

THE PETRA CHURCH

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GLASS FROM THE 1992-93 EXCAVATIONS

BY MARGARET O'HEA

The glass under analysis here is restricted to material from within the nave and aisles of the church itself. Subsequent excavation of the glassware from the courtyard and building in front of the church is not included here in the statistical report, although a preliminary look at this material suggests exactly the same range of material as found within the church, with the exception of incised bowls. It is worth noting, however, that the apparently deliberate collection of broken glass that was found outside the church itself in the later season of excavation adds to the number of known and probable "recycling heaps" for late Byzantine or Umayyad glassware from churches; see, for instance, Kharm el-Karak¹ or Gerasa between the Fountain Court and St. Theodore's.²

The aims of this glass analysis were twofold: firstly, to determine the nature of the glassware from the floor deposits within the church and from the destruction immediately above them. For example, if clearly domestic glass was present during the last phase of church use, this might indicate that the church was no longer functioning primarily as a church just *before* the fire, a possibility suggested by preliminary analysis of some of the other small finds within the building.

The second aim was based on the *a priori* assumption that, on the west side of the church at least, there was little disturbance of the structural collapse caused by the fire until the excavations of 1992-93. It might therefore be possible to chart the density of window panes and glass lamp sherd scatter in order to approximate the location of both in the church's latest phase. Given that 2 m² trenches were used, and that this aim was not incorporated into the recording strategy, the results are less than ideal, but a few useful points have emerged nevertheless.

Contextually, the glassware falls within two categories: glass from phases of use within the building, and from post-fire abandonment. A Late Hellenistic amber ribbed bowl (no. 32) is the only sherd definitely earlier than Late Roman/Early Byzantine from the church, and as it was washed into an upper destruction context, B4.06, it has no direct bearing on the history of the site before the construction of the church. In the latest phase, the wash and fill of the upper collapse of the church contained Umayyad and some Abbasid sherds, but nothing identifiably later.

The glass provides little evidence for the precise date of the fire that destroyed the building. None of the diagnostically Abbasid glass, *i.e.*, fragments of fabric usually associated with pincer-decorated wares of the 9th-10th centuries, came from undisturbed floor levels. Glass from the lowest destruction levels on the floor was primarily from windowpanes or hanging lamps whose date range spans the 5th to the 7th centuries A.D. The remaining types comprised simple bowls and, less commonly, trail-decorated or plain flasks of common late Byzantine types.

The only surprise was the discovery of a vitreous and vesiculated circular cake in Area D4, weighing 258 grams, approximately 20 cm in diameter, and up to 2.5 cm thick. Whether this was an ingot of glass semi-devitrified by fire or quartz-rich slag vitrified by the same event is unclear without further examination. It is possible that this belongs to the post-ecclesiastical phase of the complex.

CATALOGUE

(N.B. T.S. = Type series number)

1. B1.18. Windowpane (TS 1a); extant: L. 9 cm, width 8.9 cm, th. 0.35 cm; strongly blue-greenish, thick, flat pane with regular, rounded edge.
2. B1.18. Windowpane (TS 1b); extant: L. 6.5 cm, width 2.5 cm, th. 0.3 cm; strongly blue-greenish, bevel-chipped corner fragment.
3. A3.16. Circular windowpane (TS 38); r.d. 23-25 cm; thin-walled, colorless; flat rim, folded in; remainder missing.
4. A3.20. Stemmed lamp base (cf. TS 36); medium-thick-walled, blue-greenish; type repeats occur in olive greenish, greenish and bluish fabrics; hollow cylindrical stem, pared at base, swelling to missing broad-based bowl.
5. B1.18. Stemmed lamp rim (TS 44); r.d. 7 cm; simple rim, steep thin wall curving in to missing deep bowl; bluish; other examples include blue-greenish and greenish, with diameters ranging from 6-9 cm.
6. G4.24-25, 27. Handled lamp base (cf. TS 22); b.d. 4 cm; blue-greenish; type repeats include greenish fabric; highly kicked simple base with pontil mark; thin-walled, straight-sided bowl, rim missing; narrow cylindrical wick-tube with cut rim added to center interior.
7. A2.10. Handled lamp base (TS 25); b.d. 4 cm; indeterminate fabric; other examples are blue-greenish and greenish; thickened, round base with thick pontil scar; medium-walled, curving to bowl, rim missing; very narrow wick-holder (top missing).
8. G4.24-25, 27. Handled lamp rim (cf. TS 29); r.d. 8 cm; blue-greenish, may belong to no. 6, above; other examples have yellow-greenish, greenish, or bluish fabrics, with handles in non-matching fabrics; narrow rim folded flat to exterior; upright thin-walled bowl, with three handles attached rim to mid-body.
9. C1.06-09, 17-19, 30. Wheel-incised, figural, deep hemispherical bowl (TS 61); r.d. 12 cm; three rejoining fragments of hemispherical bowl; thick-walled, faintly blue-greenish tint; cupped rim, ground edge bevelled in, curving in to deep convex body, with missing base; all wheel-incisions on the exterior of the bowl; wheel-polished band on rim exterior; lightly wheel-incised wreath below lightly-incised broad band on mid-body; below wreath, large standing male figure, facing to right, beardless and with Constantinian hairstyle; his figure probably filled most of the tondo; both arms are slightly stretched out to the right, and his left hand probably grasped or pointed to a cylinder shaped like an I with serifs—probably a scroll; cross-hatched band down tunic; possibly cross-hatched leggings or continuation of tunic below.
10. A1.17. Wheel-incised shallow hemispherical bowl (TS 9); r.d. 14 cm; two joining fragments; thick-walled, decolorized, faintly yellow-greenish; cupped rim, ground edge bevelled exterior, carinating in above shallow convex body; below carination, wide, lightly-incised band with narrow, grooved borders; remainder of body missing.
11. B1.09. Wheel-incised bowl fragment (TS 53); medium-walled, indeterminate fabric; convex fragment with lightly-incised indeterminate design, possibly vegetal or part of an animal.
12. D1.15A. Wheel-incised bowl fragment (TS 78); medium-walled, indeterminate fabric; convex bowl, low body fragment, with lightly-incised tree or animal limb extant.
13. A1.10. Wheel-grooved deep bowl or large beaker rim (TS 17); r.d. 11 cm; thick-walled, decolorized; everted rim, ground edge bevelled exterior; deep convex bowl, mostly missing; single extant wide groove between pair of narrow grooves below rim exterior.
14. H4.26. Faceted body fragment (TS 70); extremely hydrated, indeterminate fabric; convex-walled, medium-thin body fragment from bowl or beaker; wheel-cut with rows of narrow ovals.
15. F2.23/J2.11A. Cast, footed bowl base with grooved decoration (TS 63); b.d. 5 cm, r.d. ca. 22 cm; thick-walled, decol-

