

**Channel Tunnel Rail Link
Union Railways Ltd**

**West of Church Road
Singlewell, Kent**

ARC CRS 97

Archaeological Evaluation Report

Contract No. 194/870

**Oxford Archaeological Unit
July 1997**

© UNION RAILWAYS LIMITED, 1997

All rights including translation reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by means electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of Union Railways Limited.

UNION RAILWAYS LTD

WEST OF CHURCH ROAD, SINGLEWELL, KENT

ARC CRS 97

ARCHAEOLOGICAL EVALUATION

OS GRID TQ 6520 7050

Contract No. 194/870

REPORT

Volume 1 of 1

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

Oxford Archaeological Unit
Janus House
Osney Mead
Oxford OX2 0LS

July 1997

WEST OF CHURCH ROAD, SINGLEWELL

ARCHAEOLOGICAL EVALUATION

CONTENTS

	<i>SUMMARY</i>	1
	SECTION 1: FACTUAL STATEMENT	
1	BACKGROUND	2
1.1	Introduction	2
1.2	Geology, landscape and landuse	2
1.3	Archaeological background	3
2	AIMS	3
3	METHODS	3
3.1	General	3
3.2	Survey	3
3.3	Excavation	4
3.4	Recording	4
4	RESULTS: GENERAL	4
4.1	Presentation of results	4
4.2	General description	4
4.3	Archive	5
5	TRENCH DESCRIPTIONS	5
5.1	Trenches with gullies	5
5.2	Trenches with pits/postholes	6
5.3	Trenches with colluvium	7
5.4	Trenches with quarry-like features	7
5.5	Trenches containing earlier ploughsoils	8
5.6	Trenches with post-medieval/modern features	8
6	ARCHAEOLOGICAL CONTEXT INVENTORY	9
	SECTION 2: STATEMENT OF IMPORTANCE	
7	CONCLUSIONS	12
7.1	Extent of archaeological deposits	12
7.2	Nature of archaeological deposits	12
7.3	Character of the site	13
7.4	Date of occupation	13
7.5	Environmental evidence	14
8	IMPORTANCE OF ARCHAEOLOGICAL REMAINS	14
8.1	Survival/condition	14
8.2	Period	14
8.3	Rarity	14
8.4	Fragility/vulnerability	15
8.5	Diversity	15
8.6	Documentation	15
8.7	Group value	15

8.8 Potential..... 15
9..... BIBLIOGRAPHY

List of Appendices

Appendix 1: Pottery and fired clay.....	17
Appendix 2: Flint.....	20
Appendix 3: Charred plant remains.....	21
Appendix 4: Animal bone.....	23
Appendix 5: Other finds	24

List of Tables

Table 1:	Quantification of all pottery by context
Table 2:	Identification of worked flint by context
Table 3:	Summary of charred plant remains scanning
Table 4:	Summary of iron objects by context
Table 5:	Summary of glass objects by context

List of Figures

Fig. 1:	Site location
Fig. 2:	Trench location
Fig. 3:	Trenches 1886TT, 1887TT and 1898TT plans and sections
Fig. 4:	Trenches 1891TT and 1902TT plans and sections
Fig. 5:	Trenches 3023TT and 3024TT plans and sections
Fig. 6:	Location of archaeological features in relation to the surface collection data

WEST OF CHURCH ROAD, SINGLEWELL, KENT

ARCHAEOLOGICAL EVALUATION

SUMMARY

As part of a larger programme of archaeological investigation along the route of the Channel Tunnel Rail Link, Union Railways Ltd commissioned the Oxford Archaeological Unit to undertake a field evaluation of 6 ha of land to the west of Church Road, Singlewell. Twenty-one trenches were excavated. Trenches 1886TT - 1888TT and 1890TT - 1892TT were located to sample an area of geophysical anomalies and a surface concentration of prehistoric worked flint; trenches 1896TT, 1897TT and 1899TT - 1901TT were located to sample a surface concentration of prehistoric worked flints. The remainder were located systematically. The evaluation identified two pits of certain Bronze Age date and a possible post-hole. A number of shallow gullies, interpreted as field boundaries, located in the same part of the site as the pits, may be Bronze Age, although a later possible Saxon date cannot be discounted based on the ceramic evidence. Two probable quarries were also identified, and although one contained Saxon finds these, they are thought to be of post-medieval date containing earlier residual material. The overall results of the evaluation indicate a low level of Bronze Age activity, possibly associated with more intensive activity which may exist further to the west of the evaluation area.

SECTION 1: FACTUAL STATEMENT

1 BACKGROUND

1.1 Introduction

1.1.1 The Oxford Archaeological Unit (OAU) carried out an archaeological field evaluation between the 21st and 25th April inclusive on land (NGR TQ 6520 7050) immediately south of the A2 and west of Church Road, Singlewell (Fig. 1), on behalf of Union Railways Limited (URL), as part of a programme of archaeological investigation along the line of the Channel Tunnel Rail Link (CTRL). The purpose of the investigation was to assess the effect of the construction of the rail link on the cultural heritage of the site. An Environmental Assessment has been prepared (URL 1994).

