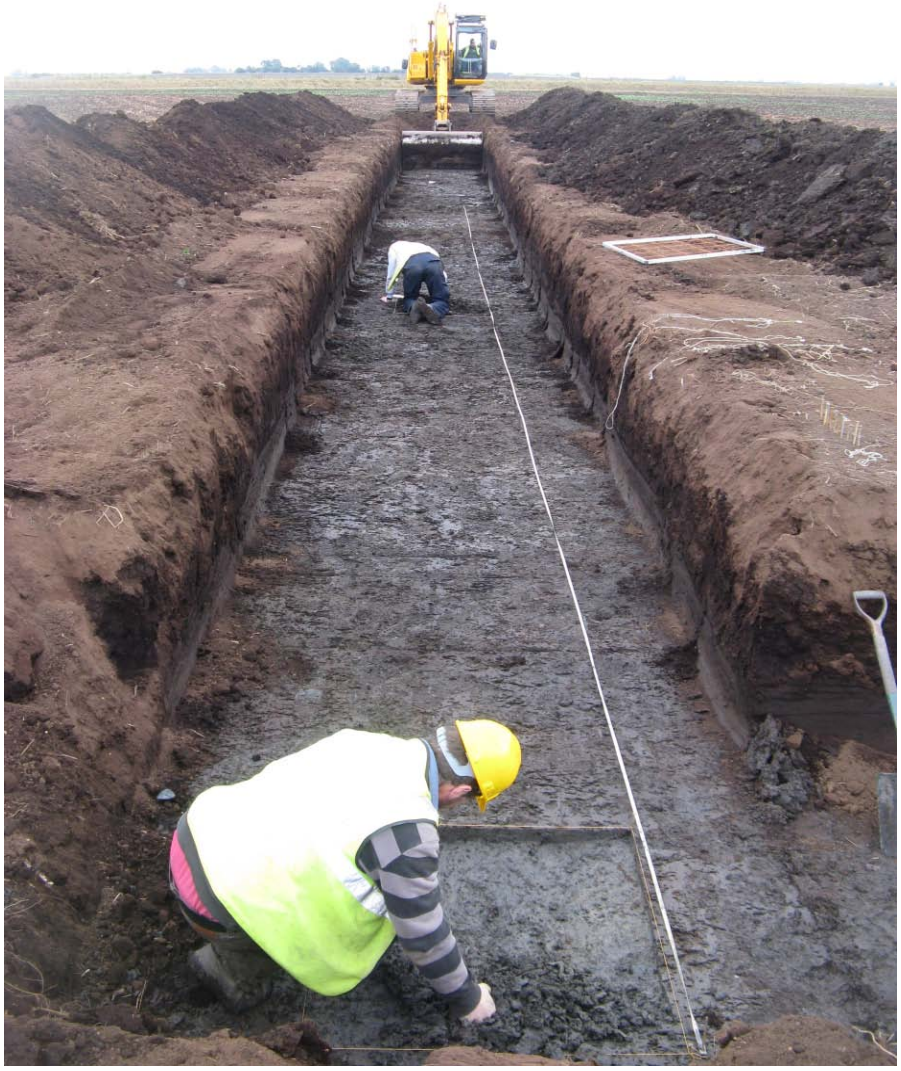
LAND AT KING'S DELPH, WHITTLESEY, CAMBRIDGESHIRE

An Archaeological Evaluation



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An Archaeological Evaluation

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Cambridge Archaeological Unit
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Event No. ECB 3277

Report No. 915

January 2010

Summary

An archaeological evaluation was undertaken by Cambridge Archaeological Unit (CAU) of 119ha at King's Delph, to the south-west of Whittlesey, Cambridgeshire (centred on 524265 296205) in October-November 2009. The project was undertaken on behalf of SLR Consulting Ltd. for Hanson Building Products Ltd. and will form part of an overall Environmental Impact Assessment of the proposed development.

A programme of test pitting and trial trenching has refined our understanding of the palaeo-topography and environmental sequence at King's Delph, and identified a buried prehistoric landscape. A total of 54 test-pits and 33 trenches were excavated, and archaeological remains were found in 11 of the trenches. The palaeoenvironmental sequence was consistent with the results from a programme of geoarchaeological boreholes which revealed a series of silt-rich, organic mud and peat deposits, representing alternating fresh and salt-water flooding horizons which encroached westwards on to the rising landform during the Neolithic, Bronze Age, and later periods.

An important assemblage of finds from a buried soil horizon in the west of the site represents activity dating from the Late Mesolithic or Early Neolithic to the Early Bronze Age on the higher parts of the contemporary landscape, in the western third of the Proposed Development Area (PDA). The focus for much of this activity appears to be a previously unknown round barrow, along with potentially associated features including a possible bank located in the south-west of the PDA. Associated finds include Beaker period pottery and human remains. In addition two preserved wooden stakes / posts from other parts of the PDA have been radiocarbon dated to the late Neolithic and Beaker periods. Depths below the present surface to surviving horizons with prehistoric activity vary across the PDA, approximately 0.7m (at – 0.9m OD) over the barrow, to over 4m in depth for a piece of trimmed roundwood in the central area of the PDA (at -4.6m OD) The latter was found in basal peat deposits associated with freshwater saturation prior to marine inundation during the Bronze Age.

The evaluation results indicate a sequence of prehistoric landscapes is preserved beneath layers of peat and alluvial deposits at King's Delph. On the higher ground, (the western third of the PDA), important material cultural remains were found, concentrated around a burial monument in the south-western part of the PDA. Furthermore, conditions encountered during the excavation suggest preservation, particularly of organic remains, is likely to be good where present.

INTRODUCTION

An archaeological evaluation was undertaken by Cambridge Archaeological Unit (CAU) at King's Delph, to the south-west of Whittlesey, Cambridgeshire (centred on 524265 296205). The proposed development area (PDA), a potential gravel and clay extraction site, comprises 119ha of agricultural land bounded by the King's Dyke and the A605 to the north, and by further agricultural land to the south, west and east (Figure 1). At the time of evaluation the PDA was under cultivation.

Following an initial desk-based assessment of the site (Appleby 2009) and preliminary borehole investigations (Gearey et al 2009) a programme of trial trenching and test pits was carried out in October and November 2009.

The project was undertaken on behalf of SLR Consulting Ltd. for Hanson Building Products Ltd. and will form part of an overall Environmental Impact Assessment of the proposed development.

Geology and topography

The PDA is situated at between 0.5m AOD and 2m AOD with the present day ground surface rising very gently from east to west. Beyond the PDA this general trend continues with the land rising from drained fenland in the east towards higher ground at Horsey Toll and Bunting's Farm to the west / south-west.

The underlying geology of the PDA is Jurassic Oxford Clay overlain by First River Terrace gravels. Overlying the gravels are a series of peat deposits and marine sediments reflecting the sequence of freshwater fen conditions and marine incursions that prevailed during the Holocene in this area (Figure 2). Key within this sequence is the major middle Bronze Age marine incursion represented by intertidal sediments known as the Barroway Drove Beds or 'Fen Clay'.

Archaeological Background

The PDA is located within an important archaeological landscape which has been the frequent subject of detailed investigation and research since the early work of George Wyman Abbott (1910) at Fengate. Such research has highlighted the importance of the area, particularly areas of drained fenland, as an archaeological and palaeo-environmental resource. In recent years archaeological evaluation and excavation has continued to add to the growing compendium of nationally significant prehistoric sites to the east of Peterborough (see Figure 3).

A full account of the archaeological and historical background of the area is detailed in the desk-based assessment (Appleby 2008). The archaeological background is summarised below:

