APPENDIX: GLASS FINDS FROM RE'EM JUNCTION

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The excavation yielded a small but important group of glass finds that are all dated to the eighth century CE (Figs. 1–3). This assemblage is important as only a small corpora of Early Islamic glass vessels has been published to date from southern Israel, despite the general richness of glass vessels from this period found in published reports on excavations in other parts of the country.

VESSELS

The most interesting glass item is a fragment of a zoomorphic flask. Unfortunately, only a very small part of the vessel's bottom part, with thick walls decorated all around with a thick applied pinched trail and the beginning of two drawn out legs (Fig. 1:a). It can be reconstructed (Fig. 1:b) according to a comparable, almost complete zoomorphic flask—a camel, a donkey or a horse—carrying on its back a bottle wrapped within a cage of glass trails, which is in the Israel Museum collection (Brosh 2003:338, Cat. No. 441). The type, attributed to the Umayyad period, is well known from museums and private collections, but so far barely any have been published in excavation reports. A very similar fragment, in a slightly better state of preservation, was unearthed in the Umayyad level at Ramat Yishay, near Bet She'arim (Gorin-Rosen 2007: Fig. 8, and see full discussion and further reference therein, including to Ḥorbat Karkor 'Illit in the northern Negev). Our fragment is another indication that such zoomorphic vessels were in use in Early Islamic rural communities in Israel. This discovery substantiates Gorin-Rosen's suggestion that these vessels were locally produced rather than imported from glass workshops in Egypt or Syria.

Other glass pieces excavated at the site include several simple bowls, bottles and a twisted rod. The vessel in Fig. 2:1 is a typical cylindrical bowl with a thickened, rounded rim and a vertical wall. The flat base with a double-fold around its perimeter and a small remnant of the wall (Fig. 2:2) may be identified as another bowl of this type, but smaller in size. The footed, pushed-in base with a hollow, out-splaying ring (Fig. 2:3) represents a different class of bowls; the vessel's complete shape is unclear. The bottle fragments consist of a small fragment of a cylindrical neck decorated with a wavy trail applied around the neck's base (only one trail was preserved; Fig. 2:4); and a sloppy, uneven inward-rolled rim with part of a cylindrical neck that is pinched with horizontal bulbous ridges, three of which were preserved (Fig. 2:5).

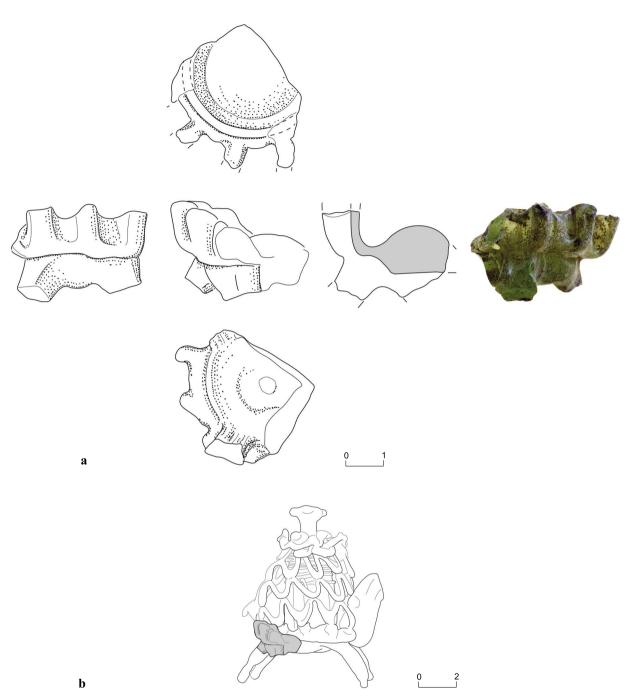


Fig. 1. A fragment of a zoomorphic flask (a) and its possible reconstruction (b).

Item	Locus	Basket	Description		
			Color	Weathering	Notes
Zoomorphic flask	103	1021	Bright greenish	Clear fabric; white-grayish enamel-like crust; iridescence	Diam. 5 cm

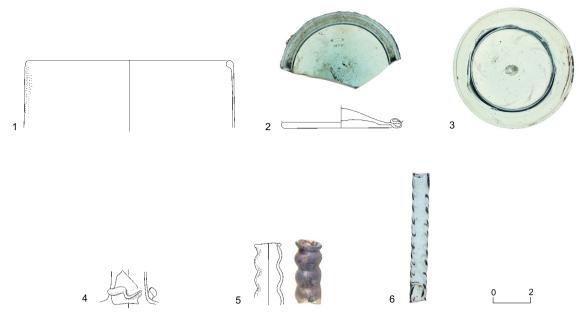


Fig. 2. Glass Items.