- orized, with lightly yellow-greenish tint; simple rounded rim on shallow, convex wall, mostly missing; very flat, thick base with almost upright foot, not joining rim but from the same context and exactly the same cast and decolorized fabric; cast, with lathe-cut, deep circle on center of base interior.
16. C1.18. Mold-blown body fragment (TS 62); faintly blue-greenish; medium-thick-walled, convex body fragment, with regular honeycomb decoration on exterior; similar type repeat may belong to the same vessel; uncertain form, perhaps a mold-blown bowl, but it could also belong to a large flask body; honeycombed decoration ranges from the late Roman to Abbasid and later periods.
 17. F2.16. Stemmed foot of a goblet (TS 64b); b.d. 4.5 cm; bluish; type repeats include olive-greenish as well as bluish fabrics; almost solid bulbous stem, opening to splayed foot, folded on self to form hollow edge; pontil mark on exterior; bowl missing.
 18. A3.18. Trail-embedded bowl rim (TS 37); r.d. 14 cm; simple, everted rim, convex-walled; bowl missing; mid-blue fine trails embedded in yellow-greenish, thin-walled body below rim.
 19. B1.18. Trail-decorated bowl rim (TS 45); r.d. 21 cm; indeterminate fabric; simple rim on shallow, straight-walled bowl, mostly missing; large cobalt trail on rim; fine cobalt trails embedded in thin wall below rim; type repeats are smaller (16 cm diameter).
 20. J3.08. Bowl rim (TS 64a); r.d. 18 cm; blue-greenish; thin-walled; simple, everted rim on deep bowl, mostly missing.
 21. H4.20. Simple bowl rim (TS 71); r.d. 16 cm; very thin-walled, indeterminate fabric; simple, slightly upturned rim on shallow bowl (base missing).
 22. J2.14. Small bowl rim with hanging lip (TS 66); r.d. 11 cm; very thick-walled, probably decolorized (under thick hydration); overhanging, thick, short lip; convex body, mostly missing.
 23. G4.25. Bowl with folded ring-base (cf. TS 19); b.d. 5 cm; indeterminate fabric; folded, hollow, low base on medium-walled bowl, mostly missing.
 24. G4.07. Slab-footed base of a bowl (TS 74); b.d. 4 cm; indeterminate fabric; shallow, thick-walled bowl sloping to convex base with added splayed slab foot.
 25. B1.12. Coil-wound base of a bowl (TS 47); b.d. 6 cm; decolorized, faintly bluish; stacked, widely splayed coil base; at least eight small coils.
 26. B1.05. Beaker rim (TS 54); r.d. 9 cm; thin-walled, blue-greenish; overhanging rim; body swelling below neck; perhaps an oddly shaped fragment of a handled lamp, without any extant handles; the form is common on goblets, but the fabric does not match any of the retrieved examples from within the church.
 27. B3.08. Large, trail-decorated beaker/tall-mouthed flask rim (TS 56); simple, almost upright rim; steep, slightly incurved wall; fine trails added below rim down thin-walled neck; all faintly greenish.
 28. D1.13. Small, funnel-mouthed flask (TS 80); r.d. 4 cm; 33 fragments, most joining; thin-walled, greenish; shallow funnel-mouth, rim rolled in; long, cylindrical neck, rounded, saggy body; simple base, highly kicked with reamer; no pontil mark.
 29. B2.10. Large jar rim (TS 55); r.d. 13 cm; medium-walled, strongly amber; flaring rim rolled to exterior; short, funnel mouth, carinating to swelling body (missing); perhaps either Late Byzantine or early Islamic—without the body, it is difficult to date with any certainty.
 30. H4.27. Flask/beaker folded foot (TS 69); b.d. 4 cm; blue-greenish; body missing; base splayed to form folded almost flat foot; thick-domed base, pontil scar exterior.
 31. C1.30. Flask/beaker simple pad base (TS 59); b.d. 6 cm; indeterminate fabric; body missing, on thickened and flat simple pad base.
 32. B4.06. Hellenistic cast ribbed bowl (TS 57); r.d. 12-14 cm; thick-walled, amber fabric; simple rim sloping in to straight-sided bowl, mostly missing, with regular ribs starting high up the exterior; pair of fine, narrow grooves below rim interior.
 33. K3.03. Goblet/beaker rim (cf. TS 72); r.d. 7.5 cm; indeterminate fabric, thin-walled; upright rim, folded to exterior on upright, slightly convex wall; fine trails closely wound below rim exterior; remainder missing.
 34. B1.13. Large, simple bowl rim (TS 48); r.d. 36 cm; mid-bluish, thick-walled; thickened rim, on very shallow large convex bowl; base missing.
 35. A3.04. Simple goblet/lamp rim (TS 39); r.d. 9 cm; greenish; thickened rim, on deep, straight-sided body, mostly missing; such rims occur on both goblets and hollow-stemmed lamps.
 36. E3.23. Large, funnel-mouthed flask rim or hollow-stemmed lamp rim, trail decorated (TS 76); r.d. 9 cm; medium-thin-walled; fabric not recorded; simple, thickened rim on slightly convex mouth, tapering towards missing lower body; single extant and very large, solid trail wound below rim exterior; the rim is like the complete Byzantine flask no. 17 from cave 3 at Kisra.³
 37. A3.24. Collared flask rim (TS 34); r.d. 3 cm; thin-walled; fabric not recorded; rim incurved to form shallow collar; remainder missing; although not enough survives to identify it properly, it is possible that it is an Islamic-era intrusion.
 38. A1.13. Coil-stacked rim (TS 10); r.d. 7 cm; medium-thin-walled; fabric not recorded; everted rim, rolled in, on steep, straight-sided mouth; two thick trails coil-stacked on rim top; an unusual form of decoration, probably from a large, funnel-mouthed flask, but I know of no parallels for the rim.
- Windowpanes*
- Both decolorized, blown, round windows, with folded rims like a flattened dish (Fig. 6.3), and square or rectangular panes were in use at the time of the fire that destroyed the church (Fig. 1). That the former are in fact panes, and *not* dishes, is likely, even though no completely rejoinable examples were retrieved in the Petra Church; their walls are far too shallow to be anything else, and one example embedded in plaster was recovered (Fig. 2); comparable examples, with plaster attached, have been excavated from churches at Gerasa.⁴ Their body fragments, thin-walled and slightly curved, were not as easily identifiable as the thicker, rectangular panes unless a rim was present; this explains why they formed only one percent by weight of all identifiable window glass retrieved from within the church (Fig. 1).
- Regardless of whether the debris within the church was subsequently cleared or piled in late antiquity, there is a localized distribution of circular panes along the western end of the south aisle of the church (B1-2) and the eastern end of the nave (A1, A3, F4, and H1), which is not matched by the more ubiquitous scattering of rectangular windowpanes throughout the church; this may perhaps indicate that the round panes were used only in limited positions, possibly only in clerestory windows.
- Rectangular-paned windows predominated. Most of these were strongly blue-greenish or bluish and translucent, averaging 0.2-0.3 mm in thickness. The overall size of individual panes could not be reconstructed, although it is certain that they were more than 12 cm in at least one direction, and that they were cut from larger panes, as some had not only their rather fluid original edges but also sides that had been deliberately chip-bevelled. None were of the spun-disk, or "crown-glass", type.
- The blue-green color and its bluer variations, even on the one pane, is of course that of natural glass but a small proportion were strongly olive-greenish, implying either a different source

