ANL Rpt 2559

PETROLOGICAL ANALYSIS OF SOME MEDIAEVAL POTTERY FROM SHERBORNE CASTLE, DORSET

A range of late mediaeval sherds from Sherborne Castle were submitted for petrological analysis. From an initial macroscopic examination, followed by selective thin sectioning and heavy mineral separation to allow study under the petrological microscope, a number of tentative divisions could be made on the basis of the aplastic inclusions present. These are listed below following descriptions of the sherds. Munsell colour charts are refered to together with free descriptive terms.

Fabric 1

74-1124, 74-1448(55 & 56), 73-484, 74-1450, 74-1369, 74-1381, 74-1349, 74-970, 74-842, 74-579(36), 73-694(36), 73-715, 74-1292, 74-1041.

Hard, harsh fabric, surface colour varies from reddish-buff to dark grey, with a light to dark grey core. Some sherds show signs of an green glaze. Inclusions of flint and quartz sand are usually clearly visible throughout the fabric.

Petrology

Inclusions of flint (up to 2.5mm. across) are common, together with frequent ill-sorted subangular quartz grains, ranging in size from 0.20-1.0mm., and a little limestone.

A possible sub-group may be 73-707 and 74-1164. The petrology is very similar, the only difference being the presence in

the latter sherds of large grains of red iron ore, easily seen in the hand specimen.

Fabric 1, representing the majority of pottery from the site, has been grouped together very tentatively on the basis of the presence of two extremely common inclusions in much mediaeval pottery, flint and frequent quartz grains. It is perfectly possible, not to say likely, that careful study may reveal several subdivisions of this pottery by taking careful note of the percentages of the main constituents present. However, to obtain meaningful results such work is best done by incorporating the Sherborne pottery in a general review of mediaeval flint tempered ware from several sites, and as such this lies outside the scope of the present report. Due to the common nature of the inclusions, therefore, it is not possible to say with any degree of assurance whether this pottery, or at least some of it, can be regarded as local, though given the large quantity involved a fairly local source seems likely.

Fabric 2

70-228, 70-230, 74-1324, 73-357, (?)74-970.

Hard, fairly rough sandy fabric, surfaces tend to be light red (2.5YR 6/8), with a lightish grey core.

Petrology

Abundant inclusions of subangular quartz, average size 0.20-.30mm. Also present are frequent fairly well-rounded light brown grains of limonite (altered glauconite), and some

collophane.

The presence in some numbers of glauconite suggests an origin in the Greensand and Gault Beds, of which the nearest deposits to Sherborne lie some six miles to the south. Close to these deposits is situated a thirteenth century kiln at Hermitage whose products appear fairly similar in the hand-specimen to Fabric 2 at Sherborne (Field,1966,165-172). Thin sectioning of waste material from the Hermitage kiln revealed a similar range of inclusions to the Sherborne pottery, including the glauconitic grains. A heavy mineral separation on samples from Sherborne Fabric 2 and wasters from Hermitage also displayed points of similarity, noteably in the comparatively high percentage of rutile, contrasting with a separation on a sherd from Sherborne Fabric 1 (Table). It seems quite likely, therefore, that Sherborne Fabric 2 was made at the Hermitage kiln, or at any rate reasonably close to it.

Fabric 3

74-1041 and 74-1085.

Hard, rough sandy fabric, light red (2.5YR 6/6) throughout, with traces of dark red (?) paint on the outer surface.

Petrology

A scatter of subangular quartz grains, average size 0.20-.30mm, a little flint and limestone and some red iron ore.

Fabric 4

74-868.

Hard fabric, mottled olive-green glaze with a white core.

Petrology

Frequent inclusions of subangular quartz grains, average size 0.10-.20mm.

Fabric 5

74-39.

Very hard fabric, olive-green glaze with a white core and inside surface.

Petrology

Frequent subangular quartz grains, average size 0.40-1.0mm., and a little flint. Similar to Fabric 1.

