

## THE GLASS VESSELS FROM KHIRBAT KA'KUL

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### INTRODUCTION

The excavation at Kh. Ka'kul yielded a small number of glass fragments, fourteen of which were identified, classified and dated, and are presented in this report.<sup>1</sup> All the vessels are free-blown; several are decorated in various techniques, such as applied trails and pinching. The assemblage includes bowls, beakers, jars, bottles and one oil lamp. The earliest glass vessels belong to the Late Roman and early Byzantine periods (Nos. 1–4). The Byzantine–Early Umayyad periods are represented by a very small fragment (not illustrated) and the third, most important group of vessels, is associated with the Mamluk period (Nos. 5–13).

The significance of the finds from the Mamluk period stems from their contexts, mainly floors of Mamluk buildings (L408, L414, L474, L493; see Seligman, this volume). The published data on Mamluk glass from Jerusalem and its vicinity is, so far, limited and based mainly on unstratified assemblages (e.g., Hasson 1983). Recently, a large Mamluk group

of glass vessels was recorded in Area T of the Jewish Quarter Excavations in the Old City of Jerusalem (Brosh 2005). Further information was acquired from the salvage excavation near Herod's Gate, which revealed an abundance of Mamluk glass vessels.<sup>2</sup>

### THE VESSELS

*The Late Roman and the Early Byzantine Periods* (Fig. 1)

Four vessels are included, two bowls (Nos. 1, 2), a beaker with a wound trail below the rim (No. 3) and a jar (No. 4); the last two are very typical of these periods.

No. 1 (Area G; B9311, L1014) is a bowl of greenish glass with silver-brown weathering. It has a slanting wall and an in-turned, thickened rounded rim. Parallels were found in the debris of the glass workshop at Jalame, dating to the second half of the fourth century CE (Weinberg and Goldstein 1988:45, Fig. 4-5:46, and see further references therein to Nahariya, Ḥanita

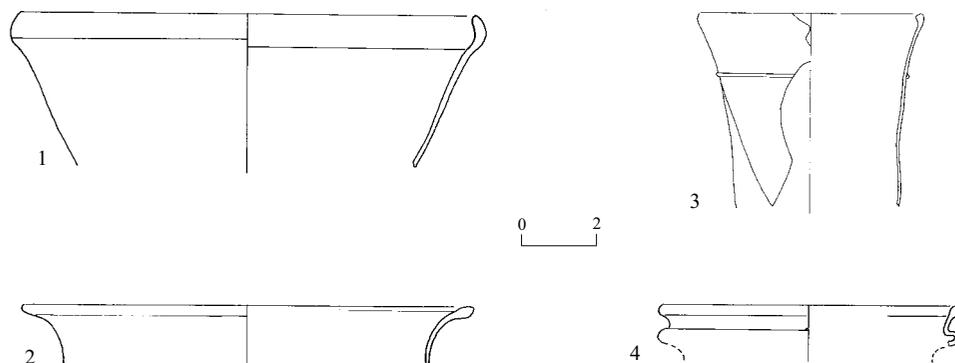


Fig. 1.

and Cyprus). A similar bowl from Khirbat Ibreiktas (Gorin-Rosen 1998:55–56, Fig. 7:3) is dated to the fourth century CE.

No. 2 (Area B2; B434, L509) is a bowl of pale green glass with blackish-silver weathering. It has a flared and slightly thickened rim and is similar to bowls from Jalame, dating to the second half of the fourth century CE (Weinberg and Goldstein 1988:40, Fig. 4-1:2, 3).

No. 3 (Area G; B9381, L1058) is a beaker of colorless glass with thin silver weathering. It has a thin, vertical wall, decorated with an applied wound trail below the rim. This vessel belongs to a group of beakers with solid bases, which are characteristic of assemblages from the fourth century CE throughout the country. Examples were discovered in the debris of the glass workshop at Jalame, dating to the second half of the fourth century CE (Weinberg and Goldstein 1988:60–63, Fig. 4-23). Since the publication of the Jalame workshop, many fragments of such beakers have been uncovered at other sites, including Jerusalem and its vicinity, e.g., at Ras Abu Ma'aruf (Gorin-Rosen 1999b:207, Fig. 1:4, and see further references therein to RAM4–RAM6).

No. 4 (Area D; B7078, L792) is a yellowish-brown jar with a wide flaring rim and an open fold just below it, of a common type that frequently appears in burial complexes and settlements around Jerusalem and all over the country. The type is dated to the Late Roman period and the beginning of the Byzantine period. Similar jars in the Jerusalem area are known from 'Dominus Flevit' (Bagatti and Milik 1958:147, Fig. 35:4), Karm al-Shaikh (Baramki 1932: Pl. 15:6), Beit Fajjar (Husseini 1935: Pl. 85:8) and Giv'at Sharet (Seligman, Zias and Stark 1996: Fig. 15:4).

