

## ARCHAEOLOGICAL EVALUATION LAND AT GAUL ROAD MARCH CAMBRIDGESHIRE (MAGR 08)

## Work Undertaken For Canon Kirk Homes

September 2009

Report Compiled by Mark Peachey BA (Hons)

National Grid Reference: TL 4065 9685 Planning Application: F/YR05/0944/F OASIS ID: archaeol1-45630 Cambs.C.C.HER Event No ECB2886

APS Report No. 85/08

ARCHAEOLOGICAL PROJECT SERVICES





## Quality Control Land at Gaul Road, March, Cambridgeshire (MAGR08)

Project Coordinator	Dale Trimble
Supervisor	Mark Peachey
Fieldwalking Supervisor	Rachael Hall
Excavation Team	Simon Birnie, Andy Failes, Ellen Kendall,
	Ross Kendall, Mary Nugent
Surveying	Mark Dymond, Mary Nugent
Finds Processing	Denise Buckley
Illustration	Mark Peachey, Sue Unsworth
Photographic Reproduction	Mark Peachey
Post-excavation Analyst	Mark Peachey

Checked by Project Manager	Approved by Senjoy Archaeologist
Dale Trimble	Tom Lane
Date: 28 September 2009	Date: 28 September 2009

. . .

## **Table of Contents**

1.		SUMMARY	.1
2.		INTRODUCTION	.1
	<b>2.</b> 1		
	2.2		
	2.3		
	2.4	4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	.2
3.		AIMS AND OBJECTIVES	.4
4.		METHODS	.4
5.		RESULTS	
7.		CONCLUSIONS	
8.		ACKNOWLEDGEMENTS	
9.		PERSONNEL	
7. 10		BIBLIOGRAPHY	
		ABBREVIATIONS	
	•		- 0

## **Appendices**

- Specification for an archaeological evaluation 1
- Context Summary 2
- 3
- 4
- 5
- Lithic Assessment by Barry Bishop
  The Finds by Dr Anne Boyle and Gary Taylor
  An appraisal of the plant macrofossils and other remains by V. Fryer
  Auger transect and preliminary pollen assessment by J. Rackham and Dr. J. Wheeler 6
- 7 Glossary
- 8 The Archive

## **List of Figures**

Figure 1	General Location Plan
Figure 2	Site Location Map
Figure 3	Trench Location Plan
Figure 4	Development Plan, Impact, Original Trench layout and topsoil sampling
Figure 5	Fieldwalking results: Flint distribution by type
Figure 6	Plan of Proposed Development Location, Assessment Area with HER Data
Figure 7	Neolithic and Bronze Age Landscape; Mapped by the Fenland Survey
Figure 8	Iron Age and Romano-British Landscape; Mapped by the Fenland Survey
Figure 9	Figure 9 Plan showing Aerial Mapping of Area
Figure 10	Figure 10. Plan showing approximate island/fen boundary
Figure 11	Figure 11. Buried soil and features in SW corner Field 2
Figure 12	Figure 12. Trench Plans
Figure 13	Features in NW corner of site
Figure 14	Trenches 28 and 35
Figure 15	Plan of Trenches 2 and 30
Figure 16	Sections, Field 1
Figure 17	Sections
Figure 18	Sections
Figure 19	Sections
Figure 20	Trench Sections

## **List of Plates**

Plate 1	Field 1 looking north prior to machining
Plate 2	Field 2 looking west prior to machining
Plate 3	Field 3 looking north prior to machining
Plate 4	Gully [201], Section 23, Test Pit 20 looking north
Plate 5	Ditch [8002], Section 30, Trench 8 looking east
Plate 6	Buried soil (16008), feature (16010), Section 31, Trench 16
Plate 7	Section 8 showing fen edge deposits in Trench 17 looking NE
Plate 8	Buried soil [21002], feature [21005], Section 15, Trench 21 looking west
Plate 9	Gullies [30004], [30009], feature [30007], Trench 30 looking west
Plate 10	Section 46 sondage through fen deposits looking east, Trench 31
Plate 11	Ditches [41004], [41011], Section 26, Trench 41 looking west

#### 1. SUMMARY

An archaeological evaluation was undertaken on land at Gaul Road, March, Cambridgeshire.

The evaluation was required as the development proposed lies an archaeologically sensitive area. The site lies on the edge of March 'island' and Mesolithic and Neolithic flint scatters have been recorded in the northwestern and southwestern corners of the site. The latter of these was fieldwalked as part of the project but the former was unavailable due to the set aside regime on the field. Several prehistoric settlement sites have been recorded on March 'island' and in the surrounding area.

The evaluation confirmed the presence of two areas of Mesolithic activity located on the island either side of the low valley of a small stream. A prehistoric buried soil containing further Mesolithic Neolithic flint survived on the sides of this valley. A few features of probable later prehistoric date containing residual flint were revealed. A radiocarbon date indicates peat began forming above the buried soil in the late Neolithic or early Bronze Age as the water table rose. This was then sealed by alluvium. Postmedieval ditches and marling pits were the archaeological only other features revealed.

Finds comprised Mesolithic and early Neolithic flint and post-medieval artefacts with some residual medieval material.

## 2. INTRODUCTION

#### 2.1 Definition of an Evaluation

An archaeological evaluation is defined as, 'a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures,

deposits, artefacts or ecofacts within a specified area or site. If such archaeological remains are present Field Evaluation defines their character and extent, quality and preservation, and it enables an assessment of their worth in a local, regional, national or international context as appropriate' (IFA 1999).

## 2.2 Planning Background

An archaeological desk-top assessment (Hall 2007) formed the first stage of assessment for a proposed residential development on agricultural land at Gaul (Planning Road. March Application trial trenching F/YR05/0944/F). The evaluation was to form the final stage of archaeological assessment of the site which had been fieldwalked in December 2007. The evaluation was carried out between 4th and 28th March 2008 in accordance with a specification designed by APS (Appendix 1) and approved by the local planning authority.

## 2.3 Topography and Geology

March is located approximately 38km north of Cambridge and 23km east of Peterborough in the Fenland Administrative District of Cambridgeshire (Fig 1). The proposed development site lies on the western edge of the town, bounded by the present course of the River Nene to the north, allotments and new housing to the east, the A141 bypass to the west and Gaul Road to the south. This forms a roughly trapezoidal parcel of land covering an area of approximately 16.2 hectares (measuring c635m east-west and c250m north-south), centred on National Grid Reference TL 4065 9685 (Fig.2).

March occupies a former island within the fenland, lying on the northern tip of a large peninsula between two major southern embayments of the fen. The pre-Flandrian bedrock of the area is Kimmeridge Clay, overlain by interglacial gravels (Hoxnian Phase) known as 'March Gravels' (flinty

gravels with shelly fauna) and Boulder Clay till (Hall 1987, 38). The proposed development is situated on the western edge of the low-lying island, which rises to c4m OD. The proposed development site lies between 0m and 1.2m AOD. Hall describes an inlet into this island at Gaul Road site as forming a 'narrow waist that almost divides March island into two' (*ibid*).

# 2.4 Archaeological and Historical Background

The Fenland has long been recognised as an important archaeological landscape, containing superimposed evidence of settlement, ritual and agricultural sites dating from the prehistoric period onwards. March occupies a former island within the fenland, lying on the northern tip of a large peninsula. The surrounding fen landscape underwent a series of complex changes during the prehistoric, Roman and later periods, influenced by the peninsula and the constantly changing courses of the major rivers on either side of it (Hall 1987).

The earliest evidence for occupation at March lies within the proposed development site and takes the form of Mesolithic and Neolithic flint scatters (Her refs 08455 map ref 3, 08455A map ref 4, 05210 map ref 5, 05210A map ref 6, 10913 map ref 7, 10913A, map ref 8; Fig 6). In the wider area Bronze Age lithics have been identified during excavations at Westry (1.5km north of the Investigation Area), 600m to the south of the site at Cherry Holt (Fig 7b map refs 36 and 37) and at Flaggrass (2.5km to the northeast), all in residual contexts.

A Bronze Age fine handled beaker (HER 5924) was discovered during the construction of March Railway Station in the 1860s. Such vessels are usually associated with burial contexts (Hall 1987).

Excavations at Estover, northeast of the Assessment Area, identified a group of Bronze Age Beaker pottery from a pit, while an adjacent pit contained Bronze Age flints (James and Potter 1996).

Excavations undertaken at Whitemoor sidings, 4kms to the northeast of the proposed development site, identified two areas of significant prehistoric remains. One was of Early Bronze Age date, characterised by shallow ditches, pits and postholes. The second, of Late Bronze Age date, featured a series of large pits, together with postholes and gullies, containing artefactual and faunal remains and indicating the likelihood of settlement nearby (Hall 2004).

Iron Age sites lie to the north of Grandford and at Flaggrass, where occupation continued throughout the Iron Age period. Located at the eastern edge of the island, near the river, the Flaggrass sites would have had a link to Stonea island where more extensive Iron Age settlement is known (Hall 1987).

There is evidence for the extensive exploitation of the fenlands during the Romano-British period. Cropmarks of Romano-British field systems have been identified to the northeast of the present town. Possible saltern sites have been noted in the vicinity (HER CB10122 and CB10123) and excavations in the 1950s at Norwood, 2.5km to the north of the proposed development area, identified evidence of occupation and salt production between the late first century and fourth centuries AD (HER CB7317). Near to the course of the Nene on the east of the island, at Cedar Close, a Romano-British saltmaking site was excavated (Lane et al forthcoming) and there is potential that such a site could be present on the development site.

The Fen Causeway, a Roman routeway that follows a course from Peterborough, through March and into Norfolk (HER

CB15033), is thought to cross the March island east to west 2km to the north of the proposed development area, although its precise course in this area is unknown. Part of the Fen Causeway is thought to have originally been a canal, which was later metalled and/or gravelled over when the silts dried out. Excavations of the Causeway at Stonea identified earlier prehistoric features beneath the road. However, excavations over the projected course of the Fen Causeway, at Dagless Way (HER CB408) and Whitemoor, did not reveal any archaeological features (Last 2001).

Excavations at Estover, 2km northeast of the site, during the 1980s investigated the Fen Causeway where it was visible as an earthwork. The excavated sections identified a metalled surface, flanked by substantial ditches, which ran parallel to the causeway. The excavations also identified a number of Roman features including a ditched droveway approaching the causeway at an angle from the east and several small rectilinear enclosures (James and Potter 1996).

Realignment of the River Nene to its present course, which now bounds the northern edge of the proposed development area, occurred during the late Saxon period. The realignment is believed to have been part of a local scheme of drainage of the Fens during the 10th century, allowing March to develop as an inland port.

March is first referred to in the Domesday Survey of 1086 where it was known as *Merc*, meaning boundary. It was later known as *Marchford*, a refelection of the role March played in the transport routes through the Fens.

By the 16<sup>th</sup> century March was recorded as a minor port, with eight barges transporting coal and grain. The town continued to expand throughout the postmedieval period.

Prehistoric finds have been recorded within the proposed development site. The flint scatters were first observed by Mr. F.M. Walker who donated the flints to Wisbech Museum where they were subsequently recorded by Wymer (1977) in his gazetteer of lithics and were later analysed by Middleton (1990) as part of his work on the Walker Lithic collection from March/Manea.

A Mesolithic flint scatter (map reference 5 Fig 6; HER ref 05210) is recorded towards the southwestern corner of the site The scatter of worked flints comprises 68 cores, 336 blades and retouched flakes, 3 scrapers, 3 axes, gravers, 2 microliths, 1 micro-burin and 18 others. A further Mesolithic scatter (map reference 7; HER ref 109913) contained cores, but fewer blades or microliths. Identified at the same location were Neolithic Transverse arrowheads (map reference 6 and 8; HER ref 05210A and 10913A)

To the north of the former scatter, in the northwestern corner of the proposed development site, a second concentration of Mesolithic and Neolithic worked flints was recorded (Fig 6, map reference 3 and 4; HER ref 08455 and 08445A).

Topographically the location of the proposed development site of significance. The two flint scatters lie ether side of the inlet described by Hall during the Fenland survey (Hall 1987, 39). Hall also identified a roddon (raised silt banks of a former tidal creek) within the inlet and speculates that the watercourse may have been active towards the end of the Mesolithic period and that waterlogged contemporary environmental remains under the fen deposits. Fig 7 shows the roddons of the creek systems as plotted by the Fenland Survey to the west side of March island and the proposed application area. These creeks were active during the Neolithic and Bronze Age periods

The evidence collated during the Fenland

Survey (Hall 1987) defined the junctions of the Flandrian and pre-Flandrian deposits in and around the development site. An aerial photographic assessment of the proposed application area undertaken as part of a Desk Based Archaeological Assessment has added further detail to Hall's work and identified a roddon entering the site from the west (Palmer 2007). This mapping of the prehistoric landscape suggests that the proposed development site was positioned at the edge of an island of pre-Flandrian clays and gravels set within various wetland environments from the Neolithic period onwards. These wetlands protruded into the proposed development site in an embayment which changed position through time (Hall 1987).

There is the possibility that alluvium may be present either from the Nene or from the prehistoric marine events which created the roddons. This may mask archaeological deposits in low-lying areas of the site, particularly the western end and adjacent to the River Nene.

Cartographic evidence suggests the site has largely been farmland/pasture since at least 1680, with very little change or development taking place in the area until recent times. It is likely that post medieval field boundaries, as defined in earlier mapping of the area, survive below the present topsoil (Hall 2007).

#### 3. AIMS AND OBJECTIVES

The aim of the work was to gather sufficient information for the archaeological curator to be able to formulate a policy for the management of the archaeological resources present on the site.

The objectives of the evaluation were to establish the type of archaeological activity that may be present within the site, determine its likely extent, the date and function of archaeological features, their state of preservation and spatial arrangement and to establish the way in which the archaeological features identified fit into the pattern of occupation and land-use in the surrounding landscape.

#### 4. METHODS

## **Trial Trenching**

A total of forty three trenches were excavated comprising 1.7 % of the application area (2.5 % of the available area). The trench layout included in the agreed specification (Appendix 1) appears as Fig 4. It was not possible to excavate the trenches in Field 4 at the east end of the application area due to lack of access. The site can be effectively divided into areas of 'high' and 'low' impact'. The low impact areas are located towards the north end of the application area, immediately south of the Nene Bank, and also comprise much of the north half of Field 1. The high impact zones are to the south and will form the main area of construction. A proposed roundabout and access road off Gaul road is also an area of high impact.

As shown in Fig 4, the trench layout was designed to investigate intensively areas of high potential, or those to be most severely impacted on bv the development. Fieldwalking had shown a concentration of flints over an area adjacent to Gaul Road at the southeast corner of Field 2, immediately east of the major drainage ditch. Trial trenching in this area was to comprise a 5% sample using 30m long alternately aligned trenches placed at 15m intervals. Samples of topsoil would also be retrieved from the ends of each test pit for sieved retrieval of worked flint. Trenches over the remainder of the 'high impact' area were to form a 2% sample and within the landscaping area trenches were targeted over specific features where the plan supplied by the client indicated that the ground level was

significantly reduced. As fieldwalking had not been possible in Field 1 due to the set aside regime, a programme of test pitting for hand and sieved recovery of flints was also undertaken at the north end of this area over the known flint scatter.

All trenches (Fig. 3) were excavated by a mechanical excavator using a toothless ditching bucket. The exposed surfaces of the trenches were then cleaned by hand and inspected for archaeological remains. The trenches varied in length from 60m to 3.3m and measured 1.9m wide.

In addition fifty-seven test pits were excavated over the areas of the two known flint scatters in order to sample the density of flint in the soil horizons present.

Each deposit exposed during the evaluation was allocated a unique reference number (context number) with an individual written description. A photographic record was compiled. Plans of trenches were drawn at a scale of 1:20 and sections at 1:10. Recording of deposits encountered was undertaken according to standard APS practice.

The location of the excavated trenches was surveyed with a Thales Z-MAX GPS in relation to fixed points on boundaries.

## **Fieldwalking**

Fieldwalking was undertaken on the 14<sup>th</sup> December of 2007 in line with a specification written by Archaeological Project Services and approved by CAPCA.

At the time of fieldwalking Field 1 was unavailable due to vegetation cover. Access to Field 4 was not available.

Artefacts were collected from the surface on the field walking at 10m transects, apart from at the southeast corner of the field where the interval was reduced to 5 metres.

#### 5. RESULTS

Following fieldwork, the records were examined and a stratigraphic matrix produced. Phasing was assigned based on the nature of the deposits and recognisable relationships between them, supplemented by artefact dating.

#### **FIELDWALKING**

Reporting on the lithics recovered during the fieldwalking is included in Appendix 3 (Bishop).

A clear concentration of worked flint was distinguishable at the southeast corner of Field 2, on the higher gravely areas forming the south bank of the inlet (Fig 5). The drop off in flint northwards coincides with the presence of alluvial deposits within the inlet channel off the higher gravels

A total of 58 flints were collected and these included 10 cores, 19 blades, 4 flakes or flake fragments, 4 blade like flakes, 13 recortication flakes, 1 longitudinal Core rejuvenation flake, 4 retouched pieces and 3 natural pieces.

Bishop suggests that the flint recovered from the site is typical of Later Mesolithic industries.

