Channel Tunnel Rail Link Union Railways (South) Limited

Project Area 420

CHAPEL MILL, LENHAM, KENT ARC CML 99

STRIP, MAP AND SAMPLE EXCAVATION ASSESSMENT REPORT FINAL

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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 at Chapel Mill, near Maidstone in Kent. A watching brief on earthmoving operations in the surrounding area (Chilston Park, Chapel Mill and Lenham Heath) was also carried out and the results considered as part of this assessment of potential. A significant part of the area surrounding the Chapel Mill fieldwork event was preserved *in situ*.

An isolated pit containing probably late Bronze Age pottery and charcoal had been found at Chapel Mill during an earlier CTRL evaluation. Further sherds of pottery of the same date but no further contemporary features were found during the excavation.

Most of the features at Chapel Mill date from the late Iron Age. Two groups of small, similarly aligned, quite closely spaced ditches (which may belong to a more extensive field system) date from this phase, although in some cases the pottery may be residual and the ditches, especially those that follow the modern field boundaries, could be much later in date. Near to one of these groups of ditches a pair of shallow disturbed cremation pits were found. One of these cremations contained pottery and a small assemblage of possibly intrusive metalwork; the other contained fragments of coarse fired clay which may derive from the cremation pyre or be much later, intrusive material. A tree-throw hole cut by one of the ditches also contained unburnt human long bones. A further ditch, 100m to the south-east of the others but lying on a similar alignment, contained a single sherd of later Roman pottery in its upper fill and may be slightly later in date than the other ditches.

Since only a limited part of what may have been a wider field system was revealed in the excavation, the site provides more evidence for the chronology of land division in the late Iron Age than it does for its character. However, the close correspondence in the alignment and location between some of the Iron Age and later Roman ditches, if they are really of this date, and the modern field boundaries raises the possibility of continuity in the division of the landscape. Analysis of the post-medieval field system may, therefore, provide insights into the landscape organisation of earlier periods.

The association of the field system with burials provides some insight into the ritual organisation of the landscape, although it is unfortunate that the location of any associated settlement is unknown. The burials do, however, provide interesting evidence for continuity and change in burial practices in this period. Finds of human bones such as those in the tree-throw hole are more usual in earlier Iron Age contexts. There is also variation between the burials which may be related to differences in status. Although the cremations are disturbed, the charcoal from the pits may also reveal something of the process of cremation.

Although the late Bronze Age evidence indicates little more than activity on the site in that phase, the residual pottery of that date suggests that the pit found in the evaluation was not originally an isolated feature but formed part of a larger albeit perhaps ephemeral site. This has limited significance in terms of late Bronze Age site morphology and function.

A scatter of later Mesolithic flint was the most significant discovery made in the watching brief. It is not *in situ*, but is significant as evidence for activity in the general area of the scatter in that period. This assemblage should be considered in relation to the large assemblage of late Mesolithic flint recovered at the flint knapping site at Sandway Road, which is located 1 km to the west.

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 Chapel Mill, Lenham, Kent (ARC CML 99; Figure 1), and to maintain a watching brief along Project Area 420 of the Channel Tunnel Rail Link (CTRL). The excavation covered a trapezoidal area of 220 m x 40-50m (0.95 ha), centred at URL grid 70400 30000 (OS NGR TQ 9034 5002). The excavation took place between 29 March 1999 and 21 June 1999. The surrounding area affected by CTRL construction was preserved *in situ*.
- 1.1.2 Also included in this assessment are the more significant results of a watching brief maintained by the OAU at Chilston Park, Chapel Mill and Lenham Heath (ARC 420/73+700 78+150; Figure 1). This formed part of the wider watching brief maintained along Project Area 420 (from West of Boarley Farm to East of Lenham Heath) of the CTRL. Work on this watching brief took place between 30 June 1999 to 9 December 1999. The results of several evaluations in the same area and a geophysical survey, shown in Table 1 below, have also been considered but not incorporated in detail. This work part of an extensive programme of archaeological investigation carried out on behalf of URS in advance of the construction of the CTRL.
- 1.1.3 The archaeological Written Scheme of Investigation was prepared by Rail Link Engineering (RLE), and agreed in consultation with English Heritage and Kent County Council (KCC), on behalf of the Local Planning Authority.

Table 1: List of fieldwork events

Field work event name	work event Field work event code		Dates of Fieldwork
Chapel Mill	ARC CML 99	OAU	29/3/1999-21/6/1999
Chapel Mill ARC CML 97		OAU 20/10/1997-24/10/19931/10/1997-4/11/199	
West of Chapel Mill	ARC WCM 99	OAU	11/1/1999 - 18/1/1999
Lenham Heath	ARC LHT 97	Wessex	1/12/1997 - 5/12/1997
Chilston Park, Chapel Mill and Lenham Heath	ARC 420/73+700-78+150	OAU	30/6/1999 - 9/12/1999
Lenham Heath	ARC LHT 95	Geophysical Surveys of Bradford	1995

1.2 Geology and Topography

1.2.1 The site lies on the Folkestone Beds near to their southern boundaries with the Hythe Beds and a small outcrop of the Sandgate Beds. A short distance to the north

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- begins the sequence of Gault clay, chalk and clay with flints which rises up to the North Downs. This geological substrate is covered by silty loam and clay soils.
- 1.2.2 The site lies at a height of *c* 95 m OD on land which slopes gently to the south from the North Downs' escarpment.
- 1.2.3 Prior to work on the CTRL the land was pasture, although there were clear signs that the area had previously been ploughed.

1.3 Archaeological and Historical Background

- 1.3.1 Earlier prehistoric finds, other than flint scatters, are rare in the area of Chapel Mill. However, artefact scatters, pits, ditches and other features dating from the Mesolithic to the early Bronze Age were found at Sandway Road, just over 2.5 km to the north-west of Chapel Mill and just over 1 km from the flint scatter found in the watching brief (URS 1999c). A further scatter of worked flint, including a Palaeolithic handaxe and what may have been a transverse arrow, was found to the south-west of the flint scatter found in the watching brief (URL 1994, nos 1349 and 1350).
- 1.3.2 A number of late Iron Age-early Roman finds have been made in the area. These included a La Tène III brooch, a Gallo-Belgic stater both of late Iron Age date and five Roman coins, found around 200 m to the north of the site (URL 1994, no. 1246). A hoard of Iron Age coins was also found, in 1781, *c* 0.75 km to the east of the site (URL 1994, no. 1126). Undated linear and curvilinear earthworks perhaps forming a field system and a hollow way near the western edge of the Chapel Mill site (URL 1994, no. 1166) may be of similar date, as may some of the undated ring and linear cropmarks which begin *c* 0.5 km to the north-west of the site (URL 1994, no. 1317).
- 1.3.3 Except in the area subsequently selected for more detailed excavation which forms the main subject of this assessment, the evaluations around the Chapel Mill site, stretching from West of Chapel Farm (ARC WCM 98; URS 1999b) through the area of the Chapel Mill site (ARC CML 97; URL 1997) to east of Lenham Heath (ARC LHT 97; URS 1998), have revealed little except undated or post-medieval and modern ditches and postholes. The evaluation in the area of Chapel Mill itself (ARC CML 97, 1947TT) also revealed a former channel of the stream which still runs to the north-west of the site.
- 1.3.4 The few anomalies revealed by the geophysical survey at Lenham Heath (ARC LHT 95; URL 1996) were thought to be archaeologically insignificant.

2. ORIGINAL PRIORITIES. AIMS AND METHODOLOGY

2.1 Landscape Zone Priorities

- 2.1.1 The issues specified as Landscape Zone Priorities relevant to this site relate primarily to the rural economy, especially the organisation of the landscape, as well as its relationship with ritual activity. In particular they are:
 - changes to the organisation of the landscape through time
 - prehistoric landscape division
 - evidence for change and continuity in burial practices between the late Iron Age and the Roman period

2.2 Fieldwork Event Aims

- 2.2.1 The Fieldwork Event Aims were set out in the WSI (URL 1998) as follows:
 - To determine whether the LBA and IA remains respectively were associated with other contemporary features and formed part of a settlement
 - To recover environmental and other economic indicators if these were found to be present.

