

THE FATIMID, CRUSADER AND MAMLUK–EARLY OTTOMAN CERAMIC FINDS FROM THE ‘AKKO MARINA: SOME INSIGHTS INTO MEDIEVAL MARITIME ACTIVITY

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Amongst the antiquities scooped from the seabed while deepening the ‘Akko Marina (Galili et al. 2002; Kool 2006) are ceramic sherds dating from the eleventh to approximately the sixteenth centuries CE, spanning the Fatimid, Crusader and Mamluk–Early Ottoman periods.¹ These sherds undoubtedly reflect part of the activities that took place in the port during these periods, and, therefore, are presented below.

HISTORIC CONTEXT OF THE FINDS

‘Akko is situated on the coastal plain of northern Israel, on the shore of the Mediterranean Sea. In the Early Islamic (Umayyad to Fatimid), Crusader and Ottoman periods, the ancient settlement was located at the northern end of a natural sandy bay, on a peninsula that is part of a calcareous sandstone (*kurkar*) ridge. This bay is protected from most winter storms, and is a fair harbor, thus providing easy access for ships coming from the western Mediterranean and serving as an important port from the Hellenistic period onward (Stern 2007:6–7).

In the Fatimid period, ‘Akko was a fortified city, with an inner harbor that was built in c. 965 CE.² The army of the First Crusade that poured into the coastal plain in 1099 was not able to take ‘Akko. Only in 1104, after capturing Jerusalem in 1099 and establishing the Latin Kingdom of Jerusalem, did Baldwin I conquer ‘Akko with the aid of the Genoese fleet (Pringle 2009:4–5).

During the days of the Latin Kingdom of Jerusalem (1099–1291), the urban centers of the Levant, and particularly those on the coast,

developed dramatically. The ports of the Latin East became thriving commercial centers that attracted a substantial volume of international trade. Tyre and ‘Akko were outlets for the trade routes of the Orient, and the position of the Frankish settlements as a meeting point between East and West meant that the mercantile cities of Genoa, Pisa and Venice took great interest in them. The early decades of the thirteenth century were characterized by economic growth in the Latin Kingdom of Jerusalem, and the reason for this economic growth was much connected to ‘Akko, the capital and main port of the Kingdom. In this period ‘Akko reached the height of its prosperity. Merchants from all over the Mediterranean basin gathered in its lanes and quarters, and its port became a conduit for goods moving both east and west (Pringle 2009:5–15).

From the mid-thirteenth century, the Mamluks surrounded the Christian territories and, beginning in 1260, Baybars initiated systematic attacks on these territories, capturing towns and fortresses in the Latin Kingdom of Jerusalem and the Frankish states. On May 18, 1291 the new Mamluk sultan, al-Ashraf Khalil, captured ‘Akko after a 44-day siege. The king and his nobles escaped to Cyprus, and many of the defenders and inhabitants of the city died. The Mamluk conquest was a very violent one. The sultan burnt the city and destroyed its fortifications and some of its buildings to deter attempts of new crusades to re-conquer the Holy Land. ‘Akko’s place as the northern capital was taken over by Zefat (Safed), and it was left desolate for over 300 years, save very

limited activity surrounding the port, where Venetian merchants were allowed to continue the trade of cotton (Pringle 2009:11–15, 24–27). Pilgrims' accounts of the fourteenth and fifteenth centuries mention Venetian merchants storing cotton in the port and in nearby cellars. Some of them resided in a tower near the port, possibly Burj es-Sultān, which carries a Mamluk inscription dated 1436–7, in the reign of Sultan Baybars (Sharon 1997:26, 31–34). In the early fifteenth century, a new 'Akko is mentioned (Acre la noeuve), located two miles from the port. In 1469, a khan, where the merchants resided, is mentioned for the first time. Still, the main activity was that of the port, which operated because of the rich hinterland that supplied lucrative commodities for export. Venetian merchants continued to frequent 'Akko even after the Ottoman conquest, later to be followed and mostly replaced by French merchants in the middle of the sixteenth century and by Dutch merchants in the early seventeenth century (Arbel 1988), but the city itself remained by and large deserted.

THE POTTERY

As noted, ceramics of the periods reviewed above were found in the harbor of 'Akko. Their relative quantities, however, differ. From the Fatimid period, only two sherds were identified. The bulk of the pottery retrieved dates from the Crusader period, and very few sherds can be attributed to the subsequent Mamluk and early Ottoman periods.

Pottery of these periods has also been found in excavations on land at 'Akko, such as the Courthouse Site (Hartal 1997; Stern 1997), the Hospitaller Compound (Avisar and Stern 1994; 1998; Stern 1999a; 1999b) and the Knights' Hotel (Syon and Tatcher 1998). The largest quantities again date from the Crusader period (for the pottery from the two last excavations, see Stern and Waksman 2003; Stern 2007; 2012; Waksman et al. 2008). The study and classification of these Crusader-period assemblages helped define and date the contemporary vessels that were

retrieved from the seabed, and therefore lacked stratigraphical context. Some pottery from the Fatimid period was found in various excavations at 'Akko (Arnon, forthcoming), and only very few sherds dating to the Mamluk–early Ottoman period were uncovered.

The majority of the Crusader and Mamluk–early Ottoman pottery found in the Marina had been imported. The finds from the other excavations in 'Akko showed that ceramics were imported in small quantities during the first Latin Kingdom of Jerusalem (the twelfth century), and in larger quantities during the second Latin Kingdom (the thirteenth century). The wares came from different production sites in the Mediterranean and were transported by sea. The main production centers were situated on the Levantine coast (Lebanon and northern Syria), the Byzantine area (Greece and Turkey), Cyprus, and southern Italy and Sicily (Avisar and Stern 2005:34–80; Stern 2007; 2012:40–99). Pottery assemblages are very similar in thirteenth-century Frankish sites in Israel, Syria and Cyprus, suggesting the existence of a well-established coastal trade in ceramic vessels (Pringle 1986). The pottery from the Mamluk and early Ottoman periods retrieved from the 'Akko seabed consists only of imports, most apparently from Italy, but some from the Aegean region.

Examples showing the varieties within each group of pottery found during the deepening of the 'Akko Marina are presented here. Of the Fatimid period, only a cooking bowl and a glazed bowl are represented. The pottery dating to the Crusader period consists of different types of glazed bowls, cooking ware, amphorae, a lid and oil lamps. The few sherds from the Mamluk and early Ottoman periods all belonged to glazed vessels.

The original color of the fabrics and especially the glaze of the vessels were altered by their long immersion in the harbor. The glaze on some vessels has blackened because of the presence of sulfur in the seawater (see Segal, this volume). This phenomenon of glaze turning to black was mentioned by Armstrong

(1991:335, 338) while dealing with pottery which probably came from a shipwreck in the northwestern Aegean. In the description of the pottery sherds below, both the present color of the fabric, and the original color of the glaze are noted, where possible.³

THE FATIMID PERIOD (Eleventh Century)

Two vessels typical of the local Fatimid ceramic assemblage were found. These are a cooking bowl (Fig. 1:1) and a glazed bowl (Fig. 1:2). The cooking bowl has a folded rim and a horizontal

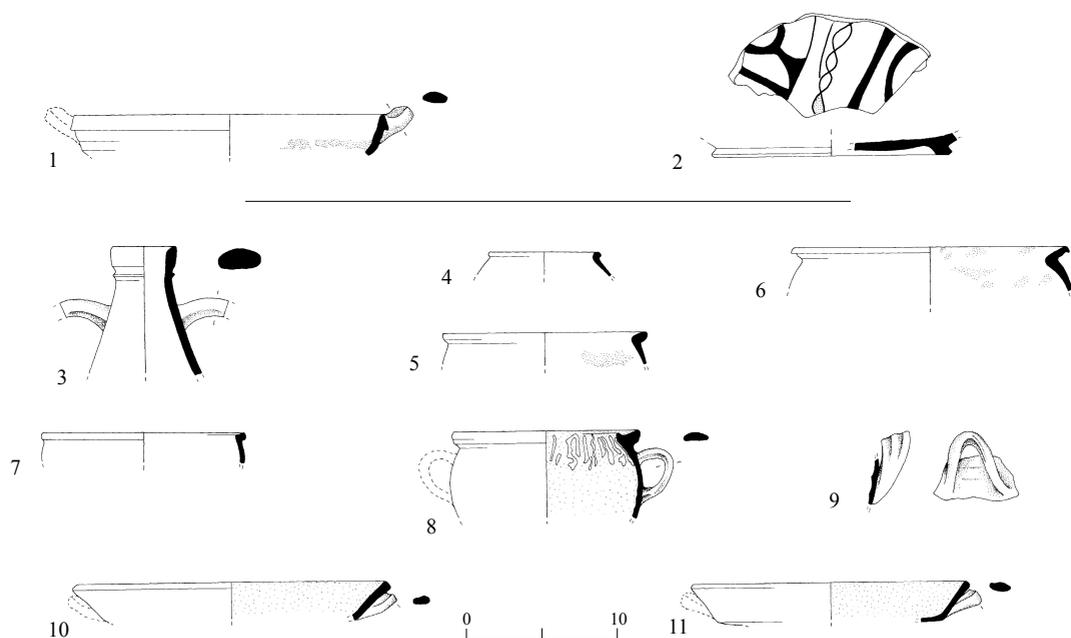


Fig. 1. Pottery of the Fatimid and Crusader periods (Levantine coast).

No.	Type	Reg. No.	Description
1	Cooking pot	14/325	Reddish brown fabric with some white grits; dark brown glaze on int.
2	Glazed bowl	35/107	Reddish brown fabric with white grits
3	Amphora	62/159	Light reddish brown fabric with white and black grits and inclusions
4	Cooking pot	20/665	Reddish brown fabric with some white grits
5	Cooking pot	3005	Brown fabric with some white grits; dark brown glaze on int. and up to rim
6	Cooking pot	21/1659	Reddish brown fabric, with some white grits; dark brown glaze on int. and up to rim
7	Cooking pot	12/629	Reddish brown fabric with some white grits; brown glaze on int. and up to rim
8	Cooking pot	3008	Reddish brown fabric with some white grits; brown glaze on int. and up to rim
9	Cooking bowl	6/1227	Reddish brown fabric with some white grits; dark brown glaze on int.
10	Cooking bowl	17/755	Reddish brown fabric with some white grits; dark brown glaze on int.
11	Cooking bowl	3/320	Brown fabric with some white grits; dark brown glaze on int.

strap handle. The fabric is reddish brown and the glaze, which extends until the mid-wall, is thick, shiny and transparent, appearing dark brown in color. Similar cooking bowls were found, for instance, at Beirut (el-Masri 1997–1998:107, Fig. 4:1, 2) and at Caesarea (Pringle 1985:177, Fig. 3:9; Arnon 2008:46, 302–304, Type 752), dating to the eleventh century.

The glazed bowl fragment has a very low and wide ring base decorated with thin incisions and gouging. The slip of this bowl has deteriorated, but typically, this type has a pinkish, whitish or buff slip that completely covers the bowl inside and out, while the interior of the bowl is glazed. It was very popular during the Fatimid and early Crusader periods and has been found in numerous sites in the Levant (for further references, see Avissar 1996:87–90, Figs. XIII.16–XIII.21; Stern and Stacey 2000:174; François et al. 2003:327–331, Figs. 3–5; Avissar and Stern 2005:6, Fig. 1). This type of bowl was also found in the Serçe Limani shipwreck, where it was thought to have been of Egyptian origin (Jenkins 1992). Stern and Stacey (2000:174), however, proposed a Levantine provenance for this type of vessel, and more recently, Waksman (2011) has suggested, based on chemical analysis, that it was produced in Beirut.

It is possible to date this specimen to the Fatimid period on the basis of its rather elaborate *champlevé* design, like those found in the Serçe Limani shipwreck. Later vessels of the same type, securely dated to the twelfth century, display only very simple random designs (Avissar and Stern 2005:6).

THE CRUSADER PERIOD (Twelfth to Thirteenth Centuries)

The pottery of the Crusader period is presented below according to origin and arranged in geographical order from the Levant, up the eastern Mediterranean coast and then to Cyprus, Greece, Turkey and Italy. Pottery of unknown provenience and varia will be treated last. Provenience of the wares is determined

primarily by archaeological remains of pottery production, such as kilns or kiln wasters, as well as by results of laboratory analysis. In cases where this information was not available, affiliation with a certain type was assigned according to typology and fabric appearance.

