

ANCIENT MONUMENTS LABORATORY

REPORT

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TITLE

YORK

FABRIC

Eleven fabric types from York, covering the period from Roman to Mediaeval, were submitted for petrological analysis. Firstly to see if there was any similarity between the fabrics, and secondly to see if any likely origins might be suggested.

Description of fabrics

Fabric A :

Even bright red colour throughout, heavily gritted with quartz sand.

Roman levels.

Fabric B :

Light buff colour throughout, with traces of light green glaze on the outside surface, very fine quartz sand temper. 12th. century contexts.

Fabric C :

The surfaces are a dark grey colour, with the core bright red, heavily gritted with quartz sand, numerous grains of which show through the surfaces, giving it a rough 'pimply' texture. So-called 'York ware', from late Saxon contexts.

Fabric D :

Light buff colour throughout, heavily gritted with quartz sand. Similar texture to fabric C. 12th. century levels.

Fabric E :

Dark green glaze on the outside surface, light grey colour on the inside surface and core, fine quartz sand temper. 12th. century contexts.

Fabric F :

Dark green glaze on the outside surface, light buff colour on the inside surface and core, fine quartz sand temper. So-called 'York glazed ware'.

Fabric G :

The surfaces are a dark grey colour, with a light grey core, heavily gritted with quartz sand. Roman levels.

Fabric H :

The surfaces are a pinkish-brown colour, with a light grey core, very

fine quartz sand temper, 'Stamford type ware'.

Fabric I :

The surfaces are a light red colour, with a grey core, a greenish-brown splash glaze appears on the outside surface. Fine quartz sand temper, 12th. century contexts.

Fabric J :

Black colour throughout, heavily gritted with quartz sand, 'Torksey type ware', from late Saxon contexts.

Fabric K :

Dark grey colour throughout, heavily gritted with quartz sand. 'Torksey type ware', from late Saxon contexts.

As all of the fabrics are sand tempered, each one was subjected to a heavy mineral analysis (Peacock, 1967). Table I shows the results of the heavy mineral analysis in terms of percentages of non-opaque minerals.

TABLE I

Fabric	Zircon	Garnet	Almandine Garnet	Anhydrite	Tourmaline	Rutile	Andalusite	Staurolite	Anatase	Apatite	No. grains counted
A	24.5	-	62.3	-	.3	1.2	11.4	.3	-	-	338
B	74.4	-	4.6	-	-	14.5	1.3	4.6	.6	-	304
C	12.6	-	-	80.4	-	1.7	-	2.1	-	3.2	417
D	43.3	2.7	-	40.6	1.1	5.6	1.1	5.6	-	-	180
E	24.7	45.0	-	-	21.1	-	5.5	3.7	-	-	209
F	92.3	6.5	-	-	-	-	1.2	-	-	-	247
G	85.6	4.8	-	-	-	2.4	5.8	.9	.5	-	208
H	85.1	-	-	-	-	2.8	2.4	9.5	.2	-	461
I	64.4	4.8	-	-	14.4	5.8	1.9	1.0	2.9	4.8	184
J	52.5	8.5	-	-	28.0	.5	7.5	1.0	-	2.0	200
K	65.5	11.0	-	-	16.5	-	4.0	1.0	-	2.0	240

Discussion

Of the eleven samples analyzed, only in the case of fabrics J and K, the 'Torksey type wares', were assemblages of minerals produced of roughly similar proportions and where the character of the grains were alike, to suggest that both were made in the same general location. At this stage it is not possible to give any indication of the likely source for these fabrics.

Fabrics A and B both contain almandite garnet in varying amounts. In fabric A this accounts for some 62% of the total assemblage, the grains are large (up to 0.6mm. across) and subrounded, all of which suggests an origin for the almandite in the Millstone grit area of West Yorkshire, rather than a source nearer York due to the result of glacial action. However, almandite in fabric B accounts for less than 5% of the suite, and an origin nearer York cannot be ruled out.

Fabrics C and D both contain large amounts of subrounded anhydrite. The high percentage and well-worn character of the anhydrite would seem to suggest a source either in the Keuper Marls to the east of York or the Permian Magnesian Limestone formation to the west, rather than an origin nearer York due to the result of glacial action. Fabric D, so-called 'York ware', contains over 80% anhydrite in the assemblage, and an origin in York would seem to be unlikely, though more samples would be needed to establish if the presence of anhydrite is typical in this fabric. It is noticeable, however, that the other fabric thought to have been made in York, fabric F 'York glazed ware', does not contain any anhydrite, but instead has a suite characterized by over 90% zircon, as against 12% for fabric C. It is unlikely, therefore, that both were made in the same general location.

Although little can be said at this stage regarding the sources of the remaining fabrics, they are different from one another and from the above mentioned fabrics.

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Peacock, D.P.S. (1967) 'The heavy mineral analysis of pottery : a preliminary report', Archaeometry , 10 (1967), 97-100.