2.3 Fieldwork Methodology and Summary of Excavation Results

- 2.3.1 The strip, map and sample excavation was carried out in accordance with the methodology defined in the WSI (URL 1998). The topsoil and subsoil were stripped to the top of the archaeologically significant layers by 360° tracked excavators with toothless buckets under close archaeological supervision. The site was then planned and the features revealed were excavated by hand, pits being half-sectioned, and ditches being sectioned at appropriate points. The features were recorded in a single context recording system, were drawn in plan and section, and were photographed. Samples for environmental analysis were taken from appropriate contexts. Daily records of all activity related to the excavation were kept.
- 2.3.2 The watching brief was carried out in accordance with the methodology defined in the WSI (URS 1999d). Throughout the watching brief all groundworks undertaken by the Construction Contractor were carefully observed. Topsoil and subsoil were stripped under close archaeological supervision. A daily record of all activity related to the watching brief was maintained. Where archaeological features were revealed, they were to be excavated by hand, pits being half-sectioned and ditches being sectioned at appropriate points. All features were to be recorded using a single context recording system, drawn in plan and section, and photographed. Samples for environmental analysis were to be taken from appropriate contexts.
- 2.3.3 The excavation at Chapel Mill revealed features dating predominantly from the late Iron Age as well as some evidence for activity in the late Bronze Age and Roman period. A small, isolated late Bronze Age pit was the only feature dating to this period, although further pottery of similar date was found in the subsoil. Two shallow, disturbed cremation pits and seven ditches in two groups running close to each other and on similar alignments, date from the late Iron Age. One of the cremations contains a small assemblage of metalwork which may be intrusive, and the other fragments of fired clay which may derive from the cremation pyre but which could also be intrusive. Two tree-throw holes which are probably late Iron

Age or earlier in date were also found, one of which contained human long bones. Early Roman activity on the site was evidenced only by residual pottery from a subsoil layer. A further ditch on a similar alignment but in another part of the site contained a single sherd of 3rd century pottery and is the only feature which may date to a later phase.

2.3.4 The watching brief at Chilston Park, Chapel Mill and Lenham Heath revealed a scatter of later Mesolithic worked flint.

2.4 Assessment Methodology

2.4.1 This assessment report was commissioned by URS to the specification provided by RLE, as discussed with English Heritage and KCC (URS 2000). This specification follows national guidelines prepared by English Heritage and provides additional information regarding the level of detail required in the report and its format. Stuart Foreman (project manager) and Chris Hayden (team leader) managed the production of the report. The specialist work was undertaken by appropriately qualified specialists. Because the quantity of finds was relatively small all material was assessed.

3. FACTUAL DATA AND QUANTIFICATION

3.1 The Stratigraphic Record

The Features

3.1.1 The features found during the Chapel Mill excavation consist of a small pit, two shallow cremation pits, seven ditches and two tree-throw holes one of which contained human bone (Figure 2). In addition mixed assemblages of pottery of varying date were found in various subsoil layers.

Stratigraphy

3.1.2 Most of these features are stratigraphically isolated and there are thus very few significant stratigraphic relationships between them. The only stratigraphic relationships of any significance relate to ditch 225=235 which was cut by ditch 224=239 above, and which cut tree-throw hole 249 below. It is this tree-throw hole which contains human bones. These ditches and the tree-throw hole appear to relate to successive delineations of the same boundary.

Phasing

- 3.1.3 Pottery thus provides the only means of directly dating and phasing features. Unfortunately only a small number of features can be dated in this way. The remaining features can usually be dated only indirectly according to their spatial location, alignment and formal similarity to the features dated by pottery. There may be considerable continuity between the late Iron Age and post-medieval boundary features, although no traces of boundaries from intervening periods have survived.
- 3.1.4 The pottery suggests three or four phases of activity upon the site:
 - Late Bronze Age
 - Late Iron Age, to c AD 70
 - Early Roman
 - possibly later Roman, 3rd century

In addition, residual flint provides the only evidence for activity on the site in the middle-late Neolithic.

The late Bronze Age

3.1.5 A single shallow pit, containing pottery and charcoal, found during the evaluation, is the only feature dated to the late Bronze Age (URL 1997). Although it lies in the same area as the two cremation pits, they are probably both later in date. Late Bronze Age pottery, which may have derived from further, now destroyed features, was also found in a subsoil layer (201).

The late Iron Age

3.1.6 Pottery dating from the late Iron Age to *c* AD 70 was found in both the primary and upper fill one of the cremations (205), and in the primary and higher fills of two of the ditches (215 and 225=235). Ditch 215, however, lies on an alignment very similar to a modern field boundary, and also contains a single fragment of postmedieval tile. It is, therefore, likely that it is much later in date and that the late Iron Age pottery it contains is residual.

- 3.1.7 Two further features can be tentatively assigned to the late Iron Age on the basis of their stratigraphic relationships with one of the features dated by pottery. Ditch 225=235 cuts the tree-throw hole (249) which contains human remains, and is cut by ditch 224=239. Although these features are clearly earlier and later than ditch 225=235, they probably both belong to the same general phase of activity.
- 3.1.8 A further two groups of features can be assigned to the same phase on the basis of their alignment, location and size. Although it lies 10 m to their north-west, ditch 234 lies on the same alignment as ditches 225=235 and 224=239, and is the same size as ditch 224=239. Together these three ditches form a group, all sharing the same east-north-eastern alignment. Similarly, ditches 220 and 222 lie just a few metres from ditch 215 on the same alignment and are all comparable in size. They thus form a second group of ditches sharing the same north-eastern alignment, similar to that of the modern field boundary. The uncertainty concerning the dating of ditch 215 thus applies to the whole of this group.
- 3.1.9 Although it contains no pottery, cremation 213 lies only a few metres from cremation 205, and probably also dates from the same phase.

The early Roman period

3.1.10 Activity in the early Roman period was evidenced only by residual pottery in a subsoil layer (248) at the north-eastern end of the site. Whilst not indicating a hiatus, this smaller quantity of finds does suggest a diminution in the level of activity on the site.

The later Roman period

3.1.11 A single sherd of pottery dated to the 3rd century AD in the upper fill of ditch 247 is the only evidence to date this ditch, which lies on an alignment similar to some of the other ditches but *c* 100 m to the south-east of them. The sherd could be intrusive, but even if it is not, it dates only the later filling of this ditch which may have been cut within the lifetime of the other, late Iron Age ditches. Like some of the possibly late Iron Age ditches, this ditch lies on a similar alignment to the modern field boundaries, although not in the same location, and it is not impossible that it is much later in date.

The post-medieval period

3.1.12 Although they contain only late Iron Age and later Roman pottery, it is possible that ditch 215 (and the associated ditches 220 and 222) and perhaps 246, which all lie on alignments similar to modern field boundaries, are, in fact, much later in date, and that the pottery they contain is residual.

Residuality and disturbance

- 3.1.13 Because the number of dateable artefacts is so small it is difficult to assess the degree of residuality affecting the site. A small number of pieces of worked flint found in several features are, however, almost certainly residual. The human bone in the tree-throw hole may also be residual, although it is not impossible that it was deliberately placed in such a feature. The late Iron Age pottery in ditch 215 and perhaps the later Roman pottery in ditch 247 may also be residual. There are, however, no later finds in ditch 247 and only one fragment of later tile in ditch 215 which could equally be intrusive. The 3rd century sherd found in the upper fill of ditch 247 may also be intrusive but could equally well reflect the date at which the upper part of that ditch filled.
- 3.1.14 Clearer signs of disturbance are provided by the mixed assemblages of pottery,

ranging in date perhaps from the Neolithic to the 19th century, found in the topsoil and various subsoil layers. Amongst the pottery, the number of middle-late Bronze Age sherds are notable, suggesting further activity on the site during that phase to add to that represented by the pit. Other features of that date are likely to have been destroyed.

3.1.15 The ceramic building material also provides evidence for disturbance, particularly of the cremations. A single, tiny fragment of probably post-medieval brick was found in the upper fill (203) of cremation 205, and a single larger fragment of probably post-medieval tile was found in the fill of late Iron Age ditch 215. These finds are almost certainly intrusive. Cremation 213 may have been more seriously disturbed. A large number of small fragments of probably post-medieval brick were found in the primary fill of this cremation. The ceramic building material thus raises doubts about the association of the fired clay and some of the metalwork, notably the ferrous objects, with cremation 205, both of which could also be intrusive. Many of the copper alloy objects, however, may have been melted on the cremation pyre and thus appear to be directly associated with the cremation.

