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Summary

Fabric analysis was undertaken on: (1) a group of later twelfth century pottery from a kiln in Pound Lane, Canterbury, suspected of being used by a northern French potter, and (2) 'waster' pottery from a suspected twelfth century kiln of the same date at Tyler Hill, just outside the city, where the forms seem to be imitating those at Pound Lane. The results showed that the potters from both sites were utilizing the local London Clays. The similarities in texture in the pottery from both sites possibly points to shared technological recipes as well.

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A PETROLOGICAL EXAMINATION OF POTTERY FROM TWO LATER TWELFTH CENTURY KILNS IN THE AREA OF CANTERBURY, KENT

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Introduction

A small programme of petrological analysis was undertaken on a representative selection of 'waster' sherds from two Mediaeval kilns in Kent, both apparently operating during the second half of the twelfth century A.D. One is an actual kiln located in Pound Lane, Canterbury, dated *c.* A.D. 1150-1175 (Macpherson-Grant, 1983; 1986a). The other is a suspected kiln, mid to late twelfth century in date, grouped amongst a number of kilns excavated in the area of Tyler Hill, some two miles north of Canterbury, and is known as Site 20 Brittancourt Farm (Tatton-Brown, 1983) . Due to the strong North French influence noted in the pottery recovered from the Pound Lane kiln, the suggestion has been put forward that a French potter may well have been operating in Canterbury at this time, with his products being imitated locally at Brittancourt Farm, Tyler Hill (Macpherson-Grant, 1986a).

The main object of the petrological analysis was to try to characterize the fabric of the pottery from both kilns. Also, to make a comparison between the products of each kiln, to see if any textural relationship exists between them that might complement the typological affinities that have been noted. The kiln at Pound Lane is situated on Head Brickearth, while the one suspected at Brittancourt Farm, Tyler Hill, is on London Clay, with scattered pockets of Head Brickearth in the area (Geological Survey 1" Map of England Sheet nos. 273 and 289). Also submitted for comparative analysis were some samples of unfired clay associated with the Pound Lane kiln, in the form of vessels and formless lumps, together with kiln daub. While some examples of the local clay had been collected from the vicinity of Brittancourt Farm. The pottery sherds from each site were initially studied macroscopically with the aid of a binocular microscope (x20). Munsell colour charts are referred to together with free descriptive terms.

Petrology and Fabric

Pound Lane Kiln, Canterbury

Pottery

11. PL 86 (12) Strap-handle (probably jug).

2]. PL 86 (12A) Storage jar bodysherd with thumbed strip.

3]. PL 86 (12G) Fragments from sagging bases (probably cooking-pots).

4]. PL 86 (12G) Bodysherds.

5]. PL 86 (12G) Cooking-pot rim (Type 8).

6]. PL 86 (12E) Rim fragment from collard-rimmed jar (Type 13).

7]. PL 86 (12G) Cooking-pot rim (Type 7).

A very hard, roughish sandy fabric, mostly shades of light to dark grey in colour (5YR 7/1 to 10YR 4/1), but with some lightish red pieces. Thin sectioning shows a groundmass of silt-sized quartz grains and small flecks of mica, together with a scatter of larger angular to subangular quartz ranging in size up to about 0.60mm across. Also present are some small pieces of flint, iron oxides, quartzite, clay pellets and moderately-sized well-rounded reddish-brown grains of glauconite.

Underfired Pottery

8]. PL 87 (00) (100).

9]. PL 87 (00) (99).

10]. PL 87 (00) (97).

After consolidation, thin sections were made of these three ?underfired sherds. Under the microscope they appeared very similar to the fabric of the pottery described above.

Daub from Kiln

11]. PL 86 (35) Daub (Type 1) with wattle impression.
Thin sectioning shows that the clay matrix is packed solid with well-sorted quartz grains mostly under 0.10mm in size, together with a sparse scatter of larger grains, flecks of mica, iron oxides, flint and a few small dark grains of ?glauconite.

12]. PL 86 (12) Finer daub (Type 2) with wattle impressions.
In thin section this sample appears to be roughly similar to the last one.

13]. PL 86 (12) Sandy daub (Type 3).
In this case the clay matrix is fairly fine-textured, with some flecks of mica and a few small-sized quartz grains, and contains frequent subangular quartz grains, average size 0.30mm - 0.50mm, and a little glauconite. In the hand-specimen there appears to be a greater concentration of quartz grains on the surfaces of the daub than in the core.