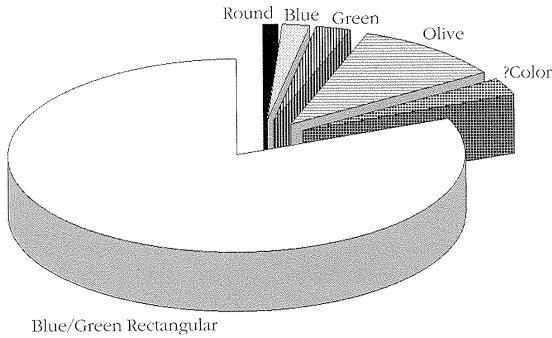


Fig. 1. Percentage of window-pane types by weight

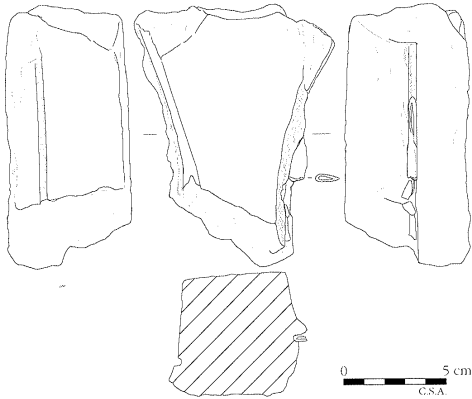


Fig. 2. Reg. no. 0221, J4.15; window fragment with two curved frame edges; each has a shallow groove cut into the side to hold a glass pane; on one side, traces of glass remain embedded

