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PETROLOGICAL ANALYSIS OF SOME MICA-DUSTED AND 'LONDON WARE' POTTERY

Report sent to Southwark Ex. Comm.
for inclusion in 'Ex. in Southwark, 1972-74.'

Two classes of pottery were submitted for petrological analysis :

- 1) A number of mica-dusted wares in a variety of forms from stratified deposits at Southwark and unstratified from Copthall Close.
- 2) A number of sherds of 'London ware' and associated fabrics from stratified deposits at Southwark and unstratified from Copthall Close and Bank of England.

The object of the examination was firstly to try and determine if both classes of pottery each form a homogeneous group from a single production centre, and secondly to assess, if possible, likely production areas.

As all the sherds concerned, both mica-dusted and 'London ware', are sand tempered, heavy mineral analysis (Peacock, 1967) was originally contemplated. However, this method normally requires some 20-30 grammes of pottery for a meaningful result, and as the majority of the samples come from thin walled vessels the quantity of pottery necessary for this technique was not available. Instead, each sherd was examined by thin section.

Mica-dusted Wares

The twenty-one mica-dusted vessels submitted display a certain amount of variety in colour and fabric, though all contain many small

flecks of applied mica on the outside surface. The majority of the vessels are in a smooth reddish-brown fabric with a grey core sandwiched between two red layers. The exceptions are S1, S4, S7 and S14 which are in a reddish-brown fabric throughout ; S6, S9, S11 and S15 which tend to be in a less smooth orange fabric with a grey core ; and CC5 which is in a dark grey fabric with a light grey core.

Thin sectioning reveals little else but quartz grains and mica set in an optically anisotropic clay matrix. A little flint was noted in some of the samples. As these materials are comparatively commonplace it was decided to apply textural parameters to provide a more objective basis for characterization of the quartz inclusions. This method has previously been used successfully by Peacock with a group of Romano-British grey sandy wares from Fishbourne occurring in a variety of forms (1971). The method analyses differences in texture between sherds, in particular the size distribution of the inclusions in the clay, replacing in quantitative terms the subjective quality of 'feel'. No direct indication of sources can, of course, be obtained from the results, though these can be compared when applicable with those obtained from known kiln material.

The percentages of inclusions, roundness and sphericity used for the Fishbourne pottery were not included here, as they were considered to be

TABLE I

SHARD NO.	FORM	DATE	SIZE PARAMETERS			
			M_s	F_1	Sk_1	K_2
83 (993)	Dish	c. A.D. 100-125	3.33	1.08	-.40	.49
88 (1080)	Flagon	Troj / Had.	3.32	.74	-.13	.49
810 (1013)	Dish	Troj./ Had.	3.42	.94	-.34	.32
811	Bowl	Troj./ Had.	3.36	.97	-.23	.40
802	Dish	Unstratified	3.68	.69	-.37	.48
803	Dish	Unstratified	3.62	.77	-.33	.48
805	Dish	Unstratified	3.70	.79	-.12	.63
			Mean 3.46 ± .04	.83 ± .13	-.27 ± .10	.61 ± .17
82 (1573)	Dish	c. A.D. 120-130	3.62	.76	-.84	.73
85 (1430)	Imit. Drag. 29	c. A.D. 85-105	3.73	.86	-.86	.73
815	Flagon	Troj./ Had.	3.63	1.06	-.89	.85
806	Dish	Unstratified	3.87	.68	-.84	.95
			Mean 3.71 ± .14	.84 ± .20	-.86 ± .02	.82 ± .09
81 (1269)	Flagon	Late Ant.	4.38	.22	.03	3.05
87 (124)	Beaker	Late Ant.	4.39	.22	.13	2.95
812	Flagon	Late Ant.	4.30	.19	.12	2.91
			Mean 4.36 ± .06	.21 ± .03	.09 ± .04	2.97 ± .05
84 (973)	Flagon	c. A.D. 100-120	3.11	.44	.04	1.0
89 (Sheldon, 1974, fig. 31, no. 248)	Flagon	c. A.D. 120-150	3.18	.42	-.01	.96
			Mean 3.15 ± .04	.43 ± .01	.02 ± .03	.98 ± .02
86 (1008)	Dish	Troj./ Had.	3.78	.88	-.87	7.43
813 (204)	Beaker	Early 2nd Cent.	2.63	.57	.01	.99
814 (922)	?	c. A.D. 100-125	4.06	.53	-.76	2.08
804	Dish	Unstratified	3.34	.90	.22	.61
807	Flagon	Unstratified	4.0	.39	-.21	1.79

too subjective in this case. Also, 150 grains have been measured here for each sample, instead of 50 at Fishbourne. The measurement being the maximum horizontal intercept. Otherwise, the method is the same as that used by Peacock.

Table I

Mz Mean size.

σ_I Sorting. A measure of the 'spread' of the grains over the different size classes (standard deviation).

Sk_I Skewness. A measure of the degree of symmetry of the distribution.

Kg Kurtosis. A measure of the 'peakedness' of the distribution curve.

From the results shown in Table I it is apparent that the mica-dusted wares from both Southwark and Copthall Close were coming from a variety of production centres. Apart from a number of samples which have produced results unmatched by any other, it is possible to divide the majority of sherds analyzed into four groups. Those samples which make up such a group show every likelihood of being the products of the same centre. Two of the groups contain sherds from both Southwark and Copthall Close showing common sources of supply to these two sites for over half the vessels

sampled. One production centre seems to have been responsible for a third of the samples analyzed.