Truncation

3.1.16 It seems likely that all of the features on the site have been truncated to a significant degree, probably as a result of ploughing. Few of the smaller features survive to a depth greater than 0.2 m, and even the larger ditches are generally preserved to depths of only around 0.4 m.

Artefact Distributions

- 3.1.17 Few artefacts other than pottery were recovered, and even pottery was recovered in relatively small quantities. There is thus little indication of significant spatial patterning amongst the artefacts.
- 3.1.18 The clearest pattern is the concentration of all of the metalwork from the site (except one piece found in the topsoil) in the upper fill of cremation pit 205. It is possible that some of the metalwork was placed on the pyre where it partially melted, and may thus reflect the status or occupation of the cremated individual. However, probably post-medieval ceramic building material was also found in the same context, and some of the metalwork, notably the iron objects, may also be intrusive.
- 3.1.19 The occurrence of animal bone, almost all fragments of the bones of larger species, in only one context reflects the poor preservation of bone on the site and an apparently low level of activity in all periods.

The Chilston Park, Chapel Mill and Lenham Heath Watching Brief

3.1.20 The flint scatter found in the plough soil during the watching brief covered an area of c 20 m² upon a natural 'plateau' above a natural hollow but below a larger hillock. The flint may have been deposited here as a result of erosion from the hillock above. This scatter does not, therefore, form an *in situ* assemblage, although chronologically it appears relatively homogeneous.

3.2 The Artefactual Record

Prehistoric Pottery (Appendix 1)

3.2.1 A small assemblage of five sherds of prehistoric pottery, probably dating from the late Bronze Age, was recovered during the excavation to add to that found in the evaluation. The sherds were all fragments of a flat base. The pottery has thus been dated on the basis of its fine flint tempered fabric which is likely to be late Bronze

Age in date. All of the sherds were found in subsoil layers and are likely to be residual.

Late Iron Age and Roman Pottery (Appendix 1)

- 3.2.2 The Chapel Mill site produced just 34 late Iron Age and Roman sherds from eight stratified contexts. All but three of these sherds are of late Iron Age date. Most of these late Iron Age fragments are featureless bodysherds but seven small, unabraded fragments from a bead-rim beaker in glauconitic-sand tempered Fabric B9.1 of the Canterbury Archaeological Trust's fabric series (CAT nd, appndx 4) are included in the second largest assemblage (14 sherds, 125 g) from the fills of Ditch 225=235.
- 3.2.3 The largest assemblage (15 sherds, 53 g), from layer 248 at the north-east end of the site, includes two sherds from an Upchurch beaker in grey Fabric R16 and takes the occupation of the site into the Early Roman period. Another Roman sherd from the upper fill of ditch 247 appears to be late Roman in date and looks very like a product of the *c* AD 270-370 dated Wickham Barn kilns near Lewes in Sussex.

Ceramic Building Material (Appendix 1)

3.2.4 A total of 675 g of ceramic building material consisted of peg roofing tile, brick and a small amount of coarse fired clay. The coarse fired clay was recovered from the fills of the cremation pits and a late Iron Age ditch (215). It may derive either from the cremation pyre or be fragments of the base of a furnace or kiln. There is no clear indication of date, although most of the building material is probably post-medieval. These finds may all be intrusive and provide evidence for the disturbance of both of the cremations and of the ditch.

Clay Pipe (Appendix 1)

3.2.5 Two fragments of clay pipe stem were found in the topsoil.

Worked and Burnt Flint (Appendix 2)

- 3.2.6 A small group of redeposited flint of mid-later Neolithic date was recovered from a range of later prehistoric features from Chapel Mill. The material consists of debitage (28 pieces, 8 retouched pieces and 7 burnt unworked flints).
- 3.2.7 A further small group of flint (30 pieces) was recovered from the Chilston Park, Chapel Mill and Lenham Heath watching brief. Datable retouched pieces and associated debitage indicate a later Mesolithic date for this material.

Metalwork (Appendix 3)

3.2.8 A small assemblage comprising 17 pieces of metal was recovered from the site. One of these was an iron nail found in the topsoil. The remaining pieces were all found in the upper fill of cremation pit 205, dated from the late Iron Age to *c* AD 70. The metalwork in this cremation pit consists of eight fragments of iron nail shanks, one iron ring or washer, two small fragments of sheet copper and numerous fragments of copper alloy (26 g), many of which appear to have been melted. Unfortunately, the presence of probably post-medieval ceramic building material in the same context raises some doubt concerning whether all of this metalwork is contemporary with the cremation or, like the building material, is intrusive and much later in date. It seems likely that the iron ring or washer and perhaps some of the other iron is intrusive, but the copper alloy fragments may have partially melted on the cremation pyre and thus be directly associated with the cremation.

3.3 The Environmental Record

Human Bone (Appendix 4)

3.3.1 A single small deposit of unburnt bone (204) was found in a tree-throw hole which was cut by a ditch containing late Iron Age pottery. It comprised four conjoining fragments of adult femur shaft and three conjoining fragments of uncertainly identified upper limb. The tree-throw hole is likely to date to the late Iron Age. A pair of shallow features described as cremation pits (205 and 213) were also excavated and small quantities of cremated human bone was recovered. Burnt animal bone (sheep sized rib shaft) was also found in cremation pit 205. The fact that it too is burnt clearly indicates that it was present on the pyre.

Animal Bone (Appendix 5)

3.3.2 Fifty four fragments of bone (102 g) were retrieved by hand from the site, all of which was from the middle fill of late Iron Age ditch 225=235. Some of the bones were reassembled reducing the fragment count to 48. The bone was in very bad condition with severe attritional damage. A single fragment of sheep tibia (16 g) was identified. The remainder consisted of fragments of large bone (cattle/horse size).

Charcoal (Appendix 6)

3.3.3 Five samples from two cremation pits, both probably late Iron Age in date, were submitted for the assessment of the wood charcoal. Four of the flots produced identifiable charcoal fragments although the quantities varied. Four taxa were provisionally identified - *Fraxinus excelsior* (ash), *Quercus* sp. (oak), *Alnus/Corylus* (alder/hazel) and a single fragment of coniferous wood, possibly *Pinus* sp. (pine). Pit 205 produced an assemblage dominated by ash, while the other pit produced predominantly alder/hazel type charcoal. The presence of charred tubers and monocotyledonous rhizomes is likely to indicate the use of grass as tinder.

3.4 Archive Storage and Curation

- 3.4.1 The material recovered from the site has been stored according to the United Kingdom Institute for Conservation conservation guidelines. They require no special conservation measures.
- 3.4.2 The clay pipe and animal bone contribute little to the interpretation of the site, or to the CTRL research aims and need not be retained. The nail found in the topsoil may also be discarded although the other metalwork from the cremation should be retained.
- 3.4.3 The archive index has been updated and is shown below (Table 2).

Table 2: Archive index table

ITEM	NUMBER OF ITEMS OR BOXES OR OTHER	NUMBER OF FRAGMENTS /LITRES	CONDITION (No. of items) (W=washed; UW=unwashed; M=marked; P=processed; UP=unprocessed; D=digitised; I=indexed)
Contexts records	250	-	I
A1 plans	2	-	I, D
A4 plans	8	-	I, D
A4 sections	9	-	I, D
Small finds	34	-	W, M
Films	3	-	I
(monochrome) S=slide; PR=print			
Films (Colour) S=slide; PR=print	3	-	I
Lithics	1 size 4	43	W, M
Pottery	1 size 4	39	W, M
CBM	see Misc.	79	W, M
Metalwork	see Misc.	17+	W, M
Clay Pipe	see Misc.	2	W, M
Misc.	1 size 3	-	-
Human Bone	see Misc.	5	W, M
Animal Bone	see Misc.	54	W, M
Soil Samples (bulk)	-	5	P

^{*} flot size

Key to box sizes

 Size 3 = Quarter box
 $386 \text{mm} \times 108 \text{ mm} \times 100 \text{mm}$ 0.004 m^3

 Size 4 = Eighth box
 $213 \text{ mm} \times 102 \text{ mm} \times 80 \text{ mm}$ 0.002 m^3

4. STATEMENT OF POTENTIAL

4.1 The Stratigraphic Record

4.1.1 The present section reviews the success of the fieldwork events and post-excavation assessment in providing stratigraphic data to address the Fieldwork Event Aims and Landscape Zone Priorities for the sites, which are set out in section 2, above. Consideration is given to the potential they offer for further analysis.