Coastal Levant

Table Amphora (Fig. 1:3).— This type has a thickened rim, and a protruding ridge beneath it. The tall neck becomes narrower toward the rim. Two thick handles extend from the middle of the neck to the shoulder of the vessel. A complete vessel of this shape found at Caesarea (Arnon 2008:53, 376, Type 873a) has a body tapering from the shoulder to a flat, wide and heavy ring base with a protruding disc in the middle.

To date, this type of narrow-necked table amphora has been published only from a few sites. Similar rims were found in 'Akko (Stern 1997:39, Fig. 4:13, 14; 2012:38–40, Type LE.PL, Fig. 4.4, Pl. 4.12:2–4, 6–8) and at Ḥorbat 'Uza (Stern and Tatcher 2009:138–139, Fig. 3.22:12–14). A one-handled jug with a body-shape, neck and rim identical to the amphorae from 'Akko and Caesarea was found at Kinet in Turkey (Redford et al. 2001:71, Fig. 36).

Petrographic analysis of a rim from the Courthouse Site in 'Akko, as well as more recent analyses of similar vessels found in the Knights' Hotel and the Hospitaller Compound, have shown that they were manufactured in Lebanon (Goren 1997:72–73; Shapiro 2012:106). Thus, it seems that this is a local Levantine type of amphora dating to the twelfth and thirteenth centuries.

Cooking Pots (Fig. 1:4–9).— Closed cooking pots are subdivided by their distinctive rim shapes and according to wall thickness. The first type of rim presented here is everted, applied to both thin-walled (No. 4) and thick-walled (Nos. 5, 6) vessels. The second type is molded, and it also appears on both thin-walled (No. 7) and thick-walled (No. 8) vessels. Horizontal strap

handles (No. 9) are most common, although vertical loop handles sometimes also occur (No. 8). The fabric, the nature of the glaze and its application vary according to wall thickness. The fabric of the thin-walled cooking pots is fine, forming a hard and metallic ware when fired. The glaze is thick, shiny and transparent, appearing dark brown to purplish in color. It is applied on the interior of the bases only, sometimes with splashes of glaze on the inside and outside of the vessel. Occasionally, a wavy line was painted on the exterior of the shoulder. The fabric of the thick-walled cooking pots is coarse and sandy, and reddish brown in color. It is covered with a transparent glaze that appears as dark brown (or sometimes a dark shade of orange), covering the entire interior, up to and including the rim.

It seems that the thickness of the walls also has chronological significance. Based on the cooking pots found in different Frankish sites in the Levant, one can see that the thin-walled type is the earlier one, continuing the Early Islamic types, and that toward the mid-thirteenth century the thick-walled types gradually become dominant (Avissar and Stern 2005:91–92, Fig. 39:1–7). Chemical analysis has shown that the thin- and thick-walled pots were produced from the same clay source, demonstrating that the morphology of these vessels evolved within the same production center (Waksman et al. 2008:179–180).

Cooking pots similar to the types uncovered in the marina of ‘Akko have been found at various other sites in Israel and the Levant (for a full list of sites, see Pringle 1986: Map 5; Avissar and Stern 2005:91–92; Stern 2012:41–44). The following are just a few examples to illustrate the wide range of their distribution: a parallel to No. 4 occurs at Yoqne‘am (Avissar 1996:135, Type 7, Fig. XIII.94), to Nos. 5 and 6, at Tripoli (Salamé-Sarkis 1980:214, Fig. 37:8), and to No. 8, at Caesarea (Pringle 1985:176–177, Fig. 2:4) and Beirut (el-Masri 1998:108, Fig. 8:6). Besides their frequent occurrence at Frankish sites in the Levant, these cooking pots have also been found in similar contexts in Cyprus (see,

e.g., Gabrieli 2008:428–429, 435–436, Fig. 6:OI107).

Spectrographic analysis of a cooking pot of this type from Paphos, conducted by Megaw and Jones (1983:262), showed that it was imported to Cyprus and manufactured in the Levantine coastal region. Recent analysis has confirmed that these cooking wares were manufactured in the Levant, most probable in the area of the Lebanese coast and more specifically in Beirut, where medieval kilns associated with similar cooking pots were excavated (Waksman 2002; François et al. 2003; Stern and Waksman 2003:169–170, 173–175; Waksman et al. 2008:178–183).

Cooking Bowls (Fig. 1:10, 11).— The general shape of the cooking bowls is that of a shallow bowl with a simple or molded rim, usually provided with two horizontal strap handles. The fabric and the glaze are of the same kind as the thin-walled type of cooking pots mentioned above. The glaze is on the interior only, usually reaching up to the rim. From this excavation, only bowls with simple rims were found (Nos. 10 and 11).

Similar cooking bowls are widely distributed in the Levant (for a full list of sites, see Avissar and Stern 2005:96–97; Stern 2012:41–44). Parallels were found, for example, at Yoqne‘am (Avissar 1996:142, Fig. XIII.102:1), at Beirut (el-Masri 1998:107, Fig. 4:3, 4), at Tell ‘Arqa (Thalman 1978:23–25, Fig. 31:2–6) and at Paphos, Cyprus (Gabrieli 2008:430, 438–440, Figs. 6:OI97, OI103). Chronology, distribution and provenience of the cooking bowls are the same as that of the cooking pots discussed above.

Levantine or Gritty Glazed Bowls (Fig. 2:12–14).— The fabric of this type is red or red-brown, with limestone grits. The surface of the bowl is usually not smooth because of the grits present in the fabric. The slip on the inside of the vessel is very thin, and does not always cover the entire interior; therefore, the glaze appears in different shades of the main

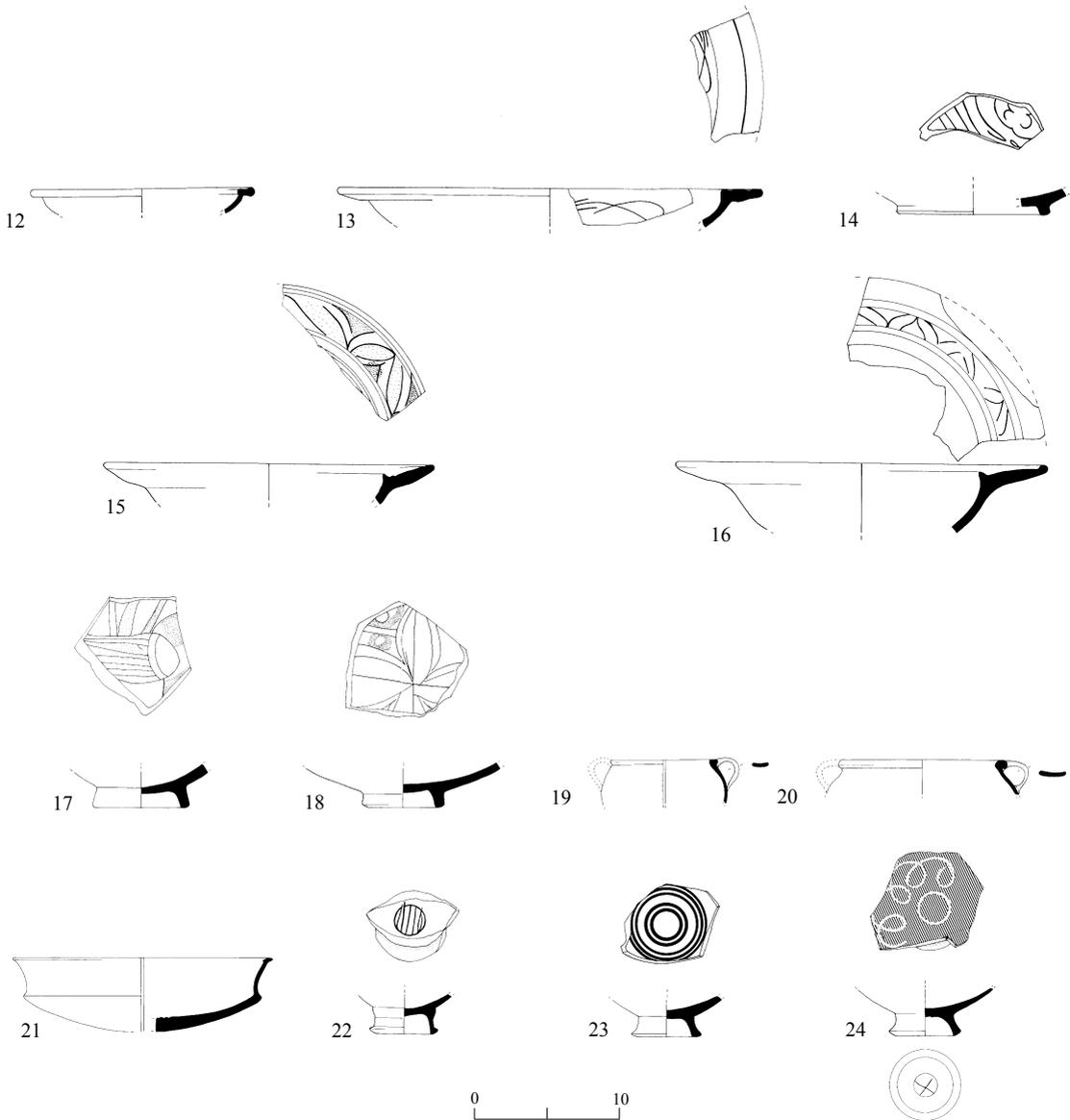


Fig. 2. Pottery of the Crusader period (Levantine coast, northern Syrian coast, Cyprus).

color. The glaze is green (as here) or yellow. The vessels are either monochrome, with no additional decoration, or incised with a fine-pointed instrument. The bowl form is usually with a short ledge rim and carinated shoulder (No. 12), or a broad ledge rim, without a carinated shoulder (No. 13). The base is usually a low, wide ring base (No. 14).

These bowls, belonging to a homogenous group known from Israel, Lebanon and Cyprus,

have been found at many sites (see Avissar and Stern 2005:8, Fig. 2; Stern 2012:44–47, Type BE.GL.7, Fig. 4.9:a, Pl. 4.23), among them ‘Akko, Ḥorbat ‘Uza (Ben-Tor 1963: Fig. 12:4; Stern and Tatcher 2009:148, Fig. 3.27:1–5), Caesarea (Pringle 1985:177, Fig. 3:12–15; Arnon 2008:50, 338–339, Type 272), Jerusalem (Tushingham 1985:143, Fig. 34:1), Tell ‘Arqa and Tripoli in Lebanon (Thalman 1978: Fig. 34:1; Salamé-Sarkis 1980:190–191, Fig. 31:P

◀ Fig. 2

No.	Type	Reg. No.	Description
12	Glazed bowl	18, 19/762	Reddish orange sandy fabric with white grits; green glaze on int.
13	Glazed bowl	4/587	Orange-red sandy fabric with white grits; green glaze on int., extending a little below the rim on ext.; decorated with fine sgraffito
14	Glazed bowl	10/712	Orange-red sandy fabric with white grits; green glaze on int.; decorated with fine sgraffito
15	Glazed bowl	24/1462	Light orange fabric with some white grits; original color of glaze not preserved, with dabs of green glaze, glaze on int., extending a little below the rim on ext.; incised decoration of a floral motive on rim ledge
16	Glazed bowl	59/1160	Light orange fabric with some white grits; original color of glaze not preserved, glaze on int., extending a little below the rim on ext.; incised decoration of a floral motive on rim ledge
17	Glazed bowl	59/1159	Light orange fabric with some white grits; original color of glaze not preserved, with dabs of yellow glaze, glaze on int.; incised figurative design
18	Glazed bowl	14/334	Light orange fabric with some white grits; original color of glaze not preserved, with dabs of green glaze, glaze on int.; incised decoration of a floral motive
19	Cooking pot	14/366	Brown fabric, with white and black grits and inclusions
20	Cooking pot	19/346	Brown fabric, with white and black grits and inclusions
21	Glazed bowl	14/318	Red fabric with white grits; green glaze on int. extending on ext. till slightly below the carnation of the body; decoration of incised lines on rim and incised concentric circles closer to rim
22	Glazed bowl	3000	Light brown fabric with white grits; original color of glaze not preserved, glaze on the interior; incised decoration of a circle cut by lines
23	Glazed bowl	17/724	Red fabric with white grits; original color of glaze not preserved, glaze on int.; decoration of incised concentric circles
24	Glazed bowl	2/1275	Red fabric with white grits; original color of glaze not preserved, glaze on int.; slip painted design of loops in a concentric circle around int. of bowl; incised monogram on ext. of base

73–64, Pls. LIX:1; LXXII:9) and Paphos in Cyprus (Megaw 1971:123, Fig. 2:2).