The fact that no sherd from Copthall Close falls into the group of three late Antonine vessels from Southwark may offer a possible terminus post quem for the Copthall Close group as a whole.

'London Ware'

Eight of the ten samples analyzed are of so-called 'London ware', all are decorated bowls. The fabric in each case is a smooth hard one with a black outside surface and light grey to dark brownish core. Two samples are from stratified levels at Southwark (no. 7 A.D. 85-105 and no. 8 A.D. 110-125), three from unstratified deposits at Copthall Close (nos. 1, 2 and 3) and three from unstratified deposits at Bank of England (nos. 4, 5 and 6). In addition, two sherds of possible 'London ware' have also been included from the latter site (nos. 9 and 10). These are both body sherds and it is not possible to identify the type of vessel concerned. One is light grey on the outside surface with a darker inside surface and with a light grey core (no. 9), and the other is dark grey on the surface with a light grey core (no.10).

Thin sectioning reveals an optically anisotropic matrix of fired clay containing subangular grains of quartz. The quartz inclusions all

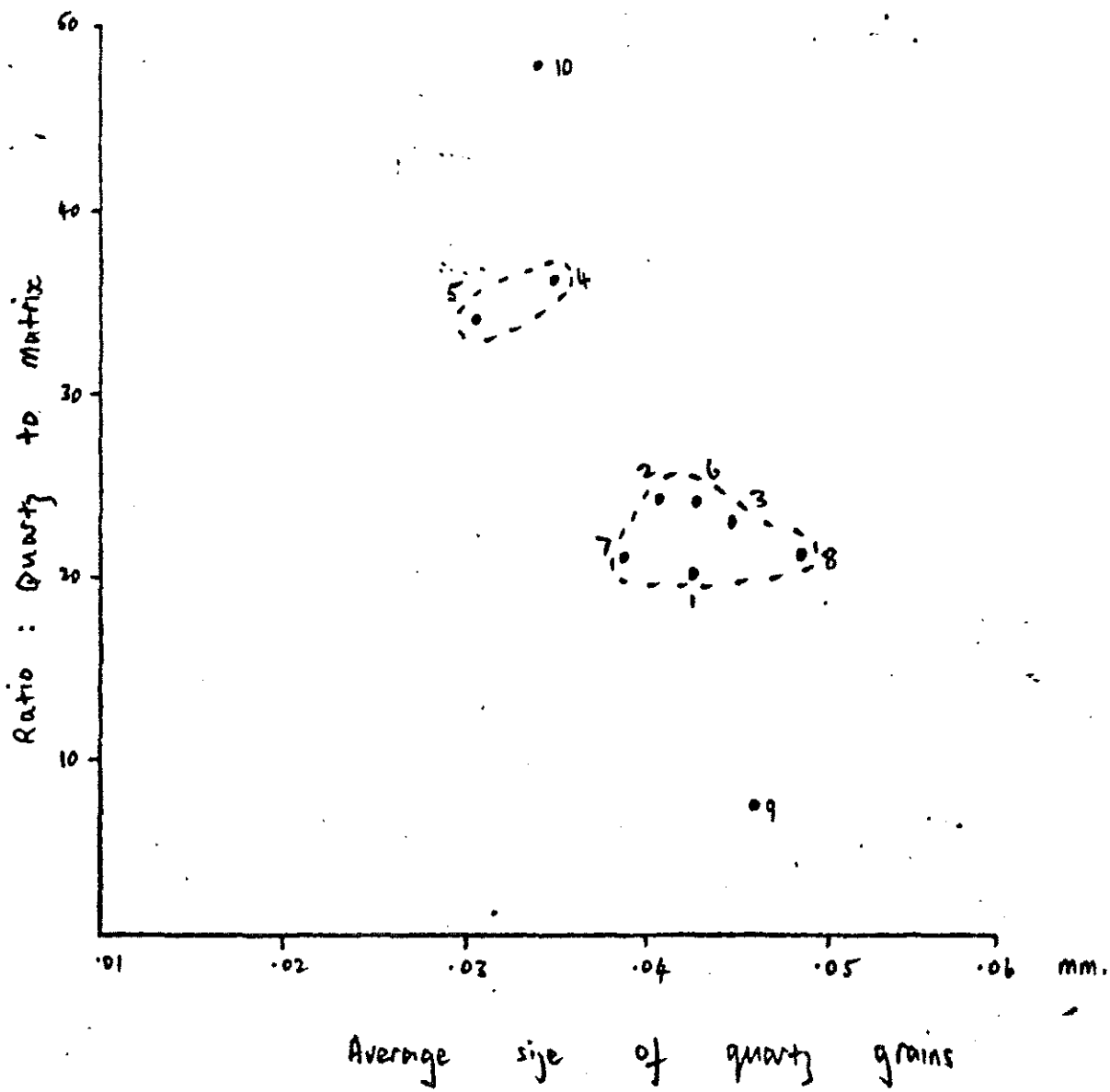


Fig. 1

roughly fall within the same size range, 0.03-0.05mm. (in this they differ from the mica-dusted wares), and so would not have shown sufficient variety for a textural parameter analysis. Instead, in an attempt to characterize the sherds, the average size of the quartz inclusions have been plotted against the ratio of inclusions to clay matrix (see Hodder, 1974). The results are shown in Fig.1.

Fig 1.

Two distinctive groups are discernible, two samples from the Bank of England forming one group, and six from Southwark and Copthall Close forming another group. This would seem to suggest that there were at least two separate centres producing 'London ware'. The other two samples fall well clear of these two groups, which may throw further doubt on their designation as 'London ware'.

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