Channel Tunnel Rail Link
Union Railways (South) Limited

Project Area 420

SOUTH OF SNARKHURST WOOD, HOLLINGBOURNE, KENT
ARC SNK 99

DETAILED ARCHAEOLOGICAL WORKS ASSESSMENT REPORT
FINAL

Prepared By **Date:**	**A. Bingham**
Checked By: **Date:**	**C. Allen**
Approved By: **Position:** **Date:**	**A.Dodd**

Contract S/400/SP/0009/P482/4

Oxford Archaeological Unit
Janus House
Osney Mead
Oxford OX2 0ES

6th December 2000

SUMMARY

As part of an extensive programme of archaeological investigation carried out in advance of the construction of the Channel Tunnel Rail Link (CTRL), the Oxford Archaeological Unit were commissioned by Union Railways (South) Limited to undertake a strip, map and sample excavation to the south of Snarkhurst Wood, near Maidstone in Kent. The results of evaluation work at Crismill Lane and the watching brief on earthmoving operations in the surrounding area, are considered as part of this assessment of potential.

Part of a rural occupation area, of late Iron Age to early Roman date, was recognised in the excavations, defined by enclosure ditches. Three phases of occupation have been provisionally identified. A ditched enclosure was established during the late Iron Age. This was succeeded by redefinition of the enclosure and the operation of a kiln associated with iron smelting activity during the immediate post-Conquest period (AD 40-70). A single pit contained pottery of late 2nd century date. A number of post-built structures were excavated, which could be associated with either the late Iron Age or early Roman activity. A circular structure with a central post remains undated, and post-medieval ditches overlay the area. Neolithic and Bronze Age flints were also found but there were no associated features.

The Snarkhurst Wood site has the potential to add to the understanding of social and economic development of rural settlements when incorporated into the framework of other local sites. Evidence from this site will elucidate comparisons of the chronology, status, economy, development and Romanisation of contemporaneous sites within the same landscape zone during the late Iron Age and early Roman period. Parallels with nearby sites such as Hockers Lane and Thurnham Roman Villa can also be examined.

There is some potential for further characterising the settlement by investigating the excavations from the 1950s in advance of the construction of the Maidstone Bypass. Excavation in 1995 at the M20 Motorway Service Area, adjacent to the CTRL corridor, examined a peripheral area of a late Bronze Age site, the focus of which was preserved *in situ*. There is limited potential for comparison with the CTRL site at South of Snarkhurst Wood, since the flint assemblages from both sites were largely derived from ploughsoil. However, the flint from South of Snarkhurst Wood is of late Neolithic and early Bronze Age date, with a small component of Mesolithic material also present. This represents an interesting contrast with the MSA site to the north.

LIST OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1. INTRODUCTION

1.1 Project Background

1.1.1 The Oxford Archaeological Unit (OAU) was commissioned by Union Railways (South) Limited (URS) to undertake a strip, map and sample excavation at South of Snarkhurst Wood, Hollingbourne, Kent (ARC SNK99). Also considered within this assessment is the OAU evaluation at Crismill Lane (ARC CSM98), and the results of the watching brief surveys which occurred between chainages 66+300-67+700 in project area 420, comprising South of Snarkhurst Wood and Musket Lane. This work formed part of an extensive programme of archaeological investigation carried out in advance of the construction of the Channel Tunnel Rail Link (CTRL). The location of the sites reported is shown on Figure 1. All fieldwork events, including the excavations which are considered in this report, are listed in Table 1.

Table 1: Fieldwork events

Fieldwork Event Name	Type	Fieldwork Event Code	Contractor	Dates of Fieldwork
South of Snarkhurst Wood	Excavation	ARC SNK99	OAU	22/01/99 - 17/2/99
South of Snarkhurst Wood	Watching Brief SDS	ARC 420 99/66+300	OAU	4/6/99 - 1/1/00
South of Snarkhurst Wood	Evaluation	ARC SNK95	OAU	6/11/95 - 17/11/95
Crismill Lane	Evaluation	ARC CSM98	OAU	19/01/99 - 22/1/99
Musket Lane	Watching Brief General	ARC 420 99/67+100	OAU	4/6/99 - 1/1/00

1.1.2 Snarkhurst Wood site was excavated as two separate areas totalling c 1.36 hectares (Figure 2). The work was undertaken between 22nd January and 17th February 1999, and excavations were centred on URL grid point 62280E 35170N, and NGR TQ 8227 5517.

1.1.3 The field evaluation on land adjacent to Crismill Lane, was situated to the north-east of the M20 motorway, and centred on URL Grid 61832E 35635N, and NGR TQ 8175 5580. The evaluation covered an area of *c* 2.4 hectares, and was undertaken between 19th and 22nd January 1999. The detailed results of the evaluation, including finds assessment, are presented in a separate evaluation report (URS 1999a).

1.1.4 The archaeological Written Schemes of Investigation for the excavation at South of Snarkhurst Wood (URS 1998), and for the watching briefs (URS 1999b) was prepared by Rail Link Engineering (RLE), agreed in consultation with English Heritage and Kent County Council (KCC) on behalf of the Local Planning Authority.

1.2 Geology and Topography

1.2.1 The site South of Snarkhurst Wood lies close to the foot of the North Downs escarpment, between the villages of Hollingbourne, Eyhorne Street and Bearsted. The geology is mainly Gault Clay immediately north of the CTRL corridor, including the area of the Crismill Lane evaluation, with Folkestone Sand Beds surfacing approximately along the line of the corridor to the South of Snarkhurst Wood (Geological Survey of Great Britain, Sheet 288 1976). The site lies between the M20 Motorway (near junction 8), the Maidstone to Ashford Railway, and Snarkhurst Wood. A balancing pond, lying between the two excavated areas, occupies most of the width of the CTRL trace in the central part of the site, and a culverted stream crosses the site in the same area. The land is undulating, ranging from *c* 57 m OD at the western end of the site to *c* 63.5 m OD at the eastern end.

1.3 Archaeological and Historical Background

1.3.1 The potential for Bronze Age, Iron Age and Roman activity in the vicinity was highlighted by the desktop assessment (URL 1994). The construction of the Maidstone Bypass (now the M20) in 1958 uncovered the probable site of an Iron Age and/or Roman settlement (NAR No. TQ 85 NW 11), immediately adjacent to, and south of, the CTRL corridor. Excavation on the north side of the bypass revealed a ditch containing late Iron Age pottery, and a number of Iron Age burial urns. Investigations on the south side of the bypass located the foundations of a late Iron Age kiln, and a small ragstone building accompanied by 1st and early 2nd century AD pottery.

1.3.2 In 1990 a surface collection survey was undertaken along the line of the route on behalf of Union Railways Limited. This identified a flint scatter and a polished axe fragment from the field located at the intersection of the motorway and the railway, at the western end of the site. A scatter of late Iron Age and early Roman material was recovered from the vicinity of the balancing pond.

1.3.3 An evaluation and subsequent excavation were undertaken by OAU in 1995 on behalf of Esso Petroleum Ltd at the Maidstone Motorway Service Area (MSA). The site lay immediately to the north of the CTRL corridor, and evidence was recovered for a probable late Bronze Age settlement (Scott 1997). A single small ditch or gully, and a possible pond, were the only features datable to the Romano-British period. There was no evidence of Iron Age activity.

1.3.4 An evaluation of the CTRL trace undertaken by OAU for URL in 1995 produced residual late Bronze Age pottery. Most of the features identified were of late Iron Age to early Romano-British date, and were interpreted as the northern edge of the settlement located during construction of the Maidstone Bypass (URL 1996). An area of the settlement was preserved *in situ* beneath the bund adjacent to the CTRL trace.

1.3.5 At Crismill Lane, to the north, two finds scatters were identified to the south-east of the evaluation area by field walking surveys undertaken in 1994. These included prehistoric worked flint and late Iron Age to early Roman pottery. The closest of these scatters was situated *c* 250 m to the south-east of the evaluation area (URL 1994, vols 1 & 2, OAU numbers 1342 & 1343).

2. ORIGINAL PRIORITIES, AIMS AND METHODOLOGY

2.1 Landscape Zone Priorities

2.1.1 The priorities set out in the WSI for the detailed excavation and watching briefs in CTRL Project Area 430 (URS 1999b) were to recover data to address the following issues:

- Reconstruction of the changing palaeoenvironment for all time periods represented, through 'on-site' and 'off-site' studies and the interaction with past economies
- Establishing the basis of the rural economy for the area for all time periods, but especially through the recovery of material and environmental remains
- Understanding ritual and ceremonial use of the landscape

2.1.2 Particular themes of relevance to the South of Snarkhurst Wood detailed excavation and associated watching briefs are as follows:

- Spatial organisation of the landscape and change through time, especially the period of later agriculturalists (2000-100 BC) and the late Iron Age/Romano British transition
- The rural economy, with particular emphasis on the recovery of material and environmental remains. Highlighted themes for investigation included the organisation of the landscape, settlement morphology and function, agricultural regimes, natural resource exploitation, trade and the effects of the rise and decline of the Roman administration.
- Ritual and ceremonial use of the landscape, specifically late Iron Age/early Romano-British burial practice.

2.2 Fieldwork Event Aims

2.2.1 The primary fieldwork event aims as set out in the WSI for Snarkhurst Wood (URS 1998 were as follows:

- To determine the morphology and function of the periphery of the late Iron Age/Romano-British settlement in relation to the remains identified in the MSA to the north.
- To recover artefact assemblages and other economic indicators to refine understanding of the LIA/ERB settlement.
- To establish the plan and relationship of any LBA features to the remains identified at the MSA to the north.

2.2.2 The general fieldwork aims applied to the Watching Brief sites at Musket Lane and South of Snarkhurst Wood, were to record any archaeological features or deposits uncovered during construction, including the retrieval of environmental and economic indicators. Where feasible the fieldwork was orientated towards addressing the aims of the CTRL Research Strategy, with particular reference to the Landscape Zone Priorities, as detailed in the WSI.

2.3 Fieldwork Methodology and Summary of Excavation Results

South of Snarkhurst Wood (Figures 2 and 3)

2.3.1 A 1.36 ha area was stripped at South of Snarkhurst Wood in accordance with the WSI; the central part of the site was not excavated because of the proximity of the balancing pond and underground services.

2.3.2 The excavation strategy was limited to significant features in accordance with the agreed strip, map and sample methodology. Discussions between the project managers (RLE), the archaeological contractor (OAU) and the statutory consultees (EH and KCC) determined the appropriate level of sampling. The key aim was to establish an extensive plan of the resource, the relative and absolute chronology of the remains, and to undertake sufficient sampling to recover palaeoenvironmental and other economic indicators to achieve the project aims.

2.3.3 The site was machine stripped in two parts (Areas A and B) using a toothless ditching bucket under constant archaeological supervision. Planning of areas A and B was concurrent with the machine stripping. All features were planned at a scale of 1:50, and an overall site plan of Areas A and B was produced at 1:200. The grid points were located in relation to the URL grid point.

2.3.4 The features found at the eastern part of the site (Area A) were mainly late Iron Age to early Roman in date, and included enclosure ditches and several posthole structures, including one circular building with a central post (Group 208), and 4 four-post structures (Groups 204, 205, 206 and 207). A kiln (Group 319) located in the east of Area A was excavated to determine its function and date. Three identifiable firing episodes were recorded, and the presence of ferrous slag indicated metalworking.

2.3.5 The western area of the site (Area B) produced a scatter of prehistoric flints, ranging from later Neolithic to early Bronze Age. A possible gully terminal (249) produced evidence for late Neolithic activity in the form of a flake from a polished axe, and pit 245, located at the northern limit of excavation, produced late Bronze Age pottery.

2.3.6 The remains of an unurned cremation (127) were recorded within this area, but produced no datable evidence. A series of irregular linear soil marks may indicate field boundaries, but are also of indeterminate date.

South of Snarkhurst Wood/Musket Lane Watching Brief

2.3.7 All groundworks in this area were monitored by an archaeologist, in accordance with the WSI (URS 1999b). Works included the removal of topsoil, subsoil, made ground and superficial geological deposits. Where archaeological features were exposed, they were excavated and recorded before any further stripping took place.

2.3.8 At the South of Snarkhurst Wood watching brief, some pits of late Iron Age to AD 50 date were uncovered. In addition some isolated gully segments, including a terminal of a gully, were found. These gullies were mainly dated to a period after AD 70, and therefore do not relate to the main excavation.

2.3.9 In the Musket Lane area no significant archaeological features were found.

Crismill Lane

2.3.10 The Crismill Lane evaluation produced no significant archaeological deposits. The detailed results are separately reported (URS 1999a).

2.4 Assessment Methodology

2.4.1 This assessment report was commissioned by URS to the specification for assessment reports produced by RLE, as discussed with English Heritage and Kent County Council URS 2000). This specification follows national guidelines prepared by English Heritage and provides additional information regarding level of detail required and formats. The production of the assessment reports was managed by Stuart Foreman (Project Manager), and Carol Allen (Team Leader). The majority of specialist work was undertaken by qualified external specialists, with the remainder of the work completed by in-house experts.

3. FACTUAL DATA AND QUANTIFICATION

3.1 The Stratigraphic Record

South of Snarkhurst Wood ARC SNK 99 and Watching Brief ARC 420/99 66+300-67+100 (Figure 3)

3.1.1 In the absence of a clear stratigraphic sequence, phasing is heavily reliant on artefactual dating evidence, mainly the pottery. Evidence of occupation was dated between the early Bronze Age and post-medieval periods (*c* 1750 BC to c AD 1500). The features in Area A to the west of the main post-medieval boundary were severely truncated by ploughing, which appears to have removed all but the deepest Iron Age features.

Later Neolithic to Later Bronze Age

3.1.2 Later Neolithic activity was represented by the flake of a polished stone axe found in a gully terminal, and early Bronze Age activity was represented by a flint scatter in Area B, mostly recovered from the ploughsoil. No Bronze Age remains were found in spite of its proximity to the probable late Bronze Age settlement identified 200 m to the north-east, under the Motorway Service Area.

Late Iron Age to Early Roman (c 100 BC-AD 60)

3.1.3 In Area A, 4 four-post structures produced pottery dating evidence ranging from the late Iron Age to the early Roman period, as did the enclosure ditches 242 and 358. The four-post structures all measured approximately 2 x 2 m. No evidence was found to indicate their function although such features are commonly interpreted as granaries.

3.1.4 Pit 232 in Area A, dated to the late Iron Age to AD 70, lay within 1 m of four-post structure 204, and may have been used for storage. Pit 172 was located 10 m south-west of the posthole structures, and had a single deposit, which included pottery sherds, charred remains and sheep bones.