Chapel Mill

- 4.1.2 In general, the excavation at Chapel Mill revealed few features, containing relatively few artefacts, between which there are few significant stratigraphic relationships. There is thus very limited potential for further significant stratigraphic or spatial analysis.
- 4.1.3 Although only a few features can be directly dated by the pottery they contain, almost all of the features on the site can be assigned to coherent groups which, on the basis of their location, alignment and form, can almost all be convincingly assigned to a particular phase of activity.
- 4.1.4 Further archaeological features may be present in the area that was preserved *in situ*.

Late Bronze Age

4.1.5 The excavation revealed no further features of late Bronze Age date to add to the pit found in the evaluation, although further pottery of late Bronze Age date, perhaps deriving from destroyed features, was found in various subsoil layers.

The Late Iron Age-Early Roman Period

The Field system

- 4.1.6 Most of the features found in the excavation form part of what was probably a more extensive late Iron Age field system. Whilst the parallel ditches may have formed trackways, it is equally possible that the closely spaced and in one case recut ditches indicate that boundaries were being redefined over time in slightly different locations.
- 4.1.7 The field system ran across the narrow width of the excavation area, which revealed little of its wider layout. Therefore, although the excavation has amplified the evaluation evidence for this period, it provides only a keyhole view of the organisation of the landscape at this time.
- 4.1.8 The close correspondence in alignment and spacing between some of the possibly late Iron Age and Roman ditches and modern field boundaries indicates the possibility of considerable continuity in landscape organisation since the late Iron Age. It is, however, possible that the ditches, especially ditches 215, 220 and 222, that follow the alignment of the modern field boundaries, are in fact much later in date and that the pottery they contain is residual.
- 4.1.9 No traces of a settlement associated with this field system were found within the excavation, nor were any traces of contemporary features found in the extensive evaluations to the east and west of the site. The burial evidence is the only indication that a settlement may lie close by.

Burial

- 4.1.10 The excavation of two probable late Iron Age cremations, and the recovery of unburnt human bone from a tree-throw pit, provides further limited evidence for the nature of the late Iron Age and Roman activity at the site, and for burial practice of this period.
- 4.1.11 The cremations were badly truncated, and had clearly been subject to disturbance during the post-medieval period. They offer little potential for stratigraphic analysis of the form of the pits or deposits, and the only scope for further work is likely to be in the area of animal bone inclusions, and possible grave goods. The presence of intrusive post-medieval brick fragments in the fills of both cremation pits raises doubt about the dating of the possible associated grave goods in cremation 205. However, technological analysis of the melted copper fragments would probably confirm whether they were of Iron Age date or not, and thus provide additional information regarding the nature and status of the burial.
- 4.1.12 Similar associations between cremations and field systems were found at Boys Hall Balancing Pond (ARC BHB 99), South of Beechbrook Wood (ARC BWD 98) and near the Pilgrim's Way (ARC PIL 98).

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4.1.13 The scatter of flint revealed in the watching brief is probably not *in situ*, although it appears to be chronologically relatively homogeneous. It is significant as evidence for activity at this location in the later Mesolithic period, and in association with the flint knapping evidence recovered 1 km to the west at Sandway Road.

4.2 The Artefactual Record

Prehistoric Pottery (Appendix 1)

4.2.1 The very small, residual assemblage of probably late Bronze Age pottery is significant only as an indication of activity on the site in that phase, and has no further potential to address any of the CTRL research aims.

Late Iron Age and Early Roman Pottery (Appendix 1)

4.2.2 The amounts of pottery are insufficient for anything other than dating purposes. A probable late Roman Wickham Barn sherd, however, when added to the much larger and more important material from the Thurnham Villa, may make a small contribution to our understanding of the patterns of Roman pottery supply across and around the edges of the Weald.

Ceramic Building Material (Appendix 1)

4.2.3 The brick and tile is all probably post-medieval in date and is most significant as evidence of disturbance on the site. It requires no further work. It is unlikely that there would be any value in further analysis of the pyre or kiln material, since it comes from a disturbed context, and is associated with post-medieval brick. Its provenance is therefore uncertain, which severely restricts its value as evidence of activity on site.

Clay Pipe (Appendix 1)

4.2.4 The fragments of clay pipe stem were both found in the topsoil and are of no significance in terms of the interpretation of the site or of the CTRL research aims. The material could be discarded.

Worked Flint (Appendix 2)

- 4.2.5 Although the material from Chapel Mill is redeposited its potential is slightly higher given its fairly tight dating to the mid-later Neolithic (the date is indicated by diagnostic pieces including an oblique arrowhead and a discoidal core, and is also based on the technological traits of the material). This group could be included in any further study of lithics from the CTRL route and would be particularly valuable in contributing to landscape studies of the Neolithic period.
- 4.2.6 The material from the Chilston Park, Chapel Mill and Lenham Heath watching brief although again not *in situ* will provide an insight into Mesolithic activity across the CTRL route. Its value as an assemblage is significantly enhanced by the presence of the Late Mesolithic flint knapping site identified during nearby excavations at Sandway Road. It should certainly be studied in conjunction with this major assemblage.

Metalwork (Appendix 3)

4.2.7 Because of the presence of post-medieval ceramic building material in cremation 205 it is impossible to be certain whether all of the metalwork is reliably associated with the cremation rather than being intrusive. It seems most likely that the iron nail shanks are intrusive, but the remaining metal artefacts and in particular the melted copper fragments may have been deliberately deposited on the pyre or in the cremation pit as grave goods. If the date of the melted copper can be established by technological analysis, this modest assemblage may have some significance as a possibly relatively low status group of grave goods.

4.3 The Environmental Record

Human Bone (Appendix 4)

4.3.1 The potential of the assemblage of human remains is limited by its small size as a group and by the poor preservation of the cremations. The deposits from Chapel Mill represent only small fractions of the remains of entire individuals. It would be useful to examine the burnt animal bone from pit 205 in detail to determine the quantity of animal bone present and to identify it to species if possible. The identification of animal bone within human cremations has implications for the study of burial practice of the period.

Animal Bone (Appendix 5)

4.3.2 Due to the small number of bones retrieved from the site and the fact that they came from only one context, very little information can be ascertained regarding the contribution of particular species to the economy of the site other than that they were present. It is not recommended that further work be done on this assemblage, and the material could be discarded.

Charcoal (Appendix 6)

4.3.3 The utility of further work on these samples depends upon whether better dating can be achieved so as to determine whether or not the cremation pits are contemporary. It is anticipated that minimal work could be carried out to confirm the predominance of a single taxon and the absence of other taxa. It is not considered that full fragment counts would provide useful information. The predominance of a single taxon in prehistoric cremation assemblages has been noted at other sites and may relate to the ritual selection of fuelwood for the cremation pyre. Comparison with other material may shed further light on the burial practices of the late Iron Age. A full discussion of the charcoal from these cremation deposits will enable valuable comparisons to

be made with other sites, such as Boys Hall Balancing Pond, Tutt Hill and Waterloo Connection along the CTRL.

4.4 Overall Potential

4.4.1 The significance of the Chapel Mill site lies primarily in two areas: the organisation of the landscape and its division, and burial practices in the late Iron Age-early Roman period. The middle-late Bronze Age evidence also raises issues which are of wider relevance to the CTRL.