#### TRIAL TRENCHING

Trenches are described by Field and then topographic location in relation to the gravels forming the south and north bank of the inlet and then the adjoining clay alluvium and peat infill. Figure 10 shows each trench in relation to its topographic location.

#### FIELD 1

### Trenches on Gravel. South side of Inlet

## **Trench 1** (50m x 1.9m)

The natural deposit in this trench was orange brown silty clay (1002) overlain by a 0.36m thick mid to dark greyish brown clayey silt topsoil (1001). No archaeological features were revealed in the trench despites its location on the high gravely area on the south side of the inlet, adjacent to the flint scatter at the southeast corner of Field 2.

## **Trench 2** (48m x 1.9m) (Fig 15)

Adjoining the north end of Trench 1 the natural deposit in this trench was orange brown silty clay with grey clay mottling (2002), apart from a 5m long area in the centre of the trench which was composed of firm mid grey clay (2003). The former was cut by an amorphous feature [2004] which was 0.8m long by 0.35m wide by 0.08m deep (Fig 15; Fig 16, Section 38) and filled with dark greyish brown clayey silt (2005) which contained charcoal flecks and burnt stone. This feature may have been a product of tree root disturbance. This was sealed by 0.3m thick dark greyish brown clayey silt topsoil (2001).

## **Trench 30** (45m x 1.9m) (Fig 15)

Cut northwards from the east end of Trench 2 the natural substrate in this trench was yellowish reddish grey clayey silt (30001 cut by a number of shallow features (Fig 15, Plate 9). Sub-oval pit [30016] (Fig 17, Section 45) was 1.2m long by 0.5m wide by 0.15m deep. This was filled with mid brownish grey clayey silt (30017).

A curvilinear gully [30009] (Fig 17, Sections 18, 20) 0.7m wide by 0.16m deep was filled with mottled greyish brown/yellowish red clayey silt (30010). This cut shallow sub-oval depression [30007]

which was 0.84m long by 0.42m wide by 0.12m deep and filled with mottled mid grey/yellowish red silty clay (30008). This feature cut curvilinear gully [30004] [Fig 17, Section 19) which was 4m long by 0.38m wide by 0.08m deep.

These features were overlain by a whitish grey clayey silt (30002) buried soil which was up to 0.1m thick. This was cut by circular post hole [30013] (Fig 17, Section 21) 0.22m in diameter by 0.04m deep and filled with mid grey silty clay (30014).

In the northern part of the trench buried soil (30002) was overlain by 0.1m thick dark greyish brown silty peat (30019) which was below 0.1m thick blueish grey silty clay (30018) (Fig 20, Section 22). This was sealed by 0.28m thick topsoil (30015).

A number of Mesolithic flints were found in this trench both on the surface of the natural deposit, in buried soil (30002), in gullies [30004], [30007], [30009] and in post hole [30013].

The function of the gullies is uncertain and it is possible that they are of natural origin.

## Trenches on edge of or within Inlet Channel

## **Trench 3** (40m x 1.9m)

In effect a continuation northwards of Trench 2, this trench was machined down to the top of blueish grey silty clay alluvium (3001). This was overlain by a 0.35m thick dark greyish brown clayey silt topsoil (3002). No archaeological features were revealed.

## **Trench 4** (29m x 1.9m)

The top of blueish grey silty clay alluvium (4001) was also the limit of machining in this trench located 20m west of Trench 3. The alluvium was overlain by 0.32m thick dark greyish brown clayey silt topsoil

(4002). No archaeological features were revealed.

## **Trench 5** (50m x 1.9m)

In the southernmost 15m of this trench the blueish grey silty clay alluvium (5001) was overlain by mid greyish yellow silty clay (5003), representing a fill of a probable roddon (Fig 10). This was sealed by 0.35m thick dark greyish brown clayey silt topsoil (5002).

## **Trench 6** (51m x 1.9m)

Light orangey grey sandy silt natural deposit (6001) was revealed at the west end of this trench directly below topsoil. Further to the east the natural was overlain by several deposits dipping into the fen, firstly by a 0.1m thick light whitish grey clayey silt buried soil (6002). Above this was a dark brown peat layer (6005) 0.2m thick which was overlain by mid grey silty clay alluvium (6003). This was sealed by 0.33m thick dark greyish brown clayey silt topsoil (6004).

Trenches 30, 3, 4, 5 and 6 effectively define the extent of the Gaul Road inlet channel. Trenches 7 and 8 to the north are both located fully on the gravels of the north bank.

# Trenches on edge of or north side of inlet channel

#### **Trench 7** (49.5m x 1.9m)

The natural deposit in this trench was yellowish reddish brown clay (7001), overlain by 0.32m of thick dark greyish brown silty clay topsoil (7000). No archaeological features were revealed.

## **Trench 8** (50m x 1.9m) (Fig 13)

Mid reddish brown clay with gravelly patches (8003) formed the natural deposits in this trench. A 1.14m wide east-west aligned ditch filled with light brownish

grey silty clay (8001) [8002] (Figs 13, 16, Section 30, Plate 5) cut the natural 1.1m from the northern end of this trench. Two flint flakes were recovered from the fill of the ditch which was sealed by 0.3m of thick topsoil (8000). The ditch terminated within Test Pit 27 2.5m to the east.

#### FIELD 2

#### **Trenches within Inlet Channel**

**Trench 9** (49m x 1.9m)

Located close to the north limit of Field 2 this trench was targeted across the putative roddon identified as part of the aerial photographic assessment for the DBA (Palmer 2007) (Fig 9, this report). A raised yellowish brown clayey silt (9001) (Fig 10) identified at the northwest end of the trench represents a fill of this roddon and overlays greyish blue brown silty clay alluvium recorded over the remainder of the trench. (9012).

The alluvium was cut by a number of features, all in alignment with the current field boundaries (Fig 3). Gully [9003] (Fig 17, Section 2) was 0.25m wide and 0.4m deep and filled with dark grey clayey silt (9002). A 4.2m wide ditch [9005] (Fig 18, Section 3) was filled with very dark grey clayey silt (9004) which contained modern finds. As this ditch was excavated in Trench 12 and shown on the 1925 Ordnance Survey map it was not fully excavated. Three parallel features to the southeast of the ditch [9007], [9009] and [9011] (Fig 17, Sections 4, 5 and 6) all with vertical sides and flat bases, and filled with dark grey clayey silt with dark reddish brown patches (9006), (9008) and (9010) respectively, represent marling pits (K. Gdaniec pers. comm). These are agricultural features which represent retrieval of underlying clays to mix with topsoil and improve soil condition.

Finds of 18<sup>th</sup>/19<sup>th</sup> centuries date were recovered from several of these features which were sealed by a 0.47m thick dark grey clayey silt topsoil (9000).

## **Trench 10** (30.4m x 1.9m)

Located approximately 90m east of Trench 9, greyish yellow silty roddon clay (10004) was recorded at the south end of this trench (Figs 3, 20, Section 29) with mottled orange/grey clay alluvium (10003) in the remainder. This was sealed by 0.18m thick dark brown peat layer (10002) which was overlain by 0.3m thick mid brownish grey silty clay topsoil (10001).

## **Trench 31** (60m x 1.9m)

This was an additional trench targeted to define the extent and character of the roddon revealed in Trench 9 and to determine whether the raised banks of the feature were utilised for occupation. A sondage was excavated at the south end of the trench to determine the full depth and character of the fen deposits at this point in the channel.

In the sondage (Fig 20, Section 46, Plate 10) the natural mid orange gravels and clays (31005) were encountered at a depth of 2.45m. This was overlain by 0.35m thick mid greyish blue clay alluvium (31004). Above this was 0.85m thick dark brown peat (31003) which was overlain by another layer of mid blueish grey clay alluvium (31002) 0.95m thick. For the northern 40m of the trench this was overlain by roddon (Fig 10) comprising a 0.35m thick layer of greyish yellow clayey silt (31006). This was sealed by a 0.3m thick dark brown silty clay.

**Trenches** 11 and 12 (T-shaped arrangement of two 30m x 1.9m trenches)

This T-shaped arrangement of trenches was machined to the top of blueish grey silty clay alluvium, (11002) and (12001),

overlain by dark greyish brown clayey silt topsoil, (11001) 0.42m thick in Trench 11 and 0.35m thick in Trench 12 (12002). No archaeological features were revealed in Trench 11.

In Trench 12 the alluvium (12001) was cut by 2.4m wide and 0.79m deep north-south aligned ditch [12003], the same feature as [9005] (that present on the 1925 OS map) recorded in Trench 9. The bottom fill of the ditch comprised a 0.54m thick dark greyish brown silt (12004). This was overlain by an 80mm thick mid reddish brown clayey silt (12005) sealed by a mid greyish brown clayey silt (12006) which was 0.64m thick. The ditch was sealed by 0.35m thick mid greyish brown clayey silt topsoil (12002).

**Trenches 13** and **14** (T-shaped arrangement of two 30m x 1.9m trenches)

Trench 13 was machined to the top of light blueish grey silty clay alluvium with orange mottling (13001) which was overlain by a 0.35m thick dark greyish brown clayey silt topsoil (13002). No archaeological features were revealed.

The limit of machining in Trench 14 was light blueish grey alluvial clay with orange mottles (14001) which was overlain by 0.38m of thick dark greyish brown clayey silt topsoil. No archaeological features were revealed.

Apart from very recent features represented by the marling pits and field ditches, all deposits in Trenches 9, 10, 11, 12, 13 and 14 are flood deposited fen sediments. The roddon silts in Trenches 9 and 10 were also recorded in Trench 31 and enable the plotting of the course of the former creek (Fig 10)

## **Trench 18** (40m x 1.9m)

This trench was machined onto the top of mid blueish grey clay alluvium (18001) which was cut by two north-south aligned marling pits [18002] and [18004] filled with dark reddish grey silt (18003) and dark grey silt (18005) respectively. These were sealed by a 0.14m thick dark reddish black subsoil (18006).

## **Trench 19** (40m x 1.9m)

Light blueish grey silty clay alluvium (19001) was recorded in the base of this trench. The only feature recorded was the western end of marling pit [19003], which was 0.85m wide and 0.13m deep and filled with dark greyish brown peaty silt (19004) and sealed by mid greyish brown clayey silt topsoil (19002).

## **Trench 29** (27m x 1.9m)

Trench 29 was machined to the top of mottled grey/orange clay alluvium (29002) which was overlain by 0.34m thick mid brownish grey silty clay topsoil (29001).

## **Trench 32** (13m x 1.9m)

This trench was machined down to the top of blueish grey silty clay alluvium (32001). This was overlain by a dark brownish grey peaty silt (32002) 0.1m thick which was sealed by 0.3m thick greyish brown clayey silt topsoil (32003). No archaeological features were revealed.

## **Trench 33** (40m x 1.9m)

This trench was excavated to determine the depth of the natural deposits which had not been revealed in the adjacent Trench 19.

The natural mid orange gravel/clay (33006) was reached in a sondage at the north end of the trench at a depth of 2.4m. This was overlain by 0.1m thick mid greyish blue clay alluvium (33005) sealed by 0.6m thick dark brown peat (33004). Above this was 0.35m thick light grey clay alluvium (33003) which was overlain by 0.95m thick mid blueish grey clay alluvium (33002). This was sealed by

0.4m thick dark brown silty clay topsoil (33001).

## Trenches on the edge or on the South Bank of Inlet Channel

**Trench 15** (31m x 1.9m) (Figs 11 & 12)

this trench the natural deposit comprised a mid reddish brown silty sand and gravel (15003) overlain by a 0.28m thick layer of whitish grey silty clay (15002) with occasional gravel inclusions. This latter layer was probably a remnant of a prehistoric buried soil and was cut by a single feature, part of a pit or ditch (15004) in the northwest corner of the trench (Figs 12, 18, Section 34). It contained several fills including a light greyish brown silty clay primary fill (15007) overlain by dark greyish brown silty clay (15006). This was below reddish brown silty sand /gravel (15010) overlain by whitish grey silty clay (15009) which was probably redeposited buried soil. Above this was dark reddish brown silty clay (15008). The feature produced no finds and was sealed by 0.32m thick dark greyish brown silty clay topsoil (15001).

## **Trench 16** (30m x 1.9m) (Fig 11 & 12)

The natural substrate in this trench, recorded in the bottom of hand-dug slots excavated through a putative buried soil, was reddish orange silty gravel (16004) (Fig 12). At the east end of the trench this was directly cut by feature [16010] (Fig 18, Sections 31, 33, Plate 6) which was at least 1.5m wide and 0.7m deep but not fully revealed in plan. It was filled with light orangey grey silt (16009) and light yellowish grey sandy silt (16011). The pit produced 17 pieces of, probably residual, Mesolithic flint and a small undiagnostic sherd of pottery.

In the middle part of the trench the natural was overlain by light grey sandy silt buried soil layer (16017) which was below a light whitish orange clayey silt (16007/12)

buried soil (Fig 18, Section 32) which was 0.12m thick. The latter was cut by southeast to northeast aligned north-south aligned gully [16015] which was 0.35m wide and 0.22m deep and deviated to a north-south alignment close to the north edge of excavation. It was filled with dark grey sandy silt (16016). Southeast of this angle the gully [16005] (Fig 18, Section 10) was filled with dark greyish brown clayey silt (16006). All these features were sealed by light whitish grey sandy silt (16008), a buried soil remnant which was 0.2m thick and produced a Neolithic leafshaped arrowhead. This layer was cut by small pit [16013] which was 0.88m wide and 0.23m deep and filled with dark greyish brown silty clay (16014) (Fig 12, Section 32). It was also cut by north-south aligned ditch [16001] which was 2.43m wide and another segment of modern ditch [9005]/[12003]. This was filled with dark greyish brown clayey silt (16002). These features were sealed by dark grevish brown silty clay topsoil (16003).

## **Trench 17** (30m x 1.9m)

Section 8 (Fig 20) records the sloping edge of the south side of the inlet overlain by a sequence of fen flood deposits. A yellow sandy clay with gravel (17001) natural deposit dipping down slightly from south to north was overlain by a 0.3m thick light greyish white silty clay buried soil (17002) (Fig 20, Section 8, Plate 7) overlain by a 0.15mthick dark greyish brown peaty/clayey silt (17003). This was sealed by 0.4m thick blueish grey silty clay alluvium (17004) which was overlain by mid greyish brown clayey silt topsoil (17005).

## **Trench 20** (30m x 1.9m) (Fig 11)

Fully located on the south bank of the inlet, the natural substrate in this trench was mottled greyish yellow/orange sandy clay with gravel (20001). This was overlain by 0.3m thick dark greyish brown

clayey silt topsoil (20002). No archaeological features were revealed.

## **Trench 21** (30.4m x 1.9m) (Fig 11)

The natural deposit in this trench was a mixture of brownish orange silty sandy clay (21003) and orange clay (21004). The latter was cut by an amorphous feature [21005] (Figs 12, 19, Section 15, Plate 8) filled with mottled mid orange/mid grey silty clay (21006) which contained a large number of, probably residual, Mesolithic flints and three small undiagnostic sherds of probable prehistoric pottery or fired The feature was difficult distinguish and was partly obscured by a thin layer of redeposited natural orange clay (21007) and may have been greater in extent. This was sealed by greyish white silty clay buried soil with orange mottling (21002) which was overlain by dark brown silty clay topsoil (21001).

#### **Trench 22** (30m x 1.9m)

Natural deposits in this trench comprised a mid orange silty clay (22001) overlain by a light whitish grey silty clay buried soil (22002) with reddish mottling. This was cut by 2m wide irregular cut [22004] filled with mid to dark brown peaty silt (22005) (Fig 20, Section 22). This feature probably represents a modern hedge line. A modern north-south ditch was recorded towards the centre of the trench. This was sealed by 0.3m thick mid greyish brown clayey silt topsoil (22003).

## **Trench 23** (39.6m x 1.9m)

The earliest deposit in this trench was a 0.25m thick light yellowish white silty clay buried soil (23001) forming a gentle slope down from south to north. This was cut by 0.4m wide cut [23012] filled with mid greyish clay (23013) (Fig 20, Section 14). Overlying this fill was a mid greyish brown silty clay alluvium (23007) which was the same as (23002). Above this was dark greyish brown peat (23003) which

was below mid blueish grey clay alluvium lenses (23014) and (23004). These layers were cut by marling pits [23008] and [23010] which were filled with dark brownish grey peaty silt (23006) and dark grey peaty silt (23011) respectively. These features were sealed by a 0.6m dark greyish brown clayey silt topsoil (23005).

## **Trench 24** (30m x 1.9m) (Fig 11)

A sequence of natural mid orange gravelly clay (24002) overlain by a 0.35m thick mid greyish brown silty clay topsoil (24001) comprised the stratigraphic sequence in this trench. No archaeological features were revealed.

## **Trench 25** (29.5m x 1.9m) (Fig 11)

Mid orange gravelly clay natural deposit (25003) overlain in places by a thin, patchy, probably largely ploughed out, mid orangey grey silty clay buried soil (25002) formed the depositional sequence in Trench 25. This was sealed by 0.24m thick dark greyish brown clayey sandy silt topsoil layer (25001).

## **Trench 26** (30m x 1.9m)

Natural orange brown gravelly clay (26001) was partially overlain by light greyish brown gravelly clay (26002). These clays were sealed by dark greyish brown clayey sandy silt topsoil (26000). The north end of the trench was taken up with an apparent continuation of the unexcavated ditch in Trench 22 containing modern rubble and pieces of iron.