Laverstock Ware

Two sherds from Sherborne Castle (71-342 & B62) from (?) jugs, appeared similar to certain types from the Laverstock kilns near Salisbury (Musty, Algar and Ewance,1969). Thin sectioning of the Sherborne sherds revealed frequent subangular quartz grains, average size 0.20-.30mm, and flecks of mica. This agrees quite well with thin sectioning of sherds from (?) jugs from the Laverstock kilns, and the Sherborne samples may well have come from there, though this cannot as yet be conclusively demonstrated. Heavy mineral analysis might offer a further means of characterizing Laverstock products in any

future comparisons, on this occasion both Sherborne samples and those from Laverstock were to small to allow the method to be employed. However, one interesting point did arise from the thin sectioning, namely that a section from a Laverstock cooking-pot differed from the jug sample tested. The former contained only a scatter of subangular quartz grains, and these were a size grade higher than those in the jug, average size 0.40-.60mm. Either a slightly coarser clay was used for cooking-pots as opposed to jugs, or else the added sand was gently crushed for the jugs. The coarser texture of the cooking-pots was probably deliberate, adding refractory qualities to the vessels.

South Dorset Wares

A small amount of comparative material from Wareham (unglazed) and Corfe Castle (both glazed and unglazed) was also examined, to see if South Dorset Wares were represented at Sherborne. The Wareham samples contained little else but quartz grains, average size 0.30-.40mm. A heavy mineral separation produced a tourmaline-rich assembly recalling that found in the products of the Romano-British black-burnished industry centred around the western shores of Poole Harbour and on the heathlands south of Wareham (Williams, 1977, Group 1). An origin in this area may also be likely for the Wareham sherds, the mediaeval potters utilizing roughly the same clay beds as were in use during the Roman period. Neither thin sections nor heavy mineral assemblage agreed with those of the Sherborne samples studied.

Thin sectioning of the Corfe Castle sherds showed a scatter of subangular quartz grains, average size 0.60-1.0mm, with a little flint and iron ore. Texturally, these sherds appear to be slightly different to those samples from Sherborne Fabric 1, containing less quartz than the latter, and so suggesting the possibility of a different origin, though it is difficult to be precise on this point.

TABLE

No.	Site	PERCENTAGE OF NON-OPAQUE MINERALS								No. grains counted
		Zircon	Tourmaline	Rutile	Kyanite	Andalusite	Staurolite	Garnet	Apatite	
1	Sherborne Castle, Fabric 1 74-1041	71.0	13.4	2.8	1.4	4.3	1.4	4.3	1.4	269
2	Sherborne Castle, Fabric 2 74-228	83.6	4.2	8.8	1.3	-	-	1.4	.7	277
3	Hermitage kiln	80.6	2.5	11.2	2.1	-	-	2.1	1.5	397
4	Wareham	40.8	51.9	.9	.9	3.7	.9	-	.9	308

D.F. Williams, Ph.D.,
Department of Archaeology,
University of Southampton.

Field, N.H. (1966) 'A thirteenth century kiln at Hermitage, Dorset', PDNHAS, 88(1966), 161-175.

Musty, J., Algar, D.J. and Ewence, P.F. (1969) 'The medieval pottery kilns at Laverstock, near Salisbury, Wiltshire', Archaeologia, 102(1969), 83-150.

Williams, D.F. (1977) 'The Romano-British black-burnished industry: an essay on characterization by heavy mineral analysis', in Peacock, D.P.S. (ed.) Pottery and Early Commerce (London, 1977), 163-220.

DOE CERAMIC PETROLOGY PROJECT

DEPARTMENT OF ARCHAEOLOGY, UNIVERSITY OF SOUTHAMPTON

Application for petrological analysis

NAME Beverley HARRISON

INSTITUTION Dept. of Environment, Sherborne Old Castle, Dorset.

*DESCRIPTION OF POTTERY AND STRATIFICATION DETAILS

See attached lists

*AIM OF ANALYSIS

To define the fabric of the local pottery.

Also to clarify the possible sources of intrusive, or assumed intrusive wares.

*COMPARATIVE MATERIAL AVAILABLE (i.e. scope of intended programme, will other, associated, material be collected and submitted for comparison ?)

Material from Kiln site at Hemitage, Dorset.

local wares from South Dorset ie: Corfe Castle, + Wareham

NUMBER OF ANALYSES ANTICIPATED

10 — 15

*Please submit further sheets if necessary.

SHERBORNE OLD CASTLE, DORSET.

70.228 (25)
70.230 (25)

Same
Similar as large reconstructed cook pot combing, splashed glaze. + small fragments of pot lid, same type.
? Hermitage ware.

