

## **Medieval Pottery Fabrics at Puxton, Somerset (PX98)**

### ***Alan Vince***

Thirteen samples of medieval pottery fabrics from excavations at Puxton, Somerset, were submitted by Alejandra Gutierrez for examination at x20 magnification. Although some are examples of well-known fabrics others are not and several of these cannot adequately be characterised visually. Given the variable solid and drift geology of the area surrounding the North Somerset levels, further study of these fabrics would probably produce positive results, in terms of establishing the sources of the pottery used at Puxton.

### **Sample 1 (AA1)**

#### **Description**

- Polished quartz grains up to 1.5mm across. Abundant.
- Rounded glauconitic sandstone up to 2.0mm across. Sparse.
- Calcareous fossils up to 1.0mm long. Abundant. Possibly ostracods.
- Red dull clay/ironstone fragments. Sparse up to 1.0mm across.
- Angular flint up to 1.0mm across. Sparse.
- Groundmass of fine-textured clay with abundant sericite less than 0.05mm across.

#### **Interpretation**

There were two samples submitted. Both contain the polished quartz, glauconitic sandstone and calcareous fossils, whilst the flint occurs only in one sample and the relative frequencies of the inclusion types varies between the samples.

The sandstone and quartz are clearly of lower Cretaceous origin and presumably a detrital sand. The microfossils and clay ironstone might be naturally present in the parent clay. The clay itself is too fine-textured to be of lower Cretaceous origin and is similar to Jurassic clays, from the Lower Lias through to the Oxford Clay.

The range of inclusions is similar to those found in Bath Fabric A, some examples of which do include glauconitic sandstone (lower or upper greensand), but the microfossils are distinctive and not present in that ware. Furthermore, the groundmass of Bath Fabric A is much more silty.

The fabric is also similar to the chert-tempered wares of south Somerset and the SW peninsula, which do have a fine-textured groundmass. However, the glauconitic sandstone is absent in those wares, which contain chert instead.

## Sample 2 (AA2)

### Description

- Polished quartz up to 1.0mm across.
- Subangular fine-grained red sandstone up to 1.5mm across.
- Rounded limestone up to 1.5mm across. The limestone includes oolite in which the ooliths are less than 0.2mm across and some sparry calcite.
- Rounded calcareous algae up to 1.0mm across.
- Rounded calcareous granules. Sparse fragments up to 0.5mm across. Probably the internal skeletons of slugs.
- The groundmass is silty, containing quartz, muscovite and biotite

### Interpretation

The red sandstone and the limestone are probably of Carboniferous origin. The polished quartz is of lower Cretaceous origin and the calcareous algae and granules are of recent origin. The inclusions, therefore, are a mixed, detrital sand. The groundmass could either be of recent Somerset levels origin or a lower Cretaceous clay.

## Sample 3

### Description

- Rounded limestone up to 1.0mm across. Some burnt out with yellow reaction rims around the voids. Includes oolite.
- Subangular fine-grained red sandstone up to 1.5mm across.
- Rounded calcareous algae up to 1.0mm across.
- Polished quartz up to 1.5mm across. Sparse but definitely present.
- Red/dark brown clay ironstone up to 1.5mm across.

The groundmass contains sparse quartz silt and muscovite up to 0.1mm across.

### **Interpretation**

A similar range of inclusions to Sample 2, but with very different frequencies. The proportion of probable Carboniferous origin is much higher and the groundmass is slightly finer (although this is somewhat subjective and ought to be confirmed by TS analysis). I would think that even this low frequency of polished quartz grains exclude a local North Somerset Levels origin.

### **Sample 4**

#### **Description**

- Subangular finegrained white sandstone up to 1.0mm across. Moderate.
- Subangular finegrained red sandstone up to 1.0mm across. Moderate.
- Sparry calcite up to 1.0mm across. Sparse.
- Polished quartz up to 1.0mm across. Sparse.
- Rounded red clay/ironstone up to 1.0mm across

The groundmass is slightly silty with quartz and muscovite silt up to 0.1mm across

#### **Interpretation**

The sandstones, the red clay ironstone and calcite are all probably of Carboniferous origin whilst the polished quartz is of lower Cretaceous origin. The groundmass could be recent Somerset levels silt. As with Sample 3, the polished quartz probably excludes a North Somerset levels origin.

### **Sample 5 (P03)**

#### **Description**

- Rounded quartz up to 1.0mm, some with matt surfaces. Moderate.
- Quartz with overgrowth up to 1.0mm across. Sparse.
- Tabular slate/phyllite up to 1.0mm across. Moderate.
- Fine-grained red sandstone fragments up to 1.0mm across. Moderate.
- rounded black inclusions up to 0.5mm across.

The groundmass is silty with quartz and abundant muscovite up to 0.1mm across

### **Interpretation**

All the inclusions are probably detrital and originate in the Culm Measures of North Devon/west Somerset. The groundmass, however, is probably a Somerset Levels silt. Therefore, an origin in West Somerset seems likely (e.g. Nether Stowey area). The fine-grained metamorphic rocks certainly preclude a local origin.

### **Sample 6**

#### **Description**

- Subangular quartz up to 0.3mm across. Abundant.
- Polished quartz up to 1.0mm across. Sparse.

The groundmass is fine-textured but contains some large mica flakes, both muscovite and biotite, up to 0.2mm across.