This group is dated to the mid-twelfth–mid-thirteenth centuries. Based on its distribution, it appears that this type is typical of the Israel–Lebanon coast, and that the specimens found in Cyprus were imported. Moreover, recent analysis has shown that glazed bowls similar to those found here were manufactured in the region of the Lebanese coast, most probable in Beirut. These tests also showed that the bowls were made of a fabric similar to the cooking pots mentioned above (Stern and Waksman 2003:173–175; Waksman et al. 2008:178–183).

Northern Syrian Coast

Port St. Symeon Wares (Fig. 2:15–18).— This group consists of polychrome glazed bowls, made of light orange or pinkish red fabric with white grits. The most common form is a hemispherical bowl with a horizontal ledge rim. There is a raised ridge on the inner edge of the rim (Nos. 15, 16), and the outer edge is sometimes decorated with piecrust-like impressions. Hemispherical bowls with simple or vertical rims and slightly carinated walls can be found as well. All bowls have a low ring base (Nos. 17, 18). The decoration consists of incised designs with splashes of green, yellow

and brown glaze over a white background. The typical designs are mainly geometric or floral, although depictions of animals, birds, monsters and people occur as well (Boas 1994:107–108, Figs. 5, 6; Avissar and Stern 2005:52–56).

These bowls are very common in 'Akko (Pringle 1997:144–145, Fig. 11:65; Stern 1997:56–58, 65, Figs. 13:95–97; 17:126; 2012:55–58, Type NSY.GL.4, Fig. 4.19:b–d, Pls. 4.32–4.39; Vitto 2005:168, Fig. 16:1). The group has a widespread distribution in Israel, Syria, Turkey and Egypt, and can also be found in Cyprus, mainly in Frankish sites. It is present in sites that were under Islamic rule as well (Pringle 1986: Map 1; Avissar and Stern 2005:56) and is also found in the western Mediterranean, in Genoa and Marseilles (Capelli et al. 2005).

This group is so-called because it was first distinguished at Port St. Symeon, the Frankish name of al-Mina, which was the port of Antioch. The site was occupied by the Franks from the beginning of the twelfth century until 1268, when it was captured by the Mamluks. As evidenced by kiln wasters and the large variety of this type of pottery found in the excavations at al-Mina, it seems clear that this ware was manufactured there (Lane 1937:45–53, Pls. XXI–XXVII). Furthermore, scientific analyses of some Port St. Symeon wares imported to the Latin Kingdom of Jerusalem indicate that they were indeed manufactured in the area of Antioch (Boas 1991:208–210; Goren 1997:72–73; Stern 1997:56; Shapiro 2012:107–111). However, recent research has shown that Port St. Symeon Wares were produced not only at al-Mina, but at other sites in Turkey as well (see discussion in Avissar and Stern 2005:52–53; Blackman and Redford 2005:92–95). For this reason, Port St. Symeon Ware is referred here as “wares”, since it is a group of similar wares manufactured at different centers. The identification and differentiation between the workshops producing pottery in the St. Symeon style awaits further investigation, although some analytical research has been conducted

(Blackman and Redford 2005:98–105; Capelli et al. 2005)

It is not certain from which area exactly the bowls were imported to 'Akko, but it seems quite likely that they were imported from Port St. Symeon itself, based on petrographic analysis and on similarities to vessels found in the al-Mina excavations.⁴

Cyprus

Cooking Pots (Fig. 2:19, 20).— In addition to the well-known group of local cooking pots mentioned above, another type of cooking pot, less common in excavations in Israel, was found (Avissar and Stern 2005:94–95, Fig. 40:1; Stern 2008:459–460, Fig. 2:11). It is handmade of a coarse fabric, red-brown to brown in color, containing white and black grits and other inclusions. It has a globular shape and relatively thin walls, an everted, thick rim and two broad strap handles pulled from the rim to the shoulder. This type of cooking pot appears in a smaller (No. 19) and a larger version (No. 20).

Such cooking pots have been found throughout Israel, for instance, at 'Atlit (Johns 1934:144, Pl. LVII:3), 'Akko (Edelstein and Avissar 1997:132, Fig. 1:6; Stern 1997:40–43, Fig. 5:37; 2008:459–460, Fig. 2:11; 2012:59–60, Type CY.CW, Fig. 4.20, Pl. 4.40:5–10), and at Ḥorbat 'Uza (Stern and Tatcher 2009:140, Fig. 3.23:10). However, they apparently came from Cyprus, as attested by the many pots of this type discovered there, for example, at Nicosia (Flourentzos 1994:12–13, Pls. XXII:51; XXIV:52, 53), Paphos (Megaw 1971:124, Fig. 3:6; Gabrieli, McCall and Green 2001:346–347, Type 4.11, Fig. 3:1, 2; Gabrieli 2008:427–428, 431–435, Figs. 3, 4) and Kouklia (Maier and von Wartburg 1997:188, Fig. 11:11; 191, Fig. 15:25). In corroboration, petrographic analysis of a cooking pot found in the excavations at the Courthouse Site in 'Akko, shows that this vessel was not made locally; it was imported, most likely, from Cyprus (Goren 1997:72–73).

This type was imported to Israel during the Crusaders’ occupation of the area, and a review of the sites where it was found, shows that it dates from the beginning of the thirteenth century onward. However, in Cyprus this type of cooking pot continued to be in use in the fourteenth century (Megaw 1937–39:150, Fig. 7, A. 18; Gabrieli 2008:428), suggesting that its import is closely linked to the political situation in the eastern Mediterranean.

It is interesting to speculate as to why these cooking vessels were brought to the Latin Kingdom of Jerusalem, for sufficient cooking ware could surely be produced locally. One possible answer is that they were used to import some sort of moist food product, possibly cheese or fruit (Stern 2008:463–464; 2012:60), and only afterward did they serve for cooking.

Sgraffito and Slip-Painted Glazed Wares (Fig. 2:21–24).— This is a well-known group, consisting mainly of bowls, made of a red to red-brown colored fabric containing limestone grits. Usually the fabric is well-fired, having a metallic ring to it, but occasionally it is softer. The bowls have ledge rims, or are carinated with vertical, slightly concave rims (Fig. 2:21). The support is a high ring base, usually out-turned at the end (Fig. 2:22, 23). The glaze is usually thick and glossy, green or yellow and the decoration is generally executed in the sgraffito technique or by slip-painting. The sgraffito designs consist mainly of the well-known “blazon” decoration of a circle cut by lines (No. 22), variations of connected “blazon” decoration, concentric circles (No. 23), and different-shaped keys. Occasionally, more complicated designs can be seen as well. The slip-painted designs consist mainly of loops or zigzags in concentric rings around the interior of the bowls (No. 24).

Bowls of this type with sgraffito designs were found in other excavations in ‘Akko (Edelstein and Avissar 1997:130, Fig. 1:2; Pringle 1997:144, Fig. 11:56, 58; Stern 1997:51, Fig. 10:767–780; 2012:60–65, Type CY.GL.3, Fig. 4.21:b, c, Pls. 4.43:9–15; 4.44; 4.45:1–13),

at Ḥorbat ‘Uza (Stern and Tatcher 2009:160, Fig. 3.30:12–15, 17) and at many other sites in Israel and the Levant, as well as in Cyprus (for references, see Avissar and Stern 2005:60; Stern 2012:63). Likewise, comparable bowls with slip-painted designs had a similar distribution in ‘Akko (Pringle 1997:145, Fig. 12:70; Stern 1997:48–51, Figs. 8:67–72, 9:73–76; 2008; 2012:60–65, Type CY.GL.2, Fig. 4.21:a, Pls. 4.42, 4.43:1–8), Ḥorbat ‘Uza (Stern and Tatcher 2009:159–160, Fig. 4.30:8–11) and elsewhere in Israel and Cyprus (for references, see Avissar and Stern 2005:58; Stern 2012:63).

These glazed wares were manufactured in southwestern Cyprus, in the Paphos region, as attested by several kiln sites excavated and surveyed in Paphos, Lemba and Kouklia (Papanikola-Bakirtzi 1996:215–216; von Wartburg 1997:336). They were produced from the beginning of the thirteenth century until the early fourteenth century (von Wartburg 1997:340), and perhaps until the end of that century (Papanikola-Bakirtzi 1996:218). It thus seems that the vessels imported to ‘Akko in particular, and to the Levantine region in general, were mainly produced in pottery workshops of the Paphos district. The distribution of these bowls, primarily in Cyprus, but also at sites occupied by the Franks in the thirteenth century in the coastal areas of Syria, Lebanon, Israel and Egypt (see above and Pringle 1986: Map 2) seems to indicate that they were one of the most common imports to the Latin Kingdom of Jerusalem (Boas 1994:108; Stern 2008; 2012:64–65).

Greece and the Aegean

Two wares imported into the Latin Kingdom of Jerusalem from the area of the Byzantine Empire are presented here together: Byzantine Wares and Aegean Wares (for the features of each group, see for instance, Vroom 2003:150–152, 163–164; Avissar and Stern 2005:40–47). Although traditionally separated (see Morgan 1942:117–166), research on Byzantine and Aegean wares has shown that they have similar features, including forms, fabric and glaze

(Megaw 1975:38; Armstrong 1997; Papanikola-Bakirtzi, Mavrikiou and Bakirtzis 1999:85–86; Sanders 1999). Moreover, chemical analysis and instrumental neutron activation analysis (INAA) studies of examples of these two wares have indicated a possible common clay source (Boas 1994:111; Blackman and Redford 2005:96; Waksman and von Wartburg 2006). Aegean shipwrecks, with Byzantine and Aegean Wares as their cargo, demonstrate the volume of production and distribution of this type of pottery (Armstrong 1997:5–6; Waksman and von Wartburg 2006:370–371, n. 5). Unfortunately, their exact production centers cannot be identified (Waksman and von Wartburg 2006:380–382).

Fine-Incision or Byzantine Sgraffito Ware (Fig. 3:25, 26).— These bowls are decorated with fine incisions of delicate appearance that include spirals, scrolls and vegetal motifs, as well as human and animal figures. The bowls are usually deep, with a short ring base and a simple rim, which is occasionally vertical. The fabric is light red to orange in color and contains white inclusions. The vessels are covered with a white slip on the interior and a thin white slip on the exterior, and are glazed with a yellowish white lead glaze, or sometimes with a green glaze, on the interior. In some cases there is an additional green and brown glaze on the light background (No. 26).

Byzantine Sgraffito Ware is dated to the second half of the twelfth and the early thirteenth centuries (Boas 1994:102–103, Figs. 1; 10; Avissar and Stern 2005:40–43). It was found in the Latin Kingdom at various sites, such as ‘Akko (Stern 2012:65–69, Type GR.GL.4, Fig. 4.22, Pl. 4.48:9–15), Ḥorbat ‘Uza (Stern and Tatcher 2009:154–156, Fig. 3.29:2–4), Yoqne‘am (Avissar 1996:106–107, Figs. XIII.50:1; XIII.51:1–3) and Caesarea (Arnon 2008:49–50, 341, Type 272h, i). A number of production centers have been identified within the Byzantine Empire: Nicaea, Ganos, Pergamon, Thebes and Corinth (for references, see Armstrong 1997:6; Sanders

1999). The distribution of Byzantine Sgraffito Wares was mainly in the Byzantine Empire, in modern Greece, Turkey, Romania, south Italy and Cyprus, and also in the Levant: Syria, Lebanon and Israel (François 1997:233, Fig. 2; Stern 2012:68).

Thick-Incision or Aegean Sgraffito Wares (Fig. 3:27–32).— The main forms are shallow bowls with low ring bases (Nos. 27, 31, 32), but occasionally with a slightly higher ring foot (No. 30). The rim is upturned (No. 28), a narrow ledge rim, or a vertical rim (No. 29). The coarse fabric is light reddish brown to red or light purple-red colored with large white inclusions. The bowls are crudely potted and sometimes there are wheel marks visible on the exterior of the vessel. They are covered with a thin layer of white slip. The glaze, which is restricted to the interior, is usually in a shade of pale yellow, or a bolder lemon yellow, but may also be green. Under the glaze is a thick white slip. The decoration is made by a thick gouging of repeated linear designs (Megaw 1975:37–38).

