

A note on the bulk and post-medieval accessioned glass and a composite bracelet from Crossrail Central, Broadgate Ticket Hall (XSM10)

Lyn Blackmore

Introduction

All finds have been recorded in accordance with current MOLA practice and entered onto the Oracle database. Accessioned finds other than glass are considered separately.

Bulk glass

Eight pieces of glass (675g) were recovered from context [20]. Possibly the earliest is the rim and part of the neck of a squat/early cylindrical bottle, which has a high rounded string set just below the slightly narrower rounded mouth; the fact that neither are bevelled suggests a date in the 1760s or 1770s. Two bases and two body sherds are from two early cylindrical bottles. All these are in dark green glass; two sherds in a paler glass are probably from a squat cylindrical bottle. Also present is the neck of a large cylindrical phial. Taking the various forms together, the group dates to 1750–90, which agrees well with the dating of the pottery (1760–1800). Context [492] contained the complete rim and part of the shoulder of a bell-shaped phial made of natural blue glass a form typical of the second half of the 17th century (cf Noel Hume 1969, fig 17.8).

Accessioned glass

Two pieces of vessel glass and 16 fragments (284g) of glass waste were found in three contexts, of which [216] is dated by the pottery and pipes to 1730–60; context [217] mainly contains later 16th- to 17th-century ware types, but also a piece of Bow porcelain which, if stratified, dates the group to 1748–75. The waste in both groups is mainly of natural blue-green glass, the same in character, and doubtless of the same date.

Waste

No cullet or other evidence such as frit was found that would indicate the preparation of the glass metal was found. The other waste represents different stages of glass production, but there is a large lump of glass slag, or gall from a second phase of work on the site ([327], <105>; 392g), the by-product of the first melting of the prepared frit (Tyler and Willmott 2005, 42, fig 40), and another piece from [216] (<83>) that combines slag/gall with lump metal. Five fragments (168g) of lump glass/pot metal were found, of which <77>, <79> and <83> are from [216], while <96> and <98> are from [217]; of these <98> is in colourless glass with a yellowish tinge.

Production waste includes four examples (75g) of a gather, comprising spherical lumps of glass that were either dropped/discarded prior to blowing. Three are complete (<80>: Diam c 20x23mm, weights c 13.5 and 15.5g; <81>: 22x28mm); gather <84> is only part complete (Diam 23x28mm). The amount of glass would have been sufficient for blowing a phial. A small oval-shaped nugget ([217] <99>) is too small for a gather but

difficult to fit into any other category (12 x17 x 15mm); there is a tiny flat surface where it may have been split from the blowing iron.

Two fragments (16g) from [216] (<76>, <82>) both contain abundant very fine bubbles and are probably drops, produced by dipping an iron into the crucible and letting the glass drop from it in order to test the readiness of the metal for blowing working (Tyler and Willmott 2005, 49). Two others, one from [216] <78>), the other from [217] (<97>) are pulls, or excess trimmed off (ibid, 49); <97> is a broad strip (L 72mm, W 90mm) that tapers to a narrow thin trail at one end, while <78> comprises two twisted thin rods with evidence for pinching that may be waste from applied decorative elements such as base rings for beakers. The same may apply to <204> ([430]), which comprises two short, thin arched trails, one springing from the other (L 31mm, max diameter c 3mm). Accession <100> from [217] is probably a moil (an accumulation of glass around the mouth of the inflating iron; Egan 2000, 43, 46).

Vessel and other glass

It is difficult to know whether the vessel glass from [217] represents production waste. Both are in colourless glass with a grey tinge and in the Venetian style and could be from the same vessel. Accession <95> appears to be part of the bowl of a goblet, while <95> comprises the merese and part of the bowl and stem of a vessel with *latticinio* decoration of two layers of fine white canes spiralling out from the centre (cf Willmott 2002, 61, fig 59a). Accession <94> is from the bowl of a goblet, which has applied *vetro a retorti* decoration of a lattice band between narrow bands of plain white (*lattimo*) glass; the surface is marvered but slightly convex. The third find, from [20] (<8>) is the greater part of a small stopper from a perfume bottle with flattened oval knop, cylindrical shank; the narrower probe for dipping has sheared off.

Composite bracelet

Of some interest is a part of a rosary or bracelet ([349], <171>), thought to be from a burial (see discussion). The composition of the beads should be verified as and when the finds are analysed.

<171> [349] composite bracelet

Total L as reconstructed 165mm. The 20 graduated beads were found scattered but are listed below in the order they have been restrung, starting from the ends and working to the centre.

1, 2, 3, 20, 19, 18. Bone/ivory: three small drum-shaped beads at each end (L 6–7mm, Diam 7–8mm)

4, 17. Amber. Small spherical beads (L c 6mm, Diam c 8mm)

5, 16. Glass. Spherical beads of pale blue glass ((L 7–8mm, Diam 8mm)

6, 15. Amber. Spherical beads (as above), one cylindrical form with faceted wall (L 5mm, Diam 8mm)

7. Glass/limestone. Roughly spherical bead, opaque matt grey colour (L 7mm, Diam 9mm).

14. Amber. Spherical bead (L 7mm, Diam 8.5mm)

8. Amber/glass? Convex-sided cylindrical bead; marbled yellow-brown opaque with decayed surface (L 11mm, max Diam 11mm),

13. Agate? Spherical bead, banded pale yellow colour (L 11mm, Diam 12mm)

9. Glass. Ovoid bead, opaque matt brown colour with decayed surface (L 13mm, max Diam 10mm)
12. Amber/glass? Ovoid bead, opaque matt brown colour (L 11mm, max Diam 9mm)
10. Amber/glass? Ovoid bead, opaque marbled yellow-brown with matt surface (L c 15mm, max Diam c 11mm)
11. Amber. Ovoid bead with matt surfaces (L c 15mm, max Diam c 11mm)

Discussion

The area of the site is of interest to glass specialists as it is possible that the factory established by Verzelini in 1575, following the destruction of his first factory at the Crutched Friars was located in the former Augustinian Friary that fronted onto Broad Street, although it could also have been in Broad Street, Ratcliffe (Watts 2009, 27, 61, 64). The site was later taken over by Robert Mansell for the manufacture of *crystallo* drinking glasses, under the management of William Robson, and later James Howell (ibid, 51; Willmott 2005, 99–101, 107). Whether these early factories were in the city or not, Pepys, writing in the 1660s, refers to glass manufacture at Broad Street within the City, while glass waste was found in 1990 during the excavation of Boston House, Broad Street (Schofield with Maloney 1998, 300; Mortimer 1995). The archive report on this assemblage (Shepherd 1992) should be consulted for any report on the waste from the present site. Most of Mansell's glasshouses were coal-fired, but that at Broad Street used wood, as required by the City. From c 1617 barilla soda was used in place of wood ash, which was in short supply (ibid, 52, 57). A key question for a future study is how residual the glass waste might be, given that the pottery assemblages contain both 17th- and 18th-century material. Scientific analysis should be carried out to compare the finds with the earlier material and also from recent work at Mariner House, by the site of Verzelini's first factory at the Crutched Friars (Blackmore in prep).

The beads from the later inhumation cemetery on the site are of interest as a similar, but larger cluster of 42–7 beads was found in the burial of an adolescent in the New Bunhill Fields burial ground, Southwark (Richardson in prep)

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