The relative coarseness of all three pieces of daub suggest that there was little refinement of the clay before use. Indeed, for refractory purposes in the kiln a seam of particularly sandy clay may have been deliberately sought out, or alternatively quartz sand may well have been added. The latter appears to have been the case with the outer layers of Sample 13, where the quartz grains are less frequent in the core compared with the

surfaces. The quartz grains were presumably added while the clay was wet, allowing them to adhere to the surfaces.

Unfired Clay Samples from the Kiln site

After consolidation, a number of samples were thin sectioned. Under the microscope these showed a similar range of non-plastic inclusions and texture to the pottery described above.

Brittancourt Farm (Site 20), Tyler Hill,

Pottery

14]. Fabric:EM1 12th century, ?storage jar bodysherd with thumbed strip.

15]. Fabric:EM1 12th century, sagging base.

16]. Fabric:EM1 12th century, collard, rouletted pitcher rims.

17]. Fabric:EM1 12th century, rouletted bodysherds (pitcher).

18]. Fabric:EM1 12th century, plain bodysherds.

All of these samples are in a very rough sandy fabric, soft to hard in individual cases and ranging in colour from various shades of grey (5YR 7/1 to 10YR 5/1) to patchy light red (2.5YR 6/6). They all appear fairly homogeneous under the microscope, and not too dissimilar

to the fabric described above for the Pound Lane pottery, except that the groundmass of small quartz grains is somewhat more frequent in the Brittancourt pottery, and the glauconite grains are smaller and less in number than is the case at Pound Lane.

Local Clay Samples

Samples of London Clay were obtained from Tyler Hill (NGR 144622) and from nearby Cane Wood (NGR 142625) and Thornden Wood (NGR 155636). In thin section, the two clay samples from Tyler Hill and Thornden Wood were the closest in texture to the pottery from Brittancourt Farm, displaying a similar groundmass of mostly silt-sized quartz grains with a scatter of larger grains, together with some flint, iron oxides and the odd small dark grain of ?glauconite. The sample from Cane Wood contained well-sorted quartz grains solidly packed together, with some iron oxides.

Saxon Pottery from Canterbury

19]. STMH 84 (432) SF354 Fabric MLS 2 (Macpherson-Grant, 1987, Figs. 20-21).

20]. St. Aug. 84 (122) Fabric MLS 2 (Macpherson-Grant, 1986b, Fig. 5).

21]. 1989-70 (78) Fabric MLS 2.

All three sherds appear fairly similar in thin section. To a significant extent they resemble the sherds from the Pound Lane kiln, with the same sparse but prominent grains of glauconite, although the Saxon material tends to have a finer-textured clay matrix. On this evidence, these three Saxon sherds would appear to have been made reasonably locally from roughly the same order of raw materials as were used for the Mediaeval pottery in the city some centuries later.

Comments

In thin section, the correspondence between the samples of London Clay from nearby to the suspected kiln at Brittancourt Farm and the 'wasters' from that site, suggest that local clay was used by the potters. The amount of glauconite present in the clay examined is not as frequent as that noted in the pottery. However, glauconite is recorded in the London Clay of the area and in the local Head Brickearth, pockets of which are present in the Tyler Hill region (Smart *et al*, 1966).

The general similarities between the pottery from the Pound Lane kiln in Canterbury and that recovered from Brittancourt Farm, also points towards the London Clay being used for the former products. Canterbury is situated mostly on Head Brickearth, but thin sectioning

of the Pound Lane pottery revealed no calcareous inclusions that seems to characterize this clay in the city (Mainman, 1982). In this connection it is interesting to note that thin section work by Streeten on early and later Mediaeval pottery found in Canterbury, suggested that they were made from London Clay (in Macpherson-Grant, 1983). The likely use of the same type of raw materials at both kiln sites may well have resulted in the similarities noted in the texture of the pottery from each site. It is, however, quite possible that a certain amount of refinement was given to the raw clay before the pottery forming stage, either taking coarse material out or adding fresh inclusions as temper (predominantly quartz in this case). If this was the situation, and Streeten (1982) suspected, for example, that with the later pottery and tile made at Tyler Hill sand from the local brickearth was added to the London Clay, it might suggest that technological as well as typological aspects were shered at the two sites.

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