The distribution of Aegean Wares was mainly in the Byzantine Empire, in modern Greece, Turkey, Crimea, Italy and Cyprus, and also in the Levant: Syria, Lebanon and Israel (François 1997:234, Fig. 4). In Israel, they were found at ‘Akko (Stern 2012:65–69, Type GR.GL.6, Fig. 4.23: top row, Pl. 4.49:1–9), ‘Atlit, Yoqne‘am, Caesarea, Jaffa and Emmaus (see distribution map in Pringle 1986:458, Map 1;⁵ Boas 1994:116, Fig. 11; Avissar and Stern 2005:45–47; Stern 2012:68).

Champlevé (Fig. 3:33).— One bowl fragment decorated in the *champlevé* technique was recovered. The color of the fabric is pinkish/pale brown, and the bowl has a low ring base. The decoration, depicting a rabbit, is made by removing large areas of clay and slip, thus creating the background of a design. The details of the design were incised, and after the vessel was covered with glaze, the slipped area appeared in the lighter shade (yellow) and the

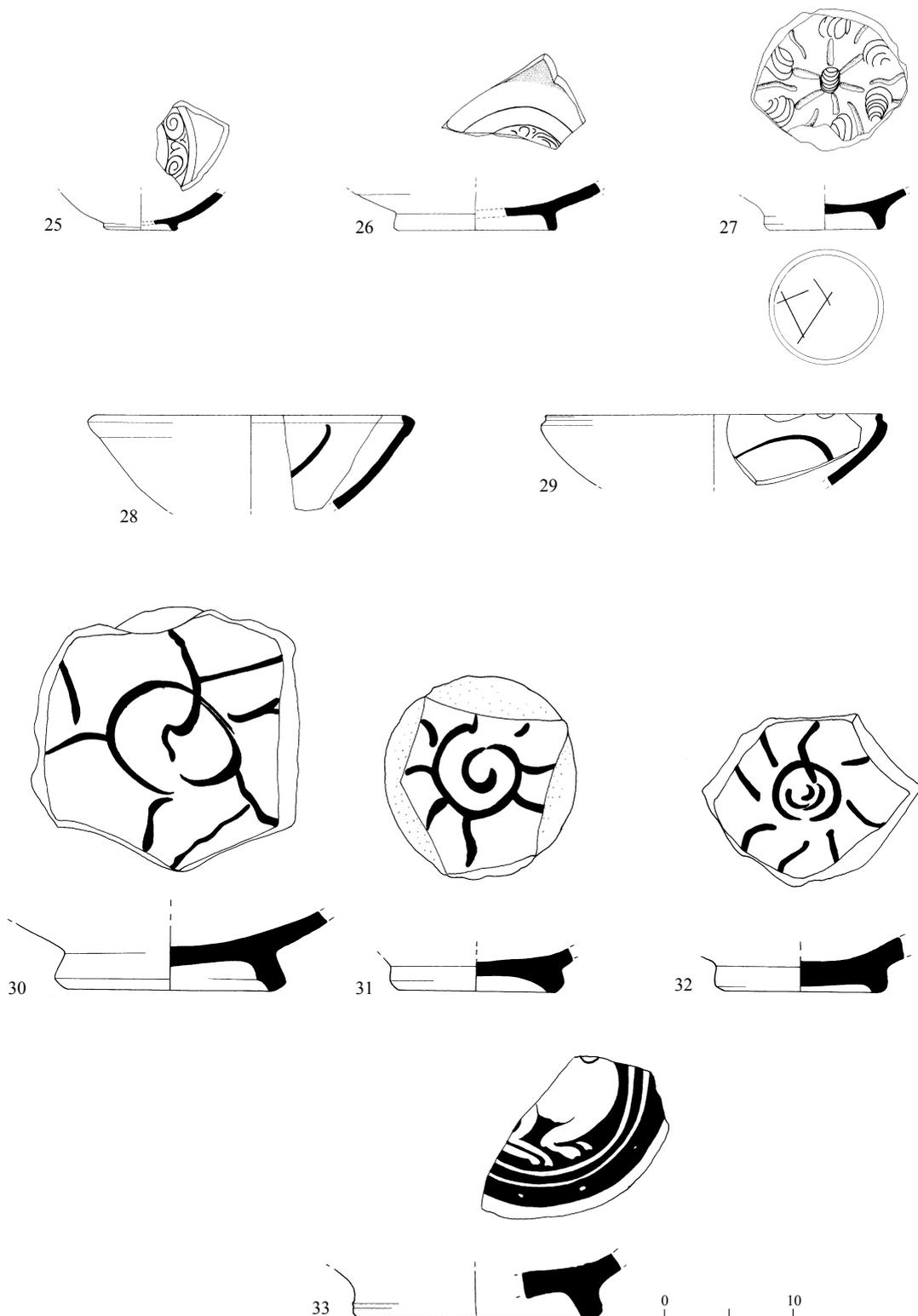


Fig. 3. Pottery of the Crusader period (Greece and Aegean and Greece and/or Turkey).

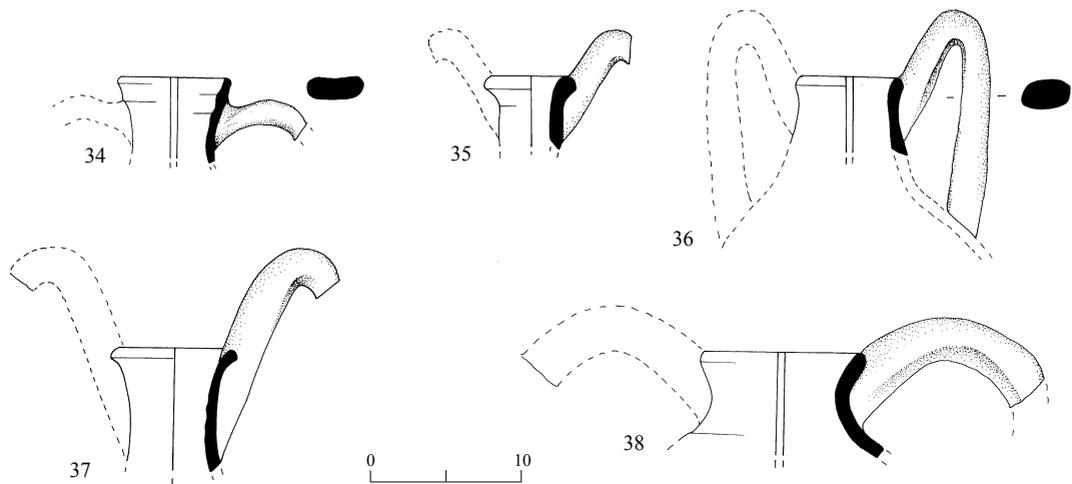


Fig. 3. (cont.)

No.	Type	Reg. No.	Description
25	Glazed bowl	18, 19/973	Light orange-pinkish fabric; original color of glaze not preserved, glaze on int.; decorated in sgraffito with a fine pointed instrument
26	Glazed bowl	4/427	Light orange-pinkish fabric with some white grits; white green and brown glaze on int.; decorated in sgraffito with a fine pointed instrument
27	Glazed bowl	3/1350	Light orange-pinkish fabric with some mica grits; green glaze on int.; decorated in sgraffito with a fine and broad incision; incised monogram on ext. of base
28	Glazed bowl	6/639	Light orange-pinkish fabric with some white grits; yellow glaze on int., extending a little below the rim on ext.; decorated with a thick gouged line
29	Glazed bowl	1/840	Light orange-pinkish fabric with some white grits; original color of glaze not preserved, glaze on int., extending a little below the rim on ext.; decorated with a thick gouged line
30	Glazed bowl	64, 65/179	Light orange-pinkish fabric with some white grits; green glaze on int.; decorated with a thick gouged incision
31	Glazed bowl	16/737	Light orange-pinkish fabric with some white grits; yellow glaze on int.; decorated with a thick gouged incision
32	Glazed bowl	21/1676	Light orange-pinkish fabric with some white grits; green glaze on int.; decorated with a thick gouged incision
33	Glazed bowl	31/733	Pale brown-pinkish fabric with some white grits; yellow glaze on int.; decoration of an hare in the <i>champlevé</i> technique
34	Amphora	12/634	Light brown fabric with some white and black grits and some mica
35	Amphora	13/617	Light reddish brown fabric with white grits
36	Amphora	3011	Light reddish brown fabric with white grits
37	Amphora	6/379	Light reddish brown fabric with white grits
38	Amphora	18, 19/979	Light reddish brown fabric with white grits

background in the darker shade (brown). In this instance, the hare is set in a double-bordered tondo, with small reserved rectangles on the outer encircling band.

Vessels of this type are not common in assemblages from the region of Israel (Avisar and Stern 2005:43–44, Fig. 16:3, 4), but they have been found at 'Akko (Stern 2012:65–

69, Type GR.GL.8, Fig. 4.23: bottom row, Pl. 4.49:11, 12), Ḥorbat ‘Uza (Stern and Tatcher 2009:157–158, Fig. 3.30:5, 6) and Yoqne‘am (Avisar 1996:109–110, Type 70, Fig. XIII.54). Most of the published bowls come from the Aegean region: from Corinth (Morgan 1942:162–166; Papanikola-Bakirtzi, Mavrikiou and Bakirtzis 1999:181–185) and from excavations at Sparta, where the chronological range is from the end of the twelfth to the second quarter of the thirteenth centuries (Sanders 1993:260–261). At Sparta, indications of local manufacture were found, thus confirming the Aegean origin of this ware (two unglazed vessels; Sanders 1993: Pl. 23:5, 10). A group of bowls decorated with hares in this technique was also found in a shipwreck in the northwestern Aegean Sea, dated to the end of the twelfth century (Armstrong 1991:339–340, Nos. 6–12).

Western Turkey and/or Greece

Small Amphora (Fig. 3:34).— This amphora (Hayes 1992: Type 65) has a fine, smooth fabric, light brown in color, with some white and black grits and some mica inclusions. Only a small fragment of the rim and handle was found in the ‘Akko Marina assemblage, but a fully restorable amphora of this type from the excavations in Ḥorbat ‘Uza (Stern and Tatcher 2009:138, Fig. 3.22:9) illustrates its probable shape: the rim is simple, the neck cylindrical and narrow; the handles extend from the neck, just beneath the rim, until the shoulders of the vessel; the body is elongated and becomes narrower toward the rounded base; on the body there is wide ribbing.

Although this amphora is of a type not well-known, similar specimens were found in Israel at Ḥorbat ‘Uza (see above), at the excavations in ‘Akko (Stern 2012:72, Type TUR/GR.PL.4, Pl. 4.52) and in Nazareth (Bagatti 1984:176, Fig. 58:6, Pl. 69:1). It was also found at Kinet in Turkey (Redford et al. 2001:71, Fig. 37:2) and in Serbia, at a site named Ras, with ceramics dating from the end of the eleventh to the thirteenth centuries (Popović 1989:128–

130, Fig. 6:1, 2). In Istanbul, this type is fairly common in twelfth-century contexts (Hayes 1992:76, Type 65, Fig. 26:6, Pl. 13a). Hayes also provides an additional parallel from Romania.

The mica inclusions in the fabric, as well as the distribution of this type of vessel, both indicate that this amphora was imported to ‘Akko, perhaps containing some kind of precious liquid. Due to the limited number of amphorae of this type found, their origin remains unknown, but is likely to be sought in the Byzantine Empire. This type should be dated to the end of the twelfth century and perhaps the beginning of the thirteenth century (see also Avisar and Stern 2005:105, Fig. 44:2; Stern 2012:72).

High-Handled Amphora (Fig. 3:35–37).—

The fabric of this type (Günsenin 1989: Type 3; Hayes 1992: Type 61) is very distinctive, since it is quite coarse, light reddish brown in color, with large white grits. The walls of the vessel are thick, and sometimes have a pinkish external slip, with irregular smears running in all directions. The handles contain hollow negatives, left by some burnt-out organic material, probably straw. The rim is simple and slightly splayed, the neck is high and narrow. A pair of handles, oval in section, is attached to the rim, extending over it, turning back down and joining the shoulder of the vessel. The body is tapering and the base is rounded. The upper part of the body has a crudely combed pattern. In general, it seems that the workmanship of these vessels was very careless, and they were made *en masse*. There are two sizes of this type of amphora: a smaller version, about 30 cm high (Nos. 35, 36), and a larger one, about 60 cm high (No. 37).

