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A PETROLOGICAL NOTE ON POTTERY FROM SANCTON ANGLO-SAXON CEMETERY, HUMBERSIDE

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Summary

A small group of Anglo-Saxon sherds from the 1976-1980 excavations were thin sectioned. This produced six fabric groups: (1) sandstone, (2)organic, (3)quartz/flint, (4) igneous, (5) ironstone and (6) ?grog. With the exception of group (4), all of the pottery may possibly have been made from a range of clays found in the local Pleistocene Beds. The igneous inclusions found in group (4) were of a granite or grano-diorite nature. Igneous erratics in the local boulder clays might account for the latter, or alternatively a source in the Charnwood forest area to the north-west of Leicester is a possibility.

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A PETROLOGICAL NOTE ON POTTERY FROM SANCTON ANGLO-SAXON CEMETERY, HUMBERSIDE

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Introduction

A small group of sherds recovered from the 1976-1980 excavations at the Anglo-Saxon cemetery site at Sancton, Humberside, were submitted for a detailed fabric examination in thin section under the petrological microscope. The main purpose of the examination was: [1] to confirm the validity of a provisional fabric identification in the hand-specimen previously carried out on the material, and [2] to see if any useful comments might be made regarding the likely origins of the pottery. All of the sherds submitted were initially studied with the aid of a binocular microscope [x20]. Munsell colour charts are referred to together with free descriptive terms. The site at Sancton is situated on Chalk with Flints, covered superficially with blown sand, and with Lias deposits closeby [Geological Survey 1" Map of England Sheet no. 72]. Oxford Clays, Oolitic Limestone and Boulder Clays are all in the vicinity.

Petrology and Fabric

On the basis of the range and texture of the non-plastic inclusions present in the sherd samples, a number of broad fabric divisions have been made. The original fabric numbering of the sherds has been retained.

SANDSTONE

[1]. *C1 A1099b*

[2]. *C2 1978 B230*

[3]. *C4 1976 B12*

[4]. *A3 1978 C66*

[5]. *C3 1976 B17*

[6]. *C6 1977 A490*

[7]. *C3/2 1978 A1107*

Hard, rough sandy fabric with occasional fragments of sandstone visible, no. [4] also contains some flint. The colour of the sherds is mostly light to dark grey [2.5Y N5/ to N 3/], although no. [7] has reddish-brown to grey surfaces. In thin section, all the sherds listed above can be seen to contain inclusions of sandstone to a greater or lesser extent. Normally present also are moderate to frequent ill-sorted subangular quartz grains, together with flecks of mica, quartzite, iron oxide, especially in no. [7], or possibly ?ironstone, and

occasional grains of felspar. There is also some ironstone in no. [3] and a little flint in no. [4]. The latter sherd also contains some irregular-shaped voids on the outer surfaces. It is difficult to know if these were once chalk/limestone inclusions which have dissolved, or if they represent organic material.

ORGANIC

[8]. *D4 1978 A1153 [but from vessel A1195]*

[9]. *A5 A1160*

[10]. *A1 A1397*

[11]. *D1 1976 B18*

[12]. *D2 1976 B11*

[13]. *D3 1976 B12*

[14]. *D5 1977 A837*

[15]. *A2 A1204*

[16]. *A6 1978 C101*

Hard, rough sandy fabric with grass-marked voids on the surfaces, generally dark grey [between 5YR 5/1 and 4/1], but with a dark reddish-brown [between 5YR 5/4 and 4/4] outer surface for no. [9]. Thin sectioning shows that all the sherds listed above contain the remains of burnt organic material. Also present are grains of quartz, rather more for nos.

[10]-[16] than for the other two sherds, together with some iron oxide, and an occasional small piece of flint. Nos. [10]-16] also contain inclusions of sandstone. Some of the voids on the surfaces of these sherds are somewhat irregular-shaped. It is possible that these may represent chalk/limestone inclusions that have been dissolved out, but there is little evidence in thin section to confirm this.

