Report 3387

PETROLOGICAL EXAMINATION OF EARLY ANGLO-SAXON POTTERY FROM ELSHAM, LINCOLNSHIRE AND SANCTON, YORKSHIRE

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INTRODUCTION

Samples of early Anglo-Saxon pottery from the cemeteries at Elsham, Lincolnshire (13 sherds) and Sancton, Yorkshire (10 sherds) were submitted for petrological examination. All the sherds were initially viewed with the aid of a binocular microscope (x 20), and a sample from each was then studied in thin section under the petrological microscope. The object of the analysis was threefold. Firstly, to obtain a detailed fabric description of each sherd; secondly, to see if it is possible to suggest likely source areas for the pottery; and thirdly, to see if there are any fabric similarities between the samples from these two sites, and also material previously examined from the early Anglo-Saxon cemetery at Heworth, Yorkshire (Williams, 1980).

PETROLOGY AND FABRIC

Elsham

Group 1

1. LU.
2. KQ.
3. JP.

Fairly hard, sandy fabric, with inclusions of calcareous sandstone

visible in fresh fracture.

Thin sectioning shows frequent ill-sorted subangular quartz grains, ranging up to 1.30mm in size, calcite, limestone, calcareous sandstone and a little chert.

Group 2

1. HG.

This sherd is vesicular in appearance, and fragments of shell can be readily seen in fresh fracture.

Thin sectioning shows inclusions of shell, limestone and calcite, with a scatter of quartz grains. Also present are a number of voids which undoubtedly held shell or limestone at some stage.

Group 3

1. OS.

A scatter of limestone, some of it oolitic, can be seen throughout the fabric.

Thin sectioning confirms the oolitic nature of the limestone inclusions.

Group 4

1. PW.

2. CS.

The fabric is hard and very sandy, small pieces of sandstone can be seen in fresh fracture.

Thin sectioning reveals frequent pieces of sandstone and a scatter of discrete quartz grains.

Group 5

1. ID.
2. OX(b).
3. JR.
4. OT.

Hard, sandy fabric, especially sherds OX(b) and OT, where large grains of quartz and quartzite protrude through the surfaces, giving the sherds a 'pimply' appearance.

The odd piece of sandstone is also present in the sherds which make up this group. However, the most distinctive feature in thin section is the frequent large (up to 2.0mm in size) discrete subangular to subrounded grains of quartz and quartzite which are scattered throughout the fabric. Also to be seen in some samples is a little chert, iron ore and felspar.

Group 6

1. EG/FO.
2. NC.

Sherd EG/FO is in a hard sandy fabric with a little golden mica, while NC contains conspicuous grains of felspar and flecks of golden mica.

These two sherds have a distinctive appearance in thin section. Both contain discrete grains of felspar (orthoclase and plagioclase) and large flakes of biotite. These tend to be more prominent in sherd EG/FO. Also present in both samples is a scatter of quartz grains and a little sandstone, limestone and iron ore.

Sancton

Group 1

1. 44A.

2. 44B.

3. 119B.

4. 128B.

5. 3.

Hard, sandy fabric, inclusions of sandstone can usually be seen in fresh fracture.

Thin sectioning shows frequent grains of subangular quartz, a scatter of sandstone and a little chert and iron ore. In sherds 128B and 3 the quartz grains are more well-sorted than in the other samples.

Group 2

1. 219.

Hard, sandy fabric.

Thin sectioning shows large subangular to subrounded grains of quartz and quartzite and a little felspar.

Group 3

1. 119.

2. 191A.

Both sherds are sandy, and elongate voids commensurate with organic temper can be seen throughout the fabric.

Thin sectioning shows that these two samples, like those of Group 1 above, contain pieces of sandstone and frequent quartz grains. However, the principal temper appears to have been of an organic nature, for numerous elongate voids commensurate with chaff or grass are scattered throughout the fabric.

Group 4

1. 128B.

2. 128C.

Hard, fairly sandy fabric (128C is finer-textured), with some felspar and golden flecks of mica.

Thin sectioning reveals grains of quartz, quartzite, felspar (orthoclase and plagioclase), biotite and pieces of biotite-granite. Sherd 128B also has a small piece of volcanic rock in it.

DISCUSSION

Thin section analysis of the pottery from Elsham and Sancton shows that the material falls into fairly well defined fabric groupings based on the principal inclusion types in the paste. Both sites are situated on the chalk, with Jurassic deposits situated closeby: mainly Kimmeridge Clay in the case of Elsham and Lias at Sancton. Deposits of Lower Greensand, Corallian, Spilsby Sandstone, blown sand and Boulder Clays also occur reasonably close to Elsham, while Oxford Clay, Oolitic limestone, blown sand and Boulder Clays are all in the vicinity of Sancton. The major temper constituents of the first five fabric groupings at Elsham - calcareous sandstone, calcite, limestone, shell, oolite, sandstone, quartz and quartzite - and the first three at Sancton - sandstone, quartz and quartzite - could thus all be obtained at a reasonable distance from both of the find-sites. Possibly also the granite constituents of Group 6 at Elsham and Group 4 at Sancton, as the local Boulder Clays of east Yorkshire and Lincolnshire are known to contain granite and volcanic erratics.

It is worth emphasizing, however, that sources for the pottery some distance from the find-spots are equally possible, and a number of points of similarity between certain of the fabric

groupings should be noted. There are, for example, similarities between the fabric of Elsham Group 1 and sherds 44A, 44B and 119B of Group 1 at Sancton. It is difficult at this stage though, to decide whether this is because roughly similar materials have been used from two separate areas or whether there is a direct connection between the two groups. A stronger case for the same origin might perhaps be made in the case of Elsham OT (Group 5) and Sancton 219 (Group 2). Both sherds have the same range of inclusions and, additionally, the decorative designs on the vessels are closely matched.

A common source may also connect Group 6 at Elsham with Group 4 at Sancton, both groups being characterized by inclusions of biotite-granite or discrete minerals probably derived from such a rock. The combination of granite and volcanic rock present in Sancton 128B points to Boulder Clay material being used. A similar fabric has already been noted in early Anglo-Saxon pottery from the Heworth cemetery (Williams, 1980). A local origin was postulated for the Heworth pottery as the Boulder Clays of the Vale of York are known to contain erratics of Shap Fell biotite-granite.

The question of locally made as opposed to non-local pottery at Elsham and Sancton will probably only adequately be answered when comparative samples of pottery from other Anglo-Saxon sites in the region have been analyzed. The present results suggest that there are points of similarity between certain of the fabric groups at Elsham and Sancton. Possibly also between those two sites and Heworth, for as well as the common granitic tempered pottery some of the quartz/quartzite and sandstone fabrics at Heworth may be connected with similar tempered sherds at Elsham and Sancton.

REFERENCES

Williams, D.F. (1980) 'Petrological examination of early Saxon pottery from Heworth, Yorkshire', DOE Ceramic Petrology Project.