As opposed to the previous amphora type, high-handled amphorae are quite common, and have been found in many Levantine sites (see Avisar and Stern 2005:105), among them ‘Akko (Stern 1997:38–39, Fig. 4:10–12; 2012:70–71, Type TUR/GR.PL.1, Fig. 4.24, Pl. 4.50; Vitto 2005:162, Fig. 11:3), Ḥorbat ‘Uza

(Stern and Tatcher 2009:138, Fig. 3.22:11), 'Atlit (Pringle 1986: Pl. IV) and Tell 'Arqa (Hakiman and Salamé-Sarkis 1988:26–27, Pl. VIII). An amphora of this type was also found in Cyprus, in levels predating the destruction level of 1222 at Saranda Kolones in Paphos (Megaw 1972:334; Fig. 27; Rosser 1985:86, Fig. 3). The high-handled amphora is also known from the Mediterranean coast of Turkey, from Italy and Greece, and from sites along the shores of the Black Sea in Turkey, Bulgaria, Romania and Russia—all dating to the twelfth to thirteenth centuries (Günsenin 1989:271–274, Type 3, Fig. 8–11; Hayes 1992:76, Type 61, Fig. 26:10; Zelenko 1999:227, Figs. 8, 15; for additional sites in Greece, see Sanders 1993:283).

Based on the above evidence, this type should be dated to the second half of the twelfth and the thirteenth centuries (see also Avissar and Stern 2005:105, Fig. 44:1; Stern 2012:71). Its provenance is not certain, but a production site on the north coast of Asia Minor has been suggested (Sanders 1993:283). Petrographical analysis of an amphora of this type found at the Courthouse Site at 'Akko confirms this assumption (Goren 1997:72–73).

Short-Necked Amphora (Fig. 3:38).— The fabric of this type (Günsenin 1989: Type 4; Hayes 1972: Type 62) is fine, light reddish brown in color, with some white grits and mica inclusions. It has a simple thin rim, slightly splaying, and a short neck with two handles extending from the rim to the shoulder. No complete amphora of this type has been found in the 'Akko Marina, but based on complete, published examples, it is known to have had a very wide waist and a rounded base.

This type of amphora occurs rarely in the eastern Mediterranean and in Israel. It was found in excavations at 'Akko (Vitto 2005:162, Fig. 11:2; Stern 2012:71, Type TUR/GR.PL.2, Pl. 4.51:1, 2) and at Ḥorbat Manot in the western Galilee (Frankel and Stern 1996:114, Fig. 11:16). An intact specimen was found in the Saranda Kolones castle in Paphos, Cyprus, dating to the early thirteenth century (Megaw

1972: Pl. 23). Amphorae of this type have been found in Istanbul, in the Crimea and other sites in the Black Sea area (Günsenin 1989:274–276, Type 4, Figs. 12–14; Hayes 1992:76, Type 62, Fig. 24:12, 13; Zelenko 1999:225–227, Fig. 4). Based on the above evidence, it should be dated to the end of the twelfth and the beginning of the thirteenth centuries. The production region is not precisely known, but from the distribution it seems quite likely that it was manufactured in the Black Sea region. Zelenko has suggested a few production centers manufacturing similar amphorae, based on the variation in fabrics (Zelenko 1999:225–227).

Zeuxippus (Figs. 4:39–42; 7:1, 2) and *Zeuxippus Derivative Wares* (Figs. 4:43–45; 7:3–5).— This group of glazed bowls was identified, classified, dated and named 'Zeuxippus Ware' by Megaw (1968). Subsequently, Megaw (1989) updated the chronology, proposed a different origin, and concluded that Zeuxippus Ware was in fact a family of wares with many related branches, differing as regards decoration, glaze color and firing technique. Since then, additional evidence regarding this large family of wares has come to light, showing that Zeuxippus Ware is not a homogeneous group produced in one geographical area, but is, in fact, a mixture of products manufactured in various centers around the Mediterranean, not only in the territories ruled by the Byzantine Empire (Armstrong 1992; Sanders 1993:257; Berti and Gelichi 1997:85; Waksman and François 2004–2005; Stern 2012:72–76, Type TUR/GR.GL). Other scholars have labeled various members of the 'Zeuxippus Family' with different names (see Avissar and Stern 2005:52; Stern 2012:73–74).

The four examples identified here as Zeuxippus Ware have a well-fired, thin, hard fabric, their color ranging from red, orange to purple. The main forms are hemispherical bowls with extremely thin walls. Although no rims survived in the 'Akko Marina assemblage, this type is known to have simple rims that are occasionally slightly everted or ledge rims.

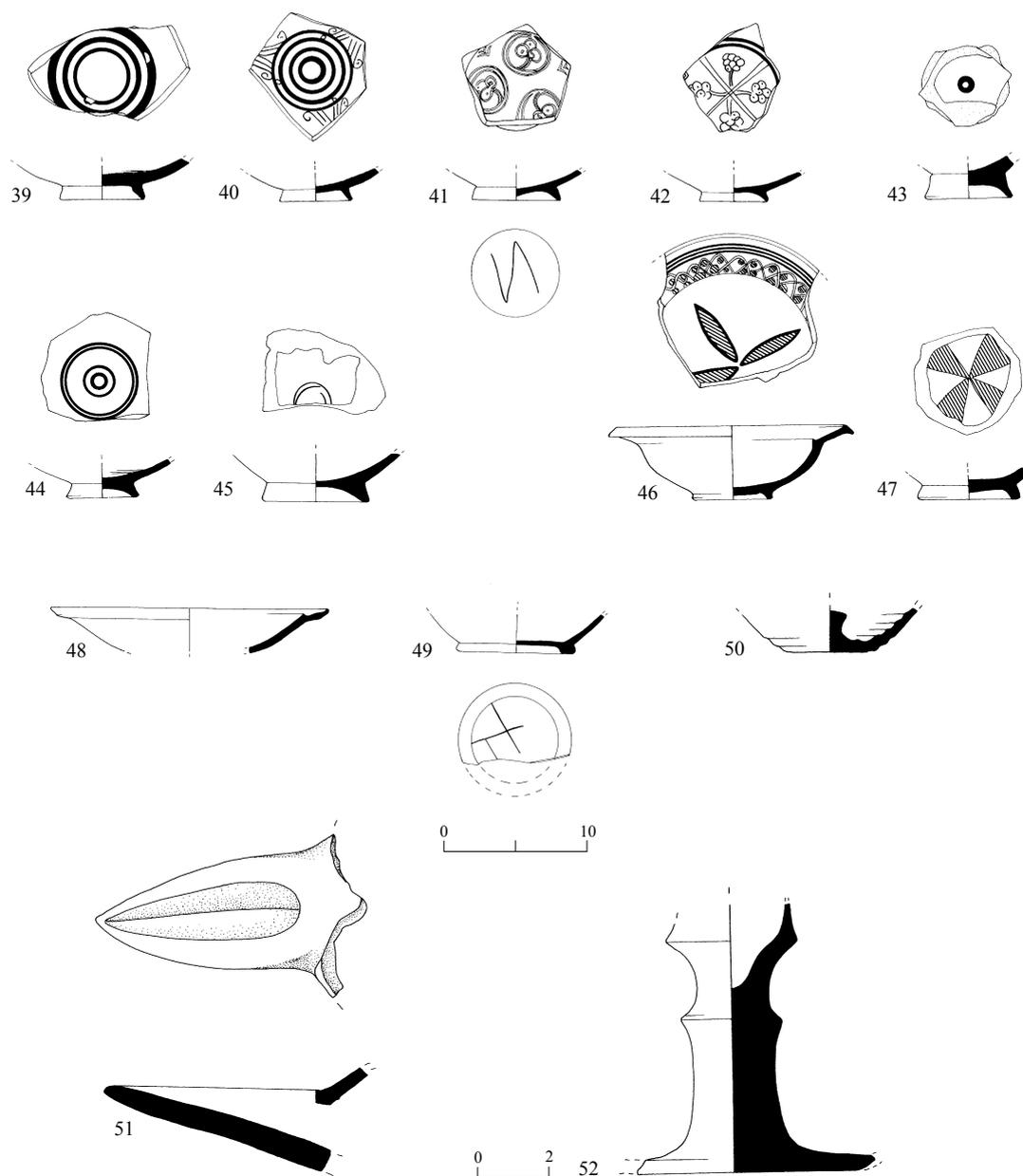


Fig. 4. Pottery of the Crusader period (Greece and/or Turkey, southern Italy and Sicily, unknown provenance) and varia.

They are supported by ring bases with a low or high foot, also slightly everted. The bowls are decorated with thin and wide incisions in the interior of the bowls. The designs consist mostly of concentric circles at the center (Nos. 39, 40), and occasionally floral designs (Nos. 41, 42). The exterior is decorated with

alternating tongues or loops of slip and glaze, or with a painted design in slip. The interior is covered with a thick layer of white slip. The lead glaze is of a fine quality, usually very glossy and pale yellow or green in color (Boas 1994:104–107, Fig. 3; Avissar and Stern 2005:48–52).

◀ Fig. 4

No.	Type	Reg. No.	Description
39	Glazed bowl	16/773	Orange fabric with some white grits; yellow glaze on int.; decoration of concentric circles with a thick gouged incision; tripod scars on int. of base
40	Glazed bowl	16/738	Orange fabric with some white grits; yellow glaze on int.; decoration of concentric circles with a thick gouged incision and an incision made with a fine pointed instrument; tripod scars on int. of base
41	Glazed bowl	6/623	Orange fabric with some white grits; original color of glaze not preserved, glaze on int.; decoration of a floral motive made with a fine pointed instrument; incised monogram on ext. of base
42	Glazed bowl	15/457	Orange fabric with some white grits; yellow glaze on int.; decoration of a floral motive made with a fine pointed instrument
43	Glazed bowl	3/1330	Orange fabric with some white grits; green glaze on int.; decoration of a concentric circle made with a thick gouged incision
44	Glazed bowl	18, 19/977	Orange fabric with some white grits; green glaze on int. and ext.; decoration of incised concentric circles; tripod scars on int. of base
45	Glazed bowl	17/739	Orange fabric with some white grits; green glaze on int.; decoration of an incised concentric circle
46	Glazed bowl	C64, 65/265	Original color of glaze not preserved, glaze on int.; painted design on base
47	Glazed bowl	14/332	Very light pink fabric; original color of glaze not preserved, glaze on int.; painted design on the rim and on base
48	Glazed bowl	6/685	Pale red fabric with white grits; olive green glaze on int., extending a little below rim on ext.
49	Glazed bowl	14/329	Pale red fabric with white grits; olive green glaze on int.; incised monogram on base
50	Lid	30/159 1	Light orange fabric with dark inclusions
51	Lamp spout	3/595	Light brown fabric
52	Lamp	44, 48/1342	Pink fabric, some grog and dark inclusions; green glaze on ext.

Zeuxippus Ware is not widespread in Israel. It is found mainly in large, coastal sites that were held by the Franks, such as 'Akko and Caesarea, but also in St. Mary of Carmel and Jerusalem (for references to all the sites, see Boas 1994:117, Fig. 12; Avissar and Stern 2005:49; Stern 2012:73–76, Types TUR/GR.GL.1, 2, Fig. 4.26:a, Pl. 4.53). It has also been found in the Byzantine Empire, in modern Greece, Albania, Cyprus, southern Russia, Turkey and in northern Italy, Syria, Lebanon and Egypt (Megaw 1968; Pringle 1986:457–458, Map 1, and note the exchange of symbols between the Zeuxippus and Aegean wares; François 1997:234, Fig. 3; Waksman and François 2004–2005: Fig. 2; Stern 2012: 74–75).

The Zeuxippus Derivative vessels (Fig. 4:43–45) are more roughly potted and have a lower quality of fabric and glaze than Zeuxippus Ware, the glaze is green or straw yellow-to-orange/brown in color and the designs are simpler, consisting of incised concentric circles (Fig. 4:43, 44) or spirals (Fig. 4:45) on the base interior. Bowls of this type were found in the excavations at 'Akko (Stern 1997:54–56, Fig. 12: Nos. 87–94; 2012:73–76, Type TUR/GR.GL.3, Fig. 4.26:b, c, Pls. 4.54–4.56; Stern and Waksman 2003:171–172; Waksman et al. 2008:168–171, Fig. 9:2, 3, 11, 12), Ḥorbat 'Uza (Stern and Tatcher 2009:158–159, Fig. 3.30:7) and elsewhere (Avissar and Stern 2005:51–52).

