

**CHANNEL TUNNEL RAIL LINK
UNION RAILWAYS LIMITED**

**Archaeological Evaluation at Nashenden Valley
(ARC NSH97), Borstal, Rochester, Kent
Environmental Statement Route Window 18**

24th September 1997

**Contract no. 194/870
WA Report no. 43502c**

Wessex Archaeology

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Volume 1 of 1

Prepared by:	
Date:	
Checked by:	
Date:	
Approved by:	
Position:	
Date:	

**Wessex Archaeology,
Portway House,
Old Sarum Park,
Salisbury,
Wiltshire
SP4 6EB**

24th September 1997

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Archaeological Evaluation at Nashenden Valley (ARC NSH97), Borstal, Rochester, Kent Environmental Statement Route Window 18

Executive Summary

Wessex Archaeology was commissioned by Union Railways Limited to carry out an archaeological evaluation on a site to the south of Borstal, near Rochester (centred on URL grid point 53100 45750; NGR grid point TQ 73000 65800), known as Nashenden Valley. The potential for archaeological remains within the evaluation area was identified as part of the Environmental Assessment of the CTRL (URL 1994) which included fieldwalking survey (URL 1995). This potential was defined as the possibility of subsoil features or deposits of archaeological interest that may be associated with, or in close proximity to, the recorded surface concentrations of medieval pottery and prehistoric worked flint and the possibility of discovering land surfaces, features or deposits of archaeological interest buried at depth beneath colluvium.

The evaluation revealed a very small number (14) of dated and undated features, predominantly modern or of natural origin. Archaeological features consisted of a pair of wheelruts, a small pit and a trackway, all of which were probably post-medieval in date. The potential for medieval or prehistoric remains in association with fieldwalking finds was not realised.

Colluvial deposits were identified within the valley floor, including a basal horizon containing both Early and Late Bronze Age pottery. However, these finds were not *in situ*, and no settlement evidence was recorded which may be associated with the colluvial development. Burnt flint and charcoal were recovered from the interface between colluvium and underlying chalk meltwater deposits. The burnt flint provided a thermoluminescence date of 790 +/- 350 BC (68% confidence level). A soil horizon, located within chalk meltwater deposits, remains undated, but studies elsewhere would suggest that it probably originates in the late glacial Allerød chronozone (c. 11,000 BP).

FACTUAL STATEMENT

1 INTRODUCTION

1.1 Project Background

1.1.1 Wessex Archaeology was commissioned by Union Railways Limited (URL) to carry out an archaeological evaluation on a site to the south of Borstal, near Rochester (between URL grid points 5270 4630 and 5355 4510; NGR grid points TQ 7270 6640 and 7350 6500; **Figure 1**), known as **Nashenden Valley** (site code ARC NSH97; Environmental Statement Route Window 18).

1.1.2 The evaluation forms part of a programme of archaeological investigation along the proposed route of the Channel Tunnel Rail Link (CTRL), and was preceded by an Environmental Assessment (URL 1994) and fieldwalking survey (URL 1995).

1.1.3 The fieldwork was conducted in accordance with a written *Specification for Archaeological Investigations* (URL 1997), which defined the scope, aims and methods for the project. In addition to general aims applicable to all works within the CTRL programme, the specification identified the following site-specific aims:

- *determine the presence/absence etc. of any subsoil features or deposits of archaeological interest which may be associated with, or in close proximity to, the recorded surface concentrations of medieval pottery and prehistoric worked flint;*
- *to determine whether any land surfaces, features or deposits of archaeological interest are buried at depth beneath colluvium.*

1.1.4 The fieldwork was carried out between 12th May 1997 and 23rd May 1997, with preliminary survey work carried out on 25th April 1997.

1.2 Site Description, Topography, Geology and Hydrography

- 1.2.1 The site comprised a south-east to north-west aligned elongated strip of land within the Nashenden Valley, parallel to, and south-west of, the M2 motorway, and covered an area of *c.*13.50 hectares. The evaluation was programmed to comprise 31 machine trenches (1477TT - 1506TT and 1979TT), each measuring 30 m by 1.8 m (**Figure 2**). Of these, seven trenches could not be excavated during this phase of the evaluation (1477TT - 1481TT, 1485TT and 1487TT), leaving 24 trenches.
- 1.2.2 At the time of the evaluation the entire area within the reduced site limits was covered with an arable crop (barley). For ease of reference, the reduced evaluation area was divided into three identifiable fields, or plots (**Figure 2**). Trenches within each plot are tabulated below (**Table 1**).

Table 1: Correlation of Plot and Trench numbers

Plot number	Trenches
Plot 1	1493TT, 1494TT, 1495TT, 1496TT, 1497TT, 1498TT, 1499TT, 1500TT, 1501TT, 1502TT, 1503TT, 1504TT, 1505TT, 1506TT
Plot 2	1488TT, 1489TT, 1490TT, 1491TT, 1492TT, 1979TT
Plot 3	1482TT, 1483TT, 1484TT, 1486TT

- 1.2.3 The south-east and north-west ends of the elongated evaluation area were located at the base of the Nashenden Valley, the central portion rising partially up the north-east facing valley side. This was a result of the valley following a gentle curving alignment, with the convex side to the north-east, a curve respected by the alignments of the M2 motorway and Nashenden Farm Lane (**Figure 2**).
- 1.2.4 The evaluation ground surface was at *c.* 24.6 m above Ordnance Datum (aOD) to the north-west in Plot 3, rising to a maximum height of *c.* 47.2 m aOD on the south-west side of the valley in Plot 1. From this point the ground surface dropped sharply back to the valley floor at a height of *c.* 37.7 m aOD, and followed the gently rising valley floor from this point to the south-east end, at a maximum height of *c.* 46.2 m aOD.
- 1.2.5 Underlying drift geology for the area is recorded as Pleistocene Head deposits located along the base of the valley, and associated with a relict channel formerly feeding the River Medway *c.* 1 km to the north-west. Solid geology is recorded as comprising Cretaceous Upper Chalk, with overlying superficial caps of Pleistocene Clay-with-Flints forming the higher ground to the south and south-west (Ordnance Survey 1977).
- 1.2.6 There are no extant watercourses either within, or in the immediate vicinity of, the site.