Landscape Organisation and Division

- 4.4.2 Though the site provides evidence for division of the landscape in the late Iron Age, including perhaps redefinition of boundaries, only a very small part of what must be a more extensive field system was exposed. The site thus provides little direct evidence for the wider layout of this system.
- 4.4.3 Linear and curvilinear earthworks perhaps forming a field system and hollow way near the western edge of the Chapel Mill site were identified during the assessment of historic and cultural effects, and ring and linear cropmarks were identified beginning *c* 0.5 km to the north-west of the site (see section 1.3.2, above; URL 1994). These are undated but it was considered possible that they were of late Iron Age or Roman date. A comparison could be undertaken of the alignment of the excavated ditches with that of the earthworks and cropmarks, and this may suggest whether there is likely to be a relationship between them.
- 4.4.4 The close correspondence in spacing and alignment between ditches which may date from the late Iron Age and Roman period and modern field boundaries is of considerable interest, and suggests that there may have been considerably continuity in landscape organisation. Analysis of the wider post-medieval landscape may, therefore, provide some useful insights into landscape organisation in earlier periods in the Wealden Greensand landscape zone.
- 4.4.5 No economic or environmental evidence, except the charcoal from the cremations, was recovered, and it is therefore impossible to examine the impact of the creation of this field system upon the wider landscape. Traces of field systems of similar date have been found at several other sites along the CTRL (eg East of Station Road (ARC STR 99), West of Blind Lane (ARC BLN 98), East of Boarley Farm (ARC BFE 98) and Boys Hall Balancing Pond (ARC BHB 99)).
- 4.4.6 The location of any associated settlement is unknown. None was found in the extensive evaluations to the east and west of the site, though the cremations perhaps indicate that it lies somewhere nearby. A number of late Iron Age and early Roman finds, including a brooch and coins, are reported from 200 m north of the site, and a hoard of Iron Age coins was found in 1781 c 0.75 km to its east (see section 1.3.2, above). This, together with the possible earthwork and cropmark evidence in the vicinity, suggests that topographical study offers the best chance to enhance understanding of the excavated remains in their local landscape context.
- 4.4.7 It is unlikely that useful comparable evidence will be available from the other CTRL sites in the vicinity. A single ditch that may be of late Iron Age/Romano-British date is reported from excavations to the north-west at Sandway Road. CTRL investigations to the south-east of the site, at East of Newlands, produced evidence for a single possible late Iron Age or early Roman-British trackway, datable to the period *c* 100 BC-AD 200. Works at Hurst Wood revealed a number of burnt, shallow pits whose dating remains uncertain.

Burial

- 4.4.8 The association of late Iron Age cremations with a field system, also noted elsewhere along the CTRL (eg Boys Hall Balancing Pond (ARC BHB 98), South of Beechbrook Wood (ARC BWD 98)), provides some evidence for the ritual organisation of the landscape, though it is again unfortunate in this respect that the location of any associated settlement and the wider layout of the field system is unknown. The site thus provides limited evidence for the location of burial sites in the wider landscape.
- 4.4.9 Although the cremations are both truncated and disturbed, the charcoal, animal bone and metalwork found within them may shed interesting light on the practice of cremation. The charcoal suggests that particular species may have been selected for use in and construction of the pyre. It appears likely that parts at least of an animal, and some copper alloy objects were also placed on the pyre, and were subsequently deposited in the cremation pit. Evidence for the actual practice of cremation is not widespread, and, despite the disturbance, this material would nonetheless provide interesting evidence for how cremation was carried out.
- 4.4.10 The site also provides evidence for variation in burial practices in the late Iron Age, which here vary from long bones deposited in a tree-throw hole (although these may be residual) to a cremation possibly associated with a small assemblage of metalwork. This variation may be related to differences in status, which seem to have been evident in other late Iron Age sites in the south-east (Cunliffe 1991, 132-41). Several other examples of similarly dated burials have been found along the CTRL (eg at South of Beechbrook Wood (ARC BWD 98), Chapel Mill (ARC CML 99), Tutt Hill (ARC 430/83+800 84+900), Thurnham Villa (ARC THM 98)), to add to those previously known (eg Westhawk Farm). Their significance will be most apparent when they are compared with larger groups of burials of similar date from along the CTRL and elsewhere, notably the Waterloo Connection Roman cemetery (Springhead).
- 4.4.11 The discovery of human bones in a feature interpreted as a tree-throw hole is an unusual find for this period. Although they are difficult to interpret such finds are more usual in earlier Iron Age contexts, and this find may indicate continuity of burial practices associated with a small rural settlement. The site thus provides potentially interesting evidence for continuity and change in burial practices in the late Iron Age.

The Late Bronze Age

- 4.4.12 Alone, the isolated late Bronze Age pit is of little significance other than as evidence of some kind of activity on the site in that phase. Similar, more or less isolated pits have been found elsewhere along the CTRL (eg South of Beechbrook Wood (URS 1999a), and, slightly more extensively, at Tutt Hill (ARC 430/83+800 84+900)). Whether they represent truly isolated activity away from settlements or other foci, or are merely the remains of once more extensive, albeit still possibly ephemeral sites is unclear. The pottery evidence from Chapel Mill for the disturbance, perhaps complete removal through plough truncation, of other remains of this date, suggests that here at least the pit was not originally an isolated feature. The evidence gives little clue as to the site's character, however, charcoal being the only notable evidence from the pit itself.
- 4.4.13 Although the potential of this evidence to address any of the CTRL research aims is thus limited, it does raise interesting questions concerning the distribution of activity across the landscape and the morphology and function of sites. This is of particular interest in the later Bronze Age since it is in this period that, in general, there is

evidence for the establishment of more permanent forms of settlement than are apparent in earlier prehistory.

The Neolithic

- 4.4.14 The residual middle-late Neolithic flint recovered from the site is significant as evidence for activity on the site in that phase. Late Neolithic remains are also reported from the nearby CTRL site at Sandway Road.
 - The Chilston Park, Chapel Mill and Lenham Heath Watching Brief
- 4.4.15 The flint scatter identified during the watching brief is of significance as evidence of later Mesolithic activity in this location. Its potential will be enormously enhanced if it is studied in association with the extensive collection of Mesolithic flint recovered during the nearby CTRL excavations at Sandway Road, where an *in situ* Late Mesolithic flint knapping site has been identified.

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APPENDIX 1 - CERAMICS

1.1 Assessment of Prehistoric Pottery

by Alistair Barclay

Introduction

- 1.1.1 Prehistoric pottery was recovered from three contexts during strip, map and sample works at Chapel Mill.
- 1.1.2 The material was hand retrieved on site.
- 1.1.3 The pottery was recovered in accordance with the Fieldwork Event Aims for the site, which are set out in section 2 of the main report, above. The main purpose of recovering the pottery was to provide dating evidence for the features identified on the site.

Methodology

1.1.4 The assemblage was quantified by count and weight, and dates were assigned through the identification of diagnostic form and by fabric analysis. In the absence of diagnostic material, and an established fabric series, dates are tentatively assigned through fabric analysis in accordance with the general trends observable in material of this period. Fabrics containing fine to medium calcined and non-calcined flint are more likely to be of late Bronze Age date, although similar fabrics can occur in the Neolithic and the middle Bronze Age.

Quantification

1.1.5 Five sherds of late Bronze Age pottery (34 g) were found in three subsoil contexts (Table 1). Their fabrics contain a fine flint temper which is probably of late Bronze Age date. The only featured sherds were the flat base fragments from context 201 that appear to be from a small vessel.

Provenance

1.1.6 All the sherds were from subsoil layers; they were generally worn and abraded and are probably all residual.

Conservation

1.1.7 The sherds will not require further conservation, although since they provide evidence for activity in the area of the site in the late Bronze Age, they should be retained.

Comparative material

1.1.8 Similar fabrics with fine flint temper can be found on late Bronze Age sites in Kent and elsewhere in south-east England. A comparison can be made with the much larger assemblage from the White Horse Stone excavation.

Potential for further work

1.1.9 This type of fabric is common on sites of late Bronze Age date in Kent and across much of south-east England. However, similar fabrics do sometimes occur on Neolithic sites and it is not impossible that the sherds are of an earlier date. Further work on this and similar pottery elsewhere may clarify its chronology. Since the

sherds are probably residual, they have limited potential for further study beyond the clarification of their dating. In terms of the original Fieldwork Aims of the project, the sherds provide evidence for late Bronze Age or Neolithic activity in the area of the site, but the only potentially datable feature remains the isolated pit found during the evaluation.

Table 1: Summary of prehistoric pottery

Context	Count	Weight (g)	Period	Comments
201	1	8	Later Bronze Age	flat base of small vessel, abraded
217	3	16	Later Bronze Age	abraded
223	1	10	Later Bronze Age	abraded
Total	5	34		

1.2 Assessment of Late Iron Age and Roman Pottery

by Malcolm Lyne

Introduction

- 1.2.1 Late Iron Age and Roman pottery was recovered from eight stratified contexts during strip, map and sample excavations at Chapel Mill.
- 1.2.2 The material was hand recovered on site.
- 1.2.3 The pottery was recovered in accordance with the Fieldwork Event Aims for the site, which are set out in section 2 of the main report, above. The main purpose of retrieving the pottery was to provide dating evidence for the excavated features.

