Ancient Monuments Laboratory Report 44/92

ASSESSMENT OF SLAG FROM CHEAPSIDE (SITE CID 90), LONDON

Justine Bayley

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Summary

Excavations produced about 250 kg of slag from a series of dumps in an early 10th century AD building. Visual examination suggests the slags are the by-products of a short-lived period of blacksmithing, carried out in a nearby building.

Author's address :-

Justine Bayley

Ancient Monuments Laboratory English Heritage 23 Savile Row London W1X 2HE

@ Historic Buildings and Monuments Commission for England

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About 250 kg of slag were recovered on site and this was sampled and a total of approximately 60 kg retained for examination. The sampling strategy was designed to collect representative examples of all types of material recovered. The site archive contains notes of what was discarded.

The retained material was all scanned. The types of material recognised included hearth bottoms, amorphous pieces of smithing slag and cinder, and vitrified clay hearth lining. Hammer scale has been recognised on some X-radiographs. This range of material is typical of the debris produced by a blacksmith's workshop. The presence of hammer scale and considerable quantities of hearth lining (which is relatively friable) suggest that the smithing was carried out not far from the findspot of the slags.

The slag, which from the way it was discarded was probably the product of a relatively short-lived manufacturing activity, had been deposited in multiple layers in a building c. 2m x 6m which was dated to the first half of the 10th century AD. It is most unlikely that this building was where the smithing was carried out as workplaces were usually kept relatively clear of debris and there were no features in the building associated with the slag dumps. Blacksmiths had to work indoors in the semi-dark as they needed to see the colour of the red hot metal so a building near the one where the slag was found, but probably outside the excavated area, is therefore the smithy's most likely location.

Further work

More detailed study of the slags is unlikely to add to the archaeological interpretation offered above. It would however be worthwhile from an archaeometallurgical point of view as the slag is well dated, appears to be the product of a short-lived industry and is uncontaminated with smelting slags. Analytical investigation of a small sample of the slags would provide a useful baseline for comparison with those from other sites. In the longer term it is possible that the shapes, sizes and compositions of smithing slags will be seen to vary significantly between sites, and this variation may be related to the type of smithing activity carried out. Parallel recording and metallurgical investigation of any scrap iron from the same contexts as the slag could add extra data to this study.