should be noted that the composition of the three assemblages closely corresponds to that of other ceramic assemblages from the same chronological phases from Jerusalem and its surroundings. Hence, these assemblages seem to be largely of local production; this also appears to pertain to the Mamluk-period material, among which bowls are especially abundant, and the Ottoman-period clay pipes. Imported material is exceedingly rare in these assemblages; the meagre presence of European vessels in the late Ottoman-period material is particularly noteworthy.

REFERENCES

- Adler N. and Peleg O. 2007. The Pottery Assemblage from a Byzantine Building in Area XIV. In E. Mazar. *The Temple Mount Excavations in Jerusalem 1968–1978 Directed by Benjamin Mazar; Final Reports III: The Byzantine Period* (Qedem 46). Jerusalem. Pp. 71–80.
- Avissar M. 1996a. The Clay Tobacco Pipes. In A. Ben-Tor, M. Avissar and Y. Portugali. *Yokne 'am I: The Late Periods* (Qedem Reports 3). Jerusalem. Pp. 198–201.
- Avissar M. 1996b. The Medieval Pottery. In A. Ben-Tor, M. Avissar and Y. Portugali. *Yokne 'am I: The Late Periods* (Qedem Reports 3). Jerusalem. Pp. 75–172.
- Avissar M. 2003. Early Islamic through Mamluk Pottery. In H. Geva. *Jewish Quarter Excavations in the Old City of Jerusalem Conducted by Nahman Avigad, 1969–1982 II: The Finds from Areas A, W and X-2; Final Report*. Jerusalem. Pp. 433–441.
- Avissar M. and Stern E.J. 2005. *Pottery of the Crusader, Ayyubid, and Mamluk Periods in Israel* (IAA Reports 26). Jerusalem.
- Bakirtzis C. 1980. Didymoteichon: Un centre de céramique post-byzantine. *Balkan Studies* 21:147–153.
- Balouka M. 2013. The Late Roman and Byzantine Pottery. In D. Ben-Ami. *Jerusalem: Excavations in the Tyropoeon Valley (Giv'ati Parking Lot) I* (IAA Reports 52). Jerusalem. Pp. 151–166.
- Baram U. 1996. *Material Culture, Commodities, and Consumption in Palestine, 1500–1900*. Ph.D. diss. University of Massachusetts. Amherst.
- Boas A.J. 2006. The Medieval Ceramics from Khirbat Ka'kul. *'Atiqot* 54:75–104.
- Da'adli T. 2011. A Soap-Production Factory from the Ottoman Period in Sūq al-Fakhir, the Old City of Jerusalem. *'Atiqot* 67:119–138 (Hebrew; English summary, pp. 93*–94*).
- Dekkel A. 2008. The Ottoman Clay Pipes. In V. Tzaferis and S. Israeli. *Paneas II: Small Finds and Other Studies* (IAA Reports 38). Jerusalem. Pp. 113–164.
- Edelstein G. and Avissar M. 1997. A Sounding in Old Acre. *'Atiqot* 31:129–136.
- François V. 1995. Byzantine ou ottomane? Une céramique peinte à l'engobe découverte en Méditerranée orientale. *Anatolia Antiqua* 3:203–217.

- François V. 2008. Jarres, terrailles, faïences et porcelaines européennes dans l'Empire ottoman (XVIII^e–XIX^e siècles). *Turcica* 40:81–120.
- Hayes J.W. 1972. *Late Roman Pottery*. London.
- Hayes J.W. 1980. Turkish Clay Pipes: A Provisional Typology. In P. Davey ed. *The Archaeology of the Clay Tobacco Pipe IV* (BAR Int. S. 62). Oxford. Pp. 3–10.
- Hayes J.W. 1992. *Excavations at Saraçhane in Istanbul II: The Pottery*. Princeton.
- Israel Y. 2006. *The Black Gaza Ware from the Ottoman Period*. Ph.D. diss. Ben Gurion University of the Negev. Be'er Sheva' (Hebrew; English summary, pp. IV–XII).
- Loffreda S. 1995. *Luce e vita nelle antiche lucerne cristiane della Terra Santa* (SBF Museum 13). Jerusalem.
- Magness J. 1993. *Jerusalem Ceramic Chronology: Circa 200–800 CE (JSOT/ASOR Monograph Series 9)*. Sheffield.
- Magness J. 2006. Late Roman and Byzantine Pottery. In H. Geva. *Jewish Quarter Excavations in the Old City of Jerusalem Conducted by Nahman Avigad, 1969–1982 III: Area E and Other Studies; Final Report*. Jerusalem. Pp. 184–191.
- Magness J. 2012. Late Roman and Byzantine Pottery from the Cardo and the Nea Church. In O. Gutfeld. *Jewish Quarter Excavations in the Old City of Jerusalem Conducted by Nahman Avigad, 1969–1982 V: The Cardo (Area X) and the Nea Church (Areas D and T); Final Report*. Jerusalem. Pp. 282–300.
- Majcherek 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.
- Mazar E. 2003. Areas XV and XVII in the Byzantine Period: Architecture and Stratigraphy. In E. Mazar. *The Temple Mount Excavations in Jerusalem 1968–1978 Directed by Benjamin Mazar; Final Reports II: The Byzantine and Early Islamic Periods* (Qedem 43). Jerusalem. Pp. 3–85.
- Mazar E. and Gordon B. 2007. The Pottery from the Peristyle and Southern Houses. In E. Mazar. *The Temple Mount Excavations in Jerusalem, 1968–1978 Directed by Benjamin Mazar. Final Reports III: The Byzantine Period* (Qedem 46). Jerusalem. Pp. 149–176.
- Mazar E. and Peleg O. 2003. The Pottery Assemblage from the Large Byzantine Structure in Area XV. In E. Mazar. *The Temple Mount Excavations in Jerusalem 1968–1978 Directed by Benjamin Mazar; Final Reports II: The Byzantine and Early Islamic Periods* (Qedem 43). Jerusalem. Pp. 86–103.
- Megaw A.H.S. and Jones R.E. 1983. Byzantine and Allied Pottery: A Contribution by Chemical Analysis to Problems of Origin and Distribution. *ABSA* 78:235–263.
- Peleg O. and Adler N. 2007. The Pottery Assemblage from the Byzantine Building in Area XVI. In E. Mazar. *The Temple Mount Excavations in Jerusalem 1968–1978 Directed by Benjamin Mazar; Final Reports III: The Byzantine Period* (Qedem 46). Jerusalem. Pp. 23–34.
- Robinson R.[C.]W. 1983. Clay Tobacco Pipes from the Kerameikos. *MDAIA* 98:265–285.
- Robinson R.C.W. 1985. Tobacco Pipes of Corinth and of the Athenian Agora. *Hesperia* 54:149–203.
- Röntgen R.E. 1996. *The Book of Meissen* (2nd ed.). Atglen, Pa.

