

ANCIENT MONUMENTS LABORATORY

REPORT

3271

SERIES/No	CONTRACTOR	
AUTHOR	D F Williams	Jan 1981
TITLE	Raetian mortaria	

for King HK

RAETIAN MORTARIA

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Forty samples of Raetian mortaria from various find-sites were submitted for examination. All the sherds were studied initially with the aid of a binocular microscope, and the majority were then thin sectioned and examined under the petrological microscope. The object of the analysis was as follows: (1) to characterize in detail the fabrics involved, (2) to see if it is possible to discriminate petrologically between these sherds allocated to particular production centres on typological and fabric grounds by Mrs Hartley, and (3) to try to suggest possible origins for those undesignated sherds. Heavy mineral analysis was not employed in this case, as in many examples the sherd was either too small or too valuable a specimen to allow for the fairly large sample required for this method.

In the event the task proved to be a difficult one, due to the common range of inclusions that were present in most of the sherds, mainly quartz, mica, quartzite and sandstone. This is to a large extent a reflection of the geology associated with the five suspected production centres involved: Holt, Wilderspool, Carlisle, Wroxeter and Chester, all of which are situated on the Bunter Sandstone. It has also meant that it has not proved possible to suggest likely source areas for the undesignated sherds. A detailed textural analysis of the thin sections, that is an examination of the size, shape and frequency of the inclusions in the clay, has, however, helped to discriminate between certain of the sherds. Though a problem arising from this is that there seems to be a certain amount of variation

between those sherds considered to represent a 'control group' for a particular production centre, as well as there being some similarities between the latter groupings. Thus none of the groupings can be considered to have a clear-cut textural pattern which represents all the sherds allocated for that group and at the same time is clearly different to material from the other groups. It is not yet apparent whether this variability within the groups represents the use of slightly different sources of raw material from the same general area, or whether some of the sherds have been wrongly allocated to particular production centres. More samples are obviously needed to see whether this textural variability is a true reflection of the above centres or not. It is for this reason that full details of the petrology of the mortaria samples are given below, so that the present work may in part be used for ^{the} further examination of these distinctive vessel-types.

Carlisle origin (K.F.H)

No. 4 CAR 78 BLA B62. Provenance Carlisle.

Hard, sandy fabric, red (10R 5/8) rim, reddish-buff (between 2.5YR 5/8 and 5YR 6/8) surface and core. Trituration grits: mainly quartz, quartzite and highly distinctive plates of golden mica.

Thin section: fairly fine clay matrix containing a scatter of ill-sorted subangular quartz grains, ranging in size from 0.10mm to 1.0mm, some quartzite, felspar, sandstone and flecks of mica.

No. 5 CAR 77/78 BLA B191. Provenance Carlisle.

Very hard, fairly fine fabric, slightly micaceous light red (2.5YR 6/8) rim, deep red (2.5YR 5/6) surfaces and core. Trituration grits: appear to be predominantly quartz, quartzite and sandstone.

Thin section: frequent subangular grains of quartz, average size

0.30mm.

? Possible Carlisle (K.F.H.)

No. 3. Provenance Lancaster.

Very hard, fairly fine fabric, red (10R 5/6) rim, reddish-brown (2.5YR 5/6) surfaces and core. Trituration grits: appear to be predominantly quartz, quartzite and sandstone.

Thin section: groundmass of small quartz grains under 0.10mm in size and flecks of mica, with a scatter of slightly larger quartz grains. This appears to be texturally different from the two samples from Carlisle above.

No. 10 RIB 78 BH 153.1. Provenance Ribchester.

Hard, fairly sandy fabric, light red (2.5YR 5/8) rim, reddish-buff (between 2.5YR 5/8 and 5YR 6/8) surfaces and core. Trituration grits: appear to be predominantly quartz, quartzite and sandstone.

Thin section: fairly fine clay matrix containing a scatter of ill-sorted subangular quartz grains, up to 0.80mm. in size, with quartzite, sandstone and mica. Fairly similar to no. 4 from Carlisle.

Holt origin (K.F.H.)

No. 8 25/1563. Provenance Holt, Type A.

Moderately hard, fairly sandy fabric, light red (2.5YR 6/8) throughout. Trituration grits: mainly quartz and quartzite.

