

Ancient Monuments Laboratory
Report 10/90

A NOTE ON THE PETROLOGY OF A
ROMAN CLIBANUS FROM CATTERICK,
YORKSHIRE.

D F Williams PhD FSA

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Summary

Thin sectioning of a possible Roman clibanus, or portable oven, gave no indication that it was imported from some distance from the find-site. Instead, there seems to be no reason why it could not have been made in the local area. A close examination of the fragment of oven revealed a number of points of detail on its manufacture.

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A NOTE ON THE PETROLOGY OF A POSSIBLE ROMAN CLIBANUS FROM CATTERICK,

YORKSHIRE

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The clibanus was a portable oven in use during the Roman period, normally made of clay and perhaps used principally for baking bread (Frayn, 1978, 30; Scheffer, 1981, 107). It seems to have been normally rectangular with rounded corners or oval-shaped, wider at the base than the top, which was formed like a dome, and with a large entry/exit hole in the side (ibid.). The fired clay fragment from Catterick appears to be part of the wall and base of such a portable oven (Plate 1). The wall, which slopes slightly inwards, is 3cm thick at the junction with the base, narrowing to 2.6cm at the point of breakage (Plate 2). A thin layer of sandy clay has been placed around the inner wall, presumably for additional refractory purposes, stopping some 2.5cm short of the base (Plate 1). The latter, which is flat and about 1.2cm thick, has a smooth shiny appearance which continues up the internal wall as far as the internal clay layer (Plate 3). The blackening of the clay on the inside of the base was quite likely caused by burning charcoal. The oven seems to have been made in at least two parts, as a structural joint can plainly be seen in the lower wall in the form of an inverted 'V' (Plate 2). This would tend to suggest that the base was made first, with the wall luted on at a later stage.

The Catterick fragment is in a hard, rough sandy fabric with occasional organic

impressions on the outer surface of the wall and a particularly sandy layer on the outer surface of the base. Light reddish-buff outer surface (between Munsell 7.5YR 7/4 and 2.5YR 6/8), light grey inner wall surface (10YR 6/1) with a darkish-grey inner core sandwiched between light red outer layers. Thin sectioning and study under the petrological microscope of the body of the fragment shows frequent subangular quartz grains ranging up to 0.80mm across, but with the majority falling in the size-range 0.05 - .30mm, set in a dark red to grey isotropic clay matrix. Also present are some shreds of mica, iron oxide, small pieces of chert, quartzite and several small fragments of a sandstone composed of small equal-sized quartz grains, often cemented by silicious outgrowths in optical continuity.

It is difficult to be in any way confident in suggesting a likely source for this fragment of oven, given the fairly common range of non-plastic inclusions identified. However, there appears to be nothing present that might lead one to believe that the oven was imported from some distance away - a continental origin for example. Instead there seems to be no reason why a local origin should not be considered. The Roman site at Catterick lies on Carboniferous Limestone, closeby to Millstone Grit formations with Triassic Sandstones to the east. Much of this area is covered by Boulder Clay (Geological Survey 1" Map of England Sheet no. 41). All of the inclusions noted above can be found in this region. Chert is commonly found in the Boulder Clays, for example, while the texture of the sandstone possibly indicates derivation from the Bunter deposits of the Triassic.

References

- Frayn, J.M. (1978) 'Home-baking in Roman Italy', Antiquity, 52(1978), 28-33.
- Scheffer, C. (1981) 'Cooking and cooking stands in Italy', Acquarossa, Vol. II, part I, Stockholm, 1.114.