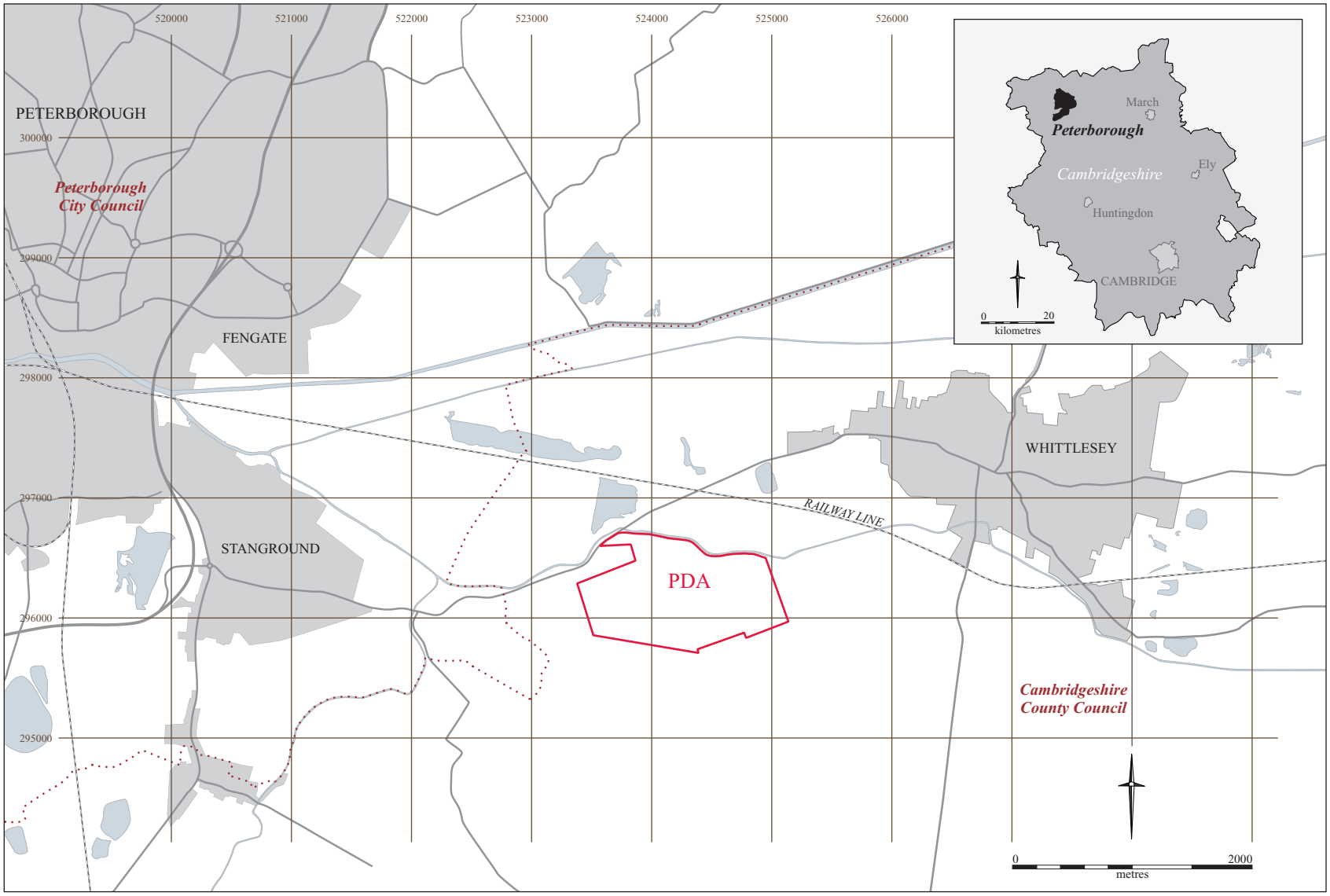


Figure 1. Site location

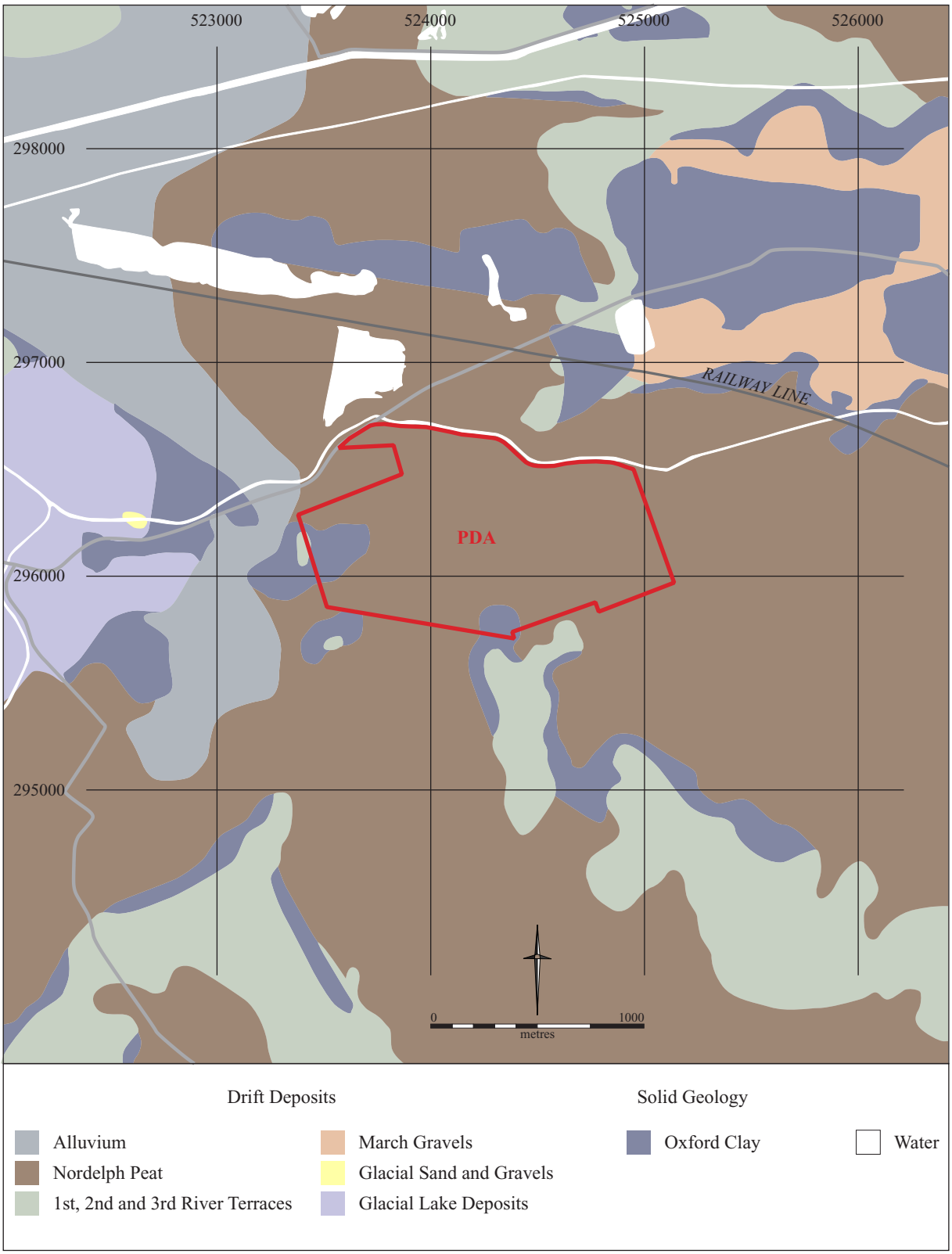


Figure 2. Geology and drift deposits

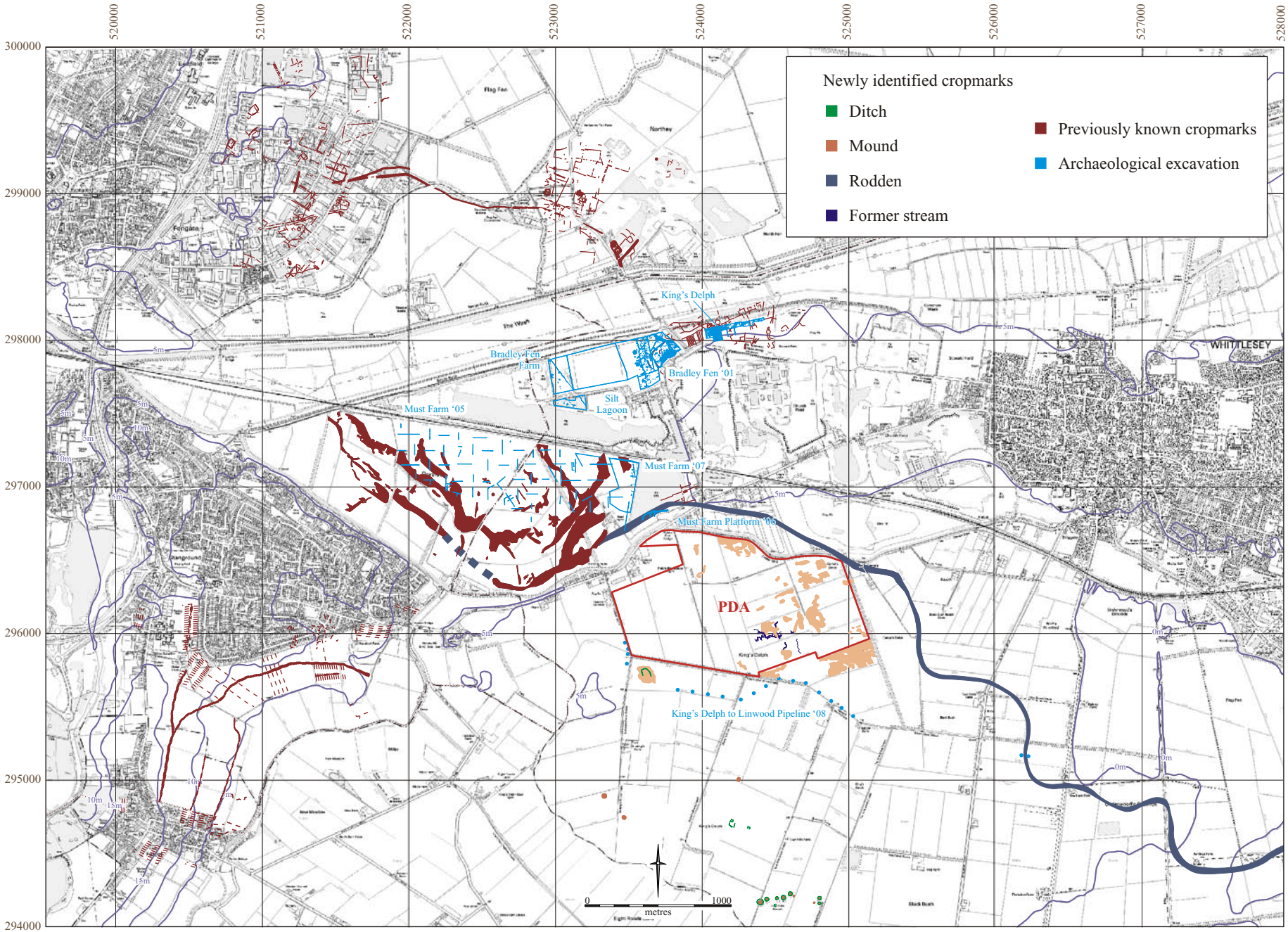


Figure 3. Archaeology within surrounding area

Prehistoric

Recent archaeological work around Whittlesey, much of it in advance of gravel and clay extraction, has identified a wealth of exceptionally well preserved prehistoric remains. Key to interpreting the prehistoric landscape around the PDA is the relationships between archaeological remains, topography and the palaeo-environment. As such prehistoric sites have largely been identified on 'dry islands' within the former fen, or on the edges of higher ground (the 'fen edge') generally above -0.5m AOD.

Immediately to the north of the PDA recent archaeological work has revealed significant Neolithic, Bronze Age and Iron Age remains. At Must Farm, archaeological evaluation (Evans *et al*. 2005) has identified a Neolithic oval barrow and an Early Bronze Age round barrow as well as evidence of Late Neolithic and Early Bronze Age occupation comprising pits, post holes, metalled surfaces. In addition, a remarkably well preserved bank and ditch boundary is thought to date to the Middle Bronze Age. Subsequent excavation in the east of the Must Farm site has recorded further Late Neolithic to Early Bronze Age activity including Grooved Ware pit clusters, burnt stone mounds, preserved wooden fence lines and metalled surfaces (Tabor 2008a and forthcoming).

In the southern edge of the former Must Farm quarry pit, recent excavations have revealed a Bronze Age timber alignment, contemporary to the early timber post alignment at Flag Fen (Gibson et al. 2009) as well as a timber platform or crannog site dating to the Late Bronze Age. The timber platform in particular was exceptionally well preserved within the silts of a palaeochannel and yielded a significant artefactual assemblage including preserved timbers, complete pottery vessels, glass beads, textiles and terminal Late Bronze Age metalwork.

The excavations at Must Farm are a continuation of a long running landscape field work programme with previous excavations having taken place at Bradley Fen Farm, Bradley Fen and King's Dyke (Gibson and Knight 2002, 2006). Archaeological remains include a Neolithic henge monument, Late Neolithic, Bronze Age and Iron Age occupation sites as well as the same Middle Bronze Age bank and ditch boundary as found at Must Farm. As the fieldwork progresses an increasingly impressive and well preserved prehistoric landscape is emerging. Furthermore, as a result of the latest phase of work at Must Farm the previously held belief that prehistoric sites only occur on areas of higher ground can also now be challenged. Metalled surfaces and buried soil horizons recorded at up to 2.9m below OD seemingly indicate the potential for early prehistoric remains at increased depths.

Whilst land to the south and west of the PDA has not seen such intense archaeological investigation, smaller scale excavations and aerial photographs indicate a prehistoric presence in the landscape. Iron Age settlement is recorded at Black House Farm, Bunting's Farm (Phillips 1970) and south of Horsey Hill fort (Kenney 2007), and a recent evaluation along a proposed pipeline route to the south of the PDA has identified later prehistoric ditches and an alignment of pits (Tabor 2008b). Slightly further a field a Bronze Age barrow cemetery at Suet Hills is visible as cropmarks on aerial photographs to the south-west of the PDA.

Roman

Evidence from the Roman period close to the PDA is restricted to the areas of higher ground to the west / south-west (towards Stanground) and to the north at King's Dyke. Immediately to the south-west a Roman farmstead or settlement and cemetery has been excavated close to Bunting's Farm, and Roman pottery associated with a ditch is recorded at Black House Farm to the west (Phillips 1970). South of Horsey Hill fort excavations along a pipeline route have also revealed Roman features including a rectangular double ditched enclosure (Kenney 2007). At King's Dyke, Roman remains recorded include paddocks and enclosures, settlement features and a possible pottery production site as well as the Fen Causeway Roman road (Gibson and Knight 2002).

Medieval – Post-Medieval

No medieval remains are recorded within the vicinity of the PDA although evidence of Middle Saxon activity was encountered at the Roman site south of Horsey Hill fort (Kenney 2007). The exploitation of the fens for fisheries, eel trapping and wildfowl is well attested from at least the 9th century. The drained fenland landscape in its current form dates largely from the post-medieval period and cartographic evidence from the 18th century records the network of rectilinear fields divided by drainage ditches.

Modern

A well preserved World War II pillbox stands within the PDA and the site of a pre-war and wartime servicing airfield is situated adjacent to the PDA to the west. Surviving elements of the airfield include hangars, and a brick built control bunker.

Environmental background

A detailed overview of the palaeoenvironment and geology is provided in the desk-based assessment (Appleby 2008). The following summary of the sedimentary sequence and palaeoenvironment is based on a previous assessment of the King's Delph area by Dr. S. Boreham (Boreham in Tabor 2008b).

The first detailed investigation of the sedimentary sequence in the immediate area was undertaken at Underwood's Grounds to the east of the PDA by Martyn Waller (1994). The work, part of the Fenland Project Report, targeted a north-south aligned ridge or rodden visible on the ground surface. The results indicated 4-6m of Holocene sediments in the area, as well as a deeper, 8m thick sequence filling a palaeochannel - a main Holocene distributary of the River Nene. The basic sequence can be divided into three components;

- a lower peat representing freshwater fen and wet-woodland sedimentation thought to date from the Late Mesolithic/Early Neolithic through to the Early Bronze Age

- overlying silty clays and silty sand 'rodden' channel-fill known as the Barroway Drove Beds or 'Fen Clay' representing mudflat, saltmarsh and tidal creek environments of the mid-Bronze Age marine incursion

- an upper peat, known as 'Nordelph peat' thought to date to the Iron Age, representing alkali sedge fen or acid raised bog.

Further work has been undertaken at Horsey Toll, to the west of the PDA, which recorded the environmental sequence at the fen edge (Boreham 2006). The sequence here is in many ways similar to that at Underwood's Grounds, however, the lower peat was found to overlie late Mesolithic silty clays, fluvial sediments occurring both in a buried channel and as a basal unit across the whole area. Also, significantly, the 'Fen Clay' in this area contained no marine indicators, suggesting that at this location it is a result of freshwater 'backed up' behind the marine incursion, rather than being a true marine sediment.

Recent work along the proposed route of a pipeline which runs along the southern edge of the PDA describes the situation at King's Delph itself as 'an intermediate situation between the fen edge sequence at Horsey Hill and the Nene channel sequence at Underwood's Grounds' (Boreham in Tabor 2008b p7). In the west of King's Delph the Barroway Drove Beds deposits are absent with a single upper peat unit reflecting reed swamp conditions across the area. The edge of the marine incursion was identified where it intersected the proposed pipeline route and occurs mid way across the PDA. To the east of this the sequence is characterised by increasing depths of lower (Late Mesolithic to Early Bronze Age) peats overlain by Barroway Drove Beds deposits which are in turn overlain by upper peat.

Recent deposit modelling and palaeoenvironmental assessment at King's Delph

A borehole survey undertaken by Birmingham Archaeo-Environmental (BAE) (Gearey et al 2009) commissioned by SLR Consulting Ltd. has further investigated the palaeo-environment of the PDA. Some 3-4m of peats and clay and silt sediments were recorded across the area with the thickness of deposits and the depth of underlying basal gravel deposits increasing significantly towards the east and north-east of the PDA The borehole data supplemented by analysis of beetle and pollen remains, and radiocarbon dates has not only provided a deposit model for the PDA but also a more detailed chronology of landscape development. The major landscape changes were identified as follows:

- *c.*5700 yrs BP: Peat accumulation in the lower parts of the landscape (the east and north-east of the PDA) in response to rising water tables. Mixed woodland persisted on higher ground. (Ref. borehole sample C13 (Gearey 2009), recovered from a lower peat deposit in the north-east of the PDA at -5.17m OD, dated to Cal BC 3960 – 3790 at 2 sigma.)

- from c.4900 yrs BP: Silt and organic silt deposition in lower lying areas of the PDA, gradually spreading to higher areas over time, as a result of the continued rise in water levels. Evidence of saltmarsh and the development

of sediments under saline conditions (Barroway Drove Beds) reflects marine incursions whilst wetland plants such as the common reed were growing with wet alder woodland on the fringe of the floodplain. (Ref. borehole sample C11 (Gearey 2009) which dated the base and top of the organic sediment to Cal BC 2880 – 2610 at 2 sigma and Cal BC 1690 – 1520 at 2 sigma respectively.)

- *c.*3500 yrs BP: Peat accumulation across the area as the marine inundation peaked and almost the entire PDA swamped by rising fresh water levels. (Ref. borehole sample C32 (Gearey 2009) which dated the base of the upper peat at -1.5m OD to Cal BC 1750 – 1600 at 2 sigma.)

Methodology

The project was undertaken in accordance with a project design specification (Gibson 2009) produced in response to a brief for archaeological evaluation written by K. Gdaniec (2009) of Cambridgeshire Archaeology Planning and Countryside Advice. The evaluation comprised a 2x2m test pit survey followed by a programme of trial trenching. The work was carried out in full accordance with the IFA's *Standard Guidance for Archaeological Field Evaluations*.

2x2m test pits

A test pit survey comprising 54 machine excavated 2x2m test pits (Figure 4) was undertaken across the PDA in order to model the palaeo-topography of the site and to determine the presence or absence of buried soil horizons. In the west of the PDA, where borehole survey had shown a high point in the underlying gravel deposits, thereby increasing the archaeological potential of the area, test pits were excavated on a 100m grid. In the east of the PDA a series of test pits were excavated every 100m along an east-west transect in order to investigate the 'deep fen' sequence. Test pits were excavated using a 360° tracked excavator fitted with a toothless bucket. Individual test pits were excavated to a depth where natural sands and gravels were encountered, or to the limit of the mechanical excavators reach (*c*. 4m below ground surface). The depositional sequence, including depth and description of deposits, of each test pit was recorded and a digital photographic record maintained. Where buried soil was observed a *c.*90 litre sample was retrieved by machine and hand sorted for artefacts.

Trial trenching

The trial trenching programme comprised a total of 26 linear trenches (Figure 4) positioned in order to evaluate areas of 'high ground' and potential fen edge zones identified by borehole survey (Gearey et al 2009). In the early stages of the evaluation it became clear that a significant number of the proposed trenches would be in areas where the depth of deposits overlying the archaeological horizon would make excavation problematic in terms of health and safety. As a result, following the excavation of four of these deep trenches, a strategy of excavating and recording test

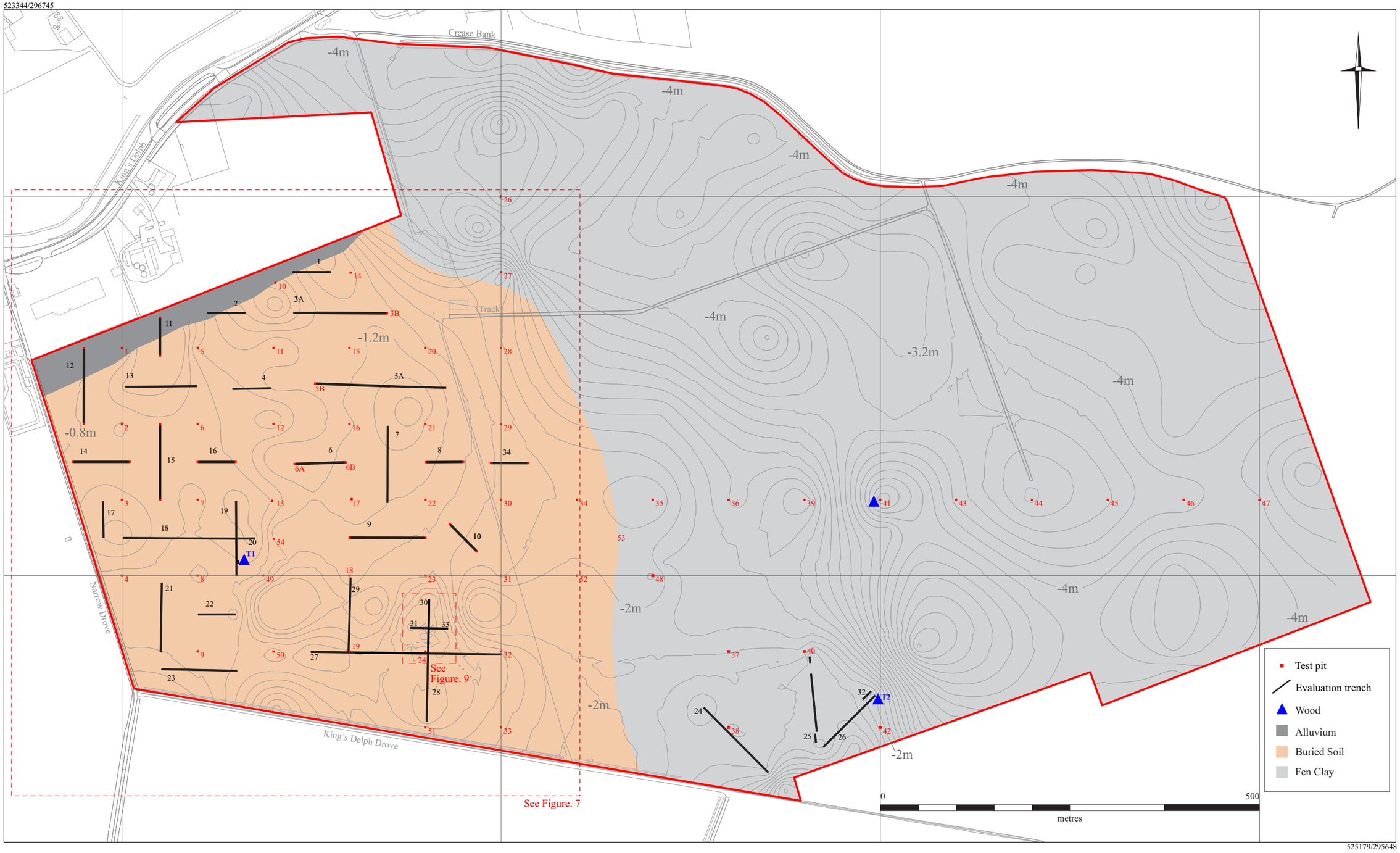


Figure 4. Trench and test pit location.

pits at each end of the proposed trenches was implemented in order to assess the depth of deposits before fully excavating the trench. Trenches were then only fully excavated if the depth of deposits over the majority of the trench was judged to be less than 1.5m in depth.