## **Trench 27** (40m x 1.9m)

At the west end of Trench 27 a light grey gravelly silty clay (27001) representing a fragmentary buried soil was overlain by a 50mm thick dark greyish brown peaty silt (27002). This was below a 0.1m thick mottled blueish grey/orange silty clay (27003) alluvium.

This alluvial layer was cut by five north-south aligned marling pits [27005], [27007], [27009], [27011] and [27013] which were filled with mid reddish brown peaty silt (27006), (27008), (27010) and (27012) and mid brownish grey clayey silt (27014) respectively. These were sealed by 0.35m thick mid greyish brown clayey silt topsoil.

## **Trench 28** (40m x 1.9m) (Fig 14)

The natural deposit in this trench was mid yellowish red sand and gravel (28003). overlain by light grey clay alluvium (28002) with orange mottles. The alluvial layer was cut by terminating southwestnortheast aligned linear cut [28005] (Figs 19 Sections 11, 12) 0.5m wide and 0.45m deep. This was filled with mid grey silty clay with charcoal flecks (28004). A short distance to the south the alluvium was cut by ovoid feature [28007] (Fig 19, Section 13) which was 0.7m wide and 0.4m deep and filled with dark grey silty clay (28006). These features were sealed by a mottled mid greyish/yellowish brown clay (28001) layer 0.2m thick. This was overlain by dark greyish brown sandy silt topsoil (28000) 0.6m thick.

## **Trench 34** (43m x 1.9m)

At the request of the curator this trench was excavated parallel to Trench 27 in order to investigate the full sequence of deposits, determine the depth of natural substrate and investigate any possible junction between fen deposits and the edge of the gravel bank of the inlet.

The natural light greyish yellow gravelly clay (34001) was reached at 0.8m depth. This was overlain by 0.25m thick light whitish grey clayey silt (34002) (Fig 20, Section17) with occasional gravel. In the eastern half of the trench this was overlain by 0.15m thick dark greyish brown peaty silt layer (34003) which was below 0.1m thick blueish grey silty clay alluvium (34004). This was sealed by 0.3m thick

dark greyish brown clayey silt topsoil (34005).

## **Trench 39** (30m x 1.9m) (Fig 11)

The natural deposit in this trench was mid reddish yellow silty clay (39001) cut only by an amorphous tree root [39003] (Fig 12) filled with dark greyish brown clayey silt (39004). This was sealed by 0.31m thick dark greyish brown clayey silt topsoil (39002).

## **Trench 40** (8.5m x 1.9m) (Fig 11)

Natural mid reddish yellow silty clay (40001 overlain by 0.38m thick dark greyish brown clayey silt topsoil (40002) were the deposits recorded in Trench 40. No archaeological features were revealed.

## **Trench 41** (24m x 1.9m) (Figs 11 & 12)

The natural deposit in this trench was mid reddish brown/mid yellowish brown sandy clay (41001). This was cut by east-west aligned ditch [41011] (Figs 11, 19, Section 26, Plate 11) which was 1.8m wide by 0.8m deep. This ditch contained a number of fills (41005-10) the full descriptions of which are in Appendix 2. It was recut by terminating ditch [41004] which was 1.4m long by 0.62m wide by 0.59m deep which was filled with dark brownish grey silty clay (41003) and light greyish brown silty sandy clay (41002).

## **Trench 42** (29m x 1.9m) (Figs 11 & 12)

The natural substrate in this trench was mid reddish brown/mid yellowish brown sandy clay (42001). It was cut by a roughly north-south aligned 2.3m wide by 0.3m deep linear feature [42004] (Figs 11, 19, Section 27) which was filled with mottled mid reddish brown/greyish blue/yellowish clay (42003). This was sealed by 0.35m thick dark greyish brown silty clay topsoil (42000).

#### FIELD 3

## **Trenches predominantly in Inlet Channel**

**Trench 35** (30.5m x 1.9m) (Fig 14)

This trench was machined onto natural yellowish brown sand and gravel (35008), reached at 0.92m depth, for its northernmost 7m (Fig 14, Fig 19 Section 37).

The remainder of the trench was machined down to the overlying 0.27m thick light grey silty clay (35007) buried soil layer (Fig 14, Fig 19, Sections 35-37, 40-43). In the southern part of the trench (Fig 19, Sections 40, 41) this overlay 0.06m thick dark grey silty clay (35010) and 0.17m thick mid yellowish brown sandy clay (35011) which were also buried soils.

Layer (35007) was cut by northwest-southeast aligned curvilinear gully [35004] (Fig 19, Section 35) which was 1.4m long, 0.6m wide and 0.22m deep and filled with dark brown silt (35003). It was also cut by east-west aligned gully [35006] (Fig 13, Section 36) which was 0.58m wide by 0.08m deep and filled with dark greyish brown silty clay (35005). These features were sealed by 0.1m thick dark brown peat (35002) which was overlain by 0.11m thick pale grey clay alluvium (35001). This was sealed by dark greyish brown silt topsoil (35000).

#### **Trench 38** (4m x 1.9m)

This small trench was excavated (along with Trench 43), at the request of the curator, to determine the character and depth of deposits in Field 3. These two trenches replaced several planned larger trenches in this field.

The natural orangey gravel/clay (38004) was recorded at a depth of 0.77m. This was overlain by 0.17m thick mid blueish grey clay alluvium (38003) which was

below 0.25m thick dark brown silty clay with peat (38002). This was sealed by 0.35m thick dark brown silty clay topsoil (38001).

## **Trench 43** (3.3m x 1.9m)

The natural mid orange gravels and clay (43004) were reached at a depth of 2.2m. They were overlain by 1.5m thick blueish grey clay alluvium (43003) in turn sealed by 0.16m thick mid greyish yellow clayey silt (43002), a probable roddon deposit. Above this was 0.54m thick dark brown silty clay topsoil (43001).

## Trenches on edge or south bank of Inlet Channel

## **Trench 36** (35m x 1.9m)

This trench was machined onto the top of light whitish grey silty clay buried soil (36001) which was cut by three marling pits. This was overlain by dark greyish brown clayey silt topsoil (36002).

#### **Trench 37** (40m x 1.9m)

The natural deposit in this trench was light grey mottled orange clay with gravel patches (37003). This was overlain by 0.15m thick light brownish grey silty clay (37002). This was sealed by 0.34m thick dark greyish brown clayey silt topsoil (37001). No archaeological features were revealed.

#### **TEST PITS**

Fifty-seven test pits (Fig 3) were excavated by machine in the areas of the two known flint scatters. From each test pit a wheelbarrow load (100 litres) of topsoil was sorted by hand for flints. The number found in each is shown on Fig 10. This shows that flint was found only in samples where the topsoil directly overlay the March gravels and not the buried soil and alluvial deposits. Further 25 litre

samples were taken from each test pit for wet sieving for the smallest flints. The results of this work will be included in the excavation report.

Archaeological features were revealed only in the following test pits:

## **Test Pit 20** (5m x 3.5m) (Fig 13)

The natural deposit in this test pit was mid reddish brown clay with gravelly patches (203). This was cut by northwest-southeast aligned gully [201] (Fig 13, Fig 16 Section 23, Plate 4) which was 0.5m wide and up to 0.22m deep. This was filled with light grey silt (202). This was sealed by dark grey clayey silt topsoil (201).

## **Test Pit 27** (2.7m x 1.9m) (Fig 13)

The natural substrate in this pit was orange, gravelly sandy clay (273). This was cut by feature [272] (Fig 13, Fig 16 Section 39) which was 1.13m+ long by 0.77m wide and 0.17m deep and was probably the terminus of ditch [8002] in the adjacent Trench 8. It was filled with mottled mid grey/orange silty clay (271). This was sealed by dark greyish brown clayey silt topsoil (270).

## **Test Pit 28** (4.2m x 1.9m) (Fig 13)

The natural deposit in this test pit was yellow orange clay with gravel (286). It was cut by east-west aligned ditch or pit [285] (Fig 13, Fig 16, Section 44) which was 1.9m+ wide and 0.95m deep. The primary fill was 0.3m thick mid greyish brown clayey silt (284). This was below 0.25m thick dark greyish brown silt (283) which was overlain by a 0.2m thick lens of greyish yellow clay with gravel (282), probably a redeposited natural deposit. This was below loose dark greyish brown clayey silt (281), a topsoily fill probably representing slumping into the feature which was undated. The feature was sealed by 0.35m thick dark greyish brown clayey silt topsoil (280).

#### 6. DISCUSSION

The mapping of the prehistoric landscape in the Fenland Survey suggested that the proposed development site was positioned at the edge of an island of pre-Flandrian clays and gravels set within various wetland environments from the Neolithic period onwards. Previous research had identified that flint scatters on the site were located either side of an inlet channel on the March gravel island.

The evaluation showed that on the slightly higher land in the northwest and southwest corners of the site the natural gravels and clays were immediately below the topsoil confirming these areas as being part of the former March island (Fig 10). In Trenches 15, 16, 17, 21, 22, 23, 26 and 34 on the southwest 'island' a prehistoric buried soil was recorded gently sloping down from the island. This had been buried by alluvium which had ensured its survival into the era of deep ploughing unlike the former soil on the island itself. In trenches further to the north the alluvium was much deeper, being in the middle of the embayment, and the initial trenches did not bottom it. In sondages excavated at the ends of Trenches 31 (Fig 20 Section 46) and 33 a thick peat layer was recorded below this alluvium with a further thin layer of alluvium beneath overlying the natural at 2.45m and 2.4m depth respectively. The slope up to the island on the northwest side of the site was steeper with only a small area of buried soil being exposed in Trench 6. Towards the north side of the embayment a roddon was recorded in Trenches 5, 31, 9, 10 and possibly 43.

These findings correspond broadly to the results of an auger survey carried out by James Rackham (Appendix 6). However, this showed that the buried soil (or palaeosol) continued across the bottom of the embayment to either side of a small stream running through the valley (borehole 4). A carbon date of 3840 +/- 40

BP (Cal 2290 BC) for the peats 20cm above the palaeosol (borehole 3) indicates a rising water table in the early Bronze Age or a little before. Pollen analysis indicated clearance or management of deciduous woodland by burning in the immediate vicinity in order to create pasture at around this time. The alluvium above was probably the product of the period of maximum marine transgression of the west central fens in the second millennium BC.

There were clear concentrations of Mesolithic activity around Trenches 16 and 21, which together produced a high percentage of the flint recovered on the evaluation, and around Trench 30.

Features [16010] and [21005] produced the most flint (Mesolithic in date) and both were sealed by the prehistoric buried soils. However, the former contained a small sherd of undiagnostic prehistoric pottery while the latter contained three further sherds whose poor condition made it equally probable that they were fired clay. These finds suggest the flint is probably residual.

Buried soil (16008) contained an early Neolithic leaf-shaped arrowhead. Earlier buried soils (16007) and (16011) contained Mesolithic flint. The very shallow features in Trench 30 all produced flint as did buried soil (30002). Bishop (Appendix 3) suggests that the flint is probably residual in later features but that it represents activity foci in the late Mesolithic and into the early Neolithic on both parts of the island.

In the northwestern island area two Mesolithic flakes were also retrieved from ditch [8002] in Trench 8 (which terminated in adjacent Test Pit 27) but these may have been residual.

There were a number of undated features cutting the buried soil: [15004] in Trench 15, [16005/16015] in Trench 16 [35004]

and [35006] in Trench 35. Cutting the alluvium were [28005] and [28007] in Trench 28 and cutting the natural island deposits were [201] in Test Pit 20, [285] in Test Pit 28, [41011] in Trench 41 and [42004] in Trench 42.

Otherwise features found on the site were dated to the post-medieval period. These included a number of shallow rectangular features with vertical sides and flat bases which were interpreted as marling pits and contained 18<sup>th</sup>/19<sup>th</sup> century pottery. These were in alignment with the current field boundaries. A north-south aligned probable modern ditch was noted in Trenches 22 and 26 while a large north-south ditch present on the 1925 OS map was recorded in Trenches 9, 12, 16 and 24.

#### 7. CONCLUSIONS

An evaluation carried out on land at Gaul Road, March confirmed the presence of two areas of Mesolithic activity suggested by the flint scatters previously recorded. These would have been located on the March island either side of the low valley of a small stream. A prehistoric buried soil containing further Mesolithic Neolithic flint survived on the sides of this valley. A few features of probable later prehistoric date containing residual flint were revealed. A carbon date indicates peat began forming above the buried soil in the early Bronze Age or a little earlier as the water table rose. This was then sealed bv alluvium forming saltmarsh embayment of the fen. Post-medieval ditches and marling pits were the only other archaeological features revealed.

Finds comprised Mesolithic and early Neolithic flint and post-medieval artefacts with some residual medieval material.

#### 8. ACKNOWLEDGEMENTS

Archaeological Project Services wishes to acknowledge the assistance of Martin Lott of Canon Kirk Homes who commissioned this investigation. The work was coordinated by Dale Trimble who edited this report with Tom Lane.

#### 9. PERSONNEL

Project Coordinator: Dale Trimble Site Supervisor: Mark Peachey Excavation Team: Simon Birnie, Andy Failes, Ellen Kendall, Ross Kendall, Mary Nugent

Surveying: Mark Dymond, Mary Nugent Fieldwalking: Rachael Hall Photographic reproduction: Mark Peachey CAD Illustration: Mark Peachey, Sue Unsworth

Post-excavation analysis: Mark Peachey

#### 10. BIBLIOGRAPHY

Hall, D., 1987 The Fenland Project, Number 2: Cambridgeshire Survey, Peterborough to March EAA 35

Hall, R., 2004 Archaeological Investigations at Whitemoor Sidings, March, Cambridgeshire, *unpublished APS report* 34/04

Hall, R., 2007 Archaeological Desk-based Assessment on land north of Gaul Road, March, Cambridgeshire (MAGR07) APS unpublished report 146/07

Hodge, CAH, Burton, RGO, Corbett, WM, Evans, R, and Seale, RS, 1984 *Soils and their use in Eastern England*, Soil Survey of England and Wales **13** 

IFA, 1999, Standard and Guidance for Archaeological Field Evaluations.

James, S.T. and Potter, T.W., 1996, *Excavations at Estover, March* in Jackson,

R. and Potter T.W., *Excavations at Stonea*, *Cambridgeshire 1980-85* (London, British Museum)

Lane, T., Morris, E. L., Peachey, M., Forthcoming *Excavations on a Roman Saltmaking Site at Cedar Close, March, Cambridgeshire* Proceedings of the Cambridge Antiquarian Society

Last, J., 2001, Land to the south of Dagless Way, Elm Road, March, Cambridgeshire: an archaeological deskbased assessment, unpublished HAT report

Middleton, R., 1990, The Walker Collection: a quantative analysis of lithic material from the March/Manea area of the Cambridgeshire Fens in *Proceedings of the Cambridge Antiquarian Society 13-38* no 64

Palmer, R., Gaul Road Area, Centred TL 406969, March, Cambridgeshire, Aerial Photographic Assessment in R., 2007 Archaeological Desk-based Assessment on land north of Gaul Road, March, Cambridgeshire (MAGR07) APS unpublished report 146/07

Wymer, J. J., 1977, Gazetteer of Mesolithic Sites in England and Wales (CBA London)

## 11. ABBREVIATIONS

APS Archaeological Project Services

CAPCA Cambridgeshire Archaeology Planning and Countryside Advice

CCCAFU Cambridgeshire County Council Archaeological Field Unit

IFA Institute of Field Archaeologists

OD Ordnance Datum (height above sea level)