3.1.5 Kiln 319 (Plate 1) was located to the east of the posthole structures, and excavation provided evidence of three episodes of firing. Ferrous slags were detected within the deposits from the second episode of firing through to the deposits associated with the final stages in the working life of the structure (Figure 4). Pottery was retrieved from all three phases of activity, and was dated to between AD 43 and 70.

3.1.6 The watching brief to the east of the excavation area produced several pits of the same date range, late Iron Age to AD 50.

Roman 1st and 2nd Century

3.1.7 Pit 137 produced pottery dating to the period AD 150-200; this is the only feature identified that falls within this date range, and is most likely associated with later activity noted within the area of the watching brief. Activity of this period was also identified to the south during the 1958 investigations.

3.1.8 Seventeen sherds of pottery datable to the period *c* AD 130-200 were recovered from the surface of post-built structure 207, and are considered likely to represent a surface accumulation in the area deriving from continuing activity to the south and south-east of the CTRL excavations.

3.1.9 Within the area of the watching brief, there were also a number of later features, including a 7m stretch of a north-west to south-east gully, which produced datable evidence from the early 2nd century, and a north-east to south-west segment of gully which produced late 1st century material.

Post-medieval (c AD 1500)

3.1.10 Post-medieval field boundaries and a trackway that might have been associated with modern road construction overlay the late Iron Age settlement in Area A.

Crismill Lane

3.1.11 With the exception of the modern field boundary, no datable features were found within the evaluation area.

Musket Lane 99/67+100 - 68+ 100

3.1.12 The Musket Lane watching brief area extends from South of Snarkhurst Wood for 1 km on either side of Musket Lane, and is located approximately 500m south east of the Snarkhurst Wood excavation area. No significant archaeological features were encountered. Four small late Iron Age sherds were recovered from the topsoil.

3.2 The Artefactual Record

Late Iron Age and Roman Pottery - Appendix 1.1

3.2.1 A total of 1487 sherds of late Iron Age and pre-Flavian Roman pottery were retrieved during these excavations, with a total weight of 14.467 kg (Table 1.1). This material originated from 74 contexts, almost all within Area A. Small numbers of sherds dated to AD 70-200 were also retrieved from the surface of postholes of the four-post structures in the northern part of the excavated area. A total of 288 sherds (2.184 kg) of pottery were recovered from sieving.

3.2.2 The bulk of the pottery came from sections put across the various enclosure ditches and the total excavation of the kiln. Smaller quantities were recovered from the pits, postholes and other features. Material recovered during the sieving of environmental samples derived from a similar range of features.

3.2.3 The four small late Iron Age sherds from Musket Lane are probably from rubbish deposited on the arable land, possibly deriving from the South of Snarkhurst Wood Iron Age site.

Post-Roman Pottery - Appendix 1.2

3.2.4 The pottery assemblage from the South of Snarkhurst Wood watching brief area consisted of 4 sherds with a weight of 59g. Two sherds were of medieval date, with the remaining two post-medieval. The medieval sherds were residual in post-medieval contexts. Pottery from the Musket Lane watching brief comprised 5 sherds of medieval and post-medieval date.

Building Materials - Appendix 1.3

3.2.5 A total of 3.38 kg of ceramic building material came from 30 contexts. The substantial minority of the ceramic building material (35%) comprises very small fragments of unidentified fired clay, or possible daub. The remaining material, which can be

identified, comprises Roman roofing tile, brick and daub, together with medieval or, more likely, post-medieval roofing tile and possible brick. All the Roman material came from the excavation area and the post-Roman material originated within the watching brief area.

Flint - Appendix 2.1

3.2.6 A total of 139 pieces of flint was recovered, almost all of which came from a concentration in the ploughsoil within Area B. The diagnostic material ranges in date from Mesolithic to early Bronze Age, and associated debitage was also recovered. An interesting find is the broken plano-convex knife, which is extremely finely worked and is a type generally recovered from funerary contexts. The knife was recovered from the flint scatter at the west end of Area B, approximately 40 m east of cremation 127. Other potentially early Bronze Age pieces were also identified.

Humanly Modified and Unworked Stone- Appendix 2.2

3.2.7 A large chunk of Greensand found in context 10, from the watching brief area, is the only piece of worked stone from the site and it may have been used as part of a floor surface. One piece of burnt Greensand was also recovered from context 239 in the excavation area. The remaining stone was unworked, including two fragments (15g) of sandstone identified during assessment of the ceramic building material.

Glass - Appendix 3.1

3.2.8 Two body fragments from the same bottle were retrieved from context 312, the post-medieval field boundary ditch. These were dated to the mid-late 18th century.

Metalwork - Appendix 4.1

3.2.9 Thirteen items of ironwork and one featureless copper alloy fragment were recovered. Of the ironwork one bolt and a horseshoe are of post-medieval or later date. The other items of ironwork could be of late Iron Age or Roman date, but they are types that are not chronologically sensitive.

Slag -Appendix 5

3.2.10 A total of 9.760kg of iron slag was recovered. 1930g was identified as tap slag, which usually flowed out through a hole at the base of the smelting furnace. 1038g of dense slag of low porosity is also likely to represent smelting activity. The 5572g of undiagnostic slag is therefore most likely to be attributable to the smelting process. A fragment of very magnetic burnt reddish sandy stone, which may be iron ore, was found amongst the slag. The absence of slags from smithing indicates that the slag was almost certainly produced by the smelting of iron from ore.

3.3 The Environmental Record

Human Bone- Appendix 6.1

3.3.1 A single deposit of cremated human bone (127) was recovered from feature 236, located in the western part of Area B. The deposit comprised 188g of burnt human bone identified as a possible adult male. Areas of burning were identified, and the feature may have been a pyre site. Quantities of charcoal and two undiagnostic flint flakes were also present.

Animal Bone - Appendix 7.1

3.3.2 A total of 609 fragments of bone (431g) were retrieved from the site. In addition to this 506 fragments of bone (87g) were retrieved from environmental samples. Five fragments (4g) of hand collected bone and 4 fragments (1.5g) were added from the watching brief material, but none were identifiable.

3.3.3 All of the material was from the late Iron Age to the early Roman period. However, less than 5% of hand collected and sieved material was identified to species. Bones from cattle and sheep bone were the most numerous found in the assemblage, along with a single pig bone which was recovered from the surface of feature 201, a possible pit that was not excavated. The majority of the identified bones consisted of teeth and the burnt bones, primarily from pit 172. Most of the burnt bones consisted of sheep feet bones, indicating butchery waste. The only non-burnt bone that survived was a badly preserved cattle humerus.

Macroscopic Plant Remains and Charcoal - Appendix 8.1

3.3.4 Twenty six samples from South of Snarkhurst Wood were selected for assessment; these were taken from pits, ditches and postholes, and were processed for the extraction of charred plant remains. An assessment of the processed flots demonstrated the presence of low levels of seeds and chaff, including hulled wheat and barley. There appears to be no relationship between the quantity and quality of the remains and feature type. The range of material noted in the samples is generally typical of the late Iron Age and Roman periods throughout southern Britain, with spelt wheat the dominant cereal and hulled barley also cultivated. The role of emmer wheat (*Triticum dicoccum*) is less well known than spelt for this period.

3.4 Archive Storage and Curation

3.4.1 The archive index has been updated and is shown in Table 2. With the exception of the metalwork no artefacts recovered require special conservation measures.

Table 2: Archive index

ITEM	NUMBER OF ITEMS OR BOXES OR OTHER	NUMBER OF FRAGMENTS / LITRES	CONDITION: W = washed; UW= unwashed; M = marked; P = processed; UP = unprocessed; D = digitised; I = indexed
ARC SNK 99			
Contexts records	352		I
A1 plans	13		D
A4 plans	5		D
A4 sections	44		UP
Small finds	21		P
Films (monochrome)	8		I
Films (Colour)	8		I
Flint (boxes)	2 size 3	139	W,M
Pottery (boxes)	2 size 1 1 size 2	1,882	W,M
Fired clay (boxes)	1 size 3	388	W,M
CBM (boxes)	1 size 3	25	W,M
Stone (boxes)	1 size 4	30	W,M
Metalwork (boxes)	1 plastic size 8	12	P
Glass (boxes)	1 size 4	2	W,M
Slag (boxes)	1 size 2 1 size 3	489	P
Human Bone (boxes)	1 size 4		W,M
Animal Bone (boxes)	1 size 4	598	W,M
Soil Samples (No.)	29		P
Soil Samples (bags/tubs)	94		P
ARC 420 99/66+300			
Contexts records	33		I
A1 plans	3		D
A4 plans	5		D
A4 sections	7		UP
Flint (boxes)		18	P
Pottery	1	423	W,M
Fired clay (boxes)		208	P
CBM (boxes)		42	P
Stone (boxes)		1	P
Metalwork (boxes)		5	P
Glass (boxes)		3	P
Animal Bone (boxes)	1	9	W,M
Soil Samples (No.)	1		P
Soil Samples (bags/tubs)	4		P
ARC 420 99/67+100			
Contexts records		2	I
Flint (boxes)		1	P
Pottery (boxes)		12	P
Slag (boxes)		1	P

Cardboard boxes

Size 1 = Bulk box	391mm x 238mm x 210mm	0.020 m^3
Size 2 = Half box	391mm x 238mm x 100mm	0.009 m^3
Size 3 = Quarter box	386mm x 108 mm x 100mm	0.004 m^3
Size 4 = Eighth box	213 mm x 102 mm x 80 mm	0.002 m^3

Plastic boxes

Size 8 = Medium	260mm x 184mm x 108mm	0.005 m^3

3.5 Assessment of Earlier Excavations

Documentary and historical research

3.5.1 As part of the background to this report, research was undertaken into the excavations undertaken in advance of the construction of the Maidstone Bypass in 1958. Enquiries were made at Maidstone Museum, but no records or artefacts from the excavations were found. An article in *Archaeologia Cantiana* (Pirie 1958) provided limited data regarding the nature of the discoveries.

3.5.2 Enquiries were made with Kent County Council in an attempt to gain more information about the site. The Planning Department of KCC and the County SMR provided some information and references. These concerned the location of the works, the features encountered, and information on the original excavator. It is suggested that further work +is required to trace the site records and finds.

4. STATEMENT OF POTENTIAL

4.1 Stratigraphic Potential

4.1.1 The Fieldwork Event Aims for South of Snarkhurst Wood, and the Landscape Zone Priorities for the watching briefs, are set out in section 2 of this report, above. The present section reviews the success of the fieldwork events and post-excavation assessment in providing stratigraphic data to address these aims and priorities so far, and their potential to support further analysis related to these aims.

South of Snarkhurst Wood Excavation

4.1.2 The Fieldwork Event Aims for Snarkhurst Wood focused on determining the morphology and function of the periphery of the late Iron Age/Romano-British settlement, and establishing the plan of any late Bronze Age features and their relationship to the remains identified in the MSA to the north.

4.1.3 The stratigraphic data recovered for the late Iron Age/Romano-British settlement comprised ditched enclosures containing post-built structures, a kiln and a number of pits. These features were all located towards the centre of Area A.

4.1.4 The potential of these data is subject to a number of constraints. The area west of the main post-medieval field boundary in Area A had been severely truncated by medieval ploughing, and evidence for further late Iron Age/Romano-British features may have been lost in this area. In addition, plough truncation had disturbed many contexts elsewhere, so that, for example, Romano-British sherds were found within post-medieval contexts.

4.1.5 The stratigraphy of the ditches suggests that there were two phases of boundary enclosures. Artefact assemblages have been recovered which indicate that ditches 242, 358, 243 and 357 are all of the same date, and form a defined enclosure of the first phase. Ditches 359 and 360 truncate the top of this enclosure to form a secondary phase of boundary, extending approximately 22m to the north-west.

4.1.6 Elsewhere stratigraphic relationships are limited and there are, for example, no stratigraphic relationships between features such as the posthole structures and the kiln. Further analysis would be heavily reliant on artefactual evidence, although this should be adequate to support a division of activity into three phases: the late Iron Age (the primary ditched enclosure), the very early Roman period, *c* AD 40-70 (the secondary enclosure and the kiln), and the late 2nd century (pit 137). Further analytical work on the stratigraphic data in conjunction with the datable finds would be needed to confirm this sequence, and to achieve a more secure phasing for features such as the four-post structures. This would contribute to an enhanced understanding of the settlement's morphology and function, and suggest whether there was a significant change at the time of the Roman conquest.

4.1.7 An attempt to relate the remains of the Snarkhurst settlement to those identified during the excavations of the 1950s proved unsuccessful, as no detailed records were located. The ceramic building material recovered during the CTRL works (Appendix 1.3) suggests the presence of a building nearby, although none was found. This material may derive from the building reported in the 1950s excavations. The potential of the results

from the CTRL excavations would be greatly enhanced if the records of the earlier work could be located.

4.1.8 The post-built structures were reasonably well preserved, and offer potential for comparison with similar structures at other sites (for example at White Horse Stone); this should help to clarify their probable function, and therefore contribute to understanding of the function of the peripheral area of this settlement.

4.1.9 No features were identified which may be related to the late Bronze Age remains recovered during the OAU excavations at the MSA to the north. Some worked flints of early Bronze Age date were found in Area B. Some of these are of interest but as all are unstratified they do not add to the stratigraphic potential of the site.

South of Snarkhurst Wood and Musket Lane watching briefs

4.1.10 Pits and gully segments identified during the watching brief at South of Snarkhurst Wood provide limited further evidence for late Iron Age and Roman activity in the area.

4.1.11 No significant archaeological features were located during the Musket Lane watching brief.

4.2 Artefactual Potential

Later Prehistoric Pottery

4.2.1 The pottery is key to the dating and phasing of this site, which has only limited stratigraphic relationships between features. Limited further analysis of the pottery in conjunction with other datable finds (for example Roman building material) and the stratigraphic data should help to refine the sequence and dating of occupation on the site. This is critical to understanding the function of the site, and how it may have changed over time. As the pottery represents primary evidence for the dating of the site, it should be made available for wider dissemination.

4.2.2 Pottery in the kiln appeared to have been deliberately placed, as if it formed part of the functional apparatus of the structure. Further study of the type of vessels represented, and parallels for their use elsewhere, may help to clarify the processes involved. It is suggested that a selection of sherds be analysed in order to identify any absorbed residues. Understanding the function of the kiln will be an important element in further study of the function of the site itself.

