

## THE CRUSADER, MAMLUK AND EARLY OTTOMAN-PERIOD POTTERY FROM KHIRBAT DIN'ILA: TYPOLOGY, CHRONOLOGY, PRODUCTION AND CONSUMPTION TRENDS

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Presented here is the pottery from the Crusader, Mamluk and perhaps, early Ottoman, periods uncovered during the excavations at Khirbat Din'ila (see Frankel and Getzov, this volume).<sup>1</sup> The majority of the assemblage is from the Mamluk period (fourteenth–fifteenth centuries), and seems to have been used by villagers who lived at the site and reused the Byzantine-period buildings in which oil presses were found. The site is not mentioned in historical documents from the Mamluk period; hence, only the archaeological finds provide information about this village.

Crusader-period pottery dating exclusively to the thirteenth century was found, although not in an architectural context, which would seem to indicate that a Crusader settlement was situated in an area of the site that was not excavated. The site is mentioned in documents dating to the thirteenth century; they reveal that Danehyle (identified at Kh. Din'ila) was transferred from the descendants of Joscelin de Courtenay to the Teutonic Knights and that the site was part of the territory of Chastiau de Roi (modern Mi'ilya; see Stern 2012b; Frankel and Getzov, this volume).

The pottery types discussed here are for the most part types that were published in the catalogue of pottery from the Crusader, Ayyubid and Mamluk periods in Israel (Avissar and Stern 2005). As the excavation revealed very few innovations in the pottery typology, the pottery-type descriptions here are short, and citations to comparable types are for the most part restricted to those listed in Avissar and Stern 2005. In the few instances

of pottery types not discussed in that volume, a wider discussion is provided. In addition, quite a few excavated Mamluk-period ceramic assemblages have been published since 2005; these add to the geographic distribution of the types and broaden the chronological picture as well. There are many such sites; I chose here to add mainly those from the Galilee and the Golan.<sup>2</sup> Note as well that a number of these excavations fall within a defined chronological frame supported by numismatic evidence (e.g., Nazareth—see Alexandre 2012:73–75; Berman 2012:108; and Pella—see McPhillips and Walmsley 2007:130), which enables further refinement of the chronology established in Avissar and Stern 2005.

Petrographic analysis was carried out on 26 sherds dating to the Mamluk period recovered in this excavation (see Shapiro, this volume), one of the first extensive studies conducted in this region for Mamluk-period pottery, thereby expanding our knowledge of these types. The results are included in the pottery discussion.<sup>3</sup>

### POTTERY FROM THE CRUSADER PERIOD

Only five sherds were retrieved of ceramic types that can be dated exclusively to the thirteenth century, the Crusader period.<sup>4</sup> These include two cooking vessels: a baking dish (Fig. 1:1; Avissar and Stern 2005:96, Type II.2.3.3, Fig. 41:3; Stern 2012a:41–44, Type BE.CW.2, Pl. 4.14:7–17) and a deep globular cooking pot (Fig. 1:2; Avissar and Stern 2005:92, Type II.2.1.4, Fig. 39:7; Stern 2012a:41–44, Type BE.CW.2, Pl. 4.16:8, 10). This type of cooking

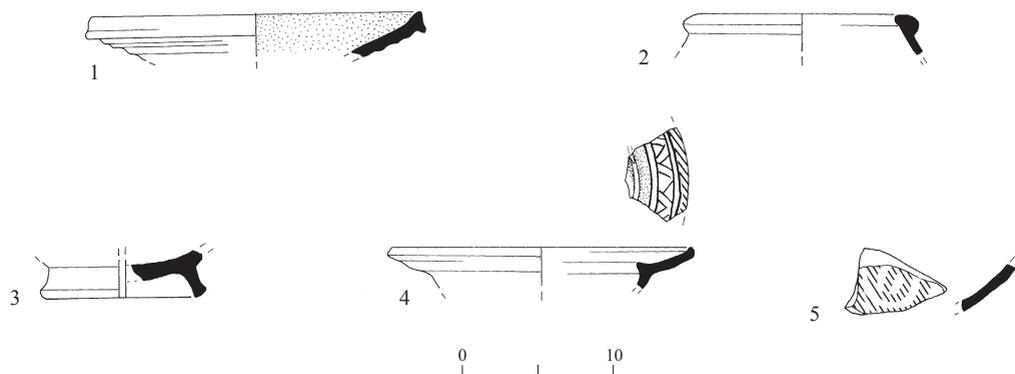


Fig. 1. Crusader pottery.

No.	Type	Permit No.	Locus	Basket	Description
1	Baking dish	A-3545	5	15	Yellowish red 5YR4/6, very dark gray 5YR3/1 burnt ext.; poorly sorted quartz sand; transparent glaze on part of rim and on int.
2	Cooking pot	A-1313	26	227	Yellowish red 5YR4/6; poorly sorted quartz sand; sporadic small spots of transparent glaze on ext.
3	Bowl	A-1313	?	523	Dark brown 7.5YR5/6 to brown 7.5YR5/4; quartz, chalk and other dark grits; white slip under green glaze on int.
4	Bowl	A-1313	56	605	Brown 10YR5/3; some gray grits; white slip under yellowish glaze on int. with incised designs, further enhanced with green and brownish yellow glaze; slip and glaze extending over ext. of rim
5	Bowl	A-1313	58	632	Light brown 7.5YR6/4; sorted polymineral sand; green painted spiral design under yellowish glaze on int.

ware was commonly used in 'Akko and the western Galilee during the Crusader period (Stern 2012a:43), and was most likely produced in Beirut (Waksman et al. 2008:163–166, 176–180, Figs. 2:5, 6; 7; 8; Stern 2012a:43–44).

Sherds of three imported glazed bowls of different types were found. One is the high ring base with a slightly out-turned foot of a Cypriot glazed bowl, apparently of the monochrome variation (Fig. 1:3; Avissar and Stern 2005:60, Type I.8.2, Fig. 24:1; Stern 2012a:60–65, Type CY.GL.1, Pl. 4.41:1–4). Although the monochrome variant is quite uncommon, Cypriot imports bearing other designs (mainly slip painted and sgraffito) are very common in the Crusader Kingdom of Jerusalem (Stern 2012a:64). The second is the rim of a glazed bowl decorated with incisions and green and yellow glaze of the well-known Port St. Symeon

type (Fig. 1:4; Avissar and Stern 2005:54–56, Type I.7.4, Fig. 22; Stern 2012a:55–58, Type NSY.GL.4, Pls. 4.324.39). The third is a body sherd of a type named Spiral Ware rarely found in the Crusader Kingdom of Jerusalem (Fig. 1:5; Avissar and Stern 2005:69–70, Type I.9.2, Fig. 29:2; Stern 2012a:76–77, Type SIT.GL.1, Pl. 4.57:1–3), with a green-glaze painted spiral on the interior of the bowl. This vessel was imported from southern Italy and Sicily.

#### POTTERY FROM THE MAMLUK AND EARLY OTTOMAN PERIODS

While the majority of the pottery from the excavation is from the fourteenth–fifteenth centuries (Mamluk period), some of the pottery may date slightly later, to the sixteenth century (early Ottoman period), as revealed

by new evidence from the excavation at ez-Zuq el-Fauqani.<sup>5</sup> These sherds, which may be slightly later, are grouped here with the Mamluk wares for several reasons. First, the bulk of the pottery from the site actually dates to the Mamluk period (see below, Quantitative Analysis). Secondly, the dearth of well-defined stratigraphic evidence meant that it was impossible to separate the sherds based on stratigraphy. Consequently, the pottery was defined on a solely typology basis. However, pottery from the early Ottoman period, which in general continues the late Mamluk types, with few innovations, is not well-known, and only recently has received attention (see Walker 2009:40–46). Thus, the Mamluk and the late Mamluk–Early Ottoman pottery is arranged and discussed here typologically as one group. Specific types that seem to be of later date are noted.

### *Unglazed Wares*

Unglazed wares are very common at Kh. Din'ila, consisting of 49.3% of the ceramic assemblage. The variety of functional forms is not large and comprises vessels used mainly for storing, transferring, preparing and serving food. They include handmade, wheel-made (basins, jugs and jars), and mold-made (flasks) wares. These vessels are usually undecorated, except for the mold-made flasks and some plastic decoration on the handmade wares. It is noteworthy that some ceramic types that are usually common in Mamluk-period assemblages are totally absent at Kh. Din'ila, for example simple, unglazed bowls (Avisar and Stern 2005:82, Type II.1.1.3, Fig. 35:7–10) and handmade wares with geometric painted decoration (Avisar and Stern 2005:88, 113, Types II.1.4.2, II.4.4 and Figs. 38:6–10; 47, 48).

### *Handmade Wares* (N = 217)

The medieval handmade vessels, which made their first appearance in the Levant during the eleventh century, but were popular mainly in the twelfth to fourteenth centuries, are rather

simple and crude. These wares are found mainly at rural sites and are quite rare in urban contexts (see Kletter and Stern 2006:180–181).

At Kh. Din'ila, handmade wares are common, comprising 27.3% of the entire ceramic assemblage, slightly outnumbered by the glazed wares. Other quantified Crusader- and Mamluk-period rural pottery assemblages show that handmade wares are the most common pottery type. This is the case at Ḥorbat Bet Zeneta, a rural village situated 7 km southeast of 'Akko, dated slightly earlier than Kh. Din'ila, to the thirteenth century (Getzov 2000:97\*), and at two sites in the eastern Sharon, Ḥorbat Burin (Kletter and Stern 2006:180) and al-Burj al-Aḥmar (Phase D; Pringle 1986:139–140).<sup>6</sup>

At Kh. Din'ila, only unpainted handmade wares were recovered, and as noted, geometric-painted handmade wares are entirely absent. The handmade wares include bowls of various sizes, lids, and closed shapes such as jars and jugs.

*Bowls.*— The bowls vary in size from small to large forms (that may be basins) and the rims, bases and bodies come in a variety of shapes (Fig. 2). Often, they have attached, occasionally indented, handles and usually, burnished interiors. This type of bowl is the most common among the handmade wares, and has been found at many sites in the southwestern Levant (see Avisar and Stern 2005:88, Type II.1.4.1, Fig. 38:1–5; Avisar 2008:97, Fig. 6.3:13; Stern and Tatcher 2009:129–130, Fig. 3.19:1–3, 5–7). One singularly shaped small bowl, with what appears to be a handle, was recovered (Fig. 2:1); a bowl of exactly the same shape was found at Ḥ. Bet Zeneta (Getzov 2000:87\*, Fig. 20:7).

*Lids.*— Two lids (Fig. 3:1, 2) were retrieved, one, bowl-shaped with internal ring handles and the other, a fragment of a knob handle. Similar, but not identical, lids were discovered at Ḥ. Bet Zeneta (Getzov 2000:87\*, Fig. 21:1–3, 5, 8), dating to the thirteenth century, and at

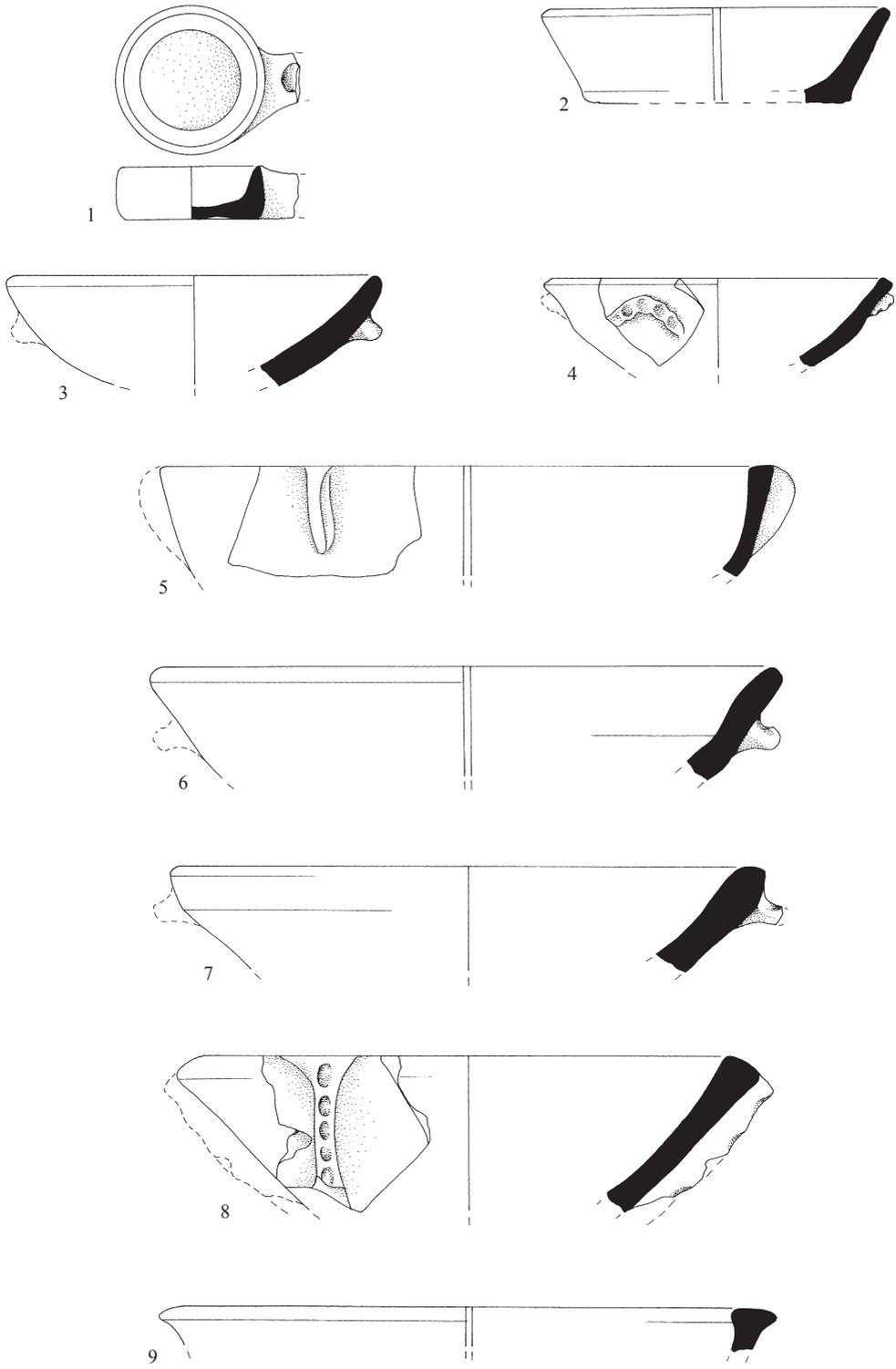


Fig. 2. Mamluk pottery: handmade open vessels.

