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# Crusader Glass in Context: The Destruction of Arsur (Apollonia-Arsuf, Israel), April 1265\*

Ruth E. Jackson-Tal and Oren Tal

ARSUR/ARSUF (also known as Apollonia) is located in the central coastal plain of Israel, between Jaffa and Caesarea, on a *kurkar* (fossilized dune sandstone) cliff (Fig. 1). The site was settled continuously from about 500 B.C.E. to 1265 C.E.<sup>1</sup> This article focuses on the latest stage of occupation at the site, and especially on the glass assemblage unearthed in a cesspit used for refuse by the besieged Hospitaller knights and defenders of the town's castle.

The history of the site's occupation during the Crusader period is relatively well covered in the historical sources.<sup>2</sup> The town was conquered by Baldwin I of Jerusalem and his Crusader army in 1101. Several decades later, Arsur became the seat of a feudal seignery that extended over the southern Sharon Plain. The first known lord of the seignery was a certain Johannes de Arsur. In 1187, Arsur was conquered by the Muslims,

but it was reoccupied by the Crusaders after the battle of Arsur, in which Richard I ("the Lion-Hearted") of England directed the victory over the army of Saladin on September 7, 1191, during the Third Crusade. In 1207, John of Ibelin (Lord of Beirut) married Melisende of Arsur and became the Lord of Arsur. His son, John of Arsur, inherited the title and passed it down to his son, Balian of Arsur, who, in 1241, rebuilt the walls and castle.

As danger increased from the expanding Mamluk sultanate headed by Baybars, who had seized power in 1260, it became crucial for a strong and well-organized military order to garrison Arsur. Hence, in 1261, the rights over the castle, the town, and the entire seignery of Arsur (*castellum, civitatem et dominium Arsur*) were leased to the Hospitallers by Balian for 4,000 bezants a year. This act effectively brought

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\* This article is dedicated to the memory of David B. Whitehouse in acknowledgment of his exceptional contribution to glass research in general and to medieval glass in particular.

*Acknowledgments.* The glass vessels were drawn by Yulia Gotlieb and Itamar Ben-Ezra, and photographed by Pavel Shrago, all of the Institute of Archaeology, Tel Aviv University, to whom we extend our thanks. We thank Dov Porotsky for drawing the gilded and enameled motifs of the glass beakers. We are also grateful to Na'ama Brosh, chief curator of Islamic art and archaeology at The Israel Museum, Jerusalem, for facilitating the preservation of the gilded and enameled vessels in the museum's laboratories (with the help of Olga Nagnevitskiyi), and for providing constant help.

1. For a general overview of the site, see Katharina Galor, Israel Roll, and Oren Tal, "Apollonia-Arsuf between Past and Future," *Near Eastern Archaeology*, v. 72, no. 1, 2009, pp.

4–27. For earlier studies on glass finds from the site, see Oren Tal, Ruth E. Jackson-Tal, and Ian C. Freestone, "New Evidence of the Production of Raw Glass at Late Byzantine Apollonia-Arsuf, Israel," *Journal of Glass Studies*, v. 46, 2004, pp. 51–66; and Ian C. Freestone, Ruth E. Jackson-Tal, and Oren Tal, "Raw Glass and the Production of Glass Vessels at Late Byzantine Apollonia-Arsuf, Israel," *Journal of Glass Studies*, v. 50, 2008, pp. 67–80.

2. A full historical analysis of Crusader Arsur is found in Israel Roll, "Introduction: History of the Site, Its Research and Excavations," in Israel Roll and Oren Tal, *Apollonia-Arsuf: Final Report of the Excavations*, v. 1, *The Persian and Hellenistic Periods (with Appendices on the Chalcolithic and Iron Age II Remains)*, Monograph Series of the Institute of Archaeology, Tel Aviv University, no. 16, Tel Aviv: Emery and Claire Yass Publications in Archaeology of the institute, 1999, pp. 11–18.

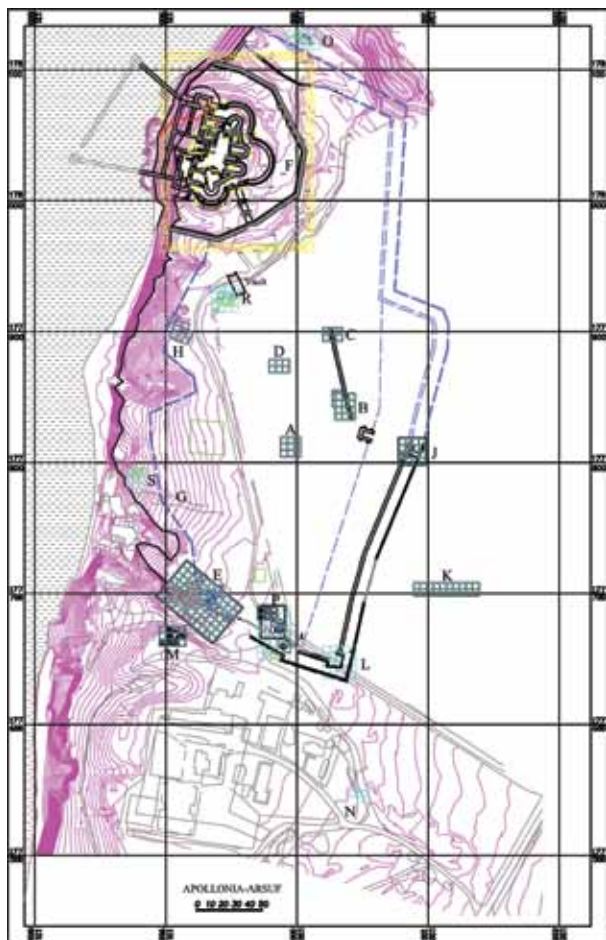


FIG. 1. Site plan of Apollonia-Arsuf. (Survey and drawing: Benny Arubas)

the actual lordship of Arsuf to an end, although later heirs of the Arsuf line of the Ibelins continued to bear the formal title of Lord or Lady of Arsuf until the late 14th century. The Hospitaliers were granted the profits of justice in Arsuf in 1263, and according to Muslim sources, in that same year they apparently started to build up a stronghold in the town.<sup>3</sup> This probably meant an eastern enlargement of the walled town, as confirmed by surveys and excavations at the site. Baybars considered this act a violation of the treaty that he had just concluded with Crusader leaders.

According to historical sources, on March 21/22, 1265, a large and well-equipped Muslim

army under the personal command of Baybars laid siege to Arsuf. From the Crusaders' point of view, Arsuf was relatively well prepared. Its town and castle were strongly fortified, well provisioned, and well defended. On April 26, after about 35 days of the siege, a concerted attack was carried out and the town was taken by storm. The surviving defenders took refuge in the castle and continued to fight with great courage. However, after three more days of fierce fighting, Muslim warriors took control of part of the castle's fortifications and were able to raise the banners of Islam over the walls. The Hospitaliers, having lost up to 1,000 warriors, including 90 knights, asked to surrender on condition that the survivors would be free to leave. Baybars at first agreed but then broke his word, and all of the survivors were taken into slavery. Moreover, Baybars forced the Christian prisoners to participate in the systematic demolition of their own stronghold.<sup>4</sup> Arsuf was subsequently razed and left in ruins, never to be properly

3. Jonathan Riley-Smith, *The Knights Hospitaller in the Levant, c. 1070–1309*, Houndmills, U.K., and New York: Palgrave Macmillan, 2012, p. 208.