Of the 27 proposed trenches, 15 were fully excavated and 12 were considered to be too deep and were recorded by test pits at each end. A further seven judgemental trenches were excavated in order to further investigate areas of archaeological potential identified by the 2x2m test pit survey and initial trial trenching programme. The trial trenches were excavated using a 360° tracked excavator fitted with a toothless bucket and operating under direct archaeological supervision at all times.

The trenches were located using an advanced Global Positioning System (GPS) with Ordnance Datum (OD) heights obtained. Potential archaeological features were planned at a scale of 1:50 and subsequently sample excavated. All potential features were hand excavated and archaeological finds retained. A written record of archaeological features and environmental sequences was created using the CAU recording system (a modification of the MoLAS system) and sections drawn at an appropriate scale.

Buried soil sampling strategy

Where buried soil was encountered a sampling strategy was implemented in order to assess the density of artefacts in the buried soil as an indicator of archaeological activity. In the early stages of the evaluation 'bucket sampling' - as used by CAU for evaluations at Must Farm and Magna Park – was undertaken whereby six buckets (90 litres) of buried soil, retrieved by machine, was hand sorted by site staff. However, as the evaluation progressed it became apparent that this approach was not producing results whereas artefacts were occasionally being collected from the base of the trenches. The buried soil deposits at King's Delph are simply too thin to sample in this way. As a result, following discussions with K. Gdaniac of CAPCA, a strategy of sampling the buried soil *in situ* within the trench by excavating 1m^2 test pits every 10m was adopted (Figure 5).

RESULTS

2x2m test pit results (see Appendix A and B)

Palaeo-topography

In terms of modelling the prehistoric landscape, the thickness of sediments and depth to basal gravels revealed by the test pits followed the same basic trend as recorded by the borehole survey (Gearey et al 2009). A full palaeoenvironmental assessment along with key radiocarbon dates is provided in the BAE survey report (*ibid.*). However, a more detailed topographic model of the western 'high ground' (above the -1.2m AOD contour) emerged from the test pit survey that in some ways contradicts the borehole

Figure 5. Buried soil sampling 1 x 1m test pits.

survey in this area (see Figure 4). This may be due to the fact that the test pit survey focused on identifying prehistoric land surfaces rather than just the solid basal gravels.

The survey showed that this buried ground surface slopes both to the east (as shown by the borehole data) heading into 'deep fen' but also slightly to the north, heading towards the former (and present day) course of the River Nene. Furthermore, no significant islands of 'high ground' or localised deeper areas, as recorded by the borehole survey, were identified in the west and south of the PDA. Slight undulations and a slight west to east drop off were the extent of the topographic changes in this area. In this sense it is clear that the contours of the basal gravel deposits, although giving an indication of general trends, do not necessarily reflect the contours of the prehistoric land surface / archaeological horizon. The reason for this discrepancy is unclear although the varying depth of the clayey silt deposit underlying the buried ground surface, as well as pockets of sandier / siltier material within the basal sands and gravels may account for it.

Deposit model

Five basic deposit sequences (Sequences A-E), each showing a slightly different depositional environment, were recorded across the PDA during the test pit survey, and for the purposes of this report each test pit has been assigned to one of these. A breakdown of the test pit results together with examples of test pits showing typical sequences is included in Appendix A and B.

Sequence A (Figure 6) was present over the majority of the higher ground above *c.* -1.2m AOD in the west of the PDA. It comprised a homogenous clayey silt deposit sitting directly on the basal sands and gravels which was commonly overlain by a thin buried soil horizon. The buried soil was overlain by reed peat which was in turn sealed by further degraded peat deposits, all part of a generic 'upper peat'.

Sequence B was basically the same as Sequence A but with a thin peaty silty clay alluvial layer visible within the banded upper peat horizons. This sequence was only visible in two test pits (1 and 10) in the far north-west of the PDA.

Sequence C was recorded in test pits on the edge of the higher ground at a height of between *c.* -1.3m and *c.* -1.7m AOD. It comprised a sandy clayey silt deposit sitting above the basal sands and gravels overlain by a lower brown peat containing frequent detritus which was in turn sealed by a greenish grey silty clay containing abundant phragmites – a reed-rich version of 'Fen Clay'. The upper part of the sequence comprised the same upper peat deposits as Sequence A. No buried soil horizons were visible in the Sequence C test pits.

Sequences D and E occurred in the east of the PDA generally below -1.6m OD. Sequence D was similar to Sequence C but the reed-rich 'Fen Clay' was replaced by a classic silver grey version of 'Fen Clay' with fewer phragmites which increased in thickness heading east. An increasing thickness of lower peat with frequent detritus and large bog oaks was also recorded heading east. Sequence E was the same as Sequence D but with the lower peat divided into two layers; a fibrous brown peat with frequent detritus underlain by a fine brown silt which sealed the basal deposits.

Archaeological Finds

Artefacts were recovered from two of the test pits. Test Pit 19 produced a single worked flint, a serrated flake of a probable late Neolithic date, and Test Pit 24

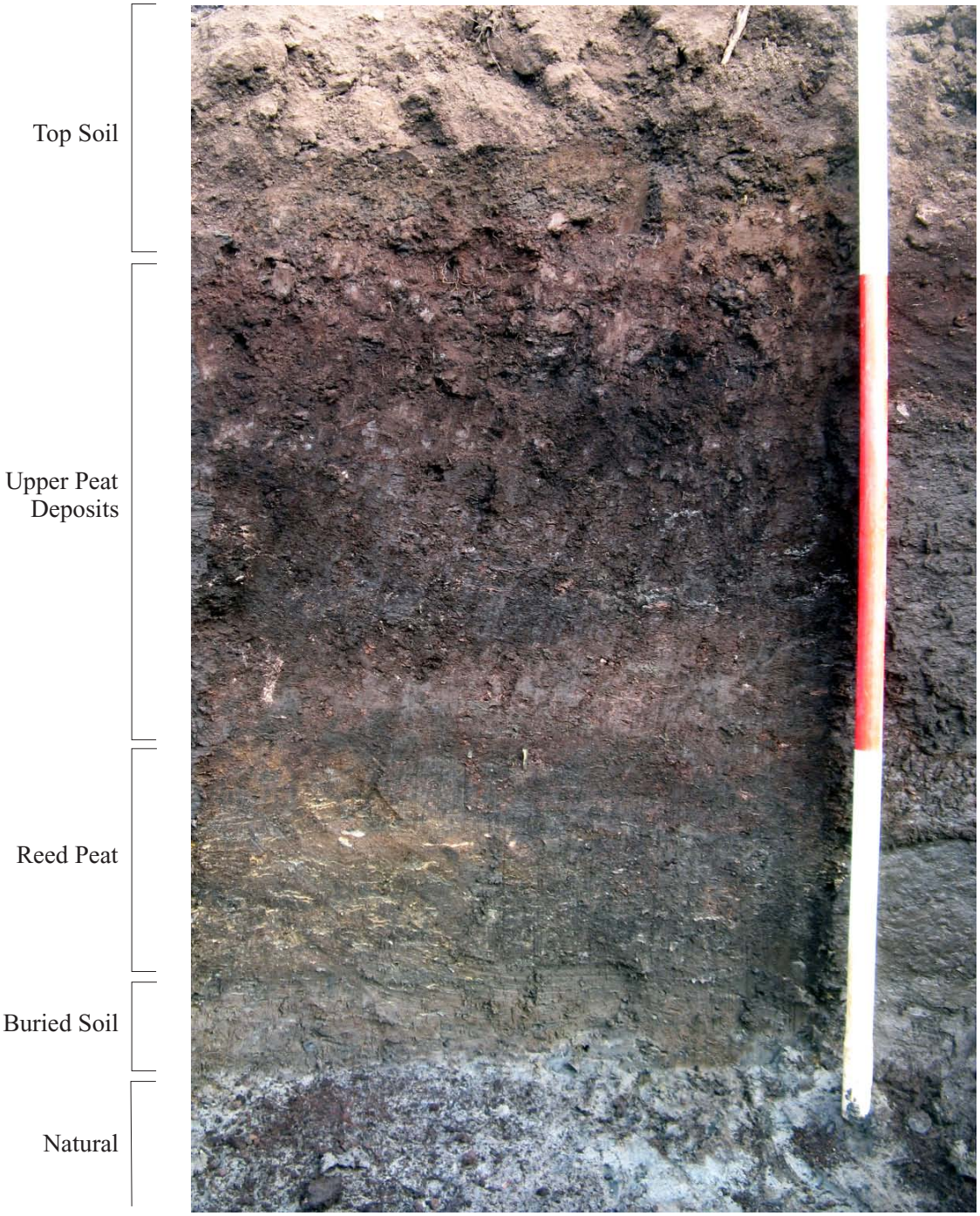


Figure 6. Sequence A

produced two flint flakes. In addition a piece of trimmed, and probably coppiced round wood, displaying facets probably created by a stone axe, was recovered from the lower peat, at *c.*4.2 - 4.6m below AOD, in Test Pit 41 (see Bamforth below). If little else this chance find confirms human activity and probably coppicing, in the predominantly fen carr / wet alder woodland environment which existed in this part of the landscape during much of the Neolithic period.

Discussion

The test pit survey has provided additional information regarding the extent of key deposits identified by previous work at King's Delph (Boreham in Tabor 2008b, Geary 2009, Waller 1994), most notably the buried soil horizon and 'Fen Clay', as well as effectively mapping the palaeo-topography of the PDA (Figure 4).

The 'Fen Clay', which overlies the lower peat , is seen in the lower lying east and extends mid way across the PDA showing the limit of the Bronze Age marine incursion in this area (Sequences D and E). At its western extent an abundance of phragmites was noted within the 'Fen Clay' seemingly indicating reed beds along the fringe of the inter-tidal zone (Sequence C).

Beyond this inter-tidal zone an area of higher ground was recorded above c. -1.2m AOD (Sequence A, see Figure 6). Here, a thin buried soil horizon was recorded in the majority, though not all, of the test pits. Although only two of the test pits (19 and 24) produced artefacts from the buried soil, all flint, the potential for archaeological remains is significantly heightened with the presence of a buried soil. The buried soil was sealed by 'upper peat' deposits the lower of which contained an abundance of phragmites and is again representative of reed swamp conditions.

One other deposit of note was the thin layer of probable alluvium (Sequence B) which occurs in the north-west of the site. The nature of the deposit and its stratigraphic position in the upper peat sequence suggest this relates to Roman or medieval flooding of the River Nene.

Trial trenching results

(see Figures 4 and 7)

The trenching programme targeted areas of higher ground identified by the BAE borehole survey (Gearey et al 2009). As such the large majority of the deposit sequences recorded in the trench sections follow that seen in test pits with 'Sequence A'. The exceptions to this were Trenches 2, 11 and 12, in which the alluvial deposit seen in Sequence B was recorded, and Trenches 24, 25, 26 and 32 which were found not to be situated on higher ground and displayed a 'Fen Clay' sequence equivalent to Sequence C or D.

Of the 33 trenches excavated, 22 were devoid of archaeological features and artefacts. In the remaining 11 trenches the buried soil produced varying amounts of archaeological material indicating prehistoric activity. Archaeological features were

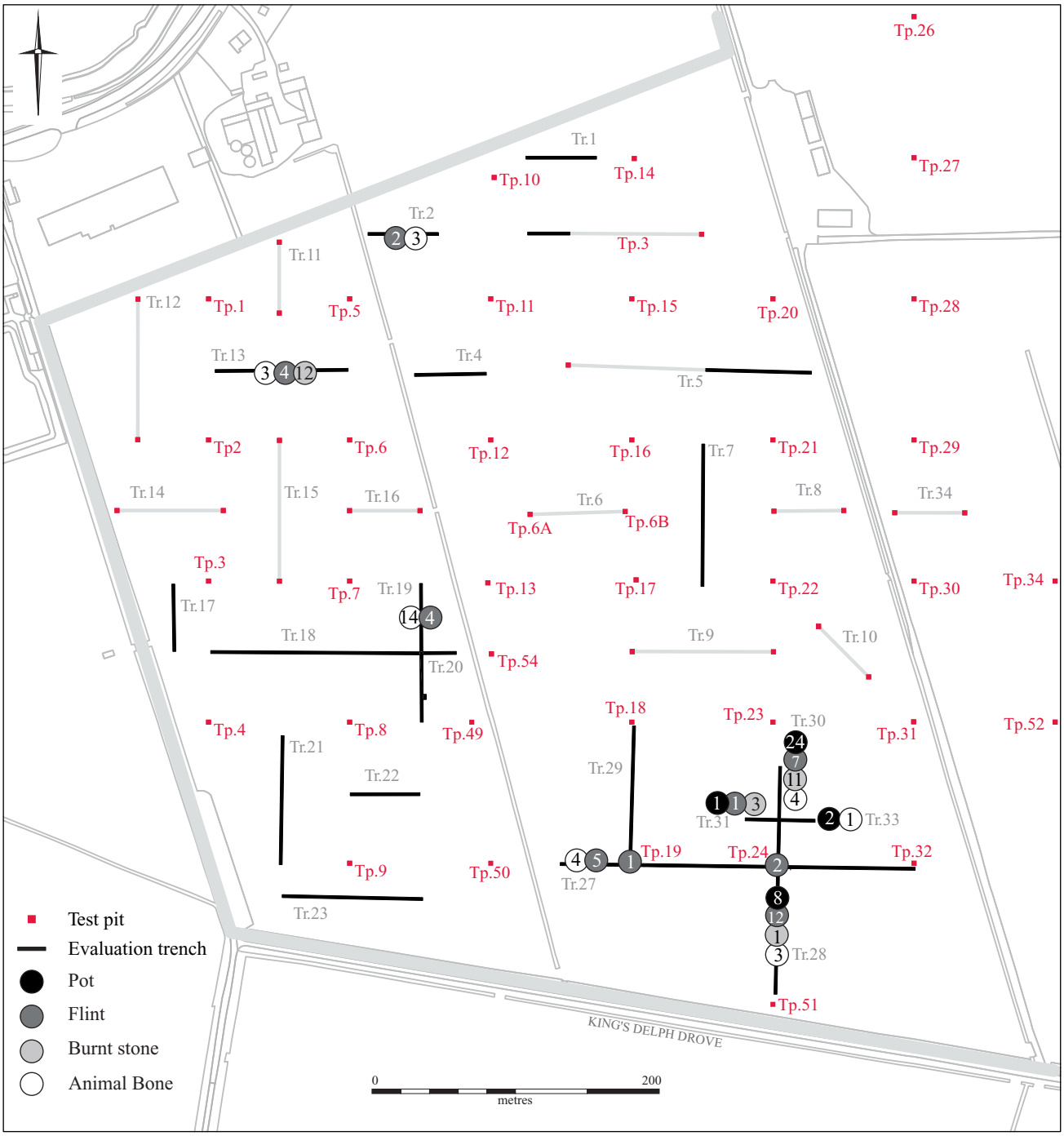


Figure 7. Finds distribution plot

disparate, yet significant when they occurred and comprised a potential round barrow, a possible bank, a timber post and a wooden stake. Full details of individual trenches are provided in Appendix C.

