AML REPORT 3416

Some sherds from the Bath Gate cemetery, Cirencester, Gloucs.

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Five sherds (AM 810696-700) were examined under a binoccular microscope and surface deposits on them qualitatively analysed by energy dispersive x-ray fluorescence (XRF).

The one sherd from period I (AM 810700) was a reduced fired base sherd with much very fine quartz temper. Most of the inner surface and parts of the fracture had a glassy covering and there were small vitreous patches on the outer surface too. XRF failed to detect any elements except those of the pottery fabric. This supports the visual impression that the sherd had accidentally fallen into a fire and had been 'glazed' by the fluxing action of the ash on the pottery at high temperatures.

The rest of the sherds were from period VI.All wereof similar, grey, fairly fine, refractory wares and all from smallish vessels. The two bases (AM 810696-7) were of pedestal form with external diameters of 24 and 21 mm respectively. The dark green to black crucible slag inside AM 810697 gave XRF signals for zinc and copper suggesting that the crucible had been used to melt brass. AM 810696 had a thin outer vitreous coating but no elements other than those of the crucible fabric were detected inside or out. It had probably been used as a crucible but there was no evidence to suggest what had been melted in it.

The two rim sherds were less similar than the bases in both fabric and form. AM 810698 was from a vessel with a plain rim with an internal diameter of about 8 cm. The inside of the sherd was mainly covered with a thin layer of crucible slag coloured buff and red and containing many tiny copper alloy blobs which had corroded to a green colour. XRF detected copper, zinc and lead suggesting the alloy melted was brass containing some lead. The outside of the crucible had been protected by an applied layer of less refractory clay which was vitrified and vesicular. The outer surface of this layer was coloured red in patches by traces of copper. AM 810699 was from a smaller vessel. This rim had an internal diameter of 6 cm and was thickened and slightly inturned. For about 3 cm below the rim on the inside there was a thin layer of crucible slag which contained metal blobs but stopped at a fairly definite line, probably the level of molten metal in the crucible. XRF found a whole range of elements; silver, copper, zinc, lead and possibly a trace of gold. The crucible was probably used to melt silver. The presence of the other elements would just be due to deliberate alloying or impurities.