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Ancient Monuments Laboratory Report No. 4638

Examination of Slag from Early Roman Phases at Victoria Road, Winchester, Hampshire

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The material examined (AM842817-19 and 842751) consisted of the technological material from the early Roman phases of the site. The total amount of material, about 12.5kg, was fairly small, particularly considering that it represented samples from 101 layers from 58 phases. The samples from each phase and layer are identified in the appendix below.

The samples included iron smithing slag, fuel ash slag and hearth lining, as well as corroded iron and natural geological material. The bulk of the iron smithing slag, which is the slag that collects in a blacksmith's hearth, consisted of small fragments but a few small complete hearth bottoms were present and these are noted in the appendix. There was no positive evidence for iron smelting so, although some of the small fragments could not be positively identified as smithing slag, it is reasonable to assume that all the iron slag did derive from the smithing process. The hearth lining and the fuel ash slag, which is the result of a high temperature reaction between ash and silica rich material, may have been produced in a blacksmithing hearth but there was no direct evidence for this.

None of the layers or phases, including those that were road metalling layers, contained large amounts of iron smithing slag. Although the iron smithing slag was almost certainly produced in the vicinity of the site, the quantities found would only suggest small scale activity. There was no significant variation between different phases.

Appendix - Identifications of each sample

<u>Phase</u>	<u>Layer</u>	<u>Identification</u>
6	3431	Iron smithing slag
10	3413	3 samples. Iron smithing slag and fuel ash slag
16	3433	Natural mineral
35	3356	3 samples. Iron smithing slag and hearth lining
35	3430	Fuel ash slag and iron smithing slag
73	1539	Concretion around corroded iron
85	784	Iron smithing slag
99	346	Corroded iron
106	751	Iron smithing slag and fuel ash slag
106	782	Fuel ash slag
111	787	Fuel ash slag
113	3390	Iron smithing slag
119	746	Fuel ash slag
119	778	Iron smithing slag
125	658	Iron smithing slag and corroded iron
126	595	Iron smithing slag, hearth lining and an iron object
126	602	Iron smithing slag, hearth lining, fuel ash slag and corroded iron objects
126	672	Probably ironstone
126	700	Iron smithing slag
126	730	4 samples. Iron smithing slag
135	592	Iron smithing slag and fuel ash slag
143	3876	Fuel ash slag
156	679	Iron smithing slag
157	594	Iron smithing slag
173	3391	Iron smithing slag
173	3401	Iron smithing slag
174	4285	Fuel ash slag and hearth lining
176	4213	Fuel ash slag, chalk and soil
177	3283	2 samples. Iron smithing slag, fuel ash slag, hearth lining and (?) ironstone
177	3355	4 samples. Iron smithing slag, fuel ash slag and corroded iron
177	3389	Hearth lining
177	3399	Iron smithing slag, including one small hearth bottom (246g), and a concretion around corroded iron
178	3462	Fuel ash slag, (?)iron smithing slag and corroded iron
179	3387	Iron smithing slag
195	342	Iron smithing slag
195	494	2 samples. Iron smithing slag, fuel ash slag and corroded iron
195	539	Iron smithing slag and fuel ash slag
195	540	Iron smithing slag and fuel ash

<u>Phase</u>	<u>Layer</u>	<u>Identification</u>
200	982	Iron smithing slag
202	2623	Iron smithing slag
211	47	Iron smithing slag and corroded iron
228	269	2 samples. Iron smithing slag
228	276	Iron smithing slag
228	332	Fuel ash slag
228	379	Iron smithing slag and hearth lining
229	575	Fuel ash slag
229	612	Fuel ash slag
229	714	Iron smithing slag
236	781	Fuel ash slag
246	1023	Hearth lining and a ferruginous concretion
253	4247	Iron smithing slag
258	692	Iron smithing slag
262	508	2 samples. Iron smithing slag and fuel ash slag
269	435	Ferruginous concretion
276	415	Iron smithing slag and corroded iron
276	416	Iron smithing slag
276	431	Iron smithing slag
276	433	Iron smithing slag, fuel ash slag and hearth lining
276	526	Iron smithing slag and hearth lining
285	1891	Fuel ash slag
288	269	3 samples. Fuel ash slag
292	3847	Ferruginous concretion and soil
301	4245	Iron smithing slag and fuel ash slag
303	3233	15 samples. The samples consisted mainly of small pieces of iron smithing slag, fuel ash slag and hearth lining. One small hearth bottom (242g) was present. Several fragments of iron and one burnt stone with a vitrified surface were also found
303	3343	17 samples. The samples consisted of small pieces of iron smithing slag and fuel ash slag with small amounts of hearth lining and cinder
303	3378	4 samples. Samples of iron smithing slag, fuel ash slag and cinder
306	4231	Iron smithing slag, fuel ash slag and corroded iron
309	4240	Iron smithing slag
324	3281	4 samples. Iron smithing slag and fuel ash slag, including one small hearth bottom (300g)
324	3286	Iron smithing slag
324	3314	Fuel ash slag
324	3315	Hearth lining
328	432	Iron smithing slag
329	424	Fuel ash slag and corroded iron
332	306	Iron smithing slag
333	372	2 samples. Iron smithing slag and fuel ash slag
337	214	Corroded iron
337	603	3 samples. Iron smithing slag, fuel ash slag and corroded iron

<u>Phase</u>	<u>Layer</u>	<u>Identification</u>
337	698	Iron smithing slag, fuel ash slag and corroded iron
338	192	Iron smithing slag
909	426	Iron smithing slag
909	450	5 samples. Iron smithing slag, fuel ash slag and burnt clay
909	455	2 samples. Iron smithing slag and corroded iron
910	440	Iron smithing slag and (?)fuel ash slag
910	443	2 samples. Iron smithing slag, fuel ash slag, ironstone, corroded iron and a partially vitrified stone
911	372	2 samples. Iron smithing slag, fuel ash slag, (?)hearth lining and (?)corroded iron
912	413	Iron smithing slag and hearth lining
913	431	Iron smithing slag, hearth lining and burnt clay
913	434	Iron smithing slag
913	436	Iron smithing slag, fuel ash slag and hearth lining
913	444	Iron smithing slag and hearth lining
914	397	Iron smithing slag and (?)hearth lining
914	449	Iron smithing slag
915	378	Iron smithing slag
915	432	2 samples. Iron smithing slag and (?)hearth lining
915	446	Iron smithing slag and corroded iron
915	447	Iron smithing slag
915	448	Iron smithing slag
916	408	2 samples. Iron smithing slag
916	409	Fuel ash slag
916	410	2 samples. Iron smithing slag, burnt clay and (?)corroded iron