#### **Interpretation**

The polished quartz grains are of lower Cretaceous origin but none of the other inclusions can be provenanced by eye. The fine-textured groundmass might indicate the use of a Jurassic clay. I would probably have classed these sherds as Bath Fabric A, especially since the sample sherds are from a spouted pitcher with rosette stamped decoration, but the groundmass is too fine and the proportion of polished to subangular quartz too low.

### **Sample 7**

#### **Description**

- as Sample 5

#### **Interpretation**

This appears to be identical to Sample 5, with some definite slate/phyllite inclusions.

### **Sample 8**

#### **Description**

- Subangular quartz up to 0.2mm across. Abundant.
- Finegrained white sandstone up to 0.5mm across. Sparse.

The groundmass is fine-textured with moderate muscovite up to 0.1mm across.

### **Interpretation**

The white sandstone might be of Carboniferous origin but the inclusions are really too small for study without thin section.

### **Sample 9**

#### **Description**

- Finegrained red sandstone up to 1.0mm across. Sparse
- Subangular quartz up to 0.5mm across. Abundant.
- Rounded mudstone/relict clay pellets up to 1.0mm across. Containing muscovite. Similar in colour to the groundmass.

The groundmass contains moderate quartz silt, muscovite and probably biotite and fires to a light brown colour (i.e. low iron content).

#### **Interpretation**

The clay is probably a weathered Coal Measure Mudstone and the sandstone and quartz inclusions probably also Carboniferous in origin. The bag states "Bristol or Somerset". I would say that these characteristics are not identical to the Bristol whiteware, nor to Ham Green ware, but do suggest a northeast Somerset source (i.e. possibly local).

### **Sample 10 (P05)**

#### **Description**

- Angular acid igneous rock. One large fragment in sample plus several smaller fragments
- Rounded quartz up to 0.5mm across. Including examples with matt surfaces.

The groundmass is silty and micaceous (muscovite) and contains moderate rounded inclusionless clay pellets, slightly darker in colour than the clay matrix.

#### **Interpretation**

This is a piece of Malvern Chase glazed ware, of late medieval or early post-medieval date.

### **Sample 11 (AV Bristol A/B)**

#### **Description**

- Rounded finegrained white sandstone fragments up to 1.0mm across. Moderate.

- Rounded calcareous inclusions, up to 1.0mm across. Moderate.
- Crinoid stems. Sparse angular fragments up to 1.0mm across.
- Rounded quartz up to 0.5mm across. Moderate, some with matt surfaces.
- Angular grey siltstone fragments up to 1.0mm across.

The groundmass is dark grey or black, silty and micaceous.

### **Interpretation**

The inclusions are a detrital sand and include material of Triassic origin (matt rounded quartz) as well as probable Carboniferous origin. The silty groundmass probably indicates in this case that the parent clay is a recent estuarine silt. All of these inclusions are probably present in the Puxton area and are certainly present in the Bristol Avon valley, to the west of the Clifton Downs. Visually, the fabric is very similar to that used in Bristol in the 11<sup>th</sup> to early 12<sup>th</sup> centuries (divided into several fabric groups by Bristol City Museum: BPT 1;BPT 3;BPT 7;BPT 20;BPT 115;BPT 176;and BPT 190 and into two groups by myself, Bristol A and Bristol B, depending solely on mean grain size, A being coarser than B.

### **Sample 12 (Proto Ham Green cooking pots)**

#### **Description**

The three samples consist of two typical proto Ham Green cooking pot sherds (BPT 114, BPT 305) and one atypical example. The latter contains moderate black mudstone pellets absent in the other two and is fired black to grey.

- Rounded quartz up to 0.3mm across. Abundant. No sign of matt or polished surfaces
- Rounded dark brown ironstone grains up to 0.3mm across. Sparse.
- Rounded calcareous inclusions up to 0.3mm across. Sparse.

The groundmass is finegrained and micaceous.

#### **Interpretation**

The parent clay for this fabric is probably a weathered Coal Measures mudstone and the sand tempering is a detrital sand derived at least in part from Carboniferous strata (such as the Carboniferous limestone). The black clay pellets noted in the atypical sample are probably an organic Coal Measures mudstone or shale and identical to those found in Ham Green glazed ware, where the organic matter is often at least partially burnt out during firing.

## Sample 13 (Ham Green cooking pots)

### **Description**

- Subangular quartz up to 0.3mm across, but mainly less than 0.2mm. Abundant.
- Rounded mudstone up to 1.0mm across. Varying in colour from grey to pink to red. Moderate. Most contain muscovite and quartz.
- Calcareous grains up to 0.5mm across. Sparse and mostly heat-altered.

The groundmass is fine-textured with some quartz and muscovite silt.

### **Interpretation**

Produced from a weathered mudstone with a higher iron content, and more quartz and muscovite silt, than that used for the glazed ware. The quartz and calcareous sand is probably an added detrital sand.

## Sample 14 (AAA ugl?)

### **Description**

- Rounded quartz, ill-sorted and often red-stained, up to 0.3mm across.
- Rounded mudstone up to 1.5mm across. Some have a higher organic content than the groundmass, appearing dark grey or light blue-grey (i.e. probably reduced as a result of original organic content)

The groundmass is fine-textured and micaceous (muscovite)

### **Interpretation**

The mudstone is probably relict clay from the parent rock, a Coal Measures mudstone with a low iron content and containing moderate muscovite. The sand is probably derived from a fine-grained red sandstone, possibly also of Coal Measures origin. Deposits of Coal Measures occur extensively around Bristol, to the north, east, south and west of the city.