No.	Item	Locus	Basket	Description		
				Color	Weathering	Notes
1	Bowl	116	1047	Greenish blue	Small and large bubbles and black impurities; iridescence	Two fragments, not mended; found with glass chunks (Fig. 3:2)
2	Bowl?	114	1039	Bright greenish blue	Clear fabric; bubbles and black impurities; iridescence	Base diam. 6.3 cm; found together with glass chunk (Fig. 3:3)
3	Bowl?	108	1002	Bright greenish blue	Clear fabric; bubbles and black impurities; iridescence	Base diam. 6.3 cm; pontil mark (diam. 0.8 cm) underneath
4	Bottle	114	1031	Light greenish blue	Clear fabric; almost no weathering	
5	Bottle	103	1036	Colorless with greenish blue hue	White crust; strong silver iridescence and severe pitting	Rim diam. 1.3 cm
6	Twisted rod	104	1004	Light greenish blue	Clear fabric; almost no weathering	Diam. 0.5 cm

All six vessels belong to types that are familiar from Umayyad-period glass assemblages, as well as assemblages whose date spans into the Abbasid period. They represent glass wares of the transition phase between these two periods, when the material still reflected an earlier tradition. The clear, bright greenish blue fabric of most of these fragments point to a date no later than the eighth century CE—a date comparable to other Early Islamic glass assemblages excavated in the Negev (Gorin-Rosen 2012).

The item in Fig. 2:6 is a small fragment of a monochrome twisted rod or a mixing stick with a rounded cross-section. It is made of greenish blue, shiny glass, like the other vessels. Such items,

appearing from the mid-first century BCE onward, enjoyed a wide distribution during the Early Islamic period. A similar piece, dated to the eighth century CE, was collected at Ḥura (Gorin-Rosen 2012: Fig. 9:7, and see there further references to Ramla, Bet She'an and Tiberias).

INDUSTRIAL DEBRIS

In addition, the excavation yielded small glass chunks (Fig. 3:1–4). These chunks display unevenly broken edges and a shining fabric with a bright greenish blue hue. The quality of the fabric and its color closely resemble those of the vessels in this Early Islamic-period assemblage, with which they were found—at times in the same context (e.g., Figs. 2:1 along with 3:2 and 3:3; 2:2 along with 3:4; 2:5 along with 3:1). The vessels were likely manufactured from such chunks, which were melted in a glass kiln, possibly located in the vicinity of the site. The existence of a nearby industrial area, which may have included a glass kiln, is corroborated by several large baked bricks collected in the excavation. These bricks bear visible hollows, where organic material burned away in a high-

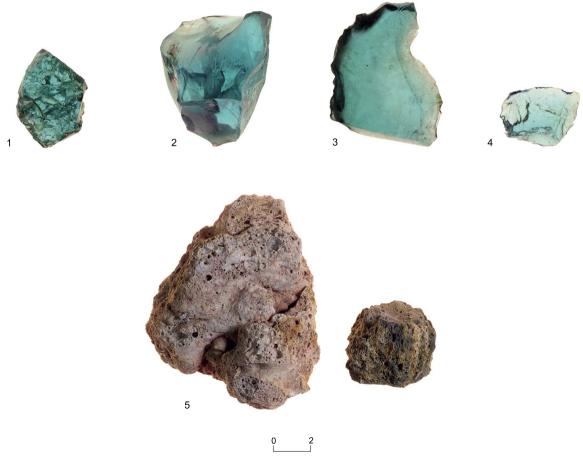


Fig. 3. Industrial Debris.

← Fig. 3.

No.	Item	Locus	Basket	Description		
				Color	Weathering	Notes
1	Glass chunk	103	1036	Bright greenish blue	Dark patches; iridescent film	Uneven shape with one flat facet; $1.2 \times 3.0 \times 3.4$ cm
2	Glass chunk	116	1047	Bright greenish blue	Clear fabric; iridescence	Uneven shape; 2.9 × 2.9 × 4.1 cm
3	Glass chunk	116	1047	Bright greenish blue	Clear fabric; iridescence	Uneven shape with one flat facet; 1.8 × 2.8 × 3.6 cm
4	Glass chunk	114	1039	Bright greenish blue	Clear fabric; iridescence	Uneven shape; 1.2 × 1.7 × 2.5 cm
5	Brick fragments	116	1043	Brown	Burned surface covered with dark and yellow patches	Uneven shapes; $8 \times 8 \times 12$ cm; $3.5 \times 4.0 \times 5.0$ cm; a third brick (not illustrated; $10 \times 15 \times 21$ cm) was found in the same basket

temperature environment (e.g., Fig. 3:5). As the bricks do not display glazed surfaces, it is difficult to associate them with any specific industrial activity. Nevertheless, they could have come from a pottery kiln, suggesting that an industrial area, which also included a glass kiln existed nearby (for similar industrial debris from Ramla, see Gorin-Rosen 2015).

REFRENCES

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