1.3 Methodology

1.3.1 As noted above, the fieldwork was conducted in accordance with a written *Specification for Archaeological Investigations* (RLE 1997), which contains a detailed methodology for all aspects of the evaluation fieldwork. This methodology will not be repeated in full here, although a brief summary is reiterated below;

- *all trenches were located to a horizontal accuracy of ± 0.5 m and elevation accuracy of ± 0.02 m (per kilometre traverse) in relation to trench location plans provided and Ordnance Datum (Newlyn);*
- *all trenches were excavated in discrete 0.1-0.2 m spits using a tracked excavator with a 1.8 m wide toothless ditching bucket under close archaeological supervision, to either 1.2 m depth, the surface of *in situ* geology, or the surface at which archaeological remains could be identified, whichever was encountered first;*
- *three trenches (1497TT, 1498TT and 1502TT) out of an agreed maximum of five, were stepped and excavated below 1.2 m depth, to the base of colluvial deposits;*
- *all trenches were cleaned manually, with a sufficient sample of all exposed features investigated, and sampled where appropriate, in order to fulfil the aims of the evaluation; and,*
- *all recording conformed to the standards of current best practice, and includes a full graphic and photographic record of all stages of the evaluation.*

1.4 Variations

1.4.1 Other than the removal of trenches 1477TT - 1481TT, 1485TT and 1487TT from this phase of the archaeological evaluation, the following agreed variations were actioned during the course of the fieldwork.

- *The deepening of colluvial trench 1497TT was shortened to avoid a buried service pipe (probably water).*
- *Geotechnic pits excavated to 1.2 m depth below in situ basal geology in trenches 1482TT, 1483TT, 1484TT, 1486TT, 1488TT, 1489TT, 1490TT, 1491TT, 1492TT and 1493TT.*

2 RESULTS

2.1 General

- 2.1.1 In summary, 24 evaluation trenches were excavated within the three defined plots (**Figure 2**), revealing 14 archaeological or potentially archaeological features, all of which were investigated. These features are predominantly, but not exclusively, located on the higher ground to the south-west, and include three pre-Holocene periglacial features (trenches 1493TT **7**, 1495TT **35** and 1496TT **13**), three early Holocene tree throws (trench 1502TT **105**, **107** and **109**), two modern geotechnic pits (trenches 1498TT **96** and 1501TT **40**), one modern post stump (trench 1979TT **184**) and one modern pipe trench (trench 1497TT **70**). The features listed above will not be discussed further here.
- 2.1.2 Of the remaining features, two were identified as probable wheel ruts (trench 1482TT **192** and **194**), one trackway (trench 1503TT **25**) and one pit (trench 1489TT **150**). Artefacts recovered from these features comprise post-medieval brick fragments and iron nails from both trackway **25** and pit **150**.
- 2.1.3 In addition, colluvial layers were also recorded along the valley floor, as well as an area of probable colluvium within a slight hollow on the south-west side of the valley. Several sherds of Early and Late Bronze Age pottery were recovered from the valley floor colluvium, particularly in trench 1498TT. Burnt flint and charcoal were recovered from the interface between colluvium and underlying chalk meltwater deposits in trench 1497TT. The burnt flint provided a thermoluminescence date (**Appendix 4**) of 790 +/- 350 BC (68% confidence level).
- 2.1.4. A soil horizon, located within chalk meltwater deposits in trenches 1497TT and 1502TT was undated, but studies elsewhere (**Appendix 5**) would suggest that it probably originated in the late glacial Allerød chronozone (c. 11,000 BP).
- 2.1.5 A context inventory (by trench) is provided in **Appendix 1**, whilst deposits and features of note are described below.

2.2 Stratigraphy

- 2.2.1 The stratigraphic sequence identified within the evaluation area (**Figures 3** and **4**) can be broadly summarised as;
- Poorly structured Upper Chalk forming the south-west side of the valley;
 - Clay-with-Flint capping the Upper Chalk;
 - Valley gravel (probably Head deposit) in the base of the valley;

- Reworked silty Loessic deposit (Swanscombe Loam ?) deposited on the south-west side of the valley entrance to the north-west, and sealing Clay-with-Flint;
- Coombe Rock deposits sealing the Valley gravel at the footslopes on either side of the valley;
- Bt horizon of a relict argillic brown earth, predominantly occupying slight hollows on the south-west valley side;
- colluvial deposits in the valley base sealing the Coombe rock, and occupying slight hollows on the south-west valley side;
- modern topsoil.

Upper Chalk (Figure 3)

2.2.2 The Cretaceous Upper Chalk was exposed in seven trenches (1482TT, 1486TT, 1491TT, 1493TT, 1495TT, 1496TT and 1497TT **85**). Predominantly, this was recorded as very poorly structured soliflucted chalk with moderate to frequent medium to large subrounded flint nodules. Trench 1496TT straddled the interface between the chalk and overlying Clay-with-Flint on the south-west side of the valley, the chalk in this trench recorded as a slightly structured creamy white soliflucted chalk with moderate medium to large subrounded flint nodules.

Clay-with-Flint

2.2.3 These deposits were exposed within six trenches (1482TT, 1484TT, 1486TT, 1490TT, 1493TT and 1496TT), predominantly located towards the higher ground to the south and south-west. They comprise a stiff reddish brown silty clay with occasional to moderate medium to large subrounded flint gravel, and represent the northernmost extent of a Clay-with-Flint cap recorded to the south (Ordnance Survey 1977).

Valley Gravel (Figure 3)

2.2.4 These gravels were recorded within two trenches (1502TT **47** and 1506TT) located on the valley floor. In both incidences they were sealed by subsequent coombe rock deposits, and comprise poorly sorted small to large subrounded flint gravel in a coarse sandy matrix.

Silty Loessic deposit (Figures 3 and 4)

2.2.5 These deposits were recorded in 13 trenches (1482TT - 1484TT, 1486TT, 1488TT - 1495TT, 1497TT **69**, 1498TT **112**, **113**, **120** and 1979TT), predominantly located on the south-west valley side towards the north-west valley entrance. They comprise fine slightly clayey silt, probably of Loessic origin, and may have been reworked. They may relate to the deposits in the Swanscombe and North Kent sequences, generically known as "Swanscombe Loam".

Coombe Rock (Figures 3 and 4)

- 2.2.6 These deposits were recorded in nine trenches (1488TT - 1489TT, 1491TT - 1492TT, 1494TT, 1497TT **69**, 1498TT **114/144**, 1502TT and 1503TT) predominantly located at the base of the valley sides. They comprise calcareous chalk meltwater deposits of periglacial origin.

Argillic Brown Earth (Figure 4)

- 2.2.7 These deposits were recorded in five trenches, predominantly preserved within a slight hollow on the south-west valley side (trenches 1489TT, 1491TT - 1492TT and 1494TT), but including an isolated example on the valley floor (trench 1498TT **144**). They comprise strong reddish brown slightly silty clays, with occasional localised patches of medium subangular flint gravel, and represent the Bt horizon of a relict argillic brown earth ("Forest Soil") which has been severely truncated.