Buried soil finds

(see also Billington, Knight and Rajkovača, below)

Trench 2

Two flints and three fragments of animal bone formed a small cluster of finds in the buried soil in Trench 22. The worked flint comprised a flake and a bladelet core of Mesolithic or earlier Neolithic date, and one of the animal bones was identifiable as cattle.

Trench 13

A total of seven worked flints, including a bladelet core and a rejuvenation flake of probable Mesolithic to earlier Neolithic date were collected from the surface of the buried soil in Trench 13. In addition two unidentifiable fragments of animal bone and 12 fragments of burnt stone were also recovered from the buried soil.

Trench 19

14 fragments of animal bone were collected from the surface of the buried soil in Trench 19. Identifiable fragments included cattle bone and one aurochs bone. The remaining animal bone comprised unidentifiable, calcined fragments which were recovered from the north end of the trench, close to where a shallow charcoal rich lense, occurred within the buried soil. The charcoal rich deposit was roughly linear in form and spanned the width of the trench. A Late Neolithic flint knife and two flint flakes were also recovered from the buried soil in Trench 19.

Trench 22

A single flint chip was recovered from the buried soil in Trench 22.

Trench 27

Four animal bones and five flints were recovered from 1x1m test pit sampling of the buried soil in Trench 27. The animal bone has been identified as pig, aurochs and possible cattle. The flint includes a Late Mesolithic to earlier Neolithic bladelet and two later Neolithic to Early Bronze Age scrapers.

Trench 28

Test pit sampling of buried soil produced 11 worked flints, eight sherds of pottery, three animal bone fragments and one fragment of burnt stone. The flints were largely flakes but included retouched and utilized examples. The pottery assemblage comprised five sherds of Beaker, one sherd of Peterborough Ware and two sherds broadly dated to the Early Neolithic. The animal bone comprised a cattle-sized limb bone, a cow tooth and a beaver tooth.

Trench 30

A comparatively large finds assemblage, mostly pottery was recovered from buried soil in Trench 30 during test pit sampling as well as cleaning / investigating F.03. A total of 18 sherds of pottery - 16 sherds of Beaker, one sherd of Peterborough Ware and one sherd dated broadly to the Early Neolithic - were recovered from the buried soil (Context 02) overlying F. 03 (see below). In addition, four worked flints including a scraper and a retouched flake probably dating to the Late Neolithic to Early Bronze Age were recovered from the same deposit. Three further worked flints, five sherds of Peterborough Ware pottery and three fragments of animal bone, including cattle elements, were recovered from the buried soil away from F.03. Twelve fragments of burnt stone were also recovered from the various buried soil horizons in Trench 30.

Trench 31

A single sherd of Early Neolithic pottery, one worked flint and three fragments of burnt stone were recovered during test pit sampling of buried soil in Trench 31.

Trench 33

Two sherds of Beaker pottery and a fragment of unidentifiable animal bone were recovered from the buried soil (02) overlying F.03.

Archaeological features

Preserved wooden posts / stakes

Two preserved wooden posts / stakes were encountered during trial trenching:

In Trench 19, a roundwood stake (**T. 01**) measuring 0.25m in length was located towards the southern end of the trench, driven vertically through the buried soil horizon into the natural silty clay. The stake (Figures 7 and 8) had been worked to a tapered point probably by a metal tool, most likely a bronze flat axe (Bamforth, see below). Following this discovery, an area measuring 3.5m by 2m, to the east of the

T1. Trench 19

T2. Trench 26

Figure 8. Timbers 1 and 2

stake, was opened up by machine, in order to investigate the possibility that the stake was part of an alignment or structural feature. No further remains were encountered. A fragment of stake T. 01 was submitted for radiocarbon dating which provided 2 Sigma calibrated radiocarbon dates of Cal BC 2110 to 2100 and Cal BC 2040 to 1880 (95% probability) placing it firmly within the Early Bronze Age / Beaker period (see Appendix D).

In Trench 26, a timber post (**T. 02**) was encountered at the north-east end of the trench. The post (Figures 7 and 8), measuring 0.61m in length, was driven vertically through the natural silty clays and into the underlying gravels. A probable felling scar suggests the post originated as the proximal end of a small ash tree (Bamforth, see below). The top of the post was slightly truncated by machine but had clearly protruded slightly into the lower, Neolithic peat and was sealed by the Bronze Age 'Fen Clay'. Due to the instability of the trench and groundwater levels it was not possible to extend Trench 26. However, in order to further investigate the area around post T. 02, a small trench 10m in length (Trench 32) was excavated 7m to the north of, and parallel to, Trench 26 in a position adjacent to the post. No further remains were encountered. A fragment of post T. 02 was submitted for radiocarbon dating which provided 2 Sigma calibrated dates of Cal BC 2470 to 2260 and Cal BC 2260 to 2210 (95% probability), a Late Neolithic date which ties in well with the position of the post within the environmental sequence (see Appendix D).

Trenches 27, 30, 31 and 33

(see Figure 9)

Trenches 27, 28 and 29 were excavated as judgemental trenches following the recovery of artefacts from the buried soil in Test Pits 18 and 24. Following the recovery of a significantly higher number of artefacts from the buried soil in this area (as described above) a further trench, Trench 30, was excavated to better define the area of archaeological activity. Trench 30 and subsequent Trenches 31 and 33 revealed a significant earthwork or mound which based on further investigations can now, with some degree of confidence, be interpreted as a round barrow.

The round barrow

(Figures 9 and 10)

The mound (**F. 03**), first encountered in Trenches 30 and 31, measured *c.*16.5m north to south by *c.*17.25m east to west and stood to a height of no more than 0.5m. The feature was situated at approximately 0.9m below AOD. Initial investigations yielded large amounts of prehistoric pottery (totalling 18 sherds) which was recovered from a buried soil horizon - a deposit which should be regarded as different to the thin buried soil occurring across the rest of the western PDA - which sealed the mound. The buried soil horizon (Context 02) was restricted to the top of the round barrow and comprised mid brownish grey slightly sandy clayey silt, with frequent flecks of charcoal. The interface between the mound material and the buried soil was heavily iron-panned and it was from this interface that many of the pottery sherds derived,

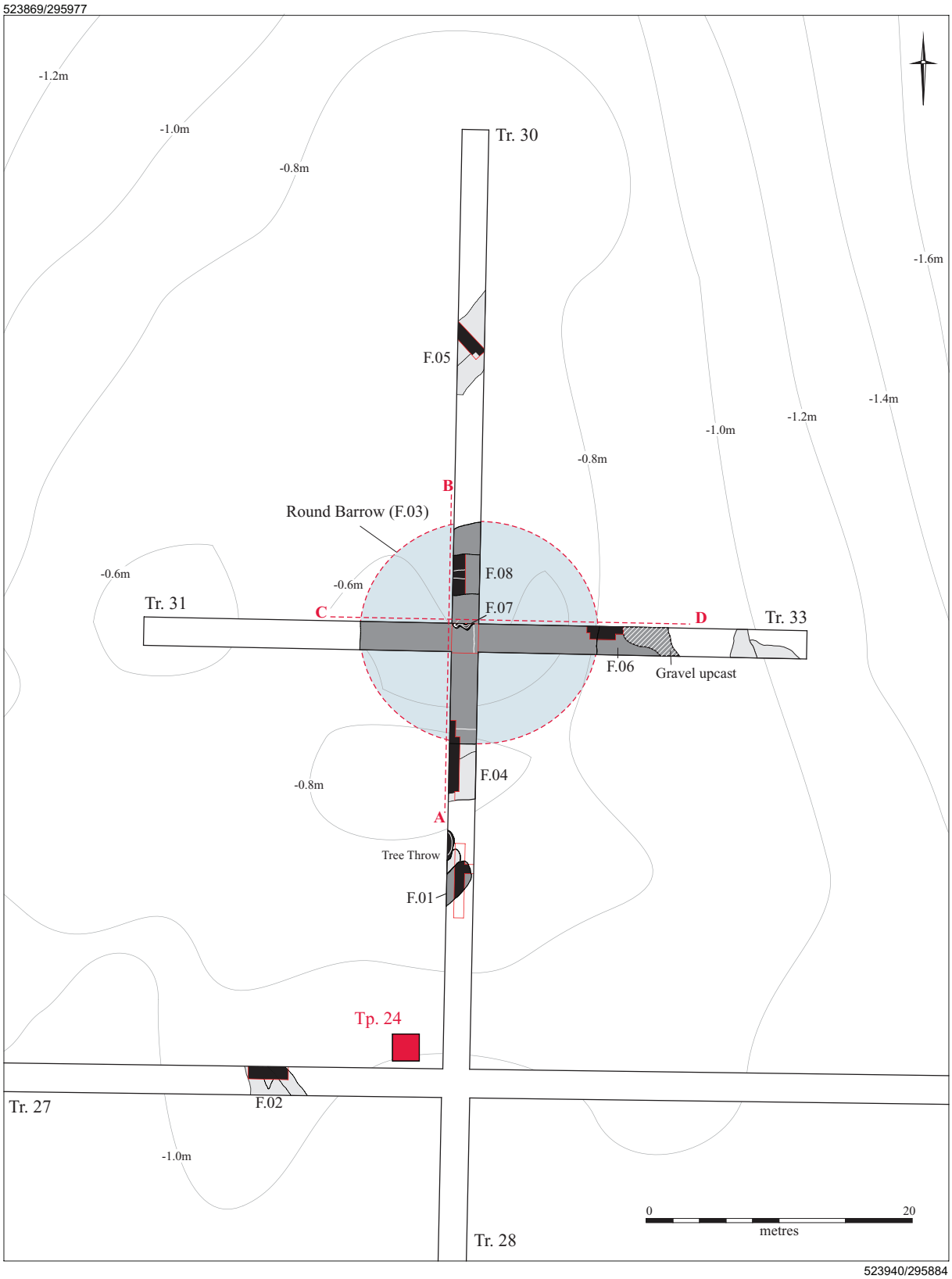
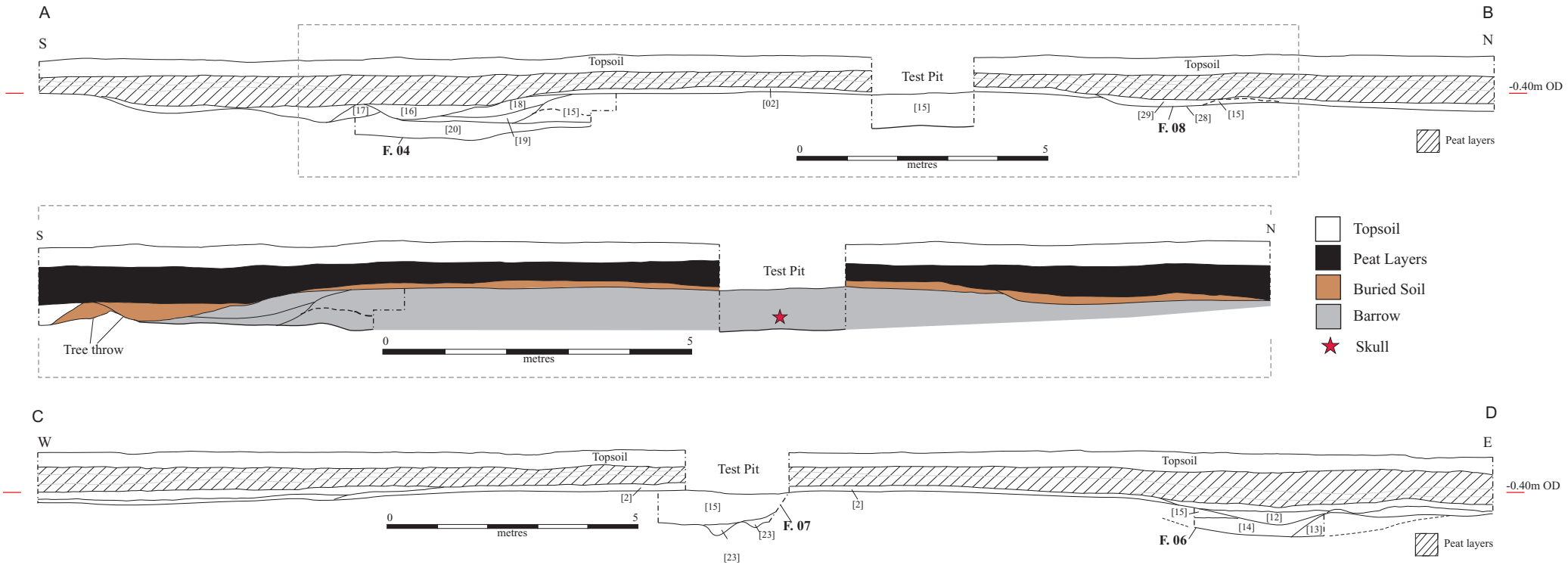


Figure 9. Archaeology within trenches 27, 28, and 30 - 33



Trench 30 looking north

Skull fragments within F. 03

Trench 31 looking east

Figure 10. Sections across barrow F.03 with selected photographs

suggesting that the pottery may well have been scattered on the mound surface prior to buried soil formation rather than being incorporated into the soil.

Following hand cleaning of the mound and the excavation of a sondage in the south face, a high degree of uncertainty regarding the origin of the mound remained. No finds or signs of human activity had thus far been recovered from the mound material itself and no buried soil horizon was visible sealed below the mound. The dimensions, particularly the limited height, were also not typical of a barrow and following a site visit by Dr. S. Boreham and M. Knight of the CAU the interpretation of the feature as geological in origin was favoured. In order to further investigate the mound a 2x2m test pit was machine excavated in the centre. The recovery of a human skull (Context 30) from this test pit, however, appears to confirm, not that the mound was geological in origin, but that it is indeed a barrow of some kind.