◀ Fig. 2

No.	Type	Permit No.	Locus	Basket	Description
1	Bowl with handle	A-1313	57	614	Dark brown 7.5YR5/6, gray 10YR5/1 thick core; straw negatives and large (3–4 mm) chalk inclusions
2	Bowl	A-1313	?	646	Dark olive gray 5Y3/2; reddish yellow 7.5YR7/6–6/6 to light reddish brown 5YR6/4 ext.; straw negatives and sporadic chalk inclusions
3	Bowl	A-1313	58	626	Dark grayish brown 10YR4/2, light yellowish brown 10YR6/4 ext.; straw negatives and rare chalk inclusions (1–4 mm)
4	Bowl	A-1313	62	634	Dark gray 5Y4/1, reddish yellow 5YR6/6 ext. and light reddish brown 5YR6/4 int.; straw negatives
5	Bowl	A-1313	21	219/1	Reddish yellow 7.5YR6/6, dark gray 5Y4/1 to light brownish gray 2.5Y6/2 thick core; straw negatives and rare chalk inclusions (1–4 mm)
6	Bowl	A-1313	54	524	Dark gray 10YR4/1, reddish yellow 7.5YR6/4 ext.; straw negatives and rare chalk inclusions (2–4 mm)
7	Bowl	A-1313	52	508	Light brown 7.5YR6/4, dark gray 10YR4/2 thick core; straw negatives and large rare chalk inclusions (2–6 mm)
8	Bowl	A-1313	21	219/2	Brown 10YR5/3, dark gray 10YR4/ core and reddish yellow 5YR6/6 ext.; straw negatives and rare chalk and brown inclusions
9	Bowl	A-1313	57	616	Dark gray 5Y4/1, light reddish brown 5YR6/4 surface; straw negatives; rare quartz and chalk inclusions

Ḥorbat 'Uza (Stern and Tatcher 2009:130, Fig. 3.19:4) and Pella (McPhillips and Walmsley 2007:131, Fig. 11:1), dating to the fourteenth, and perhaps, also the fifteenth, centuries.

*Closed Vessels.*— At Kh. Din'ila, closed forms of undecorated handmade vessels were not nearly as popular as open forms, and only nine examples were found. These include kraters (Fig. 3:3, 4), jars (Fig. 3:5) and jugs (Fig. 3:6). Similar forms were retrieved at Ḥ. Bet Zeneta (Getzov 2000:87\*, Fig. 21:1–3, 5, 8), dating to the thirteenth century, and Yoqne'am (Avissar 1996:155, Type 19, Fig. XIII.126), Ḥ. 'Uza (Stern and Tatcher 2009:129–130, Fig. 3.19:8–11, 13, 14) and Pella (McPhillips and Walmsley 2007:131, Fig. 11:3), dating to the fourteenth, and perhaps, also the fifteenth, centuries.

As no division between open and closed forms was made while counting the handmade vessels from Ḥ. Bet Zeneta and Ḥ. 'Uza, we cannot comment on the ratio between open

and closed handmade vessels at those sites. At Kh. Din'ila, however, a distinction was made between open and closed forms, showing 208 open vessels and only 9 closed ones. At an excavation of a Mamluk-period site in the al-Waṭa quarter, Safed, the relative numbers of open and closed forms of handmade vessels were recorded; there, the closed forms outnumbered the open ones (Edna Amos and Nimrod Getzov, pers. comm.). It is too early to draw conclusions regarding open and closed handmade forms based on data from two sites; I suggest studying the relative numbers of closed and opened forms of handmade vessels of Mamluk pottery in the future.

#### *Wheel-Made Wares* (N = 203)

The unglazed wheel-made vessels from Kh. Din'ila, mainly jugs and jars, comprise 22% of the total assemblage. Open vessels are extremely rare. Merely one basin type was found and as noted above, bowls are absent,

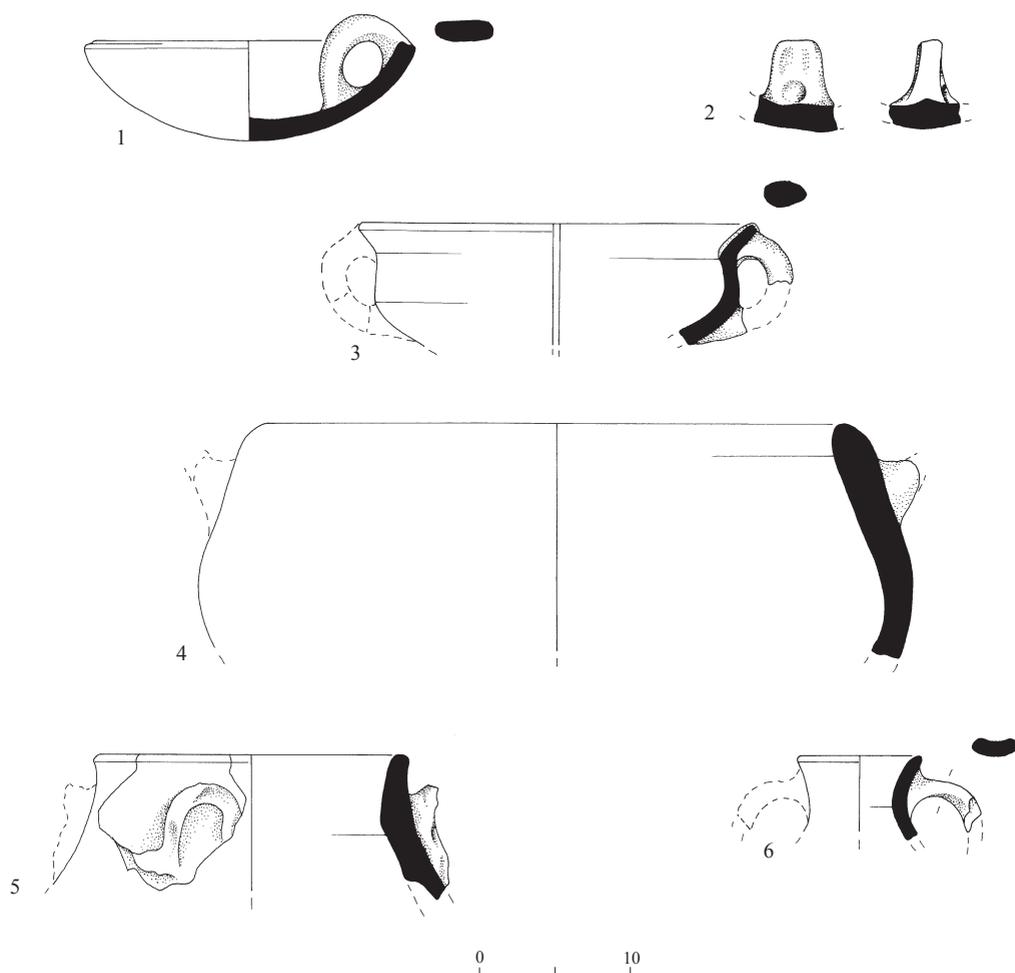


Fig. 3. Mamluk pottery: handmade lids and closed vessels.

No.	Type	Permit No.	Locus	Basket	Description
1	Lid	A-1313	58	645	Pale brown 10YR6/3, reddish yellow 5YR6/6 surface, dark gray 5Y4/1 core; straw negatives; chalk, gray and brownish red inclusions
2	Lid handle	A-1313	28	629	Dark gray 7.5YR4/0, reddish brown 5YR5/4 ext.; straw negatives and some red inclusions
3	Krater	A-1313	21	216	Very dark gray 10YR3/1, light reddish brown 5YR6/6 ext.; straw negatives
4	Krater	A-1313	55	621	Very pale brown 10YR7/3-7/4, gray 10YR5/1 core; straw negatives and some chalk inclusions (1-5 mm)
5	Jar	A-1313	50	640	Reddish yellow 5YR7/6 to dark gray 2.5Y4/0; reddish brown 5YR5/3-5/4 ext.; straw negatives
6	Jug	A-1313	58	645/3	Gray 5Y5/1 fabric, light reddish brown 5YR6/3-6/4 ext.; straw negatives and rare dark grits

although they are usually found in Mamluk-period domestic assemblages. The wheel-made vessels are described according to forms.

*Basin*.— This basin has a slightly flattened rim that protrudes inside and out (Fig. 4:1). A typical widespread Mamluk-period form, it was found at Safed, ez-Zuq el-Pauqani, Yoqne'am, Jerusalem (Avisar and Stern 2005:84, Type II.1.2.3, Fig. 36:4), Nazareth (Alexandre 2012:71, Fig. 3.8:2) and Pella (McPhillips and Walmsley 2007: 133, Fig. 13:3). Basins of this type were also found in Damascus, where it was defined as a new type that appeared in the late thirteenth century and continued in use until the end of the fifteenth century (François 2009:273, Fig. 5:23).

*Jugs*.— Jugs are common at Kh. Din'ila and occur in a variety of shapes. The two most frequent forms, which are typical of Mamluk-

period assemblages, are jugs with swollen necks (Fig. 4:2–5) and jugs with funnel-shaped necks (Fig. 4:6–8). The swollen-necked jugs have everted rims (Avisar and Stern 2005:108, Type II.4.2.1, Fig. 45:4, 5). The jugs with narrow funnel-shaped necks and straight or slightly concave walls have a rim that is a simple, out-turned triangle (Avisar and Stern 2005:111, Type II.4.2.3, Fig. 45:9). Both types have a reddish fabric and spouts (Fig. 4:9, 10). A slightly different, unique, jug type (Fig. 4:11) has a simple rim, a wide, carinated neck with a strainer at its base, a sharply carinated body, two handles that extend from the base of the neck to the widest point of the body and a low ring base. A fragment of a jug with a globular body and an omphalos base (Fig. 4:12) seems to be of the same shape as most of the jug bodies. Only one juglet, with a swollen neck (Fig. 4:13), was found at Kh. Din'ila.

Fig. 4 ▶

No.	Type	Permit No.	Locus	Basket	Section <sup>1</sup>	Description
1	Basin	A-1313		607	-	Grayish brown 10YR5/2, dark gray 10YR4/1 thick core; polymineral sand including quartz, limestone and other dark grains
2	Jug	A-1313		640/1	-	Light red 2.5YR6/6; white grits and rare brownish red inclusions
3	Jug	A-3545	5	17	-	Light red 2.5YR6/6; white grits and rare brownish red inclusions
4	Jug	A-1313	21	207	-	Red 2.5YR5/6; white and red grits and rare red inclusions
5	Jug	A-1313	11	113	-	Reddish brown 5YR5/4; light grits and some red and white inclusions
6	Jug	A-1313		628	P1.1	Red 2.5YR6/6; quartz sand
7	Jug	A-1313		611	-	Yellowish red 5YR5/8; quartz sand and chalk grits
8	Jug	A-1313	40	401	-	Yellowish red 5YR5/6, brown 7.5YR5/2 core; light grits and quartz and red inclusions
9	Jug nozzle	A-1313		638/1	-	Light red 2.5YR6/6; light grits and red inclusions
10	Jug nozzle	A-1313		616/1	P1.3	Red 2.5YR5/6; fine quartz sand
11	Jug with strainer	A-1313		638	P1.2	Red 2.5YR5/6; light and red grits
12	Jug base	A-3545	W4	14	P1.4	Red 2.5YR4/6; light and red grits
13	Juglet	A-1313		636	-	Red 2.5YR5/6; light grits and red inclusions

<sup>1</sup> See Shapiro, this volume.

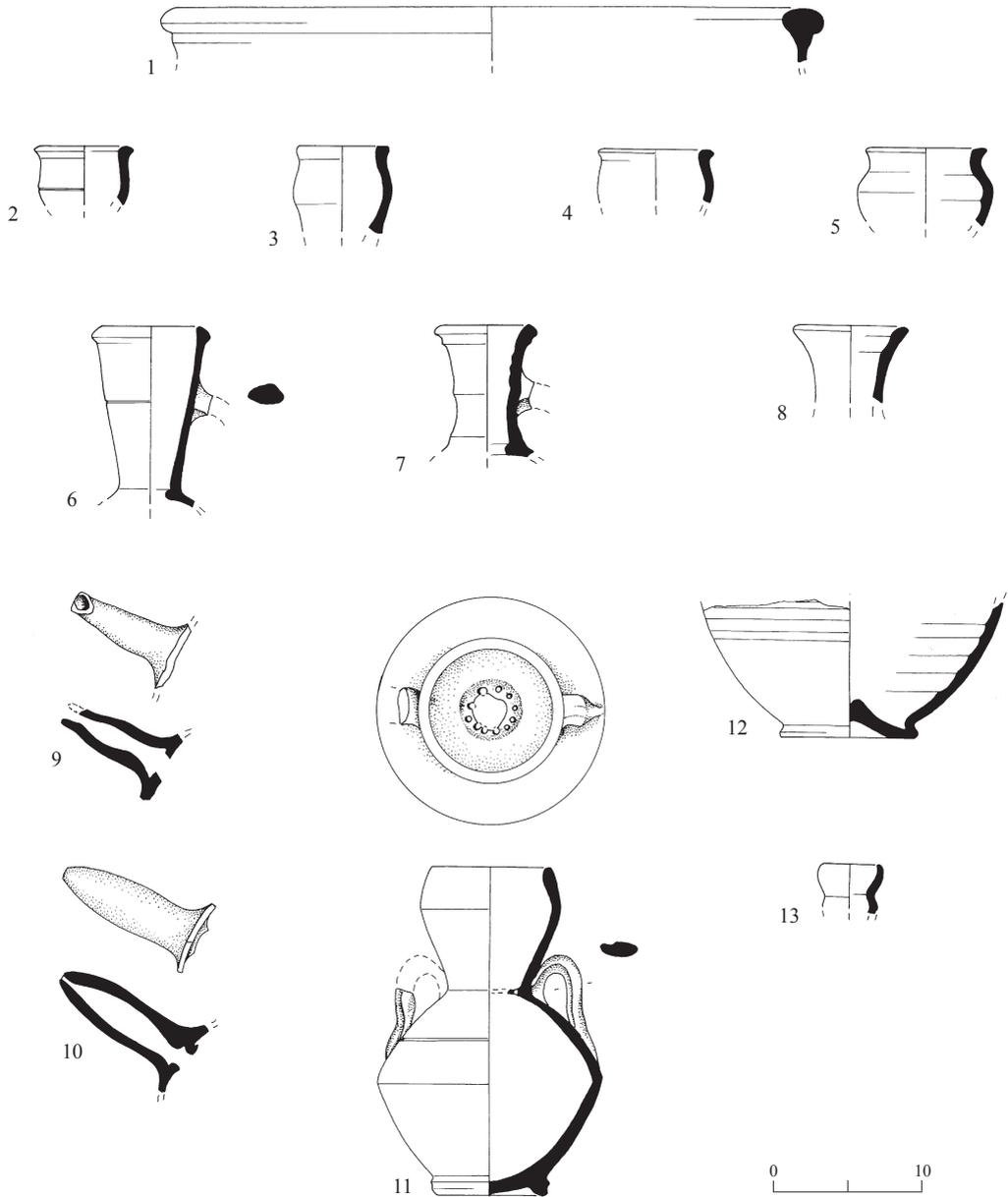


Fig. 4. Mamluk pottery: wheel-made basin, jugs and juglets.