1.1.2 The work was carried out according to a Written Scheme of Investigation (WSI), prepared by URL and agreed with the County Archaeologist and English Heritage, which detailed the scope and methodology of the works.

1.2 Geology, landscape and landuse

1.2.1 The solid geology is Upper Chalk, although throughout the site the trenches exposed a drift deposit of silt with large flint gravel and variable amounts of re-worked chalk and occasionally Thanet Sand, as well as patches of fine gravel. This deposit is very similar to the 'Clay with Flints', which is shown on the Geological Survey map of Britain (Dartford 271) as dominating the area to the south of the site around Sole Street.

1.2.2 The site lies at about 68m above Ordnance Datum (OD) and the field is generally level with a few gentle undulations.

1.2.3 At the time of the evaluation the field was under preparation for the planting of brussel sprouts.

1.3 Archaeological background

1.3.1 The field was included in an archaeological surface collection survey, undertaken by the OAU in 1993, (URL 1995). This located two small flint scatters (OAU Nos 1805 and 1806), which consisted of both struck flint and burnt unworked flint.

1.3.2 A magnetic susceptibility survey was also undertaken in 1996 (URL 1996) over a 40m-wide transect across the middle of the site (from 1886TT to 1901TT). While the results did not exclude the possibility of archaeological features, it did indicate that any features present would be sparse or superficial.

2 AIMS

2.1 The aims of the evaluation, as set out in the Written Scheme of Investigation are as follows:

2.1.1 To determine the presence/absence, extent, condition, quality and date of any archaeological remains within the evaluation area.

2.1.2 To determine the presence and potential of environmental and economic indicators preserved in any archaeological features or deposits.

2.1.3 To determine the local, regional, national and international importance of such remains, and potential for further archaeological fieldwork to fulfil local, regional and national research objectives.

2.1.4 To determine the presence/absence of any subsoil features or deposits of archaeological interest which may be associated with, or in close proximity to, anomalies recorded during geophysical prospecting.

3 METHODS

3.1 General

3.1.1 A Written Scheme of Investigation (WSI) for the evaluation was agreed by Union Railways Limited with the County Archaeologist and English Heritage. The following summarises the archaeological aspects of the methodology, and notes any deviations from the originally agreed specification.

3.2 Survey

3.2.1 The trench locations were surveyed by P.H. Matts, Building & Civil Engineering Land Survey (Reading) based on the trench location plan provided by URL. Trench 3024TT was repositioned to avoid the high pressure gas main which runs east to west across the southern half of the site. The trenches have been plotted (Fig. 2) from digital information provided by URL using AutoCAD graphics programme with manual adjustments to reposition Trench 3024TT.

3.2.2 All co-ordinates used in this report relate to the URL local project grid unless otherwise stated. A full list of ordnance survey national grid trench co-ordinates, together with the conversion formula used to calculate them, is included in the site archive. Individual

trenches were planned manually in the field at scales of 1:50 or 1:100. Sections were drawn at 1:20 unless circumstances dictated otherwise.

3.2.3 The evaluation area (Fig. 2) is situated within URL's Route Window No. 15.

3.3 Excavation

3.3.1 An array of 21 trenches was excavated over an area of just over 6ha. All trenches were 30m long and 2m wide.

3.3.2 The topsoil and, where present, the subsoil were removed by a 20 tonne 360 degree mechanical excavator using a toothless ditching bucket, under close archaeological supervision. Machine excavation was generally stopped on reaching natural deposits. Three trenches were deepened by mechanical excavator, Trenches 1886TT and 1901TT to examine colluvial deposits and Trench 1902TT to investigate a quarry-like feature.

3.3.3 The trenches were hand-cleaned except where archaeological deposits were clearly absent. Sample sections were excavated through all archaeological features and possible features. Artefacts from archaeological deposits were collected by context and submitted for specialist examination.

3.3.4 Bulk samples were recovered from selected archaeological deposits (those containing artefacts and/or charred plant remains) for later analysis.

3.4 Recording

3.4.1 Recording followed the standard OAU single context recording system (Wilkinson ed. 1992). A continuous sequence of numbers was used and all evaluation records were prefaced by the site code ARC CRS 97.

3.4.2 All trenches and archaeological features were photographed using colour slide and black and white print film.

4 RESULTS: GENERAL

4.1 Presentation of results

4.1.1 The main components of the trenches are described below. A summary of all the archaeological contexts and associated finds appear in the Archaeological Context Inventory (Section 6). Detailed reports on the pottery and fired clay, animal bone, charred plant remains, flint and other artefacts are contained in Appendices 1-5.

