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ROMAN AMPHORAE SHERDS FROM EXCAVATIONS AT HIGH STREET AND STAPLE GARDENS, WINCHESTER, HAMPSHIRE.

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Summary

Thin section fabric examination of fourteen, for the most part fairly undiagnostic, amphorae bodysherds from late contexts, together with two "amphorae stoppers". Those amphorae identified from the forms: ?British Biv, Richborough 527 and Palestinian. Many of the remaining sherds, for which fabric descriptions are given, quite likely originate from the eastern Mediterranean.

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ROMAN AMPHORAE SHERDS FROM EXCAVATIONS AT HIGH STREET AND STAPLE GARDENS, WINCHESTER, HAMPSHIRE

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[HBMC Ceramic Petrology Project]

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HIGH STREET

[1]. *126HS 1986 TR I (729) 2948*

Hollow, closely ribbed thin walled base, perhaps from a small amphora or a flagon or jug, in a red [between 10R 6/8 and 5/6] sandy fabric. Thin sectioning shows a moderate groundmass of silt-sized quartz grains, with a scatter of larger grains up to about 0.50mm across, together with a little limestone and some flecks of mica. It is difficult to predict origins from such a common range of non-plastic inclusions, but this vessel does seem to have an eastern Mediterranean 'flavour' about it.

[2]. *126HS 1986 TR I (805) 2949*

Small plain bodysherd in a reddish-brown [2.5YR 5/4] very micaceous fabric. Thin sectioning shows plentiful strands of mica, mostly muscovite but with

some biotite, together with frequent subangular quartz grains and some small pieces of metamorphic rock. It is difficult to be certain, but this sherd might belong to the Biv amphora form [Peacock and Williams, 1986, Class 45] or something closely allied to it. The Winchester sherd is somewhat thicker than is normally the case with this amphora type, and additionally shows no sign of the rilling which is commonly found over most of the Biv body. However, the fabric is very similar to that associated with the Biv, for which an origin in Asia Minor has been suggested [Williams, 1983].

In Britain, the two-handled Biv generally occurs in late Roman or post-Roman contexts [Thomas, 1981], with examples of the earlier one-handled version pre-dating the late fourth century A.D. [Tomber and Williams, 1986]. The principal contents carried in these vessels is not known, although olive-oil residues have been found in some Biv sherds analyzed by chromotography [Rothschild-Boros, 1981; Passi *et al*, 1981].

[3]. *126HS 1986 TR I (701) 2950*

Small plain bodysherd in a pinkish-white [7.5YR 8/2 - 7.5YR 8/4] fabric with scattered inclusions of white limestone and mica. Thin sectioning shows grains of quartz, with small pieces of

cryptocrystalline limestone, flecks of mica, quartzite and some quartz-mica-schist. Origin in an area of sedimentary and metamorphic rocks.

[4]. *126HS 1986 TR I (737) 2951*

Four bodysherds, three of which are slightly ribbed, in a fabric which has a white [10YR 8/2] outer surface and a light brownish-grey [10YR 6/2] inner surface. Thin sectioning shows scattered subangular quartz grains up to 1.40mm across but mostly below 0.30mm across in size, together with shreds of mica, some quartzite and iron oxide, set in a fairly clean clay matrix. Origin unknown.

[5]. *126HS 1986 TR I (729) 2953*

Small plain bodysherd in a light red [10R 6/8] micaceous fabric with small white limestone inclusions. Thin sectioning shows frequent well-sorted quartz grains mostly below 0.20mm in size and shreds of mica, both muscovite and biotite. Also present are some pieces of cryptocrystalline limestone, quartzite, a few grains of plagioclase and potash felspar, clinopyroxene and some small fragments of metamorphic and volcanic rock. The petrology suggests an origin in an area of fairly complex geology.

[6]. *126HS 1986 TR I (729) 2954*

Small plain bodysherd in a light red [2.5YR 6/8] sandy fabric with sparse inclusions of white limestone. Thin sectioning shows a fairly clean clay matrix containing frequent subrounded quartz grains ranging up to 1mm across, but with the majority falling below this size. Also present is a little fossiliferous limestone, quartzite and argillaceous material. Origin in an area of sedimentary rocks.

[7]. *126HS 1986 TR I (729) 2955*

Top section of a solid spike in a pinkish-white to buff [7.5YR 8/2 - 10YR 8/4] fabric, somewhat micaceous. Thin sectioning shows frequent strands of mica, both muscovite and biotite, small fragments of lava and discrete grains of plagioclase and potash felspar. Origin in an area of volcanic rocks, with igneous or metamorphic outcrops nearby to account for the frequent mica.

[8]. *126HS 1986 TR I (792) 2956*

Plain bodysherd, possibly from the neck or spike, in a light reddish-buff [2.5YR 6/8 - 7.5YR 8/6] sandy fabric with frequent small white limestone inclusions. Thin sectioning shows a fairly micaceous clay matrix with scattered subangular quartz grains, and frequent small pieces of cryptocrystalline

limestone. Origin in an area with dominant sedimentary rocks.

[9]. *126HS 1986 TR I (820) 2957*

Large bodysherd in a light buff [10YR 8/4] coarse fabric containing small fragments of rock, some of which have a scoriaceous appearance. Thin sectioning shows inclusions of volcanic glass, andesitic lava, quartz and labradorite and sanidine felspar. The fabric suggests that this sherd probably belongs to the Richborough 527 amphora form [Peacock and Williams, 1986, Class 13].