Jug forms similar to those from Kh. Din'ila have been found throughout the southwestern Levant (Avisar and Stern 2005:108, 111; Stern and Tatcher 2009:134, Fig. 3.21:7; Tsioni 2010:229–230, Figs. 6:6–9, 7:3–5; Damati 2011:148, Fig. 17:9; Alexandre 2012:79, Fig. 3.13:6–8; Barbé and Shapiro 2012:69\*, Fig. 6:11, 12). Petrographic analysis conducted on three fragments and one restored jug (see

Shapiro, this volume: Subgroups 1.1, 1.2 and Group 2) showed that they were produced from a *terra rossa* fabric with inclusions typical of formations deriving from the Lower Cretaceous. This analysis could not determine whether they were produced in the western Galilee, on the foothills of Mount Hermon, on the southern Lebanon range or in Transjordan. The restored jug (Fig. 4:11) was

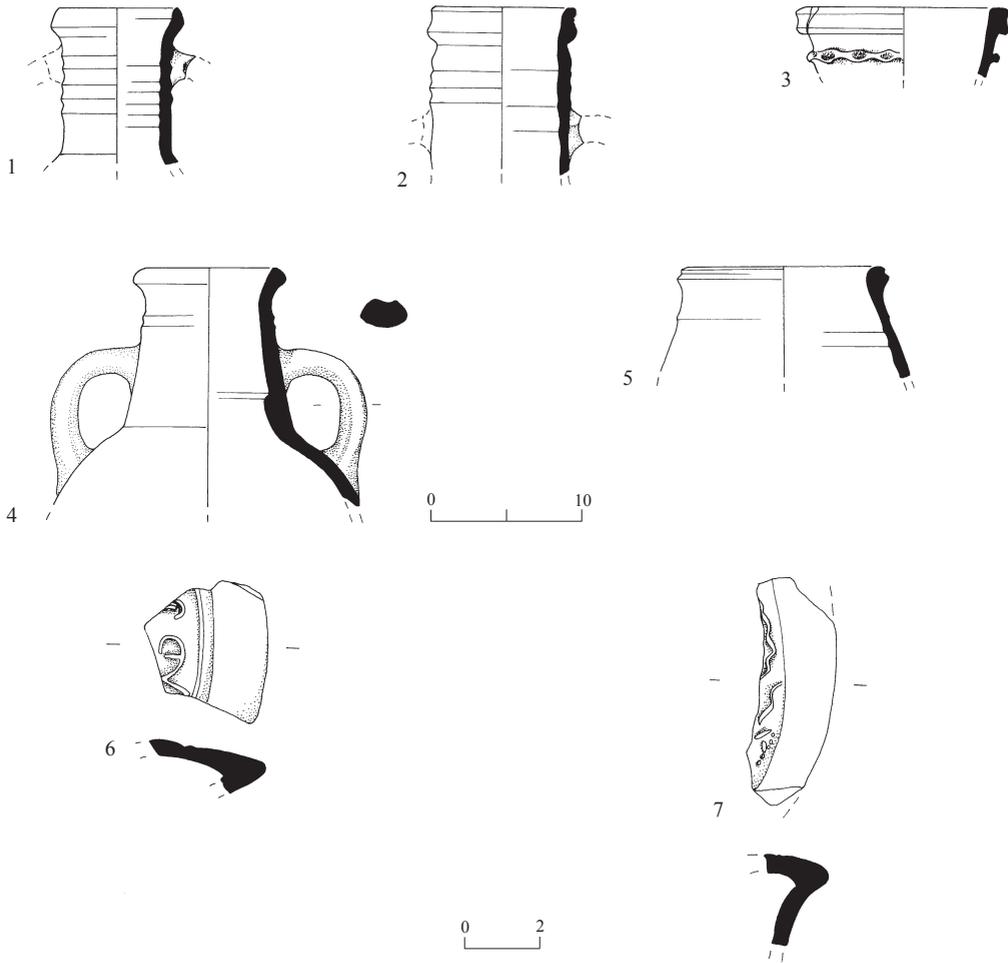


Fig. 5. Mamluk pottery: wheel-made jars and mold-made flasks.

No.	Type	Permit No.	Locus	Basket	Section <sup>1</sup>	Description
1	Jar	A-1313	-	638/2	P1.5	Red 2.5YR4/6; coarse quartz sand
2	Jar	A-1313	-	640/2	-	Red 2.5YR5/6; light grits and sporadic chalk inclusions
3	Jar	A-1313	40	401/1	P2.1	Yellowish red 5YR5/6, grayish brown 2.5Y5/2 core; fine polymineral sand
4	Jar	A-1313	-	621/2	-	Gray 10YR5/1, light reddish brown 5YR6/4 ext.
5	Jar	A-1313	-	604	P2.2	Red 2.5YR5/6; white grits and inclusions
6	Flask	A-1313	28	629/1	-	White 5Y8/2; quartz sand
7	Flask	A-1313	-	636/1	-	White 5Y8/2; fine quartz sand

<sup>1</sup> See Shapiro, this volume.

produced from a slightly different fabric, of rendzina soil, possibly mixed with *terra rossa*. This may suggest that there were several different workshops producing similar vessels throughout the southwestern Levant.

*Jars*.— The jars share a reddish fabric similar to that of the jugs. The forms are fairly uniform, the most common being a jar with a thickened or out-folded rim and a high, ribbed neck (Fig. 5:1, 2). A few examples have a thumbled

ridge below the rim (Fig. 5:3). These jar types are typical of the Mamluk period; they were found frequently at many Mamluk-period sites throughout the southwestern Levant (Avisar and Stern 2005:102, Type II.3.1.4, Fig. 42:7–10; Avisar 2008:98, Fig. 6.5:6, 7; Damati 2011:148, Fig. 17:11), and at Nazareth, where the examples are made of a similar fabric (Alexandre 2012:77–79, Fig. 3.12:7 [similar to 5:1], 3.13 [similar to 5:2]). Other, less typical, jar forms include a jar with a plain high neck, an out-turned rim and two handles attached mid-neck (Fig. 5:4; for a similar rim, see Alexandre 2012: Fig. 3.12:4), and a neck-less jar with a narrow opening and slanting walls (Fig. 5:5). The body of this vessel was apparently ovoid and the shape, very similar to that of molasses jars (Avisar and Stern 2005:103–104, Types II.3.1.5–6, Fig. 43:1–10). It is possible that this is in fact a molasses jar, and that molasses was marketed in the jar. Molasses jars were found in domestic sites that are not necessarily connected with sugar production, for instance, at Yoqne'am (Avisar 1996:154–155, Type 16, Fig. XIII.123) and Dar el-Gharbiya (Syon and Stern, forthcoming). Sugar was produced during this period on the coastal plain, and similar molasses jars dating to the Mamluk period were recorded at Lower Ḥorbat Manot (Stern 2001:291, Fig. 12:4–7) and at Tell Umm al-Faraj (Damati 2011).

Like the jugs, the jars have forms that were widespread throughout the southwestern Levant. However, petrographic analysis has shown that these jars were produced in some of the same workshops as the jugs, and may have been of local provenance (see Shapiro, this volume: Subgroup 1.2; Group 2).

#### *Mold-Made Wares*

Two fragments of mold-made flasks (Fig. 5:6, 7; also known as 'Pilgrim flasks') were recovered at Kh. Din'ila. The flasks were made of buff-colored fabric, and have what seem to be floral designs. This well-known type of mold-made flask is usually decorated with geometric and floral designs, and occasionally,

with figures or inscriptions. It is found at sites throughout the Levant (modern Israel, Jordan, Lebanon and Syria). The flasks are usually dated to the thirteenth and fourteenth centuries (Avisar and Stern 2005:117, Type II.4.5.2, Fig. 49:4; Avisar 2008:100, Fig. 6.7:1, 2; Stern and Tatcher 2009:134–135, Fig. 3.21:14, 15; Damati 2011:148, Fig. 17:12).

#### *Glazed Wares*

A large range of wheel-made glazed types were also found at Kh. Din'ila, consisting of cooking wares, as well as table wares and oil lamps, in a variety of forms and decorations.

#### *Cooking Wares* (N = 124)

This group consists of open and closed forms and includes three types of baking dishes and cooking pots. All the cooking-ware types have a transparent lead glaze that appears on the interior in different shades of brown and yellow. On the open forms, the glaze usually extends to the rim and on the closed forms, it is usually restricted to the bottom part of the interior of the base; occasionally, there are splashes of glaze on the upper part of the interior and the exterior due to the way the glaze was applied. It seems that the glaze had a practical function: to facilitate cleaning the vessel in places where food might stick. It is interesting to note that the forms and the fabrics of the cooking wares are utterly different from those of the previous, Crusader period, indicating a break in production traditions (see below, Discussion and Conclusions).

*Baking Dishes.*— The baking dishes found at Kh. Din'ila can be divided into two main types according to fabric. The first type (Fig. 6:1–7) is further subdivided by form, chiefly rim form. It has thick walls, a slightly greasy, light brown fabric and a thick, mostly glossy glaze, usually in a mustard-yellow shade. The glaze also contains brown specks.

The first subtype has a rounded (Fig. 6:1, 2) or cut (Fig. 6:3) rim, and corresponds to Avisar and

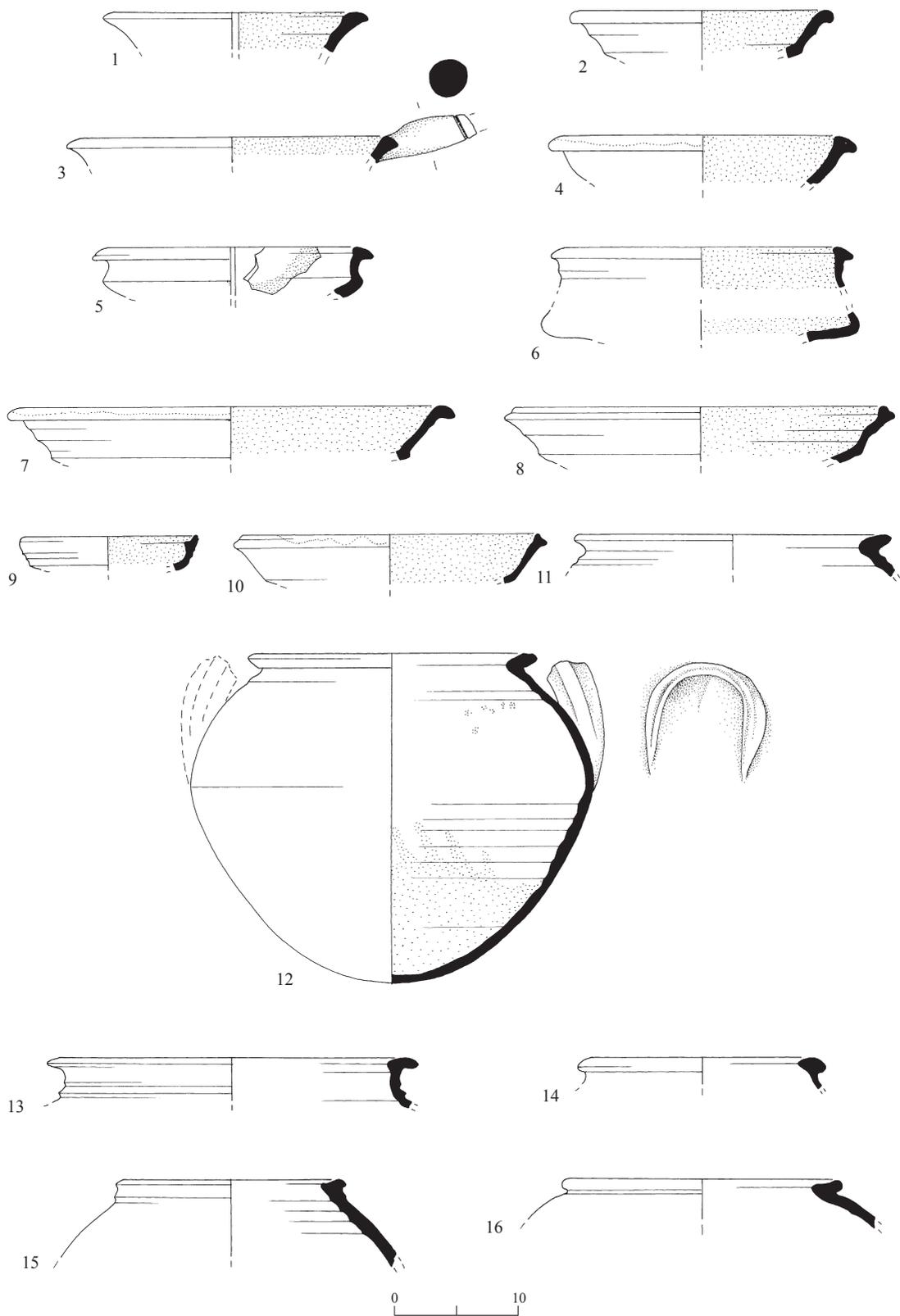


Fig. 6. Mamluk pottery: cooking ware.