OS Ordnance Survey



Figure 1 General Location Plan

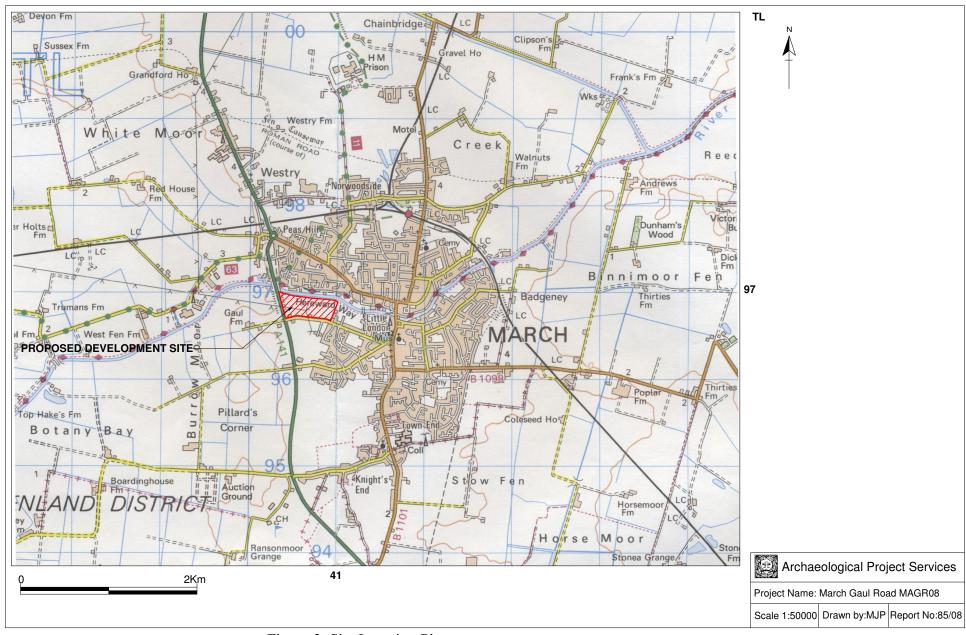
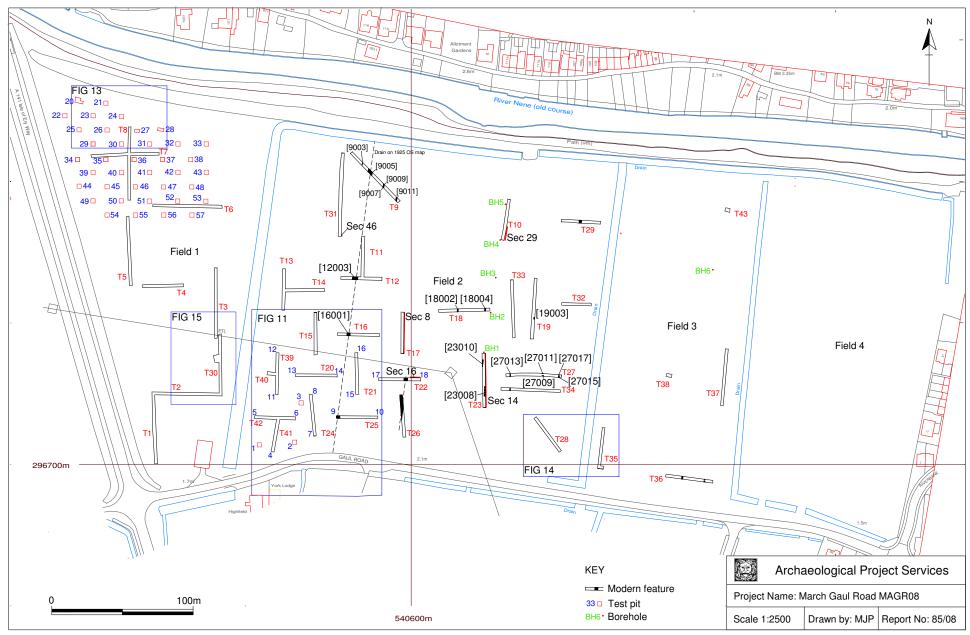