4.2 General description

- 4.2.1 A number of shallow gullies were located in Trenches 1887TT, 1891TT, 3023TT and 3024TT. Most of the pottery from these gullies was of Bronze Age date but some of the sherds are possibly Saxon in date. However, the possible Saxon pottery was not sufficiently diagnostic to provide a secure date, and a Bronze Age date is more likely.
- 4.2.2 Trenches 1886TT and 3023TT located two pits, for which the pottery indicates a Bronze Age date. A possible posthole in Trench 1898TT also contained Bronze Age pottery.
- 4.2.3 Trenches 188TT6 and 1901TT revealed colluvial deposits. Two ?quarries of probable post-medieval date were located in Trenches 1902TT and 3024TT.
- 4.2.4 The evaluation found no archaeological features obviously associated with the flint scatters located during the surface collection survey (OAU 1995). The small quantity of flint recovered from the evaluation also reflects the fairly low level of flint recovered from the earlier survey.

4.3 Archive

- 4.3.1 The site archive has been compiled in accordance with the specification prepared by URL and agreed with English Heritage and the Country Archaeologist. It includes six electronic Datasets for the Fieldwork Event, Contexts, Bulk Finds, Finds, Environmental Samples and Graphical Output.

5 TRENCH DESCRIPTIONS

5.1 Trenches with gullies (Figs 3 - 5)

- 5.1.1 Four trenches (1887TT, 1891TT, 3023TT, 3024TT) at the western end of the site contained linear gullies. They were all very similar in character, although those in Trenches 1887TT and 3023TT were shallow probably indicating severe truncation from ploughing.

Trench 1887TT (Fig. 3)

- 5.1.2 Two linear gullies (38 and 40) were aligned north-west to south-east along side one another. Gully 38 was well defined although shallow measuring only 0.15 m deep and 0.35 m wide. In contrast Gully 40, with a maximum depth of 0.08 m was difficult to define when excavated and appeared to terminate at the north-west end, although it was too shallow to establish this for certain. No finds were recovered from Gully 40 but Gully 38 produced one ?early Saxon pottery sherd.

Trench 1891TT (Fig. 4)

- 5.1.3 Two gullies (84 and 86) were orientated north to south across the trench. The character of the gullies is similar to those in Trench 1887TT, although neither produced any finds. The alignment of Gully 84 suggests that it probably continues through into Trench 3024TT.

Trench 3023TT (Fig. 5)

- 5.1.4 A linear gully (23), 0.60 m wide and 0.10 m deep, was orientated north-west to south-east along the trench. The fill (22) produced late Saxon/medieval pottery. This gully was aligned approximately at right angles to Gullies 38 and 40 in Trench 1887TT.

Trench 3024TT (Fig. 5)

- 5.1.5 Two gullies (73 and 77) were aligned roughly north to south; 3.3 m apart and measuring 0.70 m wide and 0.40 m deep. Gully 73 probably continues north running into Trench 1891TT (Gully 84). Gully 77 appears to curve slightly.

- 5.1.6 Gullies 73 and 77 were cut by a large shallow pit/hollow (75) 3.8 m wide and 0.28 m deep, which spanned the gap between them. The pit/hollow produced no finds. Its position spanning the gullies is unlikely to be coincidental. Although it post dates the gullies, the fill was of a similar type. The bottom of the feature consisted of weathered natural flint indicating that this pit/hollow was open for some time. The northern edge of this feature was well defined which probably precludes it being a furrow. This was the only feature of this type on the site.

5.2 Trenches with pits/postholes (Figs 3 and 5)

- 5.2.1 Apart from the two quarry-like features described below, the only other discrete features within any of the trenches were a pit (60) cutting a colluvial deposit in Trench 1886TT, another pit (21) in Trench 3023TT and a possible posthole (30) in Trench 1898TT. All these features produced Bronze Age pottery.

Trench 1886TT (Fig. 3)

- 5.2.2 The earliest colluvial deposit (61) in this trench was cut by a well-defined circular pit (60). The main fill (58) consisted of a dark grey brown scorched silt (although there was no evidence of *in situ* burning). All of the excavated fill (35 litres) was retained for environmental analysis. Sieving retrieved a single sherd of late Bronze Age pottery and 30 flints, of which 13 were flakes and four burnt unworked flint. The pit was sealed by Ploughsoil 57, which was overlain by another ploughsoil (56). Both of the ploughsoils contained distinct horizons of silt with high concentrations of chalk flecks/granules. Red clay roof tile and an iron nail from Layer 56 suggests that both these ploughsoils are post-medieval in date.

Trench 1898TT (Fig. 3)

- 5.2.3 A small indistinct very shallow circular feature (30), containing late Bronze Age pottery may be a posthole or the base of truncated pit.

Trench 3023TT (Fig. 5)

- 5.2.4 A small circular pit (21), 0.47 m in diameter and 0.20 m deep, was filled with a charcoal rich silt (20). The fill produced two sherds of ?middle Bronze Age pottery and seven flints. A bulk environmental sample (10 litres) was taken, which comprised all of the excavated fill.