◄ Fig. 6

No.	Type	Permit No./ Survey	Locus	Basket	Section <sup>1</sup>	Description
1	Baking dish	A-1313	58	641	P2.3	Very pale brown 10YR7/3; black burnt ext.; coarse quartz sand; yellowish glaze on rim and on int.
2	Baking dish	A-1313	55	610	-	Light reddish brown 5YR6/4; black burnt ext.; coarse quartz sand; yellow glaze on int.
3	Baking dish	A-1313		607/1	-	Reddish brown 5YR6/4, reddish yellow 5YR6/6 ext.; coarse quartz sand; yellow glaze on int.
4	Baking dish	A-1313	52	508/1	-	Light reddish brown 5YR6/4; black burnt ext.; coarse quartz sand and rare quartzite inclusions; yellow glaze on rim and on int.
5	Baking dish	A-1313	-	623	-	Light reddish brown 5YR6/4; black burnt ext.; coarse quartz sand; yellow glaze on int.
6	Baking dish	A-1313	-	612	-	Light reddish brown 5YR6/4; coarse quartz sand; yellow glaze on rim and on int.
7	Baking dish	A-1313	52	527	P2.4	Light reddish brown 5YR6/4; black burnt ext.; coarse quartz sand; brown glaze on rim and on int.
8	Baking dish	A-1313	42	403	-	Reddish yellow 5YR6/6; black burnt ext.; rare red grits; brown glaze over entire sherd
9	Baking dish	A-1313	57	615	-	Red 2.5YR5/8; fine polymineral sand; transparent glaze on rim and on int.
10	Baking dish	A-1313	51	512	-	Light reddish brown 5YR6/4; black burnt ext.; rare chalk, quartz and red grits; thin transparent glaze on rim and on int.
11	Cooking pot	A-1313	-	603	P3.2	Light red 2.5YR6/6, light brown 7.5YR6/4 ext.; coarse quartz sand and brown grits
12	Cooking pot	Oil Press A	-	(27)	P3.3	Yellowish red 5YR5/6; polymineral sand; splash of brown glaze on bottom and spots on rim
13	Cooking pot	A-1313	-	646/1	-	Black 7.5YR2/2, light brown 7.5YR6/4 ext.; quartz sand
14	Cooking pot	A-1313	57	611/1	-	Very dark grayish brown 10YR3/2, brown 7.5YR5/2–5/4 ext.; dark grits
15	Cooking pot	A-1313	56	605/1	-	Very dark gray 10YR3/1, light brown 7.5YR6/4 ext.; quartz and dark grits
16	Cooking pot	A-1313	-	632/1	P3.1	Reddish brown 5 R4/4, gray 10YR5/1 core; crushed calcite grits and inclusions

<sup>1</sup> See Shapiro, this volume.

Stern Type II.2.3.3 (Avisar and Stern 2005:97, Fig. 41:4, 5). The second (Fig. 6:4–7) has an out-turned rim, corresponding to Avisar and Stern Type II.2.3.4 (Avisar and Stern 2005:97, Fig. 41:6, 7). Both subtypes have straight or slightly curved walls with an occasional

carination at the bottom part. They were documented mainly in the Galilee (Alexandre 2012:77, Fig. 3.11:6) and the Golan (Tsioni 2010:229, Fig. 6:5), and were made of a fabric similar, but not identical to, that of one of the cooking-pot types (Fig. 6:14–16; see Shapiro,

this volume, Subgroups 1.2, 1.3). Both subtypes date to the fourteenth and fifteenth centuries.

The second type (Fig. 6:8–10) is distinguished from the first both by form and by fabric, which is rather fine. It has a gutter rim and the walls are thinner and more flaring than the former type. The usually light brown high-quality glaze is even and well-melted, covering the interior and occasionally, the rim. In contrast with the first type of baking dish, this type is found at sites throughout the southwestern Levant, and probably dates to the end of the thirteenth and fourteenth centuries, and possibly, later (Avissar and Stern 2005:97, Type II.2.3.5, Fig. 41:8, 9; Stern and Tatcher 2009:142, Fig. 3.23:18). At Kh. Din'ila, it was found in very small quantities.

*Cooking Pots.*— Similarly to the baking dishes, the cooking pots from Kh. Din'ila are divided into two main types according to fabric and form. While they share a globular form with an everted rim, there are some small distinctions between them. The first type (Fig. 6:11–13) is made from a greasy fabric similar to the first main type of baking dish. It is also subdivided into two groups, according to rim form—one with an everted, almost-ledge rim with no neck (Fig. 6:11, 12) and the other, with a similar everted, almost-ledge rim with a short neck (Fig. 6:13). These cooking pots and baking dishes are produced from a similar fabric. They were found mostly in the Galilee and the Golan, and are dated to the fourteenth, and probably, the fifteenth centuries (Avissar and Stern 2005:92, Type II.2.1.5, Fig. 39:9–11; Stern and Tatcher 2009:140, Fig. 3.23:12–14; Tsioni 2010:229, Fig. 6:4; Alexandre 2012:75, Fig. 3.11:1–3); they were found in the largest quantities at Kh. Din'ila. Additional western Galilee sites that yielded similar cooking pots should be added to the site distribution list in Avissar and Stern 2005: Kisra (Abu 'Uqsa 2006:16\*, Fig. 5:3) and Tell Umm al-Faraj (Damati 2011:148, Fig. 17:7, 8), both dating to the Mamluk period, and Lower Ḥorbat Manot (Stern 2001:296, Fig. 17:6), dating to the early Ottoman period. The

date attributed to the cooking pot from Lower Ḥ. Manot strongly suggests that this type may have continued to be produced in the sixteenth and seventeenth centuries. Cooking pots of this type were also found at other, unpublished, sites in the Galilee and Golan. Petrographic analysis of our vessels shows that they were made from a *terra rossa* soil with inclusions typical of formations of the Lower Cretaceous and basaltic grains originating in the Ḥula Valley (see Shapiro, this volume: Subgroup 1.3).

The second type of cooking pot has a short or thickened everted rim and is globular in shape (Fig. 6:14–16). These pots were found in smaller quantities than the previous types and do not seem to form one group, apparently reflecting different production centers. The fabric is different from that of the previous type; it is coarser and darker in color. One cooking pot from this group, studied petrographically (Fig. 6:16; see Shapiro, this volume: Group 4), was made from a fabric different from that of the above cooking pots, namely Basaltic Brown Mediterranean soils, originating either in Upper or Lower Galilee, or possibly, elsewhere, to the north. Cooking pots of similar forms dating to the Mamluk period were not very common in northern Israel, and have been found at Tell er-Ras (Giv'at Yasaf; Stern 1999:132, Fig. 3:37, 38), Ḥ. 'Uza (Stern and Tatcher 2009:140, Fig. 3.23:16) and Tiberias (Stern 2013), and are even rarer at sites further south, as shown by the sole example, dated to the fourteenth century, that was reported from al-Burj al-Aḥmar in the Sharon (Pringle 1986:146, Fig. 48:43). Interestingly, this cooking pot is the most common cooking-pot shape in Lebanon and in central and northern Syria, and was found at Apamea, Rahba-Mayadin, Rusafa, Qal'at Ja'bar, Ḥama, Tripoli, Ba'albek and Damascus (François 2009:269, Fig. 2:1; Vezzoli 2011:263–264; Valentina Vezzoli, pers. comm.). However, at Apamea and Syria this cooking pot appears in two subtypes, with a folded rim (Vezzoli 2011: Pl. 3:1–3) similar to the pot found at Din'ila and other sites in northern Israel, or with a short neck and

everted rim (Vezzoli 2011: Pl. 3:5–7), which is absent here. The reason is chronological: the short-necked everted rim dates slightly earlier (from the eleventh to the thirteenth centuries) and it seems that only in the late thirteenth and/or fourteenth centuries onward were similar cooking-pot types in use in a larger geographical area, including northern Israel and Greater Syria.

### *Glazed Table Wares* (N = 268)

#### *Local Glazed Table Ware*

The local glazed table wares include mainly bowls, closed vessels and oil lamps decorated in monochrome glazed, slip painted, sgraffito or gouged technique. Monochrome glazed bowls are the most common type, the green glaze being most frequent.

Petrographic analysis shows that the sampled glazed bowls were produced from clay sources similar to the wheel-made unglazed jugs and jars, namely a *terra rossa* soil with inclusions characteristic of Lower Cretaceous formations originating in the Ḥananya Valley in Galilee, in the foothills of Mount Ḥermon, in the southern Lebanon Range and in Transjordan (see Shapiro, this volume: Subgroups 1.1, 1.2). However, the exact location of the workshops has yet to be discovered.

*Monochrome Glazed Ware Bowls* (Fig. 7:1–15).— These bowls are made from different fabrics, and most likely reflect the productions of different workshops and a range of dates. All the bowls have a white slip on the interior, occasionally extending just below the rim on the exterior. Green or yellow glaze was applied over the slip; the glaze is usually well-melted, but occasionally flakes off. The green glaze is far more common than the yellow.

This group includes different forms; they have a simple, thickened or a molded rim and a carinated or rounded profile (Fig. 7:1–12), and all share a typical low ring base. These bowl types were widespread throughout the southwestern Levant during the Mamluk period

from the end of the thirteenth to the fifteenth century, and later (Avisar and Stern 2005:12, Type I.1.4.1, Fig. 4; Avisar 2008:91, Fig. 6.1:1–11; Stern and Tatcher 2009:145–146, Fig. 3.25:2–7; Tsioni 2010:228–229, Figs. 6:1–3; 7:1, 2; Damati 2011:148, Fig. 17:2; Alexandre 2012:73, Fig. 3.9:1, 2). Glazed bowls that seem to be of a later date include a bowl with a simple rim, a rounded profile, a high base splayed at the bottom and a stepped foot (Fig. 7:13), and two high, crudely cut bases (Fig. 7:14, 15). Figure 7:13 is of a form that was common during the early Ottoman period (late sixteenth–early seventeenth centuries). Bowls of similar forms, occasionally with sgraffito or painted designs and glaze on both the exterior and the interior were produced in the Troad area and circulated to other sites in Turkey as well as to Cyprus (Istanbul: Hayes 1992:274, Ware E; 283, b10.1 74.14, Fig. 111: b10.1 74.14). In Kouklia, Cyprus, and Jerusalem, bowls of similar form with monochrome glaze on the interior extending only to mid-body on the exterior were found (Cyprus: von Wartburg 2001:370–372, Fig. 5:27; Jerusalem: Johns 1950:189, Pl. LXIII:6). Other bowls of a similar form, covered with yellow glaze only on the interior were found at Dar el-Gharbiya (Kafr Yassif, western Galilee; Syon and Stern, forthcoming) and at Ḥ. ‘Uza (Stern and Tatcher 2009:145–146, Fig. 3.25:9), and at Pella (McPhillips and Walmsley 2007:133–134, Fig. 16:3), and bases with green glaze were found at Lower Ḥ. Manot, in the Ottoman-period phase (Stern 2001:296, Fig. 17:3, 4). The glaze on the bowl from Kh. Din‘ila also covers the interior and extends only till mid-body on the exterior; petrographic analysis reveals that it was produced from a local fabric (see Shapiro, this volume: Subgroup 1.1). Thus, it seems most likely that this local production is an imitation of a fashion in Ottoman glazed wares that was current at the time. The bowls with the high, crudely cut bases (Fig. 7:14, 15) also seem to be of later date, but no similar bowls have been published and consequently, not much can be said about them, although petrographic

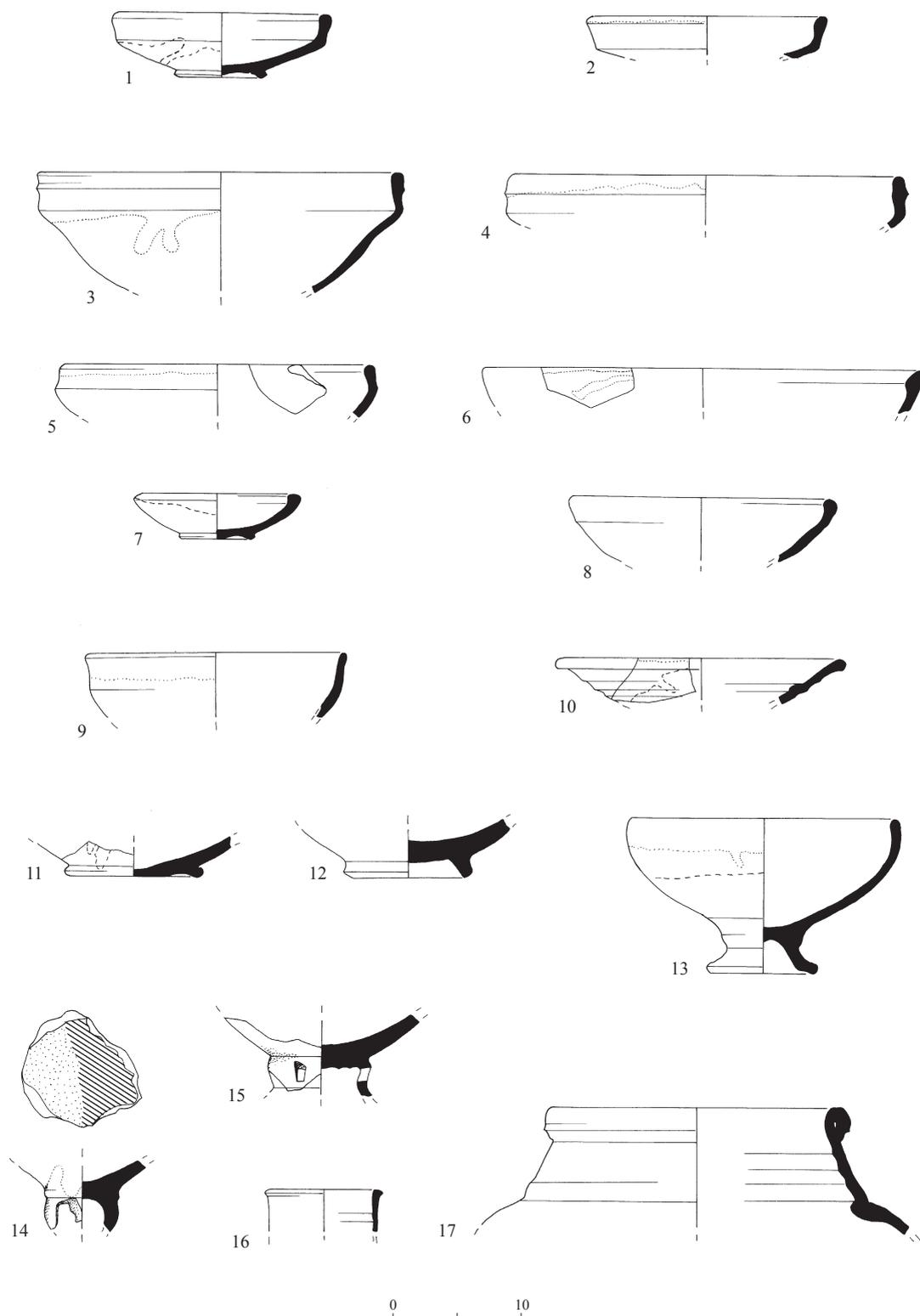


Fig. 7. Mamluk pottery: Monochrome Glazed Ware.