Figure 2. Site Location Plan



©Crown Copyright. All rights reserved. Licence number 10001998

Figure 3. Trench Location Plan

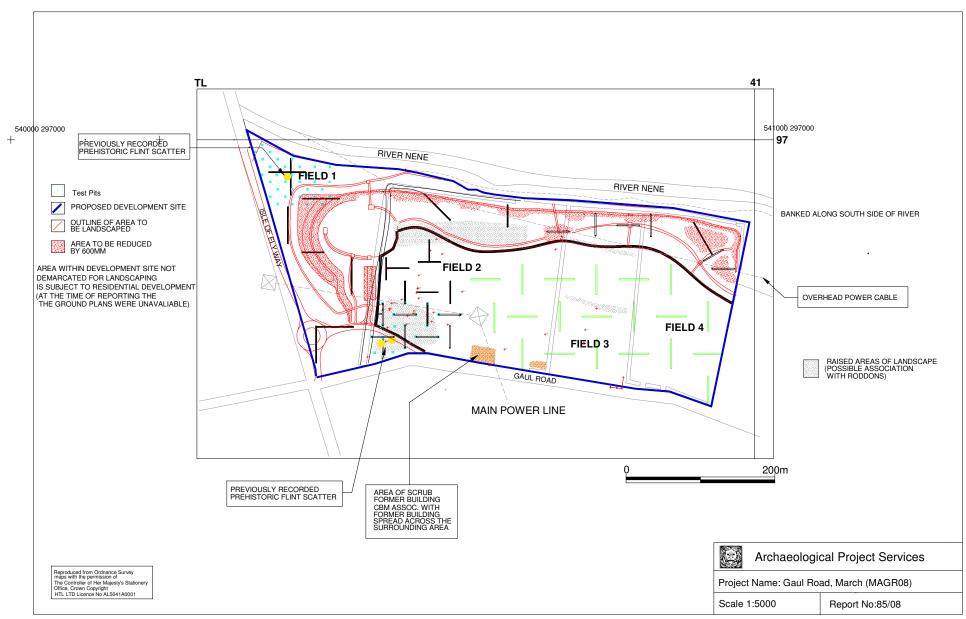


Figure 4 Development Plan, Impact, Original Trench layout and topsoil sampling

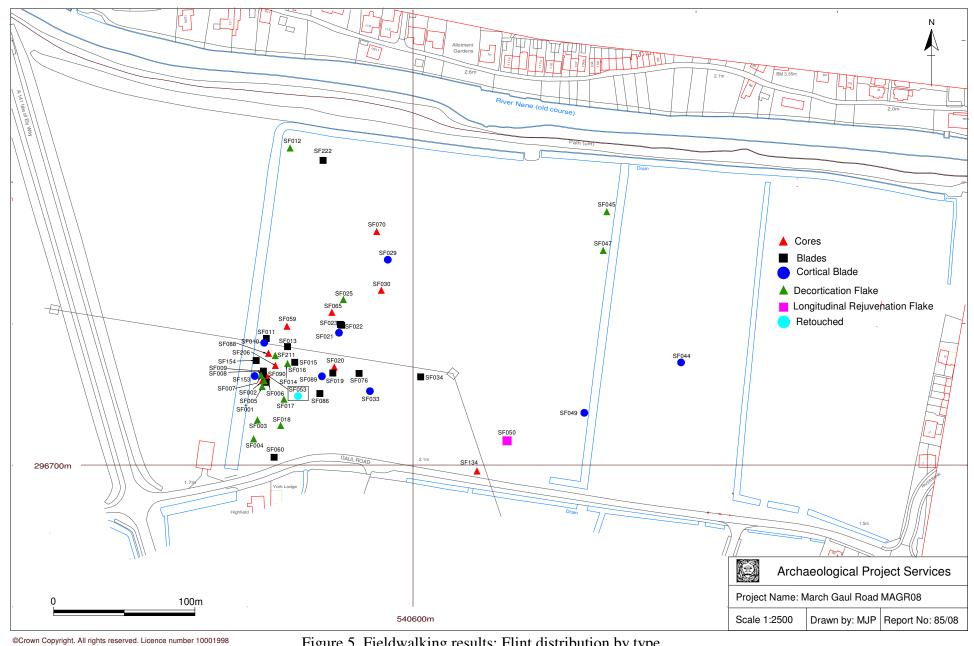


Figure 5. Fieldwalking results: Flint distribution by type

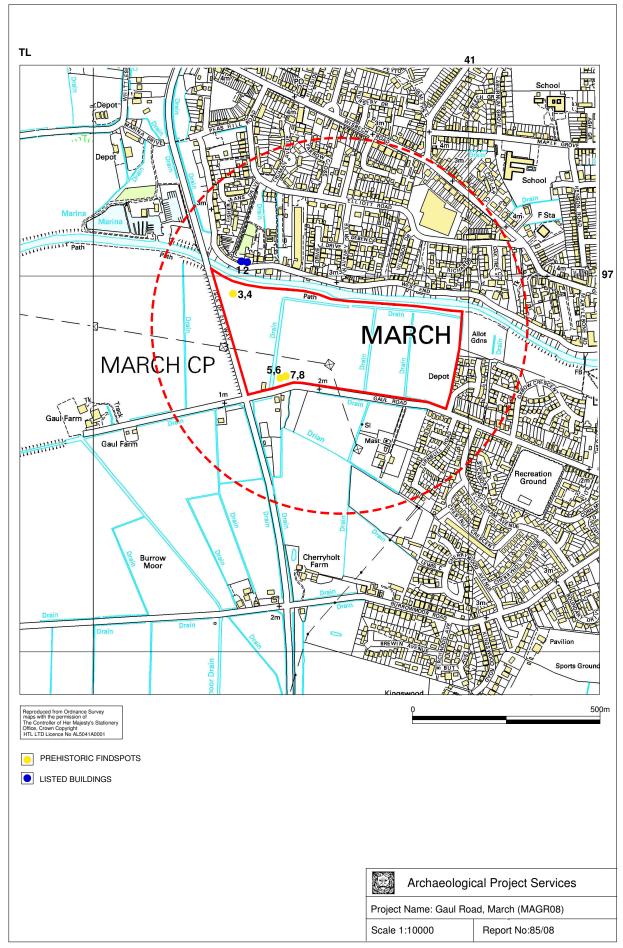


Figure 6 Plan of Proposed Development Location, Assessment Area with HER Data



Figure 7 Neolithic and Bronze Age Landscape; Mapped by the Fenland Survey

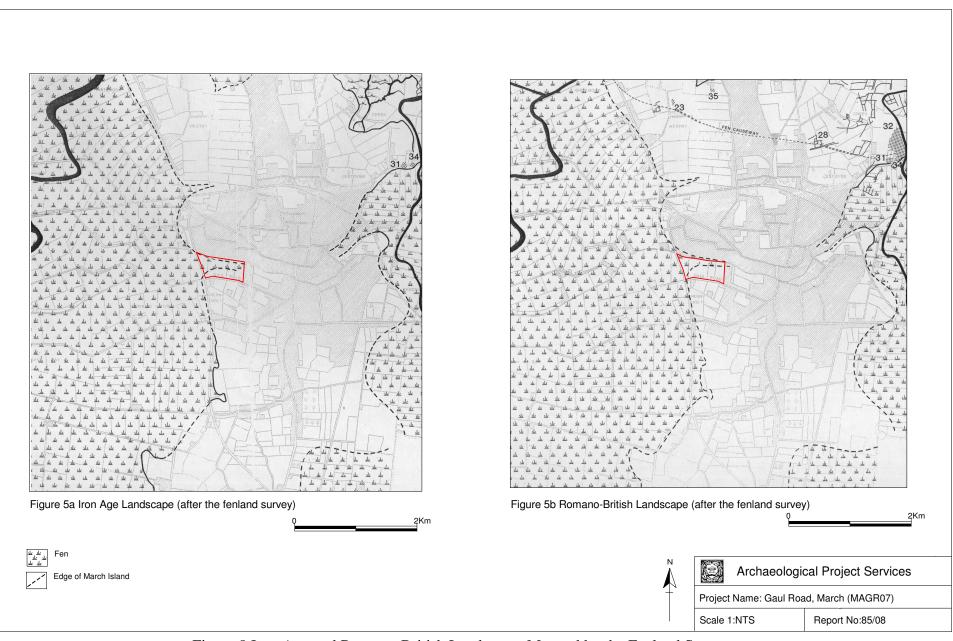


Figure 8 Iron Age and Romano-British Landscape; Mapped by the Fenland Survey

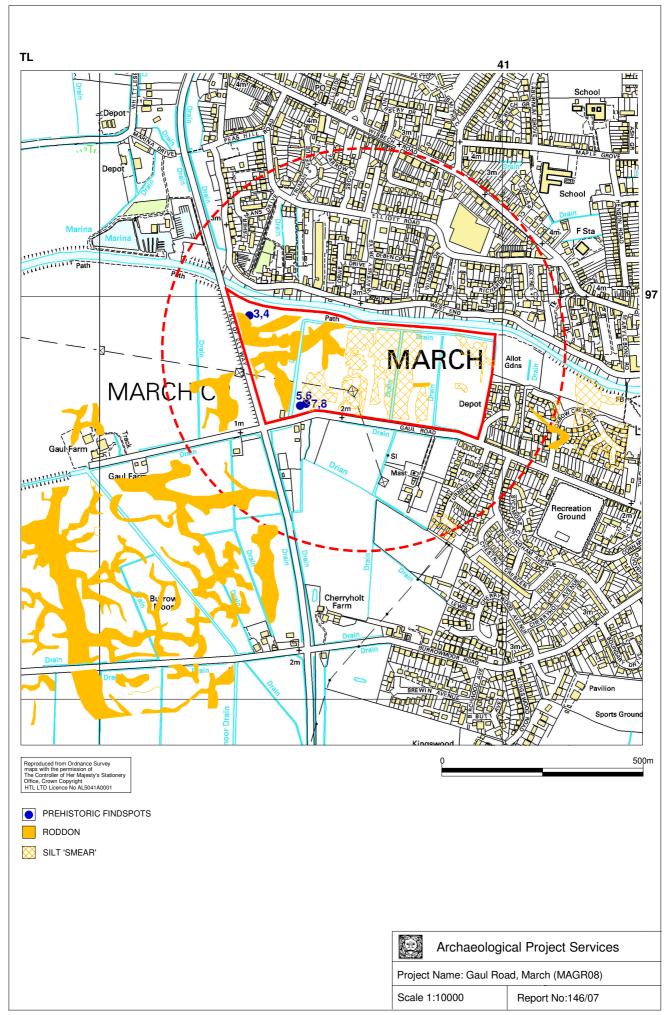


Figure 9 Plan showing Aerial Mapping of Area

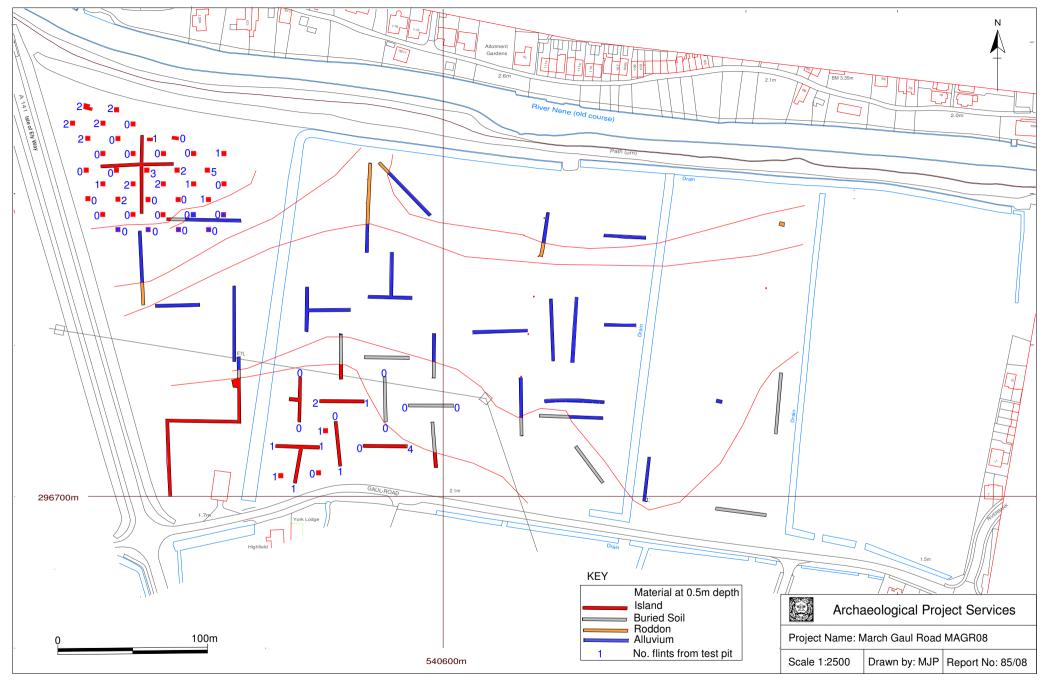


Figure 10. Plan showing approximate island/fen boundary

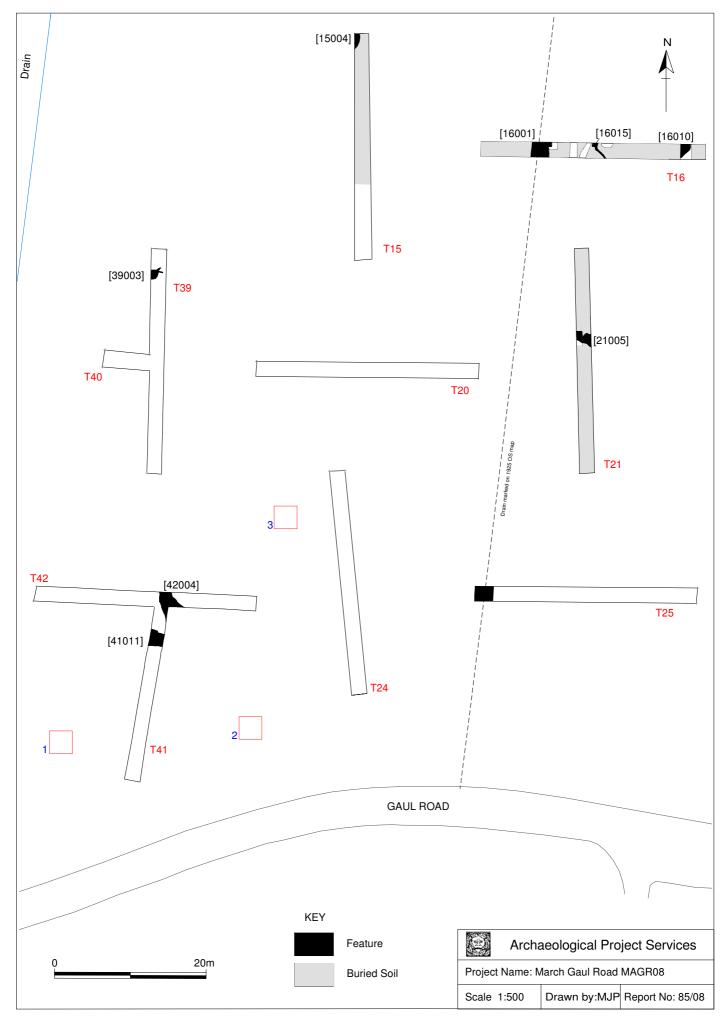


Figure 11. Buried soil and features in SW corner Field 2

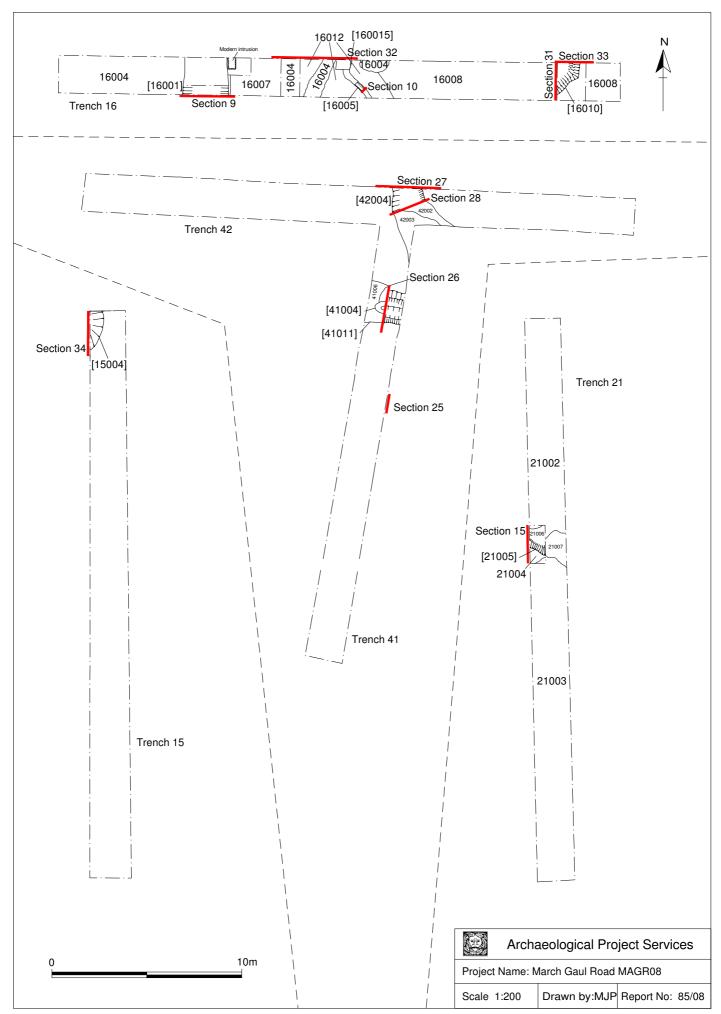


Figure 12. Trench Plans (Not positioned in relation to each other)