5.3 Trenches with colluvium (Figs 3 and 4)

Trench 1901TT (Fig. 4)

- 5.3.1 The south end of the trench sloped gently into a hollow at a depth of 1.15 m below the present ground level. The overall size of this hollow is unclear, although there was a slight depression visible within the field between Trenches 1902TT and 1901TT. The earliest deposit (13), a charcoal flecked mid-brown silt, is probably a colluvial derived deposit. Hand excavation produced no finds, however, sieving of a 40 litre environmental sample produced 23 pieces of flint, nine of which were flakes. The presence of worked flints and charcoal in the deposit suggests that there was human activity in the general vicinity of the area from which the colluvium had derived.
- 5.3.2 The colluvium (13) was overlain by two successive ploughsoils (12 and 11), which had accumulated in the hollow. Ploughsoil 12 produced two sherds of late Bronze Age pottery and a single flint flake. These are most likely to be residual artefacts in a post-medieval ploughsoil.

Trench 1886TT (Fig. 3)

- 5.3.3 A slope/hollow, similar to that identified in Trench 1901TT, was located at the west end of Trench 1886TT. The depth of the hollow and the colluvial deposit at the bottom, which was overlain by later post-medieval ploughsoils (57, 56), was very similar to the sequence in the hollow recorded in Trench 1901TT. The slope, seen in Trench 1886TT, clearly marked the eastern edge of a broad dry valley orientated north to south, and seen in the adjacent field to the west. Ploughing up to the western hedge boundary had infilled the original slope, and consequently there was a substantial drop in level between the site and the field to the west.
- 5.3.4 The earliest silt deposit (61) was 0.32 m deep and similar in character to the earliest colluvium (13) in Trench 1901TT. Hand excavation produced two sherds of late Bronze Age pottery and sieving of the 40 litre bulk environmental sample produced an additional very small sherd of the same date. A total of 16 flints were recovered, seven of which were flakes and two burnt unworked pieces. All but one of the flints were recovered from the 40 litre sample. The colluvium was sealed by two later ploughsoils (56 and 57), which were also very similar to those noted in Trench 1901TT.

5.4 Trenches with quarry-like features (Fig. 4)

Trench 1902TT (Fig. 4)

- 5.4.1 Two possible quarries were identified, one of which (49) in Trench 1902TT was examined in detail. The feature was not fully exposed in plan but it is probably circular (at least 12 m in diameter) with a broad U-shaped profile up to 1.6 m deep. Due to the size of the feature the fill was excavated in spits by machine down to 1.2 m and the section recorded. Following this the remainder of the fill was machine excavated to locate the bottom of the feature. The fill (48) was a single homogenous light brown silt with frequent chalk flecked inclusions throughout. It contained three sherds of late Saxon pottery, a small fragment of lava quern and a single flint flake. The bottom of the quarry corresponded to the level of the chalk, which was overlain by a mix of natural drift deposit of silt gravel and greenish glauconitic sand in variable proportions.

Trench 1891TT (Fig. 4)

- 5.4.2 Feature 88 was similar to Feature 49 in Trench 1902TT and measured 8.5 m across. The feature was not investigated.

5.5 Trenches containing earlier ploughsoils

- 5.5.1 Earlier ploughsoils below the present ploughsoil were recorded in ten (1886, 1887, 1894, 1895, 1896, 1898, 1899, 1900, 1901, 3025) of the 21 trenches. All but two of these trenches are located in the eastern half of the site.

5.6 Trenches with post-medieval/modern features (Figs 3 and 5)

Trench 1887TT (Fig. 3)

- 5.6.1 A shallow linear ditch (36) was orientated approximately east to west across the trench. The bottom was pocked marked with root holes indicating it once formed a continuation of the hedge boundary, which is extant in the field immediately to the west.

Trench 1889TT

- 5.6.2 A modern feature (89) was excavated which, while containing the end of a modern dart (as used with a dartboard), also produced undiagnostic prehistoric, late Saxon and post-medieval pottery.

Trench 3023TT (Fig. 5)

- 5.6.3 The west end of the trench exposed part of a hedge boundary (25) which is probably a continuation of Feature 36 located in Trench 1887TT.

6 ARCHAEOLOGICAL CONTEXT INVENTORY

West of Church Road (ARC CRS 97) Evaluation Report

West of Church Road (ARC CRS 97) Evaluation Report

SECTION 2: STATEMENT OF IMPORTANCE

7 CONCLUSIONS

7.1 Extent of archaeological deposits

7.1.1 The archaeological features were concentrated in the western end of the field in Trenches 1886TT, 1887TT, 1891TT, 3023TT and 3024TT (Fig. 6). The amount of pottery recovered was very small (23 sherds in total). The pottery evidence suggests that there were at least two distinct phases of activity on or around the site; one in the late Bronze Age and then later in the Saxon period. The date of the earliest period of activity is also supported by the worked flint evidence.