◀ Fig. 7

No.	Type	Permit No.	Locus	Basket	Section <sup>i</sup>	Description
1	Bowl	A-1313	-	612/1 (608)	P3.4	Pink 5YR7/3–7/4; quartz sand, dark grits; white slip under green glaze on int. extending over rim
2	Bowl	A-1313	58	637	-	Red 2.5YR5/6; fine dark grits; beige slip over entire sherd under yellow glaze on int.
3	Bowl	A-1313	-	629/2	-	Pink 5YR7/4 to light gray 10YR6/1; fine polymineral sand; beige slip under green glaze on int. and extending over rim
4	Bowl	A-1313	-	637/1	-	Reddish yellow 5YR6/6; fine quartz sand; pale slip over entire sherd; green glaze extending to rim
5	Bowl	A-1313	59	617	-	Reddish brown 2.5YR5/4; many white grits, chalk, quartz and possibly microfossils; beige slip under yellow glaze on int. and extending over rim
6	Bowl	A-1313	58	632/2	-	Light red 2.5YR6/6; polymineral sand; beige slip over entire sherd; dark green glaze on int. and on rim, splashes of glaze on ext.
7	Bowl	A-3545	W4	14/1	P3.5	Light red 2.5YR6/6; fine polymineral sand; beige slip under green glaze on int. and extending over rim; splashes of slip on ext.
8	Bowl	A-1313	-	629/3	-	Light red 2.5YR6/6; fine polymineral sand; beige slip under green glaze on int. and extending over rim
9	Bowl	A-1313	57	614/1	-	Light red 2.5YR6/6; fine polymineral sand; beige slip over entire sherd; yellow glaze on int. and on rim
10	Bowl	A-1313	53	606	P4.1	Light red 2.5YR6/6; fine polymineral sand; white slip over entire sherd; green glaze on int. and on rim; splashes of glaze on ext.
11	Bowl	A-1313	55	610/1	-	Light red 2.5YR6/6; polymineral sand; beige slip over entire sherd; yellow glaze on int. and on rim; splashes of slip on ext.
12	Bowl	A-1313	-	616/2	-	Light red 2.5YR6/6; fine polymineral sand; beige slip under green glaze on int. and extending over rim
13	Bowl	A-1313	58	645/2	P4.2	Light red 2.5YR6/6; fine polymineral sand; beige slip under green glaze on int. and extending over rim
14	Bowl	A-1313	-	636/2	-	Light red 2.5YR6/6; fine polymineral sand; beige slip under yellow glaze with green splashes on int. and extending to base ext.
15	Bowl	A-1313	-	528	P4.3	Light red 2.5YR6/6; polymineral, mostly quartz sand; beige slip under yellow glaze with green splashes on int.
16	Jug	A-1313	12	108	-	Reddish brown 2.5YR5/4; fine quartz sand and white grits; beige slip and light yellow glaze over entire sherd
17	Jar	A-1313	51 (54)	521 (524)	-	Red 2.5YR5/6; coarse polymineral sand; transparent glaze on int. extending to rim

<sup>i</sup> See Shapiro, this volume.

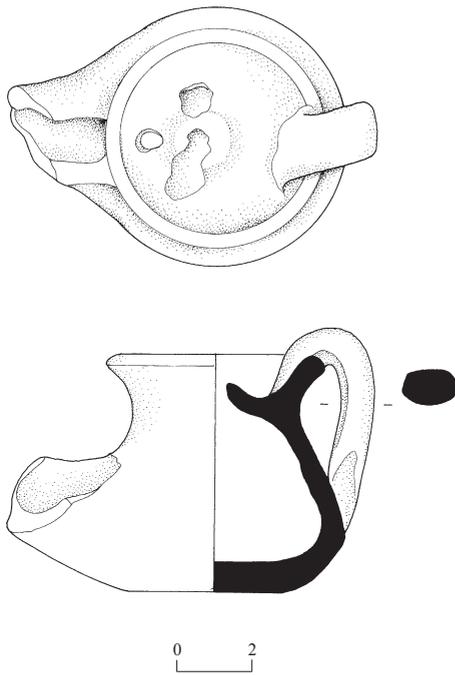


Fig. 8. Monochrome Glazed Ware lamp (Reg. No. A-1313; Basket 118; light red 2.5YR6/6; polymineral sand; green glaze on exterior extending to base.

analysis (Fig. 7:15) shows that they too were a local production (see Shapiro, this volume).

*Monochrome Glazed Ware Closed Vessels* (Fig. 7:16, 17).— Two closed types were found. The first is a simple green-glazed jug (Fig. 7:16), that, although it did not undergo petrographic analysis, seems to be of local fabric and to date to the Mamluk period. Glazed jugs are rather rare during the Mamluk period (for slip-painted examples, see Avissar 2008:100, Fig. 6.6:7, 8). The second is a rim fragment of what seems to be a large storage jar (Fig. 7:17). The fragment has a transparent glaze on the interior that gives it a brown appearance. No similar vessels were found, and its function, date and provenance remain unknown.

*Monochrome Glazed Ware Oil Lamp* (Fig. 8).— This closed oil lamp has a long nozzle and is covered with green glaze; it began to appear

in the Crusader period similarly to the lamp illustrated in Fig. 9:6 below, and continued in use during the Mamluk period (for a similar lamp, see Stern and Tatcher 2009:165–167, Fig. 3.32:2). The Mamluk-period version was produced from a reddish fabric, and may be a local product (Avissar and Stern 2005:124–126, Type III.1.2, Fig. 52:5, 6). The Crusader-period lamps of this form, for instance, those from 'Akko, were produced from a lighter fabric (Stern 2012a:55–58, Type NSY.GL.1, Pl. 4.31:6, 7). Petrographic analysis identified the lamps from 'Akko as belonging to the Port St. Symeon group, produced in northern Syria and imported to the Levant (Shapiro 2012), and the lamp from Kh. Din'ila as belonging to the local fabric group (see Shapiro, this volume: Subgroup 1.1). This demonstrates that during the Mamluk period, local producers imitated the earlier imported types.

*Reserved-Slip Ware Bowls* (Fig. 9:1–3).— This type of glazed bowl was apparently not popular at Kh. Din'ila. Reserved slip decoration is achieved by placing irregular patches of slip on the interior and then applying one or two colors of glaze. The forms are similar to those of the monochrome glaze types, and likewise date from the end of the thirteenth to the fourteenth centuries, and perhaps even later. Bowls of this type are known from various sites, mainly in the southwestern Levant (Avissar and Stern 2005:22, Type I.1.6.5, Fig. 8:3–7; Alexandre 2012:75, Fig. 3.9:9). As noted, petrography shows a similar origin for the example sampled (Fig. 9:3; see Shapiro, this volume: Subgroup 1.2), as for most of the other glazed bowls.

*Slip Painted Ware Bowls* (Fig. 9:4, 5).— At Kh. Din'ila, the slip-painted bowls were found in slightly larger quantities than the reserved-slip ones, but were much less common than the monochrome glazed bowls. They share the same form, fabric, slip and glaze with some of the monochrome glazed bowls, but differ in the type of decoration. Here, white slip was used to paint a design on the clay body after which

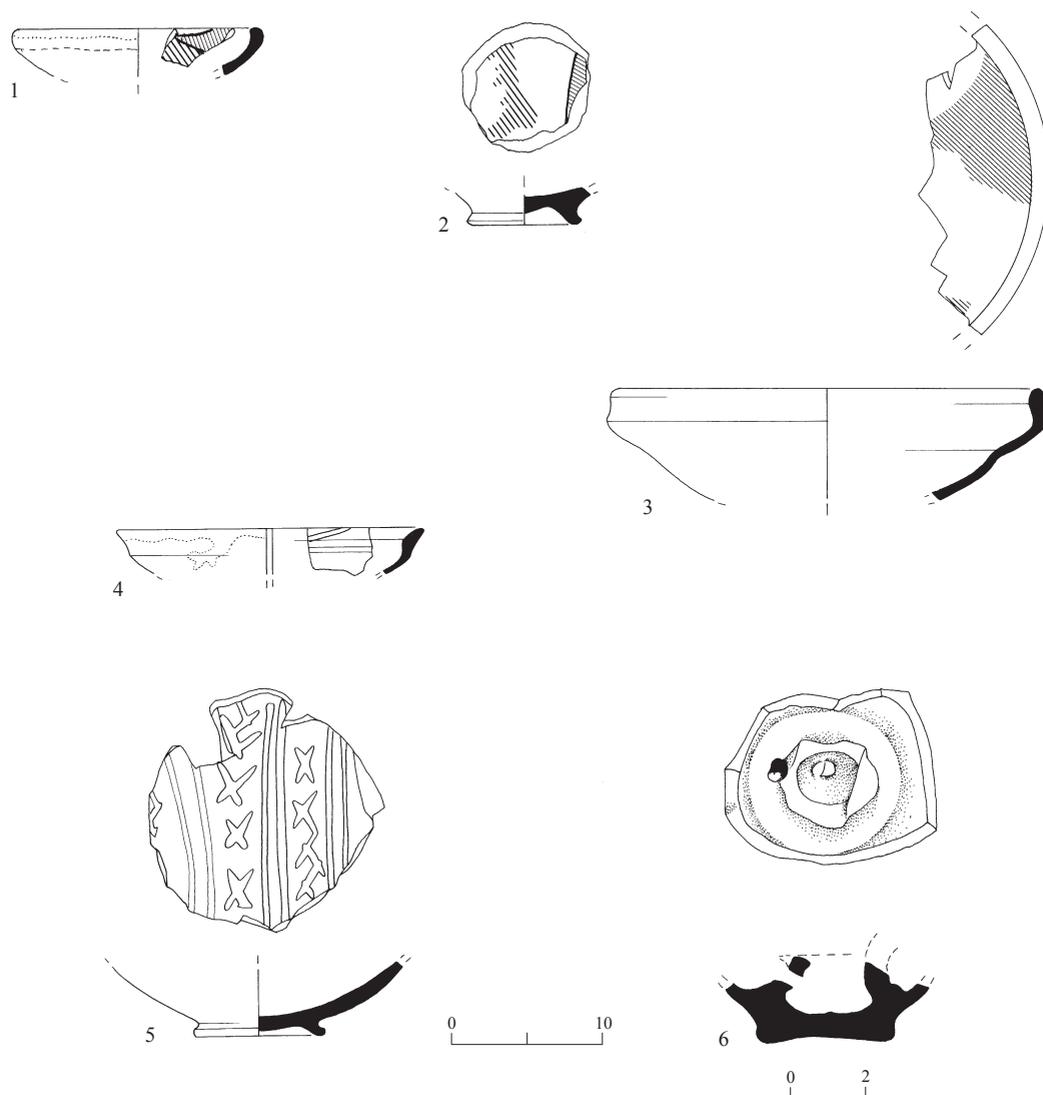


Fig. 9. Mamluk pottery: Reserved-Slip and Slip-Painted Wares.

No.	Type	Permit No.	Locus	Basket	Section <sup>1</sup>	Description
1	Bowl	A-1313	53	529	-	Light red 2.5YR6/6; fine polymineral sand; beige slip under yellow glaze on int. and extending over rim; green glaze splashes on int.
2	Bowl	A-1313	-	636/3	-	Light red 2.5YR6/6 to reddish yellow 5YR6/6; polymineral sand; beige slip under yellow glaze with green glaze splashes on int.
3	Bowl	A-1313	55	621/1	P4.4	Reddish yellow 5YR6/6; fine polymineral sand; beige slip under light yellow glaze on int. and extending over rim; green glaze splashes on int.
4	Bowl	A-1313	-	611/2	-	Light red 2.5YR6/6; fine polymineral sand; white slip painted lines under transparent glaze on int. and extending over rim
5	Bowl	A-1313	-	626/1	P5.1	Light red 2.5YR6/6; fine polymineral sand; white slip painted designs under transparent glaze
6	Lamp	A-1313	40	400	-	Light reddish brown 5YR6/4; some polymineral sand; slip painted lines and transparent glaze on upper ext., splash of glaze extending to base

<sup>1</sup> See Shapiro, this volume.

a coat of transparent green or yellow glaze was applied. These bowls were widespread throughout the southwestern Levant and date to the Crusader, but mainly, to the Mamluk periods (Avisar and Stern 2005:19, Types I.1.6.1, I.1.6.2, Fig. 7:1–8; McPhillips and Walmsley 2007:133, Fig. 17; Avisar 2008:93, Fig. 6.2:1–8; Stern and Tatcher 2009:147–148, Fig. 3.26:8–12). As is the case with the other glazed bowls, the slip-painted bowl sampled (Fig. 9:5) from Kh. Din'ila shows a similar origin (see Shapiro, this volume: Subgroup 1.2).

*Slip-Painted Ware Oil Lamp* (Fig. 9:6).— The saucer lamp seems to be the latest version of a type that began in the Early Islamic period and was most popular in the Crusader period, when it was produced from a fabric similar to that of the cooking pots, most likely in Beirut (Avisar and Stern 2005:124, Type III.1.1, Fig. 52:1–4; Stern 2012a:40, 41, 44–47, Pls. 4.13:9–14; 4.19:6–10; 4.21:16, 17). However, the lamps unearthed here have a fabric similar to that of the glazed bowls, as well as a yellow slip-painted design that is the same as that on the slip-painted bowls (see above). For these reasons, one can assume that this lamp type was produced in the same ceramic workshops as the glazed bowls and is apparently a local Galilean production.

*Sgraffito Ware Bowls* (Fig. 10:1–4).— These sgraffito bowls, decorated with a design incised with a pointed tool, seem to be of local manufacture. This is confirmed by petrographic analysis of one example (Fig. 10:2; see Shapiro, this volume: Subgroup 1.1). These bowls correspond in form, fabric, slip and glaze to some of the monochrome glazed bowls, and they were apparently produced in the same workshops. The fine incised designs include mainly straight or wavy lines. Sgraffito bowls, found throughout the southwestern Levant, date to the thirteenth century and later (Avisar and Stern 2005:16, Type I.1.5.1, Fig. 6:1–4; Avisar 2009: 91,

Fig. 6.1:18; Stern and Tatcher 2009:148–150, Fig. 3.27:6–9).

*Yellow and Green Gouged Ware Bowl* (Fig. 10:5).— This is a type of locally produced sgraffito bowl that, in addition to fine incised designs, has gouged straight and wavy lines and additional green-glaze splashes over the yellow monochrome glaze background. It seems to have been produced in local workshops, as attested by its distribution mainly at inland sites throughout the Levant (modern Israel, Lebanon, Syria and Jordan) and by analysis (Milwright 2003:87–88, Map 1, 103–104, Table 1; Avisar and Stern 2005:16–18, Type I.1.5.2, Fig. 6:5–7; Kletter and Stern 2006:192; Barbé and Shapiro 2012:64\*, 69\*, Figs. 4:1, 2; 7:1; McPhillips and Walmsley 2007:134–135, Fig. 18:1; François 2009:275, Fig. 5:32).