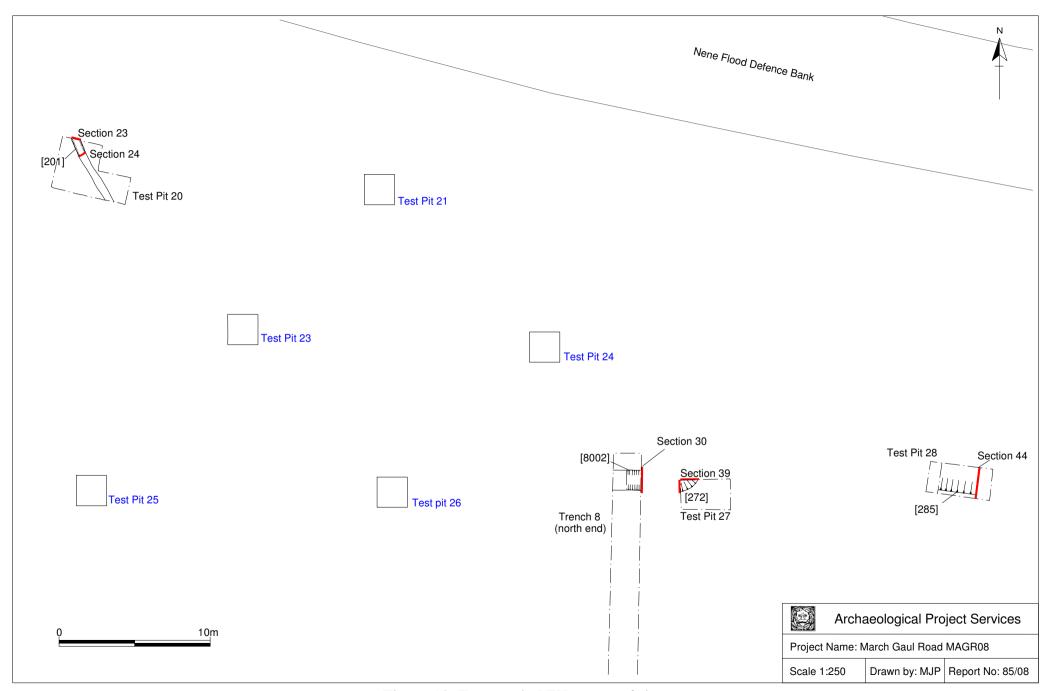


Figure 13. Features in NW corner of site

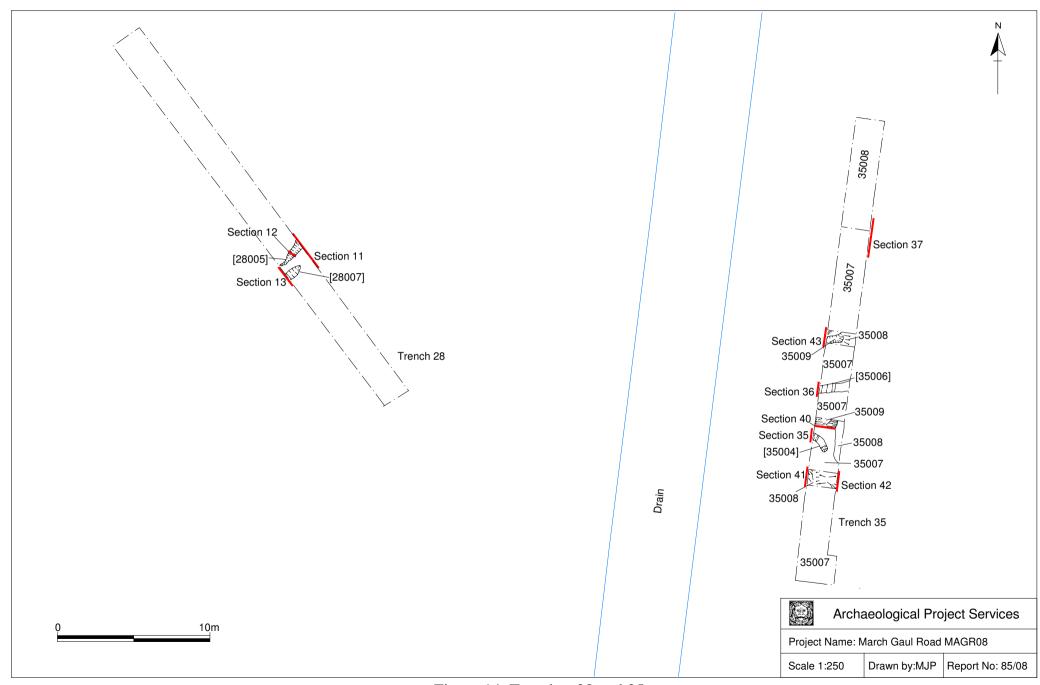


Figure 14. Trenches 28 and 35

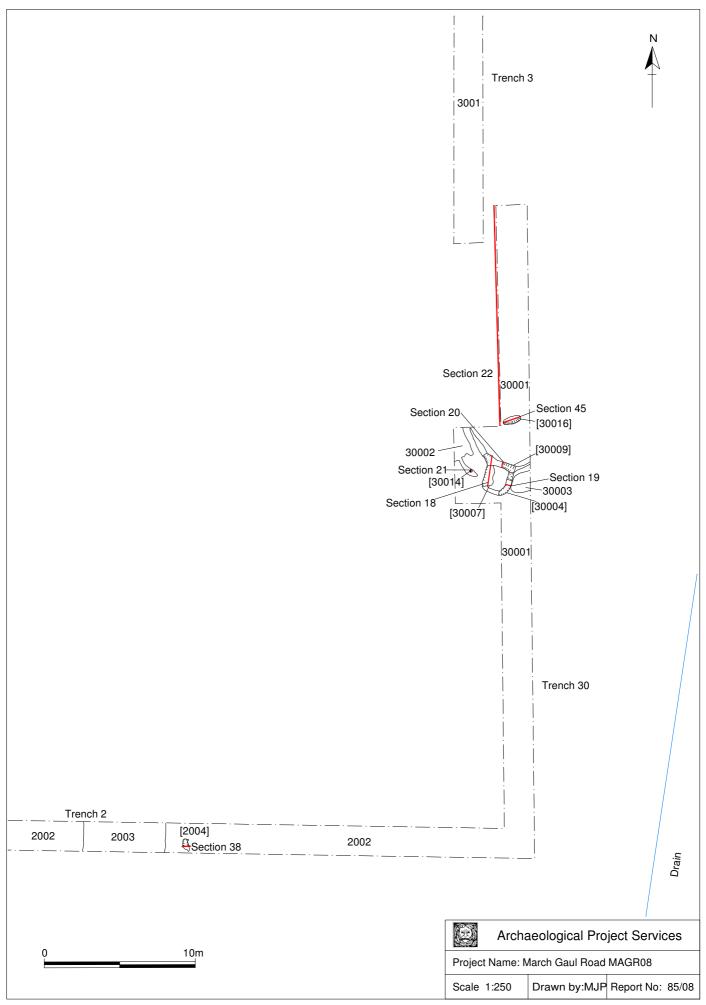


Figure 15. Plan of Trenches 2 and 30

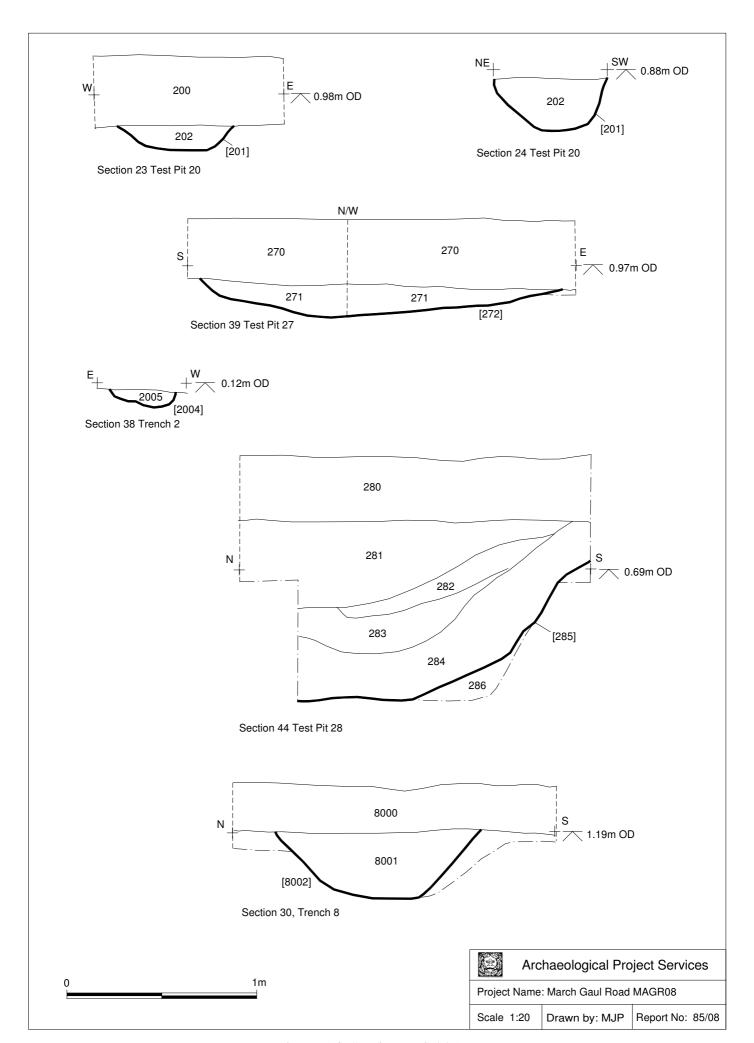


Figure 16. Sections, Field 1

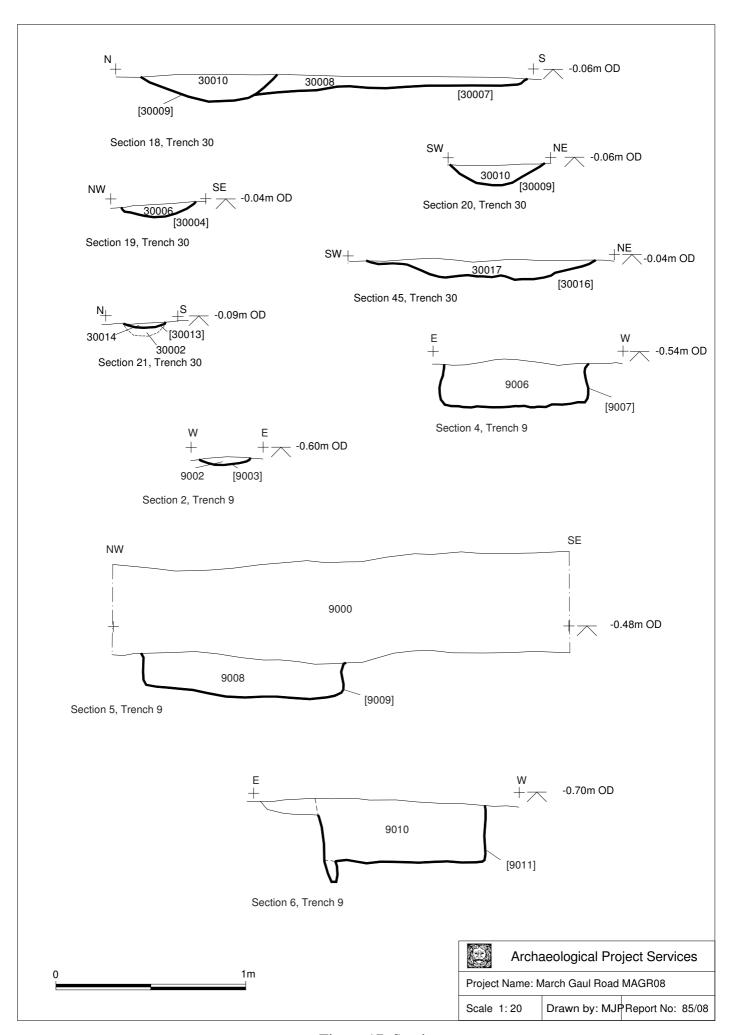


Figure 17. Sections

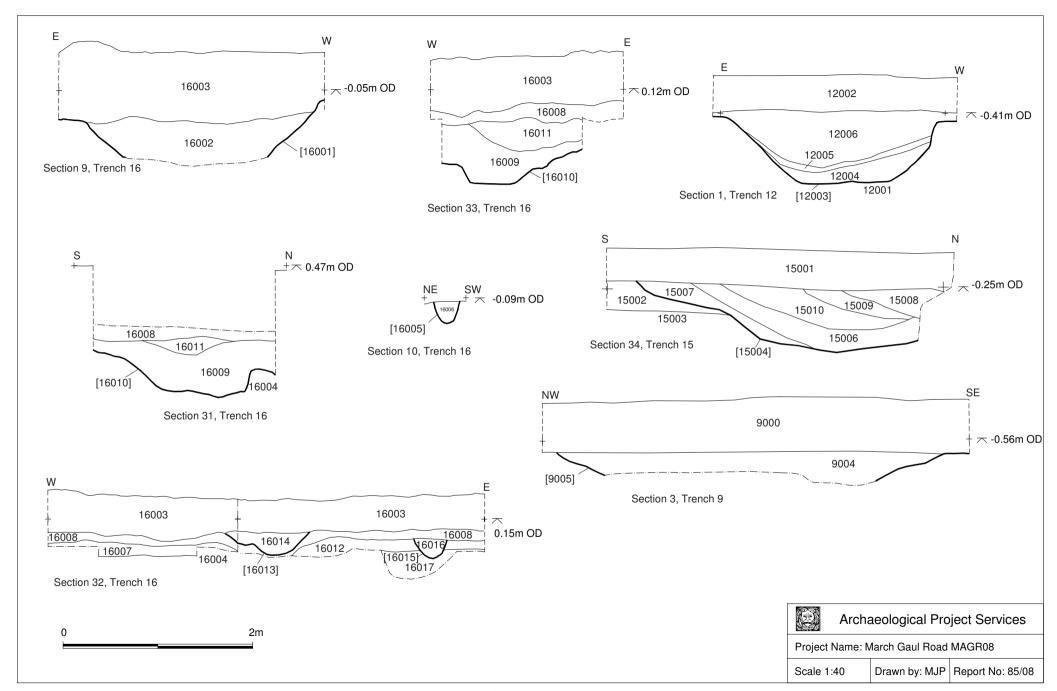


Figure 18 Sections

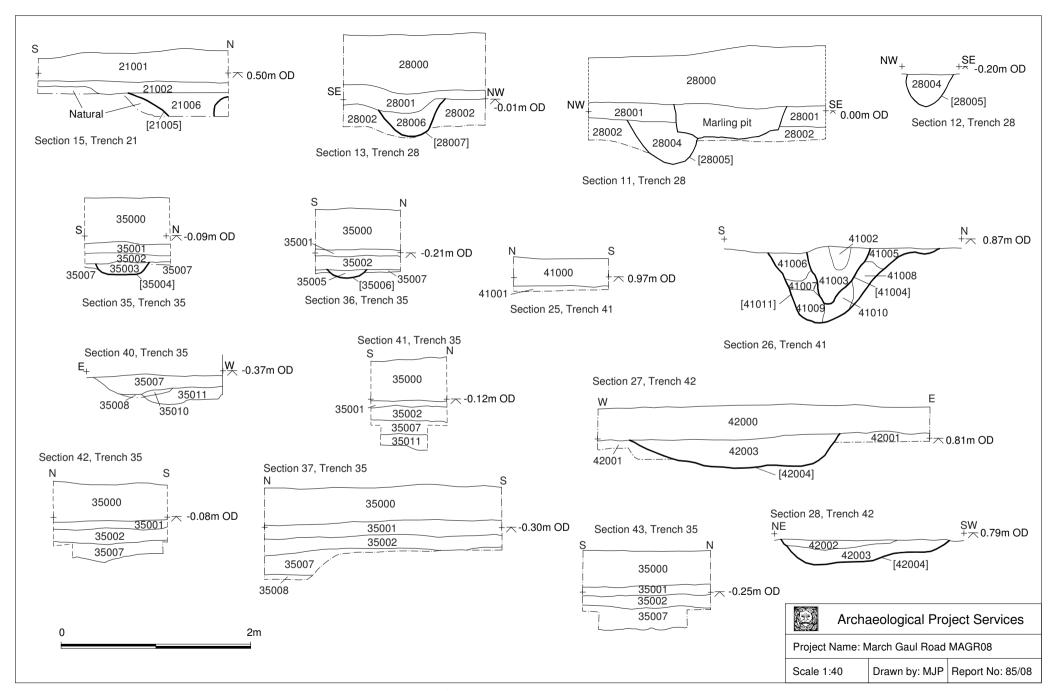


Figure 19 Sections

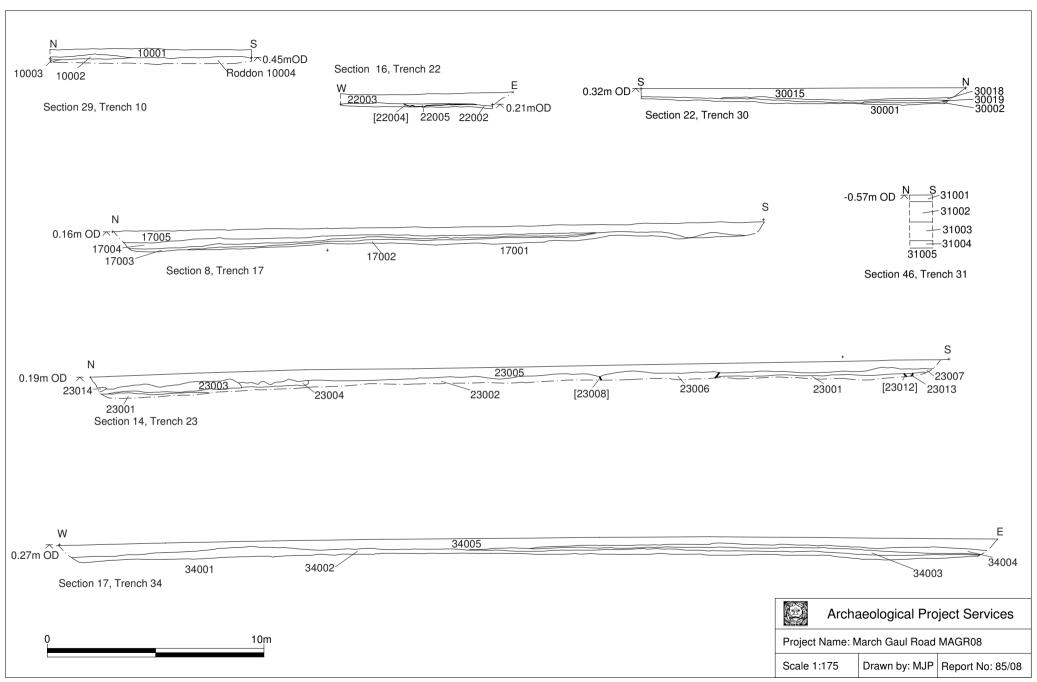


Figure 20. Trench Sections



Plate 1. Field 1 looking north prior to machining



Plate 2. Field 2 looking west prior to machining



Plate 3. Field 3 looking north prior to machining



Plate 4. Gully [201], Section 23, Test Pit 20 looking north



Plate 5. Ditch [8002], Section 30, Trench 8 looking east



Plate 6. Buried soil (16008), feature [16010], Section 31, Trench 16



Plate 7. Section 8 showing fen edge deposits in Trench 17 looking NE



Plate 8. Buried soil [21002], feature [21005], Section 15, Trench 21 looking west



Plate 9. Gullies [30004], [30009], feature [30007], Trench 30 looking west



Plate 10. Section 46 sondage through fen deposits looking east, Trench 31



Plate 11. Ditches [41004], [41011], Section 26, Trench 41 looking west



#### LAND OFF GAUL ROAD, MARCH CAMBRIDGESHIRE

# SPECIFICATION FOR ARCHAEOLOGICAL EVALUATION

# PREPARED FOR

Cannon Kirk

BY
ARCHAEOLOGICAL PROJECT SERVICES
Institute of Field Archaeologists'
Registered Archaeological Organisation No. 21

FEBRUARY 2008

# TABLE OF CONTENTS

1 :	SUMMARY	1
2	INTRODUCTION	1
3	SITE LOCATION	1
4	PLANNING BACKGROUND	1
5	SOILS AND TOPOGRAPHY	1
7	AIMS AND OBJECTIVES	2
8	TRIAL TRENCHING	3
9 1	ENVIRONMENTAL ASSESSMENT	4
10	POST-EXCAVATION AND REPORT	4
11	ARCHIVE	5
12	REPORT DEPOSITION	6
13	PUBLICATION	6
14	CURATORIAL MONITORING	6
15	VARIATIONS TO THE PROPOSED SCHEME OF WORKS	6
16	SPECIALISTS TO BE USED DURING THE PROJECT	6
17	PROGRAMME OF WORKS AND STAFFING LEVELS	7
18	INSURANCES	7
19	COPYRIGHT	7
20	BIBLIOGRAPHY	7
Figure	e 1 Location of Area of Development	
Figure	e 2 Area of Development	
Figure	e 3 Roddons and soils plotted from Aerial Photographs	

Figure 4 Trench layout

## 1 SUMMARY

- 1.1 This document comprises a specification for the archaeological evaluation of land off Gaul Road, March, Cambridgeshire.
- 1.2 The site lies in an archaeologically sensitive area on the edge of a former Fen island. A previous desk-top assessment identified discoveries of Mesolithic and Neolithic flint on the site. Bronze Age flints have been recovered from sites in the wider area.
- 1.3 Residential development of the site is proposed. Archaeological evaluation is proposed in order to assess the archaeological implications of the proposed development.
- 1.4 On completion of the fieldwork a report will be prepared detailing the findings of the investigation. The report will consist of a text describing the nature of the archaeological deposits located and will be supported by illustrations and photographs.

# 2 INTRODUCTION

- 2.1 This document comprises a specification for the evaluation of land north of Gaul Road, March, Cambridgeshire.
  - 2.1.1 The document contains the following parts:
  - 2.1.2 Overview
  - 2.1.3 The archaeological and natural setting
  - 2.1.4 Stages of work and methodologies to be used
  - 2.1.5 List of specialists
  - 2.1.6 Programme of works and staffing structure of the project

# 3 SITE LOCATION

3.1 March is located approximately 38km north of Cambridge and 23km east of Peterborough in the Fenland Administrative District of Cambridgeshire (Figure 1). The Proposed development site lays on the western edge of the town, bounded by the present course of the River Nene to the north, allotments and a depot to the east, the A141 to the west and Gaul Road to the south (Figure 2). This forms a roughly trapezoidal parcel of land covering an area of approximately 16.2 hectares (measuring c635m north-south and c250m east-west), centred on National Grid Reference TL 4065 9685.

# 4 PLANNING BACKGROUND

4.1 Archaeological desk-top assessment (Hall, 2007) on land north of Gaul Road, March, Cambridgeshire formed the first stage of assessment for the proposed residential development of the area (Planning Application F/YR05/0944/F). A previous desk-top assessment was undertaken of the site in 2004 (Grant 2004). The proposed evaluation through a programme of trial trenching will form the final stage of archaeological assessment of the site. Mitigation measures may comprise further investigations of significant archaeological remains at the site.

## 5 SOILS AND TOPOGRAPHY

5.1 The pre-Flandrian bedrock of the area is Kimmeridge Clay, overlain by interglacial gravels (Hoxnian Phase) known as 'March Gravels' (flinty gravels with shelly fauna). The Investigation Area lies on the western edge of the low-lying island, which rises to c4m OD. The proposed development site lies at 1.1m and 2.2m AOD.

## 6 ARCHAEOLOGICAL OVERVIEW

- 6.1 The Fenland has long been recognised as an important archaeological landscape, containing superimposed evidence of settlement, ritual and agricultural sites dating from the prehistoric period onwards. March occupies a former island within the fenland, lying on the northern tip of a large peninsula. The surrounding fen landscape underwent a series of complex changes during the prehistoric, Roman and later periods, influenced by the peninsular and the constantly changing courses of the major rivers on either side of it (Hall 1987)
- 6.2 The earliest evidence for occupation at March is within the bounds of the proposed development site where Mesolithic and

Neolithic flint scatters have been identified (Her refs 08455, 08455A, 05210, 05210A, 10913A;). Bronze Age lithics have also been identified during excavations at Westry (1.5km north of the Investigation Area), 600m to the south of the site at Cherry Holt and Flaggrass (2.5km to the northeast) in residual contexts. A group of four barrows is known on Stonea island, approximately 6km to the southeast.

- 6.3 Fieldwalking of part of the site undertaken in December 2007 confirmed the presence of a flint scatter on the south side of the site adjacent to Gaul Road. The presence of scrub on the west side of the area of investigation precluded examination of a known scatter at the northwest corner of the site.
- 6.4 Plotting of aerial photographs undertaken as part of the Desk-Based Assessment in December 2007 (Palmer 2007) did not identify any features thought to be of archaeological origin. However, a number of roddons (extinct palaeochannels) were recorded and these extent into the west side of the application area (Figure 3).
- A Bronze Age fine handled beaker (HER 5924) was discovered during the construction of March Railway Station in the 1860's. Such vessels are usually associated with burial contexts (Hall, 1987).
- Excavations at Estover, to the northeast of the Investigation Area, identified a large group of Bronze Age Beaker pottery from a pit, whilst an adjacent pit contained Bronze Age flints (James and Potter, 1996).
- 6.5 Iron Age sites lie to the north of Grandford and at Flaggrass, where occupation continued throughout the Iron Age period.

  Located at the eastern edge of the island, near the river, the Flaggrass sites would have had a link to Stonea island where more extensive Iron Age settlement is known (Hall, 1987).
- There is extensive evidence for the exploitation of the fenlands during the Romano-British period. Cropmarks of Romano-British fieldsystems have been identified to the northeast of the present town. Possible saltern sites have been noted in the vicinity (HER CB10122 and CB10123) and excavations at Norwood, 2.5km to the north of the proposed development area, in the 1950s identified evidence of occupation and salt production between the late first century and fourth century (HER CB7317).
- 6.7 The Fen Causeway, a Roman routeway that follows a course from Peterborough, through March and into Norfolk, is thought to cross the southern part of the Investigation Area (HER CB15033), although its precise course in this area is unknown. Part of the Fen Causeway is thought to have originally been a canal, which was later metalled and/or gravelled over when the silts dried out. Excavations of the Causeway at Stonea identified earlier prehistoric features beneath the road. However, excavations over the projected course of the Fen Causeway, at Dagless Way (HER CB408) and Whitemoor did not reveal any archaeological features (Last, 2001).
- Excavations at Estover, 2km northeast of the site, during the 1980s investigated the Fen Causeway where it was visible as an earthwork. The excavated sections identified a metalled surface, flanked by substantial ditches, which ran parallel to the causeway. The excavations also identified a number of Roman features including a ditched droveway approaching the causeway at an angle from the east and several small rectilinear enclosures (James and Potter, 1996).
- Realignment of the River Nene to its present course which now bounds the northern edge of the proposed development area occurred during the Saxon period. The realignment is believed to have been part of a local scheme of drainage of the Fens during the 10th century, allowing March to develop as an inland port.
- March is first referred to in the Domesday Survey of 1086 where it was known as Merc, meaning boundary. It was later known as Marchford, a refelection of the role March played in the transport routes through the Fens.
- By the 16th century March was recorded as a minor port, with eight barges transporting coal and grain. The town continued to expand throughout the post-medieval period.

# 7 AIMS AND OBJECTIVES

- 7.1 The aim of the work will be to gather sufficient information for the archaeological curator to be able to formulate a policy for the management of the archaeological resources present on the site.
- 7.2 The objectives of the work will be to:
  - 7.2.1 Establish the type of archaeological activity that may be present within the site.
  - 7.2.2 Determine the likely extent of archaeological activity present within the site.
  - 7.2.3 Determine the date and function of the archaeological features present on the site.
  - 7.2.4 Determine the state of preservation of the archaeological features present on the site.

- 7.2.5 Determine the spatial arrangement of the archaeological features present within the site.
- 7.2.6 Determine the extent to which the surrounding archaeological features extend into the application area.
- 7.2.7 Establish the way in which the archaeological features identified fit into the pattern of occupation and land-use in the surrounding landscape.

## 8 TRIAL TRENCHING

## 8.1 Reasoning for this technique

- 8.1.1 Trial trenching enables the *in situ* determination of the sequence, date, nature, depth, environmental potential and density of archaeological features present on the site.
- 8.1.2 The impact of the proposed development across the development area is variable and the density of trial trenching is designed to reflect this. Figure 4 shows an area of low impact on the northern and western sides of the site which will comprise a combination of green open space, landscaping, wet areas or possibly car parking. In this low impact area areas to be reduced by more than 600mm are shown in red stippling on Figure 4. Trial trenching in the low impact zone will comprise the excavation of a 2% sample of the area.
- 8.1.3 Areas south and east of the low impact zone will be subject of construction and the impact on any buried archaeological deposits will be greater. A programme of 3% trial trenching is proposed for this area with a 1% reserve held back for investigation of identified remains if necessary. The density of trenching is closer to 5% over the flint scatter identified at the south end of the site. Some trenches will be targeted on the roddons identified by the aerial photographic assessment

# 8.2 General Considerations

- 8.2.1 All work will be undertaken following statutory Health and Safety requirements in operation at the time of the investigation.
- 8.2.2 The work will be undertaken according to the relevant codes of practice issued by the Institute of Field Archaeologists (IFA). Archaeological Project Services is an IFA Registered Archaeological Organisation (No. 21).
- 8.2.3 Any and all artefacts found during the investigation and thought to be 'treasure', as defined by the Treasure Act 1996, will be removed from site to a secure store and promptly reported to the appropriate coroner's office.
- 8.2.4 Excavation of the archaeological features exposed will only be undertaken as far as is required to determine their date, sequence, density and nature. All archaeological features exposed will be excavated and recorded unless otherwise agreed with the Cambridgeshire Archaeology Office. The investigation will, as far as is reasonably practicable, determine the level of the natural deposits to ensure that the depth of the archaeological sequence present on the site is established.
- 8.2.5 Open trenches will be marked by hazard tape attached to road irons or similar poles. Subject to the consent of the archaeological curator, and following the appropriate recording, the trenches, particularly those of excessive depth, will be backfilled as soon as possible to minimise any health and safety risks.

## 8.3 Methodology

- 8.3.1 Removal of the topsoil and any other overburden will be undertaken by mechanical excavator using a toothless ditching bucket. To ensure that the correct amount of material is removed and that no archaeological deposits are damaged, this work will be supervised by Archaeological Project Services. On completion of the removal of the overburden, the nature of the underlying deposits will be assessed by hand excavation before any further mechanical excavation that may be required. Thereafter, the trenches will be cleaned by hand to enable the identification and analysis of the archaeological features exposed.
- 8.3.2 Investigation of the features will be undertaken only as far as required to determine their date, form and function. The work will consist of half- or quarter-sectioning of features as required and, where appropriate, the removal of layers. Should features be located which may be worthy of preservation *in situ*, excavation will be limited to the absolute minimum, (*ie* the minimum disturbance) necessary to interpret the form, function and date of the features.