7.2 Nature of the archaeological deposits

7.2.1 The two pits in Trenches 1886TT and 3023TT were characterised by burnt charcoal rich silt deposits and finds of Bronze Age pottery, flint, and burnt unworked flint. The pit (60) in Trench 1886TT cut a colluvial deposit and was sealed by later ploughsoils. In contrast the small pit in Trench 3023TT was directly below the modern ploughsoil. Both these pits can be tentatively ascribed to the late Bronze Age. A possible posthole in Trench 1898TT is also likely to be Bronze Age, although the exact nature of this feature was unclear and it had been severely truncated by later ploughing.

7.2.2 The dating of the gullies is unclear; the similarity between the gullies and their concentration at the western end of the site suggests they are contemporary in date. The orientation of the gullies points to a well defined layout. The gully in Trench 3024TT appears to continue into Trench 1891TT and the projected line of the gullies in Trenches 1887TT and 3023TT meet at right angles.

7.2.3 Only three of the seven gullies produced pottery and only one sherd was clearly Bronze Age in date. The remaining two sherds are possibly Saxon in date.

7.2.4 It is notable that the type of fill in the gullies differed from that in the pits, although this does not necessarily indicate a different date between the two types of features. The small quantity and size of pottery might suggest that all the sherds recovered from the gullies are redeposited, and consequently their date must remain uncertain. However, this type of feature would not be out of place on either a Bronze Age or Saxon site.

7.2.5 The large quarry-like features in Trenches 1902TT and 1891TT produced three sherds of Saxon pottery, which was the only pottery from the site which could be firmly attributed

to the Saxon period. A fragment of lava quern, also from the quarry in Trench 1902TT, would also be consistent with a Saxon date. However the fill of this quarry is very similar to the post-medieval ploughsoils preserved in the hollows in Trench 1901TT and 1886TT. Consequently this material could be redeposited. A modern feature in Trench 1889TT also contained possible Saxon pottery.

7.3 Character of the site

- 7.3.1 The Bronze Age activity appears to be restricted to a few isolated pits, concentrated in the western end of the site. It is likely that truncation by ploughing has destroyed other shallow features that may have been present within the remainder of the site.
- 7.3.2 The gullies probably form part of a field system, although the small size and number of the pottery sherds and possibility of redeposited pottery means that dating evidence is sparse. The proximity of the gullies to the Bronze Age pits might indicate that the two are contemporary in date, although due to the presence of some undiagnostic pottery a possible Saxon or later date cannot be discounted.

7.4 Date of occupation

- 7.4.1 The assemblage of pottery is very small and the dating evidence is necessarily tentative. The colluvium in Trenches 1901TT and 1886TT is probably Bronze Age in date and the pits in Trench 1886TT and 3023TT date to the late Bronze Age.
- 7.4.2 While dispersed activity is not uncommon in the Bronze Age (URL 1996a), the concentration of features at the western end of the evaluation area, may indicate that they are peripheral elements of more intensive activity immediately west of the site. A small number of late Bronze Age sherds were also recorded in the colluvial deposits at the Tollgate evaluation site several kms to the west (URL 1995a), which may indicate agricultural intensification during this period.
- 7.4.3 In the immediate vicinity of the site the surface collection survey (URL 1995) identified a denser scatter of burnt unworked flint to the east of Church Road, although there was no indication whether this was Bronze Age in date.
- 7.4.4 The date of the gullies is uncertain, they are probably Bronze Age, although a Saxon or later date is also possible. The Saxon pottery and lava quern fragment from the quarry in Trench 1902TT may relate to Saxon activity nearby, although material brought in by post-medieval manuring is also possible.
- 7.4.5 An Anglo Saxon burial ground (OAU No. 1564) is recorded 1.2km to the east at Claylane Wood, on the north side of the A2 (URL 1994). Contemporary records in 1825 record 3 wagon loads of human bones mingled with leather, spearheads and armour.

- 7.4.6 While the finds from the ?quarry-like feature in Trench 1902TT were Saxon, the type of fill was more typical of the post-medieval ploughsoils.
- 7.4.7 Hedge lines in Trenches 1887TT and 3023TT produced modern glass and they are aligned with extant hedge lines in the field to the west.

7.5 Environmental evidence

- 7.5.1 The limited environmental sampling programme has demonstrated that charred plant remains survive in most features, and that the Bronze Age pits contain useful assemblages. The almost total absence of animal bone may indicate that conditions for the preservation of bone are not favourable on this site. The lack of any bone would severely limit any future assessment of economic indicators, were further work to take place at the site.