Thin section: frequent grains of subangular quartz, average size 0.10-.30mm, with some flecks of mica, quartzite and sandstone.

No. 40 CXIII 1/23. Provenance Holt.

Only a small sample supplied. Thin section: fairly similar to no. 8.

No. 41. Provenance Holt.

Only a small sample supplied. Thin section: fairly fine clay matrix containing a scatter of subangular quartz grains up to 0.80mm in size, quartzite and sandstone.

? Possibly Holt (K.F.H.)

No. 9. Provenance Chester.

Only a small sample supplied. Thin section: groundmass of subangular quartz grains under 0.10mm in size and flecks of mica, with a scatter of slightly larger quartz grains, iron ore and some sandstone. This sherd appears to be texturally different to the Holt group.

Wroxeter origin (K.F.H.) (Nos. 18 and 19 not sampled)

No. 17 WB 47 17. Provenance Wroxeter.

Fairly hard, sandy fabric, red (10R 4/8) rim and inner surface, reddish-buff (between 2.5YR 5/8 and 5YR 6/8) outer surface and core. Trituration grits: mainly quartz, quartzite, limestone and sandstone.

Thin section: slight groundmass of quartz grains 0.05mm in size and under, with a scatter of larger grains up to 0.80mm in size, also quartzite, sandstone and limestone.

No. 20. Provenance Wroxeter.

Hard, fairly sandy fabric, faded light red (10R 6/6) rim, reddish-buff (between 2.5YR 5/8 and 5YR 6/8) surfaces and core.

Thin section: slightly smaller size-range of inclusions than no. 20, and lacking the limestone content of that sample.

No. 16. Provenance Wroxeter.

Hard, slightly sandy fabric, light red (10R 6/8) rim and inner

surface, reddish-buff (between 2.5YR 5/8 and 5YR 6/8) outer surface. Trituration grits: mainly quartz and quartzite. Not sectioned.

? Possibly Wroxeter (K.F.H.)

No. 14. Provenance Wroxeter, Type A.

Hard, slightly sandy fabric, deep red (10R 4/6) rim and inner shoulder, reddish-buff (between 2.5YR 5/8 and 5YR 6/8) outer surface and core.

Thin section: groundmass of subangular quartz grains, average size 0.05mm, with a scatter of larger grains between 0.30mm and 0.50mm in size, with some flecks of mica. Similarities with no. 20 from Wroxeter.

No. 21. Provenance Wroxeter.

Hard, slightly sandy fabric, red (10R 5/6) rim and inner shoulder, reddish-buff (between 2.5YR 5/8 and 5YR 6/8) outer surface and core. Trituration grits: appear to be predominantly quartz, quartzite and sandstone.

Thin section: slightly finer texture than no. 14, with some small fragments of quartzite and sandstone.

No. 22. Provenance Wroxeter.

Fairly similar to no. 21 in both fabric and thin section.

No. 23. Provenance Wroxeter.

Fairly similar in fabric and thin section to nos. 21 and 22, but with a scatter of golden mica flakes amongst the trituration grits, and slightly more inclusions in thin section.

Chester origin (K.F.H.)

No. 35. Provenance Chester, Fabric 1.

Only small sample supplied. Trituration grits: variety of inclusions present, including quartz, quartzite, sandstone and igneous fragments. Thin section: fairly fine clay matrix containing frequent grains of subangular quartz, average size 0.20-.60mm., some quartzite, sandstone and flecks of mica.

No. 37. Provenance Chester, Fabric 2.

Only small sample supplied. Thin section: similar to no. 35, but with fewer inclusions.

? Possibly Chester Fabric 1 (K.F.H.)

No. 36. Provenance Chester.

Only small sample supplied. Thin section: compares well with no. 35 Fabric 1.

? Chester or Wroxeter origin (K.F.H.)

No. 15 CT/12W 11. Provenance Wroxeter.

Hard, fairly sandy fabric, reddish-brown (2.5YR 5/4) rim and inner shoulder, reddish-buff (between 2.5YR 5/8 and 5YR 6/8) outer surface and core.

Thin section: appears to be more similar to the Chester samples above than to those from Wroxeter, nos. 17 and 20.

Wilderspool origin (K.F.H.)