Colluvium (Figures 3 and 4)

- 2.2.8 Colluvial deposits were recorded in all trenches along the valley floor (trenches 1497TT **67, 68**, 1498TT **92/116, 93/117**, 1499TT 1501TT, 1502TT **98, 99**, 1503TT - 1506TT). Colluvial deposits were also present along a linear shallow hollow on the south-west valley side (1484TT, 1486TT, 1489TT and 1492TT - 1495TT). The colluvial sequences are very silty and although post-glacial in origin, are probably derived from, or incorporate, loessic deposits. They are predominantly only weakly calcareous, characterised by a silty texture, lack of chalk pieces, and flinty content, and are a consequence of human activity in the valley catchment. The cryoturbated interface between the underlying Coombe Rock and the colluvium in trench 1497TT produced a small quantity of burnt flint and charcoal, which were sampled for radiocarbon and thermoluminescent dating respectively (samples 1005 and 1006). Radiocarbon dating was not proceeded with at this stage. A thermoluminescence date of 790 +/- 350 BC (68% confidence level) was obtained from the burnt flint. This would appear to indicate an inception date for the formation of this deposit sometime from the late Bronze Age to middle Iron Age. However, a single date should be treated with caution.

- 2.2.9 The silty nature indicates local re-working of loessic deposits which may have blown in after disturbance, or eroded from former thicker soil profiles. There were few distinctive characteristics to identify colluvial deposits extending across the evaluation area, although a humic slightly pedogenic deposit was recognised in a number of trenches (1498TT **94/118** 1499TT, 1500TT, 1502TT **100** and 1506TT). Where recognised, this layer produced both burnt and worked flint and prehistoric pottery, some identified as Early and Late Bronze Age.

Topsoil

- 2.2.10 In general, topsoil encountered throughout the evaluation area comprised c. 0.25 - 0.35 m thickness of dark brown clayey loam with moderate amounts of small to medium subrounded flint gravel, and occasional to moderate amounts of small chalk flecks.

2.3 Structural Report (Figure 2)

Trench 1482TT (Plot 3)

- 2.3.1 A pair of east to west aligned parallel narrow features (**192** and **194**) crossed the central portion of the trench, cut from the surface of the upper colluvial layer (186) and sealed by topsoil (185). They were *c.* 1.5 m apart, with each feature up to 0.3 m wide and 0.2 m deep, with irregular moderate sloping sides and an uneven base. They were filled with dark brown silty clay containing frequent small to medium subangular flint gravel and chalk flecks (191 and 193 respectively). No artefacts were recorded from these features, which on morphological and stratigraphic grounds are considered, but not proven, to be modern wheelruts.

Trench 1489TT (Plot 2)

- 2.3.2 A south-west to north-east elliptical pit (**150**) was located in the central portion of the trench, cut from the surface of colluvium (145) and sealed by topsoil (144). It was 0.65 m long, 0.42 m wide and 0.10 m deep, with slightly concave moderate sloping sides, and was filled with light brown clayey silt containing moderate small subangular flint gravel (149). An undiagnostic piece of ceramic building material and a corroded piece of iron were recovered from this feature, which is assumed to be post-medieval or modern.

Trench 1503TT (Plot 1)

- 2.3.3 A south-west to north-east trackway (**25**) was recorded crossing the trench towards the south-east end, sealing the upper surface of colluvium (21) and sealed by topsoil (20). The trackway comprised a 3.2 m wide and 0.36 m thick layer of yellowish brown clayey silt containing profuse medium to large subangular flint nodules. Although the surface was compact, no further treatment, such as metalling, was evident. Artefacts recovered from this feature comprise ceramic building material and three pieces of corroded iron, provisionally identified as post-medieval.

2.4 Artefactual Reports collated by Lorraine Mephram

- 2.4.1 Small quantities of artefactual material, in a limited range of material types, were recovered from 18 trenches, predominantly from topsoil contexts, but also from colluvial deposits and a small number of archaeological features. Finds totals, by material type and by context, are given in **Appendix 2**, which also includes artefacts retrieved from environmental samples. The date range of much of the material recovered is post-medieval or modern, although some earlier material, in the form of worked and burnt flint and pottery, was present. Post-medieval/modern finds are not described in detail here, but are summarised in section 2.4.9. Other finds are briefly described by material type below.

Worked and Burnt Flint by W.A. Boismier

- 2.4.2 The worked flint assemblage exhibits a mixture of different technologies and probably spans a relatively wide chronological range. The raw material utilised includes nodule flint, derived either from Chalk or Clay-with-Flints, and Bullhead flint. Flint from most contexts exhibits a variable degree of edge damage, and the patination ranges from unpatinated, or with a light film of patination, to a mottled bluish-grey to white patination. The technology employed is mixed, ranging from thin, diffuse bulbs of percussion with thin platforms to pronounced bulbs, thick platforms and hinge fractures. There is only one tool, a large endscraper on a flake, which is not chronologically diagnostic.
- 2.4.3 In the absence of a range of chronologically diagnostic forms, the majority of the flint assemblage is likely, on a technological basis, to be broadly of Late Neolithic or Bronze Age date; there is no evidence of earlier material (Mesolithic/Early Neolithic). The whole assemblage is likely to be redeposited, either as residual material, or in contemporaneous colluvial layers.
- 2.4.4 A small quantity of burnt, unworked flint was also recovered, including burnt flint taken for thermoluminescent dating (**Appendix 4**) which cannot be examined at this stage. This material type is intrinsically undatable from visual inspection, and its origin is uncertain, but frequent association with prehistoric material has led to its use as an indicator of prehistoric activity.

Pottery by Lorraine Mephram

- 2.4.5 The post-medieval and modern pottery is summarised below. Earlier pottery comprised 20 sherds, which are of prehistoric and Romano-British date.
- 2.4.6 Seventeen sherds were identified as prehistoric, almost entirely on the basis of fabric type since most are plain and undiagnostic body sherds. All sherds are small and abraded, which has affected the confidence with which they may be dated. Sherds have been tentatively divided into early prehistoric (?Early Bronze Age) and later prehistoric (Late Bronze Age/Iron Age). The first group comprises five sherds (trenches 1498TT **118**, 1499TT **39**; 1502TT **100**) in grog-tempered and grog/shell-tempered fabrics, including one abraded rim sherd, possibly decorated. The ceramic tradition cannot be identified for these sherds.
- 2.4.7 The remaining 12 sherds comprise nine in coarse flint-tempered fabrics (1498TT **94**; 1502TT **97**), which could be of Late Bronze Age date, although a date later in the 1st millennium BC cannot be entirely ruled out; and three in finer flint-tempered fabrics (1498TT **93**; 1498TT **118**) which are more likely to be of Late Iron Age date.
- 2.4.8 Three joining sherds in a coarse shelly fabric (1505TT **82**) come from the rim of a jar of Romano-British form, possibly 3rd or 4th century AD.

Stone by Lorraine Mepham

2.4.9 Two fragments of lava quern were recovered (1497TT **66**; 1501TT **43**); and although likely to be Romano-British continental imports, probably from the Rhineland, they have also been recovered in Saxon contexts such as at *Hamwic* (Southampton) (Morton 1992).

