3 **FINDS**

3.1 **Daub catalogue**

Summary of all daub samples listed in context order.

Context	*cp*	*S/SF*	*Frags.*	*Wt. gm*	*Fb.*	*St.*	*Form/Finish/Impress.*
P391(1)	EEIA	2651	3	10	E	B	Amorphous
P391(1)	EEIA	2651	1	5	A	F	2 flat surfaces; 6 mm thick
P393(1)	EEIA–EIA	2652	2x	10	A	F	?OC: Smooth surface
P393(1)	EEIA–EIA	2653	42	470	E	B	OvB?
P393(2)	EEIA–EIA	2654	7	1000	E	F-B	OvB
P393(2)	EEIA–EIA	2589	1(3x)	5000	C/E	F-B	StH: curved arch
P395(1)	EEIA	2655	2	5	F/G	B	κ Same daub:
P395(2)	EEIA	2656	6	10	F/G	B	| amorphous +
P395(4)	EEIA	2657	2	3	F/G	B	μ straw impress.
Ph 955(1)	–	2658	6	95	C	B	Amorphous
Ph 995(1)	Ro	2581	1				Imbrex tile
Ph 1000(1)	?Ro	2580	1	4	F	F	Bead: biconical – 21 mm diam; 20 mm high; perf. *c*.2 mm; estimated total wt. 10 gm
L302	LC3–C4AD	2659	1	15	C	B	Flat surface
L308	LC3–C4AD	2660	1	30	E	B	Amorphous; straw/root imps.
L318	LC3–C4AD	2661	3	10	E?	B	Amorphous
L322	LC3–C4AD	2573	1	15	D	F	Flat surface
L325	LC3–C4AD	2662	2	100	C	B?	Amorphous
L294	C2AD	2667	2x				Imbrex
L297	C3AD	2668					Box + Tegula
L312	AD300–340	2590					Clay tile
L312	AD300–340	2622					Pilae tile
L314	C2AD	2606					Clay tile
L322	LC3–C4AD	2572					Clay tile
L323	C2AD	2611					Clay ?brick
L326	Ro	2615					8 box; 6 clay tile disc.
L332	LC3–C4AD	2609					Clay tile
F240(1)		2618					Clay tile
F258(1)		2617					Clay tile
F513(+)	C2AD	2663					Clay tile
F513/4(1)	C2AD	2664					Clay tile
F519(2)	C4AD	2665					Imbrex
F519(2)	C4AD	2666	2x	3800			Brick: >300x>200x60 mm
F527(1)	Modern	2637	30	900	C	B	Flat, smooth surface chaff/organic temper

Context	*cp*	*S/SF*	*Frags.*	*Wt. gm*	*Fb.*	*St.*	*Form/Finish/Impress.*
F531(1)	C2AD						
F531(+)	C2AD						
F531(4)	C2AD	2636	6	525	Raw reddish brown clay + chalk		
F533(1)	C4AD	2638	3	80	C	B	Flat surface
F533(3)	C4AD	2639	1	10	C	B	Amorphous
F543A(1)	LC3–C4AD	2584					Tegula
F543(1)	LC3–C4AD	2642	10	320	E	B	OP?: 3 surfaces, 80 mm thick, straight convex edge; rest amorphous
F543(W)	LC3–C4AD	2643	5	1775	C	B	Surface reddened 10–20 mm
F543(E)	LC3–C4AD	2644	16	1300	C/E	F	Fired red and brown; fabric included flint 75 mm, coarse fabric
F543(C)	LC3–C4AD	2645	15	2375	C/E	F	Red interior, pale brown-yellow surface
F546(1)	LC3–C4AD	2640	1	20	G	B	Amorphous
F546(1)	LC3–C4AD	2641	1	365	K	F/B	Burnt brick or tile
F548(1)	LC3–C4AD	2646	1	500	Mortar/concrete; moulded surface		
F549(2)	LC3–C4AD	2569					Clay tile
F549(4)	LC3–C4AD	2647	3	25	?K	B	?OC: two parallel surfaces 15 mm apart and straight edge
F556(3)	LC3–C4AD	2602					Clay tile
F562(1)	Modern	2648	1	5	C/E	B	Amorphous
F569(1)	C2AD	2621					Clay tile
F586(1)	Ro	2649	6	10	Plaster		Painted – white
F589(1)	Modern	2650	2	25	Cement		Flat surface
F603/3(2)	EIA	2603	12	70	E		

3.2 **Metallographic examination of nine iron bars, strips and waste**

by Vanessa Fell

Tapered bar HD97 SF1590 (312)
Bar, rectangular cross-section, length 117 mm, with a flat broad end, 15.0 x 8.0 mm, tapering to a blunt rounded tip, 4.0 x 2.0 mm. The bar is more tapered over the terminal 25 mm but nevertheless this does not seem to be a tang.

X-ray plate IoA787, ox1096
Photograph, this report Plates 1–3
Archive photo negative nos. [F161] 99/3/1-12; [F170] 99/4/1-10
Samples (a) Through one corner of broader end of bar, polished on the inner surface orientated longitudinal to the length of the bar, yielding a rectangular specimen 6.0 x 5.5 mm in area, which includes parts of two broad surfaces of the bar and its end [F161]. *(b)* Transverse section,70 mm from broad end, yielding a rectangular specimen 4.5/6.0 x 5.5mm in area [F170].

Examination
There were a few very small and narrow glassy stringers and fine particles plus occasional dual-phase stringers.

Etching of specimen [F161] revealed a broad central zone of ferrite whereas the sides of the specimen (equivalent to the two broader faces of the bar) had carbon concentration gradients of very fine and irresolvable pearlite increasing to *c*.0.6% maximum at the extant metal surface (Plate 1). On both sides near the ferrite/pearlite borders was a strong light-etching line with inclusion particles aligned along these weld lines (Plate 2), plus other minor light-etching lines elsewhere. There had been some carbon diffusion across the weld lines. The central ferrite zone had polygonal grains, with very slight traces of grain-boundary carbide and intra-granular carbide (presumably from homogenisation). Hardness of ferrite (with some carbide/nitride needles), 198 HV 0.2; ferrite + pearlite, 202 HV 0.2. Grain size: ferrite, 4 ASTM; pearlite, 5 ASTM.

Specimen [F170] revealed one pronounced light-etching line across the centre (Plate 3), equivalent to one weld line running horizontally through the bar at the area sampled. Unlike the previous specimen, there was no carbon concentration at the metal surfaces. Ferrite and pearlite were more intimately mixed and the pearlite was spread over a greater area of the specimen, but the carbon concentration reached only *c*.0.1%. Again the pearlite was very fine or irresolvable. The grains were equiaxed except for some at the sides of the specimen, equivalent to the bar surface. Hardness of ferrite, 135 HV 0.2; pearlite, 169 HV 0.2. Grain size: ferrite, 4 ASTM; pearlite, 6 ASTM.

Interpretation
The bar had been carburised by welding steel to plain iron, although towards the tapered end of the bar, forging had obliterated the original high concentration of carbon and the direction of welding. Some carbon had diffused across the welds. Smithing was clean and the welds appear to be high quality. The bar was finally very fast cooled, presumably in air.

Tapered bar HD97 SF1594 (312)
Bar, length 66.5 mm, almost square in section near to the ‘pointed’ end, but tapering in thickness and broadening in width at the opposite (broader) end. The ‘point’ is too short to be a tang. The broader end is rounded at one corner (where sampled), slightly angled – as if chisel cut at the other corner.

X-ray plate IoA787, ox1093
Photograph, this report Plate 4
Archive photo negative nos. [F163] 99/3/23-28; [F172] 99/4/19-24
Samples *(a)* One corner of the broader end, incorporating parts of the two flat broad sides and the tip, yielding a rectangular specimen 7.6 x 3.5/2.9 mm in area [F163], polished on the inner surface orientated longitudinal to the length of the bar.
(b) Transverse section at 13 mm from the ‘point’, yielding a rectangular specimen 6.0/5.0 x 4.0 mm in area [F172].

Examination
The specimens were generally clean. Inclusions were narrow, well-rounded and glassy, some forming stringers. There were some corrosion lines within the metal.

Etching of both specimens revealed high-carbon steel which was remarkably uniform in distribution. Grains were small and comprised extremely fine or irresolvable pearlite, sometimes with a slight excess of ferrite or of carbide. At places the excess carbide gave a degenerate appearance to the pearlite.

Towards the bar end [F163], the composition reached eutectoid or marginally hypereutectoid except at the extant surfaces of the metal where there seemed to have been some decarburisation.

Elsewhere there was some free ferrite suggesting a composition slightly below eutectoid (e.g. 0.7% carbon). Hardness: 212 & 227 HV 0.2; grain size, 6 ASTM.

The specimen from the pointed end of the bar [F172] was also very uniform although varied from *c*.0.4% to *c*.0.7% carbon. Hardness at higher-C area, 230 HV 0.2; at lower-C area, 176 HV 0.2. Grain size, 7 ASTM.

Interpretation
The bar comprised high-carbon steel which was well homogenised. Some slight decarburisation had occurred at the metal surfaces. During the final heating cycle the bar was very rapidly cooled, probably in air. Hardness was only moderate.

Split bar HD97 SF1595 (312)
Bar, length 53.7 mm, rectangular section 12.0 x 7.0 mm at the centre. One end is flat, the other is split or notched, as if it had been cut or split.

X-ray plate IoA789, ox1093
Photograph, this report Plates 5–7
Archive photo negative nos. [F162] 99/3/13-22; [F171] 99/4/11-18
Samples: *(a)* Through one corner of the flat (unnotched) end of the bar, polished on the inner surface orientated longitudinal to the length of the bar, yielding a rectangular specimen 6.2 x 5.4 mm in area [F162].
(b) Transverse section through the side of the bar, 30 mm from the flat end and on the opposing side to *sample (a)*, yielding a specimen 5.0/6.0 x 6.0 mm in area [F171].

Examination
Both specimens had zones which were almost inclusion free, plus concentrations of angular glassy particles or multi-phase small inclusions, some of which formed alignments of large stringers and particles.

Etching both specimens revealed principally small-grained, equiaxed ferrite with very slight traces of grain-boundary carbide (grain size 5–6 ASTM).

The specimen from the flat end [F162] had a wide light-etching weld line running through the specimen one-third way into the metal and in the direction to the length of the bar. There was a narrow pearlite zone associated with the weld (Plate 5), and pearlite also survived intermittently along the sides and end of the specimen (Plate 6) whereas the centre comprised ferrite alone. The carbon concentration reached *c*.0.6% maximum (in small areas). The pearlite was very fine. Slag inclusions were proximal to the weld but within the ferrite zone, and were also aligned within the weld line (plate 5). Hardness of ferrite, 136 HV 0.2, of pearlite, 133 HV 0.2.

The transverse specimen [F171] also had light-etching weld lines, and irregular patches of pearlite – within the metal and at one edge. Pearlite zones were larger (e.g. Plate 7). Slag inclusions formed curved bands away from the pearlite areas. Hardness of ferrite, 135 HV 0.2, of pearlite, 205 HV 0.2.

Interpretation
The bar was very possibly surface carburised during an early stage in its forging and then welded (i.e. piled) back to back such that some of the carbon became incorporated within the bar – but in a rather non-uniform manner. The small grain size suggests reasonable homogenisation, although

there was nevertheless much slag present. The bar was finally rapidly air cooled from a reasonably high temperature.

Folded strip HD97 SF1608 (312)
Strip, length 152 mm, tapering from a flat rectangular sectioned end, 21.5 x 1.5 mm to a blunt rounded-square tip. Folded over at 56 mm from wide end.

X-ray plate IoA786, ox1096
Photograph, this report Plate 8
Archive photo negative nos. [F167] 99/2/4-7
Sample Through the wide end, polished on the inner surface orientated in the longitudinal direction to the length of the bar, yielding a rectangular specimen 10 x 2.5 mm [F167], which fractured into three pieces along corrosion lines.

Examination
The metal was severely corroded. There are several long stringers of single- and dual-phase inclusions, most of which are surrounded by corrosion products. Etching revealed polygonal grains of ferrite, without any mottling visible (Plate 8), hardness 155 HV 0.2, grain size 4–5 ASTM.

Interpretation
The bar was made from impure iron and there was no evidence for it having been hardened in any way. It was annealed and air cooled.

Notched bar HD97 SF1627 (312)
Irregular bar, length 77 mm, curved and uneven cross-section.

X-ray plate IoA787, ox1096
Photograph, this report Plate 9
Archive photo negative nos. [F166] 99/2/1-3
Samples Transverse section through thinner side, 15 mm from one end, yielding a specimen 7.5 x 5.3 mm in area [F166].