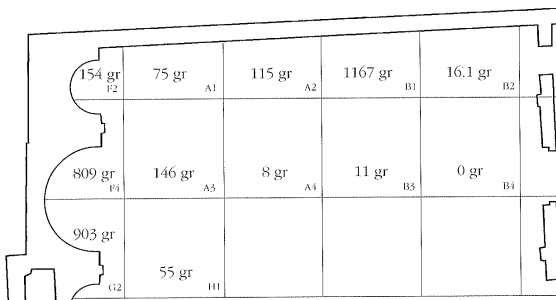


Fig. 3. Distribution of window glass in the study area (by weight in grams)

of the glass batch (using sand with different impurities) or a deliberate variation in color. One possible explanation is the small-scale repair of some original panes with the olive-greenish ones, but they could equally all have been set in place at the same time, with little regard for the striking difference in color. That the olive panes were in some way decoratively placed *cannot* be assumed from their rather random findspots, or from their small percentage (by weight) of the total. On the available evidence, they were of the same size and manufacturing process as the rest of the rectilinear panes. All that is certain, then, is that the church used dark and strongly tinted glass, but not with an eye to multicolored designs.

Secondly, there is limited evidence pointing toward the presence of rectangular windows in the clerestory as well as in the

exterior walls. Spatial analysis of the windowpanes was problematical, however, partly because of a possible and limited disturbance in the western nave (by stone-robbers?), but also because of an odd concentration of the two most numerous categories of glass, *i.e.*, windowpanes and lamps, in the mid-southern aisle (B1) and also in the area just north of the central apse (G2, G4). One explanation is that some debris at least was piled in these areas after the fire. Another is that these areas were most severely affected by heat, with the greatest collapse of upper beams, from that the lamps presumably were hung, and of superstructure, including the windows. That these two areas yielded the greatest concentration of melted windowpanes—including some which appear to have been heat-affected before they shattered on the ground—lends support to the second explanation, which implies that the fire took hold in the upper woodwork of the western half of the aisle, and blew the clerestory windows outwards. This is an idea already proposed by the project's architect, Chrysanthos Kanellopoulos, on different evidence. The glass distribution cannot prove this reconstruction of events, but it does fit it. That most of the clerestory windows fell—in this area only—into the aisle rather than the nave cannot be proven because of the post-destruction disturbance, which by itself may explain the small proportion of panes found in the nave. The windows from the external wall could also have fallen into the aisle in B1, but this is unlikely, given that in the paired aisle/nave trenches A1/A3 and F2/F4 there was much more windowpane material in the nave than in the aisle. This would make sense if these collapsed in from the clerestory at the eastern end of the church, but blew out from the clerestory in B1. The panes found to the east were more shattered than semi-melted and probably fell in the general collapse rather than at the center of the fire.

This predominance of rectangular panes within the church is typical of the evidence from other Byzantine churches in Syro-Palestine, such as the 6th century monastery at Beth Shean,⁵ the 5th-6th century church at Shavei Zion,⁶ the 5th-7th century church at Rehovot, also in the south,⁷ and Khirbet ed-Deir.⁸ The latter Judaeen site yielded fragments of similar extant dimensions as those at Petra.

Lamps

At the time of its destruction, the Petra Church certainly used two types of hanging lamps in almost equal proportions: stemmed lamps and handled bowl-lamps. Of each type, only one form was used in the church, and their distribution is markedly different.

An M.N.E. of 79 hollow-stemmed lamps—for insertion in metal polycandela—were recorded, the number being estimated from the stemmed bases (no. 4), which are the most easily identifiable element of the type. This lamp occurs in Early Byzantine through to Umayyad contexts, as amply demonstrated at Gerasa,⁹ and was used in houses as often as in churches. In the Petra Church, they appear scattered throughout, except for the eastern end of the south aisle and eastern part of the nave; they appear in the narthex and predominate in the western nave and southern aisle. The rims were probably mostly simple (no. 5), as far as they can be identified, and the bodies undecorated. They fall happily into a 5th-7th century date-range. However, the absence of the solid-stemmed version of these lamps strongly indicates a pre-Umayyad date.

The second category present is the three-handled bowl-lamp, exclusively used here with added wick-tube. One example survived with its suspension hooks and chain (Fig. 4, and see Fig. 5). Like its stemmed counterpart, it occurs throughout the church, but is scarcest where the stemmed lamp predominates, and is concentrated instead toward the altar, across the eastern nave/chancel and especially in the northern apse. One would expect the two types to be thoroughly mixed together if the concentra-

tions of glassware within the church were purely the result of clean-up after the fire.