No. 6. Provenance Wilderspool.

Fairly hard, sandy fabric, weak-red (2.5YR 4/2) rim, reddish-buff (between 2.5YR 5/8 and 5YR 6/8) surfaces and core. Trituration grits: appear to be predominantly quartz, quartzite and sandstone.

Thin section: fairly fine clay matrix containing a scatter of subangular quartz grains up to 0.40mm in size.

Nos. 24-26, 28. Provenance Ambleside.

Only small samples supplied. Thin section: groundmass of subangular quartz grains, 0.20mm or smaller in size, and flecks of mica, with a scatter of larger grains of quartz, quartzite and sandstone.

No. 27. Provenance Ambleside.

Only small sample supplied. Thin section: frequent ill-sorted subangular quartz grains ranging up to 0.80mm in size, with some quartzite and sandstone.

? Wilderspool or Chester origin (K.F.H.)

No. 1 T2 1950. Provenance Lancaster.

Hard, fairly sandy fabric, light red (10R 6/8) rim, reddish-buff (between 2.5YR 5/8 and 5YR 6/8) surfaces and core. Trituration grits: appear to be predominantly quartz, quartzite and sandstone. Thin section: fairly fine clay matrix containing a scatter of subangular quartz grains up to 0.40mm in size, flecks of mica and some sandstone. Texturally, this sherd appears to be more similar to the Wilderspool samples above, but it is difficult to be dogmatic about this.

No. 2 LM36 31/26. Provenance Lancaster, Type A.

Fairly hard, sandy fabric, reddish-buff (between 2.5YR 5/8 and 5YR 6/8) throughout. Trituration grits: appear to be predominantly quartz, quartzite and sandstone.

Thin section: fairly similar to no. 1 above.

Nos. 32-34. Provenance Chester.

Only small samples supplied. Thin section: all three samples contain frequent grains of quartz and mica, with some quartzite and sandstone. No. 32 is slightly finer in texture than the other two. It is difficult to decide between Chester and Wilderspool on the present evidence.

? Possibly Wilderspool (K.F.H.)

No. 11 131:1722 224. Provenance Old Penrith.

Moderately hard, sandy fabric, light red (2.5YR 6/8) throughout. Thin section: fairly similar to Wilderspool group nos. 24-26 and 28.

Nos. 29-31. Provenance Wilderspool.

Only small samples supplied. Thin section: all fairly similar to Wilderspool group nos. 24-26 and 28. However, no. 30 seems to include small fragments of lava amongst the trituration grits, as well as the familiar quartz, quartzite and sandstone. If this mortarium was locally made, these fragments may possibly be derived from the glacial deposits in the area.

Undesignated (K.F.H.)

No. 12. Provenance Wrexeter.

Hard, fairly fine fabric, dark reddish-brown (2.5YR 4/2) rim and inner shoulder, reddish-buff (between 2.5YR 5/8 and 5YR 6/8) surfaces and core. Trituration grits: appears to be some form of ferruginous sandstone. The dark grains are highly distinctive in the hand-specimen. Thin section: groundmass of frequent subangular quartz grains 0.10mm and under in size, with a scatter of larger grains up to 0.30mm across and flecks of mica.

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No. 13. Provenance Wroxeter, Type A.

Moderately hard, fairly fine fabric, red (10R 5/8) rim and inner shoulder, light red (2.5YR 6/6) outer surface and reddish-brown core.

Thin section: fine clay matrix with a scatter of quartz grains up to 0.20mm in size and some mica.

No. 38 M138. Provenance Aldborough.

Hard, fine fabric, reddish-brown (between 2.5YR 5/4 and 5/6) rim.

Thin section: frequent subangular grains of quartz, 0.20mm in size and under, and long flecks of mica.

No. 39. Provenance Alcester.

Hard, fairly sandy fabric, faded light red (2.5YR 6/6) rim and inner shoulder, reddish-buff (between 2.5YR 5/8 and 5YR 6/8) surfaces and reddish-brown core. Trituration grits: mainly quartz and quartzite with a little ?sandstone.

Thin section: fairly clean clay matrix with a scatter of subangular quartz grains, average size 0.20-.70mm, quartzite, iron ore, mica and sandstone.