The circumstances of the recovery make a detailed interpretation of the stratigraphic and spatial position of the skull difficult. The remains were inevitably disturbed during machining and the majority of the skull was found whilst methodically sorting through the spoil from the test pit, after skull fragments were initially identified. Only the upper jaw was found potentially *in situ* and even in this case some degree of disturbance cannot be ruled out. Seen in the base of the test pit, the possibly *in situ* skull fragments - largely the upper jaw with the mandible apparently missing – appeared to be positioned upright, facing east and sealed by 0.5m of mound material (see Figure 10). The rest of the skull fragments were found during hand sorting of spoil. No sign of a pit or any other feature cut through the mound material was visible in the test pit section and the skull appears to have been placed directly on the pre-barrow ground surface before being covered by the mound. In addition to the skull, a human proximal phalange, a 1st rib shaft, the spinous process of a vertebra, a right clavicle (medial half) and fragments of pelvic rim (see below, Dodwell) as well as three animal bones including a skull, identified as badger (see below, Rajkovača), were recovered from the test pit spoil. Three sherds of Beaker pottery were also retrieved from the test pit spoil, however, given the amount of Beaker pottery recovered from the buried soil (Context 02) overlying the barrow, it seems likely that these three sherds were from the buried soil not the mound material. Despite thorough hand sorting of the test pit spoil and hand cleaning of the base and sides of the test pit itself no further human bones were encountered. This suggests that if the skeleton was complete the majority remains undisturbed beyond the extent of the test pit.

A fragment of the skull vault was submitted for radiocarbon dating analysis but was found to contain no collagen and therefore be unsuitable for dating.

The mound material (15) itself comprised an oxidised light to mid orange / yellow brown slightly sandy clay – effectively redeposited natural material. In three of the four test pit sections examined, the material was fairly homogenous with only occasional inclusions of small stones and small silty lenses. In the south facing section the deposits were more mixed with frequent lenses of silt and gravel possibly representing ‘dumps’ of material. With the exception of a gravel deposit (18) abutting the southern face of the mound, possibly representing slumping, no evidence of construction technique or phasing was visible either within the central test pit or in the main barrow sections. The barrow was also found to be un-ditched, suggesting the

mound was probably constructed from soil deposits, 'scraped up' from the area around the barrow, and possibly turf.

One possible feature was encountered in the base of the central test pit, extending beyond the south facing section. The feature (**F. 07**) was irregular in shape with steep sides and a slightly rounded base. The fill (23) appeared to be relatively sterile and produced no finds. A bulk environmental sample of the fill produced no significant results, yielding only small amounts of charcoal, which possibly indicates pre-barrow land clearance, and a single fragment of carbonised hazelnut shell (see below, A. de Vareilles). Nevertheless, although the evidence is limited, the position of **F. 07** beneath the centre of the barrow and less than 0.5m from human remains suggest it could potentially be of importance.

F. 07 An irregular feature only partially visible within the central test pit excavated in round barrow F. 03. The cut (22) had steep sides and a slightly rounded base and took the form of an irregular shallow gully 1.5m in length by 0.5m wide and 0.22m in depth. The feature contained one fill (23), a sterile mid brownish grey waterlogged clayey silt with occasional gravel inclusions and flecks of organic matter. No finds.

Other features

The abundance of tree throws seen across the site at King's Delph made distinguishing any 'real' negative archaeological features more difficult. In Trenches 27, 30, 31 and 33, due to the close proximity of the barrow, a number of features which though not entirely convincing as archaeological, were investigated and recorded in detail.

The most convincing of these features was **F. 01**, located *c.*8.5m to the south of the round barrow in Trench 30. The feature comprised a mixed deposit (Context 03) of oxidised gravels and sandy silty clays possibly representing an up-cast earthwork such as a shallow bank. The deposit extended beyond the trench edge in a south-westerly direction and appeared to terminate just within the trench to the east. Animal bone, again identified as probably badger, worked flint and a single sherd of Beaker pottery was recovered from a potential buried soil horizon (Context 04) sealed beneath the earthwork.

F. 01 A possible up-cast earthwork feature in Trench 30, to the south of round barrow F. 03. The feature measured 1.75m across by *c.*0.2m in depth, it extended beyond the trench edge to the south-west and terminated within the trench to the north-east. The earthwork consisted of a well compacted oxidised brownish orange silty gravel mixed with a mid grey sandy silt (03) – a deposit which probably represents a mixture of natural silts and gravel, and buried soil. Deposit 03 sealed a soft mid grey sandy silt (04) with moderate gravel inclusions, interpreted as a potential buried soil, which yielded 3 flint flakes and a sherd of Beaker pottery. In addition, a small amount of animal bone was recovered from the interface between deposits 03 and 04. Disturbance associated with a tree throw was noted beneath F. 01 and to the north.

A possible continuation of F. 01 was identified in Trench 27 to the south. **F. 02** was again a thin deposit of oxidised sandy silt and extended across the extent of the trench heading south. A shallow, silt-filled hollow (Context 10) was situated immediately to

the west of this deposit from which two worked flints and a fragment of animal bone were recovered. Despite these finds, the interpretation of F. 02 both as a continuation of F. 01 and as a 'real' archaeological feature should be regarded with caution. F. 02 was extremely shallow and irregular and perhaps more likely the result of tree throw related disturbance and oxidisation of natural deposits.

F. 02 An unconvincing feature comprising a thin deposit of oxidised light orange silty material (08), a maximum of 0.08m thick, associated with a slight hollow 0.22m deep containing a dark grey peaty clayey silt (10). The feature as a whole measured 2.3m across and extended across the entire width of Trench 27. One eroded animal bone, a fragment of sheep / goat tibia and two utilised flint flakes of probable Late Neolithic date were recovered from deposit 10.

Features **F. 04** and **F.06** were recorded in the Trenches 30 and 33 respectively. **F. 04** was located on the southern edge of the barrow, while **F. 06** was located on the eastern edge. Both comprised areas of disturbed natural sand / gravel together with a silt or reed peat filled hollow. Small amounts of animal bone were recovered from both features. While the combination of disturbed natural and peat filled hollow is certainly indicative of tree throw disturbance, seen elsewhere on site, the features' close proximity to the barrow suggests they should not be immediately dismissed as such. Although no major feature such as an encircling quarry ditch was encountered, the presence of quarry pits/hollows or perhaps even a discontinuous ditch-like feature in the vicinity of the barrow would not be unexpected.

F. 04 A peat-filled hollow to the south of round barrow F.03. The hollow (25) measured 2.7m wide by 0.3m deep and extended across the width of Trench 30. The hollow contained a dark brown sticky silty peat fill (16) with frequent organic matter and occasional small stones, fill 16 yielded one fragment of animal bone. On the southern edge of the feature a yellow brown sandy clay deposit (17) probably represented an area of disturbed natural.

F 06 An irregular hollow to the east of round barrow (F. 03) associated with an area of disturbed natural deposit of mid grey brown silty clay mixed with gravel (13). The hollow (24) contained two fills, a mixed mid grey waterlogged clayey silt (14), overlain by a dark brown silty peat (12). It measured 2.7m wide by between 0.3m and 0.5m deep, and extended across the width of the Trench 33. Poorly preserved fragments of probable cattle bone were recovered from F.06, two from fill 12 and one form fill 14. Interestingly, deposit 14 appeared to be partially sealed by round barrow F.03 suggesting F.06 pre-dates the mound.

Further areas of peat-filled hollows with associated disturbed natural ground, further away from the barrow can more easily be dismissed as tree throws. These include an area *c.*10m to the west of the barrow in Trench 33, which was investigated but not recorded, and **F. 05** *c.* 9.5m to the north of the barrow in Trench 30.

F. 05 A probable tree throw to the north of round barrow F. 03 in Trench 30. Comprised a dark brown, fibrous silty peat deposit (21) contained within an irregular hollow (26) 0.15m deep and extending across the width of the trench.

One other feature of note, **F. 08**, comprised a shallow hollow, with a buried soil derived fill (28) situated on the north facing slope of the barrow. A single sherd of Peterborough Ware was recovered from this feature. The hollow appeared to cut

through the *in situ* buried soil and the poorly defined nature of the cut suggests it may be the result of erosion. Given the presence of Rusticated Beaker pottery, effectively sealed by the buried soil, elsewhere on the barrow surface, the Peterborough Ware pottery would seem to be residual.

F. 08 A poorly defined silt filled hollow in the northern face of round barrow F.03. The hollow measured 2.2m across by 0.14m deep and extended across Trench 30. It contained a grey brown slightly peaty sandy clayey silt, buried soil derived fill (29). This fill produced one sherd of Peterborough Ware pottery.

Discussion

The results of the King's Delph trial trenching are significant on two levels. Firstly, in terms of characterising the archaeological activity in the landscape. Secondly, in that it has identified the site of a probable round barrow along with possibly related features.

Landscape activity

The buried soil finds and the preserved wood provide a good indication of the date and, to some extent, the nature of the prehistoric landscape at King's Delph:

As has been proved by previous excavations in the area around King's Delph (see, Evans et al. 2005, Gibson and Knight 2006) the date and nature of the archaeological remains in the landscape is intrinsically linked to topography and the extent of the fen at specific points in the past. At King's Delph, the vast majority of the prehistoric ground surface (sealed below the upper peat sequence) lies below the -0.5m AOD contour. As a result no finds or features later than the Early Bronze Age were encountered. This clearly reflects rising sea levels in prehistory, which prohibited settlement below -0.5m AOD after the Early Bronze Age, and echoes the situation across the Must Farm / Bradley Fen landscape.

The buried soil finds from across the area of 'high ground' in the west of the PDA, indicate activity from the late Mesolithic through to the Early Bronze Age. The assemblage is, however, dominated by late Neolithic / Early Bronze Age finds notably Beaker pottery. Whilst this, to some degree, bears out the relationship between chronology and the encroaching fen edge, which appears likely to have confined late Neolithic / early Bronze Age activity to the 'high ground', it is also a reflection of the presence of the round barrow in the landscape, around which most of the finds were clustered.

It is important to note at this point that although low in number compared to sites in the landscape situated at higher contours, the buried soil finds assemblage from King's Delph is significant, if only because it clearly indicates activity in the landscape. Recent excavations at Must Farm (Tabor 2008a and forthcoming) have recorded important archaeological features including burnt mounds and stake alignments despite being in areas where low numbers of finds were recovered from the buried soil during evaluation (Evans et al 2005). It is highly likely that the same applies to King's Delph.

The preserved wood remains are also very significant. Timber 01, a driven stake, which dates to the Beaker period is similar in form to those which formed a Beaker period stake alignment boundary at Must Farm (Tabor forthcoming). Although, no associated stakes were encountered there is a high potential that the stake at King's Delph indicates the presence of a similar feature here. Timber 02, may also be part of an alignment, although no associated posts were found. The main significance of Timber 02, however, lies in its Late Neolithic date, and its position in the landscape – at a height of *c.* 1.75m below OD. Timber 02, together with the fragment of trimmed, and probably coppiced, roundwood from Test Pit 41, show that archaeological remains can be found at depths which are generally considered to be of low archaeological potential.

Trial trenching at King's Delph concentrated on the 'high ground' largely because previous work has indicated such areas to be of highest archaeological potential, but also because health and safety implications limited the depth to which trenches could be excavated. However, the limited trenching and test pitting in the areas of 'deep fen' (below -1.2m OD) in the eastern two-thirds of the PDA also show this area to have potential for early prehistoric remains. In addition the ground conditions encountered during the evaluation in the eastern two-thirds of the PDA indicate that preservation is likely to be exceptional due to waterlogging. The presence of *in situ* timber post T.02 (at -1.75m OD) indicates a relatively high potential for further archaeological remains in the immediate vicinity of Trench 26. On the other hand, the trimmed roundwood from Test Pit 41 (at -4.2m OD), whilst clearly an indicator of exploitation of the contemporary alder carr environment, does not necessarily reflect concentrated activity at this depth and location.

In terms of date, activity in these lower lying areas (the eastern two thirds of site) is likely to be late Neolithic or earlier with Beaker activity probably restricted to the high ground to the west (above *c. -1m OD)*. This is attested to by the late Neolthic date of Timber 02.

The round barrow

As described above, the round barrow lies at the centre of the most intensive area of archaeological activity recorded at King's Delph. Although no secure dating evidence was recovered from the barrow, the presence of a relatively large amount of Beaker pottery lying on top of the mound provide the most convincing evidence for the date of the feature, the Peterborough and early Neolithic sherds being residual. A Beaker date is also the most satisfactory with regard to the form of the monument, which although slightly smaller in size than most, is typical of Early Bronze Age round barrows. Also the fact that no later pottery types, such as Collared Urn were recovered at King's Delph suggests the area saw little activity after the Beaker period. The size and limited height of the barrow is intriguing given that the protective layers of peat make truncation unlikely. The King's Delph barrow may represent a small early form of barrow. It is becoming increasingly evident that the majority of Early Bronze Age barrows, including that at Must Farm (Evans et al) are the result of multiple phases of expansion. Therefore it is entirely possible that the King's Delph barrow represents a small barrow that was never elaborated upon, perhaps due to the encroaching fen prohibiting further activity.

The circumstances of the discovery of the human remains – in the base of a machine excavated test pit - and the little excavation that took place thereafter mean that only a limited interpretation is possible at this stage. The fact that, comparatively few bones were recovered from the test pit spoil, including no long bones, suggests that a complete skeleton was not truncated by the test pit. Instead one of three scenarios is proposed. Firstly, and least likely, the human bones may have been disarticulated. This would be acceptable if the feature dated to the earlier Neolithic, but given the probable Beaker date seems unlikely. Secondly, the skeleton may have been complete, probably in a crouched position, the remainder lying undisturbed, to the east, beyond the extent of the test pit. Finally, the skeleton may have been complete but disturbed in antiquity. The presence of badger bones within the test pit spoil make this final scenario a genuine possibility. No known parallels for badger bones / skeletons as funerary deposits are known (see below, Rajkovača) and the most likely reason for the presence of badger remains in the barrow mound material is that it has been disturbed by a badger sett. Given that the barrow was sealed by undisturbed peat layers this must have occurred in antiquity.

The evaluation also identified a number of possible features which occur in close proximity to the barrow and are potentially related. These features, which include a possible up-cast bank, are very difficult to interpret based on the evidence seen in the evaluation trenches. Given, the degree of disturbance resulting from tree throws, seen across the PDA it is quite possible that the features recorded are natural in origin. However, the proximity to the barrow, and the small number of finds recovered from such features suggests they should not be dismissed as tree throws without further investigation. The potential for associated features such as quarry pits as well as further funerary features close to the barrow is considered high.

In terms of its position within the wider landscape the location of the round barrow is also significant. It appears likely that it was situated close to the early Bronze Age fen edge and potentially on what was considered marginal land (see also the barrows at Must Farm, Evans et al 2005). It is also positioned between two important monument groups in the Must Farm barrows to the north and the Suet Hills barrow cemetery to the south. The barrow may be an outlier of one of these monument groups or alternatively may form part of a much more extensive monumental landscape incorporating both monument groups. By analogy with the current understanding of such monument groups, located in marginal land at fen edge locations, the implication is that the deeper fen deposits in the eastern and north-eastern parts of the PDA would have been beyond the area of dry-land activity preferred for settlement and intensive utilisation.