A recent study of this heavy elongate amphora type has suggested a possible origin in Campania, Italy, rather than the Massif Central region of France, which had previously been suggested [Williams and Arthur, 1991; Peacock, 1977]. It is also clear, from recent finds recovered from London and Pozzuoli, that we can now extend the date range for this amphora type, from the first century A.D. to at least the early to mid third century A.D. [Williams and Arthur, 1991]. The contents which were carried in these vessels are still subject to speculation, although the wide mouths of these vessels may indicate that some kind of fruit was carried rather than a liquid.

[10]. *126HS 1986 TR I (701) 2952*

Large, somewhat ribbed bodysherd in a buff [7.5 YR 7/4] sandy fabric containing small fragments of rock which have a scoriaceous appearance. Thin sectioning shows a similar fabric to no. [9], except that this sherd also contains fossil foraminifera. Some examples of Richborough 527 have also been found to contain foraminifera in addition to the volcanic suite of rocks minerals, and it is likely that this sherd also belongs to a vessel of this form [*ibid.*].

[11]. *126HS 1986 TR I (592) 2960*

Small ?ridged bodysherd in a buff [7.5YR 7/4] fabric with inclusions of small fragments of rock with a scoriaceous appearance. Thin sectioning shows a similar range of rocks and minerals to no. [10], and this sherd probably belongs to the same or a similar vessel.

[12]. *126HS 1986 TR I (594) 2961*

Flat-rimmed sherd from an ?amphora, or perhaps more likely from a ?large bowl or dish, in a buff [7.5YR 7/4] sandy fabric with largish white limestone inclusions. Thin sectioning shows a fairly clean clay matrix containing pieces of fossiliferous limestone, foraminifera and curved shell, a scatter

of subangular grains of quartz, some quartzite, discrete grains of potash felspar and clinopyroxene and a few fragments of volcanic rock. Origin in an area of sedimentary and volcanic rocks.

"Amphorae Stoppers"

Both of these sherds represent short, squat flask-like vessels that have sometimes been referred to as "amphorae stoppers" and are normally some 10-12cm in hight [Callender, 1965, Fig. 19, nos. 25-26; Bezecky, 1987, Fig. 36, nos. 425-443]. The term originated because it was claimed that amphorae were sometimes found with these small flasks fitted into their necks [Benoit, 1952]. However, upon reflection it perhaps seems unlikely that these small vessels, which come in a variety of fabrics and small nuances of form, were made exclusively to help seal amphorae necks, when a sinple *operculum* of fired clay would do the job just as well, if not better [see Peacock and Williams, 1986, 50-51]. Instead, it would perhaps be more realistic to view this class of vessel as a flask for carrying something which could be transported economically in small quantities, possibly ?ungents.

[13]. *126HS 1986 TR I F116 (587) 2958*

Thick sandy fabric with a white [10YR 8/2] outer surface and red inner surface and core. Thin sectioning shows frequent subangular grains of

quartz, average size 0.10-.30mm, a little chert and some shreds of mica. Origin unknown.

[14]. *126HS 1986 TR I (862) 2959*

Thin somewhat sandy fabric, reddish-yellow [5YR 7/8] in colour. Thin sectioning shows little but small grains of quartz, shreds of mica and some iron oxide. Origin unknown.

STAPLE GARDENS

[15]. *SG 1984 TR I (164) 8000 Fph 55*

Small solid, slightly flared spike, in a light red [10R 6/6] very sandy fabric. Thin sectioning shows plentiful well-sorted subangular quartz grains, average size up to 0.50mm across, set in a fairly clean clay matrix. Also present are some grains of quartzite, a little chert and some iron oxide. Origin Unknown.

[16]. *SG 1984 TR I F127 (580) 7960 Fph 55 pph 110*

Small, drab brown bodysherd with a deep ribbing rather clumsily done, so that some accretions of clay bridge the gap between the grooves. Thin sectioning shows a groundmass of numerous well-sorted angular and subangular grains of quartz,

generally under 0.10mm in size, with a scatter of slightly larger grains, some cryptocrystalline limestone, fragments of shell and a few small grains of pyroxene and plagioclase felspar.

The distinctive ribbing and associated fabric of this sherd suggests that it might come from one of the late Roman Palestinian types Zemer 53 and Almagro 54, which date from the third/fourth centuries A.D. to the sixth. These forms occur in limited numbers in Britain [Peacock and Williams, 1986, Classes 48 and 49]. In addition to an origin in the Gaza area [Riley, 1975], more recent petrological work has suggested that the Avdat region of the Negev may also have been involved in the production of these vessels [Blakely, 1988]. The white and red wines of Gaza and the Negev enjoyed a wide reputation in antiquity and may well have been the primary goods carried in these amphora [Riley, 1975; 1979]. However, fish bones, wheat and iron nails have in fact been recovered from this type of vessel, though possibly as secondary goods [Blakely, 1988].

The results of high performance liquid chromatography (HPLC) analysis on a large number of "Gaza" amphorae show that the majority contained wine, possibly white and red varieties [Whitehouse *et al*, 1985]. A minority of sherds tested showed

traces of vegetable oil [probably olive oil], with one example producing possibly sesame oil. These results may well indicate that oil was also carried to some extent in these vessels. However, it was pointed out in the report that a layer of oil may well have been added to an amphora full of wine to help prevent oxidation while the wine travelled.

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