ANCIENT MONUMENTS LABORATORY

REPORT

3573

SERIES/No CONTRACTOR

AUTHOR D F Williams Jan 1982

TITLE Thin section examination of Roman amphorae from Canterbury

THIN SECTION EXAMINATION OF ROMAN AMPHORAE FROM CANTERBURY

D.F. Williams, Ph.D.,

(DOE Ceramic Petrology Project)

Department of Archaeology, University of Southampton

INTRODUCTION

A number of small samples of Roman amphorae from Canterbury were submitted for examination in thin section under the petrological microscope. The object of the analysis was twofold: (1) to characterize in detail the fabrics involved and compare them with each other, and (2) if possible to indicate likely source areas.

PETROLOGY

1. St. MS. 79 B (615) (44). 'Dr. 1B ?'.
2. MIV. 80 (848) (346) 75. 'Dr. 1B ?'.
3. MIV. 80 (713) (304) 71. 'Dr. 1B ?'.
4. MIII. 80 (27) (204). 'Dr. 1B handle'.
5. MY. 80 (506) (68). 'Dr. 1B ?'.
6. St. Radigunds no. 21.

Sherds 1-4 are quite distinctive in thin section, each containing frequent grains of augite, quartz, felspar and volcanic rock, with some accessory garnet. In addition, sherds 3 and 4 also contain cryptocrystalline limestone. This mineralogy is indistinguishable from that associated with certain Italian Dressel 1sp and 2-4 wine amphorae, with an origin in southern Latium or Campania (Peacock, 1971, Fabric 1), or perhaps Etruria (Peacock, 1978b). Sherd 5 is similar in thin section to the above four sherds, except that it lacks inclusions of limestone and has instead a high content of augite. In the hand-specimen this sherd can clearly be seen to

have present in the fabric numerous inclusions of dark coloured augite, Peacock's (1971) 'black sand' fabric. An origin in the Latium area has been suggested for this distinctive fabric, on the basis of the presence of yellow garnet when viewed in thin section (Courtois and Velde,1978). However, yellow-brown garnet is also a feature of the sands further south, and a Campanian origin, in particular the area around Pompeii and Herculaneum, has been more convincingly argued by Peacock (1977a). In Britain, the augite-rich 'black-sand' fabric is associated with the Dressel 1B and 2-4 forms rather than the earlier 1A type (Peacock,1971).

In thin section it can be difficult to differentiate between amphorae of the Dr. 1sp variety and the later 2-4 forms. Sherd 4 is stated to be from a Dr. 1B handle, and this may give some indication of the type represented by the other sherds, if found in association with sherd 4 or in early levels. No details were given about sherd 6, but its mineralogy is similar to sherds 1 and 2, so it may also be from a Dr. 1sp or 2-4 amphorae, or at least have a likely Italian origin.

7. RL/P. 77 (104) no.21. '? Dr. 2-4'.
In thin section this sherd is seen to contain frequent grains of quartz and some felspar. From this it is not possible to indicate if the sherd is likely to belong to the Dr. 2-4 form or to make a suggestion about origins.

8. MY. 79 (315) (24). 'Body sherd from a cylindrical amphora'.
Thin sectioning shows frequent inclusions of quartz and limestone, similar to the fabric associated with North African cylindrical amphorae from Byzacena. The principal contents of this amphora type was probably olive-oil, since this was one of the main products of Roman North Africa. Fish products may also have been carried,

though this trade was of lesser importance.

9. MIV. 80 (712) (303). 'South Gaul ?'

10. St. MS. 79B 60.

In the hand specimen both sherds appear similar in fabric to the Pelichet 47 type of amphora, however, it is difficult to be positive with such small samples. Thin sectioning shows the principal components of sample 9 to be quartz, limestone and mica, while sherd 10 contains quartz and mica. This composition resembles that found by Peacock (1978b) when sampling Pelichet 47 vessels. This amphora type probably carried wine, the main area of production being around the mouth of the Rhone and the Gulf of Lyons.

11. MIV 80 (702B) 76. 'Ribbed amphora, carrot-shaped'.

Thin sectioning shows frequent well rounded grains of quartz, fragments of limestone and some foraminifera. The nature of the rounding suggests that this is wind-blown sand, and suggests a desert environment. This sample closely resembles thin sections of carrot-amphora, suspected of originating from the Levant.

12. MIII 80 (27) (205). 'Ribbed handle'.

Thin sectioning shows frequent grains of quartz, with some felspar, limestone and volcanic rock. The mineralogy suggests an area of origin associated with volcanic and sedimentary rocks. If we assume a Mediterranean source, areas such as Italy, Sardinia, the Aegean and Anatolia should be considered.

13. MIV 80 (120) (347) 74. 'Ribbed amphora'.

14. RL/77 (103) (4) 9. 'Ribbed amphora'.

15. Rosemary Lane. (109) (4). 'Ribbed amphora'.

In thin section all three sherds can be seen to contain inclusions of cryptocrystalline limestone, formaminifera, quartz and serpentine. Sherd 13 is more finer-textured than the other two. The mineralogy suggests an origin in an area of sedimentary and ultra-basic rocks. Again assuming a Mediterranean source, fairly near the coastline, ophiolitic rocks (including serpentine) outcrop in Liguria, Central Greece, Cyprus, Lesbos, the Rhodian Peraea and along the south-west coast of Anatolia and northern Syria.

16. St. MS. (1035) 'Could this be Koan?'.
17. St. MS. 79B (584) 61. 'Could this be Koan?'.
In thin section the principal inclusions present in sherd 16 are quartz, limestone and mica, while sherd 17 contains limestone, serpentine and a little pyroxene. The Island of Kos is made up principally of deposits of limestone and trachyte. It is possible, therefore, that sherd 16 might have originated from there, but the range of inclusions present in the sample are common and other areas are equally possible in the absence of suitable comparanda. It is most unlikely that sherd 17 has a Koan origin. See above for the distribution of ophiolitic rocks in the Mediterranean area, however, there are similarities between this sherd and Peacock's (1977b) Fabric 1 Rhodian type.

18. MIV 80 (247) (29) 78. 'Unusual miniature amphora'.
Thin sectioning shows little else but quartz grains and some fragments of limestone. Origin unknown.

19. St. Gab. 80 (41d) (26). 'Unusual amphora with rouletted decoration'.
Thin sectioning shows numerous grains of quartz. Origin unknown.

REFERENCES

Courtois, L. and Velde, B. (1978) 'Une amphore a grenat jaune du Latium a Amathonte', BCH, 13(1978), 977-981.

Peacock, D.P.S. (1971) 'Roman amphorae in pre-Roman Britain', in Jesson, M. and Hill, D. (eds.), The Iron Age and its Hill-Forts (Southampton,1971), 161-188.

Peacock, D.P.S. (1977a) 'Pompeian red ware', in Peacock, D.P.S. (ed.), Pottery and Early Commerce (London, 1977), 147-162.

Peacock, D.P.S. (1977b) 'Roman amphorae: typology, fabric and origins', Ecole Francaise de Rome, 32(1977), 261-278.

Peacock, D.P.S. (1978a) 'Recent discoveries of Roman amphora kilns in Italy', Ant. J., 58(1978), 262-269.

Peacock, D.P.S. (1978b) 'The Rhine and the problem of Gaulish wine in Roman Britain', in Taylor, J. and Cleere, H. (eds.), Roman Shipping and Trade: Britain and the Rhine Provinces CBA, Res. Rep. 24 (1978), 49-51.