While in the past it was thought that Yellow and Green Gouged Ware appeared in the Crusader period (most of the thirteenth century; see, for example, Milwright 2003:90), it seems almost certain that it began to appear only in the late thirteenth century. In fact, this ware has not been found in clean Crusader-period pottery assemblages (for a further discussion, see Kletter and Stern 2006:192). It occurs well into the fifteenth century, as attested from finds uncovered in an excavation at the Safed citadel, where it was found with early fifteenth-century coins (Hervé Barbé, pers. comm.), and in the Nazareth pottery assemblage that is dated by coins to between 1332 and 1496 (Alexandre 2012:73–75, Fig. 3.7:7, 8; Berman 2012:108).

The exact place of production remains unknown; as Shapiro has suggested, it could be either Galilee, the southern Lebanon Range, the foothills of Mount Ḥermon or Transjordan (see Shapiro, this volume: Subgroup 1.1). A comparison made of the petrographic-analysis results of a bowl of this type from Karak (Mason and Milwright 1998:181, Fig. 3:18) shows that the source for the raw material of both bowls was the same geological formation. It is impossible to say whether they were produced in the same workshop, but it can be

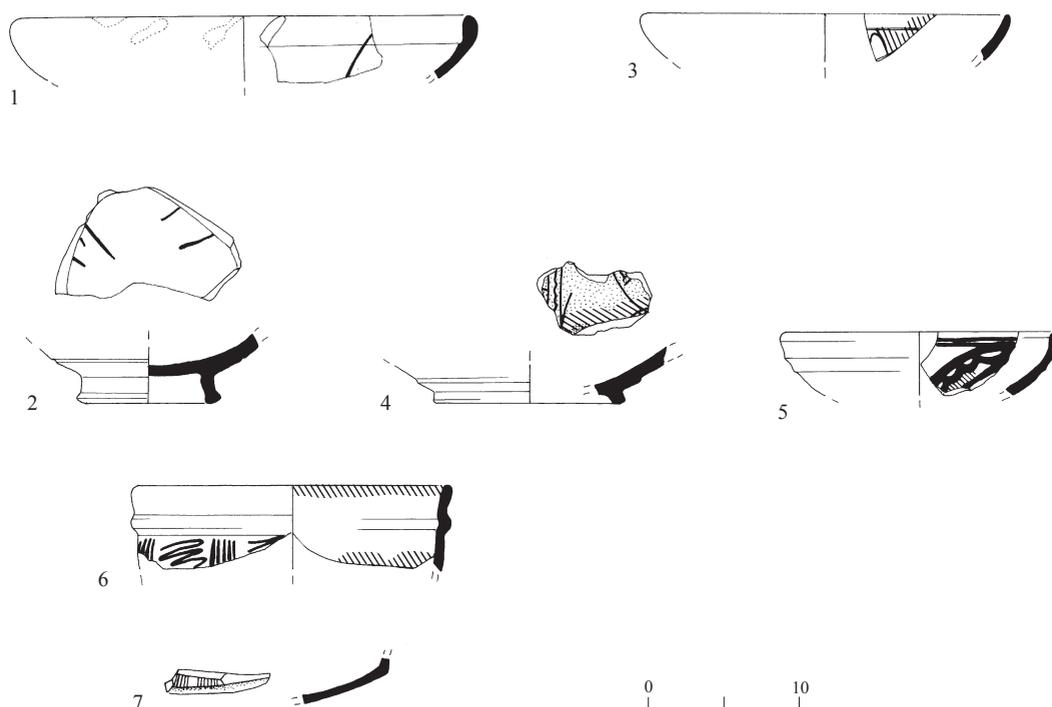


Fig. 10. Greater Sgraffito Wares.

No.	Type	Permit No.	Locus	Basket	Section <sup>1</sup>	Description
1	Bowl	A-1313	-	603/2	-	Yellowish red 5YR5/6; fine polymineral sand; white slip over entire sherd under green glaze and incised design on int.; glaze extending to rim and some splashes on ext.
2	Bowl	A-1313	-	603/1	P5.2	Yellowish red 5YR5/6; fine polymineral sand; white slip under green glaze and incised design on int.; slip and glaze splashes on ext.
3	Bowl	A-1313	21	202	-	Reddish yellow 5YR6/6; quartz sand; white slip on entire sherd under yellow and green glaze extending to rim; incised design on int.
4	Bowl	A-1313	51	512/1	-	Reddish brown 5YR4/4; quartz sand; white slip under yellow and green glaze with incised design on int.
5	Bowl	A-1313	10	102	P5.3	Yellowish red 5YR5/6; quartz sand; white slip under yellow and green glaze with gouged and incised design on int.
6	Deep bowl	A-1313	58	636/4	P5.4	Light red 2.5YR6/6; fine polymineral sand; beige slip under green glaze with incised design on ext; splashes of slip and yellowish brown glaze on int.
7	Deep bowl	A-3545	5	15/1	P5.5	Pink to reddish yellow 5YR7/4-7/6; quartz sand; beige slip under light green glaze with incised design on ext. splashes of slip and light green glaze on int.

<sup>1</sup> See Shapiro, this volume.

said with a high degree of certainty that they were produced in the same region.

It is also interesting that this ceramic type is absent from sites such as Ḥ. 'Uza (Stern and Tatcher 2009:174) and Yoqne'am (Avisar 1996:96), and was found only in very small quantities at Kh. Din'ila, while at other sites, such as Giv'at Yasaf (Stern 1999:125–126, Fig. 1:5–9) and Kh. Burin (Kletter and Stern 2006:192, Fig. 20:7, 8), Yellow and Green Gouged Ware was found in larger quantities. This may be connected to yet unclear chronological issues. Further typological and analytical studies of this type can reveal more information and assist in identifying its production center or centers.

*Deep Bowls with External Sgraffito* (Fig. 10:6, 7).— This type is a standardized deep bowl form with a ridge below the simple rim, straight walls, and a carination just before the rounded base. It is slipped and glazed on both the interior and the exterior. The glaze is green, and occasionally, yellowish with green splashes. The incised design usually consists of vertical combed and wavy lines, and occasionally, of combed or gouged designs on the interior as well. The type seems to date to the fourteenth and fifteenth centuries. Most vessels of this type were found at sites in the Galilee and the Golan,<sup>7</sup> suggesting that it was produced in a local workshop (Avisar and Stern 2005:18, Type I.1.5., Fig. 6:8, 9; Avisar 2008:91, Fig. 6.1:21, 22; Barbé and Shapiro 2012:73\*, Fig. 9:1). This agrees with the results of the petrographic analysis of the sherds (see Shapiro, this volume: Subgroup 1.1). Not many vessels of this type have been published, and, as in the case of Yellow and Green Gouged Ware, the type awaits further study.

*Painted Wares* (Fig. 11:1, 2).— A few fragments of closed vessels, apparently jugs, decorated with dark red/brown painted designs and occasional glaze splashes, were found at Kh. Din'ila. These sherds include one with a narrow neck and two handles with brown-painted

lines emerging from the neck (Fig. 11:1) and a handle fragment with red-painted lines and a splash of green glaze (Fig. 11:2). The type is not represented in the numeric data on the pottery because only body sherds were found. These vessels are distinguished by their light-colored fabric and by the red- or brown-painted designs, usually consisting of intersecting double lines. Splashes of dark green glaze occur on different parts of the sherds. Although the sherds presented here are very fragmentary (and not rims or bases), it nonetheless seemed significant to present and discuss this so-far unknown type.

Petrographic analysis reveals that they derive from two different production centers. The two-handled jug (Fig. 11:1) was produced from a fabric different from the rest of the vessels analyzed from Kh. Din'ila (see Shapiro, this volume: Group 3) and its production area could not be pinpointed. This is due to the fabric's geological formation (Taqiye Formation marl), which is widespread in the southern Mediterranean. While there are some occurrences of it in the Galilee, it is impossible to identify the exact production spot. Thus, it may have been produced locally, or in another region. The fabric of the handle (Fig. 11:2) is similar to that of the sampled baking dishes, and was manufactured from a *terra rossa* soil with inclusions typical of the Lower Cretaceous formations, suggesting production in either the Ḥananya Valley in Galilee, Mount Ḥermon, the southern Lebanon Range or Transjordan (see Shapiro, this volume: Subgroup 1.2). The handle fragment and perhaps, the two-handled jug, seem to belong to a type of light-fabric painted ware that has been found at a few other sites in Galilee, but has not yet been published. Fragments of this type have been found in contexts dating to the fifteenth through the seventeenth centuries at Safed, ez-Zuq el-Fauqani<sup>8</sup> and Ḥ. Sumaqa in the Golan (Tsioni 2010:228, 230–236, Figs. 8–12) and at other unpublished sites in the Golan (Avisar 2009:9). Accordingly, they seem to date to the late Mamluk and early Ottoman periods. These

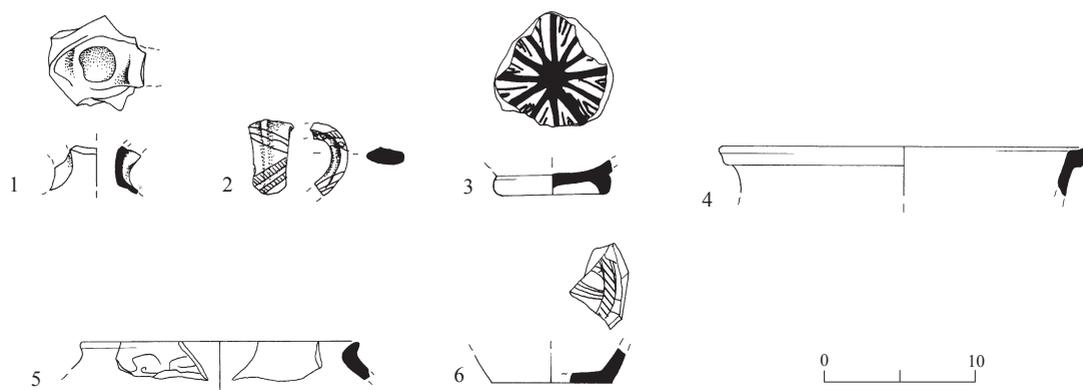


Fig. 11. Mamluk pottery: painted and imported wares.

No.	Type	Permit No.	Locus	Basket	Section <sup>1</sup>	Description
1	Jug	A-1313	12	108/1	P6.1	Pink 7.5YR7/4; gray and brown grits, possibly shell fragments; dark brown painted linear design on ext.
2	Jug handle	A-1313	55	602	P6.2	Very pale brown 10YR7/3, pink 5YR7/4 core; coarse quartz sand and dark grits; dark brown painted linear design and a drop of glaze
3	Bowl	A-3545	7	18	-	White 10YR8/2 soft-paste; quartz sand; black painted design under colorless transparent glaze on int.
4	Basin	A-1313	51	513	-	Brown 7.5YR, brown 7.5YR5/2 core; very fine mica and dark grits; green glaze on entire sherd
5	Short-necked jar	A-1313	51	515	-	Brown to dark brown 7.5YR4/4; quartz sand; white slip on entire sherd under green glaze; incised design on ext.
6	Bowl	A-1313	10	102/1	-	Yellowish red 5YR5/6, pink 5YR7/7 ext.; some very fine mica and white grits, possibly microfossils; white slip under light green glaze with incised design on int. and splashes of green glaze

<sup>1</sup> See Shapiro, this volume.

vessels are also very similar in general fabric appearance, form and type of decoration to Rashaya el-Fukhar Ware, which dates to a later period—that of the nineteenth and twentieth centuries. Rashaya el-Fukhar Ware was distributed in the Galilee, Golan and Lebanon, and was manufactured in a village named Rashaya el-Fukhar (hence, the name: *fukhar* means pottery in Arabic) on the southwestern slopes of Mount Hermon, just above the Hazbani River. Its name reflects its multi-generational connection to pottery production. Western travelers who visited the region during the nineteenth century mention that the village was

an important production center for decorated pottery and that there were numerous pottery workshops (almost one per household). The potters marketed their products, which included a variety of household wares, throughout the Levant (Syria, Lebanon and Palestine; Zevulun 1978; Olenik 1983). While this late production type is well-known from the archaeological and ethnographic record (Frankel et al. 2001:71; Walker 2009:54–55), what appears to be the earlier version (or prototype) of Rashaya al-Fukhar ware is not well-known, and although it has been mentioned (Avisar 2009; Tsioni 2010, see above), the type has not

been properly studied. Despite the visual and stylistic similarities, petrographic analysis has demonstrated that these two examples from Kh. Din'ila were produced from a fabric that is totally different from the Rashaya el-Fukhar wares that were also sampled petrographically (Shapiro, in prep.). Moreover, the two samples found here were made in two different pottery workshops.

#### *Imported Glazed Table Wares*

The Kh. Din'ila assemblage includes a few imported glazed wares. These comprise Soft Paste wares imported from Syria, and some glazed wares from Italy.

*Soft-Paste Wares, or 'Syrian Under-Glazed Painted Ware'* (Fig. 11:3).—Very few fragments of this ware, characterized by its fabric and glaze, were found at Kh. Din'ila. The fabric is fritty, white-colored and made from a soft-paste mixture of crushed quartz, white clay and glass-frit. The alkaline-based glaze did not preserve well, and acquired an iridescent film, similar to that of glass. The decoration on the bowl base presented here consists of painted geometric motifs in black under a transparent glaze. The Soft-Paste wares are dated from the end of the twelfth until the fifteenth centuries. They were manufactured in various production centers in Syria and were widespread throughout the Levant, in cities, towns and villages (Avisar and Stern 2005:25–33, Type I.2.3, Figs. 10–12; McPhillips and Walmsley 2007:135–136, Fig. 11:1).

*Italian Imports* (Fig. 11:4–6).—A few sherds of glazed vessels identified as Italian imports due to their fabric, glaze and shape were found. Three fragments, each representing a different type, are illustrated.

The first type is a basin with straight vertical walls, a square rim and dark green glaze on the interior and exterior of the vessel (Fig. 11:4). The mica evident in the fabric further indicates that this is an imported vessel. Such basins have been identified thus far at two additional sites

in the southwestern Levant, at Giv'at Yasaf and H. Burin. Their presence in Venice and Split, which was under Venetian domination during this timespan, as well as the fabric's appearance, suggest a Northern Italian, probably Venetian, origin (Avisar and Stern 2005:74, Type I.9.7, Fig. 31:9, 10).