Examination
The specimen was very clean; there were almost no inclusions visible (only one glassy particle and two small narrow stringers).

Etching revealed a carbon gradient from almost zero (*c.*0.05%C) towards the inner part of the bar to *c.*0.3% carbon at the narrow edge of the bar. Grains were equiaxed and large (2 ASTM), and comprised ferrite and pearlite with Widmanstätten appearance (Plate 9), or grain-boundary cementite at the lowest-carbon area. Hardness, ferrite with cementite, 146 HV 0.2; ferrite + pearlite, 147 HV 0.2.

Interpretation
The bar was made from clean, low-carbon iron and was finally air-cooled from a reasonably high temperature.

Folded strip HD97 SF1633 (312)
Rectangular sectioned strip, length 55.5 mm, folded over at 35mm from the curved end. The other end is flat.

X-ray plate IoA787, ox1097
Photograph, this report Plate 10
Archive photo negative nos. [F168]: 99/2/8-11
Sample Through corner at the flat end, polished on the inner surface orientated longitudinal to the length of the bar, yielding a specimen 10. 5 x 2.8 mm in area [F168].

Examination
Much corroded at the edges of the specimen. There was a small amount of dual-phase elongated stringers.

Etching revealed large grains (2–4 ASTM) of equiaxed ferrite with two small areas of localised pearlite, one adjacent to a corroded edge (Plate 10), the other close to a corrosion line which runs into the metal. The carbon concentration reached c.0.5% within these two narrow localised zones. The pearlite was fine, smaller grained than the ferrite, and had a Widmanstätten appearance. Hardness of ferrite, 178 HV 0.2.

Interpretation
The bar was carburised locally in two narrow zones and it is tempting to suggest that it was surface carburised before being pile-forged. Unfortunately, corrosion at the edges of the specimen make further conclusions impossible. The bar was finally annealed and fast air cooled from a reasonably high temperature.

Plate HD97 SF1660 (312)
Irregular plate, 63 x 47 mm. Wedge section, the thinner curved 'edge' is complete and wider than the uneven and sheared thick 'rear' edge.

X-ray plate IoA786, ox1093
Photograph, this report Plates 11 and 12
Archive photo negative nos. [F165] 99/3/32-36
Sample Through the thinner edge, polished in the direction orientated from the 'edge' to the 'rear' of the plate, yielding a specimen 6.8 x 3.5 mm in area [F165].

Examination
Corroded at the sides of the specimen and along some inclusion lines. Inclusions were aligned in seven or more bands or zones which are curved over to one side of the sample. Some inclusions formed long glassy stringers, others comprised lines of very small dual-phase particles.

Etching revealed a banded structure (Plate 12) which was skewed to one side of the specimen, away from the very tip of the object's 'edge'. These bands, which were approximately aligned with the inclusion lines, comprised pearlite with ferrite at the tip and edges (Plate 13), and mainly ferrite with small amounts of pearlite towards the centre, plus a zone of mottled ferrite (Plate 12), The pearlite was very fine and barely resolvable in places and the ferrite has a Widmanstätten appearance. The carbon concentration reached *c*.0.5% maximum in areas, but was only *c*.0.2% over most of the specimen area. There may have been some decarburisation at the surfaces. Hardness of mottled ferrite, 193 HV 0.2; ferrite + pearlite in low-carbon zone, 108 HV 0.2; ferrite + pearlite in medium-carbon area, 175 HV 0.2. Grain size 2–4 ASTM.

Interpretation
The banding of carbon concentrations and inclusions were most probably the result of pile forging two or more irons of different compositions – phosphoric iron and a medium-carbon steel. There may have been some migration of carbon across these welds. The plate was finally air cooled. The non-uniform structure created by the bands of different composition would not have proved very satisfactory for an object requiring strength, such as a cutting tool, and indeed it appears to have been discarded as waste.

Triangular plate HD97 SF1728 (312)
Triangular shaped plate, 49 x 28 mm, rectangular in section, 3.7 mm thick.

X-ray plate IoA790, ox1093
Photograph, this report Plate 13
Archive photo negative nos. [F164] 99/3/23-28; 99/5/21-22
Sample Through broad end, orientated in the direction to the length of the bar, yielding a rectangular specimen 6.5 x 3.2 mm in area [F164].

Examination
The specimen had a few narrow alignments of small, well-broken, glassy particles running longitudinally to the length of the plate but curved over at the plate end. Etching revealed equiaxed ferrite of medium grain size without any mottling, although there are very faint signs of differential etching, possibly evidence of piling and welding (Plate 13). Hardness was 140 HV 0.2; grain size, 3–4 ASTM.

Interpretation
The bar was made from pure iron containing very little slag and was annealed and air cooled. The hardness was low.

Strip HD97 SF1824 (312)
Strip, length 69 mm, irregular at both ends, at the narrower 'edge', and in cross-section.

X-ray plate IoA785, ox1096
Photograph, this report Plate 14
Archive photo negative nos. [F169] 99/2/12-14; 99/5/19-20

Sample Through thicker corner, polished on the inner surface orientated longitudinal to the length of the bar, yielding a specimen 12.0 x 4.0 mm in area [F169].

Examination
Much corroded along the edges of the specimen. There were a few elongated, well-broken multi-phase inclusion stringers aligned to the length of the bar.

Etching revealed polygonal grains of ferrite with very occasional traces of grain-boundary cementite (Plate 14). At one side there are some narrow light-etching lines and associated with this zone were a few faint Neumann lamellae. Hardness of ferrite, 98 HV 0.2; near Neumann lamellae, 130 HV 0.2. Grain size, 4 ASTM.

Interpretation

The bar was made from relatively pure iron which very possibly contained a small amount of phosphorus. The bar was piled, annealed, and finally air-cooled.

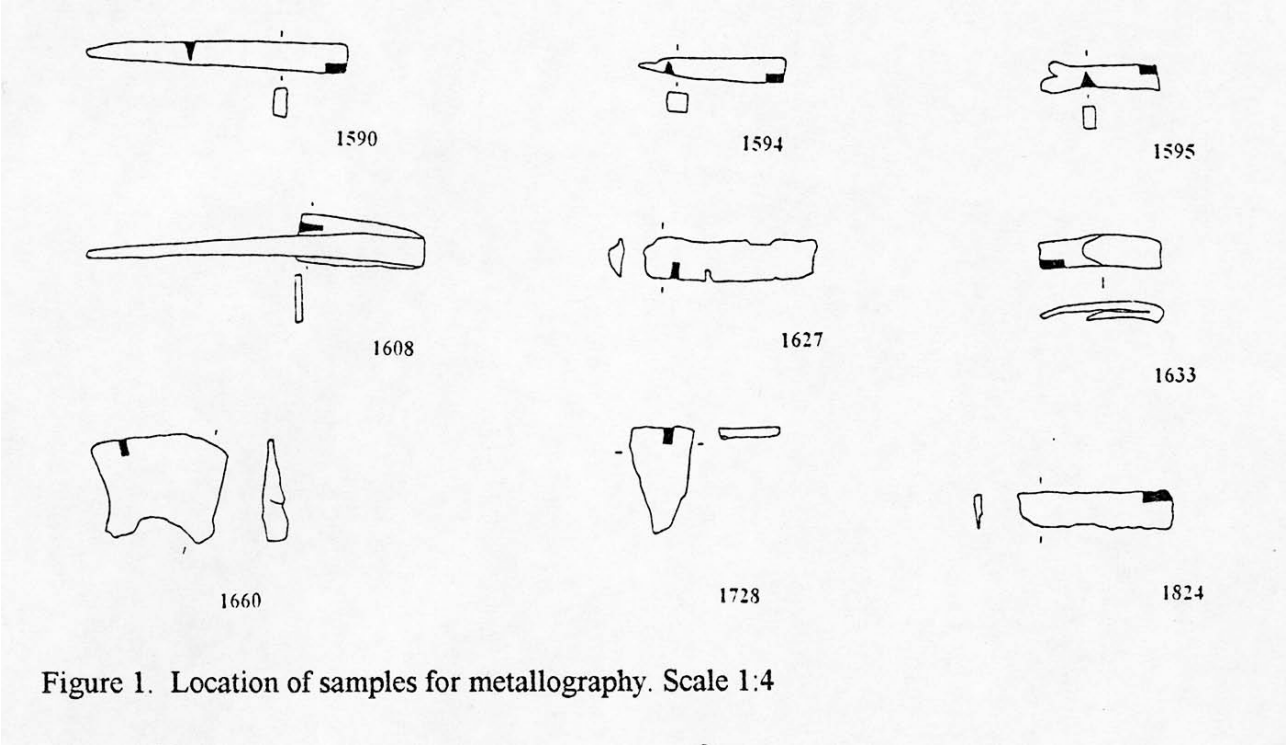

Figure 1. Location of samples for metallography. Scale 1:4

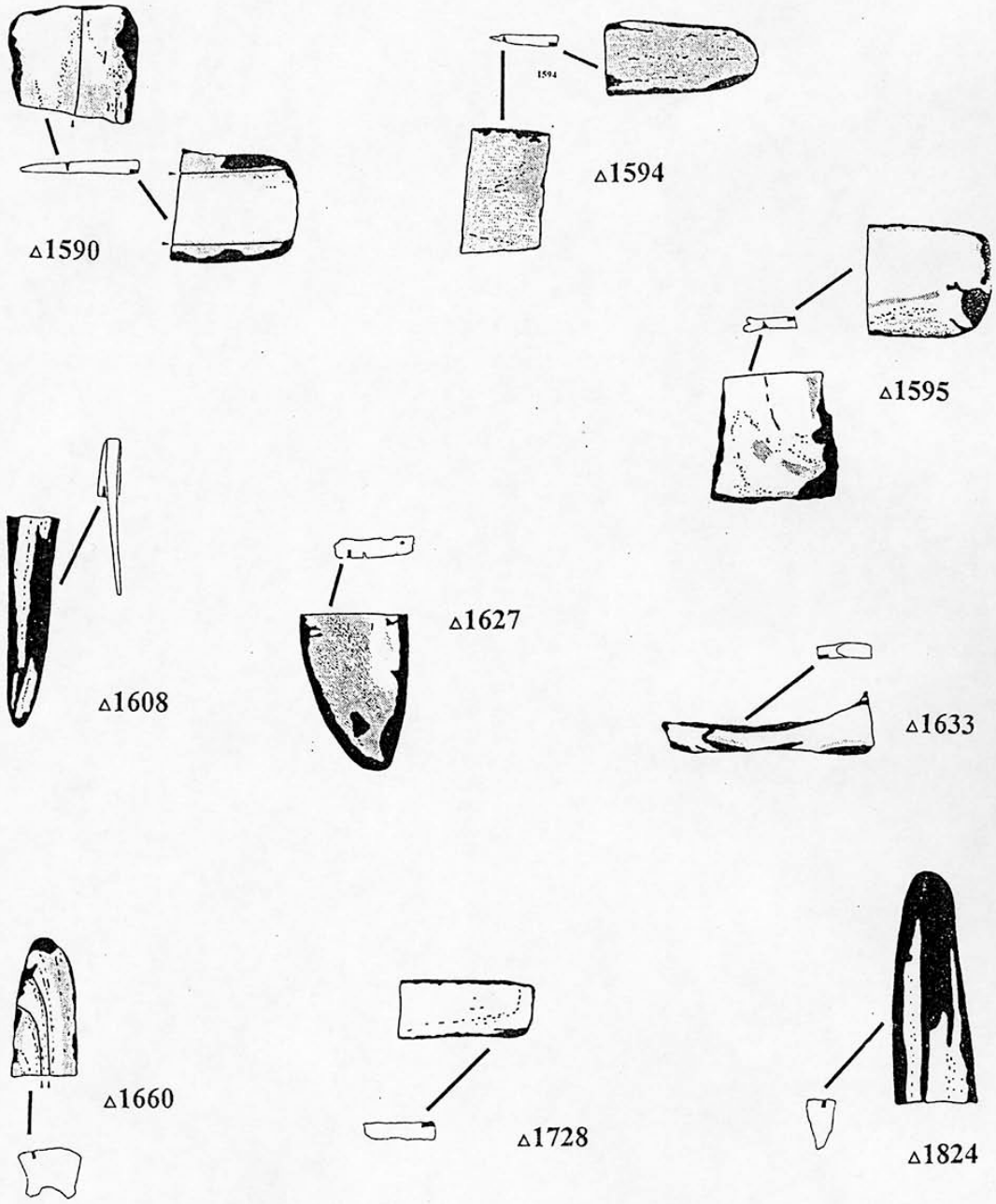

Figure 2. Diagrams of metallographic sections (approx 3:1) showing principal structural components