CONCLUSION

The King's Delph evaluation has identified a number of archaeological features, and a significant artefactual assemblage, situated on the 'high ground' in the west of the PDA and largely dating to the Beaker period. In addition a timber post dating to the late Neolithic was encountered in an area of deep fen previously thought to be of lower archaeological potential. The evaluation results are of considerable importance, especially given the presence of the round barrow and the comparatively limited nature of evaluation investigation. Comparing the evaluation results with the results of

the evaluation and subsequent excavation at Must Farm (Evans et al. 2005, Tabor 2008a and forthcoming) emphasises their significance.

It is clear that the archaeology of King's Delph should not be considered in isolation, it should be seen as part of the same archaeological landscape as Must Farm / Bradley Fen landscape. Recent phases of excavation at Must Farm (Tabor 2009) have recorded a range of archaeological features which were not identified by trial trenching and it is becoming increasingly clear that the dispersed nature of the archaeological remains in the landscape mean they are not fully characterised during evaluation. As a result added emphasis should be placed on identifying activity in the landscape, largely through artefacts recovered from the buried soil. In this sense, based on the presence of buried soil finds and the preserved wooden post and stake, the potential for further, as yet unidentified, prehistoric remains at King's Delph is considerable. The fact that one of the archaeological indicators, Timber 2, is situated at a depth of 1.75m below OD is also significant and appears to confirm that archaeology in the King's Delph / Must Farm area is not necessarily confined to the relatively 'high ground' above c. -1.2m OD.

Finally the round barrow is undoubtedly an important find. Having been covered by rising wetland during the Early Bronze Age, the barrow appears to represent a feature untouched by later activity and situated in a landscape which would not have been utilised after the Beaker period in terms of settlement and burial practices. The barrow survives largely intact and the potential for significant archaeological remains, including waterlogged deposits, preserved below the peat and alluvial layers is considered high. The potential for further, as yet unidentified, archaeological features associated with the round barrow is also significant.

ACKNOWLEDGEMENTS

The work was commissioned by Tim Malim of SLR Consultancy Ltd. on behalf of Hanson Building Products Ltd. The project was monitored by Kasia Gdaniac of Cambridgshire Archaeology Planning and Countryside Advice. Thanks also to Roger Easton whose cooperation was greatly appreciated in providing access to the land and to Tim Darling of Hanson. The author was assisted on site by Lawrence Billington, Selina Brierley, Iona Robinson, Emma Rees and Andrew Whelan. Donald Horne was responsible for the field survey and graphics were produced by Bryan Crossan and Andy Hall. Mark Knight provided valuable support and advice throughout the project, which was managed by David Gibson.

SPECIALIST STUDIES

Flint – *Lawrence Billington*

A total of 45 worked flints were recovered from the excavations, the vast majority coming from buried soil deposits encountered during test pitting and trenching. The condition of the assemblage is very good, with most pieces appearing fresh, no doubt due to their recovery from well-sealed contexts. Patination is rare, with only four pieces (9%) showing a light blue patination. Much more common however is a very dark matt staining of the surface of flints, which also discolours surviving cortex. This has been observed on other assemblages from the area and is thought to be a result of 'peat staining' (eg. Wilson 2009).

The assemblage includes evidence for Mesolithic/earlier Neolithic activity together with a more substantial later Neolithic and Early Bronze Age presence. The assemblage is listed by trench in Table 1.

Trench/ TP no.	Feat. No.	Context	chip	chunk	flake	blade/let	rejuvenation flake	bladelet core	utilised flake	utilised blade	scraper	retouched flake	retouched bladelet	flake knife	serrated flake/blade	**Totals**
Tr 2		buried soil			1			1								2
Tr 13		buried soil	2	1	2		1	1								7
Tr 19		buried soil			2									1		3
Tr 22		buried soil	1													1
Tr 27		buried soil			1	1					2				1	5
Tr 27	F.2	[010]							2							2
Tr 28		buried soil	1		6	1			1	1			1			11
Tr 30		buried soil	1		1				1							3
Tr 30		[002]			2						1	1				4
Tr 30	F.1	[004]			3											3
Tr 31						1										1
TP 19															1	1
TP 24					2											2
Totals			5	1	20	3	1	2	4	1	3	1	1	1	2	**45**

Table 1. The flint assemblage

Buried soil deposits

Mesolithic/earlier Neolithic

Flint work from this period is represented by several pieces resulting from a systematic core reduction strategy geared towards the production of blades and

bladelets. Two small bladelet cores were recovered from buried soil deposits in Trenches 2 and 13. Both were worked from a single well prepared platform and were exhausted when discarded. The core from Trench 2 is almost certainly from primary flint deposits on the chalk. Two fine bladelets, struck from carefully trimmed platforms were recovered from Trenches 27 and 31. A rejuvenation flake, characteristic of blades based technologies, was recovered from Trench 13. The only retouched piece which could be assigned to this period with confidence was a small bladelet with neat, abrupt retouch along one lateral margin, from Trench 28. The difficulty of distinguishing between Mesolithic and earlier Neolithic technologies in the absence of formal tools precludes any more precise dating of the activity represented by these flints. However the retouched bladelet is more typical of Mesolithic tools and suggests that at least some of the assemblage may date to this period.

Later Neolithic/Early Bronze Age

The bulk of the unretouched component assemblage is made up of material that be broadly assigned to later Neolithic/Early Bronze Age technologies. Although no cores were present the technological characteristics of the flakes suggest a simple, but skilfully executed, flake based production strategy. Hard hammers were used through out the reduction sequence and platforms are relatively large with preparation being limited to occasional trimming of the platform edge. Analysis of the dorsal scars suggests cores were generally being worked fairly systematically from a single platform. It is clear that the assemblage is not representative of the full reduction sequence, cortical flakes, cores, chips and chunks are all absent or very rare. This, together with the high proportion of retouched/utilised pieces (30% of the entire assemblage), strongly suggests that only limited flint working was taking place in the area, with more of an emphasis on the later stages of core reduction and on the use of tools. A substantial amount of the assemblage is made up of primary chalk flint, alongside good quality derived flint, presumably from local gravel terrace sources.

A number of retouched forms dating to this period were also recovered from buried soil deposits, including three scrapers, a flake knife, two serrated flakes and a retouched flake. A fine discoidal scraper was recovered from Trench 27, a form generally found in later Neolithic assemblages (Cleal 1984: 152). Two further scrapers came from trenches 27 and 30. A fine flake knife from Trench 19 bears distinctive traits diagnostic of a specialised later Neolithic flake production strategy. Made on a relatively broad, thin blade like blank it was struck from a carefully faceted platform, probably from a ‘levalloisoid’ discoidal core (Saville 1981: 7). The two serrated flakes from Trench 27 and Test Pit 19 were both manufactured on narrow flakes with fine serration along both lateral edges, perhaps suggesting they were used unhafted. Although an earlier (earlier Neolithic) date for these pieces is possible, the nature of the blanks used suggests a later Neolithic date and they can be closely paralled with pieces from grooved ware associated contexts elsewhere in the Flag Fen Basin (e.g. Pryor 1978 fig 45 6-15, Beadsmoore and Evans 2009 fig 4.10 14 & 15).

Features

Only five worked flints were recovered from the excavation of features, both from upstanding possible banks (F. 1 and F. 2) associated with round barrow F. 3. Feature 1 produced three flakes. Two of these exhibited a degree of care in the form of trimmed platforms that suggest a Neolithic date. Two large blade like flakes from F. 2 are likely to be later Neolithic in date. Hard hammer struck from unprepared platforms, both showed edge wear along one margin.

Discussion

The lithic assemblage from the King's Delph evaluation attests to activity from the Mesolithic to the Early Bronze Age. Mesolithic/earlier Neolithic activity is represented by a small number of pieces including cores, flakes and a single tool, potentially representing a range of activities including flint working and tool use. The later Neolithic/Early Bronze Age component is larger, although densities remain low, and perhaps more specialised, with no evidence for flint working on a large scale and with a high proportion of retouched tools and utilised pieces.

Prehistoric pottery – *Mark Knight*

The prehistoric pottery assemblage was made up of 49 fragments weighing 693g (MSW 7.1g). The bulk of the material represented surface finds and although the sherds were large and in good condition many were also encrusted with iron pan. In addition to the iron pan several pieces had also been transformed or discoloured by subsequent or post-depositional water logging. Twenty-seven Rusticated Beaker sherds (hard with frequent medium-large grog and rare small burnt flint) dominated the assemblage (75.5% by number and 90% by weight). The rest comprised four Early Neolithic (4.5% by weight) and eight Peterborough Ware pieces (5% by weight).

Cat.	Trench	SF	Context	Number	Weight	Type
8	30	-	-	1	5	BK
43	28	-	-	5	19	BK
48	28	-	-	1	7	PW
51	28	-	-	2	10	EN
53	30	-	-	5	7	PW
57	30	-	-	1	23	BK
63	30	-	-	2	40	BK
64	31	-	-	1	5	PW
67	33	-	-	1	8	BK
68	33	-	-	1	23	BK
80	30	8	29 (F.8)	1	13	BK
81	30	9	2	1	19	BK
84	30	12	2	1	6	BK
85	30	13	2	1	31	BK
86	30	14	2	1	18	BK
89	30	17	2	11	190	BK
95	30	23	2	1	17	EN
96	30	24	2	3	131	BK
97	30	25	2	3	43	BK
98	30	26	2	1	36	BK
99	30	27	2	1	8	PW
100	30	28	2	1	28	BK
101	30	29	2	3	6	BK

				49	*693*	

Table 2: Assemblage Breakdown

A single out-turned rim and neck fragment from shell-tempered Neolithic bowl (SF 23) was the only feature sherd of Early Neolithic date although flint-tempered pieces (<51> and <64>) were probably contemporary.

The Peterborough Ware assemblage also produced a single rim sherd decorated with incised herring-bone along its flattened top (F.8). A small body fragment decorated with rows of 'comma' impressions (SF 27) and of a quartz-rich fabric could also be Peterborough Ware. Plain body sherds (<48> and <53>) of the same fabric as the decorated rim (medium with common voids) have been assigned to this type.

The Beaker collection included 22 decorated pieces but only one rim and one base fragment. Rows of fingertip and fingernail impressions, lines of drag and stab, fingertip cordons or grooves as well as deep vertical and horizontal rilling represented the range of decoration types. A single fine ware embellished with fingernail impressions (SF 29) stood out amongst the 'coarse' ware or rusticated component. The rusticated sherds bore a remarkable resemblance to an assemblage recovered from a pit cluster (pit group mS28) at Sutton Hoo (Hummler 2005).

Excavations at Bradley Fen Silt Lagoon also produced an assemblage of Rusticated Beaker at or about 0.00m OD. The sherds were found associated with unambiguous settlement features which included a post-built structure (Gibson and Knight 2006).

Human bone - *Natasha Dodwell*

Refitting fragments of a male adult skull and upper jaw were found *in situ* below a 'mound' during trial trenching. Additional human bone comprising further fragments of the skull vault, maxilla, a proximal phalange, a 1st rib shaft, the spinous process of a vertebra, a right clavicle (medial half) and fragments of pelvic rim were retrieved from the machined spoil. The bone is stained a dark brown colour and patches of iron panning adhere to some of the surfaces. The skull vault is fragmentary but the fragments refit. There are old and more recent breaks. Some of the sutures of the skull are fused and the degree of molar wear suggests that this man was c. 35-45years old when he died. Areas of porosity, indicative of anemaia were recorded on the outer surface of the parietal bones. There is nothing to suggest that the bones do not derive from the same individual.

A fragment of skull vault (13g) was selected for C14 dating but no results were obtained.

Animal bone - *Vida Rajkovača*

Introduction

A total of 44 fragments (1737 g) of animal bone were hand-recovered, 30 (68%) of which were identifiable to element and further 22 (50%) to species. The assemblage demonstrated moderate to quite poor state of preservation with the majority of fragments showing certain surface modifications as a result of weathering. Gnawing marks were observed on *c.*10% of the assemblage implying that the material had been exposed for a while before it was deposited. The assemblage was identified with the aid of Schmid (1972), Hillson (1999) and the reference collection from the Cambridge Archaeological Unit. Due to the high fragmentation of the elements, it was not possible to obtain any measuring or ageing data. Species count (NISP) showed that both domestic and wild species are equally well represented in the assemblage (Table X). Cow, aurochs and cattle-sized mammals suggest that large mammals were a dominant component of site's economy.

Taxon	***NISP***	***MNI***
Cow	9	1
Aurochs	2	1
Ovicaprid	1	1
Pig	1	1
Badger	8	1
Beaver	1	1
Cattle-sized	10	.
Mammal n.f.i.	12	.
Total	**44** [1737g]	**.**

Table 3. Number of specimens identified to species (or NISP), MNI counts (Minimum Number of Individuals) and weights (in grams in parenthesis). The abbreviation n.f.i. denotes that a specimen was or could not be further identified.

Results

The majority of material was recovered as surface finds or during buried soil sampling with only four features producing a small amount of animal bone.

The distribution of the faunal material showed that three trenches (Trench 19, 27 and 30) have produced somewhat bigger quantities of material compared to the rest of the site (Table X). When NISP is considered, these three trenches contained the material amounting to 66% of the assemblage. If weight is taken into account, 86% of the material comes from these three areas.

Trench	***Feature***	***Context***	***Fragments***	***Weight***
2			3	63
13			3	7
19			14	487
27			4	760
28			3	14
30			3	94
33			1	5
30	03	15	3	171
30	1	4	6	35
27	2	11	1	18

33	6	12	2	73
33	6	14	1	10

Table 4. Fragment count and weights by trench and context

F.01

Context 04 produced four fragments including two mandibles identified as badger.

F.02

This feature yielded weathered and eroded tibia fragment identified as sheep/ goat.

F.03

Three fragments of bone were recovered from context 15, two fragments, including a skull, have been identified as badger and one fragment as a cattle metatarsal. The material was collected during hand sorting of spoil following the discovery of a human skull in a probable round barrow (F. 03).

F.06

Fragments of poorly preserved cow metatarsal and two cattle-sized elements were recovered from this feature.

Trench 2

This trench contained three fragments of bone, one of which was a cattle humerus.

Trench 13

Two unidentifiable bone specimens were recovered.

Trench 19

This trench produced cattle radius and two loose teeth, followed by several fragments of unidentifiable bone. In addition to this, mid shaft of a femur was discovered and it was identified as aurochs. This specimen had unfused epiphyses giving the age at death of 0-3 years. Although it was not possible to obtain any measurements, this specimen is likely to be of either of a female or not fully grown (juvenile) male aurochs.

Trench 27

Four different bone specimens were found in this trench weighing 760g. Two unidentifiable cattle-sized pelvis and limb bone fragments were noted, followed by a fragment of pig humerus. Another element found here suggested the presence of aurochs on site. Near complete radius was identified as aurochs and its size is suggestive of an adult male aurochs.

Trench 28

One cattle-sized limb bone fragment and one cow loose tooth was found. In addition to this, another interesting find is a beaver loose tooth.

Trench 30

This trench produced three cattle elements, metacarpal, tibia and a single loose tooth, all from the buried soil.

Trench 33

One fragment of unidentifiable bone was found in the buried soil.