8 IMPORTANCE OF THE ARCHAEOLOGICAL REMAINS

8.1 Survival/condition

- 8.1.1 The site had been heavily truncated both by modern and post-medieval ploughing. This may be more prevalent in the north where the surviving features in Trench 3023TT were very shallow, with only the very base of the features surviving. The deeper gullies in Trench 3024TT may result from slightly better survival of features towards the south side of the site, due to a slight slope away to the south leading to less truncation by modern and post-medieval ploughing.
- 8.1.2 The colluvium in Trench 1886TT, sealed below two later ploughsoils, may indicate that further colluvial deposits survive to the west in the broad valley beyond the bounds of the site. Any other features in this area are likely to be better preserved.

8.2 Period

- 8.2.1 The thin spread of features and finds, particularly towards the western end of the site, appears to represent a low level of Bronze Age activity in the general vicinity. A small number of Saxon artefacts also indicates some activity at this period, although this material may be derived from manuring practices. The prehistoric activity is of mainly late Bronze Age date, based on the pottery and flintwork, although both quantities of material are small and relatively undiagnostic.

8.3 Rarity

8.3.1 Late Bronze Age sites are not especially commonplace in Kent (Drewett *et al.* 1988), although a growing number are being recognised as a result of evaluation work (Mudd 1994 and URL 1996a). This site is unexceptional in terms of its preservation, range of artefacts and feature diversity, although this assessment might change if additional occupation evidence were to survive in the next field to the west. Other discoveries along the route of the CTRL may also necessitate the future review of the comparative rarity of such sites.

8.4 Fragility/Vulnerability

8.4.1 The comparatively shallow depth of the topsoil across the site means that any archaeological deposits are extremely vulnerable to any ground disturbance. Even where later ploughsoils have formed over colluvial filled hollows this is unlikely to afford much protection to underlying archaeological deposits.

8.5 Diversity

8.5.1 The recorded features are mainly Bronze Age and possibly Saxon in date, consisting of small pits, a possible posthole and shallow gullies, thought to be the remains of field boundaries. At least two later quarries were also identified. While the range of feature types and artefacts is limited, the recognition of a possible posthole may be significant, indicating that other structural evidence may be present.

8.6 Documentation

8.6.1 The only documentation for this site is the surface collection survey undertaken in 1993 (URL 1995), and the geophysical survey undertaken in 1996 (URL 1996). No aerial photographs showing any cropmarks are known, although a full cover search has not been undertaken.

8.7 Group value

8.7.1 The limited archaeological remains and the general paucity of other contemporary remains nearby gives a low group value rating. This assessment may require revision in the light of any discoveries of Bronze Age activity at other evaluation sites along or adjacent to the CTRL route.

8.8 Potential

8.8.1 This site has limited potential for addressing regional or national research issues. Even its potential for local studies would rely on the future discovery of more intensive occupation activity in the vicinity of the evaluation area. The charred plant remains indicate that there is some potential for examining the economic basis of the activity. This is, however, more

a reflection of the paucity of archaeobotanical work in Kent, than a reflection of the quality of the remains found at this site.

9 BIBLIOGRAPHY

Drewett, P., Rudling, D. and Gardiner, M. 1988

The South-east to AD 1000 - A regional History of England.

Mudd, A. 1994

'The excavation of a later Bronze Age site at Coldharbour Road, Northfleet'. *Arch. Cant.*, **cxiv**, 363-410.

URL 1994

Union Railways Limited, Channel Tunnel Rail Link: Assessment of Historic and Cultural Effects. Final Report. (4 Volumes. Prepared for URL by OAU).

URL 1995

Union Railways Limited, Channel Tunnel Rail Link: Assessment of Historic and Cultural Effects. Supplementary Fieldwork Report, (Part 1 of 2, March 1995. Prepared for URL by OAU).

URL 1995a

Tollgate Cropmark Complex, Gravesham, Kent, Archaeological Evaluation Report. (prepared for URL by OAU).

URL 1996

Geophysical Survey: Final Report. Unpublished report by A Bartlett and Associates, commissioned by Union Railways Limited, Channel Tunnel Rail Link.

URL 1996a

Land at south of Snarkhurst Wood, Hollingbourne, Kent. Archaeological Evaluation Report. (prepared for URL by OAU).

APPENDIX 1

POTTERY AND FIRED CLAY

By Alistair Barclay, Oxford Archaeological Unit

1 Introduction

- 1.1 The evaluation produced a total of 23 sherds weighing 146g. The assemblage which is dominated by late Bronze Age sherds also contains a small number of Saxon, Medieval and post-medieval material. The prehistoric material includes no featured sherds. Table 1 gives a breakdown of material by context and an overall quantification.

2 Methodology

- 2.1 A rapid assessment and quantification (number of sherds and weight) of the evaluated assemblage was undertaken to provide spot dates. No detailed record was made of fabrics during the assessment, although fabric group (e.g. flint tempered) was used as a broad chronological indicator. The incidence of featured and, or decorated sherds was noted.

3 Condition and quality of assemblage

- 3.1 Nearly all of the pottery was represented by small and worn sherds regardless of date. Featured sherds were notably absent particularly amongst the prehistoric material. No significantly large groups of pottery were recovered.