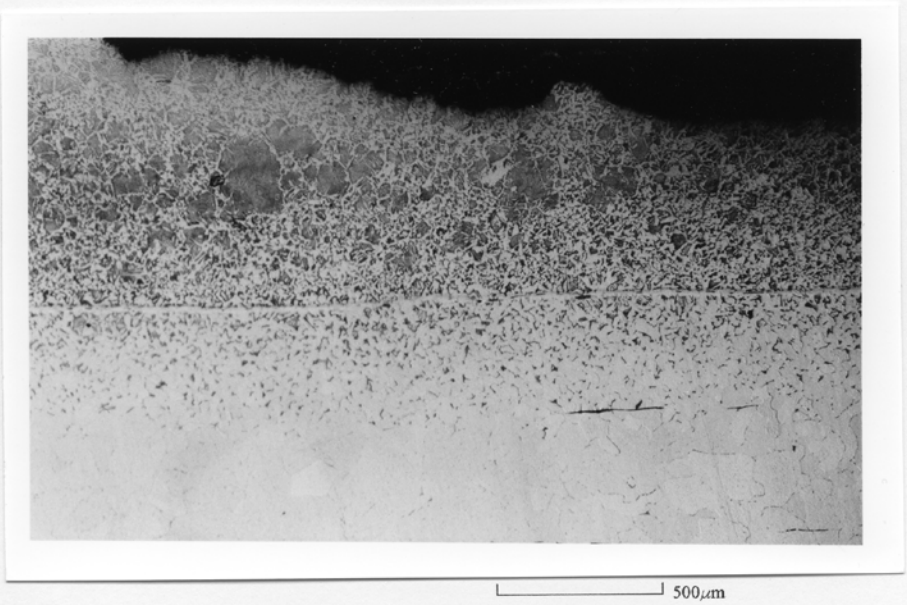

Plate 1. Tapered bar SF1590. Specimen from wide end showing ferrite grains (pale, lower) and pearlite (dark) at the metal surface (black, upper). Across the centre (left to right) is a light-etching weld line. Nital etch.

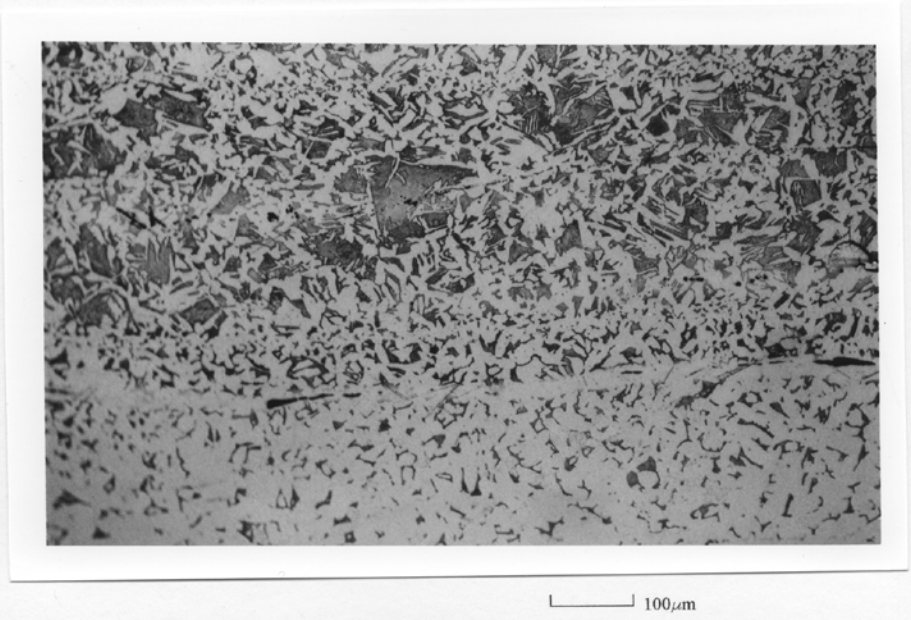

Plate 2. Tapered bar SF1590. Detail of pearlite, showing also inclusions aligned along a weld line. Nital etch.

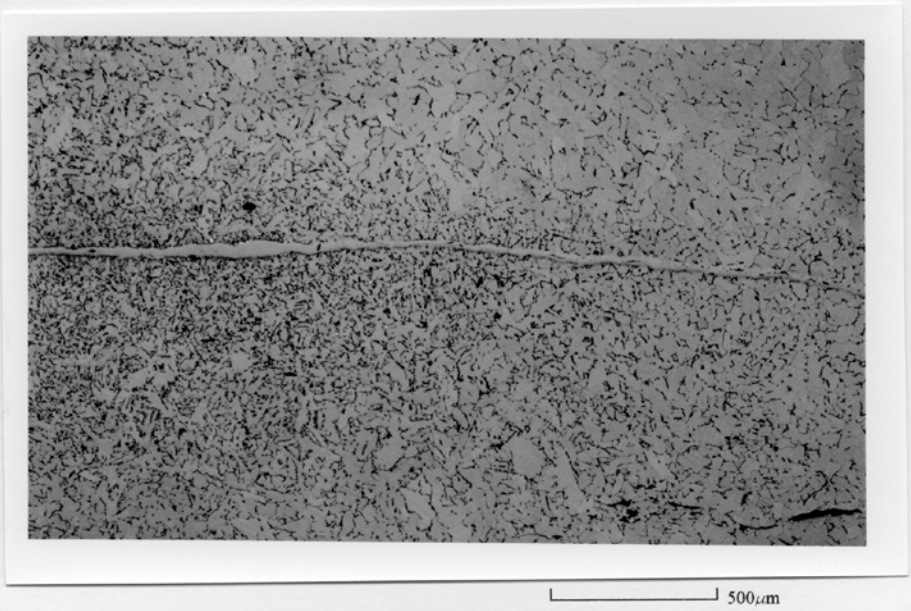

Plate 3. Tapered bar SF1590. Transverse specimen from mid length showing weld line plus a lower concentration of pearlite. Nital etch.

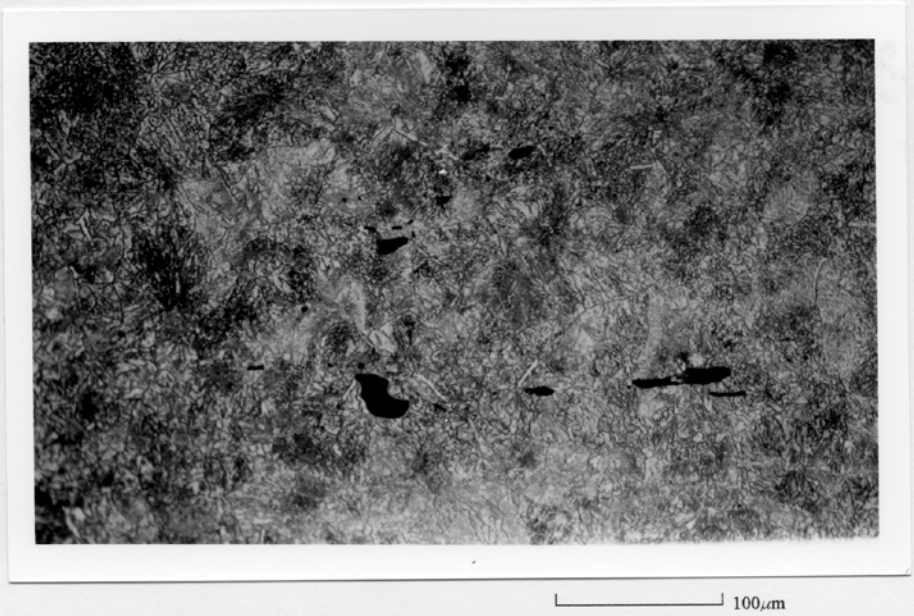

Plate 4. Bar SF1594, showing high-carbon steel of eutectoid composition at the bar end. Pearlite (dark), glassy inclusions (black). Nital etch.

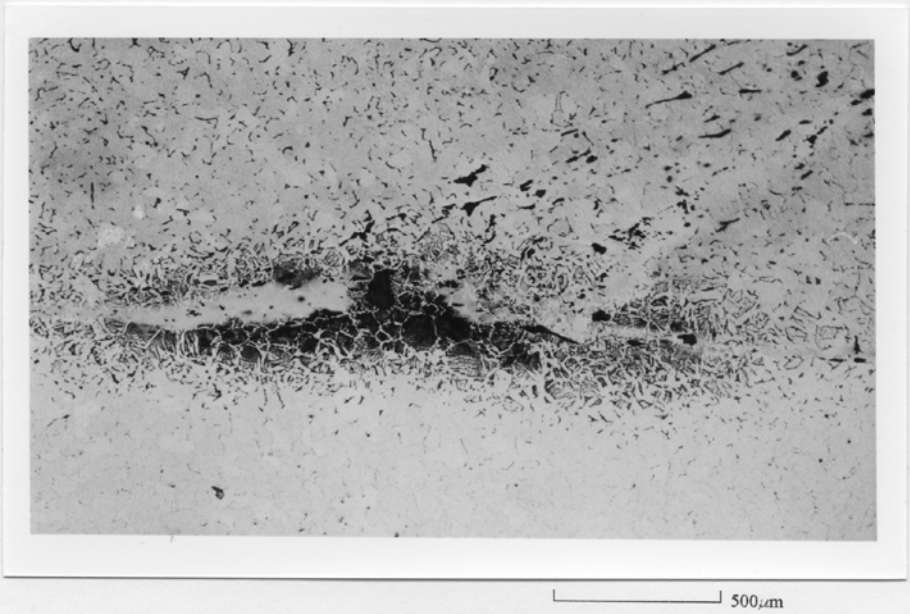

Plate 5. Split bar SF1595 flat end. Part of weld line (centre) with slag inclusions within, surrounded by pearlite (dark). Nital etch.

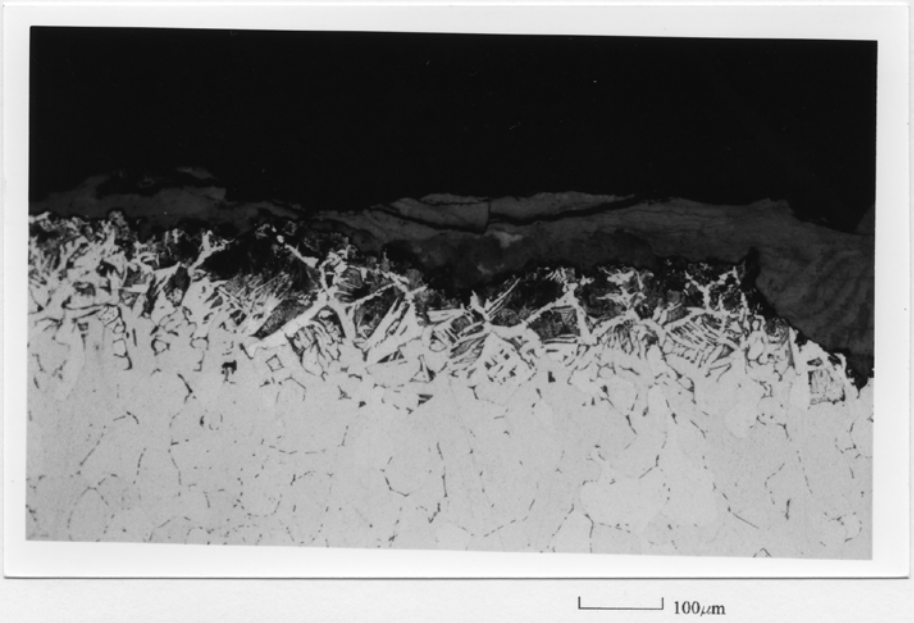

Plate 6. Split bar SF1595 flat end, showing carbon concentration at the metal surface (top), visible as a pearlite (centre) adjacent to ferrite (lower). Nital etch

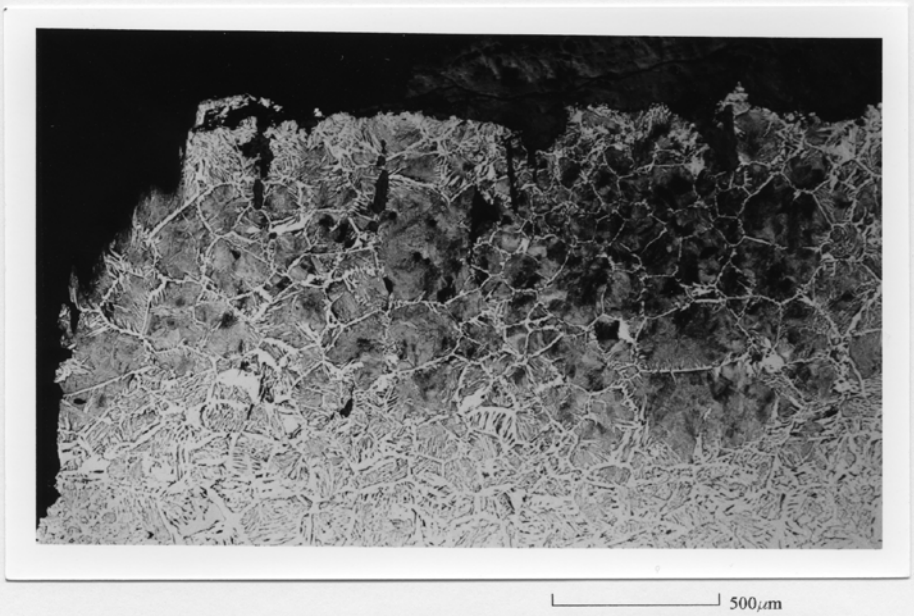

Plate 7. Split bar SF1595 transverse section, showing a broad zone of pearlite at one surface. Nital etch.