4.2.3 Further limited study of the types and distribution of vessels present may add to evidence for the function of the site, and in particular of this peripheral area. The presence of mortaria and storage jars, for example, is indicative of domestic occupation.

4.2.4 The late Iron Age pottery assemblages from South of Snarkhurst Wood, taken in conjunction with those from the CTRL project sites at Thurnham and Hockers Lane, have the potential to contribute significantly to our understanding of economic activity within the Wealden Greensand zone of the Medway Valley. The assemblages from these sites have the potential to show change in patterns of pottery supply at the time of the late Iron Age/Romano-British transition.

4.2.5 The fall off in the intensity of occupation after c AD 60/70 indicated by the much smaller sizes of pottery assemblages should be compared with other nearby sites. Similar evidence was recovered, for example, at the CTRL site at Hockers Lane. This

evidence may indicate shift in social units during the first 30 years of the Roman occupation.

4.2.6 In terms of new research aims for the CTRL project, the pottery from South of Snarkhurst Wood provides a late Iron Age to *c* AD 70 ceramic sequence, including complete pot profiles and good, fresh assemblages. This supplements the similarly dated ceramic sequences from the nearby Thurnham Villa and Hockers Lane sites. The pottery, therefore has the potential, alongside these other sites, to add substantially to our understanding of ceramic development within an area of Kent which has little published late Iron Age to pre-Flavian material.

Post-Roman Pottery

4.2.7 All of this pottery was found in residual contexts, and no further work is required on this small assemblage. No conservation is required, and the material should be discarded.

Building Materials

4.2.8 The Roman building material provides additional dating evidence for the Roman occupation of the site.

4.2.9 It provides evidence for the existence of a romanised building on the site during the later 1st century or earlier 2nd century, and may derive from the stone-founded building excavated in the 1950s in advance of the Maidstone bypass. This adds considerably to the potential of the excavated evidence from the CTRL site in terms of understanding of the morphology and function of the settlement. Its research value would be greatly enhanced if the archive of the 1950s excavations could be located. The building material should be considered further in relation to the site stratigraphic sequence and all available dating evidence.

4.2.10 The material has the potential to contribute to understanding of sources and supply networks for ceramic building material in the Kent region. It should be compared with building material found at other sites in the region, and in particular with the substantial assemblage from Thurnham Villa.

Flint

4.2.11 This medium-sized group contains a relatively high proportion of diagnostic material, falling into two chronological groups: Mesolithic, and late Neolithic to early Bronze Age. It therefore has some potential for further work to characterise the nature and chronology of prehistoric activity at the site. It is particularly interesting that the assemblage does not appear to replicate the results of the MSA excavation, where the assemblage was primarily composed of mid to late Bronze Age material. This will be of value in considering the fieldwork event aims relating to the relationship between the CTRL and MSA sites. The assemblage will also add to project-wide data for the study of the interaction of early communities with the landscape.

4.2.12 In terms of new research aims for the CTRL project, early Bronze Age non-funerary lithics are relatively rare nationally and, apart from diagnostic items, are hard to identify. The opportunity to examine material of this date is particularly welcome and would make a valuable contribution to understanding of this type of assemblage.

Humanly Modified and Unworked Stone

4.2.13 The assemblage offers no potential for further work in pursuit of the research aims of the project.

Glass

4.2.14 The assemblage offers no potential for further work in pursuit of the research aims of the project.

Metalwork

4.2.15 The potential of this assemblage is limited, both because of its small size and the fact that relatively few potentially informative pieces come from secure contexts. Further investigative conservation on four of the finds may allow them to be fully identified.

4.2.16 Limited further work to improve identifications and determine the security of the provenance of the items may contribute some information regarding the nature of activity in this peripheral zone of the settlement. The presence of a possible cleaver is of interest, for example, given that evidence for butchery has been noted in the animal bone assemblage.

4.2.17 Within a wider regional framework, the assemblage may have value for comparison with contemporary sites of possibly similar status such as Hockers Lane. Such comparisons could suggest the range and number of items that were in use on sites of this type.

Slag

4.2.18 The slag is of considerable interest, since it appears to derive from small-scale iron smelting activity. Evidence for smelting is generally much rarer on sites of this type than evidence for smithing, and the site thus offers an unusual opportunity to study this activity in context. This will directly address the Fieldwork Event Aims for the project, which sought to understand the morphology and function of the periphery of the late Iron Age/Romano-British settlement, and to refine understanding of the nature of the settlement itself.

4.2.19 The possible ore should be identified, and further metallurgical analysis of the slag for comparison with other sites with slag and metalworking debris could provide useful information regarding small-scale ironworking at this time in this area of Kent. This information will be of value for wider landscape studies addressing CTRL research aims relating to the rural economy, natural resource exploitation and trade.

4.3 Environmental Potential

Human Remains

4.3.1 The potential of the material is limited, as it is a small isolated example. The deposit from this site does not represent the entire remains of any one individual, and the material has no further potential for analysis.

Animal Bone

4.3.2 The assemblage offers no potential for further analysis in pursuit of the project research aims.

Macroscopic Plant Remains and Charcoal

4.3.3 There is no potential for more detailed analysis of these samples, as the quantity and range of material is limited and preservation is poor to moderate. The results of the assessment provide some information at a general level about the range of species present at the site and in use at the settlement, which is of interest only for the general characterisation of activity. There is no evidence for cereal processing, and no potential for comparison with other CTRL sites.

4.3.4 The results provide additional data for the development of the archaeobotanical dataset for the region as a whole, and should be reported. Of particular importance is the presence of emmer wheat, albeit in low numbers. The role of emmer wheat in the economy at this time is not well understood, and the data from Snarkhurst Wood add to the evidence for its presence at this time.

4.3.5 The flots can be archived for long term storage. Flots should be retained at least until completion of the post-excavation report.

Documentary and historical research

4.3.6 Enquiries indicate that information on the earlier excavations close to this site has not been published, and that further research would be needed to attempt to locate any surviving original records.

4.3.7 In terms of the Fieldwork Event Aims for the site, the 1950s excavation results would significantly enhance the value of the CTRL data for understanding the morphology and function of the site. The house, kiln and cremations that are reported as having been found would add considerably to our knowledge of the range of activity on this site, and its status and chronology.

4.3.8 In turn, an enhanced understanding of the nature of this site would be of value for wider CTRL landscape research aims relating to the nature of the late Iron Age/Romano-British transition, the rural economy and ritual and ceremonial use of the landscape.

4.4 Overall Potential

4.4.1 South of Snarkhurst Wood offers good potential to address some of the research aims identified for the Wealden Greensand landscape zone and 'Towns and their rural landscapes' (sub-period 100 BC - AD 410).

4.4.2 Its principal value is as an example of a small-scale rural settlement of the late Iron Age and Roman period, where some localised industrial activity was taking place in what was probably overall primarily a domestic context. The very close dating evidence for the principal phases of activity considerably enhances the site's value for comparative purposes. The potential of the data from the CTRL excavations is improved by the additional evidence from the earlier excavations in advance of the construction of the Maidstone bypass, and understanding of the function and morphology of the settlement would be greatly enhanced if this archive could be located.

CTRL Fieldwork Event Aims and Landscape Zone Priorities

4.4.3 The Fieldwork Event Aims for the site focused on refining understanding of the late Iron Age and Romano-British settlement, and determining the morphology and function of the peripheral zone of the settlement contained within the area of the excavations.

4.4.4 The stratigraphic and artefactual data recovered demonstrate that this area of the settlement probably saw three main phases of activity. The first, in the late Iron Age, comprised the establishment of ditched enclosures. The second, probably in the immediate post-Conquest period, saw the redefinition of the enclosure and a short-lived period of iron smelting activity associated with a kiln that seems to have been used on three occasions. A number of post-built structures that may be granaries could be associated with either phase of activity. The third phase is represented by late 2nd century pottery in a single excavated pit, which suggests that activity at the settlement continued at least until this date.

4.4.5 The limited evidence available for the earlier excavations in advance of the Maidstone bypass adds the following information. Craft or industrial activity had probably been taking place at the site during the late Iron Age, although the function of the excavated late Iron Age kiln is not known. A number of inhabitants of the settlement had been buried on the site in the late Iron Age, although there was no evidence for burials from the Roman period. A small stone-founded building was constructed on the site, and it was associated with pottery of the 1st and early 2nd centuries AD. Roman ceramic building material found during the CTRL excavations is datable to the same period and seems likely to derive from this structure. This suggests that the design and build of the structure had been influenced by romanised models.

4.4.6 The lack of remains of this date from CTRL Area B, and from the earlier MSA excavations to the north, suggests that CTRL Area A does indeed represent the northern edge of this settlement.

4.4.7 The lack of evidence for activity between the 3rd century AD and the post-medieval period suggests a lengthy hiatus in occupation.

4.4.8 The stratigraphic and artefactual data offer the potential to refine and confirm the phasing and dating of the late Iron Age and early Roman features. This will be of value for the Fieldwork Event Aims, in establishing the sequence of activity in this peripheral settlement zone, and in determining whether there was change or continuity following the Roman conquest.

4.4.9 The artefact assemblages, particularly the pottery, offer some potential for further analysis to determine the nature of this occupation, and to illuminate the uses to which this peripheral zone was put. Evidence for butchery has been noted above, as has evidence for the general domestic character of the assemblages.

4.4.10 Further study of the pottery and ceramic building material in conjunction with the stratigraphic data may also refine our understanding of the dating of the structure represented by the Roman tile and brick. The date at which this apparently romanised structure was constructed, and demolished, is of considerable interest in terms of the morphology of rural settlement, and the effect of the Roman conquest.

4.4.11 The kiln and the associated slag offer relatively uncommon evidence for small-scale localised iron smelting activity at the time of the Roman conquest. The value of the assemblage is enhanced by the close dating and good contextual information available. Further study of this material will contribute to understanding of rural economic and industrial activity at this period, and illuminate the functions and morphology of settlements of this type. Technological analysis, and comparison with slags from other sites, will add to understanding of Roman ironworking. In terms of technology, comparisons will be possible with evidence from other CTRL ironworking sites,

particularly Thurnham Villa for the Roman period, and Mersham for the medieval period. Evidence of ironworking is also currently coming to light at the nearby site of South of Beechbrook Wood. Comparisons could also be undertaken with the much more extensive iron smelting and smithing slags from Westhawk Farm, Ashford. This study would contribute to wider CTRL research aims related to early industrial activity and natural resource exploitation.

4.4.12 The stratigraphic and artefactual data from South of Snarkhurst Wood are of sufficient quality to support meaningful comparison with other sites. In terms of the wider landscape research aims of the CTRL project, it will be particularly important and valuable to consider Snarkhurst Wood in its local landscape context, and in relation to the mounting evidence for the hierarchy and chronology of settlement in this area. The site lies very close to the major CTRL excavation at Thurnham Villa, and the range of known Iron Age and Roman activity in the vicinity is discussed in the post-excavation assessment for that site, and shown on figure 5 of that report. Inter-site analysis of this kind will provide very important data for understanding the rural hinterland in this period, in terms of organisation of the landscape, settlement morphology and function, natural resource exploitation and the effects of the rise and decline of the Roman administration.

4.4.13 Scope for inter-site comparison with other CTRL sites is likely to be more limited. Some comparison, particularly of artefact assemblages, may be of value with the contemporary ?pottery producing site at Northumberland Bottom. Some comparison with the nearby CTRL site of Chapel Mill may be of value, particularly if further topographic work is undertaken for that site to determine its relationship to the more extensive settlement evidence suggested by earthworks and cropmarks in its vicinity. The other CTRL sites in the vicinity (Sandway Road, A20 Diversion Holm Hill, East of Newlands and Hurst Wood) have produced very little evidence of activity in this period.

4.4.14 The pottery and ceramic building material assemblages from South of Snarkhurst Wood offer some potential for further study as evidence of supply sources, trade routes and trading contacts in this period. This would contribute to wider CTRL research aims relating to trade, the rural economy and the effects of the Roman administration.

4.4.15 The medium-sized group of flint from South of Snarkhurst Wood contains a relatively high proportion of diagnostic material, and formed a tight scatter that was distinguishable both during the surface collection survey and the excavation. It therefore has some potential to characterise the nature and chronology of prehistoric activity at the site, even though the material is unstratified. In terms of the Fieldwork Event Aims for the site, the assemblage is of interest since it contrasts with the predominantly late Bronze Age material found at the MSA site to the north.

Other research aims

4.4.16 The following additional research aims have been identified.

4.4.17 The pottery from South of Snarkhurst Wood, in conjunction with that from Thurnham Villa and Hockers Lane, has the potential to add to understanding of ceramic development in this part of the Medway Valley. Thin-sectioning of sherds of glauconitic Fabric B9.1 could identify a more precise geological source for this fabric.

4.4.18 The location of the tilery that produced the medieval/post-medieval peg tiles found at South of Snarkhurst Wood is unknown. A distribution plot of findspots of this material might help to identify the location of the kiln.

4.4.19 Early Bronze Age non-funerary lithics are relatively rare nationally, and the assemblage from South of Snarkhurst Wood would make a valuable addition to understanding of this type of material.

4.4.20 The macroscopic plant remains and charcoal offer no potential for further analysis, but contribute additional data to the development of an archaeobotanical dataset for the region. It would be of value to report the assessment results.

4.5 Updated research questions

4.5.1 This section follows recent guidance from English Heritage regarding the formulation of updated project aims (English Heritage nd, 2-3). This recommends that it is helpful, when appropriate, to treat *aims* as major themes or goals to which specific *objectives* contribute, and that it can be helpful to think of these as questions.

4.5.2 Updated Research Aim 1: To refine and confirm the phasing and dating of the late Iron Age and early Roman features at the site

- Objective 1: Is there evidence for change or continuity in activity following the Roman conquest?

4.5.3 Updated Research Aim 2: What activities were carried out in this peripheral zone of the settlement?

4.5.4 Updated Research Aim 3: What evidence is there for the general character of the settlement?

4.5.5 Updated Research Aim 4: Can the construction and destruction of the romanised building be dated more closely from the artefactual and stratigraphic evidence available at the CTRL site? What does this suggest about the character of the settlement?

4.5.6 Updated Research Aim 5: What evidence is there for the ironworking processes being carried out on the site? What light does this shed on the nature and technology of Roman ironworking in this area?

4.5.7 Updated Research Aim 6: How does the site at South of Snarkhurst Wood fit into the settlement pattern in the local area? How does its chronology, function and development compare with that of other sites in the vicinity? What does this suggest about organisation of the landscape, settlement morphology and function, natural resource exploitation and the rise and decline of the Roman administration?

