

TILERY AT HARTFIELD, SUSSEX

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Introduction

Samples of tile from the Roman tilery at Hartfield were submitted for detailed fabric examination under the petrological microscope. Two sherds of pottery from the site were also included to see if the fabric resembled that of the tiles, and if it was possible that these might also have been a local product. All the samples were firstly studied macroscopically with the aid of a binocular microscope (x20). Munsell colour charts are referred to together with free descriptive terms. Hartfield is situated on Ashdown Sands with deposits of Wadhurst Clay located nearby (Bristow and Bazley, 1972).

Results1) Fabric 2 (Plain tile)

Soft, rough, fairly fine-textured fabric showing a scatter of quartz grains and some small argillaceous material, light red (2.5YR 6/6-6/8) throughout. Thin sectioning shows a fairly clean, fine-textured optically anisotropic, slightly streaky clay matrix, containing a scatter of sub-rounded quartz ranging up to 0.50mm across, though the majority of grains are under 0.20mm in size, together with some flecks of mica, clay pellets, fine-grained sandstone, siltstone,

mudstone and iron ore.

2) Fabric 3PR (Plain tile)

Very hard, rough, fairly fine-textured fabric, showing a scatter of quartz grains and some small argillaceous material, strong red (10R 5/8 - 2.5YR 5/8) throughout. Thin sectioning reveals a fairly similar range of inclusions to Fabric 2, although this fabric is more sandy, with a groundmass of quartz grains 0.10mm and under and some slightly larger grains. Also, the higher firing temperature has resulted in an optically isotropic clay matrix (i.e. fired above 800°C-850°C).

3) Fabric 4A (Plain tile)

A fairly similar fabric in the hand-specimen and under the microscope to Fabric 2.

4) Roller-stamped box-flue (Unmarked)

Fairly similar in the hand-specimen and under the microscope to Fabric 2. On this evidence a local product is suggested.

5) Two sherds of pottery (1983.2/I/52)

Both sherds of pottery are in a soft, rough fabric. Sample (A) is conspicuously sandy with some argillaceous material, greyish-brown (10YR 5/2 - 2.5Y 5/2) throughout. In thin section frequent sub-rounded grains of quartz can be seen, average size between 0.20mm - 0.70mm, together with flecks of mica, clay pellets, mudstone, fine-grained sandstone and iron ore, set in a fairly clean optically anisotropic clay matrix. Sample (B) appears less sandy in the hand-specimen than sample (A), with frequent argillaceous inclusions

throughout the fabric, reddish-brown (5YR 5/3-5/4) surfaces, light grey core. Thin sectioning shows a fairly clean optically anisotropic clay matrix containing a scatter of quartz grains up to 0.30mm in size, together with flecks of mica, frequent pieces of what appears to be mudstone/shale, a little fine-grained sandstone and iron ore.

### Comments

All the samples of tiles examined contain a range of inclusions which can be found locally in the Ashdown Sands and Wadhurst Clay (Bristow and Bazley, 1972), with the majority sharing a reasonably common fabric, including the roller-stamped piece. There seems no reason to suspect that anything other than local materials were used in the production of tiles at Hartfield. The two sherds of pottery are in a slightly different fabric to the tile samples, but again the range of inclusions would fit in with a possible local origin (ibid.).

### Reference

Bristow, C.R. and .(1972) Geology of the Country around Royal  
Bazley, R.A. Tonbridge Wells.