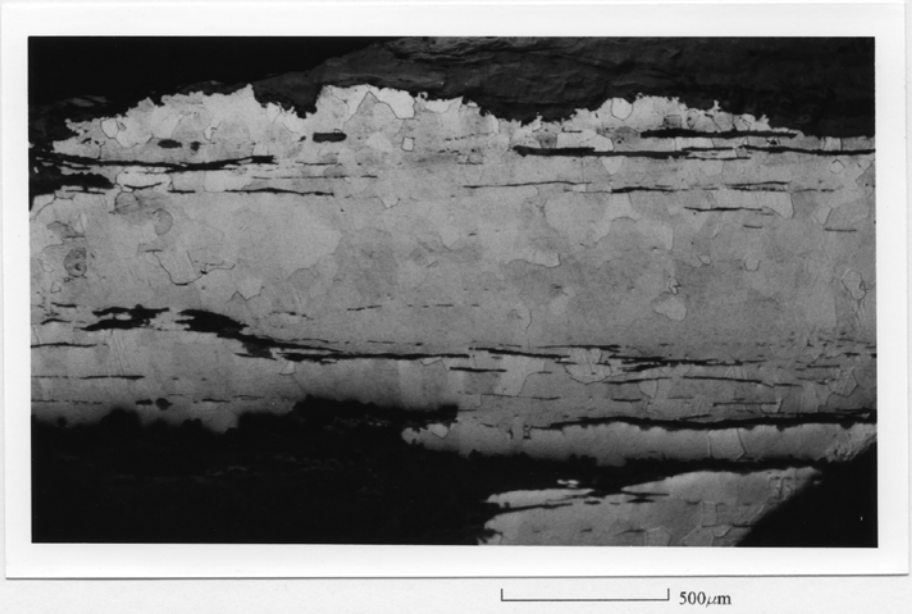

Plate 8. Folded strip SF1608, showing ferrite (light) and slag stringers and corrosion running through the specimen. Nital etch

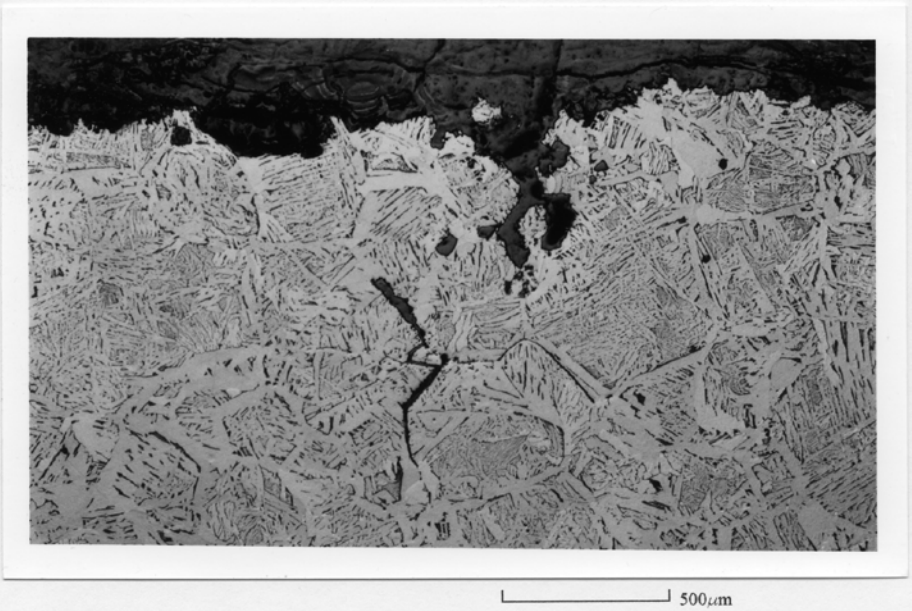

Plate 9. Notched bar SF1627, edge of specimen showing ferrite and pearlite with Widmanstätten appearance. Carbon concentration is c. 0.3%. Nital etch.

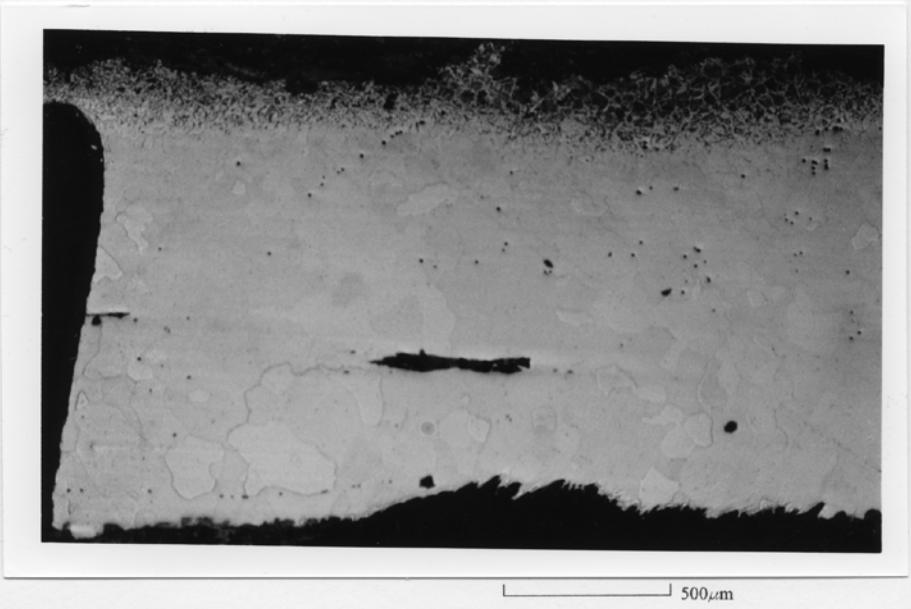

Plate 10. Folded strip SF1633, showing ferrite predominating (light) and a narrow zone of pearlite at one edge (upper, grey zone).

Plate 11. Plate SF1660. Banded structure: mottled ferrite (centre) outlined by slag inclusions, between two low-carbon bands of pearlite (top and lower). Nital etch.

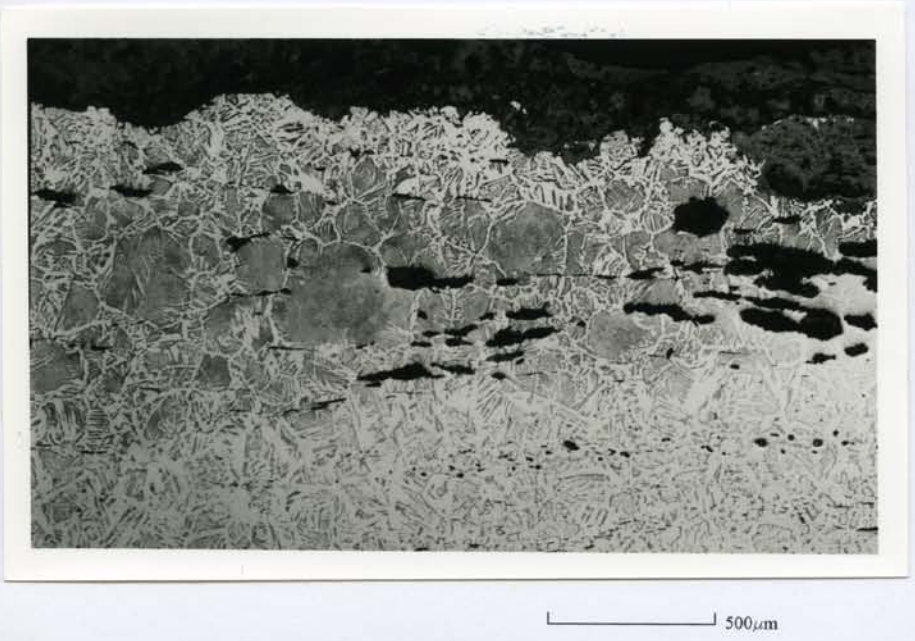

Plate 12. Plate SF1660. Pearlite near the tip. Nital etch.

Plate 13. Triangular plate SF1728, ferrite grains and very narrow slag inclusions. Nital etch.

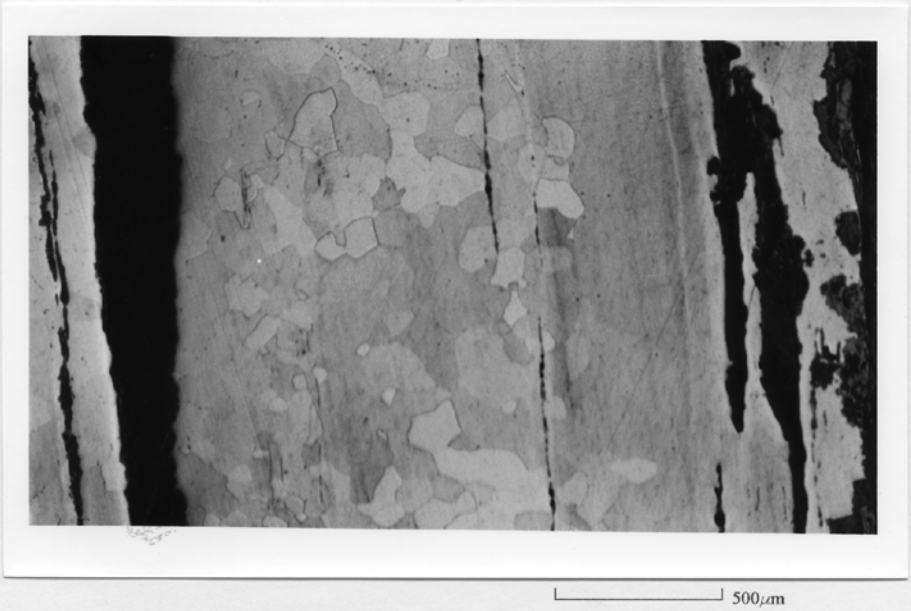

Plate 14. Strip SF1824, ferrite surviving between the corroded edges. Nital etch.

3.3 **List of objects of copper alloy**

Publ. No.	*SF*	*Context*	*Layer*	*Description*	*Dimensions (mm)*
1.1	1524	284		Buckle plate fragment.	19 x 11
	1532	285		10 small sheet fragments (1 pierced) plus 5 tiny fragments.	
	1549	302		Stud with flanged rim. The shaft is flattened against the back.	D: 22
1.4	1553	305		Bracelet fragment, single twisted rod.	Int D: 110, Th: 3
1.5	3169	305		3 small fragments of possible terminal sleeve.	L: 12
1.3	1922	312		Sheet fragment.	21 x 8.5
1.8	1602	313		Spoon, handle missing.	L: 56, D: 32
1.12	1917	313		Dome-headed stud.	D: 20, H: 9
1.13	1894	314		Composite convex stud.	D: 17, H: 5
	1802	318		not copper alloy – discarded.	
1.10	1828	318		Stud with raised central boss, concentric moulding and flanged rim. Thin rectangular section shaft.	D: 21
1.11	1829	318		Composite convex stud.	D: 18, H: 5
1.15	1966	322		Binding. Sheet folded into a tube with stud at one end.	16 x 14
1.2	1980	325		Complete buckle plate.	24 x 19
	1517	F519	2	not copper alloy – discarded.	
1.16	1525	F519	3	Bar, rectangular section, folded twice.	53 x 4 x 3
	1884	F542	2	1 small sheet fragment.	10 x 7
1.9	1821	F556	2	Spoon, handle missing.	L: 51.5, D: 31
	2003	F556	3	1 coil of a brooch pin spring.	
1.14	1733	F569	1	Rectangular sheet fragment with off-centre perforation.	25 x 19
1.17	1813	F569	1	Bar, rectangular section.	68 x 5 x 3
	2014	F569	1	1 small L-shaped fragment.	11 x 10
1.7	1558	P369	1	Partial handle and bowl of mandolin-shaped spoon.	L: 36
1.6	1514	Ph922		Pin shaft fragment.	L: 56

3.4 **List of objects of iron**

Compiled largely by Peter Crew

Note: • In the case of illustrated items, denoted by their publication number, only brief descriptions are given.
• The items sampled and analysed metallographically are denoted * next to the small finds number. Detailed descriptions of these are given in Section 3.2.