4. See Reuven Amitai, "The Conquest of Arsuf by Baybars: Political and Military Aspects," *Mamlūk Studies Review*, v. 9, no. 1, 2005, pp. 61–83. For the archaeological evidence, see Oren Tal and Israel Roll, "Arsuf: The Site, Settlement and Crusader Castle, and the Material Manifestation of Their Destruction," in *The Last Supper at Apollonia: The Final Days of the Crusader Castle in Herzliya*, ed. Oren Tal, Tel Aviv: Eretz Israel Museum, 2011, pp. [8–51] (in Hebrew and English). For other historical overviews, see, for example, Steven Runciman, *A History of the Crusades*, v. 3, *The Kingdom of Acre and the Later Crusades*, Cambridge: Cambridge University Press, 1954, p. 318; Christopher Marshall, *Warfare in the Latin East, 1192–1291*, Cambridge Studies in Medieval Life and Thought, 4th ser., no. 17, Cambridge and New York: Cambridge University Press, 1992, p. 115; and Peter Thorau, *The Lion of Egypt: Sultan Baybars I and the Near East in the Thirteenth Century*, trans. P. M. Holt, London and New York: Longman, 1995, pp. 161–162. The number of dead warriors, as based on equivocal historical sources, is obviously estimated. The archaeological evidence is not in total agreement with the historical documentation (that is, the accounts of Ibn 'Abd al-Zāhir, *Al-Rawḍ al-Zāhir fi Sirat al-Malik al-Zāhir*, ed. 'Abd al-'Aziz al-Khuwaytir, Riyadh, 1396/1976, pp. 235–243). These accounts present many details, but the general impression is far from clear. Still, it appears that the town was under siege for about 35 days (from March 21/22 to April 26, 1265), while the fighting over the castle lasted three days (April 26–29, 1265). See our reservations below [note 12].

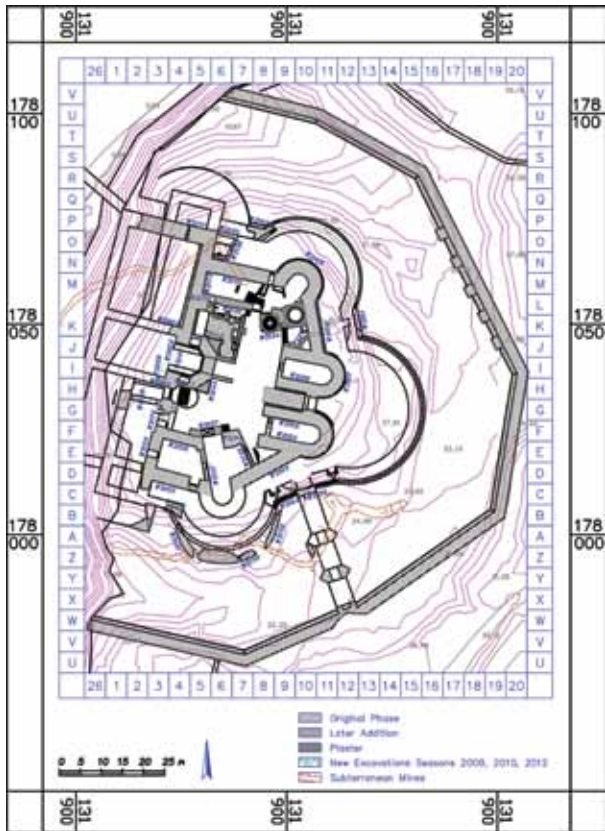


FIG. 2. Crusader castle (Area F). (Survey and drawing: Benny Arubas)

inhabited again. This final destruction is largely attested by thick conflagration layers and ruins that were uncovered in the excavated areas of the castle in particular.<sup>5</sup>

Controlled archaeological excavations in the Crusader town of Arsuf, and especially in its ruined castle (Fig. 2), have revealed clear evidence of fierce fighting.<sup>6</sup> The documentation of some 1,250 arrowheads and 2,750 ballista stones evidences the last days of the battle in late April 1265, the date of the site's destruction by the Mamluks.<sup>7</sup>

Among the excavated features of the castle, a cesspit used by the besieged Hospitaller knights and defenders for refuse was discovered in the inside corner (W2271) between the northeastern wall and the outside of the northern apsidal hall (Fig. 3). The refuse included large numbers of

local and imported pottery vessels and of plain and luxury glass vessels, which are the focus of this study. The importance of this assemblage lies in its terminus ante quem of late April 1265 and in the relative rarity of well-dated everyday artifacts of that period. A few metal objects and numerous animal bones were also recorded among the finds from the cesspit.<sup>8</sup> The pottery, glass, and metal items were discarded after they went out of use, either because they had been broken and were no longer serviceable or because they were no longer needed. Hygienic aspects should also be considered, such as an epidemic that would have forced the besieged to throw away contaminated vessels, since many of these vessels were found complete and, in some cases, intact.<sup>9</sup>

The intentional filling of the cesspit with pottery, glass, and metal objects, together with animal bones, compromised its functionality. The

5. Tal and Roll [note 4], pp. [43–46].

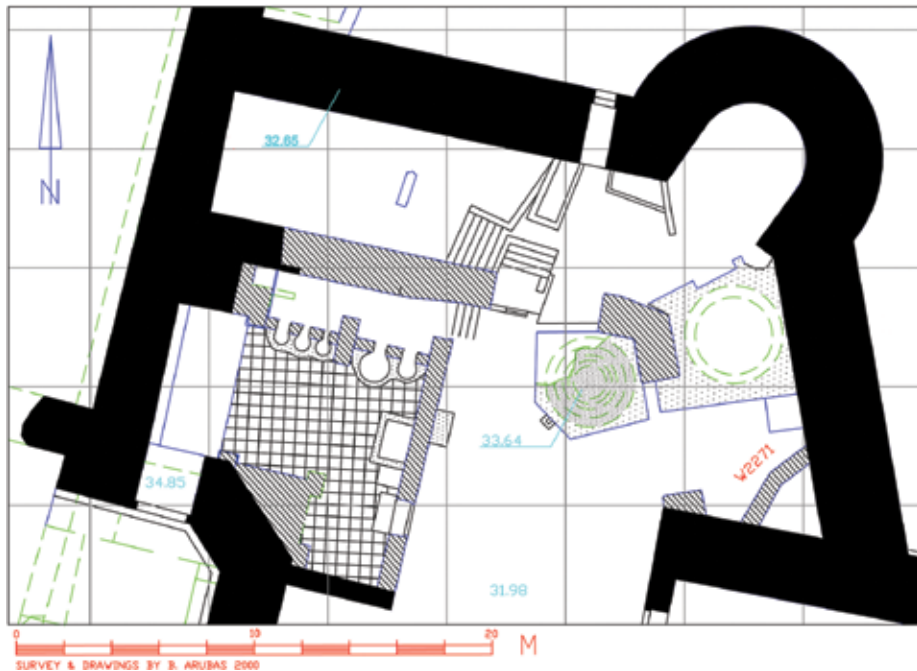
6. A salvage excavation in the castle's donjon (lower level) took place in 1981. Large-scale excavations in the castle commenced in 1998 and continued in 1999 and 2000. They were conducted in preparing the site to become a national park of the Israel Nature and Parks Authority (opened to the public in 2001). All of these excavations were carried out under the direction of the late Israel Roll (Tel Aviv University), with the aim of revealing the castle's destruction layer (1265) and leaving for future excavations the castle's earlier level of occupation (1240s). Excavations in the castle in recent years (2009–2012, directed by Oren Tal) are focused on the castle's western facade for the sake of conservation and preservation.

7. Tal and Roll [note 4], pp. [38–40]. See also Kate Raphael and Yotam Tepper, "The Archaeological Evidence from the Mamluk Siege of Arsuf," *Mamlūk Studies Review*, v. 9, no. 1, 2005, pp. 85–100; and D. Ashkenazi, O. Golan, and O. Tal, "An Archaeometallurgical Study of 13th-Century Arrowheads and Bolts from the Crusader Castle of Arsuf/Arsuf," *Archaeometry*, v. 55, no. 2, April 2013, pp. 235–257. Because excavations in the castle are ongoing, the numbers of arrowheads and ballista stones are (modestly) increasing.

8. The archaeozoological analysis of the animal bones unearthed therein shows a predominance of fowl and especially chickens, more than 200 MNI (minimum number of individuals). We are indebted to Moshe Sade, who studied these finds.