Examples of handled bowl-lamps with wick-tubes from private dwellings are scarce, unlike the hollow-stemmed type. At a number of southern Levantine sites, their earliest appearance is at least by the 5th century, and continuing in use, if not production, until at least the 7th century.¹⁰ They are certainly common in the 6th century.¹¹ They are comparatively rarer perhaps but certainly not unknown in the northern regions.¹² The main functional difference between the wick-tubed lamp, and those with-



Fig. 4. Reg. no. 0326, H3.17; polycandelon parts and a glass lamp handle originally found hooked around one of the fragments

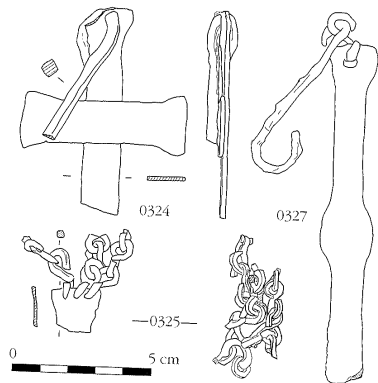


Fig. 5. Polycandelon parts: Reg. nos. 0324, 0325, and 0327

ordinary bowls but unlike goblets and beakers whose rims, if folded at all, roll inwards. This makes identification of the former comparatively simple, despite the range of rim sizes. Most diameters cluster around 8-10 cm, but at least three with a diameter of 15 cm can be tentatively identified as very large handled lamps. The same contemporary variations in size was also observed at the monastic church of St. Lot near the Dead Sea.

That said, there were fragments of large and thickened, flat, simple bases throughout the Petra Church from which no diameters or meaningful drawings could be made; these could be the bases for rounded, shallow bowl-lamps. At Gerasa they are linked in a number of church contexts with folded rims of a kind also associated with circular windowpanes,¹³ all in 6th century phases, on structural grounds, at the earliest. A larger version was found in the excavation of a 3d century public building at Palmyra, although this provides only a *t.p.q.* for the vessel.¹⁴ If these do belong to handleless, shallow bowl-lamps, and this is by no means certain, it can only be assumed that they were not intended for suspension. It is also unprovable but quite likely that in a few select areas of the church there were suspended engraved hanging bowl-lamps.

For all, the date-range again is 4th-6th centuries A.D., although their popularity seems to have peaked in the early Byzantine period. The contemporaneity of both the hollow-stemmed and

wick-tubed types of lamps is clear, perhaps starting as early as the 4th or 5th century. There is no evidence that one group of lamps belonged specifically to a period when the basilica ceased to function as a church. Indeed, the nature of the handled and the stemmed lamps as virtual "fixtures" rather than easily-removable items, given their suspension from the ceiling or upper side walls, seems always to give them a remarkably long use-span in churches.

Wheel-incised Bowls

Another type of lamp may have been used in the church before its destruction, especially in the narthex and in the center of the southern aisle. In both areas were scattered fragments of more than one hemispherical, wheel-incised, footless bowl, all of a distinctive, thick, faintly blue-greenish or yellow-greenish fabric, which characteristically hydrated to form a thick enamel-like black surface. The best-preserved bowl (Fig. 6.9) was retrieved from the southern atrium (C1). Midway down the exterior ran a horizontal band of wheel-incised grooves above a wreath that bordered a figured scene; of that scene, only the upper body of a standing, tunic-clad male figure and a scroll, or perhaps a background column, now remain. The series of this particular form of shallow hemispherical bowl is generally dated to the 4th century, and perhaps extending into the 5th century, and production of those bowls found in the east is assumed, albeit on circumstantial grounds, to have been centered in either Alexandria¹⁵ or Syria.¹⁶

Unlike the deep wheel-engraved decoration on the interiors of the Christian bowl from Gerasa¹⁷ or the explicitly Hebrew plate from the catacombs of Beth She'arim,¹⁸ the Petra figured bowl is lightly-engraved on the exterior. As I have suggested elsewhere for the engraved bowl fragments from the monastic church of St. Lot near the Dead Sea, this may indicate that the design was meant to be seen from the exterior—that is, below—rather than from above, as was the normal case for the similarly-shaped engraved pictorial bowls of 4th century Rhineland, which may have functioned as drinking vessels.¹⁹ However, if any of these bowls did serve as lamps, none shows clear signs of friction-wear below the rim, which might be expected if any of the bowls had been suspended in a metal ring.

A very close parallel for the shape and dimensions of the Petra bowl is from Mezad Tamar south of the Dead Sea²⁰ and is broadly datable to the 4th or 5th centuries. The upper border of the decoration is very close but not identical to the Petra example—three horizontal grooves above a wreath—but the rest of the bowl is missing, so further comparisons are impossible. The similarities and the regional proximity to the Petra Church and indeed the more loosely-comparable 4th-5th century bowls from the monastic church at St. Lot (southeast of the Dead Sea) may be coincidental, but it is also possible that these roughly contemporary churches acquired these presumably expensive bowls from closely related workshops. Only one of the St. Lot engraved bowl fragments also has grooves above a wreath mid-body; it is medium-thick-walled and faintly blue-greenish, but neither the rim nor lower body survive; the best-preserved bowl has a flaring rim and, like the remaining fragments, is thin-walled.