Publ. No.	*SF*	*Context*	*Type 1*	*Description*	*Wt*
2.3	1519	F519/2	knife	Knife.	
	1527	F532/1	sheet	Three joining fragments of sheet with curved edge. Length: 62 mm. Width: 25 mm. Thickness: 2 mm. Weight: 12 gm.	12
	1531	297	bar	Three pieces. 1) Piece of flat bar, with rectangular hole 8 mm x 6 mm. Length: 47 mm. Width: 32 mm. Thickness: 5 mm. Weight: 44 gm.	44
	1531	297	strip	2) Piece of strip, thin and distorted. One edge turned upwards, other edge distorted and undulating. Length: 63 mm. Width: 18 mm. Thickness: 1 mm. Weight: 6 gm.	6
	1531	297	bar	3) Piece of rectangular bar, 10 mm x 6 mm, forged to thin ovate end tapering to flat point. Overall length: 51 mm. Weight: 10 gm.	10
	1537	F 513/6	strip	Fragment of strip with 6 mm square nail hole. Length: 39 mm. Width: 24 mm. Thickness: 2 mm. Weight: 10 gm.	10
	1544	F511	strip	Fragment of strip. Length: 26 mm. Width: 14 mm. Thickness: 2 mm. Weight 4 gm.	4
	1555	306	bar	Fragment of tapering bar. Length: 47 mm. Width: 7 mm. Thickness: 7 mm. Weight: 17 gm.	17
2.41	1561	302	bar	Rectangular bar, ends forged and broken, split in middle. Length: 155 mm. Width: 13 mm. Thickness: 5 mm. Weight: 65 gm.	65
	1565	308	bar	Four iron objects. 1) Piece of tapering bar folded back on itself. Length: 85 mm. Width: 14 mm. Thickness: 5 mm. Weight: 31 gm.	31
	1565	308	strip	2) Fragment of strip. Length 37 mm. Width: 14 mm. Thickness: 5 mm. Weight: 11 gm.	11
	1565	308	bar	3) Fragment of nail. Length: 29 mm. Width: 5 mm. Thickness: 5 mm. Weight: 4 gm.	4
	1565	308	bar	4) Tapering square bar, ? nail fragment. Length: 41 mm. Section: 4.5 mm. Weight: 3 gm.	3
	1579	F 519/3	lump	Three irregular lumps, the largest of which is a nail corroded to a piece of pottery. Weight: 14(8) gm.	8
2.20	1583	308	strip	Piece of flat strip, tapering. Length: 52 mm. Width: 17–14 mm. Thickness: 1.5 mm. Weight: 8 gm.	8
	*1590	312	bar	Rectangular bar forged to long tapering point. Length: 117 mm. Width: 14 mm. Thickness: 5 mm. Weight: 45 gm.	45
	1591	312	sheet	Piece of thick plate forged to taper with 7 mm square central hole. Length: 37 mm. Width: 35 mm. Thickness: 8–3 mm. Weight: 46 gm.	46
	1592	312	strip	Bent piece of tapering strip. Length: 95 mm. Width: 9 mm. Thickness: 3 mm. Weight: 17(10) gm.	10
	1593	312	strip	Irregular strip. Length: 63 mm. Width: 6 mm. Thickness: 2 mm. Weight: 5 gm.	5
	*1594	312	bar	Piece of bar with sharp taper at one end. Length: 65 mm. Width: 12 mm. Thickness: 5 mm. Weight: 27 gm.	27
	*1595	312	bar	Fragment of bar. Length: 48 mm. Width: 11 mm. Thickness: 7 mm. Weight: 21 gm.	21
2.6	1597	312	bar	Square bar with both ends forged to sub-rectangular spatulate ends. Length: 72 mm. Bar: 5 x 5 mm. Ends: 20 x 16 x 2 mm. Weight: 11 gm.	11
2.29	1598	312	cleat	Cleat.	

Publ. No.	*SF*	*Context*	*Type 1*	*Description*	*Wt*
	1599	312	strip	Fragment of strip, curved at one end, with an 8 x 6 mm hole. Length: 50 mm. Width: 15 mm. Thickness: 2 mm. Weight: 8 gm.	8
2.34	1600	312	cleat	Cleat.	
	1601	312	bar	Fragment of bar forged to a taper at one end. Length: 50 mm. Width: 11 mm. Thickness: 6 mm. Weight: 11 gm.	11
2.31	1603	+	cleat	Cleat.	
	1604	312	sheet	Ten fragments of broken sheet, 2.5 mm. thick. One piece with a carination suggests that this may be from a bowl. Weight: 78(50) gm.	50
2.14	1605	312	strip	Strip forged to a taper with a circular terminal, which has a 6 mm diameter nail hole. Probably the end of a strap hinge. Length: 88 mm. Width: 29–21 mm, terminal 32 mm diameter. Thickness: 2 mm. Weight: 40 gm.	40
2.21	1606	312	strip	Strip.	
	1607	312	bar	Piece of bar with irregular section. Length: 43 mm. Width: 14 mm. Thickness 9 mm. Weight: 22 gm.	22
	*1608	312	strip	Strip forged with long taper to sub-square end. Folded double at broad end. Overall length: 207 mm. Width: 22–5 mm. Thickness: 2–4 mm. Weight: 47(40) gm.	40
	1609	312	bar	Piece of tapering bar with a shallow D-shaped section. Nail hole 8 mm diameter at one end. Length: 184 mm. Width: 30–23 mm. Max. thickness: 8 mm. Weight: 166(120) gm.	62
2.9	1610	312	rod	Ring-ended rod.	
2.27	1611	312	cleat	Cleat.	
	1612	312	strip	Piece of strip. Length: 72 mm. Width: 20 mm. Thickness: 2 mm. Weight: 18(8) gm.	8
	1615	312	strip	Distorted strip bent back on itself. Length: 120 mm. Width: 20 mm. Thickness: 2 mm. Weight 18(12) gm.	12
	1616	312	sheet	Irregular piece of sheet iron, with three nail holes, 5 mm diameter, in a triangle. Length: 55 mm. Width: 40 mm. Thickness: 1.5 mm. Weight: 17 gm.	17
	1617	312	strip	Piece of strip with 7 mm square nail hole. Length: 50 mm. Width: 31 mm. Thickness: 2 mm. Weight: 18 gm.	18
	1619	312	strip	Fragment of strip. Length: 43 mm. Width: 19 mm. Thickness: 2 mm. Weight: 10 gm.	10
	1620	312	strip	Piece of strip forged to L shape. Length: 65 mm. Width: 13 mm. Thickness: 2 mm. Weight: 16 gm.	16
	1621	312	sheet	Fragment of sheet, distorted and split. Length: 49 mm. Width: 15 mm. Thickness: 2 mm. Weight: 5 gm.	5
	1622	312	bar	Piece of tapering bar. Overall length: 57 mm, forged from 9 x 6 mm to 19 x 3 mm. Weight: 27 gm.	27
	1623	312	lump	Irregular fragment. Length: 32 mm. Width: 13 mm. Thickness: 6 mm. Weight: 8 gm.	8
	1624	312	bar	Piece of bar, distorted at one end. Length: 83 mm. Width: 8 mm. Thickness: 4 mm. Weight: 12 gm.	12
2.45	1625	312	strip	Strip.	
	*1627	312	strip	Irregular curved strip, lenticular cross section. One long edge either broken or probably cut hot. Several cracks in other edge. Length: 76 mm. Width: 18 mm. Max. thickness: 6.5 mm. Weight: 37 gm.	37
	1628	312	bar	Square bar forged to hook shape. Overall length: 100 mm. Width: 6 mm. Thickness: 6 mm. Weight: 9 gm.	9
	1629	312	strip	Piece of curved iron strip. Length: 74 mm. Width: 9 mm. Thickness: 1.5 mm. Weight: 8 gm.	8
2.26	1630	312	bar	Part of pronged object, of 5 x 6 mm rectangular bar forged to circular section and bent, with second prong of circular section welded on. Weight: 12 gm.	12

Publ. No.	*SF*	*Context*	*Type 1*	*Description*	*Wt*
	1632	312	strip	Piece of strip. Approx. one-quarter of 115 mm diameter circular hoop. Length: 112 mm. Width: 20 mm. Thickness: 2 mm. Weight: 17 gm.	17
	*1633	312	strip	Piece of strip folded back on itself, ? partially welded. Length: 84 mm. Width: 13 mm. Thickness: 2 mm. Weight: 18 gm.	18
2.44	1634	312	bar	Oval spatulate end, with 5 mm square nail hole, and a short shank. Flat end:- Length: 30 mm. Width: 26 mm. Thickness: 3 mm. Shank:- Length: 18 mm. Width: 6 mm. Thickness: 5 mm. Weight: 12 gm.	12
	1635	312	strip	Piece of strip. Length: 50 mm. Width: 11 mm. Thickness: 1.5 mm. Weight: 7 gm.	7
	1636	312	bar	Piece of thin bar, bent at 90 degrees. ? Nail shank. Length: 69 mm. Width: 5 mm. Thickness 4 mm. Weight: 5 gm.	5
	1637	312	bar	Piece of bar curved over at one end. Length: 65 mm. Width: 15 mm. Thickness: 1.5 mm. Weight: 15 gm.	15
	1638	312	strip	Piece of strip. Length: 49 mm. Width: 16 mm. Thickness: 4 mm. Weight: 15 gm.	15
	1639	312	sheet	Fragment of sheet. Length: 52 mm. Width: 15 mm. Thickness: 2 mm. Weight: 5 gm.	5
	1640	312	sheet	Fragment of sheet, one edge curved. Length: 60 mm. Width: 26 mm. Thickness: 2 mm. Weight: 9 gm.	9
	1641	312	sheet	Irregular piece of sheet with 9 mm square hole. Length: 57 mm. Width: 32 mm. Thickness: 2 mm. Weight: 27(15) gm.	15
	1642	312	sheet	Irregular fragment of sheet. Length: 55 mm. Width: 29 mm. Thickness: 3 mm. Weight: 15(8) gm.	8
2.19	1643	212	plate	Tanged plate.	
	1644	312	strip	Piece of strip. Length: 88 mm. Width: 9 mm. Thickness: 3 mm. Weight: 14 gm.	14
2.2	1645	312	strip	Thin strip, about one-third of a tapering hoop. Max. diameter 120 mm, min. diameter 108 mm. Overall length: 165 mm. Width: 21 mm. Thickness: 2 mm. Weight: 26 gm.	26
	1647	312	bar	Small fragment of bar of rectangular cross section: chisel cut at both ends. Length: 32 mm. Cross section: 8 x 6 mm. Weight: 9 gm.	9
	1653	312	bar	Distorted fragment of bar. Length: 39 mm. Width: 11 mm. Thickness: 3 mm. Weight: 8 gm.	8
	1654	312	bar	Distorted fragment of bar. Length: 43 mm. Width: 7 mm. Thickness: 6 mm. Weight: 9 gm.	9
	1655	312	bar	Piece of square bar. Length: 43 mm. Width: 9 mm. Thickness: 9 mm. Weight: 16 gm.	16
	1656	312	sheet	Fragment of sheet. Length: 23 mm. Width: 17 mm. Thickness 1.5 mm. Weight: 2 gm.	2
	1657	312	lump	Irregular fragment. Length: 35 mm. Width: 12 mm. Thickness: 4 mm. Weight: 4 gm.	4
2.47	1658	312	bar	Piece of heavy bar. Both ends forged with taper, central section forged to a shallow curve, masked by heavy accretion. Similar to a small bearing block. Overall length: 64 mm. Width: 35–28 mm. Thickness: 16 max.–7 min. mm. Weight: 126(110) gm.	110
	1659	312	bar	Piece of bar. Length: 55 mm. Width: 21 mm. Thickness: 4 mm. Weight: 27 gm.	27
	*1660	312	sheet	Piece of thick plate, forged to a taper. Length: 58 mm. Width: 42 mm. Thickness: 9–1 mm. Weight: 100 gm.	100
	1661	312	sheet	Fragment of sheet. Length: 24 mm. Width: 18 mm. Thickness: 1.5 mm. Weight: 3 gm.	3
	1664	312	strip	Piece of strip, distorted and twisted. Length: 130 mm. Width: 12 mm. Thickness: 1.5 mm. Weight: 9 gm.	9
	1665	312	bar	Fragment of bar. Length: 40 mm. Width: 7 mm. Thickness: 7 mm. Weight: 12 gm.	12
	1666	312	bar	Square bar, bent at both ends. Length: 75 mm. Width. 6 mm. Thickness: 6 mm. Weight: 17 gm.	17