4 Fabrics

- 4.1 The middle and late Bronze Age material was recognised by its manufacture from a range of flint tempered fabrics. Two flint tempered fabric groups can be recognised based on size of inclusions. A coarse flint-tempered fabric could be either middle or late Bronze Age, while a finer flint-tempered fabric group could be of late Bronze Age date. Saxon and Medieval sherds were recognised by the use of organic and fine flint- or shell-temper or a admixture of shell and sand.

5 Date and range of material

Middle and late Bronze Age:

- 5.1 Context (20) produced two body sherds manufactured from a coarse flint-tempered fabric. These sherds could belong to the same vessel, possibly a bucket urn of the Deverel-Rimbury ceramic tradition of the middle Bronze Age, or alternatively they could be from a coarseware jar of late Bronze Age date. Sherds in finer flint-tempered fabrics from Contexts (12, 29, 61 and 75) are more likely to be of late Bronze Age date. One of these sherds had been burnished on the exterior surface. Some of these sherds are in a

worn condition indicating that they could well be redeposited residual material.

Indeterminate prehistoric:

- 5.2 A single crumb of indeterminate prehistoric pottery came from a context (63) which otherwise produced Medieval and post-medieval sherds.

Saxon and Saxo-Norman:

- 5.3 A single sherd in an organic and very fine flint-tempered fabric from Context (37) could be early Saxon in date, while five sherds from Contexts (22, 48 and 63) could be of Saxo-Norman date. However, the date of the sherds from (22 and 63) is not certain and they could alternatively be of Iron Age date.

Medieval and post-medieval:

- 5.4 Context (63) produced a sand- and shell-tempered medieval sherd and a glazed post-medieval sherd.

Table 1: Quantification of all pottery by context (Sherd count, weight)

Trench	Context	MBA	LBA	PREH	Early Saxon	Late Saxon/Med	Post Med	Total
1901	12		2(6g)					2(6g)
3023	20	?2(58g)						2(58g)
3023	22					?1(6g)		1(6g)
1898	29		6(14g)					6(14g)
1887	37				?1(13g)			1(13g)
1902	48					3(13g)		3(13g)
1886	58		1(5g)					1(5g)
1886	61		3(16g)					3(16g)
1889	63			1(1g)		1(10g)	1(5g)	3(16g)
3024	76		1(2g)					1(2g)
	Total	2(58g)	13(43g)	1(1g)	1(13g)	5(29g)	1(5g)	23(149g)

MBA middle Bronze Age
 LBA late Bronze Age
 PREH Prehistoric indeterminate
 Med Medieval
 ? Denotes period uncertain

6 Discussion

- 6.1 The assessment has identified a wide range of pottery, although the majority of pottery can be assigned a later Bronze Age date by fabric analysis. However, with the exception of two large sherds from a pit deposit (20) nearly all of this material is in a worn state with an average sherd weight of less than 4 g. Some sherds came from a possible posthole (29) while the remainder came from either ploughsoil (12) or colluvium (61). The brokenness and condition of this pottery is unlikely to indicate extensive settlement activity.
- 6.2 The few sherds of ?early Saxon, Saxo-Norman, Medieval and post-medieval date are likely to indicate small scale and isolated activity, perhaps originally associated with manuring scatters. Some of this material came from gully-like features (Fills 22 and 37) and a pit (Fill 48), while other sherds came from the fill (63) of a modern feature.

7 Fired Clay

- 7.1 Probable post-medieval tile was recovered from Contexts (24) (7, 54g), (56) (1, 34g) and 63 (6, 45g) and amorphous fired clay came from Context (63) (3, 15g).

APPENDIX 2

FLINT

By Philippa Bradley, Oxford Archaeological Unit

1 Summary

- 1.1 Seventy-three pieces of worked flint and nine pieces of burnt unworked flint were recovered from the evaluation. The flint ranged in colour from grey to dark brown and cortication was generally light to medium. The flint is generally abraded and worn. The burnt unworked flint was mostly very heavily calcined. The flint is summarised below.

Table 2: Identification of worked flint by context

Trench	Context	Flakes	Irregular waste	Chips	Burnt unworked	Total
1901	12	1				1
1901	13	9	1	12	1	23
3023	20	4		3		7
3023	22	1			1	2
1902	48	1				1
1886	58	13		13	4	30
1886	61	7		7	2	16
1889	63	1				1
3024	78				1	1
Total		37	1	35	9	82

2 Discussion

- 2.1 The assemblage is composed entirely of debitage with no retouched forms being recovered. Therefore any dating evidence is based on technological attributes of the material. The quantity of material is grossly inflated by the number of small chips recovered (see Table 2), leaving a total of 38 pieces which may provide some dating evidence based on technological grounds. This material is further dispersed, having been recovered from eight contexts, including pits, gullies, colluvial deposits and more recent deposits such as topsoil. The majority of the flint has been hard-hammer struck with little evidence for preparation. In general the flakes tended to be small and squat. These general characteristics would be consistent with a Bronze Age date although any dating must be tentative given the nature of the assemblage. Occasional soft-hammer struck flakes were recovered from Contexts (22 and 61). A small scatter of worked and burnt flint was identified in fieldwalking, and although this group was also rather small a tentative Bronze Age date was also suggested (OAU 1995).