Analyses of the Zeuxippus Ware from a number of excavations in 'Akko established

three main groups of origin (Stern and Waksman 2003:176–178; Waksman et al. 2008:180–183). However, the analyses could not determine where the production centers of these groups were situated. As a follow-up to their earlier work, a more recent provenance study of Zeuxippus Ware has been conducted by Waksman and François, chemically analyzing Zeuxippus Ware from a wide range of sites in the Mediterranean and Black Sea regions (Waksman and François 2004–2005). Of the nine groups distinguished in that study (Groups A–I), the production area of only three groups was located: Group C in the region of Paphos (Cyprus), Group D in Byzantine Nicea and Group G in Pergamon. Group B, deriving mainly from the Novy Svet shipwreck, was defined as a homogenous group, although the location of its workshop remained unidentified. It thus seems that some of the workshops producing the Zeuxippus Wares were located in the general area of the Aegean, while one group was located in Cyprus.

This Zeuxippus Ware is dated from the late twelfth to the beginning of the thirteenth centuries by Megaw (1968:87), who later extended the date into the first decades of the thirteenth century, on the basis of unpublished sherds from ‘Atlit (Megaw 1989:264). The Zeuxippus Derivative Wares date to the thirteenth century, mostly to the second half of it (Armstrong 1993:310, 332; Stern 2012:75–76).

Southern Italy and Sicily

Proto-Maiolica Ware (Fig. 4:46, 47).— This is a well-defined group of vessels with a very light cream or whitish fabric, derived from the relatively iron-free deposits of the rivers draining the Apennines and Tuscan hills (Buerger 1978:29). The main vessel forms are bowls, but jugs were also produced, although the latter are scarce in the Levant. Proto-maiolica jugs have been found in ‘Akko (Stern 1997:62–63, Fig. 16:113–117; 2012:77–80, Type SIT.GL.2), but none in the Marina.

The bowls are usually hemispherical, with a low ring base and a flanged or ledge rim (No. 46). Shallow shapes, bowls with simple rims and small bowls with double rims were found in ‘Akko as well (Stern 1997: Figs. 14:104; 15:110, 112, respectively). The vessels are glazed with a tin-based, opaque glaze. The decoration of geometric, floral, figural and animal motifs is painted in manganese, blue/green or yellow glaze on a white background. The designs on the vessels and the choice of colors vary according to their production area in southern Italy and Sicily (for further details on the designs and origin, see Whitehouse 1980b:78–80; Avissar and Stern 2005:63–67).

Proto-maiolica ware is abundant among the finds in the excavations in ‘Akko (Edelstein and Avissar 1997:130, Fig. 1:5; Pringle 1997:146, Fig. 12:76–80; Stern 1997:58–63, 65, Figs. 14:102–106; 15:107–110, 112; 17:127; 2012:77–80, Types SIT.GL.2, 3, Figs. 4.27–4.29, Pls. 4.57:4–4.61:6; Vitto 2005:168–169, Fig. 16:3). It has been found throughout the Eastern Mediterranean in Syria, Israel, Egypt and Cyprus (Pringle 1982:110–111, Fig. 1; Boas 1994:111, Fig. 7; Avissar and Stern 2005:63–69; Stern 2012:79–80).

Proto-maiolica was manufactured in Sicily and southern Italy in the thirteenth and fourteenth centuries. The date of the beginning of manufacture of this ware was thought to be around the year 1200 (Whitehouse 1980b:82), but in light of new research it has been suggested that the date should be reconsidered, and placed in the mid-thirteenth century (Sanders 1989:189–194). In any case, this group was imported to the Latin Kingdom of Jerusalem during the thirteenth century, where it has been found at many sites (Whitehouse 1980b:77). Pringle has suggested that it reached ‘Akko on Italian ships (Pringle 1982:111–112).

Unknown Provenance

Bowls with Thin Wash under Monochrome Glaze (Fig. 4:48, 49).— This is a group of bowls sharing the same type of fabric and glaze, and

apparently originating from one and the same area (see Avissar and Stern 2005:80, Fig. 34:6; Stern 2012:98–99, Type VI.GL.4). The fabric color of these bowls is pale red, with black grits, large white inclusions and occasionally mica. The glaze is applied over a very thin coat of beige or white wash so that the resulting color is not homogeneous, ranging from shades of olive green to mustard yellow. The bowls are rounded-conical with a ledge rim. When the ledge rim is wide, it has an extending ridge in the middle. This type has a very low, and sometimes wide, ring base.

Similar bowls have been found in excavations at 'Akko (Stern 1997:43, Fig. 6:43, 44; 2012:98–99, Type VI.GL.4, Pl. 4.81:1–3), as well as at Ḥorbat 'Uza (Stern and Tatcher 2009:150–152, Fig. 3.28:1, 2), Caesarea (Brosh 1986:69, Fig. 2:8), Jaffa (Avissar and Stern 2005:80) and Tripoli, Lebanon (Salamé-Sarkis 1980: Fig. 30:15, 16). It seems that the date of this type is the thirteenth century. Petrographical analysis of a bowl from 'Akko shows that it was imported to Israel, but its provenience is still unknown (Goren 1997:72; Stern 1997:43). Recently, similar bowls were reported from Kinet, one example dating to the twelfth century, and the rest to the thirteenth century. An INAA study of the Kinet bowls points to a Cilician coastal origin for them (Blackman and Redford 2005:103, Fig. 34).

Varia

Lid (Fig. 4:50).— The lid is shaped as a bowl with a knob handle attached on the inside. Lids of this shape have a long timespan, dating back to the Byzantine period and the Umayyad period (Magness 1993:248). Similar lids were found in Crusader-period deposits at Tell 'Arqa (Thalman 1978: Fig. 35:10), Ḥorbat 'Uza (Stern and Tatcher 2009:134–135, Fig. 3.21:5) and 'Akko, produced of a local fabric (Stern 2012:34–38, Type AC.PL.2, Pl. 4.3).

Oil Lamps (Fig. 4:51, 52).— Two fragments of different types of oil lamps were found. One of the fragments is a spout of a closed, unglazed

oil lamp (No. 51). This type of lamp, that can be either unglazed or monochrome glazed, is found in sites dated to the Crusader period in Israel, such as 'Akko (Stern 1997:46, Fig. 6:60, 61; 2012:39, 56, Types LE.PL, NSY.GL.1, Pls. 4.12:9–15, 4.31:5–16; Vitto 2005:170–171, Fig. 18:3), Monfort (Dean 1982:34, Fig. 47) and 'Atlit (Johns 1932:129, Fig. 2:5; 1934:144, Pl. LVII:d).

The second fragment belongs to a less widespread type of lamp, consisting of a small pinched bowl, which stands on a ridged column, covered with dark green glaze. In our case, only the column is preserved (No. 52). This type is found in sites dated to the Crusader period in Israel, such as 'Atlit (Johns 1934:144, Pl. LVII:I, b) and 'Akko (Stern 2012:61–62, Type CY.GL.1, Pl. 4.41:8–17). It is also found in Cyprus (Papanikola-Bakirtzi 1996:132, Fig. 9:14), and it seems that the lamps from 'Akko are also Cypriot, since the fabric and glaze are similar to those of the Cypriot thirteenth-century glazed wares (Stern 2008:459, Fig. 2:2).

Quantitative Analysis

Sherds of the Crusader period were counted according to type in order to establish the ratios between the different wares (Table 1). In this instance, bases were also included because of the limitations imposed by the way the pottery was retrieved during the dredging of the harbor. It seems that the bases, especially those of the glazed bowls, were collected in larger numbers than rims because they were easier to detect: they are thicker than rim and wall fragments, and therefore were better preserved. Since, in other studies in 'Akko, only the rims were counted (Stern 1997:35–36, Figs. 1, 2, Table 1; 2012:24–32), in the present counting system, a rim and a base of the same type of vessel were counted as one. Nonetheless, even with this compensation, only several comparisons can be drawn between the 'Akko Marina statistics and those of contemporary land sites (see discussion below).

In addition, a quantitative cluster analysis of the main types of vessels, according to

Table 1. Sherd Count of Crusader-Period Vessel Types

Origin	Type	No. of rims	No. of Bases	Total No. of Vessels
Coastal Levant	Table amphora	3		3
	Cooking pot: thin-walled, everted rim	1		1
	Cooking pot: thick-walled, everted rim	7		7
	Cooking pot: thin-walled, molded rim	1		1
	Cooking pot: thick-walled, molded rim	4		4
	Cooking bowls	3		3
	Levantine glazed bowls	2	1	2
Northern Syrian Coast	Port St. Symeon Wares	4	6	6
Cyprus	Cooking pot	6		6
	Cypriot thirteenth-century Sgraffito Ware	1	6	6
	Cypriot thirteenth-century slip-painted ware		2	2
Greece and Aegean	Byzantine Sgraffito		3	3
	Aegean Wares	4	7	7
	<i>Champlevé</i>		1	1
Western Turkey and/or Greece	Small, imported amphora	1		1
	Imported high-handled amphora	18	1	18
	Imported amphora	9		9
	Zeuxippus Ware		11	11
	Zeuxippus Derivative		9	9
Southern Italy and Sicily	Proto-maiolica Ware	1	1	1
Unknown provenance	Bowls with thin wash under monochrome glaze	1	1	1
Varia	Lid	1		1
	Oil lamp	1	1	2
<i>Total</i>		<i>68</i>	<i>50</i>	<i>105</i>

typological groups and provenance groups, is presented in Fig. 5. As can be seen there, the three predominant forms of pottery that were found in the port of ‘Akko are glazed bowls (n = 49), cooking ware (n = 22) and amphorae (n = 31). In the case of the glazed bowls and the amphorae, the majority is imported, while the majority of the cooking ware is of local, Levantine type.⁶

THE MAMLUK–EARLY OTTOMAN PERIOD (Fourteenth to Sixteenth Centuries)

Italian Glazed Wares (Fig. 6:53–62)

A few sherds of glazed bowls of a red fabric, decorated in various techniques, are presented here. They all seem to be of northern Italian

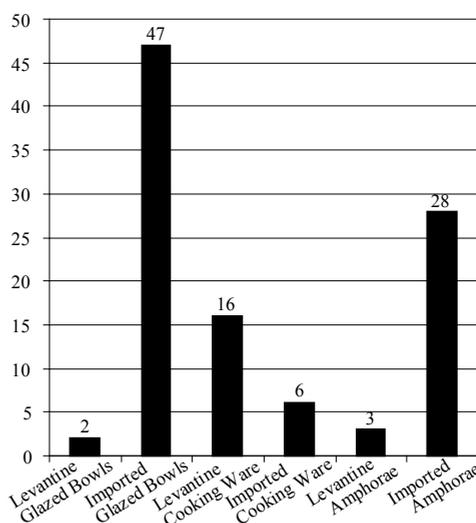


Fig. 5. Quantitative analysis of the main types of pottery.

origin. In some cases, the glaze is not well-preserved, making it more difficult to identify the exact types of wares.⁷

Monochrome Sgraffito Ware (Fig. 6:53–55).— These three vessels seem to be examples of Italian monochrome sgraffito ware (Avisar and Stern 2005:73, Fig. 31:4–6) originating in different pottery workshops in northern Italy and dating roughly to the fourteenth and fifteenth centuries, or perhaps slightly later (Vroom 2003:170). The bowls differ in shape and decoration according to the individual workshops, but they are all of a light red, reddish orange or pink fabric containing occasional white grits and/or mica inclusions. The bowls

usually have a white slip on the interior, covered by a green glaze, with incised designs executed with a fine point. The designs are either geometric or floral, and are incised in a careless way. Some of the bowls have a thumb-impressed rim, and some show rouletting or other impression modes on the exterior body, near the rim.

