

Ancient Monuments Laboratory
Report 162/88

A PETROLOGICAL NOTE ON THE FABRIC
OF ROMANO-BRITISH BB1 POTTERY
(BLACK-BURNISHED WARE CATEGORY 1)
FROM THE 1986 EXCAVATIONS AT WARE-
HAM BY-PASS, WORGRET ROAD, DORSET.

D F Williams PhD FSA

AML reports are interim reports which make available the results of specialist investigations in advance of full publication. They are not subject to external refereeing and their conclusions may sometimes have to be modified in the light of archaeological information that was not available at the time of the investigation. Readers are therefore asked to consult the author before citing the report in any publication and to consult the final excavation report when available.

Opinions expressed in AML reports are those of the author and are not necessarily those of the Historic Buildings and Monuments Commission for England.

Ancient Monuments Laboratory Report 162/88

A PETROLOGICAL NOTE ON THE FABRIC
OF ROMANO-BRITISH BB1 POTTERY
(BLACK-BURNISHED WARE CATEGORY 1)
FROM THE 1986 EXCAVATIONS AT WARE-
HAM BY-PASS, WORGRET ROAD, DORSET.

D F Williams PhD FSA

Summary

Heavy mineral separation and thin sectioning of likely 'wasters' associated with kilns found at the site showed the fabric of the BB1 pottery to conform to the pattern of other BB1 made in the Wareham - Poole Harbour area. Pipe clay was identified at the site, and this may have been used to give an iron-free slip to the surfaces of late BB1 forms.

Author's address :-

Department of Archaeology
University of Southampton
Highfield
Southampton
SO9 5NH

0703 559122

A PETROLOGICAL NOTE ON THE FABRIC OF ROMANO-BRITISH BB1 POTTERY (Black-
burnished ware category 1) FROM THE 1986 EXCAVATIONS AT WAREHAM-
BY-PASS, WORGRET ROAD, DORSET

D.F. Williams, Ph.D., FSA

(HBMC Ceramic Petrology Project)

Department of Archaeology, University of Southampton

Introduction

BB1 pottery is one of the most common finds on Romano-British sites. In recent years much has been learnt about this distinctive coarse ware and its antecedence from late Iron Age Durotrigian pottery. The main production centre for BB1, lasting until at least the late fourth century A.D., was the Wareham - Poole Harbour area of Dorset (Williams, 1977). Other production sites for BB1 are known, Rossington Bridge in Yorkshire for example, but it is clear that these were fairly small concerns and operated over a much shorter time-span than the main Dorset centre (ibid.).

A number of BB1 production sites associated with kiln or clamp firings are already known from the Wareham - Poole Harbour area in addition to the one at Wareham-By-Pass (Sunter and Woodward, 1987, fig. 30). However, it is likely that bonfire firing was the more common method of firing BB1 in this area and therefore the chances of locating anywhere near the true number of production sites seems remote. The Wareham-By-Pass kilns are the most westernly known in the region, and so it seemed worthwhile to undertake a small number of petrological analyses to see if the fabric of the BB1 sherds at the site could be distinguished from other BB1 analyzed from the area. In addition, clay samples from the site were also submitted for comparative purposes, together with 'spacers' and clay linings from some of the kilns. The site at Wareham-By-Pass

is situated on Tertiary sands (Bagshot Beds), nearby to valley and plateau gravel (Reid, 1899).

Petrology and Fabric

Pottery

Trench A : From pit (137) 138 pre-Conquest ? Bodysherds from cooking-pots.

Trench A : Associated with (137) 107 pre-Conquest ? Bodysherds from cooking-pots.

Trench A : From within kiln (046) 103 late Roman. Late cooking-pots (rims approaching or oversailing girth; obtuse-angled lattice decoration).

Trench D : From within kiln (160) 163 late Roman. Late cooking-pots (rims approaching or oversailing girth; obtuse-angled lattice decoration), flanged bowls and plain-rimmed straight-sided dishes.

Trench B : Fill of Quarry pit (055) 062 ? late Roman. Late cooking-pots (rims approaching or oversailing girth; obtuse-angled lattice decoration), flanged bowls and plain-rimmed straight-sided dishes.