Publ. No.	*SF*	*Context*	*Type 1*	*Description*	*Wt*
	1667	312	strip	Fragment of strip, distorted, with 3 mm nail hole at one end. Length: 41 mm. Width: 18 mm. Thickness: 2 mm. Weight: 7 gm.	7
	1669	312	bar	Fragment of bar. Length: 43 mm. Width: 8 mm. Thickness: 6 mm. Weight: 14 gm.	14
	1670	312	bar	Fragment of irregular bar, split or failed weld. Length: 32 mm. Width: 10 mm. Thickness: 8 mm. Weight: 12 gm.	12
	1672	312	strip	Fragment of tapering strip. Length: 75 mm. Width: 7–3.5 mm. Thickness: 2 mm. Weight: 5 gm.	5
	1673	312	strip	Fragment of strip. Length: 39 mm. Width: 6 mm. Thickness: 2 mm. Weight: 1 gm.	1
	1675	312	bar	Irregular fragment of bar. Length: 40 mm. Width: 10 mm. Thickness: 8 mm. Weight: 12 gm.	12
	1676	312			
	1683	312	sheet	Fragment of irregular sheet. Length: 21 mm. Width: 15 mm. Thickness: 4 mm. Weight: 5 gm.	5
	1684	312	bar	Fragment of irregular bar. Length: 28 mm. Width: 7 mm. Thickness: 1 mm. Weight: <1 gm.	1
	1685	312	bar	Triangular fragment of bar. Length: 18 mm. Width: 19 mm. Thickness: 4 mm. Weight: 3 gm.	3
	1688	312	lump	Irregular lump. Weight: 1 gm.	1
	1689	312	strip	Fragment of strip. Length: 17 mm. Width: 21 mm. Thickness: 2.5 mm. Weight: 1 gm.	1
	1691	312	strip	Piece of rectangular strip. Length: 59 mm. Width: 22 mm. Thickness: 3.5 mm. Weight: 4 gm.	4
	1693	312	bar	Fragment of tapering bar. Length: 33 mm. Width: 17 mm. Thickness: 6 mm. Weight: 14 gm.	14
	1694	312	bar	Fragment of bent bar, ? nail shank. Length: 51 mm. Width: 6 mm. Thickness: 5 mm. Weight: 6 gm.	6
	1695	312	sheet	Irregular fragment of sheet. Length: 36 mm. Width: 17 mm. Thickness: 1 mm. Weight: 2 gm.	2
	1696	312	bar	Fragment of tapering bar. Length: 45 mm. Width: 7 mm. Thickness: 3 mm. Weight: 3 gm.	3
	1697	312	lump	Irregular fragment. Weight: 1 gm.	1
2.7	1702	314	bar	Part of a stylus? Spatulate end with part of square shank. Length: 37 mm. Width: 4 mm. Thickness: 3 mm. Terminal, Length: 10 mm. Width: 15 mm. Weight: 3 gm.	3
	1703	314	bar	Fragment of square bar. Length: 45 mm. Width: 6 mm. Thickness: 6 mm. Weight: 7 gm.	7
	1704	314	lump	Irregular lump. Length: 11 mm. Width: 8 mm. Thickness: 12 mm. Weight: 1 gm.	1
	1706	314	bar	Fragment of bar, tapering. Length: 34 mm. Width: 7 mm. Thickness: 7 mm. Weight: 7 gm.	7
	1707	314	strip	Fragment of thin strip. Length: 27 mm. Width: 9 mm. Thickness: 2 mm. Weight: 1 gm.	1
	1708	314	bar	Fragment of tapering bar. Length: 38 mm. Width: 8 mm. Thickness: 6 mm. Weight: 8 gm.	8
	1709	314	sheet	Irregular fragment of sheet. Length: 30 mm. Width: 16 mm. Thickness: 1 mm. Weight: 1 gm.	1
	1713	312	bar	Fragment of bar. Length: 38 mm. Width: 14 mm. Thickness: 4 mm. Weight: 10 gm.	10
	1714	312	bar	Fragment of twisted bar. Length: 34 mm. Width: 8 mm. Thickness: 3 mm. Weight: 6 gm.	6
	1715	312	strip	Fragment of strip. Length: 43 mm. Width: 11 mm. Thickness: 2 mm. Weight: 4 gm.	4
	1716	312	bar	Fragment of bar. Length: 37 mm. Width: 23 mm. Thickness: 3 mm. Weight: 10 gm.	10

Publ. No	*Sf. No*	*Context*	*Type 1*	*Description*	*Wt*
	1717	312	strip	Probably a distorted and broken knife blade, but very heavy accretion products. Length: 63 mm. Width: 11 mm. Thickness: 2 mm. Weight: 10(4) gm.	4
	1718	312	strip	Fragment of strip. Length: 40 mm. Width: 11 mm. Thickness: 2.5 mm. Weight: 4 gm.	4
	1719	312	bar	Piece of irregular, sub-circular bar, cracked across. Length: 49 mm. Width: 8 mm. Thickness: 7 mm. Weight: 18 gm.	18
	1720	312	bar	Fragment of tapering bar. Length: 33 mm. Width: 13 mm. Thickness: 5 mm. Weight: 6 gm.	6
	1721	312	sheet	Fragment of sheet. Length: 40 mm. Width: 14 mm. Thickness: 2 mm. Weight: 5 gm.	5
	1722	312	strip	Two fragments of strip welded or corroded together. Max. length: 37 mm. Width: 14 mm. Thickness: 4 mm. Weight: 10 gm.	10
	1723	312	bar	Fragment of bar. Length: 31 mm. Cross section: 10 x 6 mm. Weight: 7 gm.	7
	1724	312	sheet	Fragment of sheet. Length: 24 mm. Width: 18 mm. Thickness: 1.5 mm. Weight: 3 gm.	3
	1725	312			
	1726	312	lump	Irregular fragment. Length: 20 mm. Width: 15 mm. Thickness: 9 mm. Weight: 6 gm.	6
	1727	312	bar	Fragment of bar. Length: 27 mm. Width: 8 mm. Thickness: 7 mm. Weight: 8 gm.	8
	*1728	312	sheet	Triangular piece of thick sheet folded over at one point. Length: 50 mm. Width: 28 mm. Thickness: 4 mm. Weight: 19 gm.	19
	1737	F542/3	bar	Piece of irregular bar, one end forged to a flatter shape. Length: 55 mm. Width: 8 mm. Thickness: 8 mm. Weight: 16 gm.	16
2.43	1738	314	strip	Narrow strip forged to a long taper at both ends. Length: 132 mm. Max. width: 6 mm. Thickness: 2.5 mm. Weight: 14 gm.	14
	1741	314	strip	Piece of strip. Length: 106 mm. Width: 9 mm. Thickness: 2.5 mm. Weight: 14 gm.	14
	1742	314	strip	Piece of strip. Length: 53 mm. Width: 25 mm. Thickness: 2 mm. Weight: 10 gm.	10
2.11	1743	314	rod	Ring-ended rod.	
	1744	314	strip	Tapering strip with possible nail hole at one end. Length: 63 mm. Width: 15–9 mm. Thickness: 2 mm. Weight: 10 gm.	10
	1745	314	bar	Distorted, twisted fragment of bar. Length: 65 mm. Width: 13 mm. Thickness: 3 mm. Weight: 10 gm.	10
	1746	314	strip	Piece of twisted strip. Length: 96 mm. Width: 11 mm. Thickness: 2 mm. Weight: 14 gm.	14
2.37	1747	314	ring	Binding ring.	
	1748	314	strip	Piece of strip forged to knife blade shape, point bent. Length: 68 mm. Width: 11 mm. Thickness: 3 mm. Weight: 6 gm.	6
	1749	314	strip	Fragment of tapering strip. Length: 62 mm. Width: 17 mm. Thickness: 3 mm. Weight: 11 gm.	11
	1750	314	strip	Fragment of strip. Length: 70 mm. Width: 10 mm. Thickness: 2.5 mm. Weight: 6 gm.	6
2.13	1751	314	buckle?	Buckle?	
	1752	314	bar	Broken, irregular fragment of bar. Length: 50 mm. Width: 22 mm. Thickness: 6 mm. Weight: 23 gm.	23
	1753	314	bar	Fragment of square bar forged to a sharp angle (about 100 degrees). Length: 50 mm. Width: 7 mm. Thickness: 7 mm. Weight: 9 gm.	9
	1754	314	strip	Fragment of strip, one end forged to a rounded point. Length: 52 mm. Width: 19 mm. Thickness: 2 mm. Weight: 10 gm.	10
	1756	F 542/3	bar	Fragment of tapering bar. Length: 48 mm. Width: 12 mm. Thickness: 6 mm. Weight: 10 gm.	10
	1757	F 542/3	bar	Fragment of bar. Length: 35 mm. Width: 9 mm. Thickness: 6 mm. Weight: 7 gm.	7

Publ. No	*Sf. No*	*Context*	*Type 1*	*Description*	*Wt*
	1758	F 542/3	bar	Fragment of bar. Length: 37 mm. Width: 14 mm. Thickness: 10 mm. Weight: 24 gm.	24
	1759	F 542/3	bar	Fragment of square bar. Length: 45 mm. Width: 7 mm. Thickness: 8 mm. Weight: 10 gm.	10
	1761	F 552/1	bar	Fragment of square bar, tapering slightly. Length: 39 mm. Width: 4 mm. Thickness: 4 mm. Weight: 3 gm.	3
	1765	314	sheet	Small triangular fragment of sheet. Weight: 2 gm.	2
	1766	314	strip	Fragment of strip. Length: 40 mm. Width: 15 mm. Thickness: 2 mm. Weight: 5 gm.	5
	1767	314	strip	Fragment of tapering strip. Length: 43 mm. Width: 18–9 mm. Thickness: 4 mm. Weight: 18 gm.	18
	1768	314	strip	Fragment of strip with two nail holes, 8 mm and 6 mm in diameter. Length: 31 mm. Width: 22 mm. Thickness: 3 mm. Weight: 10 gm.	10
	1769	314	lump	Two irregular lumps corroded together. Weight: 15 gm.	15
	1770	314	strip	Fragment of strip with 6 mm square nail hole. Length: 50 mm. Width: 22 mm. Thickness: 3 mm. Weight: 14 gm.	14
	1771	314	bar	Fragment of bar. Length: 22 mm. Width: 4 mm. Thickness: 4 mm. Weight: 2 gm.	2
	1772	314	sheet	Fragment of sheet. Weight: 1 gm.	1
	1773	314	strip	Fragment of curved strip. Length: 30 mm. Width: 22 mm. Thickness: 3 mm. Weight: 10 gm.	10
	1776	314	lump	Irregular lump. Weight: 6 gm.	6
	1777	314	strip	Fragment of strip. Length: 32 mm. Width: 7 mm. Thickness: 3 mm. Weight: 3 gm.	3
	1778	314	strip	Fragment of tapering strip with part of nail hole. Length: 21 mm. Width: 16 mm. Thickness: 2 mm. Weight: 2 gm.	2
	1779	314	strip	Fragment of narrow strip. Length: 69 mm. Width: 9 mm. Thickness: 2 mm. Weight: 7 gm.	7
	1780	314	strip	Iron strip, both ends forged to a taper and bent. Possibly a staple. Overall length: 107 mm. Width: 7 mm. Thickness: 2 mm. Weight: 11 gm.	11
	1781	314	sheet	Irregular fragment of sheet. Length: 41 mm. Width: 28 mm. Thickness: 3 mm. Weight: 13(8) gm.	8
	1782	314	strip	Fragment of strip. Length: 47 mm. Width: 14 mm. Thickness: 2 mm. Weight: 9(4) gm.	4
2.32	1783	314	cleat	Cleat.	
2.42	1784	314	strip	Piece of strip. Length: 130 mm. Width: 5 mm. Thickness: 2 mm. Weight: 9 gm.	9
	1785	314	strip	Piece of strip. Length: 109 mm. Width: 12 mm. Thickness: 3 mm. Weight: 24 gm.	24
2.17	1786	314	strip	Perforated strip.	
2.28	1787	314	bar	Bar.	
2.38	1788	314	ring	Binding ring.	
	1789	314	sheet	Piece of sheet, irregular broken edges. Max. dimensions:- Length: 69 mm. Width: 41 mm. Thickness: 1.5 mm. Weight: 13 gm.	13
	1790	314	bar	Piece of tapering square bar, bent at one end. Length: 83 mm. Width: 5 mm. Thickness: 5 mm. Weight: 9 gm.	9
	1791	314	strip	Fragment of curved strip. Length: 43 mm. Width: 23 mm. Thickness: 5 mm. Weight: 25(15) gm.	15
2.18	1792	314	bar	Piece of bar (Length: 94 mm. Width: 17 mm. Thickness: 5 mm) forged to long taper and bent over, around another fragment of rectangular bar (Length: 39 mm. Width: 8 mm. Thickness: 5 mm). Total weight: 38 gm.	38
2.24	1794	318	bar	Iron cleat. Heavy bar, approx. oval shape, one end forged to small point at right angles, other end ? broken. Length: 82 mm. Width: 22 mm. Thickness: 5 mm. Weight: 65 gm.	65