The second type is a closed vessel with the shape of a short-necked jar covered with green glaze and with a thinly incised decoration on the base of the neck (Fig. 11:5). Although this form is less common, its fabric, glaze and incised decoration point to it belonging to a type, consisting mainly of bowls, known as 'Italian Monochrome Sgraffito'. This type has been found at various sites, among them Giv'at Yasaf, St. Mary of Carmel, Jerusalem and Ramla (Avisar and Stern 2005:73, Type I.9.5; Vroom 2003:170, Type 6.5.1).

A base fragment of a bowl decorated with sgraffito and polychrome glaze (Fig. 11:6) represents the third type. Its fabric contains mica. The fragment is undoubtedly from Northern Italy, belonging to a type known generally as 'Graffita Arcaica' that dates from the mid-thirteenth to the fifteenth centuries. Fragments of bowls of this type, similarly to the other two, have been found at various sites in the southwestern Levant (Avisar and Stern 2005:72, Type I.9.4, Fig. 31:1–3; Barbé and Shapiro 2012:69\*–72\*, Fig. 7:4).

#### RESULTS OF QUANTITATIVE ANALYSIS OF THE MAMLUK POTTERY

Once it became clear, in the early stages of this study, that most of the pottery from Kh. Din'ila dates to the Mamluk period, it was decided to conduct a rim-based quantitative analysis (see below). Establishing the relative quantities of the pottery types, as well as comparing them to other pottery assemblages, could provide insights into fashions in material culture, usage and changing trade patterns, thereby advancing the study from a simple pottery typology with parallels to an analysis on a much broader level.

Several methods of quantifying pottery assemblages exist; these vary considerably, and usually consist of count and weight. The count involves either a simple sherd count or a count of minimum forms. However, no single method is universally accepted by scholars, which creates a major problem when comparing results from one excavation site to those of another (see a discussion of this issue in Kletter and Stern 2006:198–200). The method of sherd-counting, and more specifically, rim-counting, was chosen here because the rim is the most characteristic part of the vessel, and is easily distinguished. We took into consideration that the number of rims cannot represent the absolute number of vessels, and that these numbers are affected by both the size of the vessels and the amount of fragments each vessel provides. The latter is obviously influenced by a variety of factors, including manufacturing technology, use, breakage on discard, and post-depositional history. However, the method of rim counting, used as the sole counting system, makes it possible to show the relative frequency of each type while comparing sherd assemblages rather than vessel units. In addition, this method is simple, reliable and not as time-consuming as the methods mentioned above.<sup>9</sup> The type counts and their relative frequencies appear in Tables 1 and 2.

The analysis leads to the following conclusions: (1) local glazed wares outnumber all the other wares; (2) the majority of the unglazed handmade wares are open forms and the majority of the unglazed wheel-made wares are closed forms (jugs and jars); (3) the number of cooking pots is double the number of open baking dishes; (4) among the local glazed wares monochrome glazed bowls outnumber by far other glazed-bowl types; (5) there are very few imported wares.

A preliminary note can be made about forms and functions. It seems that the small number of wheel-made open forms (in fact, at Kh. Din'ila, only one wheel-made basin was found) is because of the large number of handmade open forms. The opposite occurs with the closed

vessels: the small number of handmade closed forms may be related to the large number of wheel-made closed forms. The reason why the number of cooking pots is double that of open baking dishes is unknown, and may be connected to cooking traditions. The study of these phenomena in other assemblages may lead to conclusions regarding the significance played by geography and the differences between urban and rural ceramic assemblages. These occurrences demonstrate the importance of studying a pottery assemblage as a whole and of noting the relative quantities of each ceramic type.

Comparing the data from Kh. Din'ila to those from other sites is difficult because at only a few sites was the pottery counted in a similar manner. These sites include the courthouse site at 'Akko (Stern 1997:36, Table 1) and Ḥ. Bet Zeneta (Getzov 2000:97\*, Table 1), both situated in the western Galilee and dating exclusively to the thirteenth century, and Kh. Burin in the eastern Sharon, dating to the thirteenth and fourteenth centuries (Kletter and Stern 2006:197–200, Tables 1–3, Fig. 24). Because the first two sites date from a slightly earlier period, when the country was under different (Frankish) rule, and the last site is from a different geographic region and dates from an early phase within the Mamluk period and on, only general conclusions may be made: (1) The highest percentages of local glazed ware were recorded at Kh. Din'ila; (2) Imported glazed wares were found in very small numbers, as was the case at Ḥ. Bet Zeneta. Both sites were small rural villages, with few connections to the sea. However, it is important to note that at Ḥ. Bet Zeneta, occupation dates to a period when imported wares were more abundant while at Kh. Din'ila, there may also be a chronological factor. In general, there are fewer imports in the Mamluk period than in the Crusader period; (3) The proportions of cooking wares and wheel-made vessels at Kh. Din'ila do not differ from those at the other sites, showing that these all are domestic assemblages, with similar proportions between the different functional

Table 1. Quantification of Pottery Types

No.	Pottery Group	Fig. No.	Quantity
1	Crusader-period cooking ware	1:1, 2	8
2	Crusader-period imported glazed bowls	1:3–5	9
3	Undecorated handmade wares: bowls and lids	2; 3:1, 2	208
4	Undecorated handmade wares: closed vessels	3:3–6	9
5	Wheel-made wares: basin	4:1	1
6	Wheel-made wares: jugs with swollen necks and everted rims	4:2–6	31
7	Wheel-made wares: jugs with funnel-shaped necks and simple or out-turned triangular rims	4:6–8, 11	41
8	Wheel-made wares: jug spouts	4:9, 10	22
9	Wheel-made wares: juglets	4:13	2
10	Wheel-made wares: jars with thickened or out-folded rim and high ribbed neck	5:1, 2	72
11	Wheel-made wares: jars with a thickened or out-folded rim and a high ribbed neck, thumb ridge below rim	5:3	2
12	Wheel-made wares: jars with a plain high neck, out-turned rim	5:4	1
13	Wheel-made wares: neck-less jars with narrow opening and slanting walls	5:5	3
14	Mold-made wares: flasks	5:6, 7	0
16	Glazed wares: baking dishes; mustard-yellow glaze	6:1–7	29
18	Glazed wares: baking dishes with gutter rim; brown glaze	6:8–10	4
19	Glazed wares: cooking pots with everted rim, neck-less	6:11, 12	33
20	Glazed wares: cooking pots with everted rim and short neck	6:13	33
21	Glazed wares: cooking pots—other types	6:14–16	7
22	Local glazed wares: monochrome bowls	7:1–15	225
23	Local glazed wares: monochrome jug and varia	7:16	2
24	Local glazed wares: monochrome storage jar	7:17	2
25	Local glazed wares: oil lamps	8; 9:6	2
26	Local glazed wares: reserved-slip bowls	9:1–3	2
27	Local glazed wares: slip-painted bowls	9:4, 5	17
28	Local glazed wares: sgraffito bowls	10:1–4	2
29	Local glazed wares: yellow- and green-gouged ware	10:5	1
30	Local glazed wares: deep bowls with external sgraffito	10:6, 7	11
31	Painted wares	11:1, 2	0
35	Imported glazed wares: soft-paste wares	11:3	2
36	Imported glazed wares: Italian imports	11:4–6	2
37	Uncategorized glazed wares		30
<i>Total</i>			<i>813</i>

forms; (4) The handmade wares at Kh. Din'ila, although recorded in large numbers, nonetheless occur in lower percentages than at the two other rural sites, Ḥ. Bet Zeneta and Ḥ. Burin. Again, this may be due to chronological

differences. If indeed the assemblage from Kh. Din'ila dates slightly later than that from Ḥ. Burin, this may be because handmade wares gradually became less popular, and thus, their numbers fell.

**Table 2. Simplified Comparative Analysis**

Pottery Groups	No.	%
Handmade vessels	217	27.3
Wheel-made vessels	175	22.0
Cooking ware	106	13.4
Local glazed table ware	294	37.0
Imported glazed table ware	2	0.3
<i>Total</i>	<i>794</i>	<i>100.0</i>

#### DISCUSSION AND CONCLUSIONS<sup>10</sup>

The pottery from the later periods recovered from Kh. Din'ila seems to date from two phases, the Crusader (thirteenth century), and the Mamluk and early Ottoman periods (roughly fourteenth–sixteenth centuries), when there seems to have been a small village at the site. There may have been a gap between these phases (sometime in the fourteenth century?); however, this can only be assumed, as our knowledge of Mamluk and early Ottoman pottery is insufficient at present to date the different phases within this timespan. The absolute lack of clay smoking pipes (that begin to appear in the seventeenth century), as well as the absence of the site in the Ottoman tax registers from the late sixteenth century (Hütteroth and Abdulfattah 1977), indicates clearly that the site was no longer occupied by the seventeenth century.<sup>11</sup>

The few pottery sherds that date to the thirteenth century apparently derive from a different location at the site, yet unexcavated, that was occupied during the Crusader period, perhaps the group of buildings at the southern end, identified by Frankel and Getzov (this volume) as being different in alignment and building techniques. In addition to the ceramic types that date to the thirteenth century defined here as Crusader, there are Mamluk ceramics, which likewise date to the thirteenth century. They were attributed here to the Mamluk period because these types have a long chronological

span. These include the handmade wares, the mold-made flasks, some of the glazed bowls, the oil lamps and the soft-paste ware.

It is important to say that an attribution of these sherds to the Crusader period does not necessarily have implications as to the consumers' ethnos. From the 1270s on, Kh. Din'ila and the surrounding area was in Muslim hands, while the coastal area was still in Frankish control (Barag 1979). During this time, imports of glazed ceramics continued through the port of 'Akko (Stern 2012a) and these imported wares were also used by the indigenous population. A clear example is the array of thirteenth-century imports found at H. Bet Zeneta (Getzov 2000:95\*, Fig. 25).

Notwithstanding the poor stratigraphic data, and despite the fact that this assemblage does not contain pottery types previously unknown or unpublished (especially in Aviszar and Stern 2005), this is the first Mamluk pottery assemblage in the southwestern Levant in general and Galilee in particular to be comprehensively studied, utilizing quantitative analysis and petrographic analyses of a selection of wares.

As for the chronology of the Mamluk–early Ottoman assemblage, while we lack the firm dating basis that is often provided by numismatic evidence, the typological study above, as well as the firm dating of some of the cited typological parallels, suggest that the ceramic assemblage unearthed here dates to the fourteenth, fifteenth and perhaps, the early sixteenth centuries. The petrographic results from Kh. Din'ila (samples included various functional types such as unglazed jugs and jars, cooking ware, glazed bowls and an oil lamp) indicate that most of the pottery that was analyzed was most likely produced in the southern Levant. The exact provenience could not be pinpointed, because some of the soils and geological formations from which the fabrics of these vessels derive can be found in general at different locations in the southeastern Mediterranean region (see Shapiro, this volume). As Mamluk-period pottery workshops are not known from these

regions and as petrographic or any other sort of provenance analysis of Mamluk pottery is rare, these did not assist in further establishing the exact production place. Few petrographic studies have been published to date, one is from the Golan (Qazrin: Porat and Killebrew 1999) and two others are from sites in Jordan (Karak: Mason and Milwright 1998; and Khirbat Faris: Abu-Jaber and al-Sa'ad 2000). The petrographic study of Middle Islamic pottery from Karak, which was an administrative center with a material culture reflecting the wealth and prestige of its inhabitants, has shown that most of the pottery was locally produced. These vessels include unglazed jugs, lamps, mold-made flasks and glazed bowls (Mason and Milwright 1998:180–185). Results of analysis of one of these types, a glazed bowl of Yellow and Green Gouged Ware found also at Kh. Din'ila (Fig. 8:10), revealed that it most probably was produced in the same workshop as our example. Khirbat Faris, as opposed to Karak, is a rural site situated near an important road leading to the southwestern Levant. Petrographic analysis of wares from Kh. Faris indicates that while the handmade geometric painted ware and a type of a black cooking pot were produced locally, the wheel-made glazed and cream-slipped wares were imported to the site. A comparison of the petrographic analysis results of the glazed bowls from Kh. Faris and those from Kh. Din'ila revealed that they were not produced in the same region. Shapiro (in prep.) analyzed Mamluk pottery from Umm el-Faraj (Ben 'Ami), mainly sugar pots, as well as three domestic vessels, a jar, a cooking pot and a baking dish, types similar to those from Kh. Din'ila.<sup>12</sup> The results showed that although produced from clay of the same geological formation, based on their different temper, they seem to have been made in different workshops.

The data gathered from the petrographic studies at Kh. Din'ila, as well as Umm el-Faraj, Karak and Kh. Faris have assisted us in formulating some preliminary observations regarding pottery production, distribution and consumption during the Mamluk period. First,

similar wheel-made types were produced in different regions. Some were produced in close proximity to the site and others were brought from slightly distanced regions. Apparently, only a small number of wares were traded over long distances, for instance, the Soft Paste wares from Karak that were analyzed and found to have been produced in Damascus (Mason and Milwright 1998:185). The implications from the scanty data that could be collected from these three petrographic studies demonstrate the imperative of conducting more of this kind of research.

Petrographic analysis also revealed information concerning the imitation of imported ceramic vessels in the local workshops of the southwestern Levant. Two different ceramic types, of forms known to be produced elsewhere, were made from a local fabric. One is a glazed bowl with a simple rim, a rounded profile and a high base (Fig. 7:13) that dates to the late sixteenth–early seventeenth centuries (early Ottoman period). Similarly shaped bowls, but entirely glazed on the exterior, were produced in the Troad area and circulated to other sites in Turkey and Cyprus. The other type is a lamp that dates to the thirteenth and fourteenth centuries (Fig. 8); similar lamps were imported from Northern Syria during the thirteenth century. Local production of a bowl type that seems to imitate current fashions in Ottoman glazed wares is very interesting indeed, and is a phenomenon similar to the production of tobacco pipes a few decades later. Locally manufactured tobacco pipes followed the shapes produced in the major centers of the Ottoman Empire (Robinson 1985:153). The local imitation of imported pottery forms during the Mamluk and early Ottoman periods seems to indicate that ceramic wares were mainly produced locally and that at least some of the ceramic forms produced in these workshops were inspired from sources in different regions. In the case of the Ottoman wares, this seems to stem from a desire to produce forms similar to those produced in the political and cultural center of the time—Turkey.