4.5.8 Updated Research Aim 7: What evidence does the pottery and ceramic building material provide for supply sources, trade routes and trading contacts in the region at this time?

4.5.9 Updated Research Aim 8: What does the flint assemblage from Snarkhurst Wood suggest about the nature of Mesolithic, late Neolithic and early Bronze Age activity in this area? How does this compare with the mid to late Bronze Age evidence from the MSA site to the north?

4.5.10 Additional research aims identified by specialist contributors that are beyond the scope of the original CTRL research aims are set out between section 4.4.16 and 4.4.20 above. Consideration should be given to adding some or all of these to the project updated research aims, prior to the finalisation of the updated project design.

5. BIBLIOGRAPHY

English Heritage nd Minimum Standards for MAP2 Project Designs and Assessments: Supplementary Guidance to MAP2, draft notes, English Heritage Commissioned Archaeology Programme

Newbery, V J, unpublished The Old Forge, Upper Hollingbourne

Pirie, E J E, 1958 Researches and Discoveries in Kent, *Archaeologia Cantiana* 72, 222

Scott, I 1997 Archaeological Investigations on the Motorway Service Area, Junction 8, M20 at Eyhorne Street, Hollingbourne, *Archaeologia Cantiana* cxvii, 105-45

URL 1994 Channel Tunnel Rail Link: assessment of historic and cultural effects, final report, prepared by the OAU for URL

URL 1995 Land South of Snarkhurst Wood, Hollingbourne, Kent. Archaeological Evaluation, Channel Tunnel Rail Link, OAU

URL 1994a Channel Tunnel Rail Link: Assessment of Historic and Cultural Effects, Vols 1-4, OAU

URL 1994b Channel Tunnel Rail Link: Assessment of Historic and Cultural Effects, Supplementary Fieldwork Report, Vols 1-2, OAU

URL 1996 Land South of Snarkhurst Wood, Eyhorne Street, Hollingbourne, Kent (SNK 95), Archaeological Evaluation Report, OAU

URS 1998 Archaeology Programme Written Scheme of Investigation Pilgrim's Way to Charing Heath Area 420 RLE Technical Report 420-RUG-RLEVC-00001-AA

URS 1999a Crismill Lane, Maidstone, Kent ARC CSM 98 Archaeological Evaluation Report, OAU

URS 1999b Archaeological Watching Brief Written Scheme of Investigation Project Area 420, RLE Technical Report No. 420-RUG-RLEVC-00002-AA

URS 2000 CTRL Section 1 Archaeology Post-Excavation Assessment Instruction, RLE Technical Report No. 000-RMA-RLEVC-00030-AB

APPENDIX 1 - CERAMICS

1.1 Late Iron Age and Roman Pottery

by Malcolm Lyne

South of Snarkhurst Wood ARC SNK 99

Introduction

1.1.1 Appreciable quantities of late Iron Age and pre-Flavian Roman pottery were recovered during the excavation of Area A at South of Snarkhurst Wood.

1.1.2 The bulk of the pottery was hand retrieved on site, from sections across the enclosure ditches and from the kiln or oven, a number of pits, postholes and other features. Smaller quantities of material were recovered during the sieving of environmental samples in the laboratory after the excavation.

1.1.3 The retrieval of pottery was undertaken in accordance with the Fieldwork Event Aims for the site, which are set out in section 2 of the main report, above. The recovery of this material was undertaken in order to refine understanding of the late Iron Age and early Romano-British settlement, and in particular of its morphology and function.

Methodology

1.1.4 The pottery assemblages were subjected to general sherd count, weighing and spot-dating. There are assemblages from 74 contexts: 19 of these were selected as being from contexts crucial for the dating of the various site phases. These 19 assemblages were further quantified by numbers of sherds and weight per fabric. They account for 24% of the contexts with pottery, 41% of the sherds and 36% of the total weight.

1.1.5 All of the significant pottery assemblages from the kiln are included in these 19 assemblages, as it was hoped that more detailed examination would indicate whether pottery was being produced in the structure or that vessel forms might give clues as to the nature of alternative industrial or cooking activities.

1.1.6 Fabrics were identified with the aid of a x8 lens with built-in metric scale for determining the sizes, nature, form and frequency of inclusions. Finer fabrics were further examined using a x30 magnification pocket microscope with built-in artificial illumination source. These fabrics are described according to the Canterbury Archaeological Trust's classifications (Macpherson-Grant *et al* 1995).

Quantifications

1.1.7 The excavation yielded 1487 sherds (14467 g) of pottery from 74 contexts: a further 387 sherds (2226 g) of material was recovered during sieving of environmental samples from seven of these contexts plus three other contexts. Tables 1.1 and 1.2 below give breakdowns of these figures by context and the spot-dates arrived at for the various assemblages.

1.1.8 Table 1.3 shows the excavated assemblages divided by phase, which indicates an apparent increase in the volume of pottery in use on the site during the period *c* AD 40-70 and a fall-off after that date. It should be noted that the two main features of the pre-

Flavian period (kiln 283 and pit 172) were completely excavated, compared to the late Iron Age ditches, which were sectioned. However, the pottery provides an indication of their use in these periods. There is no certain evidence for occupation during the late Roman period.

1.1.9 Table 1.4 gives the form and fabric breakdown of the 19 key assemblages. Those from the ditches are unfortunately rather small and never exceeding 12 sherds in number. The seven assemblages associated with the use of the *c* AD 40-70 dated kiln in contrast total 329 sherds (2429 g) and the similarly-dated pit 172 produced the largest single pottery assemblage of 169 sherds (2076 g).

1.1.10 Table 1.2 gives the same information, but for the assemblages recovered by sieving. These assemblages by their nature are generally less informative but do include sherds from two contexts (143 and 157) which yielded no pottery during the excavation.

Provenance

Late Iron Age

1.1.11 The late Iron Age ditches 242, 243, 244 and 358 produced 410 sherds (3746 g) of pottery between them. The surface of the unexcavated pit fill 197 yielded a further 28 sherds (443 g) of similarly dated pottery. Sherds from a Fabric B9.1 cordoned beaker (Thompson Form G5-2) dated to *c* 0-AD 50 were found together with an unusual strainer in similar fabric and of probable similar date in ditch 242. This suggests that the enclosure ditches were dug at some time during the 50 years before the Roman Conquest. The rest of the sherds come from vessel forms which are not as closely datable but which are probably of similar date.

1.1.12 A group of pottery from context 131 in the fill of ditch 242 is of particular interest in that it includes the greater part of the strainer referred to above, and fragments from a necked-and-cordoned jar, two bead-rim jars and an everted-rim vessel. Large portions of these latter vessels are absent but the entire assemblage is in the local glauconitic sand tempered fabric B9.1. Sherds in this fabric are overwhelmingly predominant in late Iron Age assemblages from the site and probably indicate manufacture nearby.

c AD 40-70

1.1.13 The most significant features of this phase are ditches 241, 359 and 360, pit 172 and kiln 283. The ditches generally did not have much pottery. Ditch 241 produced six sherds (30 g), ditch 359 had two rather abraded fragments (35 g) and ditch 360 yielded a somewhat more substantial 72 sherds (645g) of pottery. This latter includes a number of jar sherds in B9.1 fabric and 22 fragments from two bead-rim jars of Thompson Type C1.4 (1982) in the *c* AD 40-70 dated flint- and sand- tempered MLIA2 fabric. Part of a lagena handle in Gallo-Belgic Whiteware is also present.

1.1.14 The 169 sherds from Pit 172 are fresh and come from relatively few pots. Sixty two of these fragments make up the upper part of a jar of Thompson Type B3-8 in glauconitic fabric (*c* AD 30-50) and there are many fragments from a bowl and a bead-rim jar in flint-and-sand tempered MLIA2 fabric (*c* AD 40-70).

1.1.15 The 329 sherds from the kiln indicate that it had a short life somewhere between AD 43 and 60. The 122 sherds from contexts 291, 325 and 280 relating to the kiln construction and its first and second phase of use are dominated by sherds in the glauconitic sand-tempered Fabric B9.1 (69%). Sherds in the pale grog-tempered Fabric B2.1 make up a

further 24%. The 207 sherds from the upper kiln fill contexts 237, 238, 239 and 247 have Fabric B9.1 sherds down to less than 7% and largely replaced by those in Fabric MLIA2 (85%): B2.1 fabric sherds are down to 3% of the whole.

1.1.16 Smaller assemblages of pottery came from the posthole structures, and range between late Iron Age and AD 70, apart from 17 sherds collected from the surface of posthole structure 207, which range in date between *c* AD 130-200. These came from the top of unexcavated postholes and may be intrusive.

1.1.17 Pit 137 produced an assemblage of 41 sherds, including pieces datable to the late 2nd century. This makes the pit the latest significant feature on the site and probably peripheral to the contemporaneous occupation noted within the area of the nearby watching brief. There are too few sherds of this date to arrive at any conclusions concerning the status and function of the site at this time, although material of a similar date is reported from the 1950s investigations to the south. This suggests that settlement of these locations continued at least until the late 2nd century.

Conservation

1.1.18 As the pottery represents the primary dating evidence for the features and structures on the site, it should be retained until final decisions have been taken about the scope of further analysis.

1.1.19 The pottery has no immediate conservation needs, but it should be noted that investigational techniques recommended in the statement of potential will damage or destroy a limited number of sherds. It is suggested that a selection of sherds from the oven be analysed in order to identify any absorbed residues. Some selected sherds in glauconitic Fabric B9.1 should be thin-sectioned in an endeavour to determine a more precise geological source for these wares. All sherds should be retained and no further conservation is needed.

Comparative material.

1.1.20 The site is in an area of mid-Kent from which very few late Iron Age pottery assemblages have been published in modern times. Some of the older publications relating to this material are listed in the Thurnham villa assessment and these also apply here. The overview by Thompson (1982) of the late Iron Age pottery from the Medway Valley is probably the best available publication and lists assemblages of glauconitic wares seen to that date. Pollard (1988) adds further assemblages.

1.1.21 Other CTRL sites at Hockers Lane and Thurnham Villa have produced comparable late Iron Age pottery assemblages. These should greatly improve the understanding of pottery supply and forms produced and traded within the Medway Valley and adjoining areas. The possibility of producing a preliminary corpus of forms produced in local glauconitic wares drawn from South of Snarkhurst Wood assemblages and those from other sites covered by the CTRL is discussed under the Thurnham Villa assessment.

Potential for further work

1.1.22 The pottery is key to the dating and phasing of this site, which has only limited stratigraphic relationships between features. Limited further analysis of the pottery in conjunction with other datable finds (for example Roman building material) and the stratigraphic data should help to refine the sequence and dating of occupation on the

site. This is critical to understanding the function of the site, and how it may have changed over time.

1.1.23 Pottery in the kiln appeared to have been deliberately placed, as if it formed part of the functional apparatus of the structure. Further study of the type of vessels represented, and parallels for their use elsewhere, may help to explain the reason for this. It is suggested that a selection of sherds from the kiln be analysed in order to identify any absorbed residues. Understanding the function and nature of the kiln is key to understanding the fuction of the site itself.

1.1.24 Further limited study of vessel types present in the different assemblages should help to clarify the nature of activity on the site. The presence of mortaria and storage jar sherds, for example, is suggestive of domestic occupation. This will directly address the fieldwork event aims for the site, which sought to enhance understanding of the nature of the late Iron Age and early Romano-British settlement.

1.1.25 The fall off in the intensity of occupation after *c* AD 60/70, indicated by the much smaller size of pottery assemblages, is similar to events at the contemporary Hockers Lane site and others on this project. This seems to indicate a shift in the distribution of social units during the first 30 years of the Roman occupation. This aspect is further discussed in the late Iron Age and Roman pottery appendices for the Thurnham Villa and Hockers Lane post-excavation assessment (Appendix 1.1).

1.1.26 The late Iron Age pottery assemblages from this site, taken in conjunction with those from other CTRL sites have the potential to contribute significantly to our understanding of economic activity within the Wealden Greensand zone of the Medway Valley. It is recommended that some sherds in glauconitic Fabric B9.1 should be thin-sectioned in an endeavour to determine a more precise geological source for these wares.

South of Snarkhurst Wood Watching Brief (SDS) ARC 420/99 66+300 - 67+100

Introduction

1.1.27 The South of Snarkhurst Wood watching brief to the east of the excavated area produced small amounts of late Iron Age and early Roman pottery. The pottery has a very similar date range to that from the excavated area and includes both unstratified and stratified material.

1.1.28 The pottery was hand retrieved during watching brief works.

1.1.29 The material was recovered in accordance with the Landscape Zone Priorities for the watching brief, which are set out in section 2 of the main report, above. The recovery of this material was undertaken in order to aid understanding of the late Iron Age/Romano-British transition, and of the rural economy at the time.

Methodology

1.1.30 All of the pottery assemblages were subjected to general sherd count, weighing and spot-dating using the same approach as that used for the excavated part of the site to the west: none of the assemblages were considered significant enough for more detailed quantification.

Quantifications

1.1.31 The watching brief produced 415 sherds (3991 g) of pottery from six features and Table 1.6 gives a breakdown of these figures by context with spot-dates.

Provenance

1.1.32 Most of the pottery adds little to our knowledge of the site, other than confirmation of its date range, but pit 21 produced 205 sherds (1971 g) from one jar of Thompson Type A3 or similar in glauconitic fabric B9.1. Thompson dates most vessels of this type to the 1st century BC, although later examples are known. The fill of Ditch 25 (context 24) produced a small (48 sherds, 473 g) assemblage of late 2nd century date, including fragments from a BB2 everted rim jar and part of a Cologne roughcast beaker.

Conservation

1.1.33 Further analysis will be minimal. All of the material should be retained and will not need any further conservation apart from the sticking together of the jar from pit 21

Comparative material

1.1.34 This section is covered under the excavated part of the Snarkhurst Wood site.

Potential for further work

1.1.35 The nature of the retrieval of this material makes it unsuitable for contributing to any of the CTRL project aims other than as an adjunct to the pottery from the main excavation on the site.

Musket Lane (WBG) ARC 420/99 67+100-68+100

1.1.36 A few fragments of pottery were recovered from the ploughsoil during watching brief operations at Musket Lane.

1.1.37 Four small sherds (7 g) are in a very fine sandy brown-black fabric which is probably late Iron Age. Amounts are too small to be regarded as certain evidence for occupation and could equally well be from field marling. The remaining sherds were of medieval and post-medieval date and are considered separately, below.

1.1.38 Limited further study of the sherds may allow a more definite dating to be established. There is no reason to retain this material in the long term.

