Metallurgical residues from Porth-y-Rhaw, Dyfed
Supplemental report

Iron working residue from 1225: New data on the trace element chemical composition of the iron-working residue from context 1225 (sample I of 99/02) are now available. As with the major element data obtained previously these were consistent with dense smithing hearth cakes from other sites. Trace element contents were generally rather low, and there was no sign of any contamination from the processing of non-ferrous metals. An extremely low phosphorus (31ppm) and calcium (4221ppm) content was reported by the ICP, and this reinforces the already low content reported for the alkalis and phosphorus from the sample submitted for XRF, reflecting a very low degree of incorporation of fuel ash.

Slag from crucible 473: Trace element ICP-MS analyses of a slag sample (sample d of 99/02) from the inside of crucible 473 (context 604) are also now available. These show significant quantities of Cu (2.06wt%), P (2.11wt%), Sn (3.72 wt%) and lesser concentrations of Pb (4362ppm), Co (687ppm, As (367ppm), Zn (320ppm) and Sb (161ppm). The high degree of alteration and leaching of this slag material means that this analysis gives no more than a hint of the composition of the metals melted in the crucible, but supports the idea that this was a tin bronze.