That none of the above bowls was imported from the much more prolific Rhenish workshops is clear by the comparatively less dash-like and jagged strokes for hair and face on the southern Syro-Palestinian examples. That they were also not Roman/Italian in origin is suggested by the more common appearance of grooves immediately below the rim of western figured bowls.²¹

Fragmentary examples from Egyptian Armant and Karanis²² have the decoration begin much closer to the rim than the Petran bowl. A more regular wreath above more architectural arcing appears on another shallow hemispherical bowl from Corinth,²³ which is dated, purely by comparison with el-Bassa, too early—

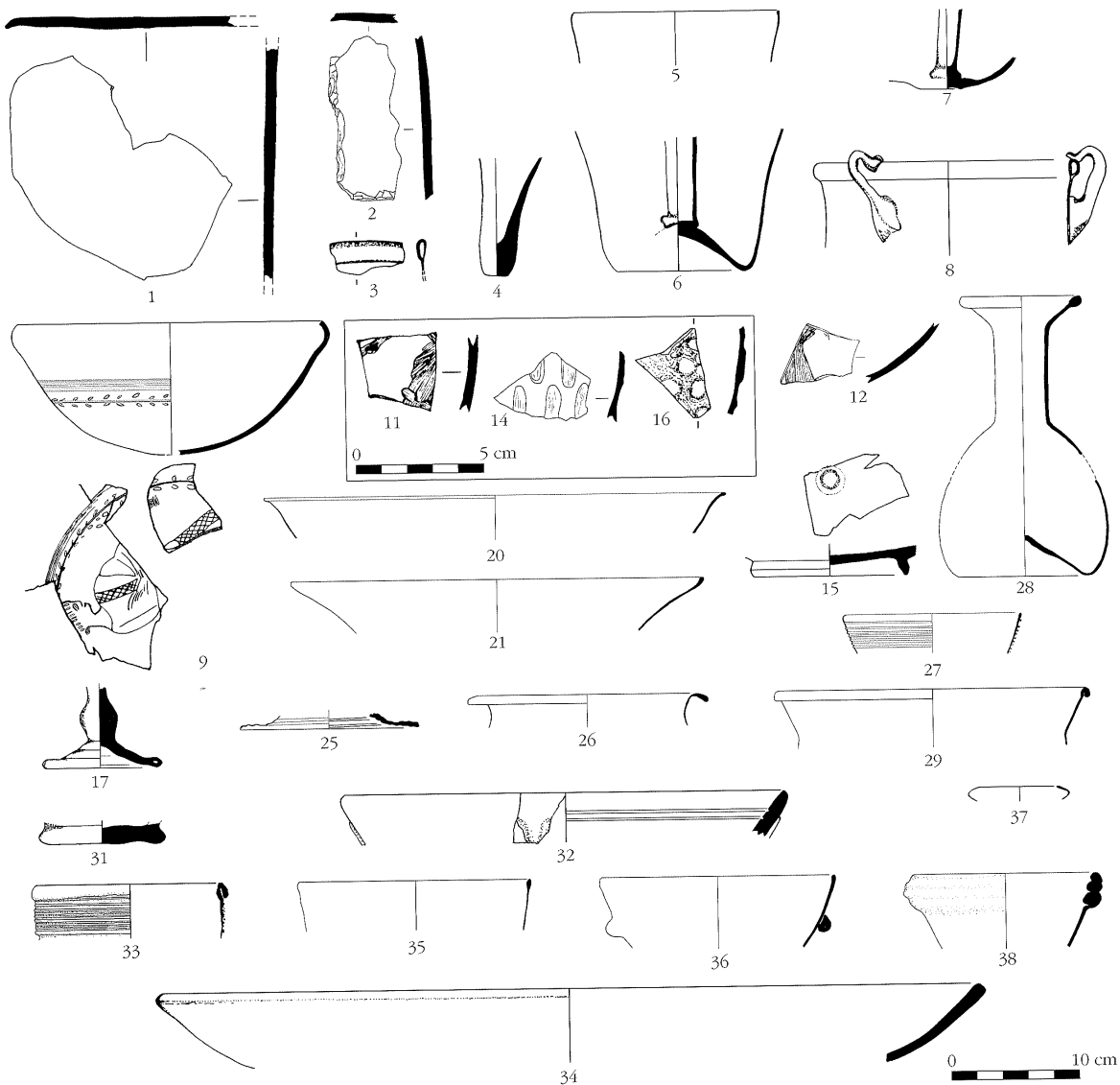


Fig. 6

to the 4th century; the dating can be safely revised to the 5th century by associated finds.²⁴

The subject matter of bowl no. 9 cannot be deduced from the surviving fragments. The male figure could be an apostle, or he could simply be a lay person; while there is nothing to suggest a pagan mythological scene (unlikely but not impossible even in a church setting), there is equally no suggestion of a central cross or christogram, or anything clearly Christian in meaning. The figure could have been labelled to his right, which is not preserved, but this in itself means little. A figured bowl of unclear design was retrieved from the southern aisle (no. 11); it may show an animal, perhaps a lion, but it is too small to be conclusive about it. Fragment no 12, also from a figured bowl, was retrieved from beneath the pavement of the atrium (D1 15A), along with hollow-stemmed lamp fragments, suggesting that the paving, if not the atrium, is no earlier than the 4th century A.D.