Bibliography

Macpherson-Grant, N, Savage, A, Cotter, J, Davey, M, & Riddler, I, 1995 *Canterbury Ceramics 2. The Processing and Study of Excavated Pottery*

Pollard, R J, 1988 *The Roman Pottery of Kent,* Kent Archaeological Society, Monograph Series 5

Thompson, I, 1982 *Grog-tempered 'Belgic' Pottery of South-eastern England,* BAR British Series 108

1.2 Post-Roman Pottery

by Paul Blinkhorn

South of Snarkhurst Wood Watching Brief (SDS) ARC 420/99 66+300 - 67+100

Introduction

1.2.1 The post-Roman pottery assemblage comprised 4 sherds with a total weight of 59g. Two sherds (35g) were of medieval date, and the remaining two post-medieval.

Methodology

1.2.2 The sherds were counted and weighed by context. The pottery was recorded using the codes and chronologies of the Canterbury Archaeological Trust (CAT) Fabric Series for the county of Kent (Cotter forthcoming a and b). The sherd weight and count by context is shown in Table 1.7. The following fabrics were noted:

- EM3A, E Kent shelly-sandy ware, 1075/1100-1200/25.
- EM.M5, Ashford Potters Corner shell-filled sandy ware, 1125/50-1225/50.
- PM1, Red earthenware, 1550-1800.
- LPM7BJ, Bone china, transfer printed, 1770-1925+.

1.2.3 The pottery has no potential for further study in pursuit of the research aims of the project, and could be discarded.

Musket Lane (Site ARC 420/99, 67+900)

1.2.4 The post-Roman pottery assemblage comprised five sherds (66 g), all from context 147. It was recorded using the codes and chronologies of the Canterbury Archaeological Trust Fabric series for the county of Kent (Cotter forthcoming a) and b)), as follows:

- EM3A, E Kent shelly-sandy ware1075/1100-1200/25. 1 sherd, 6 g.
- M38C, N or W Kent hard fine sandy ware, 1325/50 - 1400. 1 sherd, 17 g.
- PM1, Red earthenware, 1550-1800. 2 sherds, 29 g.
- PM5, Frechen Stoneware, 1525-1750. 1 sherd, 14 g.

1.2.5 The assemblage is likely to date from the mid-late 16th century. It offers no potential for further study in pursuit of the project's research aims, and could be discarded.

Bibliography

Cotter, J, forthcoming a The Pottery, in K Parfitt, B Corke & J Cotter (eds), *Excavations at Townall Street, Dover,* 1996 Canterbury Archaeological Trust

Cotter, J, forthcoming b The Post-Roman Pottery, in A Hicks & M Hicks (eds), *Excavations at St. Gregory's Priory, Canterbury,* 1996 Canterbury Archaeological Trust

Acknowledgements

1.2.6 Grateful thanks go to John Cotter and Nigel Macpherson-Grant of the Canterbury Archaeological Trust for their kind help in identifying and dating this material.

1.3 Ceramic Building Materials

by Ian M. Betts

Introduction

1.3.1 Ceramic building material was recovered during excavation and watching brief works at South of Snarkhurst Wood.

1.3.2 The majority of the material was hand retrieved on site. Small quantities were recovered from sample sieving.

1.3.3 The ceramic building material was collected in accordance with the Fieldwork Event Aims and Landscape Zone Priorities for the projects, which are set out in section 2 of the main report, above. The recovery of ceramic building material was undertaken to help refine understanding of the morphology and function of the late Iron Age and Romano-British settlement.

Methodology

1.3.4 The material has been examined microscopically (x10) and the material has been recorded by count and weight. Museum of London fabric codes have been used to describe the fabric types present. Samples of these are held in the Museum of London fabric reference collection.

Quantification

1.3.5 The ceramic building material is mainly extremely small and fragmentary. It comprises roofing tile, brick and daub. Fragment counts and weights by context are listed in Tables 1.8 and 1.9.

Roman

Roofing Tile

1.3.6 Three fragments of tegula were recovered (contexts 138, 228) along with a curved tile, possible an imbrex from context 198 (although this is far from certain). These are in fabric group 2815 (comprising individual fabric types 2459A and 2452).

Brick

1.3.7 Roman brick of two thicknesses are present. This suggests that there are two different types, as larger bricks are normally thicker. The thinner type (context 138) measures 29-32mm thick (fabric group 2815, type 2459A) whilst the thicker type (context 312) is 47mm thick (fabric 3238). The latter comes from an as yet unknown kiln source.

Abraded, form uncertain

1.3.8 There are many fragments of highly abraded fired ceramic Roman tile which are too small to identify the type present. All but one is in fabric group 2815 (individual types

2452, 2459 and 3006). The exception is a fragment of yellow tile (context 201) in Museum of London fabric 2454.

Daub

1.3.9 Fragments of daub, or probable daub, were recovered from contexts 117, 173, 237, 239, 247, 280, 282. There is no indication of function, although the fragments from 247 may be part of a loomweight.

1.3.10 All the tile dates to the early Roman period (1st to mid-2nd century).

Medieval / Post-medieval

1.3.11 The peg tiles were all from the watching brief at South of Snarkhurst Wood (ARC 420, 66 + 300 to 67 + 100 - contexts 1, 7, 13, 15). They are in Museum of London fabric type 3097, which occurs in medieval layers in London sites. Some of the watching brief material, however, has fine moulding sand which in the London area is normally a feature of late-medieval and particularly post-medieval peg tile. The seven roofing tiles are probably therefore post-medieval. One tile (context 7) has the remains of a distorted square nail hole measuring 8 x ? mm. Two such holes would have been originally have been present on each tile.

1.3.12 Two fragments of what may be post-medieval brick were recovered from context 15.

Provenance

1.3.13 The majority of Roman material is in fabric group 2815 (comprising individual types 2452, 2459, and 3006). These tiles probably originate from one or more of the tile kilns which occur in the countryside around London. The yellow tile in fabric 2454 probably originates from a tilery situated in the Eccles area of north-west Kent, whilst the location of the tilery supplying the silty tile in Museum of London fabric 3238 is still unknown.

1.3.14 The peg tiles are probably from a tilery situated somewhere in Kent.

1.3.15 The majority of the assemblage is very small, abraded and fragmentary and has very little research value.

Conservation

1.3.16 The material does not require any specific conservation action. Since the material provides evidence for trading networks in both the Roman and medieval periods, permanent retention is recommended for the tegula, Roman brick, definite daub, peg tile and possible brick. The small abraded fragments of definite Roman ceramic tile should be retained (particularly the fragment in Museum of London fabric 2454), the remaining material could be discarded.

Comparative material

1.3.17 The Roman building material found on minor rural sites may not have arrived from the tilemakers directly, but have been part of a much larger order for a more substantial Roman building. In the case of the roofing tile and brick it would be useful to compare the tiles types and fabrics present with those found at the villa site of Thurnham.

1.3.18 The peg tiles in fabric type 3097 have been found on London sites, although only in very small quantities, as well as a number of other CTRL sites. It would be useful to plot their distribution to see if this gives clues as to the location of the source tilery.

Potential for further work

1.3.19 The Roman building material provides dating evidence for the Roman occupation of the site and may be of value if present in secure contexts lacking Roman pottery.

1.3.20 If the building material is to be published the roofing tile, brick, daub and peg tile will need to be discussed in relation to the site stratigraphic sequence and all the available dating evidence. It is possible, for example, that the material may derive from the more substantial ragstone-founded building identified during the 1950s excavation to the south, in advance of the construction of the Maidstone Bypass. This will address the fieldwork event aims related to understanding of the late Iron Age and Romano-British settlement.

1.3.21 The material has potential for contributing to understanding of sources and supply networks for ceramic building material in the Kent region. The Roman material should be compared with that found on other Roman sites in the area, in particular the villa at Thurnham, since links between the sites would be of considerable interest. This addresses the Landscape Zone Priorities for the project concerning evidence for trade and the effects of the Roman administration.

Table 1.1: Quantification and date of late Iron Age and Roman pottery assemblages from excavation (ARC SNK 99)

Context	Count	Weight g	Period	Comments
105	12	63	AD60-100	inc. R16 biconical sherds
109	2	5	LIA	2 B9.3 sherds, abraded
110	3	20	LIA	All sherds flint tempered. Earlier part of LIA? Abraded
113	1	5	*cAD*40-70	MLIA2 sherd
117	2	14	0-AD50	2 B9.1 bead rim beaker
118	1	7	LIA-AD50	2 B9.1 furrowed jar sherds
120	71	638	AD40-60	inc. GBWW flagon, MLIA2 bead rim etc
121	5	57	AD40-70	inc. Gallo Belgic flagon frag
126	3	41	0-AD50	All B9.1 sherds inc. bead rim and necked and cordoned jar
128	18	122	LIA	Mostly calcined flint tempered, Early part of LIA?
129	12	59	LIA-AD50	All B9.1 sherds inc. bead rim beaker
131	56	646	0-AD50	All fabric B9.1 from four vessels, good profiles
132	2	18	0-AD50	inc. B9.1 cordoned beaker
133	41	569	LIA	
135	31	190	LIA	Nearly all fabric B9.1
138	41	365	*c*AD150 - 200+	inc. R43 DR31 platter
141	5	10	AD40-70	Small abraded crumbs
148	4	12	LIA	
151	2	18	Early Roman	B9.1 combed sherd, mortaria sherd, both abraded
158	7	58	AD70 - 180+	inc. East Sussex Ware
163	11	134	LIA-50	All B9.1 closed form body sherds
173	170	2051	*c*AD43-70	B2 butt beaker copy, B9.1 necked jar, MLIA2 bead rim
174	12	102	LIA-AD50	Nearly all B9.1, no diagnostic forms
178	10	92	0-AD50	All from B9.1 bead rim
181	1	27	LIA	B9.3 storage jar sherd, abraded

Context	Count	Weight g	Period	Comments
186	2	12	LIA	1 B9.3 sherd
196	11	45	*c*AD1170-1350	Med sagging base cooking pot
197	28	443	50BC-AD50	B9.1 predominant
200	4	33	AD170 - 200+	R43 Mortaria + 2LR2.2 sherds
210	1	5	AD40-70	1MLIA2 sherd
212	1	4	LIA-AD50	1 B9.1 sherd abraded
215	2	6	AD43-70	B2
216	4	8	LIA-50+	Comminuted
217	4	5	Early Roman	inc. 3 flakes R16
218	11	69	*c*AD130-200+	inc. 2 LR2.2 sherds and R14 everted rim
219	4	13	LIA-AD 70+	3 B2 jar sherds 1 B9.1 sherd abraded
220	6	51	?AD180+	inc. 4 sherds LR2.2, but rather atypical
227	2	35	Early Roman	Abraded
228	7	124	LIA-AD50	Mainly B9.1 body sherds, no diagnostic sherds
229	45	314	0-AD50	Nearly all from B9.1 bead rim bowls, 1 B2 body sherd
230	2	139	LIA-AD50	Pottery from contexts 230-239, body sherds in B9.1
233	90	609	LIA-AD43+	V. broken up inc. large furrow B9.1 store jar sherds
234	45	915	*c*AD43-60	Overwhelmingly large fresh B9.1 sherds + R16 beaker chip
235	3	68	LIA-AD43+	inc. B9.1 sherd and B6 hole-mouthed pot
237	122	862	AD30-50/60	Mainly from 1 MLIA2 bead rim jar
238	77	239	AD40-50+	Heavily broken up
239	6	31	AD40 50+	Heavily broken up
240	3	115	*c*AD40-60	Lower part of MLIA2 butt-beaker copy, large fresh sherd
246	19	162	LBA?-EIA	All sherds heavily gritted with calcined flint
247	2	45	LIA-AD70	All fresh B2.1 jar body sherds
251	1	5	AD40-70	MLIA2 but a bit coarse, could be

Context	Count	Weight g	Period	Comments
				prehistoric
252	26	165	LIA-AD50	All B9.1 body sherds
261	6	64	AD40-70	2 storage jar sherds in MLIA2
270	1	104	LIA-AD50	B9.1 jar sherd
272	3	11	LIA	Very abraded
279	5	17	*c*AD40-70	MLIA2 sherds
280	36	166	*c*AD40-60+	inc. girth beaker copy in brown sandy fabric. B9.1 sherds, comminuted
281	15	72	LIA-AD50	Nearly all B9.1 sherds heavily broken up
282	170	1881	*c*AD50-70	Mainly MLIA2 bead rims, some B2 and B9.1 pots
286	41	381	LIA-AD50	Mainly from 1 B9.1 combed beaker, fresh
291	38	578	0-AD50	inc. multiple cordon B9.1 barrel beaker + B2.1 cordoned jar
312	1	89	LIA-AD70	B2.1 jar body sherd
313	14	99	AD40-60	Large fresh B2 and MLIA2 sherds
314	17	137	AD120- 200	All from lower part of acute latticed? R14 c pot
316	10	179	AD43-60	All from one B9.1 bowl, imit? DR29 fresh
318	1	15	LIA-AD50	1 B9.1 body sherd
322	2	14	AD50-200	1 heavily abraded R17 flagon sherd
325	50	515	LIA	All from 1 B9.1 necked and cordoned bowl with something indecipherable.
326	12	237	*c*AD40-70	MLIA2 + B2 body sherd fresh
328	4	23	*c*AD40-70	MLIA2 sherd + 3 lumps fired clay
329	2	3		Fired clay pellets
331	4	10	Early Roman	3 sherds B2
336	2	19	LIA-AD50+	B2.1 body sherds
338	2	8	LIA-AD50+	2 abraded sherds B9.1and B2
Totals	1487	14467		

Table 1.2: Quantification of late Iron Age and Roman pottery recovered during sieving

Context	Count	Weight g	Period	Comments
126	50	905	LIA-AD50	inc. pedestal jar base and furrowed sherd in B9.1,
143	1	1	AD40-70	Tiny chip MLIA2
157	3	24	*c*AD43- 70+	
158	4	8	*c*AD50- 70+	R16 jar comminuted
173	214	655	AD40-70	Heavily comminuted body sherd B9.1,MLIA2,B9.3, B2
229	17	326	LIA-AD50+	B9.1 and B2 sherd
230	28	92	AD40-70	inc. MLIA sherd (inc. pot from 230 - 239)
237	33	81	AD40-70	inc. MLIA sherd
269	3	9	LIA-AD70	Abraded
280	35	83	LIA-AD50+	Nearly all B9.1 body sherds, 1R16 sherd
Totals	388	2184		