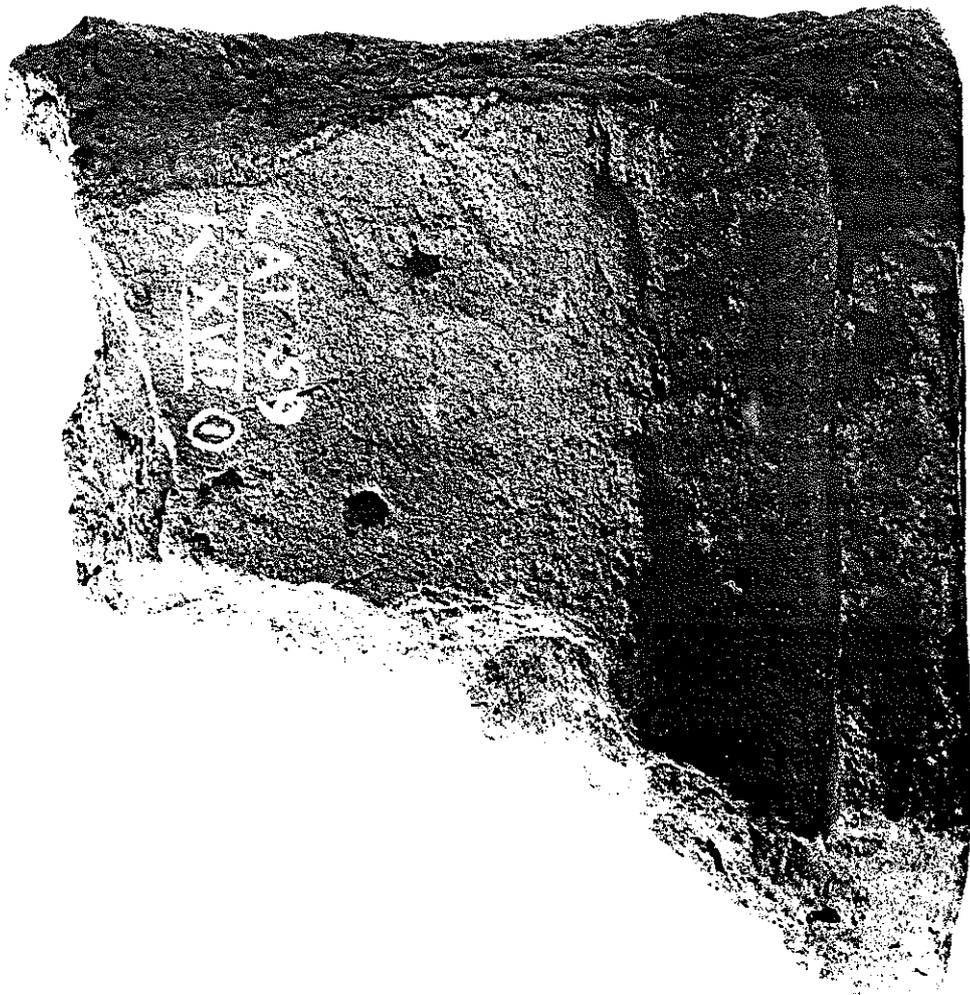


Plate 1 : Catterick Clibanus

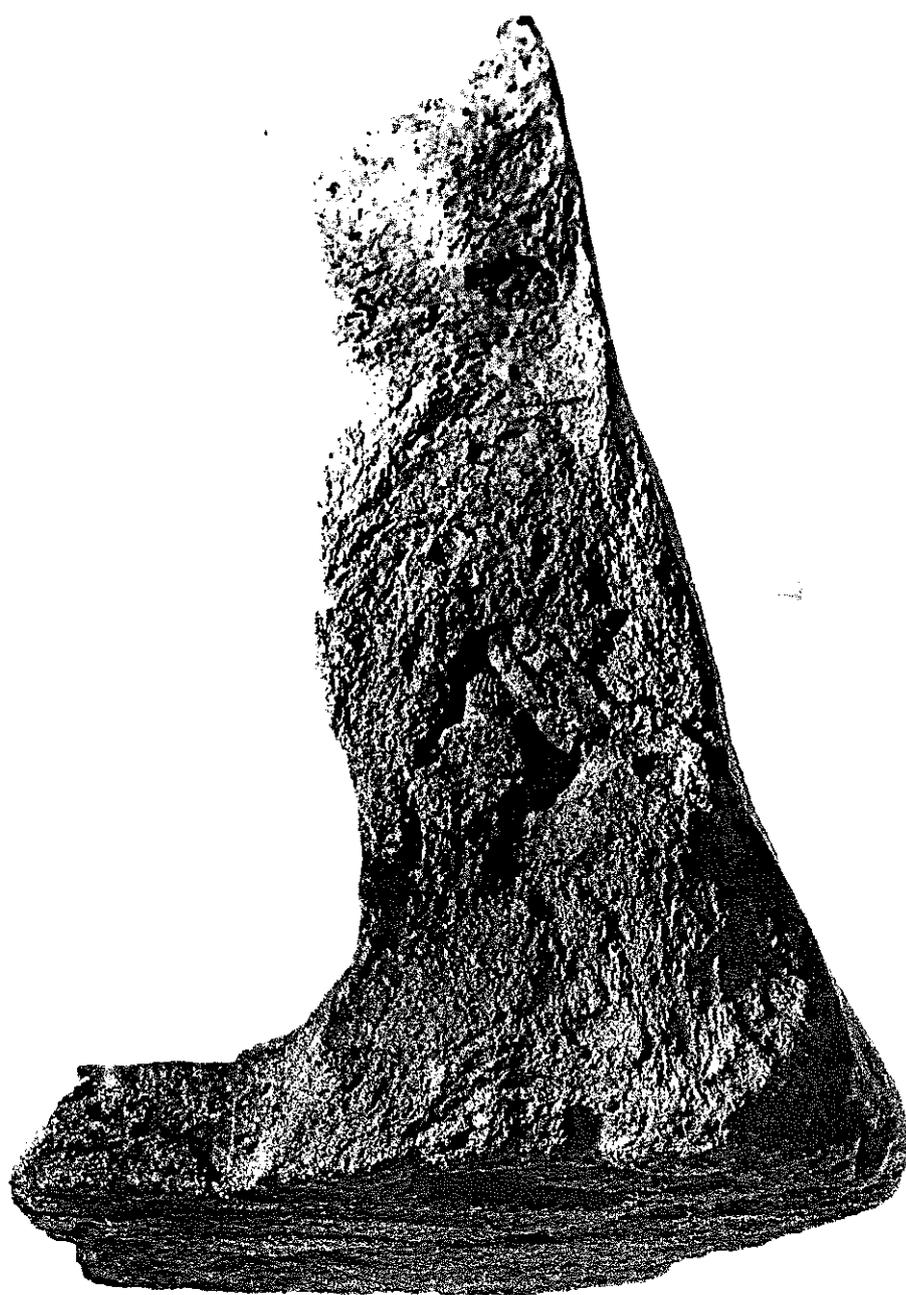


Plate 2 : Catterick Clibanus



Plate 3 : Catterick Clibanus