Post-medieval and modern finds by Lorraine Mepham

2.4.10 These comprise ceramic building material, one clay pipe, glass, pottery, stone and iron, and are summarised in **Table 2** below:

Table 2: Post-medieval artefact summary

Category	Description
CBM:	fragments of bricks and roof tiles, not closely datable
Clay pipe:	one plain stem fragment, not closely datable
Glass:	one window fragment, two jar/bottle fragments; 18th century or later
Pottery:	glazed and unglazed redwares (probably 18th century or later); stoneware (19th/20th century); industrial white wares (19th/20th century)
Stone:	one fragment of roofing slate; one fragment of architectural stone (granite?); neither closely datable
Iron:	two nails, one boot heel and a small unidentified fragment; none closely datable

2.5 Environmental Report by Michael J Allen

Land snails

Introduction

2.5.1 A series of 35 snail samples from four contiguous sequences was sampled for snails. Columns of snail samples were taken through the Allerød-phase soil (1502TT **45**, columns 1007, 1008, **Figure 4**), an early Holocene tree throw (1502TT **109**), and two columns of 13 and 14 contiguous samples through the main colluvial sequence in trench 1498TT (columns 1001, 1002, 1004, **Figure 4**).

2.5.2 Samples of 1500 g were processed by standard methods (Evans 1972) for land snails. Air dried and pre-weighed samples (usually 1000g, 1500g or 2000g) were soaked and disaggregated in water and hydrogen peroxide (H₂O₂). Floating shells were decanted on to a sieve of 0.5mm mesh aperture and the remaining mineralogenic residue washed through a nest of sieves of 5.6mm, 2mm, 1mm and 0.5mm aperture and oven dried. The flots were rapidly scanned under a x10 - x 30 stereo-binocular microscope to assess shell preservation and species representation. There is some inherent bias in this method as many shells will not float and will only be present in the unextracted residues. Moreover, the shells recorded in the flot are those less likely to break (i.e. the larger robust species and very small species). Nevertheless this assessment does enable an indication of shell preservation, assemblage composition, and with sequences of samples, change through

time to be detected. The quasi-quantification of the species and taxonomic groups is tabulated below (**Appendix 3**)

Allerød phase sequence (Trenches 1497TT and 1502TT, **Figures 3 and 4**)

2.5.3 Shells were present in the chalk meltwater deposits below and sealing the soil and from the soil itself. The assemblages are highly restricted and dominated by *Pupilla muscorum* and *Vallonia* spp. The species included cf. *Trochoidea geyeri* which has been extinct in Britain since the late glacial (it does not occur in post-glacial Britain, although today has a basically central European distribution; Kerney and Cameron 1979, 183). There are various British Pleistocene records including some from late Devensian assemblages on the North Downs (Kerney 1963).

2.5.4 The assemblages from the meltwater deposits relate to Kerneys (1977) molluscan biozone Z (equivalent to pollen zone I and II); they are a classic, typical assemblage and the snail assemblage from the Allerød phase soil compares well with others in Kent. Only the upper meltwater deposits contain species not present in Late Glacial Britain (*Carychium tridentatum* and *Discus rotundatus*) which here are seen as intrusive fossils from possible worm or root hollows.

Holocene tree hollow (Trench 1502TT)

2.5.5 The early Holocene tree hollow contained rich mollusc assemblages dominated by shade-loving species, indicating deciduous woodland and typical of the Atlantic (Neolithic) period.

Holocene colluvium (Trench 1498TT, **Figure 4**).

2.5.6 The silty and weakly calcareous nature of the hillwash did not preserve shell numbers until high up in the sequence. Despite the extremely low numbers, it is significant that all the sampled deposits are over-whelmingly dominated by open country species; ie the sampled colluvial sequence relates entirely to post-woodland clearance activity.

2.5.7 Higher in the colluvial sequence in column 1004 (context 117) shells were present in low numbers, and in both sequences the upper deposit (116/92) contained enough shells to enable statistically viable analysis upon full extraction and identification.

Summary

2.5.8 The shells from the Late Glacial Allerød Phase sequence can be compared with major work in Kent and the material from the putative Allerød buried soil in particular is significant. However, no evidence of associated human activity is present, even as small fragments of charcoal. The sequence, can provide both comparison with previous work and the landscape history in which to place the evidence of woodland and subsequent clearance.

2.5.9 The post-glacial sequences provide evidence of woodland (tree hollow assemblages), followed by evidence of widespread human activity (woodland clearance and tillage). The molluscan sequences will demonstrate

this and define the nature and sequence of the land-use after woodland clearance (ie pasture, rough pasture or tillage). All sequences may provide a sediment signature from magnetic susceptibility analysis to aid in the characterisation and interpretation of the origin of the deposits.

Charred plant remains and charcoal

- 2.5.10 A single bulk sample of 10 litres was taken from the Allerød phase buried soil in trench 1502TT for the retrieval of charcoal and charred plant remains. A further small sample of *c.* 0.19 litres (188 g) was taken from the burnt flint and charcoal interface between coombe deposits and colluvium in trench 1497TT.
- 2.5.11 The Allerød sample produced a very small flot without any obvious rooty material or uncharred weed seeds. No charred plant remains or charcoal were recorded, although molluscs were present (see 2.5.4).
- 2.5.12 The small charcoal-rich sample from trench 1497TT (**Figure 3**, sample 1005) was examined by Rowena Gale prior to consideration for radiocarbon Accelerated Mass Spectrometry (AMS) dating. The sample contained few fragments of charcoal larger than 2mm in any axis. Five fragments were selected and prepared for examination by fracturing to expose transverse, tangential and radial surfaces.
- 2.5.13 The five fragments were similar in structure to *Acer* sp. (maple), which is not known from archaeological contexts prior to the Neolithic period. It does occur throughout the Bronze Age, Iron Age and Roman periods as a low but consistent presence. This would agree with the first millennium BC thermoluminescence date obtained from associated burnt flint (**Appendix 4**). It is, however, recorded in a number of Post-Hoxnian and Pre-Ipswichian contexts; ie during temperate fluctuations, as well as in Ipswichian levels.

STATEMENT OF IMPORTANCE

3 CONCLUSIONS

3.1 Extent of Archaeological Remains

3.1.1 Features considered of archaeological significance were thinly spread throughout the evaluation area. Finds evidence, stratigraphic relationships and morphology suggest that these features represent post-medieval and modern activity (**Figure 2**).

3.1.2 The preliminary fieldwalking survey produced small concentrations of prehistoric flintwork and medieval pottery. No subsurface remains were identified that could be confidently ascribed to either period. It is therefore probable that the fieldwalking survey has identified random concentrations of material either resulting from topsoil manuring, or some other agricultural process, such as downslope movement due to ploughing.