Methodology

- 1.2.4 All of the pottery assemblages were subjected to general sherd count, weighing and spot dating. None of them were considered suitable for more detailed quantification because of the small size of the assemblages and because very few rim or other diagnostic sherds were present.
- 1.2.5 Fabrics were classified 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.
- 1.2.6 Fabrics were classified using the Canterbury Archaeological Trust's codings (Macpherson-Grant *et al.* 1995) where applicable.

Quantification and Provenance

- 1.2.7 The site produced just 34 sherds (274g) of late Iron Age and Roman pottery. All but three sherds can be attributed to the late Iron Age (Table 2). One of the three Roman sherds came from the upper fill of ditch 247 and looks very like a product of the *c* AD 270-370 dated Wickham Barn kilns recently excavated near the junction of the Sussex Greensand Way and London to Lewes Roman road, north-west of Lewes.
- 1.2.8 Only one of the two cremation pits on the site (205) yielded any pottery: one large combed 'Belgic' grog-tempered ware sherd and a pellet of possibly middle or late Iron Age fabric with calcined flint filler. Much of the Iron Age pottery (14 sherds, 125g) comes from the fills of ditch 225=235 and includes seven small but fresh sherds from a bead-rim beaker in glauconitic B9.1 fabric, datable to *c* AD 1-50.
- 1.2.9 Evidence for a continuation of occupation on the site from the late Iron Age into the

early Roman period comes from the subsoil layer at the north-east end of the site, where an otherwise small 15 sherd late Iron Age assemblage also includes two beaker fragments in grey Upchurch fabric R16.

Conservation

1.2.10 As the most important dating evidence for the site, all of the pottery should be retained. No further conservation is required.

Potential for Further Work and Comparative Material

1.2.11 The amounts of pottery are insufficient for anything other than dating purposes but the probable Wickham Barn sherd, coupled with those from Thurnham Villa, has considerable implications for our understanding of the patterns of Roman pottery supply across and around the edge of the Weald.

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Context Count Weight (g)		Period	Comments	
203	1	80	50 BC - AD 70+	combed B2 jar
214	2	11	LIA - AD 70+	-
229	4	95	LIA - AD 50	
230	3	6	LIA	B9.1
243	7	24	AD 1 - 50	B9.1 bead rim jar
245	1	3	3 rd century	Wickham Barn kiln fabric?
248	15	53	50 BC - AD 50+	B2.1 & B9.1
204	1	2	M-LIA	

Table 2: Summary of late Iron Age and Roman Pottery

1.3 Assessment of Ceramic Building Material

by Terence Paul Smith and Ian M Betts

Introduction

- 1.3.1 Ceramic building material was recovered during strip, map and sample excavations at Chapel Mill.
- 1.3.2 The material was recovered by hand excavation and from sieving.
- 1.3.3 The material was recovered in accordance with the Fieldwork Event Aims for the site, which are set out in section 2 of the main report, above. The primary aim of collecting the ceramic building material was to determine whether it provided any evidence for the form, date or function of settlement in the vicinity.

Methodology

1.3.4 The material has been examined microscopically (×10) and basic fabric descriptions, following the Museum of London ceramic building material fabric series, are included where appropriate. The material has been recorded by count and weight.

Quantification

1.3.5 A total of 79 fragments of ceramic building material (675g) was recovered; it is quantified by context in Table 3. The assemblage comprises roofing tile, brick and

some fragments of what may be furnace base.

Peg tile

1.3.6 A fragment of plain peg roofing tile with fine moulding sand attached to the base and edge was recovered from context 214, the single fill of late Iron Age ditch 215. It is in a fine orange fabric with some iron oxide and calcium carbonate. This is quite close to London fabric type 2276, but is not an exact match and is probably a more local product. The tile is 11-12mm thick; other dimensions are not preserved. There is a damaged diamond-shaped peg/nail hole approximately 11 × 9 mm in its upper face.

Brick

1.3.7 Fragments of late medieval or, more likely, post-medieval bricks were found in context 203, the upper fill of late Iron Age cremation pit 205 and context 212, the primary fill of cremation pit 213, probably also late Iron Age in date. These are in Museum of London fabric type 3065 and probably come from brickyards situated somewhere in the London area. The peg tile is probably from tileries situated somewhere in Kent.

Possible pyre, kiln or furnace material

1.3.8 Four fragments of material which may derive either from the cremation pyre or from a furnace or kiln base were recovered from context 211, the middle fill of cremation pit 213. They are in what appears to be a very coarse and sandy fired clay material.

Provenance

- 1.3.9 All the ceramic building material appears to be associated with post-medieval disturbance of the site. The brick was found in the fills of the two cremation pits 205 and 213, and the peg tile came from Iron Age ditch 215. The possible pyre or kiln material was stratified above a fragment of brick, in cremation pit 213.
- 1.3.10 The peg tile is in good condition but the other brick is highly fragmentary and abraded.

Conservation

1.3.11 The material could be discarded, although as the clearest evidence for the disturbance of the cremations it has some significance in terms of the interpretation of the site.

Potential for further work

1.3.12 The brick and tile is all post-medieval in date and is most significant as evidence of disturbance on the site. It requires no further work. It is unlikely that there would be any value in further analysis of the pyre or kiln material, since it comes from a disturbed context, and is associated with post-medieval brick. Its provenance is therefore uncertain, which severely restricts its value as evidence of activity on site.

Table 3: Summary of ceramic building material

Context	Count	Weight	Type	Period	Comments
203	1	5	Brick?	1450? - 1900?	tiny frags, MoL fabric 3065, brick?, (sample 100)
211	4	245	?	?	Very coarse sandy, furnace base?
212	73	320	Brick?	1450? - 1900?	tiny frags, MoL fabric 3065, brick? (sample 104)
214	1	105	Peg	1450? - 1900?	Similar to MoL fabric 2276, diamond nail hole

1.4 Assessment of Clay Pipe

by Chris Hayden

1.4.1 Two fragments of clay pipe stem were found in the topsoil (context 200; Table 4). They have diameters of 9 mm and 5.5 mm, and are 55 mm and 31 mm long respectively. The larger fragment is very slightly curved suggesting it post-dates the end of the 18th century (Higgins forthcoming). The smaller fragment is straight and could be earlier in date. Neither of the pieces need be retained. Neither of these finds is of any significance in terms of the interpretation of the site or of the CTRL research aims.

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Table 4: Summary of clay pipe

Context	Count	Period	Comments
200	1	late 18th century or later	curved stem fragment
200	1	-	straight stem fragment

APPENDIX 2 - LITHICS

2.1 Assessment of Worked Flint

by Philippa Bradley

Introduction

- 2.1.1 A total of 43 pieces of worked flint was recovered during strip, map and sample excavation at Chapel Mill. The flint is a small group of domestic waste of the midlater Neolithic.
- 2.1.2 A total of 30 pieces of flint came from the scatter found during the Chilston Park, Chapel Mill and Lenham Heath watching brief. This material is of later Mesolithic date.
- 2.1.3 The flint was recovered during fieldwork and from sieving.
- 2.1.4 The flint was recovered in accordance with the Fieldwork Event Aims set out in section 2 of the main report, above. The primary aim of retrieving and examining the flint was to establish its typology and date. This was undertaken to provide evidence of the dating of prehistoric occupation on the site, and its character.

Methodology

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

Quantification

- 2.1.6 A total of 43 pieces of worked flint was recovered from Chapel Mill. The composition of the flint assemblage is summarised in Table 5. Two contexts (200 and 201, topsoil and subsoil respectively) produced small groups; the remainder produced very small numbers of pieces.
- 2.1.7 The Chilston Park, Chapel Mill and Lenham Heath watching brief produced 30 pieces of flint which are summarised in Table 6.

Provenance

- 2.1.8 At Chapel Mill the flint was recovered from a range of features (cremation pit fills, ditch fills and tree-throw hole fills) of later prehistoric date. The flint is therefore clearly residual with a mid-later Neolithic diagnostic retouched type (an oblique arrowhead from context 200). The remaining pieces are consistent with this date; the discoidal core is a type more commonly found during the mid-later Neolithic although it cannot be used to provide precise dating.
- 2.1.9 The scatter of flint from the Chilston Park, Chapel Mill and Lenham Heath watching brief lay on natural sands on a natural plateau overlooked by a larger hillock from which the flint may have been derived. The flint is clearly not *in situ*, but it does provide a relatively tight group of later Mesolithic material. It is likely that this material has not been moved too far from its original place of deposition. The Mesolithic material has been relatively carefully worked with flakes and cores showing evidence for platform edge preparation. Many of the flakes have been soft-hammer struck and one of the cores is a classic opposed platform blade example. The technology employed is that of careful and controlled knapping, and is typical of the Mesolithic period.

