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Slags etc. from Silchester, Hants.

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The finds, together with identifications and/or descriptions, are listed below. The quantity of material is very small and as it comes from a number of different contexts no overall conclussions can be drawn. There are no significant concentrations suggesting working areas (assuming that all the slag found was submitted for examination) so all that can be said is that the finds indicate small scale iron smithing and the use of copper alloys and lead, probably somewhere near the excavated areas.

SLAGS

No. in circle			metallic iron	smithing slag	iron-rich fuel ash slag	fuel ash slag	hearth lining	hammer scale
SIL 75	3	14	+	+	+			
	3	8		+@				
	6	2		+@				
	6	7			+			
SIL 77		11	+					
		12	+	+		+	+	+
		18	+					
		20	+	+		+	+	
		24				+		
		34	+					
		35		+				
		52		+	+		+	+
							tuyere	
		62	+					
SIL 78	1	6					+	
							?near tuyere	
	1	18/21				+		
	1	20/24				+		

'Metallic' iron - corroded iron objects and/or lumps

Smithing slag - fayalitic slag with typical vesicular structure. The pieces marked @ are 'buns' of slag that collected in the bottom of a hearth. Their diameters (6cm and 8cm) are smaller than the c.10cm usually found.

Fuel ash slag - siliceous material (sand, clay etc) that has been fluxed by the ash in a fire at high temperatures. Not necassarily associated with metalworking.

Iron-rich fuel ash slag - a cross between smithing and fuel ash slags. Usually, though not always, associated with iron working.

Hearth lining - part of the hearth structure that has been fluxed by contact with the ash in a hot enough fire. A tuyere is the hole where a bellows was inserted into the hearth.

Hammer scale - when iron is worked in a smith's fire the surface of the metal becomes oxidised and flakes off. This material is magnetic and is known as hammer scale.

OTHER FINDS

No. in a triangle

SIL 75	67	Part of a metal lump. It could be from a spilt pool of molten metal or possibly from a large casting eg a statue. X-ray fluorescence (XRF) analysis detected copper, tin, lead and zinc in proportions suggesting the alloy was basically a leaded bronze which was the sort of alloy used for large castings in the Roman period.
	16	Part of a metal lump as above. XRF detected only copper and a little lead suggesting the metal was fairly pure copper which was not generally used for castings. This is more likely to be an accidental spillage.
	53	Small irregular block. XRF detected only lead with a little copper. Origin/use unknown - but it might perhaps have something to do with the cupelling hearths known from earlier excavations at the site.
	57	Irregularly shaped strip/lump of lead.