3.1.3 Colluvium was recorded in all trenches within the valley floor, as well as a relatively shallow superficial sequence located on a slight break of slope of the south-west valley side. Dating evidence from an early, though not primary, colluvial horizon in the valley includes Early and Late Bronze Age pottery, as well as undiagnostic prehistoric flintwork. This material is almost certainly not *in situ*.

3.1.4 Two trenches contained deposits and features of archaeological interest buried at depth beneath colluvium. Trench 1487TT has produced a deposit of burnt flint and charcoal from the interface between cryoturbated Coombe Rock and overlying colluvium. The burnt flint provided a thermoluminescence date of 790 +/- 350 BC (68% confidence level). This is in very broad agreement with the few sherds of pottery recovered from colluvial contexts (see section 2.4.5-7).

3.1.5 Trench 1502TT revealed a soil horizon within coombe rock deposits. Molluscan evidence (c.f. *Trochoidea geyeri*) indicates that this horizon is probably a late-glacial (i.e. late Devensian) Allerød chronozone soil horizon.

3.2 Nature of Archaeological Remains

3.2.1 All archaeological features survived as either cuts or deposits sealed directly by modern topsoil. Inter-relationships between features were not observed. It is unlikely that these features predate the post-medieval period.

3.2.2 Other remains include colluvium, probably resulting from later prehistoric agricultural activity. Some of the earlier colluvial horizons have produced both Early and Late Bronze Age pottery and a thermoluminescence date of

790 +/- 350 BC (68% confidence level). In addition, a pre-Holocene Allerød soil horizon has been identified.

3.3 Character of Site

3.3.1 No confirmed evidence for settlement activity of any period was recorded within the evaluation area. The small artefact concentration within the colluvial horizon in 1498TT is unlikely to be *in situ*, but may be seen as further indirect evidence for settlement activity, of probable indeterminate Bronze Age date, towards the higher ground to the south-west (see 2.2.8-9 above). Present evidence suggests that human activity within the evaluation area during any this period amounted to low-level agricultural processes.

3.4 Site Chronology

3.4.1 Pre-Holocene evidence comprises an Allerød soil buried with chalk meltwater deposits (Coombe Rock).

3.4.2 Datable remains indicated development of colluvium during the Bronze Age to Iron Age.

3.4.3 Romano-British and post-medieval material was also recovered from within the evaluation area. Stratigraphic relationships, dating evidence and morphology suggest that most of the features recorded are post-medieval or later.

4 IMPORTANCE OF REMAINS

4.1 Scheduled Monument Criteria

4.1.1 The Secretary of State's criteria for scheduling monuments has been addressed. Although the remains recorded during this evaluation do not appear to satisfy any of the criteria as defined, the comparative rarity of Allerød soil horizons is of note.

4.2 Period

4.2.1 The pre-Holocene Devensian period is represented by the deposition of an Allerød soil horizon within chalk meltwater deposits (Coombe Rock), which although undated at this site, are generally dated to *c.* 11,000 years BP.

4.2.2 Other secure chronological indicators from the evaluation include Early and Late Bronze Age, Late Iron Age, Romano-British and post-medieval/modern pottery. In addition, some residual flintwork may be of a slightly earlier prehistoric date (i.e. Late Neolithic). The mixed nature of the broadly undiagnostic prehistoric flintwork may indicate intermittent activity in the area throughout the period, with probable Bronze Age settlement in the

general vicinity as evidenced by the datable pottery and other artefacts within the colluvial layers.

- 4.2.3 There was no evidence for prehistoric or medieval settlement activity within the evaluation area, as originally suggested by the recovery of artefacts from these periods during earlier fieldwalking.

4.3 Rarity

- 4.3.1 The pre-Holocene Allerød soil horizon in trenches 1502TT and 1497TT respectively are worthy of note. Comparable discoveries in Kent have been made at Upper Halling, Dover Hill and Holywell Coombe (Preece 1994).

- 4.3.2 The other archaeological remains recorded during the evaluation are unremarkable, and represent a range of feature and artefact types frequently recorded on 'green-field' evaluation sites.

4.4 Documentation

- 4.4.1 Little has been previously documented about the evaluation area. An earlier desk-based assessment (URL 1994) noted the significance of the Nashenden Farm complex to the north-east. This significance concerns the Domesday Book (AD 1086) reference to a Manor House at Nashenden Farm, which probably indicates pre-conquest Late Saxon origins. An excavation in 1969 and 1970 identified the foundations of a chalk and flint building, that were interpreted at the time as 12th-century remains indicating the site of the Manor House. However, it has since been proposed that these represent the remains of a chapel dedicated to St Margaret.

4.5 Group Value

- 4.5.1 There appears to be little group value that can be attributed to the results of this evaluation, although the provisionally dated colluvial sequence, in relation to underlying the pre-Holocene deposits, may be considered of wider importance than merely site-specific research (see section 4.9.3).

4.6 Survival/Condition

- 4.6.1 The pre-Holocene and colluvial deposits survive as *in situ* deposits, although these are by their very nature derived deposits. Archaeological remains have probably been truncated, and possibly completely removed, by ploughing. Artefacts survive, including small sherds of pottery (average sherd weight *c.* 4 g), worked flint and ceramic building material, as well as a few carbonised ecofacts. Mollusca are not well-preserved in the weakly calcareous colluvial sequences but indicate an open, post- woodland clearance landscape.

4.7 Fragility/Vulnerability

- 4.7.1 The pre-Holocene horizons are sealed by substantial deposits of colluvium and topsoil (i.e. at least 1 m thickness), and are therefore protected from normal agricultural activity. However, any deeper invasive groundwork will certainly impact on these remains.
- 4.7.2 Similarly, the basal colluvial deposits that contain artefacts within the valley floor are protected from normal agricultural activity by the overlying subsequent layers of colluvium. This should not discount the significance of these later deposits, particularly in relation to a study of the entire sequence.
- 4.7.3 All archaeological features that are considered significant are sealed directly by modern topsoil, and are therefore vulnerable to ploughing and any other invasive groundwork. However, it is likely that these all represent post-medieval or later features.

4.8 Diversity

- 4.8.1 Although a considerable range of deposits are recorded within the evaluation area (Chalk, Valley Gravels, coombe rock, argillic brown earth, colluvium, Clay-with-Flint, feature fills and topsoils) there was no significant diversity of archaeological features or finds.

4.9 Potential

Structural

- 4.9.1 The archaeological features recorded offer little potential for contributing to the understanding of settlement and agricultural activity in the area throughout time. On the basis of the available evidence, it is unlikely that any of the features represented indicate settlement features although settlement activity possibly occurs in the vicinity, as evidenced by the artefacts within colluvial sequences.