#### *The Byzantine–Early Umayyad Periods*

The base of a bowl-shaped lamp with a hollow conical stem is attributed to these periods. Although the fragment (Area B2; B4114, L451) is too small to be illustrated, it is diagnostic of these periods. The fragment is of bluish glass with silver weathering. It has many comparisons at other excavations, mostly deriving from Byzantine contexts, e.g., Caesarea Maritima (Peleg and Reich 1992:155, 158–159, Fig. 20:2–9, and see further references therein), or from late Byzantine assemblages in the Jerusalem area, e.g., the monastery at Deir Ghazali (Gorin-Rosen 2000a:49\*, Fig. 26:9)

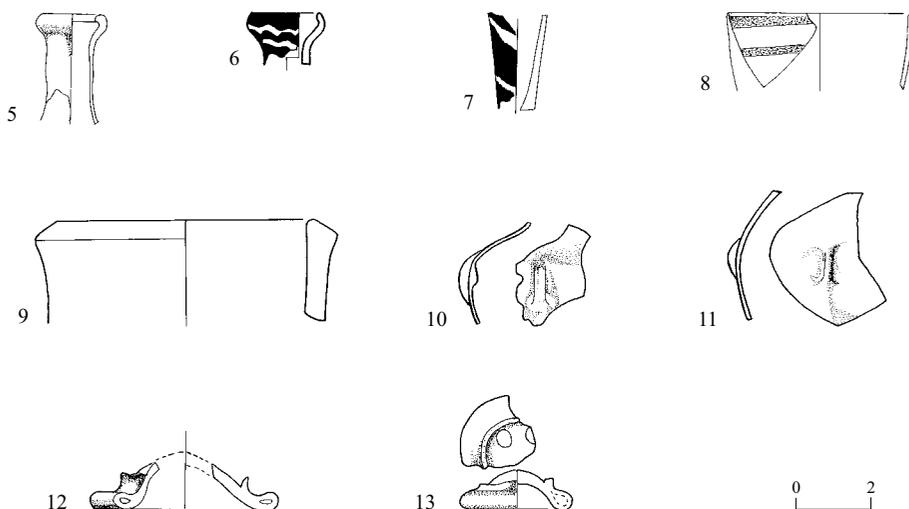


Fig. 2.

and at Ras Abu Ma'aruf (Gorin-Rosen 1999b: 211–212, Fig. 2:29).

*The Mamluk Period* (Fig. 2)

This group consists of nine vessels, including seven bottles (Nos. 5–8, 10, 11), a jar/bottle (No. 9), and two bases (Nos. 12, 13). The vessels are divided into several types and subtypes of three main groups: colorless vessels with very simple forms (Nos. 5, 9, 12), colored glass vessels (Nos. 10, 11), and marvered, bichrome vessels (Nos. 6–8, 13). The colors, which are very typical of Late Islamic and medieval glass, distinguish this group from the earlier vessels. Whereas Roman and Byzantine glass vessels are usually typified by the blue and green spectrum (Gorin-Rosen 1997:76, and see examples from the Crusader Tower at 'Akko therein), colorless vessels with various greenish tinges were very popular in the Mamluk period, as in the assemblage from Area T of the Jewish Quarter excavation in Jerusalem, where 50% of the vessels were colorless (Brosh 2005:186).

Nos. 5–7 belong to small perfume bottles with an in-curving rim, a short cylindrical neck and a conical or pyramidal body, usually referred to as 'kohl bottles' (Brosh 1993; Shindo 1993:303; Carboni 2001:305, and see further references therein). This type was in vogue during the Mamluk period, as evidenced by the eight bottles from Area T in the Jewish Quarter, Jerusalem (Brosh 2005:188), half of which were of purple glass decorated with marvered trails, like our Nos. 6 and 7; the others were of colorless glass, like our No. 5.

No. 5 (Area A; B1040, L105) is a colorless bottle with blackish-silver weathering. It has an infolded rim and a cylindrical, uneven neck; it represents an undecorated variant of this group. A similar bottle from Giv'at Yasaf (Gorin-Rosen 1999a:137–138, Fig. 1:6, and see further references therein to Hama in Syria) is dated to the thirteenth century CE.