Bowls of this type were found at various sites in Israel: in Giv'at Yassaf, St. Mary of Carmel, Jerusalem, El-Qubab and Ramla (see citations in Avisar and Stern 2005:73; Avisar 2006:63*–65*, Fig. 9:7; Cytryn-Silverman 2010:128–129, Pl. 9.25:1, 2, Photos 9.38–9.41, and for an addition in Jerusalem, see also Pringle 1984:38, Fig. 3:8). Around the Mediterranean, they occur

Fig. 6 ▶

No.	Type	Reg. no.	Description
53	Glazed bowl	42/116	Reddish orange fabric with some white grits; dark green glaze under white slip on int.
54	Glazed bowl	36/370	Reddish orange fabric with some mica; dark green glaze under white slip on int. and ext. to ext.
55	Glazed bowl	15/451	Reddish orange fabric with some white grits; dark green glaze under white slip on int.; incised decoration on int. base
56	Glazed bowl	20/698	Light orange brownish fabric; original color of glaze not preserved, glaze on int.; incised decoration on int.
57	Glazed bowl	31/638	Light brown fabric; greenish yellow glaze on int.; incised decoration on int.
58	Glazed bowl	14/337	Light brown fabric; dark green glaze under white slip on int. and ext. to ext.; deep incised decoration on int.
59	Glazed bowl	16/1966	Orange fabric with some white and dark grits; dark green glaze under white slip on int.; on ext. of bowl is a glaze of a color not preserved; incised and gouged decoration on int. base
60	Glazed bowl	17/725	Orange fabric with some white and dark grits; greenish yellow glaze on int., under a white slip on int. and possibly also on ext.; gouged decoration on int.
61	Glazed jug	16/741	Light orange-brownish fabric with some white grits; geometric decoration in <i>champlevé</i> technique; yellow glaze on int. and ext.; splashes of green glaze on ext.
62	Glazed bowl	57/33	Orange-brownish fabric with some white grits; floral decoration in <i>champlevé</i> technique and incision
63	Glazed bowl	17/791	Reddish orange fabric with some white grits; slip painted decoration of small circles surrounding a central circle under a glaze of a color not preserved; beyond the slip painted design is an incised line
64	Glazed bowl	6/693	Light pinkish orange fabric; yellowish slip under a green glaze on int.; very thin incised decoration
65	Glazed bowl	15/466	Reddish orange fabric; white slip under a greenish glaze; decoration of a central medallion in <i>champlevé</i> technique

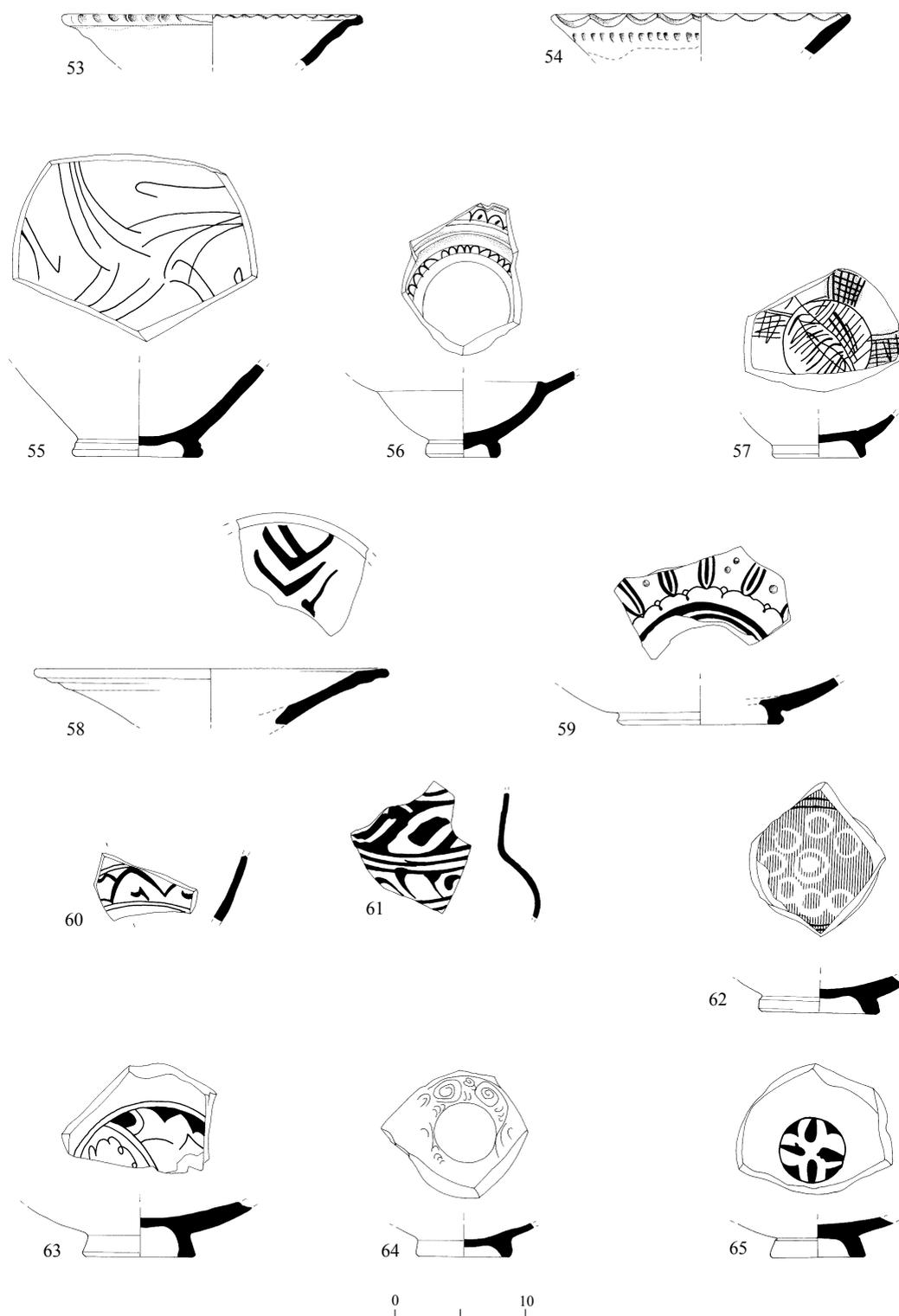


Fig. 6. Pottery of the Mamluk period.

at various sites, such as in Alexandria (François 1999:74–75, 78–81, Fig. 17:170–173, and especially 176, almost an exact parallel to our No. 54), Kouklia in Cyprus (von Wartburg 1998:160, Fig. 82:64) and Boeotia in Greece (Vroom 2003:170, Fig. 6.28:W24:1, 2), and in Venice, which is apparently one of the places from where these bowls originated (Saccardo 1996:365, Pl. III:42).

Polychrome Sgraffito (Fig. 6:56, 57).—Bowls of this type have a reddish fabric, with incised decorations (usually floral, but sometimes also geometric) on the inside, a transparent glaze over a white slip, and enhancement of the design with green and yellow glaze (Avisar and Stern 2005:72–73). This ware was manufactured in numerous workshops in northern Italy, where it is known as *Graffita Polychrome* or *Graffita Arcaica*. Its production began in the late thirteenth century and became more common in the fourteenth century. It was widely produced in the fifteenth and sixteenth centuries, and its export to the Eastern Mediterranean apparently dates to that time (Whitehouse 1980a:75–77; Blake 1986:321–341, 347; Vroom 2003:171; for examples from Venice, see Saccardo 1993:221, Fig. 16:72, 74, 75). As more pottery from recent excavations in Israel is studied, it seems clear that Italian polychrome sgraffito (*Graffita Arcaica*) bowls were the most common type of imported glazed bowls in Israel during the Mamluk period. Fragments of this type have been found at urban centers such as Zefat (Safed), Jerusalem and Ramla, but also at smaller, rural sites such as Giv'at Yassaf, Kafr Kana, Horbat Burin, Latrun and Bethany (for references, see Avisar and Stern 2005:72–73; for additional parallels from Zefat, see Stern, forthcoming; from Jerusalem, see Pringle 1984:39, Figs. 1, 2; Tushingham 1985:341, Fig. 45:21; from Ramla, see Cytryn-Silverman 2010:128–129, Pl. 9.25:4–6; from Horbat Burin, see Kletter and Stern 2006:196–197, Fig. 23:3). Italian Polychrome sgraffito also reached farther inland, as far as Karak in Jordan (Milwright

2000:196, Fig. 2:6), and was widely distributed in the eastern Mediterranean. For example, similar bowls were found at al-Mina in northern Syria (Lane 1937:60–61, Pl. 22:J, J), in Istanbul, dating to c.1600 (Hayes 1992:265, Fig. 98:1, 2, bottom) and in Alexandria, Egypt (François 1999:74–75, Fig. 17). This ware was also found at Split, and in Albania, Crete and Rhodes (Vroom 2003:170–171).

'Graffita a Punta e a Stecca' (Fig. 6:58–60).—Three fragments of small vessels—a rim, base and body sherd—bear decoration created by deep gouging. They seem to be linked to the incised and scraped ('a stecca') wares produced at Pisa and Montelupo in Tuscany in the sixteenth century (Blake 1981:105, Pls. 8.VII; 8.VIII). Similar vessels were found in Kouklia in Cyprus. This style was defined there as '*grafitta a punta e a stecca*', originating in northern Italy and dated between the fifteenth and the seventeenth centuries (von Wartburg 1998:162–163, Fig. 84).

Champlevé (Fig. 6:61, 62).—Two sherds are decorated in the *champlevé* technique (for an explanation of the technique, see above). One is a fragment of a globular jug with a wide neck and a pinched rim (No. 61). The decoration of the exterior of the jug consists of registers filled with repetitive, geometrical designs. A jug very similar to the one presented here was found in Venice, dating to the second half of the sixteenth and early seventeenth centuries (Augusti Roggeri and Saccardo 2002:158, Fig. 17). The other *champlevé* fragment is the base of a bowl with a central medallion that appears to be a floral design (No. 62).

An enhancement of the design with green and yellow glaze was usually added to *champlevé* vessels that were produced in the Veneto region during the fifteenth and early sixteenth centuries. One bowl of this type, bearing the profile of a man, was found in a salvage excavation situated outside and east of the walled city of 'Akko (Stern and Shalvi-Abbas 1999:12*, Fig. 17:6 and back cover). Others

were found at Kouklia in Cyprus (von Wartburg 1998:163–164, Fig. 85:77, 79).

'Byzantine-Style' Glazed Wares (Fig. 6:63–65)
Three bases of glazed bowls with decorations similar to glazed bowls of the thirteenth century are grouped together here. They are less carefully produced, and the walls are thicker than the ones from the thirteenth century. It is very possible that they are products of the late thirteenth or fourteenth century, continuing motifs that were depicted on Byzantine pottery of the twelfth and thirteenth centuries (for an example from Greece, see Papanikola-Bakirtzi 1999:83, Figs. 90, 91). One of the base fragments has a slip-painted design of circles arranged around a central circle (No. 63). Another has a thin incised design of spirals, very similar to the Crusader-period Byzantine ware described above (No. 64). The third fragment has a central design deeply incised, very similar to the Zeuxippus Ware described above (No. 65). With regard to No. 63, it is worth noting that slip-painted ware, dating roughly from the fifteenth to the eighteenth centuries, was found during the survey of Boeotia and in other sites in Greece, and is still being manufactured there today (Vroom 2003:174–175, Figs. 6.35:W30.1, 2; 6.44:W30.3; 6.45:W30.4–6).

DISCUSSION

The Crusader Period

Most of the medieval pottery found during the deepening of the 'Akko Marina is dated to the Crusader occupation of the town. Comparison, therefore, of the underwater finds with those from on-land excavations in 'Akko is a necessity. Broadly speaking, it can be said that the Crusader-period types retrieved from the harbor are the same as those found on land (Edelstein and Avissar 1997:130–132, Fig. 1:1–6; Pringle 1997; Stern 1997; 2012:33–99; Stern and Waksman 2003; Vitto 2005:161–171, Figs. 11–18; Waksman et al. 2008). Nonetheless, certain vessels that appear on land are conspicuously absent from the port (see Fig. 5).

In other respects, too, the composition of the Marina ceramic assemblage is slightly different from the ceramic assemblages of the sites on land at 'Akko. It seems that these differences indicate diverse functions of port vs. land sites, and might reveal other interesting insights regarding pottery.

A class of pottery found in large quantities on land, but totally absent in the material dredged from the port, is the local product of 'Akko, such as the 'Acre bowls' and other vessels made from the same fabric (plates, jugs, juglets and jars). The presence of pottery wasters in combination with the results of petrographical analysis have shown that these vessels were locally manufactured (Stern 1997:37–40, Fig. 4:1–9, 15–16; 2012:34–38, Type AC.PL; Stern and Waksman 2003:168–169, Fig. 2; Waksman et al. 2008:159–161, 176–180, Figs. 1; 2:1, 3; Shapiro 2012:104–105). They are unique to 'Akko, and to date have been found only there and in the immediate vicinity, for example at Ḥorbat 'Uẓa (Stern and Tatcher 2009:133–134, Fig. 3.21:3, 4) and Lower Ḥorbat Manot (Stern 2001:282–283, Fig. 6:4–7). In land excavations in 'Akko they consist of 30–70% of the total amount of pottery found, i.e., a very significant part of the ceramic assemblage. The likely explanation for their absence from the port area may be that—since the sherds retrieved from the seabed presumably reflect the pottery that was brought by ship to 'Akko or that was in daily use on board the ships that moored there—the simple wares produced in 'Akko were not exported overseas, nor were they used by seamen.