? Spacers

Trench D : Fired clay from within kiln (160) 163 late Roman.

Kiln Linings

Trench A : Chamber wall from kiln (046) 142 late Roman.

Trench D : Chamber wall from kiln (160) 175 late Roman.

Trench D : Chamber wall from kiln (161) 176 late Roman.

Clay Samples

Trench B : Fill in bottom of (063) 087 'tank'.

Trench B : Natural clay from Quarry pit (055) 091.

Trench A : 035.

From band of natural clay located from Borehole results 151.

In the hand-specimen, and when viewed under a binocular microscope ($\times 20$), all the BB1 sherds submitted are in the coarse sandy fabric normally associated with this type of pottery. Some of the sherds are the usual dark grey or black colour, but the majority are light reddish-orange with evidence of 'cracking' and have clearly been 'overfired'. A number of the late forms of cooking-pots and flanged bowls display a thin white slip covering part of the vessel. This is generally confined to the shoulder and rim of the cooking-pots and the flange of the bowls. This feature has been noted before on BB1 pottery from the Wareham - Poole Harbour area and it has been suggested that the slip derives from a white iron-free clay, most probably the pipe clay of the region (Williams, 1977). It is interesting to note that one of the clays submitted for analysis is such a pipe clay and may possibly have been used for the slip in this case (Trench B : Natural clay from Quarry pit (055) 091). After firing in a reducing atmosphere this slip seems to have given the burnished parts of the vessel which received it a distinctive 'sheen', which is generally lacking on earlier forms of BB1. Several sherds from the different deposits were selected at random and subjected to a heavy mineral separation. This produced in each case a tourmaline-rich assemblage characteristic of BB1 pottery from the Tertiary sands of the Wareham - Poole Harbour area (ibid., Group 1). Thin sectioning and study under the

petrological microscope of the sherds selected for heavy mineral separation plus others, showed a fairly uniform fabric. This consisted of an anisotropic clay matrix containing frequent subangular grains of quartz ranging up to 1mm across, though the average size is between 0.20-0.60mm. Also present is some quartzite, chert, flecks of mica and a little shale. Occasional grains of tourmaline were also noted. This fabric is very similar to BB1 pottery from Ower and other BB1 production sites (Sunter and Woodward, 1987, 95). Petrologically, it would be difficult to tell the products of one site from another. Interestingly, the two sherds sampled in thin section from possible pre-Conquest features, although similar in composition to the later BB1 material, were slightly more packed with quartz grains than the latter. This may be just due to a sandier pocket of clay being used for the pre-Conquest pottery, or perhaps reflect a greater degree of preparation/different 'recipe' that was in use during the later period.

In thin section the 'spacers' from kiln (160) proved very similar in fabric to the pottery from the site, and were presumably made from the same clays. However, none of the clays submitted compared closely in thin section to the fabric of the pottery. All for example lacked the distinctive shale inclusions that were always present in the latter. It has already been noted that one of the clays is a pipe clay and may have been used to prepare the white slip found on many of the sherds (Trench B : Natural clay from Quarry pit (055) 091). Of the remainder, the clay sample from Trench B : Fill in bottom of (063) 087 'tank' is reasonably similar texturally to the clay lining of kiln (160) 175. Both contain a groundmass of small quartz grains, together with a scatter of large grains of quartz, quartzite, flint, iron ore and flecks of mica. While the kiln linings from kilns (161) 176 and (046) 142 bear comparison with the clay sample from Trench A : 035. Both kiln linings and clay sample are fairly fine-textured with lenses of quartz grains.

References

- Reid, C. (1899) The Geology of the Country around Dorchester, London.
- Sunter, N. and (1987) Romano-British Industries in Purbeck, Dorset Nat. Hist.
Woodward, P.J. & Arch. Soc., Monograph no. 6.
- Williams, D.F. (1977) 'The Romano-British black-burnished industry: an essay
on characterization by heavy mineral analysis', in
D.P.S. Peacock (ed.), Pottery and Early Commerce, London,
163-220.