Nos. 6, 7 (No. 6—Area B2; B4304, L490; No. 7—Area B2; B4288, L490) were found in the same locus and might have belonged to the

same vessel. They have sandy and silver, or just sandy, weathering, and are made of purplish glass decorated with marvered-in white trails. Rims like No. 6 have been discovered at other sites in Israel.<sup>3</sup> A similar base fragment was found at Giv'at Yasaf (Gorin-Rosen 1999a:138, Fig. 1:9). Bottles of this type are known from Bet Yerah (Brosh 1993:290–291, Fig. 4), dating to the Mamluk period; at Yoqne'am they are classified as Islamic glass (Lester 1996:212, Fig. 17.12:3, No. 66, and see parallels from Hama and Heshbon therein). At Qasr al-Qadim, Meyer (1992:90, Pl.19:548–553; No. 549 is similar to our No. 6) refers to this type of decoration as 'Herringbone Marvered Decoration' and dates it to the Mamluk period. Concerning the finds at al-Tur, Shindo (1993:303, Fig. 7) writes that the kohl bottles with marvered decoration were used after the thirteenth century, during the Mamluk and Ottoman periods.

No. 8 (Area B2; B4012, L408) is a colorless bottle with blackish-silver weathering, decorated with applied turquoise trails wound around the rim. Similar vessels occurred at Bet She'an and Baniyas in Mamluk contexts.<sup>4</sup>

No. 9 (Area B2; B4032, L414) is the rim of a very large jar/bottle, vertical, very thick, and made of inferior greenish fabric with blackish-silver weathering. It belongs to a type fashionable in the country during the medieval period. A large group of these vessels, found in the medieval fortifications at Bet She'an, display similar features of size, wide mouth, thick walls and low quality of fabric, as well as a crude shape and careless workmanship.<sup>5</sup> It has been suggested that this large vessel, which became prevalent during the Crusader period, may have been used for one of the sugar products that gained popularity at that time (Gorin-Rosen 2004:62 and see further references therein). Their advantage as large containers for pouring viscous liquids, as well as the ability to clean them for reuse, supports this assumption (Gorin-Rosen 2004:63, n. 7). Vessels of this type were also found at Baniyas and Caesarea.<sup>6</sup>

Nos. 10, 11 (No. 10—Area D; B7008, L706; No. 11—Area B2; B4101, L433) are bottles with a pinched decoration on the exterior. Bottle No. 10 is of emerald-green glass with golden weathering, and bottle No. 11 is of blue glass with heavy black weathering. The pinched decoration of these two fragments was a particularly common technique during the Late Byzantine and Umayyad periods,<sup>7</sup> reappearing later in the Mamluk period, to which our fragments are assigned. The hues of these colored glass fragments are familiar in the Late Islamic and medieval periods. Three turquoise glass vessels decorated with vertical pinches from Area T in the Jewish Quarter, Jerusalem (Brosh 2005:187), were identified as part of the Jerusalem workshop repertoire during the Mamluk period. Similar fragments were recovered from the excavations near Herod's Gate in the Old City of Jerusalem.<sup>8</sup>

Nos. 12 and 13 are pushed-in, hollowed and tubular bases, representing two different types according to their fabric and size.

No. 12 (Area B2; B4253, L493) could be a beaker, a jug or a bottle of poor quality colorless glass, with slightly brown weathering. It belongs to a very ordinary type of vessels that are current in most medieval and Mamluk sites (e.g., the discussion of the pushed-in tubular bases at 'Akko, Gorin-Rosen 1997:81–82).

No. 13 (Area B2; B4172, L474) is made of colorless glass with blackish-silver weathering; it has an inner layer of opaque, red glass. The shape was tooled after the red color was applied to the vessel. The base could have been made in, at least, two different methods that involved two stages. The first presumes that were the red opaque layer painted, it must have been applied after the colorless glass open vessel was shaped and before the base was re-heated to create the hollow tube. The second method maintains that were the red opaque layer made of raw glass, then red glass would have been added to the blowpipe and heated to create a basic preliminary shape, which enabled the addition of a colorless glass layer. Subsequently, the two

layers were re-heated, creating a two-layered blob, the vessel was blown and the base was tooled. This method allowed the glassmaker to use small amounts of red glass, which was more expensive and fragile than the colorless glass, producing a very thin layer that could be strengthened and protected with a colorless layer. This technique created a glossy shiny effect.

When this paper was first written, the only known group of Mamluk glass vessels was that published by Hasson (1983:109–110), which had been collected many years ago in the Old City of Jerusalem and is currently at the Mayer Institute for Islamic Art in Jerusalem. It includes many different types of colored and decorated glass vessels, dating mainly to the Mamluk period, among them a group of opaque-red vessels of Islamic date, which are particularly known in collections. Our specimen differs, however, in having a colorless coating over the red layer, a phenomenon explained by Hasson (1983:110) "...either to provide a cheaper product or possibly to obtain a lighter, glossier effect."