Summary

The assemblage represents the scatter of finds recovered during the trench based evaluations. The majority of finds were not stratified, although it has to be acknowledged that the assemblage does represent the remains of past economic activities. The most significant part of the bone comes from trenches 27 and 30.
The animal bone assemblage was collected from an area of 'high ground' within the PDA, between -0.5m and -1.2m AOD. Previous work in the King's Delph / Must Farm area has shown that the rising water table during prehistory prohibited occupation after the Early Bronze Age at this contour. This, together with the pottery and flint assemblages, suggests the animal bone largely dates to the Late Neolithic / Early Bronze Age, perhaps with a smaller Late Mesolithic / earlier Neolithic component.

Based on the species representation, some propositions about the animal use on site could be offered. Both wild and domestic cattle seem to dominate the assemblage followed by the numbers of cattle-sized mammal fragments and this could be indicative of a cattle-based economy. The hunting is likely to have been practiced on site and wild fauna seemed to have also contributed to the site's dietary practices. The badger bone from F.3, Trench 30 whilst recovered from a potential round barrow along with human bone is perhaps more likely to be intrusive than a special deposit.

Waterlogged wood – *Michael Bamforth*

Introduction

This report has been compiled by Michael Bamforth of L–P: Archaeology on behalf of Cambridge Archaeological Unit (CAU). Lisa Gray carried out the species identifications (Gray 2009).

This analysis report concerns three discrete pieces of waterlogged wood recovered by CAU during an archaeological evaluation carried out on land at King's Delph, Whittlesey, Cambridgeshire.

The material was recorded at the offices of CAU during December 2009 by Michael Bamforth of L–P: Archaeology. A full catalogue of the material is provided below.

Provenance

Wood (001) Trench 19: This driven, vertical stake was not closely associated with any other archaeological features or wooden remains. This item has been radiocarbon dated to the Early Bronze Age (pers comm J. Tabor).

Wood (002) Trench 26: This driven, vertical post was not closely associated with any other archaeological features or wooden remains. This item has been radiocarbon dated to the Late Neolithic (pers comm J. Tabor).

Wood (003) Test Pit 41: This small piece of roundwood was not closely associated with any other archaeological features or wooden remains. This item was recovered from within a peat layer dating to the Neolithic (pers comm J. Tabor).

Methodology

This document has been produced in accordance with English Heritage guidelines for the treatment of waterlogged wood (Brunning 1996).

All discreetly numbered items and those displaying evidence of modification or woodland management were recorded individually using the L - P : Archaeology pro forma 'wood recording sheet' which is based on the sheet developed by the Fenland Archaeological Trust for the post excavation recording of waterlogged wood.

The metric data were taken with hand tools including rulers and tapes, the toolmarks were measured using a profile gauge.

The system of categorisation and interrogation developed by Taylor (1998 and 2001) has been adopted within this report.

Items were sub-sampled to allow identification to genus via microscopic identification as necessary.

For the identification of the wood, slides were made of the transverse, radial longitudinal and transverse longitudinal sections using techniques based on those given in Hather (Hather 2000). These were examined using a transmitted light microscope with magnification ranging from 4x to 100x. Diagnostic features were noted and identifications were made using a wood atlas (Schweingruber 1978, Schoch et al. 2004), other manuals (Gale and Cutler 2000, and Hather 2002) and modern reference material (author's own). Identifications were made to species where diagnostic features were clear in all three sections and given possible identifications (e.g. Corylus avellana/Alnus sp.) where diagnostic features were not clear. Nomenclature follows Stace (Stace 1997). All details were recorded onto paper recording sheets (Gray 2009).

Condition of Material

The condition scale developed by the Humber Wetlands Project (Van de Noort, Ellis, Taylor & Weir 1995), will be used throughout this report (Table 4). The condition scale is based primarily on the clarity of surface data. Material is allocated a score dependent on the types of analysis that can be carried out, given the state of preservation. The condition score reflects the possibility of a given type of analysis but does not take into account the suitability of the item for a given process.

Where condition varies within a discrete item, the section that is best preserved is considered when assigning the item a condition score. Items that were set vertically in the ground often display relatively better preservation lower down and a relatively poorer preservation higher up.

Condition Score	Museum Conservation	Technlogy Analysis	Woodland Management	Dendro-Chronology	Species Identification
5 excellent	+	+	+	+	+
4 good	-	+	+	+	+
3 moderate	-	+/-	+	+	+
2 poor	-	+/-	+/-	+/-	+
1 very poor	-	-	-	-	+/-
0 non-viable	-	-	-	-	-

Table 5: Condition scale used in this report

The material all scored 3 or a 4 for condition, describing an assemblage in a moderate to good condition. This material is suitable for species identification and ring counts. Woodworking evidence is clear throughout the majority of the assemblage.

Results and Discussion

Neolithic material

Wood (002) Trench 26

This driven, timber post has been identified as ash (cf. Fraxinus excelsior L.) and scored a 3 for condition (Table 4). The bark remains intact. The top end of the item is truncated. It measures 605mm long and has a diameter of 170mm. One end has been trimmed from two directions, with a substantial tear / split running up the timber from the trimmed end. Although the condition of the worked end is too poor to be certain, the morphology of the worked end suggests a degraded felling scar. The tool faceting is too degraded to impart any information regarding the tool used. The central pith of the timber, lack of side branches and possible felling scar all point to this item being the butt (proximal) end of the trunk of a small tree. Ash most commonly appears in mixed woodland with oak on damp soils. (Gale and Cutler 2000). This item is likely to have been sourced locally, possibly from mixed woodland on the terrace gravels.

Wood (003) Test Pit 41

This small piece of roundwood has been identified as alder/hazel (Alnus/Corylus avellana) and scored a 4 for condition (Table1). No bark is present on this item. It measures 76mm long. The diameter has been distorted by compression of the surrounding peats and measures 22 x 19mm. The diameter and the straight, even stem are both suggestive of a coppiced rod (Rackham 1977). One end has been trimmed from one direction. The two tool facets present are both short, suggesting the use of a stone tool (Sands 1997, O'Sullivan 1991 in Sands 1997). Alder grows well in wet conditions (Gale and Cutler 2000) and is well represented as Alder Carr in the fenland environment (Scaife 2001). Hazel is often to be found as a small tree or shrub in mixed oak / ash woodland (Gale and Cutler 2000), and again is likely to have been growing locally to the site.

Early Bronze Age material

Wood (001) Trench 19

This driven, roundwood stake has been identified as Alder (Alnus glutinosa) and scores a 4 for condition (Table 4). The top end is truncated. No bark is present on this item. It measures 245mm long and has a diameter of 82mm. One end has been worked from three directions into a tapered point with an edged tool, probably an axe. The tool left several broad facets with a somewhat concave profile. The maximum length of facet recorded was 102mm. A single partial toolmark was recorded, measuring 61mm wide by 2mm deep. The length of the faceting suggests a metal tool, probably an axe (Sands 1997). The toolmark describes a relatively flat, broad bladed tool. The facets and toolmark are in keeping with the use of a bronze flat axe, the tool that would be expected from this period.

Conclusion

The wood is all likely to have been locally sourced, given that the species identified (alder, ash and oak) were likely to have been growing in the vicinity of the site.

The woodworking recorded is all extremely basic, consisting of shaping, trimming to length and felling. No converted (split) material is present. Where tool facets or marks are visible, they are in keeping with the suggested dates of the material.

Assessment of bulk environmental sample – *Anne de Vareilles*

A three litre bulk soil sample was taken from F.07 (Context 23) immediately beneath the probable round barrow. It was floated using an Ankara-type flotation machine. The flot was collected in a 300µm sieve and the remaining heavy residue washed over a 1mm mesh. Both flot and residue were left to dry before sorting. The greater than 4mm heavy residue component was examined by eye, the smaller fraction has been stored for future reference. The flot was analysed under a low power binocular microscope (x6–40) in the George Pitt-Rivers Laboratory, McDonald Institute, University of Cambridge. Nomenclature follows Stace (1997).

No archaeological finds were found in the sorted heavy residue. The flot was small and contained a few previously waterlogged stems and other plant tissue but no seeds. Carbonised seeds were also absent except for a single fragment of a hazel nut shell (*Corylus avellana* L.). There was a moderate amount of charcoal, all smaller than 2mm.

The fine charcoal might have been produced if the area was cleared by fire. The presence of untransformed stems however, suggests some plants had sprouted back before the construction of the barrow.

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APPENDIX A

2x2m test pit results

Test Pit No.	Depth to buried soil/ 'natural' (m)	Sequence
1	1.95	B
2	1.55	A
3	1.35	A
4	1.15	A
5	1.7	A
6	1.5	A
7	1.3	A
8	1.4	A
9	1.25	A
10	2.4	B
11	1.55	A
12	1.25	A
13	1.25	A
14	1.45	A
15	1.8	A
16	1.65	A
17	1.55	A
18	1.4	A
19	1.3	A
20	1.75	A
21	1.35	A
22	1.5	A
23	1.5	A
24	0.85	A
25	2.9	C
26	2.91	D
27	1.7	C
28	1.5	A
29	1.5	A
30	1.6	A
31	1.7	A
32	1.5	A
33	1.3	A
34	1.45	A
35	1.35	C
36	2.3	D
37	1.5	D
38	1.35	D
39	1.7	D
40	1.5	D
41	3.8	E
42	1.35	D
43	2.7	E
44	2.4	D
45	2.8	E
46	2.9	E
47	2.8	E
48	1.4	C
49	1.4	A
50	1.45	A
51	1.55	A
52	1.3	A
53	2.1	A
54	1.5	A

APPENDIX B

Test pit deposit sequences (Described from the ground surface down)

Sequence A

Test Pit 18

0-0.4m	Top soil
0.35-0.65m	Very friable degraded reddish brown peat
0.65-1.2m	Dark reddish brown banded peat with frequent detritus and occasional bog oak*
1.2-1.4m	Olive green brown reed peat
1.4-1.45m	Peaty buried soil
1.45-1.9	Mid brownish/bluish grey sandy clayey silt
1.9m	Sandy gravel

* Banded peat sequence with varying silt / clay content depending on test pit

Sequence B

Test Pit 1

0-0.4m	Top soil
0.4-0.7m	Very friable degraded reddish brown peat
0.7-1.05m	Mid brown very peaty silty clay alluvium
1.05-1.45m	Mid to dark fibrous brown banded peat with detritus and occasional bog oak
1.45-1.95m	Olive green brown reed peat
1.95-2m	Possible thin layer of peaty buried soil
2-2.25m	Mid brownish grey sandy clayey silt
2.25m	Sandy gravel

Sequence C

Test Pit 35

0-0.4m	Top soil
0.4-0.7m	Very friable degraded dark brown peat
0.7-0.9	Mid brown slightly silty/clayey banded peat
0.9-1m	Olive brown reed peat
1-1.2m	Silver grey silty clay with phragmites = FEN CLAY
1.2-1.35	Dark brown fibrous peat with frequent detritus
1.35-1.7	Mid brownish grey clayey sandy silt
1.7-2.25	Light yellow-grey brown sand

2.25m Gravel

Sequence D

Test Pit 44

0-0.45m	Top soil
0.45-0.9m	Dark brown slightly degraded peat
0.9-1.7m	Silver grey silty clay = FEN CLAY
1.7-2.4m	Dark brown fibrous peat with frequent detritus and large bog oaks*
2.4-2.8m	Sandy clayey silt
2.8-3.3m	Mid yellow brown sandy clayey silt
3.3m	Gravel

* In Test Pit 36 the lower fibrous peat was absent.

Sequence E

Test Pit 47

0-0.4m	Top soil
0.4-0.6m	Very friable degraded dark brown peat
0.6-1.6m	Silver grey silty clay = FEN CLAY
1.6-2.2m	Brown fibrous peat with frequent detritus and bog oak*
2.2-2.8m	Mid brown fine peat
2.8-3.2m	Dark bluish grey clayey silt
3.2m	Gravel

* In Test Pits 41 and 43 the dark brown fibrous peat was absent.

APPENDIX C

Trial trench descriptions

Trench No.	Length (m)	Orientation	Depth (m)	Features	Finds	Buried Soil Horizon Visible? (Y/N)	Buried soil sampling strategy
1	40	E-W	E: 1.62 W: 1.85	None	None	Y	Bucket sampling
2	45	E-W	E: 1.78 W: 1.83	None	Flint, animal bone	Y	Bucket sampling
3	Replaced by test pits *	E-W	E: 1.7 W: >2.3	None	None	N	Bucket sampling
4	50	E-W	E: 1.25 W: 1.5	None	None	Y	Bucket sampling
5	Replaced by test pits *	E-W	E: 2.1 W: 1.85	None	None	Y	Bucket sampling
6	Replaced by test pits *	E-W	E: 1.7 W: 1.35	None	None	N	Bucket sampling
7	100	N-S	N: 1.8 S: 1.55	None	None	Y	Bucket sampling
8	Replaced by test pits *	E-W	E: 1.85 W: 1.55	None	None	N	Bucket sampling
9	Replaced by test pits *	E-W	E: 1.5 W: 1.4	None	None	Y	Bucket sampling
10	Replaced by test pits *	SE-NW	SE: 1.35 NW: 1.5	None	None	N	Bucket sampling
11	Replaced by test pits *	N-S	N: 2 S: 1.65	None	None	Y	Bucket sampling
12	Replaced by test pits *	N-S	N: 1.85 S: 1.9	None	None	N	Bucket sampling
13	100	E-W	E: 1.5 W: 1.6	None		Y	Bucket sampling
14	Replaced by test pits *	E-W	E: 1.65 W: 1.95	None	None	N	Bucket sampling
15	Replaced by test pits *	N-S	E: 1.7 W: 1.6	None	None	N	Bucket sampling
16	Replaced by test pits *	E-W	E: 2 W: 1.65	None	None	Y	Bucket sampling
17	50	N-S	N: 1.45 S: 1.45	None	None	Y	Bucket sampling
18	150	E-W	E: 1.35 W: 1.35	None	None	Y	Bucket sampling

Trench No.	Length (m)	Orientation	Depth (m)	Features	Finds	Buried Soil Horizon Visible? (Y/N)	Buried soil sampling strategy
19	100	N-S	N: 1.3 S: 1.6	T. 01	Calcined bone, animal bone	Y	1x1m test pits at 10m intervals
20	25	E-W	E: 1.3 W: 1.3	None	None	Y	1x1m test pits at 10m intervals
21	100	N-S	N: 1.4 S: 1.6	None	Flint	Y	Bucket sampling
22	50	E-W	E: 1.3 W: 1.55	None	None	Y	Bucket sampling
23	100	E-W	E: 1.5 W: 1.66	None	None	Y	Bucket sampling
24	120	SE - NW	SE: 1.65 NW: 1.3	None	None	Y	Bucket sampling
25	125	N-S	N: 1.4 S: 1.25	None	None	N	Bucket sampling
26	100	NE-SW	NE: 1.65 SW: 1.3	T. 02	None	N	Bucket sampling
27	250	E-W	E: 1.5 W: 1.5	F. 02	Flint, animal bone	Y	1x1m test pits at 10m intervals
28	90	N-S	N: 0.95 S: 1.25	None	Flint, pot, animal bone	Y	1x1m test pits at 10m intervals
29	100	N-S	N: 1.5 S: 1.3	None	None	Y	1x1m test pits at 10m intervals
30	75	N-S	N: 1.1 S: 1	F.01, F.03, F.04, F.05, F. 07	Flint, pot, animal bone, human bone	Y	1x1m test pits at 10m intervals
31	20	E-W	E: 0.9 W: 1.2	F. 03	Flint, pot	Y	1x1m test pits at 10m intervals
32	15	NE - SW	NE: 1.7 SW: 1.6	None	None	N	None
33	25	E-W	E: 0.8 W: 1.2	F. 03, F. 06	Flint, pot, animal bone	Y	1x1m test pits at 10m intervals

* Due to the depth of the deposits the trench could not be safely excavated and was replaced by 2x2m test pits located at each end

APPENDIX D

Report of radiocarbon dating analyses

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REPORT OF RADIOCARBON DATING ANALYSES

Mr. Jonathon L. Tabor

Report Date: 12/13/2009

University of Cambridge

Material Received: 11/20/2009

Sample Data	Measured Radiocarbon Age	13C/12C Ratio	Conventional Radiocarbon Age(*)
Beta - 269135	3620 +/- 40 BP	-26.3 o/oo	3600 +/- 40 BP
SAMPLE : KDW09T1			
ANALYSIS : AMS-Standard delivery			
MATERIAL/PRETREATMENT : (wood): acid/alkali/acid			
2 SIGMA CALIBRATION : Cal BC 2110 to 2100 (Cal BP 4060 to 4050) AND Cal BC 2040 to 1880 (Cal BP 3990 to 3830)			
Beta - 269136	3890 +/- 40 BP	-25.9 o/oo	3880 +/- 40 BP
SAMPLE : KDW09T2			
ANALYSIS : AMS-Standard delivery			
MATERIAL/PRETREATMENT : (wood): acid/alkali/acid			
2 SIGMA CALIBRATION : Cal BC 2470 to 2260 (Cal BP 4420 to 4220) AND Cal BC 2260 to 2210 (Cal BP 4210 to 4160)			

Dates are reported as RCYBP (radiocarbon years before present, "present" = AD 1950). By international convention, the modern reference standard was 95% the 14C activity of the National Institute of Standards and Technology (NIST) Oxalic Acid (SRM 4990C) and calculated using the Libby 14C half-life (5568 years). Quoted errors represent 1 relative standard deviation statistics (68% probability) counting errors based on the combined measurements of the sample, background, and modern reference standards. Measured 13C/12C ratios (delta 13C) were calculated relative to the PDB-1 standard.