9. The cesspit was excavated during the 1999 season. The finds were published selectively and in a preliminary form in *The Last Supper at Apollonia* [note 4]. This publication is the catalog of a 2011 exhibition that told the story of the final days of the Crusader castle through the "last supper" of its defenders, the Hospitaller knights, by centering on a reconstruction of the kitchen and table where the knights ate their final meal.





level in which these finds were discovered within the cesspit, as well as their condition of preservation, surely dates the intentional filling of the cesspit to the days when the castle was under siege and the fighting was fierce. We may attribute these finds to the Hospitaller knights who inhabited the castle in the early 1260s and were preparing for the Mamluk siege either in late 1264 or, more probably, in early 1265. This is, as far as we know, the largest collection of glass from a single deposit at a Crusader castle in the Holy Land.

The pottery assemblage included more than 1,000 vessels, the most common of which were cooking utensils, mainly glazed cooking pots (approximately 300) and glazed frying pans (also termed baking trays, about 170), which constituted the most common group of vessels found in the castle. Most of the tableware recovered at Arsur consisted of various sizes of simple, undecorated bowls of the type called Acre Bowls (some 200), following the appearance of morphologically similar bowls in excavations at Acre (Akko). There are also slip-painted versions of these bowls (about 150). Among the prominent imported glazed wares

FIG. 3. Above: *survey and drawing of Crusader castle, northern section, with cesspit (W2271) at bottom right.* Below: *photograph of cesspit.* (Survey and drawing: Benny Arubas)



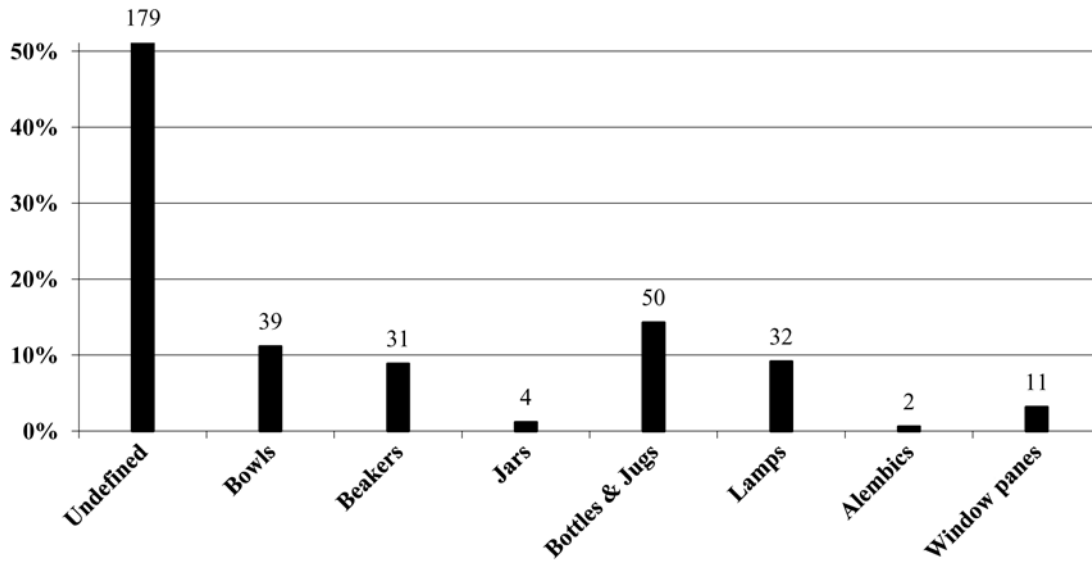


FIG. 4a. Distribution according to types of vessels (350 fragments).

are proto-majolica vessels from southern Italy and Sicily, Port Saint Symeon vessels from Al-Mina (Antioch), and different types of the so-called Zeuxippus and Zeuxippus-style bowls, which originated in various locations in the eastern Mediterranean.<sup>10</sup> Such vessels are well known in Crusader sites throughout Israel.<sup>11</sup> In any case, the predominant number of cooking vessels (as well as the large number of stoves and ovens found in the castle) attests to the importance of feeding in the castle's last days.<sup>12</sup>

### The Glass Finds

The glass assemblage consists of more than 350 vessels. It includes a variety of bowls, beakers, wineglasses, jars, bottles, and jugs, as well as lamps, alembics, and windowpanes (Fig. 4a). About 50 percent of the assemblage is devoted to pouring and drinking vessels (Fig. 4b), of which the bottles, jugs, and beakers are predominant. Most of the vessels are made of colorless glass, but there are a few examples of light blue

10. Tal and Roll [note 4], pp. [40–42].

11. Cf. Miriam Avissar and Edna J. Stern, *Pottery of the Crusader, Ayyubid, and Mamluk Periods in Israel*, IAA Reports, no. 26, Jerusalem: Israel Antiquities Authority, 2005, passim.

12. Given the archaeological finds of 21 seasons of excavations in the town and castle (1977–2012), it seems that the siege of (and fighting over) the castle lasted more than the three days mentioned in the sources (April 26–29, 1265; see note 5). The unprecedented numbers of ballista stones and arrowheads (evidencing Mamluk artillery at most), which were found almost exclusively in the castle area, lend support to this hypothesis. Moreover, the intentional discarding of hundreds of complete (or nearly complete) pottery and glass vessels can hardly coincide with three days, especially when the best explanation for this is hygienic, given the fact that it damaged the functionality of the cesspit into which the vessels and numerous animal bones were thrown (turning a valuable part of the toilet system

into a refuse pit). Furthermore, existing spaces in the castle were converted into industrial-scale installations for cooking, baking, and washing dishes. It seems to us that, as the Mamluk siege loomed, dwellings near the town walls were evacuated and filled with earth and stones to thicken and strengthen the walls. Residents found shelter in the castle, as did other inhabitants, who fled after the walls were breached. Because we find no witness to Mamluk destruction in the Crusader buildings we excavated in the town (those adjacent to the southern walls and in the inner parts of the town), the general impression is of a planned abandonment. It is likely that the platform (W6165; 16.70 x 2.70 m) we dug in Area P, which was built in close proximity to, and in total alignment with, the southern walls, is evidence of Crusader artillery that came to bolster a weak point in the wall and moat, which were narrow in that area. A breach (L. 21 m) can be seen in front of it and may well indicate the place where the first Mamluk forces entered the town.

