

Evidence for Metal Working at Chewton Mendip.
WB Irwin (BSc.)

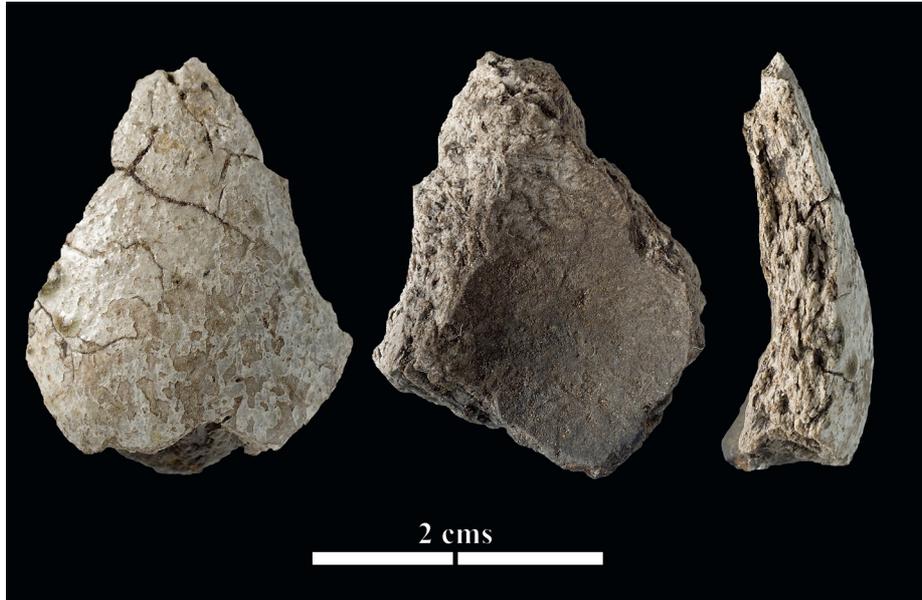


Fig1 Ceramic Crucible Fragment.

A single fragment from a ceramic crucible was found in Trench 17/015 (fig 1) in a heavy, black soil. It is part of a small, thumb-pot type vessel having fairly thick tapering walls (4mm-9mm). Philip Rahtz (1960-62) excavated a number of similar artefacts from Chapel 1 Period 2 (10th C) Cheddar.

Body fabric is coarse with frequent quartz inclusions. The inner surface is generally grey, due to reduced firing, turning to black at the base through contact with hot metal. Some vitrification has occurred on the outer surface in the form of a grey-glaze like covering.

There were no obvious metal residues. However, when the internal surface was inspected using a high-powered optical microscope a number of tiny 'gold globules' were detected (fig2). Subsequent analysis using energy dispersive x-ray fluorescence (EDXRF) confirmed the presence of gold.

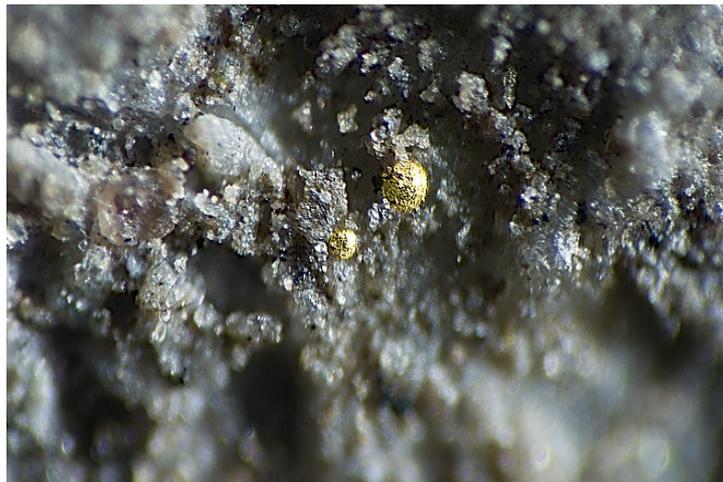


Fig 2 Gold globules trapped in sandy matrix.

A Silver Ball

Soil samples were taken from 17/015 for general analysis. The soil of Context 015 is particularly black, with a distinct 'occupation-industrial' feel. During wet sieving of these samples a small semi-spherical ball or droplet of silver (fig3) was recovered (being considered as silver pending EDXRF analysis). There are indications that this find may contain traces of gold.