Publ. No.	*SF*	*Context*	*Type 1*	*Description*	*Wt*
	1796	318	bar	Nail shank. Length: 59 mm. Width: 5 mm. Thickness: 5 mm. Weight: 4 gm.	4
	1797	318	strip	Fragment of strip. Length: 45 mm. Width: 12 mm. Thickness: 2 mm. Weight: 7(4) gm.	4
	1798	318	strip	Fragment of strip. Length: 37 mm. Width: 10 mm. Thickness: 1.5 mm. Weight: 2 gm.	2
	1799	318	strip	Fragment of twisted strip. Length: 25 mm. Width: 7 mm. Thickness: 2 mm. Weight: 1 gm.	1
2.33	1810	F569/1	cleat	Cleat.	
2.1	1815	312	collar	Circular collar.	
	1816	312	bar	Fragment of bar. Length: 33 mm. Width: 3 mm. Thickness: 3 mm. Weight: 0.5 gm.	0
	1817	312	sheet	Fragment of sheet. Length: 32 mm. Width: 19 mm. Thickness: 2 mm. Weight: 6 gm.	6
2.39	1818	312	bar	Piece of thin, square bar. Length: 88 mm. Width: 3 mm. Thickness: 3 mm. Weight: 4 gm.	4
	1819	312	sheet	Irregular fragment of sheet. Length: 39 mm. Width: 23 mm. Thickness: 2 mm. Weight: 6(3) gm.	3
	1822	312	sheet	Piece of sheet, slightly curved. Length: 39 mm. Width: 29 mm. Thickness: 1 mm. Weight: 8 gm.	8
	1823	312	strip	Fragment of strip. Length: 36 mm. Width: 28 mm. Thickness 1.5 mm. Weight: 5 gm.	5
	*1824	312	strip	Piece of strip tapering across width (? blade, one end slightly curved). Length: 69 mm. Width: 18 mm. Thickness: 3.5–1 mm. Weight: 16 gm.	16
	1827	314	strip	Piece of tapering strip. Length: 57 mm. Width: 14–5 mm. Thickness: 2 mm. Weight: 7 gm.	7
	1834	318	strip	Fragment of strip. The X-ray shows regular serrations (3 per mm) and the strip seems to be from a saw, though it is smaller than usual. Length: 42 mm. Width: 11 mm. Thickness: 2 mm. Weight: 4 gm.	4
	1835	318	bar	Fragment of irregular iron bar. Length: 39 mm. Width: 11 mm. Thickness: 9 mm. Weight: 13 gm.	13
2.22	1841	318	strip	Strip.	
	1842	318	bar	Distorted fragment of bar. Length: 75 mm. Width: 8 mm. Thickness: 5 mm. Weight: 10 gm.	10
	1850	318	strip	Fragment of strip. Length: 32 mm. Width: 12 mm. Thickness: 3 mm. Weight: 4 gm.	4
	1856	316	bar	Fragment of bar. Length: 38 mm. Width: 8 mm. Thickness: 5 mm. Weight: 5 gm.	5
	1857	316			
	1858	316	lump	Irregular lump. Weight: 16 gm.	16
	1859	316	strip	Fragment of strip. Length: 36 mm. Width: 12 mm. Thickness: 2 mm. Weight: 2 gm.	2
2.46	1861	312	bar	T-shaped piece of rectangular bar welded to sub-circular bar. All ends broken. Large bar:- Length: 35 mm. Width: 15 mm. Thickness: 7 mm. Round bar:- Length: 24 mm. Diameter: 4 mm. Weight: 9 gm.	9
	1862	312	bar	Fragment of rectangular bar drawn to a point. Length: 46 mm. Width: 8 mm. Thickness: 6 mm. Weight: 14 gm.	14
	1863	312	bar	Fragment of rectangular bar bent to L shape. Length: 35 mm. Width: 9 mm. Thickness: 5 mm. Weight: 8 gm.	8
2.30	1865	312	cleat	Cleat.	
	1866	316	bar	Piece of square bar, one end bent to L shape, other end split (or poorly welded). Length: 950 mm. Width: 11 mm. Thickness: 8 mm. Weight: 44 gm.	44
	1869	F542/2	bar	Piece of rectangular bar, bent. Length: 95 mm. Width: 12 mm. Thickness: 6 mm. Weight: 31 gm.	31

Publ. No.	*SF*	*Context*	*Type 1*	*Description*	*Wt*
	1870	F542/2	bar	Piece of iron bar with smaller piece welded (?) to one end. Length: 740 mm. Width: 20 mm. Thickness: 3 mm. Weight: 33 gm.	33
	1871	F542/2	strip	Fragment of strip. Length: 58 mm. Width: 10 mm. Thickness: 3 mm. Weight: 10(6) gm.	6
	1872	F542/2	bar	Tapering bar. Length: 54 mm. Width: 14 mm. Thickness: 7 mm. Weight: 12 gm.	12
	1873	F542/2	bar	Fragment of tapering bar. Length: 45 mm. Width: 12 mm. Thickness: 4 mm. Weight: 7 gm.	7
	1874	F542/2	sheet	Fragment of sheet. Length: 35 mm. Width: 28 mm. Thickness: 2 mm. Weight: 18 gm.	18
	1875	F542/2	bar	Fragment of bar. Length: 35 mm. Width: 19 mm. Thickness: 4 mm. Weight: 9 gm.	9
	1876	F542/2	lump	Irregular lump. Weight: 17 gm.	17
	1877	F542/2	lump	Irregular lump. Weight: 7 gm.	7
	1878	F542/2	lump	Irregular fragment. Length: 18 mm. Width: 13 mm. Thickness: 11 mm. Weight: 5 gm.	5
	1879	F542/2	lump	Irregular fragment. Weight: 0.5 gm.	0
	1880	F542/2	bar	Fragment of bar. Length: 25 mm. Width: 10 mm. Thickness: 7 mm. Weight: 3 gm.	3
	1881	F542/2	lump	Irregular fragment. Weight: 1 gm.	1
	1882	F542/2	lump	Fragment of iron. Weight: 0.5 gm.	0
2.16	1892	313	strip	Long tapering strip with 11 mm square hole at one end. Length: 162 mm. Width: 17–7 mm. Thickness: 3 mm. Weight: 36 gm.	36
	1906	327	bar	Fragment of bar, tapering. Length: 43 mm. Width: 9 mm. Thickness: 4 mm. Weight: 16(10) gm.	18
	1914	333	bar	Piece of rough bar either folded back on itself or two separate pieces, in attempt to weld. Length: 45 mm. Width: 24 mm. Thickness: 6 mm. Weight: 34 gm.	34
	1918	329	strip	Piece of strip, split longitudinally. Length: 86 mm. Width: 25 mm. Thickness: 5–2 mm. Weight: 57(40) gm.	40
2.35	1919	329	stud	T-clamp.	
	1920	329	sheet	Irregular fragment of sheet. Length: 35 mm. Width: 21 mm. Thickness: 3 mm. Weight: 9(5) gm.	5
	1921	329	sheet	Fragment of sheet. Length: 34 mm. Width: 20 mm. Thickness: 1 mm. Weight: 2 gm.	2
	1923	F 298/2	sheet	Piece of sheet with 6 square and round nail holes. Length: 84 mm. Width: 54 mm. Thickness: 2 mm. Weight: 52(45) gm.	45
	1925	F 598/1	bar	Piece of bar, irregular shape. Length: 32mm. Width: 30 mm. Thickness: 6 mm. Weight: 24 gm.	24
2.40	1926	327	rod	Rod.	
	1927	327	sheet	Fragment of sheet, with 5 mm diameter hole, forged to a tapering point. Length: 45 mm. Width: 28 mm max. Thickness: 2 mm. Weight: 10 gm.	10
	1928	327	sheet	Irregular fragment of sheet. Length: 33 mm. Width: 22 mm. Thickness: 3 mm. Weight: 5 gm.	5
	1929	327	bar	Piece of tapering bar. Length: 48 mm. Width: 18 mm. Thickness: 5 mm. Weight: 24 gm.	24
	1930	327	lump	Irregular fragment. Length: 42 mm. Width: 15 mm. Thickness: 6 mm. Weight: 8 gm.	8
	1931	327	sheet	Irregular fragment of sheet. Length: 52 mm. Width: 22 mm. Thickness: 2 mm. Weight: 16(6) gm.	6
2.25	1932	327	cleat	Cleat.	
2.23	1935	312	sheet	Piece of sheet, one end forged with re-entrant curve. Max. length: 120 mm. Width: 58–48 mm. Thickness: 2 mm. Weight: (heavy accretion) 122(50) gm.	50

Publ. No.	*SF*	*Context*	*Type 1*	*Description*	*Wt*
	1936	332	strip	Fragment of strip. Length: 24 mm. Width: 20 mm. Thickness: 4 mm. Weight: 3 gm.	3
2.5	1938	332	bar	Piece of bar, one end broken, other end forged to an irregular point. Length: 8 mm. Width: 30 mm. Thickness: 3.5 mm. Weight: 37 gm.	37
2.36	1939	332	ring	Ring.	
	1940	325	bar	Fragment of heavy bar. Length: 27 mm. Width: 34 mm. Thickness: 7 mm. Weight: 34 gm.	34
	1944	325	bar	Fragment of bar. Length: 28 mm. Width: 12 mm. Thickness: 4 mm. Weight: 8 gm.	8
	1945	325	strip	Piece of strip, tapering section, with thin edge bent. Length: 39 mm. Width: 28 mm. Thickness: 4–2 mm. Weight: 21 gm.	21
	1946	325	strip	Fragment of strip. Length: 53 mm. Width: 25 mm. Thickness: 2 mm. Weight: 7 gm.	7
2.10	1947	325	loop	Loop.	
	1948	325	bar	Fragment of bar. Length: 48 mm. Width: 8 mm. Thickness: 8 mm. Weight: 17 gm.	17
	1949	325	sheet	Fragment of sheet, distorted. Length: 45 mm. Width: 15 mm. Thickness: 2 mm. Weight: 6 gm.	6
	1950	325	bar	Fragment of bar. Length: 40 mm. Width: 8 mm. Thickness: 3 mm. Weight: 7 gm.	7
	1952	325	sheet	Fragment of sheet with 4 mm square nail hole. Length: 26 mm. Width: 22 mm. Thickness: 1 mm. Weight: 4 gm.	4
	1953	325	strip	Piece of strip. Length: 80 mm. Width: 9 mm. Thickness: 2 mm. Weight: 8 gm.	8
	1954	325	sheet	Irregular fragment of sheet. Length: 35 mm. Width: 30 mm. Thickness: 1 mm. Weight: 8 gm.	8
	1955	325	strip	Piece of strip with 4 mm diameter nail hole. Length: 40 mm. Width: 21 mm. Thickness: 2 mm. Weight: 7 gm.	7
2.15	1956	325	strip	Tapering strip with circular terminal, which has a 6 mm square nail hole. Probably the terminal of a strap hinge. Length: 66 mm. Width: 20 mm. Thickness: 3 mm. Weight: 28 gm.	28
	1958	329	sheet	Fragment of sheet. Length: 17 mm. Width: 17 mm. Thickness: 2 mm. Weight: 4 gm.	4
	1964	313	sheet	Fragment of thick sheet (? two pieces welded). Length: 35 mm. Width: 21 mm. Thickness: 4 mm. Weight: 6 gm.	6
	1969	312	bar	Fragment of bar. Length: 48 mm. Width: 9 mm. Thickness: 3 mm. Weight: 7 gm.	7
	1974	Ph 981/2	strip	Fragment of narrow strip. Length: 54 mm. Width: 6 mm. Thickness: 2 mm. Weight: 4 gm.	4
	1976	337	strip	Piece of strip, rolled up. Overall length: approx. 70 mm. Width: 16 mm. Thickness: 3 mm. Weight: 12 gm.	12
	1983	313	sheet	Large rectangular fragment of sheet with two original edges each slightly bent over. Six nail holes on X-ray, irregularly placed at one end. Length: 100 mm. Width: 74 mm. Thickness: 1–1.5 mm. Weight: 77 gm.	77
2.8	1985	F 566/1	strip	Strip forged from square section to splayed ends at 90 degrees to each other. Length: 128 mm. Width: 4 mm. Thickness: 3 mm. Ends 11 x 1.5 mm. Weight: 10 gm.	10
	1992	334	lump	Seven pieces, two of which are tiny fragments. 1) Irregular lump of non-magnetic corrosion products. Weight: 16 gm.	16
	1992	334	bar.	2) Piece of square bar forged to a taper. Length: 47 mm. Width: 12 mm. Thickness: 10 mm. Weight: 26(20) gm.	20
	1992	334	strip	3) Piece of strip forged to taper. Length: 65 mm. Width: 12 mm. Thickness: 6 mm. Weight: 15 gm.	15
	1992	334	bar	4) Nail (complete), square shank, head in corrosion products/accretion. Length: 5.5 mm. Width: 5 mm. Thickness: 4 mm. Weight: 7(5) gm.	5