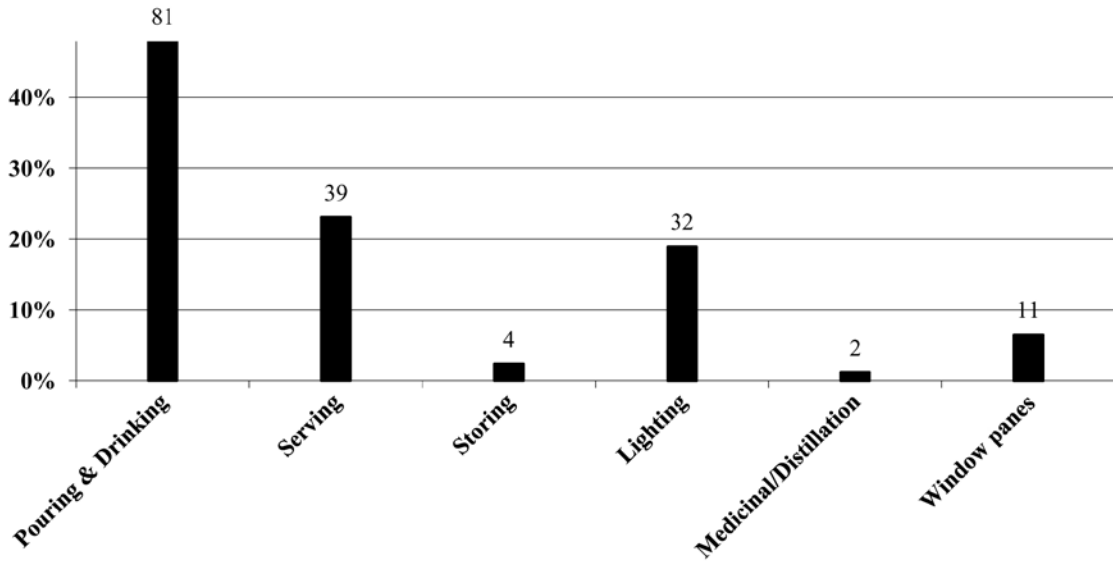


FIG. 4b. *Distribution according to function (169 indicative fragments only).*

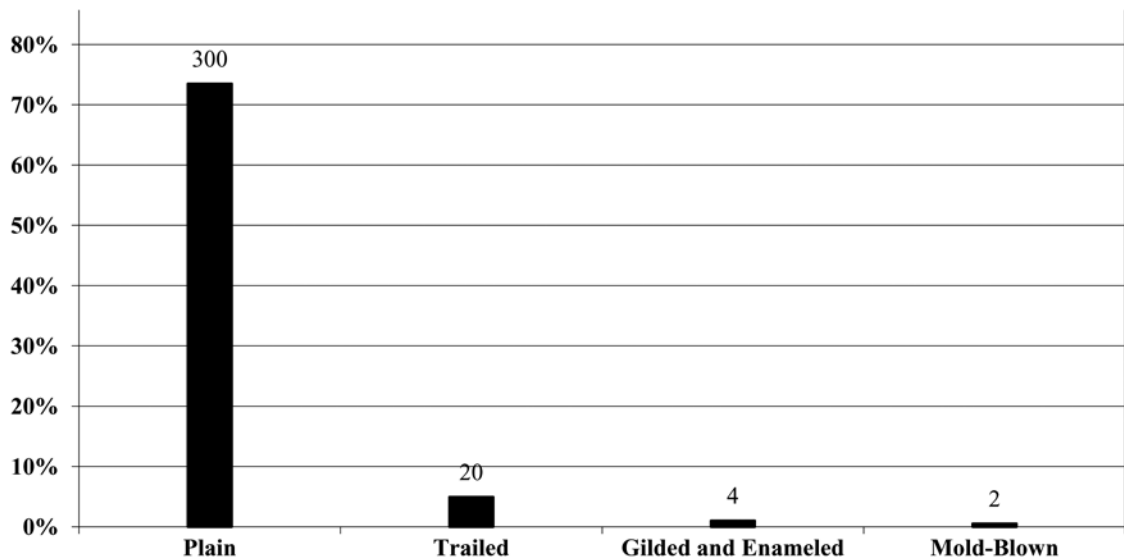


FIG. 4c. *Distribution according to decoration (350 fragments).*

and light purple glass. Most of them are undecorated or ornamented with applied trails. Four are gilded and enameled, and only two fragments are mold-blown (Fig. 4c).

Three of the gilded and enameled vessels are beakers, and one is a bowl decorated with gilding and deep blue, red, and white enamels (Figs.

5–8). These objects were embellished by applying liquid gold and the powdered glass enamels to the preformed vessels with a brush or stylus. The gilding and the blue and white enamels were used to fill the designs, and the red enamel was employed mostly to outline them. The final stage was reheating the vessels until they softened and



the gilding and enamels fused strongly to the surface. This was a complicated procedure that required highly skilled workmanship.<sup>13</sup>

The bowl shown in Figure 5 is shallow, with a slightly flaring, rounded rim. It is the only vessel decorated on the interior, with a poorly preserved continuous band of what appears to be guilloche in blue and gold enamels.

Of the three beakers that belong to this group, two have an exceptionally large mouth, with a wide-flaring, rounded rim. The first beaker (Fig. 6), whose capacity is about 700 milliliters, is decorated with a continuous floral design,<sup>14</sup> in blue, gold, and red enamels, set in two horizontal bands, each of which is bordered by gold and beaded bands.<sup>15</sup> An additional gilded band on the lower part of the beaker is rather poorly painted of uneven circles and four-petal rosettes set at intervals.<sup>16</sup> Between the middle and lower bands, two fish at different levels are hardly distinguishable because of severe weathering. This is the only beaker with a preserved base. It curves out slightly, with an inner, dome-shaped concavity and a central dimple (the so-called doughnut base). It bears the remains of a pontil scar. This base was produced by a meticulous process involving constriction and applications of glass that was slightly pushed in. This is typical of Middle Eastern beakers of this type dating from the late 12th to 14th centuries.<sup>17</sup> The shape of the base may have served a functional role, ensuring the vessel's stability when it was empty. The beaker's mass weight was shifted to its bottom, given the thickness of its base. An-



FIG. 5. *Gilded and enameled bowl* (Israel Antiquities Authority [hereafter, IAA] inv. no. 2009-1680).

other such base is documented in the assemblage and could have belonged to another beaker.

The second beaker (Fig. 7) has a nesghi inscription on its upper part, written in blue, gold, and red enamels on a single wide horizontal band that was probably bordered by gold bands (of which only the red outlines are visible). The

13. See, in this respect, William Gudenrath, "A Survey of Islamic Glassworking and Glass-Decorating Techniques," in Stefano Carboni and David Whitehouse, *Glass of the Sultans*, New York: The Metropolitan Museum of Art in association with The Corning Museum of Glass, Benaki Museum, and Yale University Press, 2001, pp. 46–67, esp. pp. 48–51; Stefano Carboni, "Painted Glass," in *ibid.*, p. 203; and Ian C. Freestone and Colleen P. Stapleton, "Composition and Technology of Islamic Enamelled Glass of the Thirteenth and Fourteenth Centuries," in *Gilded and Enamelled Glass from the Middle East*, ed. Rachel Ward, London: British Museum, 1998, pp. 121–128.

14. For similar designs, see Carl Johan Lamm, *Mittelalterliche Gläser und Steinschnittarbeiten aus dem Nahen Osten*, *Forschungen zur islamischen Kunst*, v. 5, Berlin: Dietrich Reimer,

1930, p. 335, pl. 131.13; and (in Hama) P. J. Riis, "Les Verretries," in P. J. Riis and Vagn Poulsen, *Hama: Fouilles et recherches, 1931–1938*, v. 4, pt. 2, *Les Verreries et poteries médiévales*, Copenhagen: Fondation Carlsberg, 1957, pp. 90–91, fig. 274.

15. For a very typical decorating method in the glass finds in Hama, see Riis and Poulsen [note 14], pp. 85 and 90, figs. 257 and 273.

16. For similar designs, see Lamm [note 14], p. 337, pl. 132.28, and p. 349, pl. 142.14.

17. Hugh Tait, "The Palmer Cup and Related Glasses Exported to Europe in the Middle Ages," in *Gilded and Enamelled Glass from the Middle East* [note 13], pp. 50–55, esp. pp. 51–53, drawings a–j.