- Savage G. and Newman H. 2000. *An Illustrated Dictionary of Ceramics*. London.
- Seligman J. 2010. *Naḥal Haggit: A Roman and Mamluk Farmstead in the Southern Carmel* (IAA Reports 43). Jerusalem.
- Shapiro A. 2016. Ottoman Clay Tobacco Pipes and Narghile Heads from the Flour Mills in the Ridwan Gardens, 'Akko. *'Atiqot* 87:97–102.
- Shapiro A. Forthcoming. The Hospitaller Compound: Tobacco Smoking Pipes and Narghile Heads. In E. Stern and D. Syon. *'Akko: The Excavations of 1991–1998 II: The Late Periods* (IAA Reports). Jerusalem.
- Simpson St. J. 2000. The Clay Pipes. In R.P. Harper and D. Pringle. *Belmont Castle: The Excavation of a Crusader Stronghold in the Kingdom of Jerusalem* (BAMA 10). Oxford. Pp. 147–171.
- Simpson St. J. 2002. Ottoman Pipes from Zir'in (Tell Jezreel). *Levant* 34:159–172.
- Simpson St. 2008. Late Ottoman Pipes from Jerusalem. In K. Prag. *Excavations by K.M. Kenyon in Jerusalem 1961–1967 V: Discoveries in Hellenistic to Ottoman Jerusalem; Centenary Volume Kathleen M. Kenyon 1906–1978* (Levant Suppl. S. 7). Oxford. Pp. 433–446.
- Stern E.J. 2016. The Ceramic Finds from the Ottoman Flour Mills in the Ridwan Gardens, 'Akko. *'Atiqot* 87:83–96.
- Vincenz A. de. 2003. Ceramics from the 5–8 Seasons (1994–1998). In A. Strus. *Khirbet Fattir—Bet Gemal: Two Ancient Jewish and Christian Sites in Israel*. Rome. Pp. 249–381.
- Vincenz A. de. 2005. The Pottery from Khirbet el-Jiljil (First Season). *BALAS* 23:111–138.
- Vincenz A. de. 2011a. The Pottery Assemblage from the Bakery. In E. Mazar. *The Temple Mount Excavations in Jerusalem 1968–1978 Directed by Benjamin Mazar; Final Reports IV: The Tenth Legion in Aelia Capitolina* (Qedem 52). Jerusalem. Pp. 185–194.
- Vincenz A. de. 2011b. The Pottery Assemblage from the Bathhouse. In E. Mazar. *The Temple Mount Excavations in Jerusalem 1968–1978 Directed by Benjamin Mazar; Final Reports IV: The Tenth Legion in Aelia Capitolina* (Qedem 52). Jerusalem. Pp. 85–117.
- Vincenz A. de. 2020. The Byzantine Pottery. In D. Ben-Ami and Y. Tchekhanovets. *Jerusalem: Excavations in the Tyropoeon Valley (Givati Parking Lot) II* (IAA Reports 66/1). Jerusalem. Pp. 71–157.
- Vincenz A. de. In press. Porcelain and Ceramic Vessels of the Ottoman Period. In Y. Arbel ed. *Excavations at the Ottoman Military Compound (Qishle) in Jaffa, 2007, 2009* (The Jaffa Cultural Heritage Project Series 4; Ägypten und Altes Testament 91). Münster.
- Vincenz A. de and Sion O. 2007. Two Pottery Assemblages from Khirbat el-Ni'ana. *'Atiqot* 57:21–52.
- Weksler-Bdolah S. 2006. The Old City Wall of Jerusalem: The Northwestern Corner. *'Atiqot* 54: 95*–119* (Hebrew; English summary, pp. 163–164).
- Weksler-Bdolah S. 2016. A Villa and a Pottery Kiln from the Late Roman-Byzantine Periods at 'En Ya'al (Naḥal Refa'im), Jerusalem. *'Atiqot* 87:71*–119* (Hebrew; English summary, pp. 107–110).
- Weksler-Bdolah S. This volume. Remains from the Byzantine–Umayyad, Mamluk and Late Ottoman Periods in Zahal Square Tunnel, Jerusalem.
- Wiegmann A. 2016. Jerusalem, the Christian Quarter, Monastery of Saint Charalambos. *HA–ESI* 128 (October 10). http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=25100&mag_id=124 (accessed July 16, 2018).