Condition

2.1.10 All of the flint has suffered some post-depositional damage; cortication is mostly light to medium, but two of the pieces are more heavily corticated. Several of the flakes have been heavily burnt.

Comparative material

- 2.1.11 The small group from Chapel Mill could be compared to adjacent sites on the CTRL route and with any fieldwalking data. It would also be of interest for mid-later Neolithic studies across the landscape to include this small group.
- 2.1.12 The value of the Mesolithic material from the watching brief is greatly enhanced by the proximity of the *in situ* Late Mesolithic flint knapping site identified in CTRL excavations at Sandway Road. The watching brief material should certainly be studied in conjunction with this major assemblage.

Potential for further work

- 2.1.13 Although the material from Chapel Mill is redeposited its potential is slightly higher given its fairly tight dating to the mid-later Neolithic (an oblique arrowhead, discoidal core and based on the technological traits of the material). It is recommended therefore that this group should be included in any further study of lithics from the CTRL route and would be particularly valuable in contributing to landscape studies of the Neolithic period.
- 2.1.14 The material from the watching brief although again not *in situ* will provide an insight into Mesolithic activity across the CTRL route, and is therefore of some local importance. This is greatly enhanced by the proximity of the *in situ* Late Mesolithic flint knapping site identified during CTRL excavations at Sandway Road. The watching brief material should certainly be studied in conjunction with the material from Sandway Road.

Table 5: Summary of flint from Chapel Mill

Context	Count	Period	Comments
200	24	mid - late Neolithic	Small group of debitage 11 flakes, 1 possible core rejuvenation flake and a small multi-platform flake core) and retouched pieces including an oblique arrowhead, a point/piercer and 2 miscellaneous retouched pieces. In addition 7 pieces of burnt unworked flint.
201	8	mid - late Neolithic?	Small group of 5 flakes and 3 retouched pieces (a scraper fragment, a minimally retouched side scraper and a broken point or piercer)
203	2	?	1 large thick blade-like flake and 1 flake
204	2	?	1 flake and 1 discoidal core, possibly of later Neolithic date
228	2	?	1 flake, 1 misc retouched piece
229	2	?	2 flakes with ?used edges
231	2	?	2 flakes
249	1	?	1 flake

Table 6: Summary of flint scatter in Chilston Park, Chapel Mill and Lenham Heath Watching Brief

Context	Count	Period	Comments
16 (74+900)	30	Later Mesolithic	14 flakes (some soft hammer-struck and with platform edge abrasion, also flakes with blade scars on dorsal face), 4 blade-like flakes, 5 cores (1 opposed platform blade core, 2 single platform and 2 multi-platform cores; these latter items both have some blade scars), 7 retouched pieces (1 rod microlith, 1 end and side scraper, 4 retouched flakes, and one possible broken microlith).

APPENDIX 3 - METALWORK

3.1 Assessment of Metalwork

by Valerie Diez

Introduction and Methodology

- 3.1.1 A small assemblage comprising 17 pieces of metalwork was recovered during strip, map and sample excavation at Chapel Mill.
- 3.1.2 The material was recovered during fieldwork and from sieving.
- 3.1.3 The objects were retrieved in accordance with the Fieldwork Event Aims for the site, which are set out in section 2 of the main report, above. The main aim of the retrieval and assessment programme was to contribute to the dating of the features on the site, to provide evidence of possible settlement activity, and to provide evidence for late Iron Age burial practice.

Quantification and Provenance

3.1.4 With the exception of an iron nail found in the topsoil, all of the metalwork was found in the upper fill of cremation pit 205, dated from the late Iron Age to *c* AD 70. The metalwork in this cremation pit consists of eight fragments of iron nail shanks, one iron ring or washer, two small fragments of sheet copper and numerous unidentified copper fragments many of which appear to have been melted (Table 7). All of the metalwork is poorly preserved. The presence of probably post-medieval ceramic building material in the same context raises the possibility that the metalwork too is intrusive and much later in date than the cremation, although it is also possible that the copper alloy objects were melted on the cremation pyre and are thus directly associated with the cremation.

Conservation

3.1.5 The metalwork is largely unidentifiable, although it may represent the remains of a modest assemblage of grave goods and as such it would not be normal practice to discard it. If the X-rays are deposited with the site archive, the nail from the topsoil may, however, be discarded.

Potential for further work and comparative material

- 3.1.6 Although the nail shanks may be accidental inclusions, the remaining artefacts and fragments from cremation 205 may have been deliberately deposited on the pyre or as grave goods in the cremation pit. However, given the presence of post-medieval brick in the same context there remains a possibility that the material originated elsewhere.
- 3.1.7 Compositional analysis would probably be able to confirm whether the copper fragments are of Iron Age date, but it is unlikely that the fragments will prove to be identifiable as objects. If the Iron Age date of the copper can be confirmed, the group provides evidence for the presence of grave goods, but it will not be possible to establish their original form.

Table 7: Summary of metalwork

Context	Special number	Material	Count	Period	Comments	
					(description)	
200		Fe	1	?	Nail	
203	sample 100	Fe	8	?	Fragments nail shanks	
203	sample 100	Fe	1	?	Ring or washer	
203	sample 100	Cu	2	LIA?	Two tiny fragments of metal sheet	
203	sample 100	Cu	c 40	LIA?	Unidentified fragments, mostly	
	_				melted	
203	SF 100	Cu	1	LIA?	Small unidentified fragment	
204	sample 101	Cu	1	LIA?	unidentified fragmented, melted	

APPENDIX 4 - HUMAN REMAINS

4.1 Assessment of Human Remains

by Angela Boyle

Introduction

- 4.1.1 During strip, map and sample works at Chapel Mill, cremation contexts were subject to 100% recovery as whole-earth samples, and were subsequently wet-sieved. Material from the >2 mm fraction were retained *en masse*. Unburnt human bones were also retrieved during the fieldwork.
- 4.1.2 The study of the material was aimed at determining the number, age and sex of the burials in order to address the Fieldwork Event Aims and Landscape Zone Priorities for the site, which are set out in section 2 of the main report, above. The material was considered to have the potential to illuminate the nature of activity at the site during the late Iron Age, and to provide evidence for change or continuity in burial practices between the late Iron Age and the Roman period.

Methodology

4.1.3 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 on a pro forma record sheet which includes context, context type, period, weight, identifiable fragments, colour and minimum number of individuals. 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

Cremations

4.1.4 Cremated remains were recovered from five contexts in two cremation pits. The remains from the two contexts in cremation pit 205 weighed in total 206 g, and those from the three contexts in cremation pit 213, weighed 337 g (Table 8). Burnt animal bone was also found in the deposits in pit 205. No estimates of age or sex could be made.

Disarticulated unburnt bone

4.1.5 A small quantity of unburnt bone was recovered from the fill 249 of a tree-throw hole. The identifiable bone comprised four fragments of adult femur shaft, three of which were conjoining. In addition, there were three conjoining fragments of upper limb shaft, also adult. Two recent breaks were visible but the majority were very abraded and clearly occurred in antiquity.

Provenance

4.1.6 Pottery dating from the late Iron Age to *c* AD 70 was found in both the primary and upper fills of cremation pit 205. The upper fill also contained fragments of metalwork (burnt and possibly unburnt). Tree-throw hole 249 was cut by ditch 225-235 which also contained late Iron Age pottery. Although it contained no pottery, cremation 213 was located a few metres from 205 and is probably also late Iron Age in date.

Conservation

4.1.7 The material does not require any conservation for the purposes of long-term storage.

Comparative material

4.1.8 Small cemeteries associated with rural settlements of this period are not well known in the south-east of England (Drewett, Rudling and Gardiner 1988, 233) and for this reason, although the location of the associated settlement is unknown, the small group excavated at this site is a significant addition to our understanding of the burial rites of the late Iron Age-early Roman period. Their significance will be more apparent when they are compared with larger groups of burials of similar date from along the CTRL and elsewhere. Comparable deposits were found at other CTRL sites including Boys Hall Balancing Pond and Snarkhurst Wood.