QUARTZ/FLINT

[17]. *G2 A145*

Fairly hard, rough sandy fabric with a sparse scatter of small pieces of flint, predominantly dark grey [10YR 4/1] throughout. Thin sectioning shows frequent subangular quartz grains, average size below 0.80mm, together with scattered pieces of angular flint, flecks of mica and some quartzite.

IGNEOUS

[18]. *B1 C143*

[19]. *B2 1978 C45*

[20]. *B3 1980 A1649*

[21]. *B4 1980 A1512*

[22]. *B5 A47*

Hard, rough sandy fabric with distinctive sparse grains of golden biotite, together with some white felspar and occasional fragments of igneous rock, mainly shades of dark grey [from 10YR 4/1 to 3/1], although sherd no. [21] has lighter coloured surfaces than the others. Sherd [19] is smoother and finer-textured than the other five sherds. In thin section the most prominent inclusions to be seen are fragments of a granite or grano-diorite rock, large discrete grains of brown biotite and potash and plagioclase felspar scattered throughout the clay matrix. Also present are grains of quartz, some of them polycrystalline, and flecks of mica.

IRONSTONE

[23]. *A4 1977 A336*

[24]. *E2 1977 B166*

Two sherds make up this group. No. [23] is in a hard, smooth sandy fabric, with small bits of ironstone best seen in fesh fracture, dark grey [7.5YR N3/] throughout. No. [24] is a small, hard sandy sherd, somewhat abraided, with bits of

ironstone clearly visible, dark buff [between 7.5YR 6/4 and 5/4] throughout. Thin sectioning confirms the ironstone content in both sherds, together with some quartz grains and flecks of mica.

?GROG

[25]. *E3 1978 A1000*

Hard, rough stamped sandy fabric, with some small argillaceous inclusions, dark grey [5YR 4/1] surfaces, very dark grey core. Thin sectioning shows frequent subangular quartz grains, mostly below 0.30mm in size but with some slightly larger grains, flecks of mica, a few discrete grains of felspar and one moderately large piece of flint. Also present are some reasonably rounded argillaceous inclusions. It is difficult to be absolutely certain if these are pieces of grog or alternatively naturally occuring clay pellets.

COMMENTS

Inclusions of sandstone, quartz, flint and organic material have already been noted from previous

petrological examinations of Anglo-Saxon pottery from Sancton [HBMC Ceramic Petrology Report; Arnold and Russell, 1983]. The range of fragments of rocks and minerals present in the majority of sherds appear to be fairly consistent with the geology of the general area, and probably indicates the use of the local Pleistocene clays.

The utilization of the nearby boulder clays could possibly account for the presence of fragments of igneous rock noted in some of the Anglo-Saxon sherds. Particularly as there appear to be a mixture of inclusions in some of the material examined. No igneous formations occur in the area, but the local boulder clays do contain a variety of igneous erratics, including boulders of Shap Granite [Wilson, 1948]. Five Anglo-Saxon sherds were found to contain fragments of granite. This might, therefore, represent a fairly local production, utilizing raw materials found in the boulder clays. However, it is worth bearing in mind that in recent years an increasing number of early to middle Saxon pottery from a number of sites situated in the midlands and eastern counties, have also been found to contain granitic inclusions within the fabric of the clay [Walker, 1978; Williams, 1979; together with much unpublished material seen by the writer]. The source for this granitic-tempered pottery has yet to be confidently tied down, although it is looking increasingly as if the origin might lie in the Charnwood Forest area to the

south-west of Leicester [including the Mount Sorrel grano-diorite].

Two of the Anglo-Saxon sherds from Sancton were found to contain a high ironstone content. Without a detailed knowledge of the geology around Sancton it is difficult to know if these pots could have been produced locally or not. However, it is worth noting that a similar fabric has been identified for early Anglo-Saxon pottery from Newark [Arnold and Russell, 1983]. This may just possibly point to a common source for both sets of vessels, though it should be borne in mind that small occasional pieces of ironstone also occur in some of the other fabric groups from Sancton.

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