Table 1.3: Summary of late Iron Age and Roman pottery by phase

Phase	Main locations	Spot Date	No of Contexts	Count	Weight g
Phase 0	Pit 245	Late Br.Age	1	19	162
Phase 1	Ditches 241,242	50BC-AD50	29	431	4111
Phase 2	Ditches 359, 360, Pit 172, Kiln 283	AD50-70	30	867	8207
Phase 3	Pit 137	AD70-200+	7	88	727
Medieval			5	62	1135
Uncertain			2	20	125
Totals			74	1487	14467

Table 1. 4: Excavated key Iron Age and Roman pottery assemblages from Snarkhurst Wood (ARC SNK 99)

Context	Count	Weight	Period	Comments
118. Primary fill of ditch 119				
	1	7	LIA-AD50	B9.1. Furrowed jar
126. Fill of ditch 125, sub-group 242				
			LIA-AD50	B9.1.Cordoned beaker
			L1A-AD50	B9.1.Necked and cordoned jar
	3	41	L1A-AD50	B9.1.Bead-rim,
129. Top fill of ditch 125, sub-group 242				
	11	54	0-AD50	B9.1.Cordoned bead-rim
	1	4		Fired clay
132.Upper fill of ditch 125, sub-group 242				
	1	10	AD40-70	MLIA2.Closed form
	1	8	LIA-AD50	B9.1 Cordoned beaker, same as in 126
	2	18	0-AD60	
141.Upper silt clay fill of posthole 145, of 4 post structure sub-group 204				
	3	3	AD40-70	MLIA2.Closed
	1	2	LIA-AD70	B2.Closed form
	1	2	AD50-100	R68.Small jar
	5	10	AD50-70	
157.Post pipe fill for post 159 at NW corner of 4 post structure sub-group 206				
	4	47	AD170-270	B2 variant? East Sussex Ware
	1	1	AD50-250	R17. Flake only
	2	10	AD180-300	LR2.2 Jar
	7	58	AD180-250	
173.Fill of pit 172				
			AD40-70	MLIA2.Bead-rim jar
	46	614	AD40-70	MLIA2.Bowl

Context	Count	Weight	Period	Comments
	52	503	LIA-AD70	B2. 2 Necked and cordoned
	9	107	LIA-AD70	B2.1.2 Bead-rim jars
	62	852	LIA-AD50	B9.1.Necked and cordoned jar
	169	2076	AD40-50+	
174.Initial silting of Ditch 160, sub-group 358				
	10	84	LIA-AD50	B9.1. Jar bodysherds
	1	11	LIA	B9.3. Abraded
	1	7	Prehistoric	Sparse flint black
	12	102	LIA	
228.Top fill of Ditch 248, sub-group 242				
	4	113	LIA-AD50	B9.1. Jar base
	1	2	LIA	B9.3
	5	115	LIA	
	2	9		fired clay
237.Final deposit in depression at top of kiln 283, sub-group 319				
	111	813	AD40-70	MLIA2.Bead-rim store-jar
	1	7	LIA-AD70	B2. Jar
	9	41	LIA-AD50	B9.1 Jar
	1	1	LIA-AD70	BER15.Salt container
	122	862	AD40-70	
238.Final firing residues in kiln 283, raked out towards the south, sub-group 319				
	63	142	AD40-70	MLIA2.Bead-rim jar
	2	7	LIA-AD70	B2 Closed form
	6	56	LIA-AD70	B2.1.Jar
	5	33	0- AD 50	B9.1 Bead-rim beaker
	1	1	LIA-AD 70	BER15.Salt container
	77	239	AD 40-70	
	4	24	LIA-AD 50	B9.1.Closed form
	2	7	AD 40-70	MLIA2 Bead-rim
	6	31	AD 40-70	
247.Later silting in disused kiln 283, sub-group 319				

Context	Count	Weight	Period	Comments
	2	45	LIA-AD 70	B2.1 Jar bodysherds
270.Layer of slumping in Ditch 248, sub-group 242				
	1	104	LIA-AD 50	B9.1.Everted-rim jar Large fresh sherd
280.Charcoal residue from 2nd discernible firing episode in kiln 283, sub-group 319				
	6	8	AD 40-70	MLIA2. Closed
	2	12	LIA-AD 50	B1.Jar
	3	9	LIA-AD 70	B2.1.Closed
	20	97	LIA.-AD 50	B9.1.Closed
	2	4	AD 50+	R16.Closed form
	1	29	AD 43-60	R74.1. Copy of TR Girth beaker
	34	159	AD 50-60+	All bar R74.1 sherd heavily comminuted
291.Stone and pot setting inside mouth of kiln 283, and forming base of fire				
	24	462	LIA-AD 70	B2.1 Ev. rim cordoned jar
	14	116	LIA-AD 50	B9.1.Cordoned beaker
	38	578	LIA-AD 50	
325.Within charcoal rake-back deposit within kiln, probably related to the 1st firing episode				
	50	515	LIA-AD 50	B9.1 Cordoned jar with burnished decoration. Large sherds from one pot

Table 1.5: Sieved key Iron Age and Roman assemblages from Snarkhurst Wood (ARC SNK 99)

Context	Count	Weight	Period	Comments
143. Packing of post 145 in four-post structure, sub-group 204				
	1	1	AD 40-70	MLIA2, tiny chip
157. Post replacement silt abutting post-packing ph 159. Group 206				
	1	14	LIA-A D70	B2.1. Beaker rim
	1	5	LIA-AD 50	B9.1.Closed form
	1	2	?3rdC	R109, sandy off-white w/t fabric fired rough blue-grey Wickham Barn kilns Sussex
	3	21	?3rd century	

Context	Count	Weight	Period	Comments
173. Fill of pit 172				
	2	18	LIA	Misc flint-tempered fabric
	40	122	AD 40-70	MLIA2 Bead-rim jar
	58	201	LIA-AD 70	B2.1. Beaker rim
	106	338	LIA-AD 50	B9.1.
	3	14	LIA	B9.3 jar
	3	4	LIA-AD 70	BER15 salt container
	212	697	AD 40-70	

Table 1.6: Quantification of Iron Age and Roman pottery assemblages from the watching brief area

Context	Count	Weight	Period	Comments
16	16	183	LIA-AD 70	10 B9.1 furrowed jar sherds, 1 B9.3 sherd, 4 MLIA2 bead rims
20	205	1971	LIA-50	All from 1 B9.1 jar
22	6	56	Early Roman	1 B6 storage jar sherd, 1 B2 jar, 3 R7 closed form sherds, 1 misc grey
24	48	473	Early 2ndC	38 sherds B2 jars, 2 R16 jar sherds, R14 ev rim, 2 sherds Cologne beaker
26	37	272	*c*AD 40-70	29 sherds B9.1 inc. furrowed bead rim jar, 2 MLIA2 sherds, 4 B2.1 jar sherds
28	21	681	LIA	20 sherds B9.1 jars
1	3	48	Med + 19thC	2 Med sherds 1 19thC china
9	3	17	LIA	Fabric B9.3
10	79	338	LIA	All from B9.3 jar
7	2	10		2 sherds RB

Table 1.7: Post-Roman pottery occurrence by number and weight (in g) of sherds per context, divided by fabric type

Context	Count	Weight (g)	Period	Comments
1	1	15	1075/1100-1200/25	EM3A
1	1	20	1125/50-1225/50	EM.M5
1	1	10	1770-1925+	LPM7BJ
7	1	14	1550-1800	PM1

Table 1.8: Building material from South of Snarkhurst Wood Watching Brief (420/99 66+300-66+100)

Context	Count	Weight g	Type	Period	Comments
1	3	50	Peg?	Medieval/ post-medieval	MoL fabric 3097. x1 fine sanding
1	1	10	?	M/PM	Fired ceramic
4	8	10	?	M/PM	Fired ceramic
7	21	60	?	M/PM	Fired ceramic
7	2	60	Peg	M/PM	MoL fabric 3097. Square nail hole
10	5	35	?	M/PM	Brick (MoL fabric 3046)/ daub
13	1	5	Peg?	M/PM	MoL fabric 3097
15	1	25	Peg	M/PM	MoL fabric 3097, fine sanding
15	2	10	Brick?	M/PM	MoL fabric 3033
16	2	10	?	M/PM	Fired ceramic/daub
88	84	150	?	M/PM	Fired ceramic

Table 1. 9: Building materials from South of Snarkhurst Wood ARC SNK 99

Context	Count	Weight g	Type	Period	Early date	Late date	Comments
117	4	3	Daub	Roman	40	400	Very small
117	3	2	?	Roman	50	160	Fired ceramic, MoL fabric 3006
120	1	2	?	Roman	50	160	As above
132	2	2	?	Roman	50	160	As above
138	1	25	Tegula	Roman	50	160	MoL fabric 2459A
138	3	490	Brick	Roman	50	160	MoL fabric 2459A, 29-32mm thick
151	1	1	?	Roman	50	160	As above
163	1	2	?	Roman	50	160	Fired ceramic, MoL

Context	Count	Weight g	Type	Period	Early date	Late date	Comments
							fabric 2459
173 <112>	103	160	Daub	Roman	40	400	Very small daub (& fired ceramic?)
173	218	380	Daub	Roman	40	400	As above
173	10	45	?	Roman	?	?	Fired ceramic, MoL fabric 3006
173	2	15	?	Roman	?	?	Iron Pan? (BM?)
173	2	15	Stone	Roman	?	?	Hassock Sandstone?
196	1	40	Brick?	Roman	50	160	MoL fabric 2452, near 3006
198	9	65	?	Roman	50	160	Fired ceramic, MoL fabric 3006. One imbrex?
201	1	1	?	Roman	50	160	Fired ceramic, MoL fabric 2452
201	1	10	?	Roman	50	75/80	Fired ceramic, MoL fabric 2454
220	3	10	?	Roman	50	160	Fired ceramic, MoL 2452
228	2	290	Tegula	Roman	50	160	Fired ceramic MoL fabric 2542
228	3	30	?	Roman	50	160	Fired ceramic, MoL fabrics 2452 & 3006
230-239 <128>	1	10	?	Roman	?	?	Fired ceramic
237 <127>	100+	520	?	Roman	50	160	Fired ceramic MoL fabrics 2452 & 3006
237	2	15	Daub?	Roman	?	?	-
237	2	10	?	Roman	?	?	Fired ceramic?
238	5	15	?	Roman	?	?	Fired ceramic
239	3	25	Daub	Roman	40	400	Part burnt
239	1	2	?	Roman	?	?	Fired ceramic
247	5	250	Daub	Roman	40	400+?	Part burnt loomweight?
280 <129>	1	5	Daub?	Roman	?	?	-
281	1	10	?	Roman	?	?	Fired ceramic/ daub, partly vitrified

Context	Count	Weight g	Type	Period	Early date	Late date	Comments
281	10	110	?	Roman	?	?	Fired ceramic/ daub
282	6	20	Daub?	Roman	?	?	-
312	1	60	?	Roman	?	?	BM?
312	1	312	Brick	Roman	70	100+	MoL fabric 3238, 47mm thick
322	1	2	?	Roman	50	160	Fired ceramic, MoL fabric 3006
326	1	5	?	Roman	50	160	Fired ceramic, MoL fabric 3006

APPENDIX 2 - LITHICS

2.1 Flint

by Philippa Bradley

Introduction

2.1.1 A medium-sized assemblage of flint was recovered from the excavations at Snarkhurst Wood; smaller quantities of worked flint came from the watching brief work carried out in the area.

2.1.2 The material was hand retrieved on site.

2.1.3 The flint was collected in accordance with the Fieldwork Event Aims and Landscape Zone priorities for the sites, which are set out in section 2 of the main report, above. The recovery of flint was undertaken in order to establish the relationship of any late Bronze Age features at the CTRL sites with those identified at the MSA to the north. The recovery of flint was also designed to address research aims relating to the interaction of hunter-foragers with the palaeo-environment, change associated with the adoption of agriculture, and the spatial organisation of the landscape during the period of later agriculturalists.

Methodology

2.1.4 The flint was briefly scanned, with information regarding dating, technology and general condition being noted. The material was added to an Access database.

Quantification

2.1.5 A total of 138 pieces of flint was recovered from the excavation at South of Snarkhurst Wood. The assemblage is summarised below in Table 2.1. Fifteen pieces of flint were recovered from the watching brief (Table 2.2), and a single piece of flint was recovered from Musket Lane (Table 2.3).

2.1.6 Diagnostic pieces from South of Snarkhurst Wood include a finely worked plano-convex knife of later Neolithic-early Bronze Age date. Technologically diagnostic pieces (a core and a piercer) also suggest some probable Mesolithic activity in the vicinity. A possible Thames pick fragment also of Mesolithic date was recovered from Musket Lane.

2.1.7 Generally both hard and soft hammers were used as percussors. Diagnostic retouched forms and debitage indicate a small element of Mesolithic material and a larger component of later Neolithic to early Bronze Age material. The later Neolithic to early Bronze Age material comes from contexts 128, 148, 251, and possibly 135. Other material may also be contemporary. Apart from the Mesolithic blade core there does not seem to have been any blade production, however, it is possible that this reflects fieldwork bias or that the Mesolithic presence is very limited.

Provenance

2.1.8 Almost all of the flint occurred in a scatter at the western end of Area B, in topsoil or recovered from the machine-stripped surface. There is a notable correspondence

between the location of this group and a fieldwalking scatter recorded during the surface collection survey.

Condition

2.1.9 All of the flint has suffered some post-depositional damage; cortication is mostly light to medium, although two pieces are more heavily corticated. Several pieces of burnt unworked flint were also recovered; this material was very heavily calcined. A few small chips were also burnt.

Comparative material

2.1.10 Comparisons can be drawn with contemporary material from the CTRL route, particularly the fieldwalking data. The 1995 OAU excavations on the MSA site to the north of the CTRL trace also produced flint, but this was mostly of a mid to late Bronze Age date (Bradley 1997, 135-6).

Potential for further work

2.1.11 This medium-sized group contains a relatively high proportion of diagnostic material, falling into two chronological groups: Mesolithic, and late Neolithic to early Bronze Age. It therefore has some potential for further work to characterise the nature and chronology of prehistoric activity at the site. It is particularly interesting that the assemblage does not appear to replicate the results of the MSA excavation, where the assemblage was primarily composed of mid to late Bronze Age material. This will be of value in considering the fieldwork event aims relating to the relationship between the CTRL and MSA sites.

2.1.12 It is recommended that the material is fully recorded and the spatial distribution compared with other categories of material culture. It should also be compared to material from the fieldwalking and locally excavated assemblages, as well as material from other sites along the CTRL.