- 8.3.3 The archaeological features encountered will be recorded on Archaeological Project Services pro-forma context record sheets. The system used is the single context method by which individual archaeological units of stratigraphy are assigned a unique record number and are individually described and drawn.
- 8.3.4 Plans of features will be drawn at a scale of 1:20 and sections at a scale of 1:10. Should individual features merit it, they will be drawn at a larger scale.
- 8.3.5 Throughout the duration of the trial trenching a photographic record consisting of black and white prints (reproduced as contact sheets) and colour slides will be compiled. The photographic record will consist of:
  - the site before the commencement of field operations.
  - the site during work to show specific stages of work, and the layout of the archaeology within individual trenches.
  - individual features and, where appropriate, their sections.
  - groups of features where their relationship is important.
  - · the site on completion of field work
- 8.4 Should human remains be encountered, they will be left *in situ* with excavation being limited to the identification and recording of such remains. If removal of the remains is necessary the appropriate Home Office licences will be obtained and the local environmental health department informed. If relevant, the coroner and the police will be notified.
- 8.5 Finds collected during the fieldwork will be bagged and labelled according to the individual deposit from which they were recovered ready for later washing and analysis.
- 8.6 The spoil generated during the investigation will be mounded along the edges of the trial trenches with the top soil being kept separate from the other material excavated for subsequent backfilling.
- 8.7 The precise location of the trenches within the site and the location of site recording grid will be established by an EDM survey.

## 9 TOPSOIL ARTEFACT SAMPLING

- 9.1 Reasoning for this technique
  - 9.1.1 Topsoil sampling on sites where flints are present permits accurate sampling of artefact densities and assists in the characterisation of lithic assemblages.
  - 9.1.2 Sampling within two known scatters will comprise hand collection of flints from machined topsoil and subsoils. In the scatter adjacent to Gaul Road the sampling grid will conform predominantly to the ends of the trenches with some placed at closer intervals at the densest part of the scatter (Fig 4). Over the scatter at the northeast corner of the site sampling will be on a 20m staggered grid. A measured sample of 1 wheelbarrow load of 100 litres will be sorted. Samples of 25l for wet sieving for retrieval of the smallest flints (debitage and microliths) will also be collected. The distribution and density of test pits is also shown on Figure 4.

#### 10 ENVIRONMENTAL ASSESSMENT

- During the investigation specialist advice will be obtained from an environmental archaeologist. If necessary the specialist will visit the site and will prepare a report detailing the nature of the environmental material present on the site and its potential for additional analysis should further stages of archaeological work be required. In particular, the relationship between the roddons plotted from aerial photographs and archaeological remains will be addressed. The results of the specialist's assessment will be incorporated into the final report.
- Samples will be taken from primary and secondary fills of dated features, likely to comprise ditches and pits, the level of sampling being appropriate to the content of the individual feature. Samples to characterise the survival of plant remains, molluscs and small faunal remains will be taken from suitable archaeological contexts. The samples will be extracted and recorded in accordance with Murphy & Wiltshire 1994. Bulk samples for small faunal remains will be wet-sieved through 0.5mm collecting meshes.

## 11 POST-EXCAVATION AND REPORT

## 11.1 Stage 1

- 11.1.1 On completion of site operations, the records and schedules produced during the trial trenching will be checked and ordered to ensure that they form a uniform sequence constituting a level II archive. A stratigraphic matrix of the archaeological deposits and features present on the site will be prepared. All photographic material will be catalogued: the colour slides will be labelled and mounted on appropriate hangers and the black and white contact prints will be labelled, in both cases the labelling will refer to schedules identifying the subject/s photographed.
- 11.1.2 All finds recovered during the trial trenching will be washed, marked, bagged and labelled according to the individual deposit from which they were recovered. Any finds requiring specialist treatment and conservation will be sent to the Conservation Laboratory at the City and County Museum, Lincoln.

## 11.2 Stage 2

- 11.2.1 Detailed examination of the stratigraphic matrix to enable the determination of the various phases of activity on the site.
- 11.2.2 Finds will be sent to specialists for identification and dating.

## 11.3 Stage 3

- 11.3.1 On completion of stage 2, a report detailing the findings of the investigation will be prepared. This will consist of:
  - A non-technical summary of the results of the investigation.
  - A description of the archaeological setting of the site.
  - Description of the topography and geology of the investigation area.
  - Description of the methodologies used during the investigation and discussion of their effectiveness in the light of the results
  - A text describing the findings of the investigation.
  - Plans of the trenches showing the archaeological features exposed. If a sequence of archaeological deposits is
    encountered, separate plans for each phase will be produced.
  - Sections of the trenches and archaeological features.
  - Interpretation of the archaeological features exposed and their context within the surrounding landscape.
  - Specialist reports on the finds from the site.
  - Appropriate photographs of the site and specific archaeological features or groups of features.
  - A consideration of the significance of the remains found, in local, regional, national and international terms, using recognised evaluation criteria.

# 11 ARCHIVE

- 12.1 The documentation, finds, photographs and other records and materials generated during the evaluation will be sorted and ordered in accordance with the procedures in the Society of Museum Archaeologists' document *Transfer of Archaeological Archives to Museums* (1994), and any additional local requirements, for long term storage and curation. This work will be undertaken by the Finds Supervisor, an Archaeological Assistant and the Conservator (if relevant). The archive will be deposited within an approved County store as soon as possible after completion of the post-excavation and analysis.
- 12.2 If required, microfilming of the archive will be carried out at Lincolnshire Archives. The silver master will be transferred to the RCHME and a diazo copy will be deposited with the Cambridgeshire County Council Archaeology Service Historic Environment Record.
- Prior to the project commencing, the Cambridgeshire County Archaeological Office will be contacted to obtain their agreement to receipt of the project archive and to establish their requirements with regards to labelling, ordering, storage, conservation and organisation of the archive. The event number for this project issued by the Cambridgeshire Historic Environment Record will be ECB2886.

12.4 Upon completion and submission of the evaluation report, the landowner will be contacted to arrange legal transfer of title to the archaeological objects retained during the investigation from themselves to the receiving museum. The transfer of title will be effected by a standard letter supplied to the landowner for signature.

# 13 REPORT DEPOSITION

An unbound draft copy of the report will be supplied initially to the County Archaeological Office for comment. Copies of the final report will be sent to: the client; the Cambridgeshire County Council Archaeology Office (2 copies); and the Cambridgeshire County Historic Environment Record.

#### 14 PUBLICATION

- 14.1 A report of the findings of the investigation will be submitted for inclusion in the appropriate local journal. Notes or articles describing the results of the investigation will also be submitted for publication in the appropriate national journals: *Medieval Archaeology* and *Journal of the Medieval Settlement Research Group* for medieval and later remains, and *Britannia* for discoveries of Roman date.
- 14.2 Details of the investigation will also be input to the Online Access to the Index of Archaeological Investigations (OASIS).

## 15 CURATORIAL MONITORING

15.1 Curatorial responsibility for the project lies with Cambridgeshire County Council Archaeology Office. As much notice as possible will be given in writing to the curator prior to the commencement of the project to enable them to make appropriate monitoring arrangements.

#### 16 VARIATIONS TO THE PROPOSED SCHEME OF WORKS

- 16.1 Variations to the scheme of works will only be made following written confirmation from the archaeological curator.
- 16.2 Should the archaeological curator require any additional investigation beyond the scope of the brief for works, or this specification, then the cost and duration of those supplementary examinations will be negotiated between the client and the contractor.

# 17 SPECIALISTS TO BE USED DURING THE PROJECT

17.1 The following organisations/persons will, in principle and if necessary, be used as subcontractors to provide the relevant specialist work and reports in respect of any objects or material recovered during the investigation that require their expert knowledge and input. Engagement of any particular specialist subcontractor is also dependent on their availability and ability to meet programming requirements.

<u>Task</u> Body to be undertaking the work

Air Photograph plotting Roger Palmer, independent specialist

Conservation Laboratory, City and County Museum, Lincoln.

Pottery Analysis Prehistoric: Dr F Pryor, Soke Archaeological Services Ltd or Dr Carol Allen,

independent specialist

Roman: M Darling, independent specialist (formerly City of Lincoln

Archaeological Unit), or local specialist if required

Anglo-Saxon: J Young, independent specialist (formerly City of Lincoln

Archaeological Unit), or local specialist if required

Medieval and later: David Hall, independent specialist, or local specialist if

required

Other Artefacts J Cowgill, independent specialist

Human Remains Analysis R Gowland, independent specialist

Animal Remains Analysis J Kitch, APS

Environmental Analysis Val Fryer, independent specialist

Soil Assessment Dr Charly French, independent specialist

Pollen Assessment Pat Wiltshire, independent specialist

Radiocarbon dating Beta Analytic Inc., Florida, USA

Dendrochronology dating University of Sheffield Dendrochronology Laboratory

#### 18 PROGRAMME OF WORKS AND STAFFING LEVELS

18.1 The Senior Archaeologist, Archaeological Project Services, Tom Lane, MIFA, will have overall responsibility and control of all aspects of the work.

- 18.2 Site work will be undertaken by a Project Officer with experience of archaeological excavations of this type, assisted by 2 appropriately experienced archaeological technicians. The archaeological works are programmed to take 3-4 days.
- 18.3 Post-excavation Assessment report production is expected to take up to 7 person-days. Post-excavation analysis will be undertaken by the Project Officer, or post-excavation analyst as appropriate, with assistance from a finds supervisor, illustrator and external specialists.
- 18.4 Contingency
  - 18.4.1 The activation of any contingency requirement will be by agreement with the client and in consultation with the County Archaeology Office.

#### 19 INSURANCES

Archaeological Project Services, as part of the Heritage Trust of Lincolnshire, maintains Employers Liability insurance to £10,000,000. Additionally, the company maintains Public and Products Liability insurances, each with indemnity of £5,000,000. Copies of insurance documentation can be supplied on request.

## 20 COPYRIGHT

- Archaeological Project Services shall retain full copyright of any commissioned reports under the *Copyright, Designs and Patents Act* 1988 with all rights reserved; excepting that it hereby provides an exclusive licence to the client for the use of such documents by the client in all matters directly relating to the project as described in the Project Specification.
- 20.2 Licence will also be given to the archaeological curators to use the documentary archive for educational, public and research purposes.
- In the case of non-satisfactory settlement of account then copyright will remain fully and exclusively with Archaeological Project Services. In these circumstances it will be an infringement under the Copyright, Designs and Patents Act 1988 for the client to pass any report, partial report, or copy of same, to any third party. Reports submitted in good faith by Archaeological Project Services to any Planning Authority or archaeological curator will be removed from said Planning Authority and/or archaeological curator. The Planning Authority and/or archaeological curator will be notified by Archaeological Project Services that the use of any such information previously supplied constitutes an infringement under the Copyright, Designs and Patents Act 1988 and may result in legal action.
- The author of any report or specialist contribution to a report shall retain intellectual copyright of their work and may make use of their work for educational or research purposes or for further publication.

## 21 BIBLIOGRAPHY

Brown N. and Glazebrook, J. (eds) 2000 Research and Archaeology: A Framework for the Eastern Counties: 2 Research Agenda and Strategy. East Anglian Archaeology, Occasional Paper 8

English Heritage, 1991 The Management of Archaeological Projects. London.

Grant, J., 2004 Proposed Development, Gaul Road, March, Cambridgeshire, Archaeological Desk-Based Assessment. Archaeological Solutions Ltd unpublished report no.1622

Hall, D., 1987 The Fenland Project, Number 2: Cambridgeshire Survey, Peterborough to March. EAA 35

Hall, R., 2007, Archaeological Desk-Based Assessment on Land North of Gaul Road, Msrch, Cambridgeshire (MAGR07). Unpublised APS report 146/07

Institute of Field Archaeologists, 1997 Standards and Guidance for Archaeological Field Excavation.

Hodge, CAH, Burton, RGO, Corbett, WM, Evans, R, and Seale, RS, 1984 Soils and their use in Eastern England, Soil Survey of England and Wales 13

James, S.T. and Potter, T.W., 1996, Excavations at Estover, March in Jackson, R. and Potter T.W., Excavations at Stonea, Cambridgeshire 1980-85 (London, British Museum)

Palmer. R., Gaul Road, Area Centred TL 406969, March, Cambridgeshire: Aerial Photographic Assessment. Report Np: 2007/21

Specification: Version 2, 03rd March 2008

# Appendix 2

# CONTEXT SUMMARY

Context	Trench	Description	Interpretation	Date
010	TP1	Dark greyish brown clayey silt	Topsoil sampled for	
020	TED 2		flint	
020	TP2	Dark greyish brown clayey silt	Topsoil sampled for flint	
030	TP3	Dark greyish brown clayey silt	Topsoil sampled for flint	
040	TP4	Dark greyish brown clayey silt	Topsoil sampled for flint	
050	TP5	Dark greyish brown clayey silt	Topsoil sampled for flint	
060	TP6	Dark greyish brown clayey silt	Topsoil sampled for flint	
070	TP7	Dark greyish brown clayey silt	Topsoil sampled for flint	
080	TP8	Dark greyish brown clayey silt	Topsoil sampled for flint	
090	TP9	Dark greyish brown clayey silt	Topsoil sampled for flint	
100	TP10	Dark greyish brown clayey silt	Topsoil sampled for flint	
110	TP11	Dark greyish brown clayey silt	Topsoil sampled for flint	
120	TP12	Dark greyish brown clayey silt	Topsoil sampled for flint	
130	TP13	Dark greyish brown clayey silt	Topsoil sampled for flint	
140	TP14	Dark greyish brown clayey silt	Topsoil sampled for flint	
150	TP15	Dark greyish brown clayey silt	Topsoil sampled for flint	
160	TP16	Dark greyish brown clayey silt	Topsoil sampled for flint	
170	TP17	Dark greyish brown clayey silt	Topsoil sampled for flint	
180	TP18	Dark greyish brown clayey silt	Topsoil sampled for flint	
200	TP20	Dark grey clayey silt 0.37m thick	Topsoil sampled for flint	
201	TP20	NW-SE linear cut 4.6m+ long, 0.5m wide, 0.22m deep	Cut of ditch	
202	TP20	Light grey silt with occasional charcoal flecks 0.22m thick	Fill of [201]	
203	TP20 TP21	Mid reddish brown clay, occasional gravel patches  Dark greyish brown clayey silt	Natural Topsoil sampled for	
			flint	
220	TP22	Dark greyish brown clayey silt	Topsoil sampled for flint	
230	TP23	Dark greyish brown clayey silt	Topsoil sampled for flint	
240	TP24	Dark greyish brown clayey silt	Topsoil sampled for flint	
250	TP25	Dark greyish brown clayey silt	Topsoil sampled for flint	
260	TP26	Dark greyish brown clayey silt	Topsoil sampled for flint	
270	TP27	Dark greyish brown clayey silt 0.35m thick	Topsoil sampled for flint	
271	TP27	Mottled mid grey/orange silty clay 0.17m thick	Fill of [272]	
272	TP27	Rounded cut 1.13m + x 0.77m+ x 0.17m thick	Terminus of [8002]	
273	TP27	Orange gravelly sandy clay	Natural	
280	TP28	Dark greyish brown clayey silt 0.35m thick	Topsoil sampled for flint	
281	TP28	Loose dark greyish brown clayey silt 0.45m thick	Fill of [285]	

Context	Trench	Description	Interpretation	Date
282	TP 28	Greyish yellow clay with gravel 0.2m thick	Fill of [285]	
283	TP28	Dark greyish brown silt with occ charcoal flecks 0.25m thick	Fill of [285]	
284	TP28	Mid greyish brown clayey silt 0.3m thick	Fill of [285]	
285	TP28	Steep sided E-W cut 2.5m+ x 1.9m+ x 0.95m deep	Cut of ditch/pit	
286	TP28	Yellow orange clay with gravel	Natural	
290	TP29	Dark greyish brown clayey silt	Topsoil sampled for	
			flint	
300	TP30	Dark greyish brown clayey silt	Topsoil sampled for flint	
310	TP31	Dark greyish brown clayey silt	Topsoil sampled for flint	
320	TP32	Dark greyish brown clayey silt	Topsoil sampled for flint	
330	TP33	Dark greyish brown clayey silt	Topsoil sampled for flint	
340	TP34	Dark greyish brown clayey silt	Topsoil sampled for flint	
350	TP35	Dark greyish brown clayey silt	Topsoil sampled for flint	
360	TP36	Dark greyish brown clayey silt	Topsoil sampled for flint	
370	TP37	Dark greyish brown clayey silt	Topsoil sampled for flint	
380	TP38	Dark greyish brown clayey silt	Topsoil sampled for flint	
390	TP39	Dark greyish brown clayey silt	Topsoil sampled for flint	
400	TP40	Dark greyish brown clayey silt	Topsoil sampled for flint	
410	TP41	Dark greyish brown clayey silt	Topsoil sampled for flint	
420	TP42	Dark greyish brown clayey silt	Topsoil sampled for flint	
430	TP43	Dark greyish brown clayey silt	Topsoil sampled for flint	
440	TP44	Dark greyish brown clayey silt	Topsoil sampled for flint	
450	TP45	Dark greyish brown clayey silt	Topsoil sampled for flint	
460	TP46	Dark greyish brown clayey silt	Topsoil sampled for flint	
470	TP47	Dark greyish brown clayey silt	Topsoil sampled for flint	
480	TP48	Dark greyish brown clayey silt	Topsoil sampled for flint	
490	TP49	Dark greyish brown clayey silt	Topsoil sampled for flint	
500	TP50	Dark greyish brown clayey silt	Topsoil sampled for flint	
510	TP51	Dark greyish brown clayey silt	Topsoil sampled for flint	
520	TP52	Dark greyish brown clayey silt	Topsoil sampled for flint	
530	TP53	Dark greyish brown clayey silt	Topsoil sampled for flint	
540	TP54	Dark greyish brown clayey silt	Topsoil sampled for flint	
550	TP55	Dark greyish brown clayey silt	Topsoil sampled for flint	
560	TP56	Dark greyish brown clayey silt	Topsoil sampled for flint	
570	TP57	Dark greyish brown clayey silt	Topsoil sampled for flint	
1001	1	Mid to dark greyish brown clayey silt 0.36m thick	Topsoil	1