Publ. No.	*SF*	*Context*	*Type 1*	*Description*	*Wt*
	1992	334	bar	5) Irregular section of bar forged to long taper, bent and distorted. Length: 85 mm. Width: 7 mm. Thickness: 4 mm. Weight: 13 gm.	13
	1995	337	lump	Eight irregular fragments. Weight: 38 gm.	38
2.4	1998	337	chisel	Chisel.	
	2000	F 564/4	sheet	Piece of sheet with two 4 mm diameter nail holes at one end. Length: 44 mm. Width: 32 mm. Thickness: 2 mm. Weight: 11 gm.	11
	2002	F 556/3	sheet	Piece of curving sheet with one straight edge. Length: 59 mm. Width: 41 mm. Thickness: 4 mm. Weight: 40 gm.	40
	2004	F 556/3	bar	Two fragments of bar, both bent. 1. Square section. Length: 56 mm. Width: 5 mm. Thickness: 5 mm. Weight: 6 gm. 2. Round section. Length: 51 mm. Diameter: 3 mm. Weight: 1 gm.	7
	2009	328	sheet	Fragment of sheet, 5 mm diameter hole in centre. Length: 20 mm. Width: 20 mm. Thickness: 1.5 mm. Weight: 4 gm.	4
2.12	3171	u/s from building		Loop-headed pin and attached ring. Length: 79 mm.	

List of iron nails

SF	*Context*	*Number*	*Detail (measurements in mm)*	*Lengths (mm)*
1508	F512	1	clenched, 11	
1509	284	2	clenched, 33	
1510	F517	1		55
1511	F513	4		
1512	282	2		
1513	292	3		
1515	295	4		53, 32
1520	F511	1		
1522	F511	1		
1523	284	1		35+
1526	F532	1		55+
1528	298	2		58, 32
1529	295	1		49+
1530	297	5	1 is clenched	53, 57, 45, 53
1533	295	5		
1535	F542	1		
1536	F513	1	clenched, 35	58
1539	F527	4		
1540	300	2		44+, 37+
1541	302	2		60
1542	291	1		37+
1543	297	1		
1546	F513	1		54
1547	F517	1		47
1548	F513	1		
1550	285	1		49
1551	302	5		
1554	306	5		
1556	294	1		43
1557	304	3	clenched, 42	(cl.) 57, 88
1559	F513	1	clenched, 12	38+

SF	*Context*	*Number*	*Detail (measurements in mm)*	*Lengths (mm)*
1560	302	2		56, 45
1562	F527	2		44+, 30+
1564	300	2		39
1565	308	1		
1567	294	5	clenched, 33	
1568	309	5	clenched, 22	
1569	Ph 959	5	3 are clenched	
1571	F547	2		62, 52
1572	308	1		40
1573	+	1		
1574	F517	1		47+
1575	F549	2	clenched, 11, 8	62, 48
1577	F565	1		
1580	294	2		48+, 49+
1582	308	1		
1586	F575	1		47+
1588	Ph 934	1		47
1613	312	1	clenched, 43	?
1618	312	1		35
1648	Ph 953	1		
1651	311	1		
1652	312	27		
1663	312	41		
1676	312	1		
1677	312	1		44
1678	312	1		
1681	312	1		
1682	312	1		
1686	312	1		
1687	312	1		
1698	F584	2		70
1700	314	large no.		
1701	314	1		
1710	312	64, 18	16 are clenched	
1725	312	1		
1729	F584	1	clenched, 35	64
1730	F552	1		
1731	300	1		24
1732	F552	1		
1734	Ph 959	1		
1736	313	7		
1755	F542	1		
1762	F573	2		
1763	314	4		
1774	314	2		
1795	318	1		92+
1796	318	1		59+
1800	318	8		
1811	F569	1		

SF	*Context*	*Number*	*Detail (measurements in mm)*	*Lengths (mm)*
1820	F556	2	1 is clenched, 17	
1825	325	2	clenched, 17	45, 53
1832	318	1		
1838	318	1		75
1840	318	1		
1843	318	1		
1849	318	1		
1851	318	1		
1855	316	3	clenched, 6	
857	316	1		
1860	312	3		
1883	F542	1		22+
1887	312	2		
1890	F584	2		59, 55
1896	329	4		
1898	F594	1		
1899	325	8		
1901	325	1		
1902	327	7		
1910	323	2		64, 58
1911	325	6		39, 33, 47, 55, 70, 53
1913	333	2		51
1915	P396	2	clenched, 29	60
1916	F575	1		45
1924	335	1		49
1937	332	2		
1942	325	11		
1957	P393	1		
1959	F595	1		56
1961	F595	1		
1962	324	8		
1963	F549	2	clenched, 14	68, 42
1965	313	2	clenched, 45	
1967	F298	2		
1968	312	2		
1972	300	1		
1977	F595	1		
1979	325	12		
1984	F604	1		
1986	313	2	clenched, 16, 34	
1988	F549	1		
1989	322	1		28+
1990	F600	1		
1991	334	3		
1993	337	14		
1996	F543	2		
1997	341	1		52
2006	F556	1		
2007	332	3		

SF	*Context*	*Number*	*Detail (measurements in mm)*	*Lengths (mm)*
2008	F598	2		
2010	328	3		
2011	326	4		
2013	F258	1		
2015	318	1		

3.5 **List of objects of lead**

SF	*Context*	*Layer*	*Description*	*Weight*
1646	312		1 amorphous lump.	108 gm

3.6 **List of objects of bone and antler**

Publ. No.	*SF*	*Context*	*Layer*	*Description*	*Dimensions (mm)*
4.5	1712	316		Needle fragment, head missing.	L: 90
4.6	3165	318		Circular counter, possibly antler.	D: 17, Th: 3
	1999	377		Pin or needle shaft fragment, polished.	L: 22.5
4.7	3179	F515/1	2	Roughly cut antler fragment (possible red deer) with partial perforations drilled at both ends.	L: 36
4.1	2017	F515/3	1	Antler handle.	L: 50
4.4	1987	F549	2	Antler pendant with central perforation (D: 6–16 mm) and two possible small perforations at the edge. Red deer.	D: 54
4.2	2001	F556	3	Handle made from a tibia of sheep/goat/roe deer.	L: 73
4.3	2005	F556	3	Double pointed needle with central perforation.	L: 42, W: 8.5

3.7 **List of objects of shale**

Publ. No.	*SF*	*Context*	*Layer*	*Description*	*Dimensions (mm)*
5.1	1647	312		Globular spindle whorl fragment.	D: 34.5, D of perf: 8

3.8 **List of objects of stone**

Publ. No.	*SF*	*Context*	*Layer*	*Description*	*Weight*	*Dimensions (mm)*
	1589	312		1 pebble with possible area of wear.	631 gm	
6.1	3168	323		Fragment joins 2012. Grinding surface smooth and with a linear groove that suggests re-use possibly as whetstone. Sample 2610.	802 gm	
6.1	2012	332		2 joining fragments of a millstone. Upper stone. Well finished edge, grinding surface concave and smooth, upper surface pecked flat. Sub-rectangular socket 96mm from edge, 66 x 47 mm Greensand.	6606 gm	Th at edge 84, D: 750
	1867	36?		Missing.		

3.9 **List of objects and vessels of glass**

Publ. No.	*SF*	*Context*	*Layer*	*Description*	*Dimensions (mm)*
7.6	3166	283		1 blue/green rim or pedestal base fragment.	23 x 17 x 3
	–	310		2 blue/green fragments.	9 x 8.5 1, 22 x 11 x 1
	1793	314		3 small blue-green fragments and 1 handle fragment (29 x 10 mm).	
7.1	1831	318		Small bun-shaped counter, opaque brown/purple glass.	D: 14, Th: 4.5
	1833	318		1 colourless fragment.	23 x 14 x 1
7.3	1836	318		3 small fire-rounded rim sherds from a cup or bowl.	19 x 12, 16 x 8, 10 x 12
	1837	318		1 pale blue/green fragment.	16 x 11 x 1
	1839	318		1 blue/green base fragment.	18 x 17 x 1
	1848	318		1 colourless fragment.	15 x 9 x 0.5
	1853	318		1 small colourless fragment.	18 x 4 x 1
	1973	318		1 blue/green and 1 colourless fragment.	22 x 11 x 1, 16 x 11 x 0.5
7.4	1943	325		1 blue/green bottle rim and 1 fragment.	23 x 6
7.5	3167	332		Out-turned blue/green rim from a bottle or flask.	23 x 24
	–	F527	1	1 green fragment.	13 x 12 x 3
	1885	F542	2	1 small blue/green fragment.	9 x 10 x 3
7.2	1907	F596		Fragment of a large counter, opaque brown and yellow glass.	D: 38, Th: 7

3.10 **List of slags**

By sample number order

1538	F519 layer 3
1545	layer 303
1552	layer 302
1563	F456 layer 3
1566	layer 308
1570	layer 308
1576	F565 layer 1
1581	F542 layer 1
1584	F511
1585	F570 layer 1
1587	F575 layer 1
1649	Ph 956 layer 1
1650	layer 308
1690	layer 312
1699	F584 layer 1
1705	layer 314
1711	layer 312
1735	layer 313
1739	F543 layer 1
1740	layer 308
1764	layer 314
1775	layer 314
1801	layer 318
1809	layer 312
1814	F569 layer 1
1852	layer 318
1854	layer 316
1864	layer 312
1868	F542 layer 2
1888	layer 312
1889	layer 312
1891	F548 layer 2
1895	layer 316
1897	layer 329
1900	layer 325
1905	layer 327
1909	layer 323
1912	layer 333
1934	F597 layer 1
1941	layer 325
1951	layer 338
1970	layer 312
1981	layer 325
1982	layer 331

Contexts producing slag

Layer 302	
Layer 303	
Layer 308	Villa Room 1
Layer 312	Aisled hall
Layer 313	Aisled hall
Layer 314	Aisled hall
Layer 316	Aisled hall
Layer 318	Building 3
Layer 323	Building 3
Layer 725	Aisled hall
Layer 327	Aisled hall
Layer 329	Aisled hall
Layer 331	Aisled hall
Layer 333	Building 3
Layer 338	Villa Room 1
F456	
F511	Gully LIA/Ro
F519	Oven Villa Room 3
F542	Villa Room 1 hearth
F543	Villa Room 1 oven
F548	Quarry – Central complex
F565	Villa Room 1 hollow
F569	Villa Room 1 hollow
F570	Villa Room 1 hearths
F575	Quarry – Central complex
F584	Quarry – Central complex
F597	
Ph 956	

Summary of contexts producing slag by structure

Aisled hall:	layers 312, 313, 314, 316, 325, 327, 329, 331
Villa Room 1:	layers 308, 338, F542, F543, F565, F569, F570
Villa Room 3:	F519
Building 3:	layers 318, 323
Quarry Central:	F548, F575, F584