FIG. 6. *Gilded and enameled beaker (IAA inv. no. 2009-1675).*

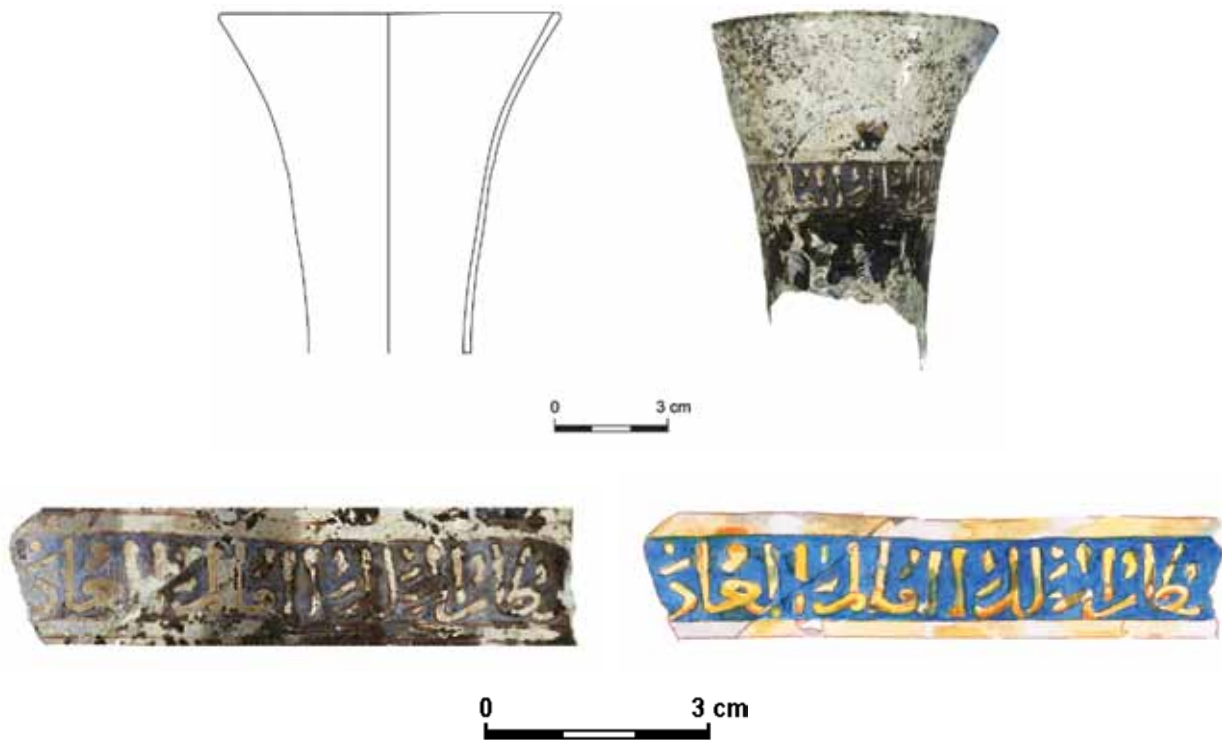


FIG. 7. Gilded and enameled beaker (IAA inv. no. 2009-1679).

inscription is a well-known formula reciting the official attributes of the sultan.<sup>18</sup> It can be read (and completed) as follows:

[السلطان الملك العالم العادل] (“el-sultan, el-malik, el-mualem, el-adel”; the sultan, the king, the learned, the just).<sup>19</sup> An additional motif, probably a fish, is located below the inscription, yet it is hardly distinguishable.

The third beaker (Fig. 8) is narrower than the other two, and its rim flares moderately. This vessel is exquisitely decorated with three horizontal bands of floral and faunal depictions in

blue, gold, white, and red enamels. The upper and middle bands display continuous floral scrolls, with opposing images of two large designs (probably stylized orchids) in the upper band, two stylized fleurs-de-lis in the middle band, and fish (probably sharks) and two more large floral designs (probably stylized orchids) in the lower band. The middle band is actually two separate horizontal gold and beaded bands, while the lower band is bordered on its lower side with a knotted band.<sup>20</sup> The three large double motifs are painted on two vertical axes. The

18. For similar inscriptions, see E. Hammershaimb, “Les Inscriptions sur verres et poteries,” in *Hama: Fouilles* [note 14], pp. 284–288; Esin Atil, *Renaissance of Islam: Art of the Mamluks*, Washington, D.C.: Smithsonian Institution Press, 1981, pp. 126–127, nos. 44 and 45; Marian Wenzel, “Thirteenth-Century Islamic Enamelled Glass Found in Medieval Abingdon,” *Oxford Journal of Archaeology*, v. 3, no. 3, 1984, pp. 1–21, esp. pp. 5–7; Martine S. Newby, “The Cavour Vase and Gilt and Enamelled Mamluk Coloured Glass,” in *Gilded and Enamelled Glass from the Middle East* [note 13], pp. 35–40, esp. p. 35; and

Stefano Carboni, *Glass from Islamic Lands: The Al-Sabah Collection, Kuwait National Museum*, New York: Thames and Hudson, 2001, p. 347, cat. no. 93b.

19. We are indebted to Issa Baidoun, Ariel Berman, and Tawfik Da’adli for their comments on the Arabic inscription on the beaker discussed below. Responsibility for the reading, however, is ours alone.

20. Lamm [note 14], pp. 350–351, pls. 143.19; 144.12, .16, and .17; and 145.9.

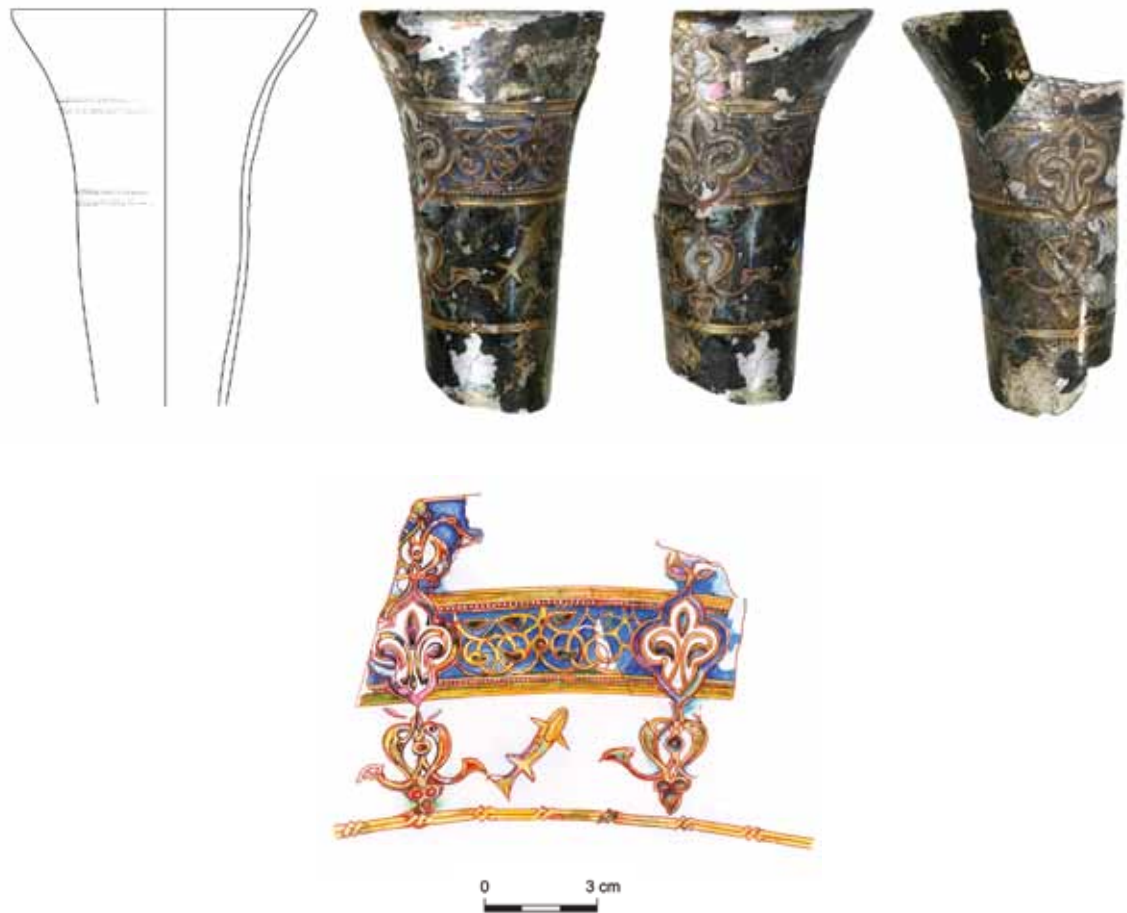


FIG. 8. *Gilded and enameled beaker (IAA inv. no. 2009-1676).*

fleur-de-lis symbol was the main attribute of the Latin Kingdom of Jerusalem. Stylized flowers and fish are commonly found in the designs on such vessels and on their metal and ceramic equivalents related to Mamluk material culture.<sup>21</sup> The fish are very homogeneous in design, with a wide bow-shaped or triangular tail, two pectoral fins near the head, two anal fins closer to the tail, and a narrow, elongated body, and therefore they can generally be assigned to the shark family. By comparison, the fleur-de-lis symbol is less often seen on glass beakers.<sup>22</sup>

These gilded and enameled objects were probably used as drinking vessels, but the two exceptionally large beakers may have been employed as ceremonial vessels or (less likely) as lighting

devices. The origin of these vessels is unknown. They are usually attributed to production centers in Syria (perhaps in Raqqa, Hama, Aleppo, or Damascus) and later probably in Egypt (at

21. For parallels on glass vessels, see Lamm [note 14]. There are numerous parallels of fish (e.g., pp. 300–301, pl. 113.12; p. 311, pl. 119.7; p. 330, pl. 127.7; and p. 344, pl. 138.7) and closely related shapes of large floral designs (e.g., p. 299, pl. 112.37; p. 301, pl. 113.14; and p. 320, pl. 123.4). In addition, see, at Hama, Riis [note 14], pp. 82–83, fig. 252 (fish design), and p. 90, fig. 270 (lotus design). For fish designs on metal vessels of the Mamluk period, see, e.g., Eva Baer, “‘Fish-Pond’ Ornaments on Persian and Mamluk Metal Vessels,” *Bulletin of the School of Oriental and African Studies*, v. 31, no. 1, 1968, pp. 4–27. It is worth noting that many of the proto-majolica bowls recovered at the castle display a fish design (cf., e.g., Tal and Roll [note 4], fig. 35 on pp. 58–59).

