Channel Tunnel Rail Link London and Continental Railways Oxford Wessex Archaeology Joint Venture

# Small Finds from Snarkhurst Wood, Hollingbourne, Kent (ARC SNK 99)

by Hilary Cool and Lynne Keys

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#### **1 THE METALWORK**

#### by Hilary Cool

#### 1.1 Discussion

The excavations and watching brief in this area produced a very small assemblage of 13 items of iron and one fragment of copper alloy; the latter reduced to an unidentifiable mass of powdery corrosion. In general the material came from either unexcavated ditch fills, for example nail fragments from contexts 24 and 26; or the natural silting in the top of ditches, such as the items from 161. This material tends not to be independently dateable as it consists either of long-lived items or unidentifiable fragments. Very little material was found stratified in contexts where it could be shown to have been associated with activity on the site during the later Iron Age and Roman periods. Where it was, for example in the pit fill 138, it consisted of unidentifiable fragments. The impression gained is that in the vicinity during that period little metalwork was being discarded.

The items that can be identified consist of a joiners' dog from 120 (no. 8, SF 101), a rake prong from 161 (no. 11, SF 118) and medieval or later horse-shoe from a post-medieval ditch fill 312. The joiners' dog comes from a context described as a possible deliberate levelling backfill. Such items are typical of Roman building techniques (see Manning 1985, 131) but continue to be used in later periods. Equally the rake prong from the natural silting at the top of ditch 358 is typical of those in use during the Roman period (*ibid* 59), but could be of more recent date. The discovery of agricultural items from later use of the site is to be expected on a site like this. The same context produced an item that may have come from a swivel, but unfortunately this was so corroded that not even investigative conservation could confirm this.

#### 1.2 Catalogue

The number (P-) visible at the end of each catalogue entry refers to the unique record ID which can be found in the database.

- 1. Horse Shoe. Iron. Complete with nails visible on X-ray. AD 1500-1799. Cxt 312. P-505.
- 2. Bottle. Glass. Body. M-L C18. AD 1734-1799. Cxt 312. P-504.
- 3. Fragment. Iron. Cxt 138. P-499.
- 4. Nail. Iron. Three shank fragments. Cxt 26. P-493, P-494 and P-495.

- 5. Nail. Iron. Shank fragment. Cxt 24. P-492.
- 6. Bolt. Iron. Broken, square-sectioned retaining small head. AD 1800-2000. Cxt 1. P-491.
- 7. Fragment. Copper Alloy. Now reduced to a lump of powdery corrosion. SF 100. Cxt 109. P-496.
- 8. Joiner's Dog. Iron. Both arms broken. SF 101. Cxt 120. P-497.
- 9. Fragment. Iron. SF 102. Cxt 134. P-498.
- 10. Bar. Iron. Rectangular-sectioned; both ends broken. SF 117. Cxt 161. P-500.
- 11. Rake Prong. Iron. Approximately oval-sectioned bar tapering to point at one end and becoming square-sectionat other where bends over; this end broken. Now in two joining pieces. SF 118. Cxt 161. P-502.
- 12. Chain. Iron. Three pieces currently, possibly chain or element of swivel. SF 118. Cxt 161. P-501.
- 13. Bar. Iron. Rectangular-section, tapering slightly to both ends. Now in four 4 joining pieces. SF 119. Cxt 247. P-503.

### 2 SLAG

by Lynne Keys

# 2.1 Introduction

A small quantity of slag and related material (almost 9.8 kg) was recovered by hand during excavation. Most (almost 8.4 kg) was concentrated within and around a structure identified as a kiln or oven. Some debris (982 g) was associated with an unexcavated four-post structure (sub-group 367) while only small fragments of slag were recovered from the rest of the site.

Table 1 gives quantification of slag by context.

#### 2.2 Description/discussion

The diagnostic slags associated with the 'kiln/oven' (sub-group 319) were those produced by smelting activity, the manufacture of iron from ore and fuel in a furnace. No diagnostic smithing slags were recovered anywhere on the site, despite soil samples being taken, so the assemblage probably represents a brief period of iron smelting, possibly in the furnace which was subsequently misidentified as a kiln or oven.

The smelting slag consisted of tap slag (1656 g) and dense slag (1002 g). Tap slag is a dense, low porosity, iron silicate slag with a ropey flowed structure. It is formed as the liquid slag is allowed to flow out continuously or intermittently through a hole in the side of the furnace along a specially made channel into a hollow in the ground. This removal of the slag facilitated retrieval of the iron bloom after the smelting operation. It is believed furnaces with

tap holes replaced bowl furnaces as their efficiency was recognised early in the Roman period. Dense slag is also of low porosity but lacks the flowed surface of tap slag.

A large quantity of undiagnostic slag (4542 g) was recovered. This could have been produced by either smelting or smithing but its morphology was either not characteristic enough for it to be positively identified or, more often, it was so fragmentary that it could no longer be identified.

Other debris recovered in contexts with iron slag were fired clay (805 g), vitrified hearth lining (12 g) and cinder (49 g), a very porous, highly vitrified material formed at the interface between the alkali fuel ashes and siliceous material of a hearth lining. The small amounts of these materials do not provide enough evidence of the furnace structure or its size.

Two fragments of what may be iron ore were recovered: one (context 334) from the unexcavated posthole of a four post structure (sub-group 367), the other from (context 173) the fill of pit 172. Both require identification by a geologist.

Context	Slag Identification	Weight (g)	Comment
120	undiagnostic	14	
138	tap slag	20	
151	undiagnostic	2	
173	dense	36	
173	ore?	4	
173	tap slag	52	
173	undiagnostic	84	
197	tap slag	138	
219	undiagnostic	22	
237	fired clay	192	
237	sample 127	0	no hammerscale
237	tap slag	206	
237	undiagnostic	572	
237	vitrified hearth lining	12	
238	cinder	11	
238	dense	234	
238	fired clay	101	
238	undiagnostic	636	
239	fired clay	80	
239	tap slag	228	
239	undiagnostic	42	
247	fired clay	48	
247	tap slag	28	
247	undiagnostic	538	
280	cinder	6	
280	dense	196	
280	sample 129	0	no hammerscale
280	tap slag	210	
280	undiagnostic	68	
281	burnt flint	10	

#### Table 1: Quantification of slag by context.

Context	Slag Identification	Weight (g)	Comment
281	cinder	32	
281	fired clay	254	
281	stone	266	
281	tap slag	744	
281	undiagnostic	2624	
282	dense	572	
282	fired clay	130	from furnace?
282	tap slag	240	
282	undiagnostic	62	
328	undiagnostic	42	
330	undiagnostic	20	
333	hearth lining	62	
333	tap slag	64	
333	undiagnostic	262	
334	ore?	10	requires identification
334	undiagnostic	486	
335	undiagnostic	98	
238-239	sample 128	0	no hammerscale
	TOTAL	9758	

# **3** ASSESSMENT DATA

The following finds were examined during the post-excavation assessment and were not subjected to detailed analysis. Please refer to the post-excavation assessment report for further details (URS 2000).

Material	Author
Glass	Cecily Cropper

# 4 **BIBLIOGRAPHY**

ADS, 2006 CTRL digital archive, Archaeology Data Service, <u>http://ads.ahds.ac.uk/catalogue/projArch/ctrl</u>

Manning, W H, 1985 Catalogue of the Romano-British iron tools, fittings and weapons in the British Museum, London

URS, 2000 South of Snarkhurst Wood, Hollingbourne, Kent (ARC SNK99): Detailed archaeological works assessment report, unpubl. report prepared by OAU for Union Railways (South) Limited, in ADS 2006