A more recent study of Islamic red glass vessels (Brosh 2004) classified them into three groups. The first group consisted of vessels made of red opaque glass; the second group included vessels made of greenish colorless glass and painted with red enamel; and the third group comprised vessels, wherein the red glass was mixed into the greenish or yellowish colorless glass. These three groups are part of the Mayer Museum collection, but the excavated finds from Area T in the Jewish Quarter, Jerusalem belong solely to the second group. Brosh (2004:57) concluded that the red glass vessels were probably produced in Jerusalem during the Mamluk period (thirteenth to fifteenth centuries CE).

Base No. 13 probably represents a product of these local Mamluk workshops. It could belong to the second painted group, or to a fourth group, as suggested above, which should include vessels blown from two layers of glass, i.e., a thin red layer covered with a thicker colorless layer.

This base might be part of a small bowl, similar to the red-painted bowls in the Mayer Museum collection (Brosh 2004:61, Fig. 2:b, Pl. 7) and in Area T of the Jewish Quarter excavations (Brosh 2004:62, Fig. 3:c). In recent years, a few fragments of red opaque vessels from Mamluk contexts were retrieved from a Mamluk fill in the salvage excavations near Herod's Gate in Jerusalem,<sup>9</sup> as well as from Bet Guvrin and Bet She'an.<sup>10</sup>

#### CONCLUSIONS

The group of vessels from this excavation is small, yet heterogeneous. It includes, on the

one hand, a selection of very frequent vessel types from the Late Roman and Byzantine periods and from the Early Islamic period, well known from sites in the Jerusalem area and throughout the country. On the other hand, it contains an infrequent medieval group, consisting of some vessels that can be dated to the Mamluk period on the basis of comparisons, and other, newly discovered types, which have been given a wider chronological definition. The importance of the assemblage lies in its affiliation with other finds from the excavation, and its correspondence with the general chronological framework of the settlement at Khirbat Ka'kul.

#### NOTES

<sup>1</sup> I extend my thanks to the excavator, Jon Seligman, for inviting me to study the glass finds. The vessels were drawn by Michael Miles. The text was translated from Hebrew by Miri Weingarten. Special thanks are due to the editor, Lilly Gershuny, for her help and encouragement during the revising and updating of this report.

<sup>2</sup> The excavation near Herod's Gate in Jerusalem was conducted by Gideon Avni, Yuval Baruch and Shlomit Weksler-Bdolah (2001). I wish to thank them for allowing me to note this information prior to its publication.

<sup>3</sup> Examples include finds from the Baniyas excavations, courtesy of the excavators, Vassilios Tsaferis and Shoshana Israeli; the excavations of the Bet She'an fortress, the areas under the supervision of Adrian J. Boas and Jon Seligman.

<sup>4</sup> Permission to cite this information is courtesy of the excavator of the Bet She'an fortress, A.J. Boas, and the excavators of Baniyas, V. Tsaferis and S. Israeli.

<sup>5</sup> I am grateful to J. Seligman for his permission to examine the finds from the Bet She'an fortress and to quote them prior to the final report.

<sup>6</sup> I am thankful to V. Tsaferis and S. Israeli of the Baniyas excavations, and to Yosef Porath, director of

the IAA excavations at Caesarea, for permission to quote this information prior to its final publication.

<sup>7</sup> Vessels with pinched decoration dated to the late Byzantine and Umayyad periods were recovered from many excavations in Israel; e.g., from the region of Jerusalem, a small fragment from the nearby Byzantine monastery at Deir Ghazali (Gorin-Rosen 2000a:48\*, Fig. 26:3), and from Khirbat Ṭabaliya (Gorin-Rosen 2000b:86\*, Fig. 2:13). Other excavations in Israel yielded more fragments, and complete vessels of this type came from Tomb H at Khirbat al-Karak (Delougaz and Haines 1960: Pl. 50:9), dating to the seventh century CE. Such vessels are known in Jordan from Jerash (Meyer 1988:204, 206, Fig. 11:A–B; the text mistakenly refers to Fig. 10 instead of Fig. 11) and Ma'in (Barag 1985:372–3, Fig. 8:9).

<sup>8</sup> See n. 2.

<sup>9</sup> See n. 2.

<sup>10</sup> I wish to thank Amos Kloner and Michael Cohen, the directors of the Bet Guvrin project, for allowing Natalia Kastnelson and myself to study the glass finds and cite this information. Thanks are also due to A.J. Boas for his permission to examine the glass finds from his excavation at Bet She'an and to cite them prior to publication.

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