22. Lamm [note 14], p. 268, pl. 91.25, and p. 308, pl. 117.1.

Fustat). This attribution relies on the pioneering and monumental work of Lamm,<sup>23</sup> which is still largely accepted.<sup>24</sup> According to the few well-dated contexts, they were already known in the 12th century, but they flourished especially in the mid-13th century.<sup>25</sup> The finds from Arsuf presented here are especially significant because such vessels are rarely known in well-dated contexts. They signify the strong commercial connections between the Crusaders and their neighbors, despite the harsh religious and political conflicts. The notion that the Hospitaller knights used vessels that depict both their symbol (the fleur-de-lis) and the attributes of their rival, the sultan, is not that surprising. It accords with the epigraphic evidence we have from the nearly contemporaneous Cairo Geniza on the commercial connections in times of turbulence between Christians and Muslims.<sup>26</sup>

The other glass vessels are daily wares, mostly undecorated or ornamented with horizontal glass trails applied to the rim and neck (Figs. 9–13). They consist of types well known in the area: shallow bowls with incurving or flaring rims, wide-mouthed conical beakers with pushed-in tubular bases, a single wineglass with a beaded foot, and round and square jars. There are plain bottles with elongated necks, bottles with applied horizontal trails and single or double bulges, an extremely large bottle with a cup-shaped rim and two wavy applied trails, other trailed bottles that sometimes feature a trefoil mouth, and bottles with funnel-shaped rims, horizontal tubular folds, ridges, and applied

trails. A few delicate strap handles of jugs were found. Some bases are large and concave, while one of the bases of the small conical bottles is decorated with mold-blown ribbing. In addition, inner tubular folds used as ledges for supporting the wick in large vessels, jars, or bottles were found. Alembics with elongated spouts, as well as rounded windowpanes, were also uncovered. Surprisingly, no pruned beakers are included in this assemblage. However, they are documented at the site, in domestic contexts outside the castle.

A contemporaneous furnace for the production of similar types of glass vessels was found at Somelaria, north of Akko, and it could have been the source of some of our vessels.<sup>27</sup> The remains of a glass workshop excavated in Area X-2 of the Cardo, in the Crusader bazaar in the Jewish Quarter of Jerusalem, can also be considered.<sup>28</sup> Chemical analysis of the finds from Montfort Castle, whose destruction is assigned to 1271 on the basis of historical sources, probably indicates local (Palestinian) production.<sup>29</sup> The existence of similar undecorated vessel types throughout the central and eastern Mediterranean could indicate exportation from Syro-Palestine, or perhaps importation, like their ceramic counterparts. Another explanation is that several workshops in the Mediterranean region created similar vessels. Chemical analyses of these vessels may resolve the question of origin, and we hope to pursue this in the near future.

Similar undecorated glass vessels were found at several sites in Israel, and they also support

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23. Lamm [note 14]; *idem*, *Oriental Glass of Mediaeval Date Found in Sweden, and the Early History of Lustre-Painting*, Stockholm: Wahlström & Widstrand, 1941, pp. 58–76; David Whitehouse, “The Growth of Interest in Islamic Glass,” in *Glass of the Sultans* [note 13], pp. 8–13, esp. pp. 10–11.

24. See, however, Wenzel ([note 18], pp. 1–3), who suggests Egypt as a major source for such vessels.

25. Carboni [note 13], pp. 204–205.

26. Cf. S. D. Goitein, *A Mediterranean Society: An Abridgment in One Volume*, rev. and ed. Jacob Lassner, Berkeley: University of California Press, 1999; *idem*, “Geniza Sources for the Crusader Period: A Survey,” in *Outremer: Studies in the History of the Crusading Kingdom of Jerusalem Presented to Joshua Prawer*, ed. B. Z. Kedar, H. E. Mayer, and R. C. Smail, Jerusalem: Yad Izhak Ben-Zvi Institute, 1982, pp. 306–322.

27. Gladys Davidson Weinberg, “A Glass Factory of Crusader Times in Northern Israel,” *Annales de l’Association Internationale pour l’Histoire du Verre*, v. 10, Madrid/Segovia, 1985 (Amsterdam, 1987), pp. 305–316.

28. Na’ama Brosh, “Glass Objects from the Cardo and the Nea Church,” in Oren Gutfeld, *Jewish Quarter Excavations in the Old City of Jerusalem, Conducted by Nahman Avigad, 1969–1982*, v. 5, *The Cardo (Area X) and the Nea Church (Areas D and T): Final Report*, Jerusalem: Israel Exploration Society and Institute of Archaeology, Hebrew University of Jerusalem, 2012, pp. 400–425, esp. pp. 404–406.

29. Mark T. Wypyski and Lisa Pilosi, “Preliminary Compositional Study of Glass from the Crusader Castle at Montfort,” *Annales de l’Association Internationale pour l’Histoire du Verre*, v. 16, London, 2003 (Nottingham, 2005), pp. 194–198.

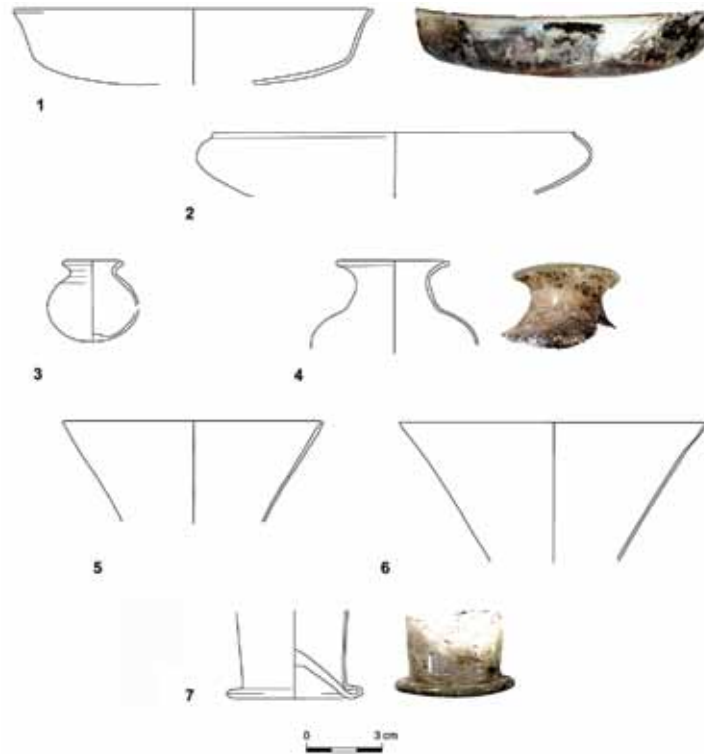


FIG. 9. Bowls (IAA inv. no. 11-502 [1]), jars, and beakers.

local production.<sup>30</sup> Other sites in Israel have yielded glass attributed to the Crusader occupation, but only a few examples were unearthed in

well-dated assemblages, retrieved from contexts chronologically similar to that of Arsur and sealed by a Mamluk destruction layer. Among