(A) Wares with gravel tempering

Rough sandy feeling wares, fairly obviously the same but to what extent and what geology

72.735 - Black core and glazed.
73.110 Pink quartz ware inside, but Black + white outside
73.213. Pink-brown.
74.1292 Exactly same

Also material of this type from 74 – (56) + (56). Also glazed rough ware like this from 74.(39)

White wares and pink tinted wares.

71.342 - White all through. Dk grn mottled glaze. ? Laverstock type ?
71.454. White fine ware. Lighter grn mottled which does not cover ext. surface.
74.868. Fine white wares with mottled grn gl, mostly dark. These wares are thin and very fine indeed.
74.987. White ware type, but with pink tinge. Lt green gl. and Brown patterning often applied clay.
74.(39) (Layer 39) mixture of white/pink wares with some orange of varying quality. Comparison with themselves and others in this group. (+ ? comparison with Salisbury plain stuff if I can get it.)
73.636. coarser than the above. Lt grey core.
73.688. Also v. coarse, but glazed. Dk grey + Black core.
74.1315. (48) Tile fragment. Comparison.

(B) Later Orange coloured ? Local Sand tempered wares.

Assumed to be local by sheer weight of numbers. Hermitage ware tends to be in this category – Compare.
74.1326 | Orange sand tempered wares with grey cores
74.970. | and in many cases smooth chalk inclusions.
71.357. | Isolated – slightly more grey.
73.357. Several sherds hand orange ware grey core.

74. Layers (55) + (56).

(C) Very coarse wares shown.

– Notably. Very heavily gritted ware with rough texture, yet with the rounded inclusions not too rough. Unglazed. Light weight pots but bulk involved. Usually grey colours, sometimes brown.

SHERBORNE XD CASTLE. DORSET.

- Pink - buff ware like [(73.110) 73.213, 74.1292.]

74.1450- Strange sandy ware with large inclusions and lt grn glaze.

[73.484. Brick red ware with chalk and a large quantity of other inclusions. Similarity in all but colour to first ware mentioned in these layers.

Same wares Brick red, sometimes burnt black or even brown.

FABRIC ?

Probably wares local to the Sherborne Area.

(D) 1-3 No order

74.842: (sk.2) Local ware with grey core and mostly flint
74.1292: inclusions. Slightly brown appearance. Some quartz present.

74.1041: Mixture. - Orange sand tempered hard wares.
- " softer wares. More inclusions.
- Very light grey ware. Hard. Few inclusion ? Sand tempered
- Very coarse grey + brown wares. Many inclusions.

Evidence of chalk in most cases.

73.694 Light grey ware quite hard, with sand and smallish black flint inclusions.

73.579. Very coarse wares. Large ish, numerous inclusions in fabric. Not completely the same fabrics.

73.715 Grey sand tempered ware, slightly glazed all over with light grn glaze. Very large but scattered incls. of chalk + flint. ? Tripod pitcher sherds.

74.842. (Type ?) Orange ware. Fairly soft fabric. Grey core. sand tempered, gravel present. Large inclusions of chalk and dark flint.

74.970. Heavy grey ware. Large flint inclusions. Small chalk particles. Dirty brown/green glaze. Some red cake-like inclusions. ? Tripod pitcher.

WERBORNE
KD
CASTLE,
DORSET.

74 - 1124. (45). selection of wares, all assumed to be local. Mostly grey + brown fairly well tempered wares. Flint + chalk.

SE / YC — 74 - 1349. 74 - 1396. Extremely coarse wares. Early Medieval. Mostly black with large chalk inclusions and some flint & brownish sherds with smaller inclusions and sandier feel.

74 - 1164. Single rim sherd. Light grey core. Very large Fe base inclusions. Fairly sandy ware. Notably what are the red particles.

73. 357. Hard orange sandy ware with grey core.

73 - 703. Mixture of ? local wares. Large proportion of Fe inclusions in some of the sherds

74 - 1381. Orange/red. gritty wares - 2 sherds. Grey core. Some chalk present.

74. 1381. Local ware? White > Grey appearance. Small chalk particles included. Basically fairly hard and may be sand tempered.

+ Comparable sherds from Bean's earlier excavation.