It is possible that no. 13 belongs to a common 4th-5th cen-

tury group of Levantine bowls and beakers with simple wheel-incised grooves.²⁵ The thin-walled body sherd with bands of faceted ovals (no. 14) is difficult to attribute to a particular shape, but it was likely either a beaker or flagon. Similar patterns in countless, probably localized, variations occur throughout the Roman, and for flagons, the early Byzantine periods.

As for no. 15, small body fragments of the same distinctive fabric were scattered throughout the church nave; one has what seems to be a compass-drawn, grooved circle above a linear groove on the wall exterior, but the fragment is small and does not rejoin the base or rim. The closest parallels are found in the generic class of bowls with cut decoration from mid-3rd century Dura Europus,²⁶ but the use of deep-cut circles around a footless deep cup is characteristic of the 4th century in the Rhineland.

Other Vessels

All the other forms of glass found within the destruction levels belong to categories of domestic glassware. Simple, undeco-

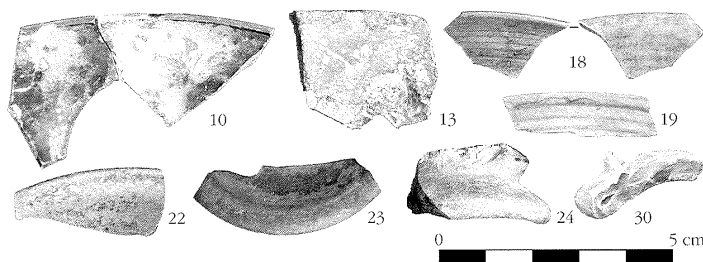


Fig. 7

rated bowl rims of undiagnostic types predominate.

The Late Hellenistic ribbed bowl rim no. 32 may be first century B.C., if it belongs to the subgroup of Grose's Group C.²⁷ It is included in this report only because comparatively little Hellenistic glass from Petra has ever been adequately published.

The trail-embedded bowls are of a type that occurs in both Byzantine and Umayyad domestic and ecclesiastical contexts throughout the Levant (nos. 18-19). No. 18 is common at St. Lot, where at least one bowl, which is almost identical to the Petran bowl, was retrieved from an early Byzantine level beneath the church; similar bowls occur elsewhere, such as Dhiban.²⁸ They were small, convex, and probably footless bowls. Their liturgical function, if any, is unclear. There is little to suggest that any of these was complete and therefore usable at the time of the destruction. For example, the rim and some body fragments of no. 19 were found in both J3.07 and .08, but no possible bowl bases from either context were found. No. 24 is a very small bowl base of the slab-footed variety, which begin in the early Byzantine period—for instance, Cave 3 at Kisra²⁹—but which persist (mostly in large sizes) in the Umayyad period.

Likewise, no. 25 occurs in everyday as well as monastic contexts across the Mediterranean region, primarily in the late 4th and 5th centuries.³⁰ As yet unpublished examples occur, perhaps as rubbish survival, in 6th and 7th century contexts, at Pella and the monastic complex at St. Lot respectively.

Decorated vessels other than the wheel-cut or engraved bowls were rare. They include fragments of a mold-blown honeycomb decorated bowl, beaker, or large flask from both the exterior and from within the central apse (no. 16). Bowls with an all-over honeycomb pattern may have been used as hanging bowl-lamps, although the evidence is far from certain.³¹

Most of the smaller (10 cm diameter or less) everted rims almost certainly belong to the stemmed lamps rather than to beakers or goblets, and almost all are very simple, slightly everted rims. Two body fragments with cobalt prunts from the northern aisle may also belong to stemmed lamps. Single or triangular sets of prunts in this color are typical of early Byzantine bowls and beakers, produced and purchased throughout the empire in the 4th century.³²

Only two goblet stems were retrieved from within the basilica (no. 17), and along with two more from the atrium it is possible that all are intrusive. Unlike the lamps, for instance, there is no indication that they were smashed or heat affected in the final destruction. The form starts in the late Byzantine period.

No. 28 is a simple, small flask that could have been used for storing holy oil or could be for domestic use; it dates to the period before the destruction of the church by fire. The type itself is so simple that the object is difficult to date on typological grounds; similar bodies and rims, but with bases only slightly kicked, date from the late 3d to the later 4th century at Tyre,³³ Tomb E220 at Samaria-Sebaste,³⁴ Gadara,³⁵ and Pella, although a very similar example from Pella's Civic Complex Baths was in a 6th-7th century context.³⁶ However, the highly kicked base might

suggest a 5th-6th century date.