30. Worthy of note are Baniyas: Yael Gorin-Rosen and Ruth E. Jackson-Tal, "Area B: The Glass Vessels," in *Panegas*, v. 1, *The Roman to Early Islamic Periods: Excavations in Areas A, B, E, F, G, and H*, ed. V. Tzafirir and S. Israeli, IAA Reports, no. 37, Jerusalem: Israel Antiquities Authority, 2008, pp. 81–89, esp. pp. 84 and 86, fig. 5.4:9–13; Akko (destroyed in 1291 and resettled by the Mamluks): Moshe Dothan, "Akko: Interim Excavation Report First Season, 1973/4," *Bulletin of the American Schools of Oriental Research*, v. 224, 1976, p. 37, fig. 41 (an enameled beaker with fragmented inscription in Latin letters); Yael Gorin-Rosen, "Excavation of the Courthouse Site at 'Akko: Medieval Glass Vessels (Area TA)," *'Atiqot*, v. 31, 1997, pp. 75–85; Nurit Feig, "Akko: Yehoshafat Street Final Report," *Hadashot Arkheologiyot, Excavations and Surveys in Israel*, v. 122, 2010, [www.hadashot-esi.org.il/report\\_detail\\_eng.asp?id=1447&mag\\_id=117](http://www.hadashot-esi.org.il/report_detail_eng.asp?id=1447&mag_id=117); Danny Syon, "Akko: The Knights Hotel Preliminary Report," *Hadashot Arkheologiyot, Excavations and Surveys in Israel*, v. 122, 2010, [www.hadashot-esi.org.il/report\\_detail\\_eng.asp?id=1481&mag\\_id=117](http://www.hadashot-esi.org.il/report_detail_eng.asp?id=1481&mag_id=117); Yael Gorin-Rosen, "Glass," in Edna Stern, "Akko: The Educational Campus Final Report," *Hadashot Arkheologiyot, Excavations and Surveys in Israel*, v. 122, 2010, [www.hadashot-esi.org.il/report\\_detail\\_eng.asp?id=1561&mag\\_id=117](http://www.hadashot-esi.org.il/report_detail_eng.asp?id=1561&mag_id=117), with reference to addi-

tional unpublished finds in 'Akko; Yoqne'am: Ayala Lester, "The Glass from Yoqne'am: The Early Islamic, Crusader and Mamluk Periods," in *Yoqne'am I: The Late Periods*, ed. Amnon Ben-Tor, M. Avissar, and Y. Portugali, Qedem Reports, no. 3, Jerusalem: Institute of Archaeology, Hebrew University of Jerusalem, 1996, pp. 212–214, fig. XVII.13–16, and Yael Gorin-Rosen, "The Glass Vessels," in *Tel Yoqne'am: Excavations on the Acropolis*, ed. M. Avissar, IAA Reports, no. 25, Jerusalem: Israel Antiquities Authority, 2005, pp. 106–107, fig. 7.2:14 and 15; Jerusalem: Brosh [note 28], pp. 401–403, pl. 15.1:1–3 and 5–16, pl. 15.2:17–29, pl. 15.3:38, 39, and 42–46, and pl. 15.4:66 and 67; Emmaus-Qubeibeh: Bellarmino Bagatti, *Emmaus-Qubeibeh: The Results of Excavations at Emmaus-Qubeibeh and Nearby Sites (1873, 1887–1890, 1900–1902, 1940–1944)*, trans. Raphael Bonanno, Jerusalem: Franciscan Printing Press, 1993, pp. 161–164, fig. 35.1–10, photo 63; Şarafand el-Kharab: Yael Gorin-Rosen, "Glass Vessels from a Salvage Excavation at Şarafand el-Kharab, Nes Ziyayona," *'Atiqot*, v. 46, 2004, pp. 59–64, esp. p. 62, fig. 1.7 and 1.10 (in Hebrew, with English summary, pp. 131\*–132\*); and Khirbat Ka'kul: *idem*, "The Glass Vessels from Khirbat Ka'kul," *'Atiqot*, v. 54, 2006, pp. 107–112, esp. p. 109, fig. 2.9.



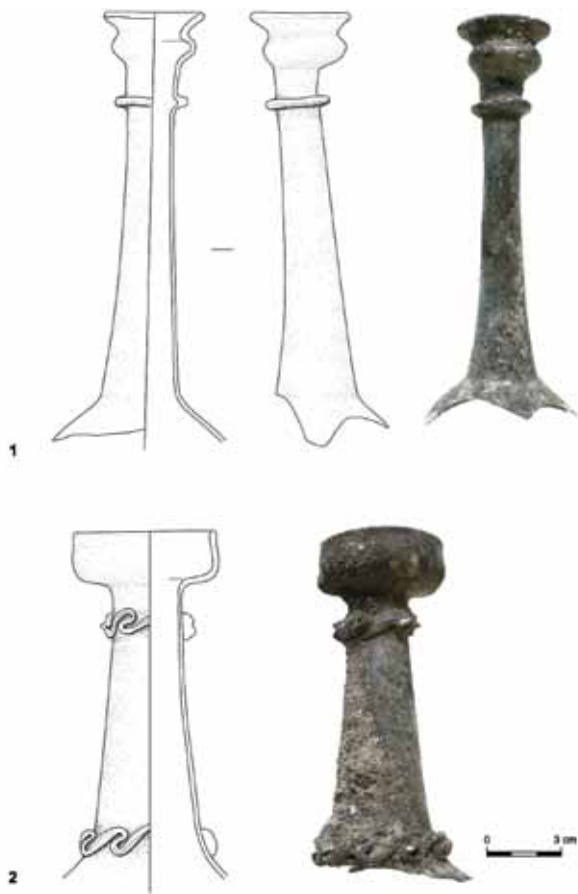


FIG. 10. *Bottles.*

these are the finds from the Red Tower (al-Burj al-Ahmar), excavated in 1983, whose destruction is dated (like that of Arsur) to 1265.<sup>31</sup> These glass vessels, which were discovered in Phase C, are dated from the occupation of the castle in the late 12th century to its destruction. They are similar to the finds from Arsur, in that they include colorless glass—bottles with a plain and straight rim, trails, and a bulge on the neck—as well as lamps of various types, with an inner tube, a large mosque lamp handle, and (on occasion) a hollow inner fold.<sup>32</sup> Another well-dated

31. The site was destroyed in 1265, but it continued to be partly occupied by Arab villagers until 1390. See Denys Pringle, *The Red Tower (al-Burj al-Ahmar): Settlement in the Plain of Sharon at the Time of the Crusaders and Mamluks, A.D.*



FIG. 11. *Bottles* (IAA inv. nos. 11-499 [1], 11-493 [3], and 11-492 [4]).

1099–1516, London: British School of Archaeology in Jerusalem, 1986, pp. 86 and 135.

32. *Ibid.*, pp. 160–162, fig. 53.9, .11, .13–.15, and .17–.21.



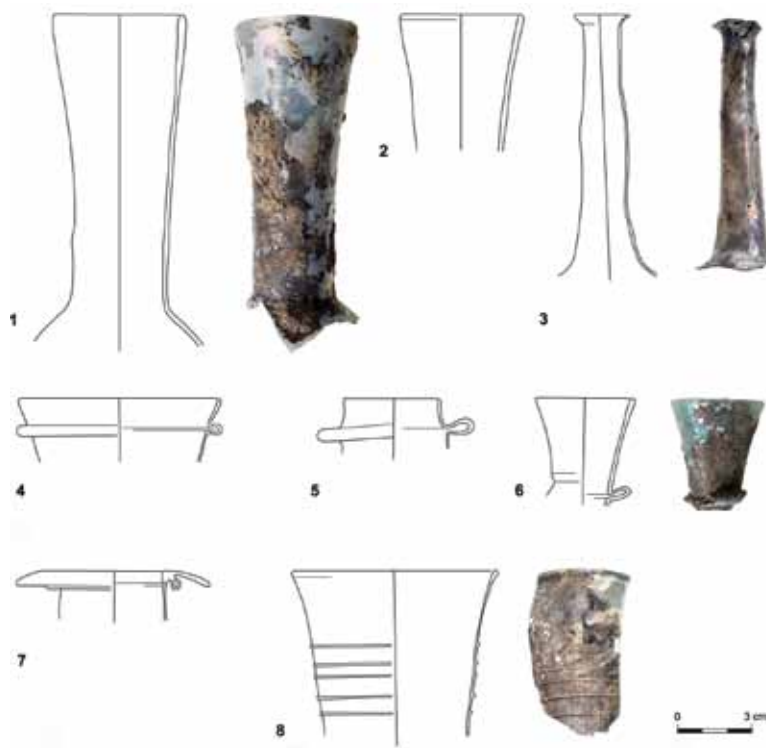


FIG. 12. Bottles (IAA inv. nos. 11-491 [3] and 11-500 [7]).