Bibliography

Bradley, P, 1997 Worked Flint, in Archaeological Investigations on the Motorway Service Area, Junction 8, M20 at Eyhorne Street, Hollingbourne (I Scott), *Archaeologia Cantiana* 117, 134-7

2.2 Humanly Modified and Unworked Stone

by Ruth Shaffrey

Introduction

2.2.1 Thirty one pieces of stone were hand retrieved on site during the excavations at South of Snarkhurst Wood.

2.2.2 The stone was recovered in order to address the Fieldwork Event Aims for the project, which are set out in section 2 of the main report, above. The stone was retrieved in order to help determine the morphology and function of the late Iron Age and Romano-British settlement.

2.2.3 All retained stone was examined, in order to exclude unworked pieces from further consideration.

2.2.4 A large chunk of Greensand found in context 10 is the only piece of worked stone from the site. It was very worn on one side and its thickness suggests it may have been part of a threshold stone. One piece of burnt Greensand was also recovered from context 239. The remaining stone was unworked.

2.2.5 The stone is listed in Tables 2.4, 2.5 and 2.6. It is all of local provenance. The burnt and unworked stone has no potential to address the research aims of the project. All the unworked stone could be discarded at this stage. As a possible structural feature, the Greensand chunk should be retained at this stage.

2.2.6 Two small fragments of what may be Hassock sandstone from the Maidstone area were found in context 173. These were identified by Ian Betts during his assessment of the ceramic building material. They are too small to determine their purpose and have no potential for further study in pursuit of the research aims of the project.

Table 2.1: Summary composition of flint assemblage from South of Snarkhurst Wood (ARC SNK99) by context

Context	Count	Period	Comments
U/S	1		1 core rejuvenation flake (face/edge)
101	6	?some Mesolithic	4 flakes, 1 possible retouched flake (but very minimal retouch), 1 opposed platform blade core? Mesolithic
120	1		Natural
127	2		2 flakes
128	70	Later Neolithic-early Bronze Age	48 flakes, 1 core rejuvenation flake (face/edge), 1 multi-platform flake core, 1 tested nodule, 15 retouched pieces (1 plano-convex knife, 1 knife, 8 retouched flakes, 1 very worn serrated flake, 1 end scraper, 1 side scraper and 1 end and side scraper, 1 misc retouched piece), 4 burnt unworked fragments
135	1		1 very worn end and side scraper
148	2	?Later Neolithic-early Bronze Age	1 flake, 1? scraper or knife fragment
151	1		1 flake – possibly natural
163	4		3 flakes, 1 natural
173	12		1 ?knife fragment, 3 flakes, 5 chips, 4 natural, 1 piece burnt bone
174	1		1 flake
233	5		3 flakes, 1 burnt unworked flint, 1 natural
234	4	? Some possibly Mesolithic	3 flakes, 1piercer – the latter is possibly Mesolithic
246	2		1burnt unworked piece, 1 natural
251	3	? later Neolithic	1 flake from a polished axe, 1 flake, 1 discoidal core

Context	Count	Period	Comments
261	14		4 flakes, 10 chips – some burnt
263	2		2 flakes
279	3		3 flakes
285	2		2 flakes
291	1		1 ?tested nodule, much plough damage
312	1		1 natural cobble
324	8		1 multi-platform flake core, 7 flakes
326	1		1 flake

Table 2.2: Summary composition of flint assemblage from South of Snarkhurst Wood WBSDS (ARC 420 99 66+300-67+100), by context

Context	Count	Period	Comments
1	1		1 flake
4	1		Natural
10	13		2 flakes, 1 multi-platform flake core (some keeled platforms), 10 burnt unworked fragments
13	1		1 flake

Table 2.3: Summary composition of flint assemblage from Musket Lane (ARC 420 99 67+100-68+100), by context

Context	Count	Period	Comments
147	1	Possibly Mesolithic	? broken axe or chisel, possibly a Thames pick fragment

Table 2.4: Catalogue of Worked Stone from South of Snarkhurst Wood, ARC 420 99, 66+800

Context	Count	Material	Comments
10	1	Greensand	Large chunk, threshold stone? Smoothed on one surface

Table 2.5: Catalogue of burnt stone from South of Snarkhurst Wood,

Context	Count	Material	Comments
239	1	Cherty Greensand	Burnt sub rounded chunk

Table 2.6: Catalogue of Unworked Stone from South of Snarkhurst Wood, ARC SNK 99

Context	Count	Material	Comments
138	9	Ironstone	Small fragments
138	2	Greensand	Rounded fragment
200	1	Greensand	Rounded fragment
128	2	Cherty Greensand	Sub angular chunks
151	2	Greensand	Small sub rounded chunks
173	4	Ironstone	Sub rounded chunks
174	2	Ironstone	Angular chunks
183	4	Greensand	Small sub angular chunks
236	1	Greensand	Chunk
186	1	Ironstone	Small angular chunk
238	1	Ironstone	chunk

APPENDIX 3 - GLASS

3.1 Glass

by Cecily Cropper

3.1.1 Two body fragments from the same bottle came from the South of Snarkhurst Wood excavation area (Table 3.1). The material has no potential to address the research aims of the project.

Table 3.1:

Site	Context	No	Type	Part	Date
ARC SNK99	312	2	Bottle	Body	Mid-late 18C

APPENDIX 4 - METALWORK

4.1 Metalwork

by H. E. M. Cool

Introduction

4.1.1 This assessment considers the metalwork recovered from the excavations at South of Snarkhurst Wood. All of the material came from hand excavation.

4.1.2 The fieldwork event aims that the material can be expected to contribute to are as follows:-

- To determine the function of the late Iron Age / Romano-British settlement
- To recover artefact assemblages to refine understanding of the development of the settlement

Methodology

4.1.3 A basic archive catalogue following the guidelines set out by the Roman Finds Group and Finds Research Group (RFG & FRG 1993) was entered into an Excel spreadsheet. This records context, small find number (if assigned), material, count, simple name and a brief description.

4.1.4 Information about context description and date has been taken into consideration in the assessment that follows.

Quantification

4.1.5 Thirteen items of ironwork and one item of copper alloy were recovered. The ironwork included a modern bolt from the topsoil. The metalwork is listed on Table 4.1.

4.1.6 There are no items that from a typological point of view must be of late Iron Age or early Roman date and as with much ironwork, the date of the individual artefacts will have to be derived from the contexts in which they are found. The horseshoe comes from a ditch filling which also included post medieval pottery and thus is likely to be of post-medieval date even though horse-shoes are occasionally recovered from secure early Roman and even late Iron Age contexts.

4.1.7 The copper alloy fragment is featureless and cannot be identified

Provenance

4.1.8 With the exception of a featureless iron fragment from context 138 (a pit fill) and a strip from context 247 (kiln fill), all of the metalwork came from the upper fills of ditches.

4.1.9 The metalwork is in moderately good condition, so it may be assumed that the small size of the assemblage reflects the level of discard and is not the result of poor preservation on the site.

Conservation

4.1.10 Conservation will be required on small finds 101, 117, 118 (two separate items) and 119 to fully identify them. The current packaging is adequate for long term storage. The bolt from the topsoil could be discarded.

Comparative material

4.1.11 Given the limited potential of this assemblage, the presence or absence of comparative material is irrelevant and will not be further considered.

Potential for further work

4.1.12 The potential of this assemblage is limited and confined to the original Fieldwork Event Aims. The material itself suggests no new research aims.

4.1.13 As this material cannot be independently dated, its contribution to investigating the function of the site and its development must depend on the integrity of the contexts in which it was found. The (?) wall-hook from context 120 (sf 101) and the strip from context 247 (sf119) come from insecure contexts. They are both from the upper silting fills of ditches, and could have been deposited after the abandonment of the site. It seems likely that after investigative conservation, these would be informative artefacts, which could have the potential to contribute to the fieldwork event aims. The possible cleaver, chain and rake prong from context 161 (sfs 117-8) might have potential. They too come from the upper silting fills of a ditch, but later boundary ditches succeed this feature, and therefore context 161 may be a secure context from the first phase of occupation.

4.1.14 The main potential of the assemblage would be to help characterise the nature of activity at the periphery of this late Iron Age and early Romano-British settlement, in accordance with the original Fieldwork Event Aims. The presence of the cleaver may be related, for example, to butchery being carried on in this area, and Bethan Charles (Appendix 7) has noted the presence of sheep feet, which are also indicative of butchery.

4.1.15 Within a wider regional setting, however, the small assemblage from this site may be a useful indicator of the range and number of items that can be expected as ‘normal’ on different types of sites at different times. Snarkhurst Wood would suggest very little metalwork in the late Iron Age / early Roman period on a site of this type. This is negative evidence, but may be useful in wider studies.

Bibliography

RFG & FRG, 1993 Roman Finds Group & Finds Research Group AD 700-1700, 1993 *The guidelines for the preparation of site archives and assessments for all finds other than fired clay vessels*

Table 4.1: Details of metalwork

Context	Sf	Material	Count	Name	Period	Comments
1		Iron	1	Bolt	Modern	Broken, square-sectioned retaining small head
24		Iron	1	Nail	2nd C AD	shank, length 85mm
26		Iron	1	Nail	AD40-70	shank, length 55mm
26		Iron	1	Nail	AD40-70	shank fragment, length 42
26		Iron	1	Nail	AD40-70	shank fragment, bent , length *c* 55
109	100	Copper alloy	1	Fragment	LIA	
120	*101	Iron	1	Wall hook?	AD40-60	Varying section
134	102	Iron	1	Fragment	?	
138		Iron	1	Fragment	2nd C AD	
161	*117	Iron	1	Blade	Phase 1	One end broken, other tapering point
161	*118	Iron	1	Chain	Phase 1	3 pieces currently, possibly chain or element of swivel
161	*118	Iron	1	Rake prong	Phase 1	2 pieces, tang? bent over at top
247	*119	Iron	1	Strip	LIA-AD70	4 pieces, joining, tapering to both ends; uniform section
312		Iron	1	Horse shoe	LIA-AD70	Complete with nails visible on X-ray

* Require investigative conservation- Slag and Metalworking Debris

APPENDIX 5 IRON SLAG

by Lynne Keys

Introduction

5.1.1 Iron slag was recovered during excavation works at South of Snarkhurst Wood.

5.1.2 The material was hand retrieved on site, and three soil samples (from contexts 237, 238-239, and 280) were also collected. None of the slag was washed before assessment.

5.1.3 The material was collected in accordance with the Fieldwork Event Aims for the site, which are set out in section 2 of the main report, above. The slag was collected to determine the type of metalworking which had produced it and whether there might be some association with the kiln or furnace in which it was dumped. This data would contribute to the Fieldwork Event Aims for the site relating to the morphology and function of the late Iron Age and Romano-British settlement, and the presence of economic indicators.

Methodology

5.1.4 At assessment the whole assemblage was examined and was categorised on the basis of morphology and colour. As no cleaning had taken place before assessment the slag was covered with dirt and identification was sometimes difficult. The slag fragments were small, having been broken up before their final deposition, and this sometimes hindered secure identification and led to its being assigned to the undiagnostic category.

5.1.5 Each type of slag from each context was weighed and recorded. The soil samples taken on site were opened and examined for hammerscale and other microslags by eye and by running a magnet through the contents.

Quantifications

5.1.6 The total amount of slag within the assemblage was 8605g. This was made up of the following types detailed on Table 5.1 below.

Table 5.1: Types and quantity of slag

Type of slag	**Weight in g**
Undiagnostic slag	5572
Tap slag	1930
Dense slag	1038
Cinder	49
Vitrified hearth lining	12
Roasted ore	4

5.1.7 Tap slag is a dense, low porosity, fayalitic (iron silicate-2FeO SiO2) slag with a rope-like flowed structure, which is particularly obvious on its surface. This slag was allowed to flow out through a hole at the base of the smelting furnace so the iron bloom could be more easily recovered at the end of the process.

5.1.8 Dense slag is of low porosity and also represents smelting activity

5.1.9 Undiagnostic slag could represent either smelting or smithing activity. In view of the amount of smelting slag present, and the absence of any slags diagnostic of smithing, it can almost certainly be attributed to the smelting process.

5.1.10 Very little material which could represent a smelting furnace superstructure was present amongst the assemblage examined. There was a small amount of vitrified hearth lining, some cinder (formed at the interface between the alkali fuel ashes and siliceous materials, and usually the lighter portion of vitrified hearth lining), and a small amount of burnt clay. The temperatures required to smelt iron ore would have generated more vitrified material than was present.

5.1.11 A fragment of very magnetic burnt reddish sandy stone which may be iron ore, was found amongst slag which came from a different area, away from the majority of the rest of the assemblage.

5.1.12 The absence of any slags diagnostic of smithing (the working of iron using heat and a hammer), for example, smithing hearth bottoms and hammerscale, is quite significant if the entire slag assemblage is to be interpreted correctly. The significant absence indicates the slag was almost certainly produced by the smelting of iron from ore.

Provenance

5.1.13 Most of the assemblage was material dumped into a disused kiln or furnace. The contexts concerned are 237, 238, 239, 247, 280, 281, and 282. Other contexts possibly associated with the kiln are 333, 334, and 335. The fragment of possible ore, however, came from 173, which was not associated with the kiln/furnace. The small size of the slag fragments lends support to the idea that the slag associated with the kiln may have been elsewhere, and had become broken up before being moved to be dumped in that area.

5.1.14 The slag, although unwashed, is stable and unlikely to be affected by any factors of preservation.

Conservation

5.1.15 Iron slag, being fayalitic, requires no special storage conditions and is unlikely to be affected by further analysis. Decisions as to whether the assemblage can be discarded should be made after other relevant CTRL sites with iron slag have been examined and assessed.

Comparative Material

5.1.16 The most useful comparisons for the Roman period will be with Thurnham Villa and the non-CTRL site of Westhawk Farm, Ashford. Technological comparisons could also be made with the CTRL medieval ironworking site of Mersham. Further evidence for ironworking is currently being recovered during ongoing CTRL watching brief works at South of Beechbrook Wood.

Potential for further work

5.1.17 The possible ore should be positively identified at an early stage to confirm or eliminate its potential.

5.1.18 Further analysis of the slag in conjunction with stratigraphic and artefactual data may help to clarify the nature of the iron smelting processes carried out on the site in the early Roman period. Further metallurgical analysis should be possible to compare this material with that from other sites such as Thurnham and Westhawk Farm, where slag and metalworking debris has also been found.