Potential for further work

4.1.9 The potential of this assemblage is limited by its small size as a group and by the poor preservation of the cremations. An average adult cremation can weigh between 1000-2400 g if complete (McKinley 1997, 68; observations at modern crematoria). Clearly, then the deposits from Chapel Mill do not represent the entire remains of any one individual. Burnt animal bone (sheep sized rib shaft) has been identified in the deposit from pit 205. The fact that it too is burnt clearly indicates that it was present on the pyre. Therefore it would be useful to examine the bone in detail to determine the quantity of animal bone present and to identify it to species if possible. The identification of animal bone within human cremations has implications for the study of burial practice of the period. Sheep/goat was present within a proportion of the Iron Age cremation burials at Westhampnett (McKinley et al 1997, 73).

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Table 8: Summary of cremated human remains

Context	Context type	Period	Weight	Identifiable fragments	Colour	Minimum number of individuals
203	Upper fill of pit 205	LIA	199 g	Rib, proximal phalange of hand, carpal fragments, ?femur shaft, pre-molar root, canine/incisor fragment, one fragment of sheep-sized rib	White and grey	?
204	Lower fill of pit 205	LIA	7 g	Distal fragment of metacarpal, long bone shaft	White and grey	?
210	Upper fill of pit 213	LIA	2 g	Nothing identifiable	White and grey	?
211	Middle fill of pit 213	LIA	73 g	Skull vault, long bone shaft, fibula shaft	White and grey	?
212	Lower fill of pit 213	LIA	262 g	Skull vault, petrous bone, rib shaft	White and grey	?

APPENDIX 5 - FAUNAL REMAINS

5.1 Assessment of Animal Bone

by Bethan Charles

Introduction

- 5.1.1 A small assemblage of animal bone was recovered during strip, map and sample excavation at Chapel Mill.
- 5.1.2 All the bone was retrieved by hand excavation on site.
- 5.1.3 The recovery of animal bone was undertaken in accordance with the Fieldwork Event Aims for the site, which are set out in section 2 of the main report, above. It was hoped that animal bone would provide evidence for the pastoral economy of the site.

Methodology

5.1.4 The assemblage was recorded through the use of a simple recording sheet. This enabled a quick calculation of totals to be made along with a rough estimation of the number of individuals in each context and in total.

Quantification

5.1.5 A total of 54 fragments of bone (102g) were retrieved, all from the middle fill of late Iron Age ditch 225=235. Some of the bones were reassembled, reducing the fragment count to 48. Only one of the bones - a fragment of a sheep tibia - was identified to species (Table 9).

Provenance

5.1.6 The bone was in very poor condition with a large amount of attritional damage. This will have obscured evidence of butchery or gnaw marks. All the unidentified material was from large bones (cattle/horse size) and it is very probable that the smaller less robust bones have not survived.

Potential for further work

5.1.7 Due to the small number of bones retrieved from the site, and their recovery from one deposit, very little information can be ascertained regarding the contribution of particular species to the economy of the site other than their presence. It is not recommended that further work be done on this assemblage, and the material could be discarded.

Table 9: summary of identified animal bone

Context	Interpretation	Period	% of identified fragments	Count
243	middle ditch fill	LIA	100	1

APPENDIX 6 - PLANT REMAINS

6.1 Assessment of Charcoal

by Dana Challinor

Introduction

- 6.1.1 During strip, map and sample excavation works at Chapel Mill, five samples were taken in order to sample two cremation pits in their entirety for the recovery of charred plant remains and cremated bone.
- 6.1.2 The samples were taken in accordance with the Fieldwork Event Aims for the site, which are set out in section 2 of the main report, above. The purpose in sampling was to examine the evidence for change and continuity in burial practices between the late Iron Age and the Roman period.

Methodology

6.1.3 All five samples were processed and assessed. The volume of soil processed ranged from 8 to 40 litres. The samples were processed by flotation in a modified Siraf-type machine, with the flots collected onto a 250µm mesh. The flots were air-dried and divided into fractions using a set of sieves. Fragments of charcoal were randomly extracted, fractured and examined in transverse section under a binocular microscope at x10 and x20 magnification. Fragments caught in the >2mm sized sieves were quantified as identifiable. In the case of large flots, a sample of c 20% was examined. The flots were also scanned for the presence of any other charred plant remains.

Ouantification

6.1.4 A total of five samples was assessed, of which four produced identifiable wood charcoal (Table 10). Four taxa were identified - Fraxinus excelsior (ash), Ouercus sp. (oak), Alnus/Corylus (alder/hazel) and a single fragment of coniferous wood, cf. Pinus sp. (pine). Ring-porous taxa are more easily recognisable at low magnification, although the identification of the diffuse porous taxa is tentative and the presence of coniferous wood will need to be confirmed. Pit 205 produced a huge quantity of charcoal in its upper fill, with an assemblage dominated by large pieces of Fraxinus excelsior and a very little Ouercus charcoal. The lower fill of the same pit had a similar composition but produced fewer and smaller fragments of charcoal. Pit 213 contained a different assemblage which was dominated by Alnus/Corylus type charcoal. In this pit, the primary fill produced the greatest quantity of charcoal and the coniferous wood. Most of the flots also contained some charred amorphous tissue, possibly parenchymatous. Indeed, both flots from pit 205 produced some charred tubers and monocotyledonous rhizomes. A small amount of coal and modern material, such as insect remains and seeds, were present in all flots.

Provenance

6.1.5 There is a marked contrast in the selection of fuelwood for cremation in the two cremation pits at this site. However, there is no suggestion that more than a single burning event is represented in the composition of both pits, as all the assemblages appeared to be dominated by a single taxon (it is assumed that the *Alnus/Corylus* type charcoal is either one or the other as the fragments exhibited similar patterns). The presence of other taxa in the assemblages, although in smaller quantities, may relate to the position of the wood in the fire or it may represent the remains of

artefacts placed on the funeral pyre. The preservation of the charcoal was very good and concentration was high, which is to be expected in a burial pit containing the remains of the original pyre. Sample 100 produced large fragments of ash charcoal with up to seven years growth, from which a clear pattern was discernible. This pattern was compatible with those produced by the practice of woodland management, but some of the large pieces clearly fitted together to form a single branch, suggesting that a single branch/tree had been used as fuel. It would be difficult to infer woodland management from a single tree, and no other flot produced fragments of a large enough size.

Conservation

6.1.6 The flots are in a stable condition and present no problems for long-term storage and archive.

Comparative material

6.1.7 The predominance of a single taxon in prehistoric cremation assemblages, indicating the use of a single tree or specifically selected species in ritual activities, has been noted at Radley Barrow Hills (Thompson 1999, 352) and at Rollright Stones (Straker 1988). It has also been suggested that the abundance of oak or ash in cremation deposits, compared to other species, is a result of the pyre structure, the timber from these trees providing the supports in a central position, less likely to have been totally reduced to ash (Gale 1997, 82). The presence of tubers in cremation deposits has been noted elsewhere (e.g. Jones 1978, 108; Carruthers 1992, 63; Moffett 1999, 245) and may have been linked to ritual activity. At Chapel Mill, the evidence is more convincing for the use of grass as tinder, since the small burnt rhizomes would not be edible. However, there has been little publication on Iron Age and Roman charcoal from cremation deposits (Gale 1997, 77), although other sites along the CTRL are likely to provide comparable data.

Potential for further work

6.1.8 The utility of further work on these samples is dependent upon obtaining better dating through which it would be possible to determine whether or not the cremation pits are contemporary. It is anticipated that minimal work could be carried out to confirm the predominance of a single taxon and the absence of other taxa. Certainly, it is not considered that full fragment counts would provide useful information. A full discussion of the charcoal from these cremation deposits will allow valuable comparisons to be made with other sites, both regionally and nationally.

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Table 10: Summary of charcoal from cremations

	Sample details					Flot details		
Pit	Context	Period	Sample no.	Sample size (l)	Flot size (ml)	Charcoal	Taxa	
205	203	LIA	100	38	1400	1000+	Fraxinus excelsior Quercus sp.	
	204	LIA	101	40	150	++	Fraxinus excelsior	
213	211	-	103	35	250	+++	Alnus/Corylus Quercus sp. cf. Pinus sp.	
	212	-	104	38	300	++++	Alnus/Corylus	

^{+ = 1-10; ++ = 11-50; +++ = 51-100; ++++ = 101-1000; 1000+ = &}gt;1000