Artefactual

- 4.9.2 The majority of finds are of post-medieval or modern date and have no further archaeological potential; it is recommended that these finds are discarded prior to the final deposition of the archive. The prehistoric and Romano-British pottery is useful as an indication of activity at various periods, while the imported lava quern fragments indicate trading links. However these small assemblages are of limited significance with no potential for further analysis. This is due to the small quantities of finds, the undiagnostic nature of much of the pottery, and the consequent lack of firm artefactual dating. The characterisation of the lithic assemblage as redeposited and of mixed chronology likewise leaves little potential for further analysis.

Environmental

- 4.9.3 The Allerød phase buried soil is an important palaeo-environmental context, and can address current research questions about the nature of the Late-glacial interstadial transition. However, although the buried soil contains shells, the analysed samples provide no evidence of human activity associated with this context.
- 4.9.4. The colluvial sequence may have potential for studying the wider impact of humans on the post glacial landscape. For instance, the thermoluminescence date of 790 +/- 350 BC (68% confidence level), together with the presence of early Bronze Age to Iron Age pottery would suggest that the colluvial sequence formed some time after c. 2,000 BC and prior to the Roman period.

4.10 Discussion

- 4.10.1 The potential for archaeological remains within the evaluation area had been identified by an earlier Environmental Statement (URL 1994) and fieldwalking survey (URL 1995). This potential was defined as the possibility of discovering features and remains associated with prehistoric and medieval artefact concentrations recorded during the fieldwalking survey. This potential has not been realised.
- 4.10.2 A small number of dated and undated archaeological features were found throughout the evaluation area. Many were identified as either modern or natural, with only a pair of wheelruts, a small pit and a trackway surface considered as significant. Even these features are likely to be at least post-medieval, and cannot be seen as subsurface remains that may correspond to the fieldwalking artefact concentrations.
- 4.10.3 Although colluvial deposits were identified within the valley floor, including a basal horizon containing both Early and Late Bronze Age pottery, no settlement evidence was recorded to associate with the colluvial development. The colluvium may represent the impact of humans on the landscape in the later prehistoric periods. If so the sequence offers the potential for further environmental study.
- 4.10.4 Investigations at the base of the three trenches excavated below 1.2 metres depth (see sections 1.3 and 1.4 above) have indicated a number of pre-Holocene deposits of archaeological interest. These include a probable Allerød soil horizon within chalk meltwater deposits (Coombe Rock). Such evidence is comparatively rare, although in this instance no evidence of contemporary human activity was detected.

5 BIBLIOGRAPHY

- Evans, J G, 1966, "Late-glacial and Post-glacial subaerial deposits at Pitstone, Buckinghamshire" *Proceedings of the Geologists Association* 77, part 3.
- Evans, J G, 1972, *Land Snails in Archaeology*. London: Seminar Press.
- Kerney, M P, 1963, Late-glacial deposits on the Chalk of south-east England. *Philosophical Transactions of the Royal Society, London B*. 246, 203-254.
- Kerney, M P, 1977, A proposed zonation scheme for Late-glacial and Postglacial deposits using land mollusca. *Journal of Archaeological Science* 4 387-390.
- Kerney, M P, and Cameron, R A D, 1979, *A Field Guide to the Land Snails of Britain and North-west Europe*. London: Collins.
- Morton, A D (ed.), 1992, *Excavations at Hamwic: Volume 1*, Coun Brit Archaeol Res Rep **84**
- Ordnance Survey, 1977, *1:50,000 series Geological Survey of Great Britain (England and Wales) - Sheet 272: Chatham*
- Preece, R C, 1991, "Accelerator and Radiometric Radiocarbon dates and range of materials from colluvial deposits at Holywell Coombe, Folkstone". In: Lowe, J J, (ed) *Radiocarbon Dating: Recent Applications and Future Potential* Quaternary Proceedings No. 1, 45-55.
- Preece, R C, 1994, "Radiocarbon dates from the 'Allerød soil' in Kent", *Proc Geol Ass* **105**, 111-23.
- Preece, R C, Kemp, R A and Hutchinson, J N, 1995, "A Late-glacial colluvial sequence at Watcombe Bottom, Ventnor, Isle of Wight, England. *Journal of Quaternary Science*, 10.
- Union Railways Limited [URL], 1994, *Channel Tunnel Rail Link: Assessment of Historic and Cultural Effects - Final Report* (4 volumes)
- Union Railways Limited [URL], 1995, *Fieldwalking*, unpublished report
- Union Railways Limited [URL], 1997, *Specification for Archaeological Investigations*.

Appendix 1: Context Inventory

Context inventories per trench are provided in stratigraphic order where possible

Artefact quantification represents count only, see **Appendix 2** for full quantification

EBA = Early Bronze Age; LBA = Late Bronze Age; LIA = Late Iron Age; ERB = Early Romano-British; PMed = Post-medieval;
CBM = ceramic building material; Architect. = building material.

Trench	Context	Type	Associations	Finds	No.	Date	
1482TT	185	Topsoil	seals 186, 191 and 193				
	191	Wheelrut fill	sealed by 185 fill of 192				
	192	Wheelrut	filled with 191 cuts 186				
	193	Wheelrut fill	sealed by 185 fill of 194				
	194	Wheelrut	filled with 193 cuts 186				
	186	Colluvium/ Silty Loessic deposit	sealed by 185 cut by 192 and 194 seals 187				
	187	Silty Loessic deposit	sealed by 186 seals 188				
	188	Silty Loessic deposit	sealed by 187 seals 189				
	189	Clay-with-Flint	sealed by 188 seals 190				
		190	Soliflucted Chalk	sealed by 189			
1483TT	211	Topsoil	seals 212				
	212	Colluvium/ Silty Loessic deposit	sealed by 211 seals 213				
	213	Colluvium/ Silty Loessic deposit	sealed by 212 seals 214	CBM Worked Flint	16 1		
		214	Silty Loessic deposit	sealed by 213			
1484TT	154	Topsoil	seals 155 and 157	CBM	3		
	157	Colluvium	sealed by 154 seals 155				
	155	Silty Loessic deposit	sealed by 154 and 157 seals 156				
		156	Clay-with-Flint	sealed by 155			
1486TT	86	Topsoil	seals 87				
	87	Colluvium	sealed by 86 seals 88				
	88	Silty Loessic deposit	sealed by 87 seals 89				
	89	Clay-with-Flint	sealed by 88 seals 90				
		90	Soliflucted Chalk	sealed by 89			
1488TT	151	Topsoil	seals 152				
	152	Silty Loessic deposit	sealed by 151 seals 153				
		153	Coombe rock ?	sealed by 152			
1489TT	144	Topsoil	seals 145 and 149	CBM	1		
	149	Pit fill	sealed by 145 fill of 150	CBM Iron	1 1		
	150	Pit	filled with 149 cuts 145				
	145	Colluvium	sealed by 144 cut by 150 seals 146				
	146	Silty Loessic deposit	sealed by 145 seals 147				
	147	Relict argillic brown earth	sealed by 146 seals 148				
		148	Coombe rock	sealed by 147			