The Conventional Radiocarbon Age represents the Measured Radiocarbon Age corrected for isotopic fractionation, calculated using the delta 13C. On rare occasion where the Conventional Radiocarbon Age was calculated using an assumed delta 13C, the ratio and the Conventional Radiocarbon Age will be followed by "*". The Conventional Radiocarbon Age is not calendar calibrated. When available, the Calendar Calibrated result is calculated from the Conventional Radiocarbon Age and is listed as the "Two Sigma Calibrated Result" for each sample.

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-26.3:lab. mult=1)

Laboratory number: **Beta-269135**

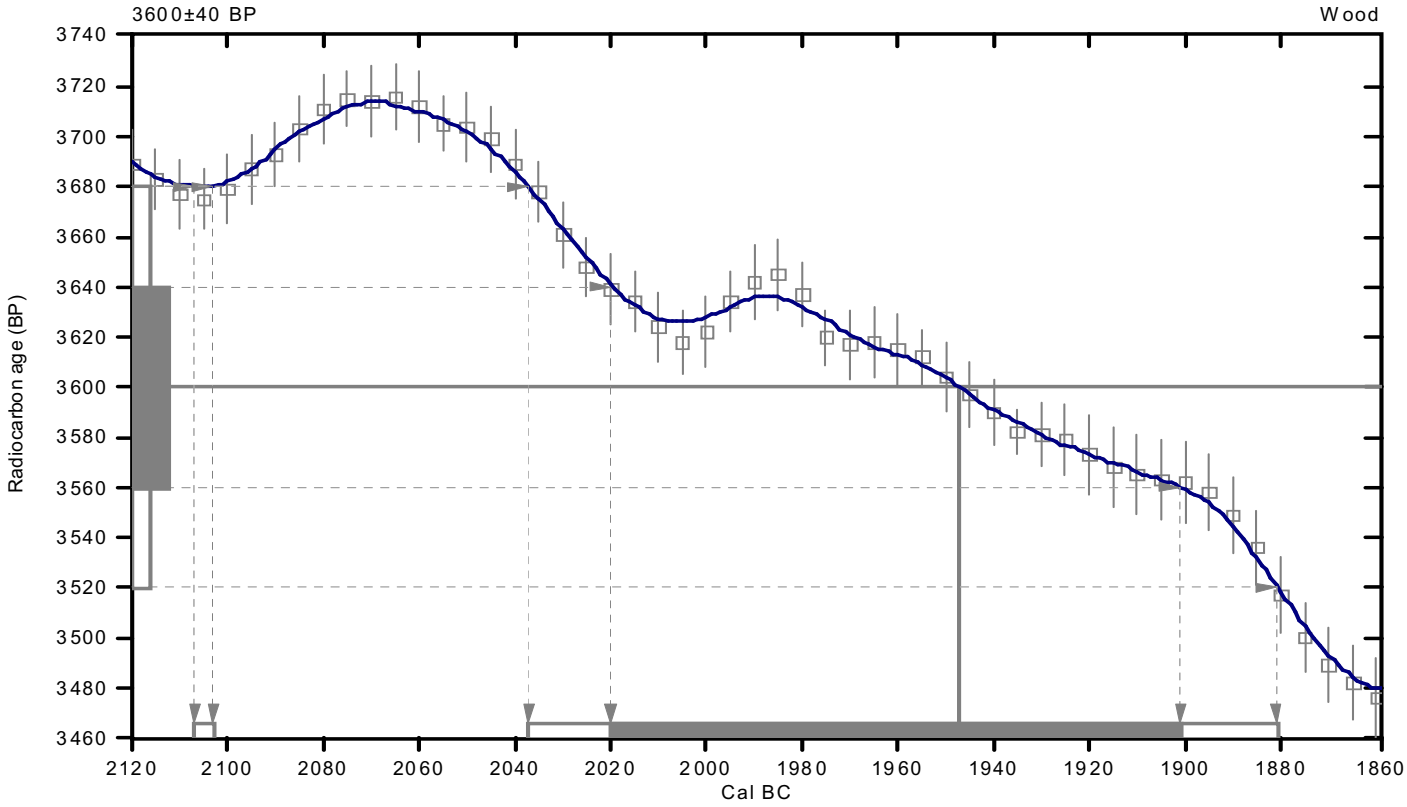
Conventional radiocarbon age: **3600±40 BP**

2 Sigma calibrated results: (95% probability) **Cal BC 2110 to 2100 (Cal BP 4060 to 4050) and Cal BC 2040 to 1880 (Cal BP 3990 to 3830)**

Intercept data

Intercept of radiocarbon age with calibration curve: Cal BC 1950 (Cal BP 3900)

1 Sigma calibrated result: (68% probability) Cal BC 2020 to 1900 (Cal BP 3970 to 3850)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

A Simplified Approach to Calibrating C14 Dates

Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p317-322

Beta Analytic Radiocarbon Dating Laboratory

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-25.9:lab. mult=1)

Laboratory number: **Beta-269136**

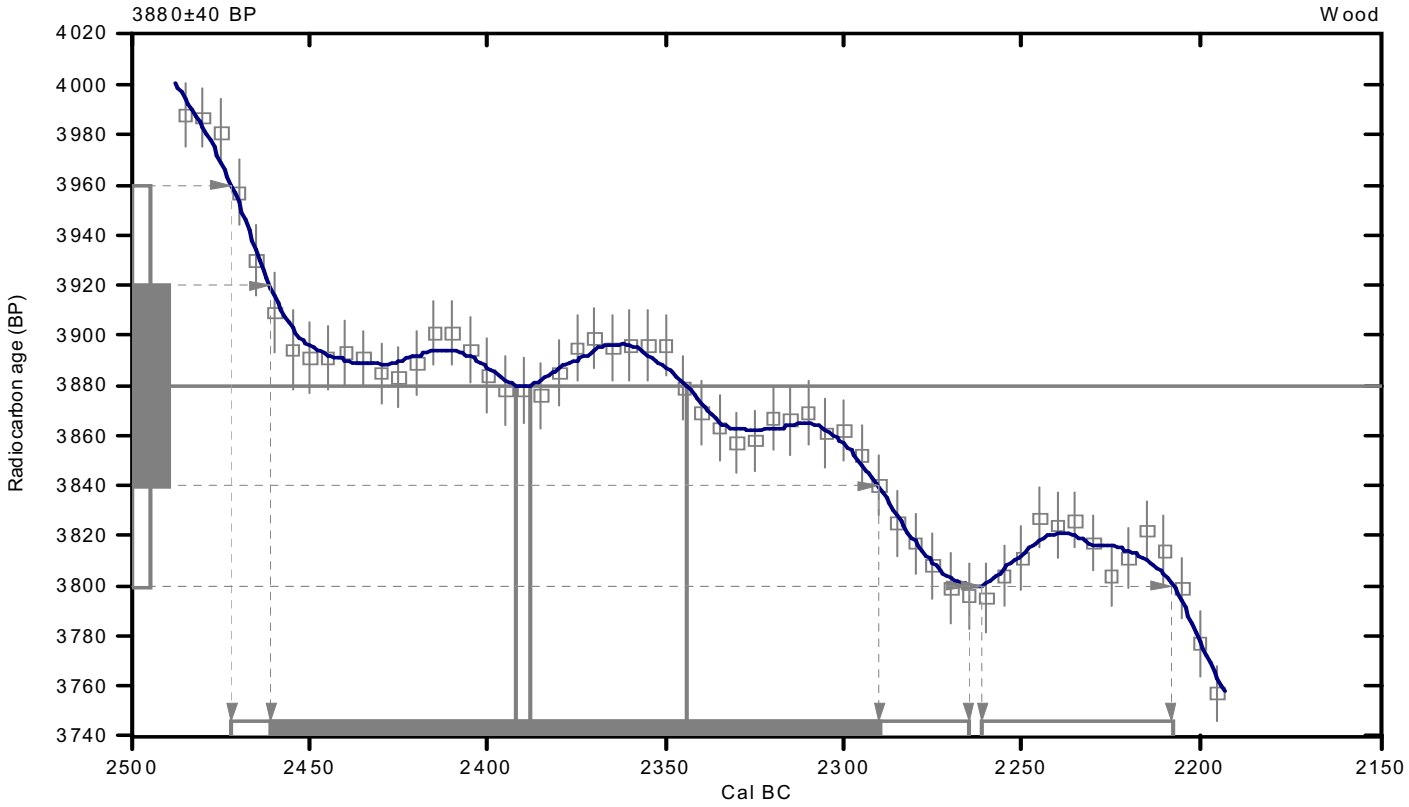
Conventional radiocarbon age: **3880±40 BP**

2 Sigma calibrated results: (95% probability) **Cal BC 2470 to 2260 (Cal BP 4420 to 4220) and Cal BC 2260 to 2210 (Cal BP 4210 to 4160)**

Intercept data

Intercepts of radiocarbon age with calibration curve: Cal BC 2390 (Cal BP 4340) and Cal BC 2390 (Cal BP 4340) and Cal BC 2340 (Cal BP 4290)

1 Sigma calibrated result: (68% probability) Cal BC 2460 to 2290 (Cal BP 4410 to 4240)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

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OASIS DATA COLLECTION FORM: England

OASIS ID: cambridg3-70754

Project details

Project name	Land at King's Delph, Whittlesey, Cambridgeshire. An Archaeological Evaluation
Short description of the project	An archaeological evaluation was undertaken by Cambridge Archaeological Unit (CAU) at King's Delph, to the south-west of Whittlesey, Cambridgeshire. The project was undertaken on behalf of SLR Consulting Ltd. for Hanson Building Products Ltd. and will form part of an overall Environmental Impact Assessment of the proposed development. A programme of test pitting and trial trenching has refined our understanding of the palaeo-topography and environmental sequence at King's Delph, and identified a significant prehistoric landscape. An important assemblage of finds from a buried soil horizon in the west of the site represents activity dating from the Late Mesolithic to the Early Bronze Age, peaking in the Beaker period. In addition two preserved wooden stakes / posts have been dated to the late Neolithic and Beaker periods. Of greatest significance is the discovery of a previously unknown round barrow along with potentially associated features including a possible bank. Associated finds include Beaker period pottery and human remains. The evaluation results indicate an important prehistoric landscape is preserved beneath layers of peat and alluvial deposits at King's Delph. Furthermore, conditions encountered during the excavation suggest preservation, particularly of organic remains, is likely to be good where present.
Project dates	Start: 28-09-2009 End: 06-11-2009
Previous/future work	No / Not known
Any associated project reference codes	ECB 3277 - HER event no.
Any associated project reference codes	KDW 09 - Sitecode
Type of project	Field evaluation
Site status	None
Current Land use	Cultivated Land 3 - Operations to a depth more than 0.25m
Monument type	ROUND BARROW Early Bronze Age
Significant Finds	POTTERY Neolithic

Significant Finds	POTTERY Early Bronze Age
Significant Finds	LITHICS Late Prehistoric
Significant Finds	WOODEN STAKE Early Bronze Age
Significant Finds	WOODEN STAKE Late Neolithic
Significant Finds	ANIMAL BONE Late Prehistoric
Significant Finds	HUMAN BONE Early Bronze Age
Methods & techniques	'Targeted Trenches','Test Pits'
Development type	Mineral extraction (e.g. sand, gravel, stone, coal, ore, etc.)
Prompt	Direction from Local Planning Authority - PPG16
Position in the planning process	Pre-application

Project location

Country	England
Site location	CAMBRIDGESHIRE FENLAND WHITTLESEY King's Delph
Postcode	PE7 2
Study area	119.00 Hectares
Site coordinates	TL 24265 96205 52.5491143781 -0.167124300248 52 32 56 N 000 10 01 W Point
Height OD / Depth	Min: 0.50m Max: 2.00m

Project creators

Name of Organisation	Cambridge Archaeological Unit
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	David Gibson
Project director/ manager	David Gibson
Project supervisor	Jonathan Tabor
Type of sponsor/ funding body	Developer
Name of sponsor/ funding body	Hanson Building Products Ltd.

Project archives

Physical Archive recipient	Cambridge Archaeological Unit
Physical Archive ID	KDW 09
Physical Contents	'Animal Bones','Ceramics','Environmental','Human Bones','Wood','Worked stone/ lithics'
Digital Archive recipient	Cambridge Archaeological Unit

Digital Archive ID	KDW 09
Digital Contents	'Animal Bones','Ceramics','Environmental','Human Bones','Survey','Wood','Worked stone/lithics'
Digital Media available	'Images raster / digital photography','Spreadsheets','Survey','Text'
Paper Archive recipient	Cambridge Archaeological Unit
Paper Archive ID	KDW 09
Paper Contents	'Animal Bones','Ceramics','Environmental','Human Bones','Survey','Wood','Worked stone/lithics'
Paper Media available	'Context sheet','Drawing','Map','Notebook - Excavation',' Research',' General Notes','Photograph','Plan','Report','Section','Survey ','Unpublished Text'

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Land at King's Delph, Whittlesey, Cambridgeshire
Author(s)/Editor(s)	Tabor, J.L.
Other bibliographic details	Report No. 915
Date	2010
Issuer or publisher	Cambridge Archaeological Unit
Place of issue or publication	Cambridge
Description	A4, wire bound with plastic laminate front, 46 pages,

Entered by	jonathan Tabor (jlt42@cam.ac.uk)
Entered on	20 January 2010

OASIS:

Please e-mail English Heritage for OASIS help and advice

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