The presence of pad-based flasks or beakers (no. 31) also indicates a Byzantine dating. Most from Pella are 5th century by associated finds; a slightly earlier dating at Gerasa was based on the outmoded dates used by Harden for Karanis,³⁷ slightly more kicked versions at Caesarea are simply "Byzantine."³⁸

Tiny fragments of small, funnel-mouthed flask rims were scattered in the eastern half of the church. Their simple bases were too fragmentary to type and their rims could not be drawn but were less than 4 cm in diameter. They happily fall into a general Byzantine date-range. Simple flask fragments of comparable date were also found in Room XI, west of the church proper. The end fragment of a large flagon strap handle in greenish fabric is likely to be either Late Roman or Byzantine, but not later—it was too fragmentary to type. The functions of all these vessels in the church complex remain enigmatic.

The large and thick-walled bowl (no. 34) is close in strong coloring and form to those Abbasid bowls that are commonly pincer-decorated. It shows no sign of wheel-polishing, which might have qualified it as Hellenistic. Like no. 37, it may be intrusive.

Conclusions

The only glass objects which, with any certainty, were functioning during the final phase of the church were the windows and the lamps, both left over from the ecclesiastical period. The robbing of the church, which led to, for example, a paucity of metal finds, may not have all occurred "when the church went out of use,"³⁹ since it is most plausible that the glass lamps continued to hang from the ceiling—on metal hangers—until they came smashing and half-melting down onto the floor during the fire, which must have taken place some time after the church went out of liturgical use.

The demonstrably 4th-5th century glass types under the stone pavers of the atrium seem to be of an earlier date than the ceramic and comparative architectural evidence indicated for the construction fill beneath the complex.⁴⁰ One possible explanation, namely—that either the pottery has been dated too late or the glass too early—is unlikely on both counts, especially given the comparable forms and decorative fashions for the hemispherical wheel-incised bowls in well-dated military graves in the Rhineland. An alternative would be to argue for an earlier, prestigious, and perhaps ecclesiastical Byzantine structure in the area, from which the fine-quality incised glassware may have been taken for subsequent use in this church. This hypothesis lacks clear evidence of pre-existing structures immediately beneath the church, however. If correct, it would further imply that the wheel-incised glassware, whether figurally engraved or simply grooved, would have been antiques when placed within the basilica; this, in turn, would indicate high esteem for these bowls. The concept of such re-use is not unthinkable, but for the present it must remain unprovable.

Notes

1. Delougaz and Haines 1960: 49. I thank ACOR for inviting me to undertake this study and I also thank Fatma Marii and Patricia Bikai for their contributions.
2. Baur 1938: 521.
3. Stern 1997: 110, fig. 4.
4. Harden 1939: 91.
5. Fitzgerald 1939: 10.
6. Barag 1967: 69-70.
7. Patrich 1988: 140, no. 45.
8. Cohen 1999: 149.
9. Meyer 1987: fig. 11:J discussed as 10:J, and Baur 1938: 521, no. 237, fig. 17.

10. Patrich 1988: 134-36, pl. 12 for Rehovot in the Negev; Macalister 1912: 362-63 for Gezer; O'Hea (forthcoming) for St. Lot near the Dead Sea.
11. Crowfoot 1957: 405, 418, fig. 99.3 for Samaria-Sebaste; Piccirillo and Russan 1976: 68, pl. 29.1, no. 2 for ed-Deir (Ma'in).
12. Meyer 1987: 205, fig. 10q captioned as fig. 11q.
13. Baur 1938: 527, no. 40, fig. 24.
14. Bylinski 1995: 243-44, fig. 17, no. 4.
15. Caron 1993: 48.
16. Harden 1987: 201-2.
17. Bowsher 1986.
18. Avigad 1976: 209-13.
19. Cf. Fremersdorf 1951: 13-14, pl. 6.
20. Erdmann 1977: 106, pl. 5, no. 436.
21. Caron 1993: figs. 1-7.
22. Respectively, Harden 1940: 118, pl. 85, 2-3; Harden 1936: no. 210, pl. 13.
23. Davidson 1952: 95, no. 593.
24. Iliffe 1933: 88, fig. 17.
25. Barag 1962: 211-12, nos. 9-10, figs. 8-9.
26. Clairmont 1963: pl. II, nos. 74-75.
27. Grose 1989: 244, fig. 116.
28. Tushingham 1972: fig. 13, no. 83.
29. Stern 1997: 17, 109, no. 14.
30. Weinberg 1988: 59, figs. 4-21, nos. 152-53 with full references.
31. Stern 1985: 39.
32. See the extensive discussion for the beakers and their production in Weinberg 1988: 87-93, with bibliography.
33. Chéhab 1986: 208, pl. 10, 2.
34. Crowfoot 1957: 94.4, pl. 30.6.
35. Künzl and Weber 1991: 86, no. 16, pl. 34.
36. McNicoll, Smith, and Hennessy 1982: 94, P.O.97, pl. 135.2; Smith and Day 1989: 110, pl. 52, no. 3.
37. Meyer 1987: 193, fig. 7a.
38. Peleg and Reich 1992: fig. 18, no. 16.
39. Fiema, Schick, and 'Amr 1995: 300.
40. Fiema, Schick, and 'Amr 1995: 295, 300.

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