Trench	Context	Type	Associations	Finds	No.	Date
1490TT	138	Topsoil	seals 139			
	139	Silty Loessic deposit	sealed by 138 seals 140			
	140	Silty Loessic deposit	sealed by 139 seals 141			
	141	Clay-with-Flint	sealed by 140			
1491TT	133	Topsoil	seals 134	CBM Pottery Worked Stone	2 3 1	Post-medieval Architect. (granite)
	134	Silty Loessic deposit	sealed by 133 seals 135	CBM	1	
	135	Relict argillic brown earth	sealed by 134 seals 136			
	136	Coombe rock	sealed by 135 seals 137			
	137	Soliflucted Chalk	sealed by 136			
1492TT	126	Topsoil	seals 127	CBM Glass	3 1	PMed jar/ bottle
	127	Colluvium	sealed by 126 seals 128			
	128	Silty Loessic deposit	sealed by 127 seals 129			
	129	Silty Loessic deposit	sealed by 128 seals 130 and 131			
	130	Flint gravel lens	sealed by 129 seals 131			
	131	Relict argillic brown earth	sealed by 129 and 130 seals 132			
	132	Coombe rock	sealed by 131			
1493TT	1	Topsoil	seals 2			
	2	Raised colluvium	sealed by 1 seals 3 and 6			
	6	Periglacial stripe fill	sealed by 2 fill of 7			
	7	Periglacial stripe	filled with 6 cuts 3			
	3	Silty Loessic deposit	sealed by 2 cut by 7 seals 4			
	4	Clay-with-Flint	sealed by 3 seals 5			
	5	Soliflucted Chalk	sealed by 4			
1494TT	61	Topsoil	seals 62	CBM	1	
	62	Raised colluvium	sealed by 61 seals 63			
	63	Raised colluvium/ Silty Loessic deposit	sealed by 62 seals 64			
	64	Relict argillic brown earth/ Coombe rock	sealed by 63			
1495TT	31	Topsoil	seals			
	32	Raised colluvium	sealed by 31 seals 34			
	34	Raised colluvium/ Silty Loessic deposit	sealed by 32 seals 33 and 36			
	36	Periglacial stripe fill	sealed by 34 fill of 35			
	35	Periglacial stripe	filled with 36 cuts 33			
	33	Soliflucted Chalk	sealed by 34 cut by 35			

Trench	Context	Type	Associations	Finds	No.	Date
1496TT	8	Topsoil	seals 9 and 12			
	12	Periglacial stripe fill	sealed by 8 fill of 13			
	13	Periglacial stripe	filled with 12 cuts 9			
	9 (10)	Clay-with-Flint	sealed by 8 cut by 13 same as 10 seals 11			
	11	Soliflucted Chalk	sealed by 9			
1497TT	66	Topsoil	seals 67 and 71	CBM Worked Flint Worked Stone	12 1 1	1 poss RB imbrex Lava Quern ?
	71	Pipe trench upper fill	sealed by 66 seals 72 fill of 75			
	72	Pipe trench tertiary fill	sealed by 71 seals 73 fill of 75			
	73	Pipe trench secondary fill	sealed by 72 seals 74 fill of 75			
	74	Pipe trench primary fill	sealed by 73 fill of 75			
	75	Modern pipe trench	filled with 71, 72, 73 and 74 cuts 67			
	67	Colluvium	sealed by 66 cut by 75 seals 68			
	68	Colluvium	sealed by 67 seals 69	Burnt Flint	3	
	69	Silty Loessic deposit/ Coombe rock	sealed by 68 seals 83			
	83	Allerød soil ?	sealed by 69 seals 84			
	84	Coombe rock	sealed by 83 seals 85			
	85	Soliflucted flinty Chalk	sealed by 84			
1498TT	115 (91)	Topsoil	same as 91 seals 116	CBM	1	
	95	Geotechnic pit fill ?	sealed by 115 (91) fill of 96			
	96	Geotechnic pit ?	filled with 95 cuts 116 (92)			
	116 (92)	Colluvium	sealed by 115 same as 92 seals 117	Worked Flint	1	
	117 (93)	Colluvium	sealed by 116 same as 93 seals 118	Worked Flint Pottery	1 1	Late Iron Age ?
	118 (94)	Pedogenic colluvium ?	sealed by 117 same as 94 seals 111	Burnt Flint Worked Flint Pottery (94) Pottery (118)	1 4 7 3	Late Bronze Age ? EBA and LIA ?
	119	Colluvium	sealed by 118 seals 120			
	120 (111-3)	Silty Loessic deposit ?	sealed by 119 same as 111, 112 and 113 seals 143			
	143	Relict argillic brown earth	sealed by 120 seals 144			
	144 (114)	Coombe rock	sealed by 143 same as 114 same as 114			
1499TT	37	Topsoil	seals 38	CBM	5	
	38	Colluvium	sealed by 37 seals 39			
	39	Pedogenic colluvium ?	sealed by 38	Pottery	2	Early Bronze Age ?

Trench	Context	Type	Associations	Findings	No.	Date
1500TT	14	Topsoil	seals 15	CBM	3	
	15 (18)	Colluvium	sealed by 14 same as 18 seals 16	Worked Flint	3	
	16 (19)	Colluvium	sealed by 15 same as 19 seals 17	Worked Flint	1	
	17	Pedogenic colluvium ?	sealed by 16	Worked Flint	1	
1501TT	42	Topsoil	seals 43 and 42	CBM Pottery	1 1	Post-medieval
	44	Geotechnic pit upper fill	sealed by 42 seals 41 fill of 40			
	41	Geotechnic pit primary fill	sealed by 44 fill of 40	Clay Pipe	1	Post-medieval
	40	Geotechnic pit	filled with 44 and 41 cuts 43			
	43	Colluvium	sealed by 42	Worked Stone	1	Lava Quern ?
1502TT	97	Topsoil	seals 98	CBM Worked Flint Pottery	4 3 4	2 PMed, 2 LBA ?
	98	Colluvium	sealed by 97 seals 99			
	99	Colluvium	sealed by 98 seals 100			
	100	Pedogenic colluvium ?	sealed by 99 seals 101 and 102	Pottery	2	Early Bronze Age ?
	101	Colluvium ?	sealed by 100 seals 104			
	102	Colluvium/ Coombe rock	sealed by 100 seals 103			
	106	Tree throw fill	sealed by 102 fill of 105			
	105	Tree throw	filled with 106 cuts 103			
	108	Tree throw fill	sealed by 102 fill of 107			
	107	Tree throw	filled with 108 cuts 104			
	110	Tree throw fill	sealed by 102 fill of 109			
	109	Tree throw	filled with 110 cuts 104			
	103	Coombe rock	sealed by 102 seals 104			
	104	Coombe rock	sealed by 103 seals 45			
	45	Allerød soil horizon	sealed by 104 seals 46			
	46	Coombe rock	sealed by 45 seals 47			
	47	Valley gravel	sealed by 46			
1503TT	20	Topsoil	seals 25 and 21	CBM Pottery	2 1	Post-medieval
	25	Trackway	sealed by 20 seals 21	CBM Iron	1 3	Post-medieval ?
	21	Colluvium	sealed by 21 and 25			
	22	Colluvium	sealed by 21 seals 23			
	23	Colluvium	sealed by 22 seals 24			
	24	Colluvium/ Coombe rock	sealed by 23			