site with a modest glass assemblage is 'Atlit, part of which was also destroyed in 1265.<sup>33</sup> The stables, where the glass vessels were discovered, were excavated in 1932–1933,<sup>34</sup> and among these vessels are bowls with flaring rims, bottles with bulges below the rim, and beaker bases with a kick.<sup>35</sup>

A well-dated and important glass assemblage was unearthed at the Montfort Castle, which was destroyed in 1271 and excavated in 1926.<sup>36</sup>

It includes mostly colorless glass, drinking vessels, bottles, and lighting devices. Two of the drinking vessels are gilded and enameled beakers, one with an Arabic inscription, and one of the lighting devices is a gilded and enameled hanging lamp fragment with an Arabic inscription. Another vessel, perhaps also gilded and enameled, is the upper part of a bottle with a wide rim and a tapering neck with an applied horizontal trail. Also closely similar to the finds

33. Baybars destroyed the Faubourg of the Pilgrims' Castle in 1265, but the castle remained in Crusader hands as a Christian enclave until the fall of Acre in 1291. See Joshua Prawer, *Histoire du Royaume latin de Jérusalem*, v. 2, Paris: Editions du Centre National de la Recherche Scientifique, 1970, pp. 467–469. The destruction of the stables is dated to 1265, according to numismatic evidence.

34. C. N. Johns, "Excavations at Pilgrims' Castle, 'Atlit (1932–3); Stables at the South-West of the Suburb," *The Quarterly of the Department of Antiquities in Palestine*, v. 5, 1936, pp. 31–60.

35. *Ibid.*, pp. 51–52, fig. 18.

36. Bashford Dean, "A Crusaders' Fortress in Palestine: A Report of Explorations Made by the Museum, 1926," *Bulletin of The Metropolitan Museum of Art*, pt. 2, September 1927, pp. 5–46; David Whitehouse, "Glass from the Crusader Castle at Montfort," *Annales de l'Association Internationale pour l'Histoire du Verre*, v. 16, London, 2003 (Nottingham, 2005), pp. 191–193. See also Na'ama Brosh, "Between East and West: Glass and Minor Arts in the Crusader Kingdom," in *Knights of the Holy Land: The Crusader Kingdom of Jerusalem*, ed. Silvia Rozenberg, Jerusalem: The Israel Museum, 1999, p. 267, fig. 2.

from Arsur are pruned beakers, mold-blown and trailed bottles with elongated necks, bottles with bulges below the rim, and hanging lamps with elongated dragged handles.<sup>37</sup> The exceptional stained glass windowpanes retrieved at Montfort are not matched by any of the finds at Arsur.<sup>38</sup> Recently renewed excavations at the former site have yielded two fragments of pruned beakers.<sup>39</sup>

### Conclusions

Dining habits were extensively documented in illuminated manuscripts of the 13th century. In the written sources, although the depictions convey ideological messages and the furniture is often designed in a form recalling that found in religious structures, the set table clearly reflects what the documents tell us about dining customs. The table is usually depicted as covered with a white cloth, atop which are a transparent glass bottle of wine and a glass goblet. The bowls contain fowl, pork, and fish, which may be related to dining customs dictated by the Christian liturgical calendar.

The important discovery of glass vessels together with other tableware from the cesspit at Arsur in a socially defined, well-dated context clearly demonstrates the firm trade connections between Christians and Muslims. It also sheds more light on medieval table manners of the Latin Kingdom of Jerusalem, especially on what the aristocracy (the court of the feudal lords and, in our case, the Hospitaller knights) considered proper in the mid-13th century.

This evidence is particularly intriguing when we turn to the code of conduct of the Hospitaller knights. According to the written evidence,

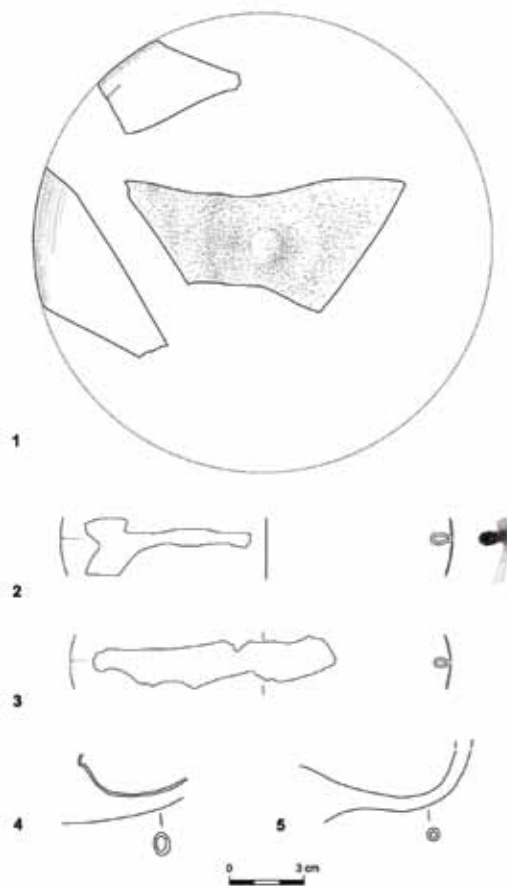


FIG. 13. *Windowpanes, tubular folds, and alembics.*

the order was characterized by its modesty, an abstinence from luxury, and the equality of all brothers in monastic tradition.<sup>40</sup> The archaeological evidence presents us with a very different picture. On the one hand, the most common ceramic vessels are the local, simple, undecorated Acre Bowls (and their slip-painted versions), symbolizing equality and modesty. But on the

37. Whitehouse [note 36], pp. 191–192, colorpls. 43–47.

38. Dean [note 36], p. 42, fig. 55.

39. Adrian J. Boas, *Montfort Castle: The Western Wing and the Great Hall*, Haifa: The Society for the Study of the Crusades and the Latin East, and Zinman Institute of Archaeology, University of Haifa, 2012, pp. 74–75, fig. 98.

40. See, in general, Alan Forey, “The Military Orders,” in *The Oxford Illustrated History of the Crusades*, ed. Jonathan

Riley-Smith, Oxford and New York: Oxford University Press, 1995, pp. 184–216. On the Knights Hospitaller in particular, see J. Delaville Le Roulx, *Les Hospitaliers en Terre Sainte et à Chypre (1100–1310)*, Paris: E. Leroux, 1904, pp. 285–309; Riley-Smith [note 3], pp. 24–26; and Judith Bronstein, *The Hospitallers and the Holy Land: Financing the Latin East, 1187–1274*, Woodbridge, U.K.: Boydell Press, 2005, pp. 11–46.

other hand are the magnificent imported gilded and enameled glass vessels and painted, glazed bowls in a great variety of types. These finds testify to the refined dining customs of the knights. The prestigious glass vessels show a certain level of class distinctions among diners. The luxury vessels were probably reserved for those at the top in the hierarchy, while the undecorated ones were likely used by those of lower station.<sup>41</sup>

We can conclude that, during the last days of the Latin Kingdom of Jerusalem, the formerly

modest Hospitaller order adopted a more decadent way of living, perhaps anticipating their imminent defeat. This exceptional assemblage thus provides us with important insights into the social aspects of the final days of the Latin Kingdom of Jerusalem.

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41. Obviously, the perception of the social implications of this phenomenon is beyond the scope of this article. It is to be treated in the publication of all finds discovered in the destruction layer of the castle.