By contrast, it is interesting to note that another group of 'local' (or 'Levantine') wares, the glazed bowls and cooking ware produced in Beirut and found in large quantities in 'Akko land excavations, is also present among the finds from the port. This may indicate that the Beirut pottery was distributed by sea. If so, the absence of Syrian underglaze-painted, soft-paste wares (Stern 1997:63–65, Fig. 17:120–123; 2012:52–54, Type SY.GL; Avissar and Stern 2005:25–33) from the port may

perhaps be due to their transportation overland. Alternatively, the fact that Syrian underglaze-painted, soft-paste wares were found only in very small quantities in land excavations at 'Akko (1.3% of the whole assemblage [$n = 304$] in the Courthouse Site [Stern 1997:36, Table 1] and 1.6% of the glazed bowls found in the Hospitaller Compound and The Knights' Hotel [Stern 2012:31, Table 3.7]), introduces the possibility that these vessels were part of the underwater assemblage, but simply did not show up in the retrieved sampling due to their small numbers.⁸

A great deal of imported pottery, mainly glazed bowls and amphorae, was uncovered during the deepening of the marina. Among the glazed imported wares, the Aegean Wares, the Zeuxippus and Zeuxippus Derivative Wares are more dominant in the assemblage from the port than in those from the excavations on land. On the other hand, Proto-maiolica Ware usually appears in large percentages in assemblages in 'Akko, while in the port only one example was identified, and the North African Blue and Manganese Ware (Avisar and Stern 2005:76, Fig. 32) are totally absent. One of the explanations for these differences can be chronological: while the Courthouse Site dates from the end of the thirteenth century (Stern 1997), and the Hospitaller Compound and Knights' Hotel mostly to the thirteenth century, with some pottery from the twelfth century, it seems that the finds from the port equally span the twelfth and thirteenth centuries. Another explanation for why there are more Aegean wares and Zeuxippus Ware in the port may be that the assemblages from the mainland reflect pottery imported for local consumption, whereas at least parts of the assemblage retrieved from the seabed may reflect pottery used by crew members on the ships. It is known that ships during this period sailed from port to port (Pryor 1988:87–101) and thus the pottery that was in use by the crew could have been collected from various ports. The Aegean and Zeuxippus Wares come from the Greek and Turkish coast, natural anchorage points on the

way from Europe to the Holy Land during this period (Stern 2012:154–155).

An interesting phenomenon noted while studying the Crusader-period ceramic finds from the 'Akko Marina excavation, are the incised monograms found on the underside of some of the glazed bowls. These occur mainly on bowls of Zeuxippus Ware (three examples, Figs. 4:41; 7:1, 2), and the Zeuxippus Derivative Ware (three examples, Fig. 7:3–5), but also on Cypriot, Slip-Painted Glazed Ware (Fig. 2:24), Aegean Sgraffito Wares (Fig. 3:27) and a bowl with a thin wash under monochrome glaze (Fig. 4:49). Incised monograms were also found on three glazed bowls that could not be further defined typologically. It is obvious that the monograms were scratched into the clay after firing and not before, i.e., they were not made by the potter. Incised monograms were also apparent on some glazed bowls that were found in other excavations in 'Akko (Stern 2012: Pls. 4.54:1–4; 4.55:4, 5, 9; 4.56:8–11), but apparently, in smaller quantities than those found on the seabed. It is worth noting that incised monograms were also found in rather large numbers on the bases of glazed bowls excavated in the contemporaneous Novy Svet shipwreck in the Black Sea (Zelenko 1999:230, Fig. 13:5, 7, 15, 16, 18, 21, 29, 30, 35, 37–41, 43). A possible explanation for these monograms may be that the owners of the bowls marked their possessions, and they were part of the crewmembers' belongings on the ships that stopped at the 'Akko port. When the bowls broke, they were simply tossed overboard by the crew.

Another issue already discussed elsewhere (Stern 2007:200–216; 2012:133–158), but deserving of mention here, is that of the trade and distribution of ceramics (mainly glazed bowls) in the Mediterranean as reflected in the finds from the land and underwater excavations in 'Akko. Ceramic assemblages similar to those unearthed in Crusader Acre, were found in various contemporaneous sites throughout the Mediterranean. They include local and regional wares, as well as pottery from distant

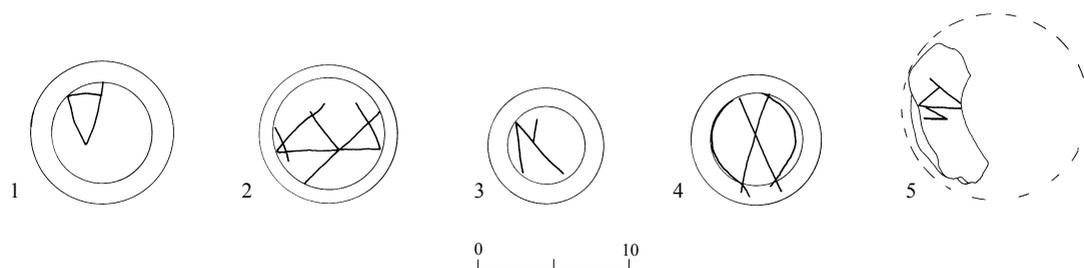


Fig. 7. Incised monograms on glazed bowls of Zeuxippus and Zeuxippus Influenced Wares.

No.	Type	Reg. no.	Description
1	Glazed bowl	2/1258	Incised base of Zeuxippus Ware
2	Glazed bowl	18, 19/819	Incised base of Zeuxippus Ware
3	Glazed bowl	12/635	Incised base of Zeuxippus Derivative Ware
4	Glazed bowl	1/823	Incised base of Zeuxippus Derivative Ware
5	Glazed bowl	15/412	Incised base of Zeuxippus Derivative Ware

places—western Mediterranean ceramics were found in eastern Mediterranean sites and vice versa. It appears that the pottery imported to ‘Akko and other Mediterranean sites was not brought in because of its intrinsic value, nor did it correlate, for instance, with the origin of the Frankish settlers in the Latin Kingdom of Jerusalem. Rather, it was transported along with other items by ships plying short- and long-distance trade between major ports. The implementation of new navigation methods and the opening of sailing routes related also to the establishment of Latin states in the eastern Mediterranean, in conjunction with progress in ship construction, resulted in an increase in shipping in the Mediterranean. Furthermore, the sophisticated maritime trade system that was developed by Italian merchants, predominantly those of Genoa, Pisa and Venice (joined in the thirteenth century by the southern French and Catalan merchants), contributed to this lively marine traffic.

It has been suggested that the ceramic vessels served for the most part as saleable space fillers

or ballast, or were taken in by private enterprise of the ship master or sailors, to sell along the sailing route (Stern 2012:139–159). In loading and unloading cargos at different ports, ships were required at times to add some weight to their holds. Pottery, and especially bowls, once densely packed, were quite heavy and could serve as ballast, which would either be sold along the route or discarded without great economic loss.

Other than trade or ballast, smaller quantities of pottery may also have arrived with pilgrims, merchants or other individuals who came to ‘Akko by ship. The geographic origins of the various ceramic wares bear silent testimony to the wide range and diverse character of ‘Akko’s maritime commercial ties in the Crusader period, and to the city’s cosmopolitan character. The great quantities of imported ceramics are a reflection of the numerous ships that arrived at the port of ‘Akko in the twelfth, and mainly thirteenth century, sailing the Mediterranean.

The Mamluk–Early Ottoman Period

After the fall of the Crusader Kingdom of Jerusalem in 1291, the import of ceramics from throughout the Mediterranean abruptly came to a halt. During the Mamluk–early Ottoman period, imported glazed tablewares appear once again in the region, starting in the late fourteenth century, and more abundantly from the mid-fifteenth to mid-sixteenth centuries. The imports, which consist mainly of northern Italian wares, arrive in much smaller quantities and appear to be distributed in patterns different than during the Crusader period. It is possible that they reflect the trade carried on by the Venetian merchants, as seems indicated by the presence of Venetian pottery, or—as Pringle has suggested—by Ligurian or Tuscan merchants, as indicated by the Florentine, Pisan and Spanish pottery (Pringle 1984:39–40; see also Milwright 2000:196; Avissar and Stern 2005:34, 72–75, 78–80). These merchants occasionally arrived in Palestine to buy local agricultural goods, mainly cotton (Arbel 1988:245–251, 255–261; 2004:37–39, 55–56, 68–72). Perhaps the ceramics were brought along as a by-product of this trading activity. Evidence of eleven wooden columns, apparently the remains of a wooden pier found in the harbor of ‘Akko, dated by carbon-14 analysis to the fifteenth century (Galili et al. 2002; Ehud Galili, pers. comm.) are additional material evidence for the presence of ship

movement in the ‘Akko port after the fall of the Crusader kingdom.

CONCLUSIONS

The paucity of ceramic finds from the Early Islamic period at the ‘Akko Marina is somewhat intriguing. Although it is known that ‘Akko was one of the harbors in use during this time period, and even though there is written evidence that it was rebuilt at the end of the tenth century, no physical traces of the port itself, nor material cultural remains of that period, were found. This may indicate that the port was situated to the southeast of its present location (Galili et al. 2002; Ehud Galili, pers. comm.).

The Crusader-period pottery assemblage retrieved from the ‘Akko Marina is dated to the twelfth and thirteenth centuries, the years that ‘Akko served as the main port, and later as the capital of the Latin Kingdom of Jerusalem. It includes mainly imported types known from excavations in ‘Akko and other sites in the eastern Mediterranean and beyond, and seems indeed to reflect the international maritime commerce activity that took place in this port.

The small quantity of—mostly imported—pottery from the Mamluk–early Ottoman period is a reflection of the state of the harbor of ‘Akko at that particular time period, when the Crusader port was destroyed. ‘Akko no longer was an urban center and only limited maritime activity took place there.

NOTES

¹ The antiquities were scooped from the seabed by a crane with a grab located atop a barge. This work was supervised by Ehud Galili and Jacob Shavit (Licence No. G-31/1993; Galili et al. 2002). I would like to thank both for their permission to study this assemblage of pottery. The manuscript was completed in 1996. In April 2007, in the wake

of significant advances in the study of the medieval pottery, it was updated by the author to include a restricted number of recent publications, mainly of those that concern the finds from ‘Akko. During the editing process, it was slightly updated in August 2010, and once again in 2012. Unfortunately, due to lack of time, it was not possible to update references

to the many other studies that were published since regarding the types of pottery under discussion that have been published in recent years. For a more updated discussion on the Crusader-period pottery from ‘Akko and the Latin Kingdom of Jerusalem, see Avissar and Stern 2005; Stern 2007, 2012.

² Please note that all the dates mentioned in this article are CE. Hence, from here onward this will not be noted.

³ The drawings are made by Hagit Tahan-Rosen. The color and presence of glaze on the illustrated vessels is noted in the text. Some of the glazed vessel figures have shading, indicating the different colors of the glaze on the interior. In the drawings of the exterior of the glazed vessels, dotted lines represent the glaze, and a broken line indicates slip.

⁴ I would like to thank Miriam Rosser-Owen, curator of the Middle Eastern Department in the Victoria and Albert Museum in London, where the al-Mina material is presently housed, for kindly showing me the finds in the storerooms in September 2007.

⁵ In reference to Pringle’s map, notice the exchange of symbols between this ware and the Zeuxippus Ware.

⁶ It is important to reiterate here that the Levantine types are regarded as local wares because, although from the perspective of ‘Akko, pottery from Beirut was an import to the city, from the wider perspective of the Latin Kingdom of Jerusalem, it was traded under the same political entity.

⁷ In addition, the paucity of publications of these types of wares available in Israel makes it difficult to identify all the types of pottery.

⁸ I would like to thank Yana Morozova, from the Center for Underwater Archaeology (CUA), National Taras Shevchenko University of Kiev, for showing me photographs of these and many other incised monograms on the glazed bowls from the shipwreck of Novy Svet and for discussing this issue with me. Future comparative research of the incised monograms from ‘Akko, Novy Svet, and other sites is definitely required in order to fully understand this phenomenon.

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