Trench	Context	Type	Associations	Finds	No.	Date
1504TT	75	Topsoil	seals 76	Burnt Flint	1	
	76	Colluvium	sealed by 75 seals 77	CBM	1	
	77	Colluvium	sealed by 76 seals 78			
	78	Colluvium	sealed by 77 seals 48			
1505TT	79	Topsoil	seals 80	Glass	1	Post-medieval bottle
	80	Colluvium	sealed by 79 seals 81	CBM	5	
	81	Colluvium	sealed by 80 seals 82			
	82	Colluvium	sealed by 81	Worked Flint Pottery	5 3	RB ?
1506TT	26	Topsoil	seals 27	Worked Flint Glass	2 1	Window glass
	27	Colluvium	sealed by 26 seals 28			
	28 (125)	Colluvium	sealed by 27 same as 125 seals 29			
	29 (124)	Colluvium	sealed by 28 same as 124 seals 123			
	123	Pedogenic colluvium ?	sealed by 29 seals 121 and 30			
	121	Coombe rock	sealed by 123 seals 30			
	30 (122)	Valley gravel	sealed by 121 and 123 same as 122			
1979TT	181	Topsoil	seals 182			
	184	Wooden post stump	sealed by 181 driven into (cuts) 182	Wooden post	1	Modern (not recovered)
	182	Colluvium	sealed by 181 seals 183			
	183	Silty Loessic deposit	sealed by 182 seals 184			

Appendix 2: Artefact quantification

NB. Quantities are presented by number/weight in grammes. CBM = ceramic building material

Trench	Context	Burnt Flint	CBM	Clay Pipe	Flint	Glass	Prehist. pot	R-B pot	P-med. pot	Stone	Iron
1483TT	213		16/177		1/2						
1484TT	154		3/40								
1489TT	144		1/10								
"	149		1/681								1/5
1490TT	138									1/12	
1491TT	133		2/62						3/14	1/1695	
1492TT	126		3/78			1/2					
1493TT	134		1/64								
1494TT	61		1/6								
1497TT	66		12/136		1/4					1/44	
"	68	3/58									
1498TT	91		1/20								
"	92	1/2			1/202						
"	93	1/1			1/9		1/7				
"	94	3/34			4/22		7/20				
"	116	1/1			1/1						
"	117	3/4			1/4						
"	118	4/4			1/1		3/8				
1499TT	37		5/20								
"	39						2/2				
1500TT	14		3/45								
"	17				1/14						
"	18				3/72						
"	19				1/44						
1501TT	41			1/2							
"	42		1/17						1/4		
"	43									1/61	
1502TT	97		4/116		3/53		2/8		2/16		
"	100						2/11				
1503TT	20		2/66						1/10		
"	25		1/4								3/36
1504TT	75	1/104									
"	76		1/12								
1505TT	79					1/22					
"	80		5/66								
"	82				5/97			3/18			
1506TT	26				2/7	1/4					
TOTAL		16/207	63/1620	1/2	28/533	3/28	17/56	3/18	7/44	4/1812	4/41

Appendix 3: Ecofact Quantification

Feature	Context	Sample	size litres	Flot						Residue	
				flot size ml	Grain	Chaff	Weed seeds uncharred	charred	Charcoal >5.6mm		Other
Colluvium	68 (1497TT)	1005	0.19	5 (0)	C	-	-	-	C	mollusc (C)	-
Allerød soil	45 (1502TT)	1011	10	5 (0)	-	-	-	-	-	mollusc (A)	-

KEY: A = ≥10 items, B = 9 - 5 items, C = < 5 items; flot is total, but flot in brackets = ml of rooty material

Appendix 4: Thermoluminescence date from Nashenden Valley (ARC NSH97)

Date supplied by:

Dr. N.C. Debenham,

Quaternary TL Surveys, 19 Leonard Avenue, Nottingham NG5 2LW.

QTLS Ref: NSH12

Source of dated sample: sample ARC NSH97 1006 68.

TL Date: 790 +/- 350 years BC.

The flint weighed 5.6 grammes with approximate dimensions of 25 x 15 x 10 mm. The quoted date error limits take account of both random and systematic sources of uncertainty, and represent a 1δ (68%) confidence level.

Appendix 5: Summary of C¹⁴ dates from Allerød soils

Site name	Sample type	Ref. no.	Calibrated BP date
Westhampnett, W. Sx	<i>Pinus + Betula</i>	OxA-4167	10,840 ± 100 BP
Westhampnett, W. Sx	<i>Betula + Rosacea</i>	AA-11679	10,870 ± 80 BP
Westhampnett, W. Sx	cf. <i>Betula</i>	OxA-4166	10,880 ± 110 BP
U. Halling, Kent	cf. <i>Betula</i>	OxA-3236	10,900 ± 120 BP
Pitstone, Bucks	charcoal	OxA-415	10,900 ± 130 BP
Dover Hill, Kent	<i>Betula</i>	OxA-3239	11,100 ± 100 BP
Brook borehole III, Kent	charcoal	AA-10706	11,170 ± 70 BP
Dover Hill, Kent	<i>Betula</i>	OxA-3238	11,220 ± 110 BP
U. Halling, Kent	cf. <i>Betula</i>	OxA-3237	11,240 ± 110 BP
Holywell Coombe, Kent	charcoal	OxA-2089	11,370 ± 150 BP
Holywell Coombe, Kent	<i>Carex/Scirpus</i> fruits	OxA-2345	11,530 ± 160 BP
Brook (Pit A), Bucks	<i>Betula</i>	AA-10708	11,575 ± 75 BP
Holywell Coombe, Kent	charcoal	OxA-2242	11,580 ± 100 BP
Dover Hill, Kent	charcoal	Q-463	11,550 ± 135 BP
Watcombe Bottom, IoW	charcoal	OxA-3235	11,690 ± 120 BP

Original data from Evans 1966; Kerney 1963; Preece 1991; 1994 ; Preece *et al.* 1995