A comparison of the Kh. Din'ila pottery assemblage to other Crusader- and Mamluk-period pottery assemblages has led to a number of observations. First, there was an obvious break in ceramic production technologies concurrently with the fall of the Crusader kingdom in 1291 and the subsequent Mamluk ascendancy in the southwestern Levant, especially in the Galilee and Golan. This is particularly obvious with the cooking ware. The forms and the fabrics of the Mamluk cooking wares are utterly different from those of the Crusader period, indicating that there was a shift in the ceramic-production tradition and a possible change in the geographic location of the workshops that produced cooking wares. The Crusader-period cooking wares from Acre that were subjected to chemical and petrographic analysis were most likely produced in Beirut (Waksman 2002; François et al. 2003; Stern and Waksman 2003:169–171, 173–175, Figs. 3, 5; Waksman et al. 2008:163–166, 178–180, Figs. 7, 8, 14). Although Subgroups 1.1. and 1.2 could have been produced in the Beirut area, the fabrics are not identical. Another example of this break in ceramic production technologies after the Crusader period is the shift in the production of unglazed wheel-made wares. During the Crusader period, they were produced mainly in the major coastal sites, the best-known vessels being those from 'Akko ('Akko wares; Stern and Waksman 2003:168–169, 173–175; Stern 2012a:34–38, Type AC.PL, Pls. 4.1–4.11). Preliminary observations point to another possible production center in the area of Jaffa.<sup>13</sup> In the Mamluk period, the unglazed wheel-made wares were produced from *terra rossa* soils, found inland (see Shapiro, this volume). The change in ceramic production technologies and the sudden termination of imported wares from the entire Mediterranean basin (Stern 2009:231) clearly show that the fall of the Second Crusader Kingdom and the change of regime was accompanied by a sudden change in ceramic production and distribution patterns. Apart from the change in fabric and form, there

seems to be a difference in the distribution patterns of the wares. The cooking wares were apparently produced and distributed on a more local level—both cooking-ware forms found at Kh. Din'ila are characteristic of the north (see below) and were not found in the central and southern regions of the southwestern Levant. For instance, at Ḥ. Burin, al-Burj al-Aḥmar, Ramla and Giv'at Dani, this cooking-pot type was not found, and handmade cooking pots prevailed (Kletter and Stern 2006:182–183, 188; Pringle 1986:139–140, Fig. 41:1; Cytryn-Silverman 2010:124, Pl. 9.30:1–7; Lazar 1999:130\*, Fig. 5:3–9). The border line, where both handmade and wheel-made cooking pots were found, can be drawn somewhere between Nazareth (Alexandre 2012:75–77, Fig. 3.11:1–4) and Yoqne'am (Avisar 1996:136–139, Types 10, 11, Figs. XIII.97, 98; 2005:63–66, Figs. 2.18:11; 2.20:1–4). At the latter site, both types were counted and found in relatively the same quantities. Furthermore, petrographic analysis of some of the cooking wares from Kh. Din'ila show that they were made from 'Basaltic Brown Mediterranean' soils, which derive from Upper or Lower Galilee or other regions. This complete break in pottery production techniques did not occur in the transitional phase between the Fatimid and Crusader periods. On the contrary, in this transitional period, the cooking wares and the wheel-made unglazed and glazed wares continued to be produced in similar forms and fabrics.<sup>14</sup> Only later is a gradual change in forms and fabrics detected (see Stern 2009:227–228, Assemblage I). Another interesting observation regarding the wheel-made cooking pots can be made. While the most common type (Fig. 6:11–13) is abundantly found in the Galilee and Golan, but not farther north or south, the less common type with the dark fabric (Fig. 6:14–16) represents the cooking-pot type commonly used farther north, in Greater Syria. Given that cooking-pot shapes indicate cooking traditions, it could be suggested that during the Mamluk period, similar food-preparation traditions were shared by the people residing in villages and urban

centers of the northern part of the Mamluk sultanate. Research is lacking regarding the difference in cooking results when using wheel-made and handmade cooking pots.

Slight changes in ceramic forms can be detected in the transition between the Crusader and the Mamluk period and can be traced in the finds from Kh. Din'ila. During the Mamluk regime, changes in the bowl size and the common jug form apparently reflect changes in dining customs. The glazed wares were produced throughout the region in smaller, local workshops, all making similar bowls. A general change in the size of the glazed bowls may be observed: in the Mamluk period, they were larger (diam. c. 40–50 cm) than they were in the Crusader period (diam. c. 15–20 cm). This appears to reflect a change in eating customs during the transition from the Crusader to the Mamluk periods, featuring a transition from small bowls for individual portions to central communal dishes (Levanoni 2005:219; Lewicka 2011:428–429). The same transition was detected at Boeotia, Greece; there, the ceramic evidence was also compared to pictorial sources (Vroom 2003:229–239, 303–334). As for the jug forms, in the Crusader period most jugs did not have spouts (for almost complete profiles, see Stern 2012a: Pls. 4.6:5, 6, 10, 11, 13, 18, 20; 4.7:3), but in the Mamluk period, most of the jugs have a predominant tubular spout on the vessel's shoulder opposite the handle, and a narrow rim and neck (for complete vessels, see Avissar and Stern 2005:108–110, Type II.4.2, Fig. 45:4, 5). This form, named *ibriq* in the Ottoman period, was very common during that time and was found throughout the Ottoman Empire from the mid-sixteenth century on (Vroom 2003:179, Fig. 6.46:W38.Ex2). Although spouted jugs are known in our region from previous periods, they became the main jug type during the Mamluk period. This is explained in written sources from the Mamluk period dealing with table manners. These sources, studied by Levanoni (2005:219; and see also Lewicka 2011:434–438), discuss table manners at a

meal with shared serving vessels, in which, according to Muslim tradition, the diners did not have personal utensils. In order to keep the utensils clean from saliva, diners were required to drink without touching the vessel with their lips. The projecting spouts on the jugs were very useful for this requirement. Thus, the mass appearance of spouted jugs during this era is probably connected to this custom.

Another observation is that there is a complete absence of Hand Made Geometric Painted Ware (HMGPW), usually recovered at Mamluk-period sites (Kletter and Stern 2006:183–184), and of simple unglazed bowls, common in other Mamluk-period assemblages in the southwestern Levant. At Kh. Din'ila, only undecorated handmade wares were found in significant quantities. This seems to have a geographic significance, corroborated by results of the Survey of Upper Galilee, which recorded scarce quantities of HMGPW in the western Galilee, but abundant numbers in the eastern Galilee (Frankel et al. 2001:70, Pl. 38). The same obtains at Ḥ. Bet Zeneta, in the western Galilee, where only a few painted jugs were documented (Getzov 2000:87\*). While geographical factors seem to lie behind the absence of HMGPW at Kh. Din'ila, the reason for the absence of unglazed simple bowls, usually found at Mamluk-period sites (Avissar and Stern 2005:82, Type II.1.1.3, Fig. 35:7–10), seems to be different. A close study of assemblages that contain this type of bowl revealed a difference between those from urban/large administrative centers and rural ceramic assemblages. Unglazed simple bowls usually occurred at urban sites, an outstanding example being the finds uncovered from the al-Waṭa, Safed excavations. There, unglazed simple bowls outnumbered the other types of unglazed wheel-made wares (Edna Amos and Nimrod Getzov, pers. comm.). Other excavated urban sites, where they were found in large quantities, are Baniyas, Ramla and Jerusalem (for citations to these sites, see Avissar and Stern 2005:82, Type II.1.1.3, Fig. 35:7–10 and Avissar 2008:95, Fig. 6.3:7, 8; Cytryn-Silverman

2010:121–122, Pls. 9.28, 9.34:4; Photographs 9.26–9.29; Torge 2011:102, Figs. 9:6–17; 10:1; 19:1). Rural sites with assemblages containing this type are H. Burin and Giv‘at Dani (Kletter and Stern 2006:184–185, 198: Table 1, Type 5) and Kefar ‘Ana (Gophna and Taxel 2007:47, Fig. 3.8:3), where they were found in notably smaller numbers. Their substantial presence at Nazareth is apparently related to the productions of a local potter, as, during the Mamluk period, the site was merely a village (Alexandre 2012:69, Fig. 3.7:1–10). A look into the written sources dealing with cooking in the Mamluk period reveals that these bowls seem to be connected to urban dining habits. Levanoni has shown that in the Muslim cities, only the wealthy could maintain a kitchen in their homes because of both the danger of fire and the high costs. The lower socioeconomic population of the city bought prepared food in the markets, sold in clay ‘take away’ containers and in inexpensive clay utensils for eating in the cooks’ shops (Levanoni 2005:204–207; and see Lewicka 2011:428). These unglazed simple bowls, found in abundance in archaeological excavations in urban centers, would appear to be the bowls mentioned in the written sources. Therefore, they appear in small quantities in some rural settlements or not at all, as is the case at Kh. Din‘ila.

The sudden break in the import of glazed wares to the areas of the former Crusader kingdom from elsewhere in the Mediterranean is conspicuous, mainly because the distribution of these wares continued during these periods in

other regions, especially more central areas such as Egypt (for example, in Alexandria: François 1999). It seems that after the southwestern Levant became a remote province of the Mamluk sultanate, the vast number of ships that called the ports during the Crusader occupation halted almost immediately. As noted, imports in the Mamluk period were far scarcer than in the Crusader period. Three sherds of Italian types found at Kh. Din‘ila apparently arrived with Italian merchants with commercial interests, mainly the purchase of cotton and other agricultural goods in the southwestern Levant (Ashtor 1978:680–682; Arbel 1988). It is not clear, however, if these wares arrived directly via these merchants or in some other, indirect way. It is interesting to note that at another village dated to the same period, Tell er-Ras (Giv‘at Yasaf), situated closer to the Mediterranean Sea, larger quantities of Italian pottery were found (Stern 1999:128–132, Fig. 2). Apparently, villages (e.g., Tell er-Ras) situated closer to the coast had more connections with the Venetian merchants than isolated inland villages (for example, Kh. Din‘ila and Giv‘at Dani [Lazar 1999:128, Fig. 2:7]).

In conclusion, this study sheds light on ceramic production trends during the Crusader and Mamluk–early Ottoman periods in the various regions of the southwestern Levant. It has provided the beginnings of a better understanding of Mamluk-period rural household ceramic assemblages in this region. I hope that this paper has contributed a foundation for future study.

#### NOTES

<sup>1</sup> I would like to thank Rafael Frankel and Nimrod Getzov for inviting me to study the pottery from Kh. Din‘ila almost two decades ago, when the exact date of these medieval pottery types was not well-known. It was their suggestion, shortly after I

joined the Department of Antiquities (later the Israel Antiquities Authority) and worked with them on the pottery finds from the Archaeological Survey of Upper Galilee, that I enter this then-undeveloped field of research. I owe them a great deal for their

assistance and support while I wrote this article in particular, and while studying Crusader and Mamluk pottery in Israel in general. The article was originally written in 2008, and slightly updated early in 2013.

<sup>2</sup> Sites from other regions in Israel with comparable Mamluk-period assemblages published after 2005 recommended for comparison include Yoqne'aim (Avisar 2005), Nahal Haggit (Seligman 2010), Khirbat Ibreika (Yannai 2006) and Tell Jatt (Yannai 2010); two sites in the Jerusalem area—Khirbat Ka'kul (Boas 2006) and Khirbat 'Adasa (Khalaily and Avisar 2008); Ramla (Cytryn-Silverman 2010; Torge 2011); a nearby rural site, Khirbat el-Ni'ana (de Vincenz and Sion 2007); Kefar 'Ana (Gophna and Taxel 2007:47–55); and 'En Gedi (de Vincenz 2007). The chapter on the ceramics from Kerak, in southern Transjordan, should also be consulted (Milwright 2008:135–255).

<sup>3</sup> Anastasia Shapiro examined the fabric descriptions for the pottery vessels presented in this article using a magnifying glass ( $\times 10$ ). We then selected the vessels for petrographic study according to fabric and typological considerations. I would like to thank Anastasia for her part in this study, and for the excellent cooperation we have established over the years while working on this and other projects.

<sup>4</sup> The pottery dated to the thirteenth century and dated here to the Crusader period is similar to pottery that was found at 'Akko. However, the Crusader and Mamluk periods in fact overlap during the thirteenth century. Thus, it is possible that some of the sherds grouped with the Mamluk pottery date to the Crusader occupation of the site, for two main reasons. The first is that some types that were in use during the thirteenth century would be defined in some parts of modern Israel as 'Crusader' (for example, those from Acre), while others, as 'Mamluk' (for instance, those from Jerusalem). The second reason is that some of these types have a long chronological range, from the thirteenth to the fourteenth centuries, i.e., the period that extends from the end of the Crusader to the beginning of the Mamluk period.

<sup>5</sup> Four well-defined strata were excavated at ez-Zuq el-Fauqani by Moshe Hartal (Hartal 2008). I thank Moshe for inviting me to study the ceramic finds from this excavation. The preliminary study of the pottery showed that the four strata date to the

fourteenth–fifteenth (Mamluk period), the sixteenth (early Ottoman period), the seventeenth (likewise early Ottoman period, the date established based on the occurrence of only seventeenth-century tobacco pipes) and the eighteenth–nineteenth (late Ottoman period) centuries.

<sup>6</sup> Since this article was originally written, Smadar Gabrieli has conducted research on the handmade wares in Northern Israel and Jerusalem. The results are currently being processed; however, at this stage, it could be said that despite their close association in many areas and the fact that many publications, as this one, consider the decorated and undecorated handmade wares to be part of a larger, uniform corpus of handmade pottery, there are a number of indications that the two are not part of the same industry. There are differences in the distribution patterns and in the use of a peculiar manufacturing technique (Smadar Gabrieli, pers. comm.).

<sup>7</sup> They are clearly absent in ceramic assemblages in southern Israel (see Cytryn-Silverman 2010).

<sup>8</sup> Safed fortress, excavated by Hervé Barbé (Reg. No. A-3611/2002). I would like to thank Hervé for inviting me to study the ceramic finds. For ez-Zuq el-Fauqani, see n. 5.

<sup>9</sup> Only fragments larger than 2 cm were counted. Rim fragments showing a fresh break or that had been joined during restoration were counted as one.

<sup>10</sup> For further discussion of the historical and social implications that can be drawn from the study of ceramic assemblages on Mamluk village life, see Walker 2010. I gave Walker an early version of this current article that she incorporated in her article.

<sup>11</sup> I would like to express my thanks to Rafael Frankel for confirming this assumption.

<sup>12</sup> The jar from Ben 'Ami is similar to Kh. Din'ila Fig. 5:2; the cooking pot, to Fig. 6:14, 15; and the baking dish, to Fig. 6:1–3.

<sup>13</sup> Katherine Strange Burke and I are currently studying the Crusader-period pottery from various IAA excavations in Yafo (Jaffa).

<sup>14</sup> See, for example, the definition of ceramic phases in the Caesarea pottery assemblage, where Arnon has combined the late Fatimid period and the early Crusader period in one phase (Arnon 2008:26, Stratum III).

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