APPENDIX 6 - HUMAN REMAINS

6.1 Human Remains

by Angela Boyle

Introduction

6.1.1 A single cremation deposit was recovered during excavation works at South of Snarkhurst Wood.

6.1.2 The single cremation was subject to 100% recovery as a whole-earth sample and subsequently wet-sieved. Material from the >2 mm fraction was retained.

6.1.3 The recovery and study of the material was carried out in accordance with the fieldwork event aims specified in section 2 of the main report, above, with specific reference to change or continuity in late Iron Age/Romano-British burial practice.

Methodology

6.1.4 Cremated material was quantified by weight and scanned in order to determine age, sex, and potential for further analysis. Given the small size of the assemblage a decision was made to scan all of it. Each deposit was recorded by context, context type, period, weight, identifiable fragments, colour and minimum number of individuals, as in Table 6.1 below. All fragments of unburnt bone were also examined to determine preservation, completeness and age. The > 2 mm fraction was scanned with a view to determining whether or not it should be sorted for small fragments of human bone.

Quantification

Table 6.1: Details of cremation burial

Context	Context type	Weight	Identifiable fragments	Colour	Minimum number of individuals
127	Fill of feature 236	188 g	Skull vault, occipital, ?incisor root, femur and tibia shaft	White and grey	1?

Provenance

6.1.5 A single deposit of cremated human bone (127) was recovered from feature 236, located in the western part of Area B. No pottery or dating evidence was available for this feature. Areas of burning were identified and quantities of charcoal were also present, therefore the feature may have been a pyre site.

Conservation

6.1.6 The material does not require any conservation for the purposes of long-term storage. The CTRL Act 1996 requires that all human remains are reburied.

Comparative material

6.1.7 Unfortunately this deposit is undated and therefore cannot be compared with other material. From the location it is likely to be Iron Age, and if dated would have been of

interest as small cemeteries associated with rural settlement of this period are not well known in the south-east of England (Drewett, Rudling and Gardiner 1988, 233).

Potential for further work

6.1.8 The potential of the material is limited by the fact that it is an isolated undated example, and by the small size of the deposit. An average adult cremation can weigh between 1000-2400 g if complete (McKinley 1997, 68; observations at modern crematoria). Clearly, then the deposit from this site does not represent the entire remains of any one individual. The material has no further potential for analysis.

Bibliography

Drewett, P, Rudling, D and Gardiner, M, 1988 *The south-east to AD 1000, London*

McKinley, J, 1997 The cremated human bone from burial and cremation-related contexts, in *Archaeological excavations on the route of the A27 Westhampnett Bypass, West Sussex, 1992. Volume 2: the cemeteries* (A P Fitzpatrick), Wessex Archaeology Report No **12**, 55-73

APPENDIX 7 - ANIMAL BONE

7.1 Animal Bone

by Bethan Charles

Introduction

7.1.1 Animal bone was collected during excavation and watching brief works at South of Snarkhurst Wood.

7.1.2 The material was hand retrieved, and recovered during sieving of soil samples.

7.1.3 The bone was collected in accordance with the Landscape Zone Priorities and Fieldwork Event Aims of the projects, which are set out in section 2 of the main report, above. The animal bone was recovered in order to aid understanding of agricultural regimes and natural resource exploitation, and to assist in determining the function of the late Iron Age/Romano-British settlement.

Quantification

7.1.4 A total of 609 fragments of bone (431g) were retrieved by hand (Table 7.1) and 506 fragments (87g) were retrieved from environmental samples, sieved through meshes of 10mm and 10-4mm where necessary (Table 7.2). Cattle and sheep bones were the only elements identified from the assemblage apart from one pig metatarsal taken from the surface of an unexcavated feature (context 201). The majority of the fragments recovered were teeth, and the only identifiable untreated bone fragment recovered was one cattle humerus from context 312. All other bone fragments, primarily sheep bone, had been burnt.

7.1.5 A further 5 fragments (4g) of hand collected bone and 4 fragments (1.5g) of sieved bone were added from the South of Snarkhurst Wood watching brief site, none of which was identifiable.

Provenance

7.1.6 The bone from the site was in very poor condition and the majority of surviving elements were the teeth and burnt bones. Burnt bones constitute 40% of the hand-collected bone and 91% of the sieved bone. Almost all of the burnt bone was from contexts 173 and 153. None of the bone from context 153 was identified to species.

Conservation

7.1.7 Further analysis will not affect the condition of the bone. The containment of the animal bone material in find boxes is satisfactory for long term storage. The material has been fully recorded, and has no potential for further analysis. It need not be retained.

Potential for further work

7.1.8 The small number of bones from the site does not give very much information regarding the economy of the site. Cattle and sheep may have provided the majority of the meat during the late Iron Age and early Roman period, although it is possible that pig bones may have been under represented from this assemblage. The majority of the sheep bones identified were feet bones, indicative of butchery waste.

7.1.9 The assemblage as a whole does not provide any clear information regarding the status or economy of the site. It is not recommended that further work be done on this assemblage.

Table 7.1: Percentage of identified fragments by context, feature interpretation and period

Context	Interpretation	Period	% of identified fragments			Count	Weight (g)
			Cattle	Sheep	Pig		
312	Ditch	LIA-ER	100	0	0	1	146
118	Ditch	LIA-ER	100	0	0	2	7
233	Pit	LIA-ER	100	0	0	1	5
173	Pit	ER	0	100	0	4	1
234	Ditch	ER	50	50	0	4	34
201	Possible pit		0	0	100	1	5

LIA-ER = Late Iron Age to Early Roman ER = Early Roman

Table 7.2: Percentage of identified fragments of sieved bone by context, feature interpretation and period

Context	Interpretation	Period	% of identified fragments	Count	Weight
			Sheep		
173	Pit	LIA-ER	100	17	10

LIA-ER = Late Iron Age to Early Roman

APPENDIX 8 - MACROSCOPIC PLANT REMAINS AND CHARCOAL

8.1 Charred Plant Remains and Charcoal

by Ruth Pelling

Introduction

8.1.1 Samples were taken during excavation works at South of Snarkhurst Wood for the recovery of charred plant remains and charcoal.

8.1.2 Features sampled included ditches, postholes forming a circular structure and four-post structures and pits. All features sampled were of late Iron Age to Early Roman date (1st century BC to 1st century AD). Samples were processed using bulk water flotation and the flots collected onto 250μm mesh sieves. Flots were air dried slowly before being submitted for assessment. All residues were processed.

8.1.3 The samples were taken in accordance with the Fieldwork Event Aims for the project, which are set out in section 2 of the main report, above. The purpose of sampling was to investigate economic activity at the site and to refine understanding of the development of the settlement.

Methodology

8.1.4 Samples were taken from each class of archaeological feature, focussing on secure contexts. In total 26 samples were taken for the recovery of charred plant remains, 25 from the main excavation site and one sample during the watching brief. The volume of deposit processed for each sample ranged from 2 to 40 litres. All the samples were processed and submitted for assessment. Each flot was first put through a stack of sieves (2mm, 1mm and 500μm) in order to break them into manageable fractions. Each fraction was then scanned under a binocular microscope at a magnification of x10. Any charred seeds and chaff were provisionally identified and an estimate of abundance was made. Fragments of charcoal were randomly fractured and examined in transverse section at x10 and x20 magnification.

Quantification

8.1.5 A total of 26 samples were assessed. The results are shown in Table 8.1 below. Flots were generally quite small and contained frequent rootlets. Charred seeds and chaff were absent from 11 samples. One sample contained between 11 and 50 charred items. The remaining 11 samples contained only low levels of cereal grain and chaff with occasional weed seeds (0-10 items). Both cereal grain and chaff were present in the samples. *Hordeum vulgare* grain was noted in 9 samples. Hulled wheat grains were recorded in 8 samples while glume bases were noted in 9 samples. In most cases the preservation of both grain and glume bases was poor and identification was not possible to species. Both *Triticum spelta* and *Triticum dicoccum* were noted amongst the occasional better preserved remains. Weeds were generally only rarely observed and included *Rumex* sp. (docks), *Vicia/Lathyrus* sp. (vetch/tare/vetchling) and small seeded Gramineae (grasses). In addition, nutshell fragments of *Corylus avellana* (hazel) were noted in one sample (sample 100).

8.1.6 Charcoal was present in low numbers in 12 samples. Three samples contained moderate quantities while six samples contained quite frequent amounts. *Quercus* sp. (oak) dominates the charcoal assemblages. Pomoideae (apple/pear/hawthorn etc) and *Prunus spinosa* (sloe) were occasionally noted. The identification of the non-*Quercus* charcoal is tentative.

Provenance

8.1.7 The richer of the samples was derived from a ditch (context 126). Low levels of remains and charcoal were recovered from the full range of features. There appears to be no relationship between the quantity and quality of the remains and feature type. The preservation of material is poor to moderate. In part this is the result of damage during charring. Some abrasion may have occurred as the result of post-depositional damage. The preservation is such that there is little potential to take the identifications of cereal remains any further.

Conservation

8.1.8 The flots are in a stable state and can be archived for long term storage. It is recommended that the flots are retained until completion of the CTRL post-excavation report.

Comparative material

8.1.9 The range of material noted in the samples is generally typical of the late Iron Age and Roman periods throughout southern Britain, with spelt wheat the dominant cereal and hulled barley also cultivated. The role of emmer wheat (*Triticum dicoccum*) is less well known than spelt for this period. There is good evidence of its cultivation in the late Iron Age from Wilmington in Kent (Hillman 1982) and from outside the region from Hascombe in Surrey (Murphy 1977) and Ham Hill in Somerset (Ede 1991). In the Romano-British period, evidence from sites such as Tiddington (Moffet 1986) or Barton Court Farm (Jones and Robinson 1984) suggest emmer to be a minor crop compared to spelt; possibly even present as a weed of the spelt crop. More recently much larger assemblages were recovered from a site at Mansfield College in Oxford (Pelling, unpublished).

Potential for further work

8.1.10 The samples offer only limited information about the economic activities at the site and do not refine understanding of the development of the settlement. The samples do provide some useful data in terms of the development of the archaeobotanical dataset for the region as a whole. Barley and hulled wheat, including both spelt and emmer, are represented. There is no evidence of cereal processing, and it is not possible to establish if the cereals were locally produced or were imported into the site. There is no potential for more detailed analysis of these samples. The quantity and range of material is such that detailed analysis will not provide any additional information to the assessment. However, the results of the assessment are useful and should be included in the final reports. Of particular importance is the presence of emmer wheat, albeit in low numbers. The role of emmer wheat in the cereal economy of the Iron Age and Romano-British period is not well understood at present, and this assemblage provides further evidence for its cultivation on a small scale.

Bibliography

Ede, J, 1991 Carbonised Seeds, in G Smith, Excavations at Ham Hill 1983, *Proceedings of the Somerset Archaeological Natural History Soc.* 134, 27-45, 39-43

Hillman, G C, 1982 *Late Iron Age glume wheat from Wilmington Gravel-pit, Kent*, Ancient Monuments Laboratory Report 3611

Jones, M, and Robinson, M, 1984 The Crop Plants Chapter IX, in D Miles, *Archaeology at Barton Court Farm, Abingdon, Oxon,* Oxford Archaeological Unit Report 3, CBA Research Report 50

Moffet, L, 1986 *Crops and Crop Processing in a Romano-British Village at Tiddington: The Evidence from the Charred Plant Remains,* Ancient Monuments Laboratory Report 15/86

Murphy, P A, 1977 *Early agriculture and environment on the Hampshire chalklands c 800BC-AD400,* unpublished M Phil Thesis, University of Southampton

Pelling, R, unpublished The Charred Plant Remains from Mansfield College, Oxford, unpublished report for the OAU

Table One: the Charred Plant Remains

Context	Type	Period	Sample No.	Sample size (l)	Flot size (ml)	Grain	Identified grain	Chaff	Identified chaff	Weed seeds	Other	Charcoal	Comments
10		LIA	1		20	+	Hor	-		+	-	+	
126	Ditch	LIA - 50	100	35	150	++	Hor T.spt/dic	++	T.dic T.spt/dic	+	+	+++	
132	Ditch	0 - AD50	102	13	10	-		-		-	-	-	
143	Posthole	40 - 70	103	16	10	-		-		-	-	+	
152	Posthole		104	20	10	-		-		-	-	-	Roots
153	Posthole		105	21	10	+	indet	-		-	-	+	
157	Posthole	c.AD43 - 70+	106	4	50	-		+	T.spt/dic	-	-	+	
158	Posthole	c.AD50 – 180+	107	20	50	+	indet	+	T.spt/dic	-	-	+	
165	Posthole		108	15	100	+	Hor T.spt/dic	+	T.cf dic	+	-	++	
166	Posthole		109	11	10	-		-		-	-	+	
173	Pit	AD40 – 70	111	40	150	+	T.spt Hor	+	T.spt/dic	+	-	+++	
173	Pit	AD40 – 70	112	40	150	+	T.sp	+	T.spt/dic	+	-	+++	
186	Ditch	LIA	113	20	10	-		-		-	-	-	Roots
183	Ditch		116	40	50	-		-		-	-	+	Roots
127	Pit		119	40	150	-		-		-	-	+++	Roots
259	Ditch		120		10	-		-		-	-	+	
261	Ditch	AD40 - 70	121	40	150	+	T.spt/dic Hor	+	T.spt/dic	+	-	+	
125	Ditch	AD40 - 70	122	2	10	-		-		-	-	-	Roots

Context	Type	Period	Sample No.	Sample size (l)	Flot size (ml)	Grain	Identified grain	Chaff	Identified chaff	Weed seeds	Other	Charcoal	Comments
233	Pit	LIA - 43+	123	40	100	-		+	T.spt/dic	+	-	++	
268	Pit		124		10	-		-		-	-	+	
266	Pit		125	26	10	-		-		-	-	-	
269	Pit	LIA - 70	126	30	10	+	T.spt/dic	-		-	-	+	
237	Other	AD30 - 70	127	40	100	+	Hor	-		-	-	+	
238	Other	AD40 - 50+	128	40	250	+	Hor	+	T.spt/dic	+	-	+++	
280	Other	LIA - 50+	129	26	250	+	T.spt/dic Hor	-		-	-	+++	
252	Other	LIA - 50	130	40	100	+	Hor T.spt/dic	-		+	-	++	Roots

+ = 1-10 items/charcoal present; ++ = 11-50 items/charcoal moderate; +++ = 51-100 items/charcoal common

Hor *Hordeum vulgare*; T. spt *Triticum spelta*; T. dic *Triticum dicoccum*; T. sp *Triticum* sp.; Cory *Corylus avellana*