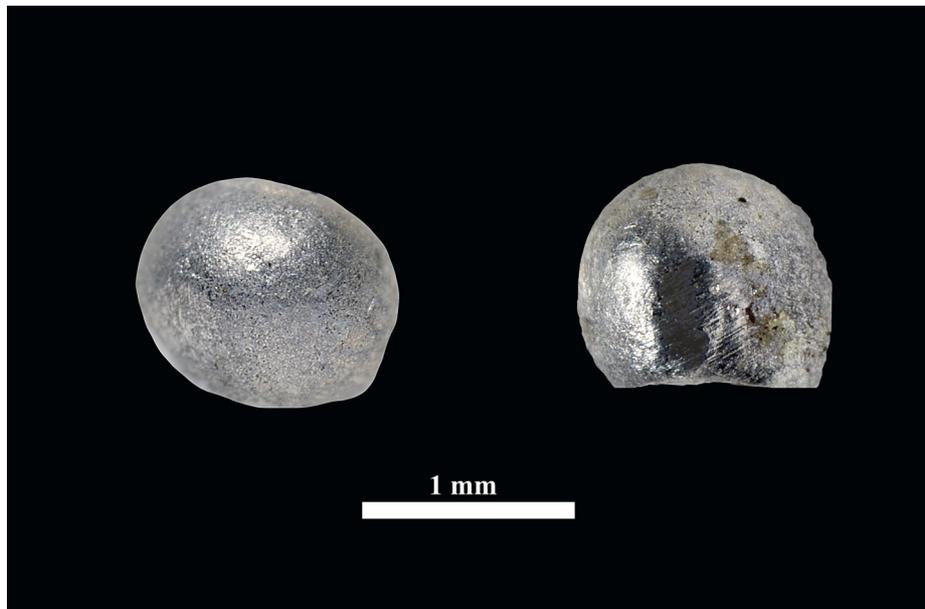


Fig3 Silver Droplet

Hammer Scale

The soil samples have also been examined for evidence of ferrous working, as many of the small finds from the site were made of iron (keys and nails for instance). Fig4 shows a sample of hammer scale flakes collected from 17/018 using an old speaker magnet. Context 018 was also a heavy black soil, very similar to Context 015.

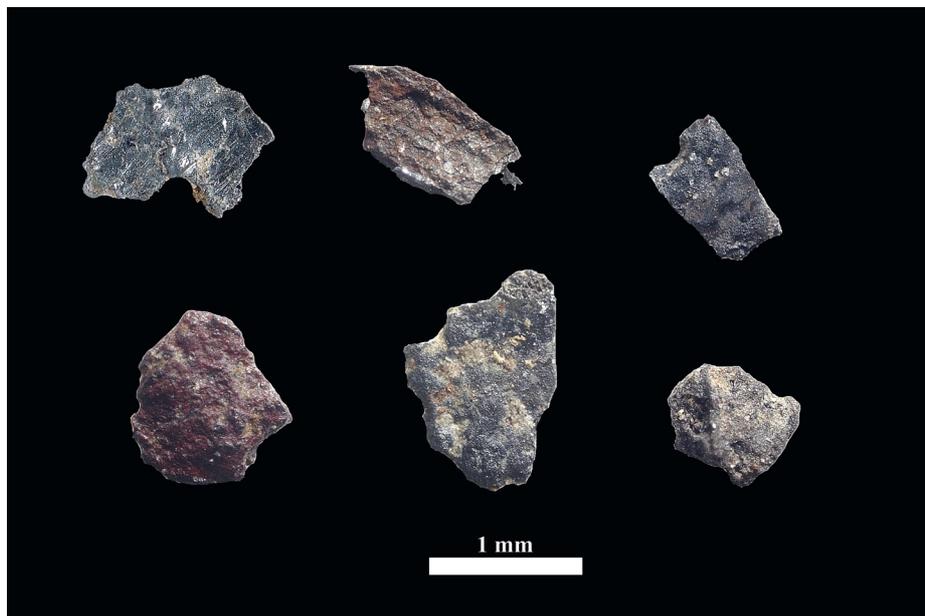


Fig4 Hammer scale flakes.

Hammer scale flakes (fish-scale like fragments) such as these are indicative of a specific process, the forging of iron. They are invariably produced when mechanical or thermal shock, applied during the forging process, causes the oxide/silicate skin of a work piece to dislodge. As hammer scale is frequently found in close proximity to the hearth and anvil, its detection can assist in locating the precise location of the work area.

Conclusions

The evidence for metal working at the Chewton Mendip site is undeniably slight, for now. However, there is the crucible, complete with gold, the supposed 'silver' sphere and there is hammer scale; this all suggests that the site may have been engaged in non-ferrous and ferrous metal working.

Bibliography

Rahtz, P. 1979. *The Saxon and Mediaeval Palaces at Cheddar: Excavations 1960-62*. (Oxford :British Archaeological Reports. British series 65) p 256 no119.