APPENDIX 3

CARBONISED PLANT REMAINS

by Dr. M. Robinson and R. Pelling, Oxford University

1 Introduction

- 1.1 Four samples were submitted for the assessment of their charred plant content. Two samples were taken from pits (Layers 20 and 58) of Bronze Age date. Two samples were from possible Bronze Age colluvial deposits (Layers 13 and 61). Sample volumes ranged from 10 to 40 litres.
- 1.2 The purpose of the assessment was to evaluate the quality of the preservation of the charred material and the potential for further sampling and analytical work.

2 Methods

- 2.1 Soil samples were processed by bulk water separation and floated onto a 0.5mm mesh. Flots were then allowed to slowly air dry before being submitted for assessment.
- 2.2 Each flot was put through a stack of sieves and scanned under a binocular microscope at x10 and x20 magnification. The quantity and quality of charred plant material was noted. Material was provisionally identified and estimates were made of the abundance of grain, chaff, weed seeds, charcoal and other charred items. Abundance of seeds and chaff was recorded on a four point scale, (+ = 1 - 10 items, ++ = 10 - 100, +++ = 101 - 1000, ++++ = >1000 items). Abundance of charcoal was recorded on a sliding scale (+ = present; ++ = common; +++ = frequent; ++++ = abundant). This information is recorded in Table 3 below.

3 Results

- 3.1 All four samples contain charred material. The two samples taken from probable Bronze Age pits contain several cereal grains and very occasional weed seeds. Grains of *Hordeum* sp. (barley) were most frequently noted. Hulled asymmetrical grains indicate the presence of *Hordeum vulgare* (hulled six-row barley). The cereal grain is exceptionally well preserved. Occasional grains of *Triticum spelta/dicoccum* (spelt/emmer wheat) were also noted. The charred assemblages from the colluvial deposits consist of very occasional grains of *Hordeum* and *Triticum* sp. One pit sample (Layer 20) also contained a large quantity of wood charcoal, provisionally identified as *Quercus* sp. (oak).

4 The potential for further work

- 4.1 No published information is available about the Bronze Age archaeobotany of Kent. Any samples of this period are therefore of primary importance. The absence of any collected wild/woodland resources such as hazel nut shell and the predominance of cereal grains, would suggest that a cereal based economy was established certainly by the late Bronze Age. Emmer wheat appears on the present evidence to have continued in cultivation into the Iron Age in the region. It is not yet known when spelt wheat was introduced. Any samples of Bronze Age date are therefore of interest in establishing the relative roles of the glume wheats. The exceptional preservation of the *Hordeum* grains merits closer analysis of the grains in itself.

5 Summary of scanning results

- 5.1 Number of samples assessed for charred remains 4. Number of samples with seeds and chaff 4.

Table 3: Summary of scanning results

Feature type		Pit	Layer
Date		Bronze Age	Bronze Age?
Samples with 1-10 items		-	2
11-100 items		2	-
<i>Hordeum</i> sp.	barley grain	++	+
<i>Triticum spelta/dicoccum</i>	spelt/emmer grain	+	+
Weeds		+	-

APPENDIX 4

ANIMAL BONE

By A. Powell, Centre for Human Ecology, Southampton University

1 Summary

- 1.1 Only a single bone, identified as a rabbit pelvis, was found in Layer 63 of Trench 1889TT. This bone is likely to be intrusive, the animal having burrowed into the site from a later period.

2 Conclusion

- 2.1 The total absence of any faunal remains from any of the features is not particularly surprising given the general paucity of other artefacts. It may, however, be a direct reflection of the general ground conditions which may not be favourable for the survival of bones.

APPENDIX 5

OTHER FINDS

By R.J. Williams, Oxford Archaeological Unit

1 Iron

1.1 Only two iron objects of modern dated were recovered as tabulated below.

Table 4: Summary of Iron objects by context

Object	Trench	Context	Description	Date
Nail	1886	56	Iron nail from post - medieval ploughsoil	Post-medieval
Dart	1889	63	Point of dart	Modern

2 Glass

2.1 Only two modern glass fragments were collected as tabulated below.

Table 5: Summary of Glass objects by context

Object	Trench	Context	Description	Date
Vessel	1889	63	Glass	Modern
Vessel	3023	24	Glass	Modern

3 Stone

3.1 A small fragment of lava may be from a quern (Layer 48), although no worked or worn surfaces were identified. It is likely that the lava fragment is of Saxon date.