Context	Trench	Description	Interpretation	Date
1002	1	Orange brown silty clay	Natural	
2001	2	Dark greyish brown clayey silt 0.4m thick	Topsoil	
2002	2	Orange brown silty clay	Natural	
2003	2	Firm mid grey clay	Natural	
2004	2	Irregular cut 0.9m long x 0.35m wide x 0.1m deep	Probable burrow/root	
2005	2	Dark greyish brown clayey silt with charcoal flecks 0.1m	Fill of [2004]	
2001		thick		
3001	3	Blueish grey silty clay	Alluvium	
3002	3	Dark greyish brown clayey silt 0.35m thick	Topsoil	
4001	4	Blueish grey silty clay with reddish mottling	Alluvium	
4002	4	Dark greyish brown clayey silt 0.32m thick	Topsoil	
5001	5	Mid blueish grey silty clay with reddish mottling	Alluvium	
5002	5	Dark greyish brown clayey silt 0.35m thick	Topsoil	
5003	5	Mid greyish yellow silty clay 29.5m wide	Roddon	
6001	6	Light orangey grey sandy silt with gravel	Natural	
6002	6	Light whitish grey clayey silt, occasional gravel 0.1m thick	Buried soil	
6003	6	Mid grey silty clay with occasional gravel 0.12m thick	Alluvium	
6004	6	Dark greyish brown clayey silt 0.33m thick	Topsoil	
6005	6	Dark brown peaty silt	Peat layer	
7000	7	Dark greyish brown silty clay 0.32m thick	Topsoil	
7001	7	Mid yellowish reddish brown clay with occasional gravel	Natural	
8000	8	Dark greyish brown silty clay 0.3m thick	Topsoil	
8001	8	Light brownish grey silty clay 0.36m thick	Silt fill of [8002]	
8002	8	E-W linear cut 1.14m wide x 0.36m deep	Cut of ditch	
8003	8	Mid reddish brown clay with gravelly patches	Natural	
9000	9	Dark grey slightly clayey silt 0.47m thick	Topsoil	
9001	9	Mid orangey yellow brown clayey silt	Roddon	
9002	9	Very dark grey clayey silt 0.4m thick	Fill of[9003]	
9003	9	N-S linear cut 0.25m wide x 0.4m deep	Cut of gully	G10
9004	9	Very dark grey clayey silt 0.35m + thick	Fill of [9005]	C18
9005	9	N-S linear cut 4.2m wide	Cut of ditch	C18
9006	9	Dark grey clayey silt with dark reddish brown patches 0.26m thick	Fill of [9007]	
9007	9	N-S linear vertical sided cut 0.76m wide x 0.26m deep	Marling pit	
9008	9	Dark grey clayey silt with dark reddish brown patches 0.23m thick	Fill of [9009]	C18/19
9009	9	N-S rectilinear vertical sided cut 1.05m wide x 0.23m deep	Marling pit	C18/19
9010	9	Dark grey clayey silt with dark reddish brown patches	Fill of [9011]	C10/17
0011	0	0.33m thick	36.11	
9011	9	N-S rectilinear vertical sided cut 0.9m wide x 0.33m deep	Marling pit	
9012	9	Dark greyish blueish brown slightly silty clay	Alluvium	
10001	10	Mid brownish grey silty clay 0.3m thick	Topsoil	
10002	10	Dark brown peat 0.18m thick	Peat layer	
10003	10	Light mottled orange/grey clay	Alluvium	
10004 11001	11	Mid greyish yellow silty clay  Dark greyish brown clayey silt 0.42m thick	Roddon Topsoil	
11001	11	Blueish grey silty clay	Alluvium	
12001	12	Light blueish grey silty clay	Alluvium	
12001	12	Mid greyish brown clayey silt 0.35m thick	Topsoil	
12002	12	N-S aligned linear cut 2.4m wide, 0.79m deep	Cut of ditch	C18-20
12003	12	Dark greyish brown silt 0.54m thick	Fill of [12003]	C10-20
12004	12	Mid reddish brown clayey silt 0.08m thick	Fill of [12003]	
12005	12	Mid greyish brown clayey silt 0.08m thick	Fill of [12003]	C18-20
13001	13	Light blueish grey with orangey mottling silty clay	Alluvium	C10-20
13001	13	Dark greyish brown clayey silt 0.35m thick	Topsoil	
14001	14	Light blueish grey with orangey mottling silty clay	Alluvium	
14001	14	Dark greyish brown clayey silt 0.38m thick	Topsoil	
15001	15	Dark greyish brown silty clay	Topsoil	
15001	15	Whitish grey silty clay with occ gravel 0.28m thick	Buried soil	
15002	15	Mid reddish brown silty sand/gravel	Natural	
15003	15	Rounded cut 2.2m+ long x 1m+ wide x 0.5m deep	Cut of pit	
	15	Very dark brown peat	Fill of [15004]	
15005				

Context	Trench	Description	Interpretation	Date
15007	15	Light greyish brown silty clay	Fill of [15004]	
15008	15	Dark greyish brown mottled yellow silty clay	Fill of [15004]	
15009	15	Whitish grey silty clay with occasional gravel-redeposited buried soil 0.2m thick	Fill of [15004]	
15010	15	Reddish brown silty sand/gravel 0.4m thick redeposited natural	Fill of [15004]	
16001	16	Cut of N-S aligned ditch 2.43m wide	Cut of ditch	C18-19
16002	16	Dark greyish brown clayey silt	Fill of [16001]	C18-19
16003	16	Dark greyish brown silty clay	Topsoil	
16004	16	Reddish orange silty gravel	Natural	
16005	16	NW-SE linear cut 0.27m wide x 0.33m deep	Cut of gulley	
16006	16	Dark greyish brown clayey silt 0.33m thick	Fill of [16005]	
16007	16	Light whitish orange clayey silt 0.15m thick	Buried soil	
16008	16	Light whitish grey sandy silt 0.2m thick	Buried soil	
16009	16	Light orangey grey silt 0.62m thick	Fill of [16010]	
16010	16	Rounded linear cut 1.5m wide x 0.7m deep	Cut of pit	
16011	16	Light yellowish grey sandy silt 0.35m thick	Fill of [16010]	
16012	16	Light whitish orange clayey silt 0.12m thick	Buried soil	
16013	16	Cut of small pit 0.88m wide and 0.23m deep	Cut of pit	
16014	16 16	Dark greyish brown silty clay 0.23m thick	Fill of [16013]	
16015	16	Cut of N-S angled gully 0.35m wide, 0.22m deep Dark grey sandy silt 0.22m thick	Cut of gully Fill of [16015]	
16016 16017	16	Light grey sandy silt 0.22m thick	Buried soil	
17001	17	Yellow sandy clay with frequent angular gravel	Natural	
17001	17	Light greyish white silty clay with occasional gravel 0.3m	Ivaturar	
		thick	Buried soil	
17003	17	Dark greyish brown peaty/clayey silt 0.15m thick	Peat layer	
17004	17	Blueish grey silty clay with occasional angular gravel 0.4m thick	Alluvium	
17005	17	Mid greyish brown clayey silt with occasional gravel up to 0.7m thick	Topsoil	
18001	18	Mid blueish grey clay	Alluvium	
18002	18	Rectangular vertical sided cut	Marling pit	
18003	18	Dark reddish grey silt	Fill of [18002]	
18004	18	Rectangular vertical sided cut	Marling pit	
18005	18	Dark grey silt	Fill of [18004]	
18006	18	Dark reddish brown silt 0.14m thick	Peaty layer	
18007	18	Dark grey silty clay with small flint pebbles 0.34m thick	Topsoil	
19001	19	Light blueish grey silty clay orange mottling	Alluvium	
19002	19	Mid greyish brown clayey silt with occ gravel 0.35m thick	Topsoil	
19003	19	Rectangular vertical sided cut 1.3m long, 0.85m wide 0.13m deep	Marling pit	C18/19
19004	19	Dark greyish brown peaty silt 0.13m thick	Fill of [19003]	C18/19
20001	20	Light greyish yellow orange sandy gravelly clay	Natural	
20002	20	Dark greyish brown clayey silt with occasional angular gravel 0.3m thick	Topsoil	
21001	21	Dark brown silty clay 0.36m thick	Topsoil	
21002	21	Greyish white silty clay with orange mottling 0.1m thick	Buried soil	
21003	21	Brownish orange silty sandy clay with frequent gravel	Natural	
21004	21	Orange clay	Natural	
21005	21	Cut of unknown shape 1.8m+ x 1m+ x 0.25m+ deep	Cut of pit	
21006	21	Mottled mid orange/mid grey silty clay 0.25m + thick	Fill of [21005]	
21007	21	Redeposited natural orange clay	Fill of [21005]	
22001	22	Mid orange silty clay	Natural	
22002	22	Light whitish grey with reddish mottling silty clay 0.1m thick	Buried soil	
22003	22	Mid greyish brown clayey silt 0.3m thick	Topsoil	
22004	22	Irregular cut 2m wide x 0.2m deep	Cut for hedge?	
22005	22	Mid to dark brown peaty silt 0.2m thick	Fill of [22004]	
23001	23	Light yellowish white silty clay 0.25m thick	Buried soil	
23002	23	Mid greyish brown silty clay/yellow mottling 0.3m thick	Alluvium	
23003	23	Dark greyish brown peat  Mid blueish grey clay 0.3m thick	Peat layer Alluvium	
23004		LIVITO DIBEISTI OTEV CIAV U AM INICK	ı Allııvilim	1

Context	Trench	Description	Interpretation	Date
23006	23	Dark brownish grey peaty silt 0.3m thick	Fill of [23008]	
23007	23	Mid greyish brown silty clay 0.3m thick	Alluvium	
23008	23	Rectangular steep sided cut 1m wide x 0.3m deep	Marling pit	
23009	23	Dark brownish grey peaty silt 0.3m thick	Fill of [23008]	
23010	23	Rectangular steep sided cut 1.2m wide	Marling pit	
23011	23	Dark grey peaty silt	Fill of [23010]	
23012	23	Corner of steep sided cut 0.4m wide x 0.25m deep	Marling pit	
23013	23	Mid greyish brown silty clay 0.25m thick	Fill of [23012]	
23014	23	Mid blueish grey clay	Alluvium	
24001	24	Mid greyish brown silty clay 0.35m thick	Topsoil	
24002	24	Mid orange gravelly clay	Natural	
25001	25	Dark greyish brown clayey sandy silt 0.24m thick	Topsoil	
25002	25	Mid orangey grey silty clay	Patchy buried soil	
25003	25	Mid orange gravelly clay	Natural	
26000	26	Dark greyish brown clayey sandy silt 0.3m thick	Topsoil	
26001	26	Orange brown gravelly clay	Natural	
26002	26	Light greyish brown gravelly clay	Buried soil remnant	
27001	27	Light grey gravelly silty clay	Buried soil	
27002	27	Dark greyish brown peaty silt 0.05m thick	Peat layer	
27003	27	Light blueish grey/orange mottling silty clay 0.1m thick	Alluvium	
27004	27	Mid greyish brown clayey silt 0.35m thick	Topsoil	Ì
27005	27	Rectangular cut, vertical sides 1.2m long, 0.8m wide 0.15m		
		deep	Marling pit	
27006	27	Mid reddish brown peaty silt 0.15m thick	Fill of [27005]	
27007	27	Rectangular cut 0.8m wide, 0.2m long, 0.15m deep	Marling pit	C19
27008	27	Mid reddish brown peaty silt 0.15m thick	Fill of [27007]	C19
27009	27	Rectangular cut 1.2m wide 0.15m deep	Marling pit	C18
27010	27	Mid reddish brown peaty silt 0.15m thick	Fill of [27009]	C18
27011	27	Rectangular cut 1.2m wide, 0.15m deep	Marling pit	C17/18
27012	27	Mid reddish brown peaty silt 0.15m thick	Fill of [27011]	C17/18
27013	27	N-S linear cut 0.5m wide, 0.2m deep	Cut of drain	C19/20
27014	27	Mid brownish grey clayey silt 0.2m thick	Fill of [27013]	C19/20
28000	28	Dark greyish brown sandy silt 0.6m thick	Topsoil	C17/20
28001	28	Mottled mid greyish/yellowish brown clay 0.2m thick	Buried soil	
28002	28	Light grey clay with orange mottles	Alluvium	
28003	28	Mid yellowish red sand and gravel	Natural	
28004	28	Light to mid grey silty clay with charcoal flecks 0.45m		
2000-1	20	thick	Fill of [28005]	
28005	28	SW-NE linear cut 1.85m+ long x 0.5m wide x 0.45m deep	Ditch terminus	
28006	28	Dark grey silty clay with frequent charcoal flecks 0.45m		
20000	20	thick	Fill of [28007]	
28007	28	Probable ovoid cut with steep sides 0.7m wide x 0.4m deep	Cut of pit	
29001	29	Mid brownish grey silty clay 0.34m thick	Topsoil	
29002	29	Mottled grey/orange clay	Alluvium	
30001	30	Yellowish reddish grey clayey silt	Natural	
30002	30	Whitish grey clayey silt with occasional charcoal flecks,		
20002		0.1m thick	Buried soil	
30003	30	Same as 30002	Buried soil	
30004	30	Shallow curvilinear cut 4m long, 0.38m wide 0.08m deep	Cut of gully	
30005	30	Mid yellowish brown clayey silt 0.08m thick	Fill of [30004]	
30005	30	Same as [30005]	Fill of [30004]	1
30007	30	Sub-oval cut 0.84m long x 0.42m wide x 0.12m deep	Cut of pit	
30007	30	Mottled mid grey/yellowish red silty clay 0.12m thick	Fill of [30007]	
30009	30	Curvilinear cut 0.7m wide x 0.16m deep	Cut of gully	<del>                                     </del>
30010	30	Mottled greyish brown/yellowish red clayey silt 0.16m	,	
20010	30	thick	Fill of [30009]	
30011	30	Mottled greyish/reddish brown clayey silt 0.08m thick	Fill of [30009]	<del>                                     </del>
30011	30	Mottled greyish/reddish brown clayey silt 0.1m thick	Fill of [30009]	
30012	30	Circular cut 0.22m diameter, 0.04m deep	Cut of post hole	
30013	30	Mid grey silty clay 0.04m thick	Fill of [30013]	1
20014	30	Dark greyish brown clayey silt 0.28m thick	Topsoil	
		Dark greyisii brown ciayey siit 0.2011 tilick	1 opson	ļ
30015		Sub ovel out 1 2m v 0.5m v 0.15m deer	Cut of nit	
	30 30	Sub-oval cut 1.2m x 0.5m x 0.15m deep  Mid brownish grey clayey silt 0.15m thick	Cut of pit Fill of [30016]	

		Description	Interpretation	Date
30019	30	Dark greyish brown silty peat 0.1m thick	Peat layer	
30020	30	Struck flints found on natural 10-20m from s. end of trench	Finds	
31001	31	Dark brown silty clay 0.3m thick	Topsoil	
31002	31	Mid blueish grey clay 0.95m thick	Alluvium	
31003	31	Dark brown peat with wood frags 0.85m thick	Peat	
31004	31	Mid greyish blue clay 0.35m thick	Alluvium	
31005	31	Clacky mid orange gravels and clays at 2.45m depth	Natural	
31006	31	Mid greyish yellow clayey silt 0.35m thick	Roddon	
32001	32	Mid blueish grey silty clay	Alluvium	
32002	32	Dark brownish grey peaty silt 0.1m thick	Peat layer	
32003	32	Mid greyish brown clayey silt 0.3m thick	Topsoil	
33001	33	Dark brown silty clay 0.4m thick	Topsoil	-
33002	33	Mid blueish grey clay 0.95m thick	Alluvium	_
33003 33004	33	Light grey clay 0.35m thick	Alluvium	
		Dark brown peat with high wood content 0.6m thick	Peat layer	_
33005	33	Mid greyish blue clay 0.1m thick	Alluvium	_
33006	33 34	Mid orange gravel/clay at 2.4m depth	Natural Natural	_
34001 34002	34	Light greyish yellow gravelly clay Light whitish grey clayey silt with occasional gravel 0.25m		
		thick	Buried soil	
34003	34	Dark greyish brown peaty silt 0.15m thick	Peat layer	
34004	34	Light blueish grey silty clay 0.1m thick	Alluvium	
34005	34	Dark greyish brown clayey silt 0.3m thick	Topsoil	
35000	35	Dark greyish brown silt 0.4m thick	Topsoil	
35001	35	Pale grey clay 0.11m thick	Alluvium	
35002	35	Dark greyish brown organic silt up to 0.1m thick	Layer	
35003	35	Dark brown silt 0.21m thick	Fill of [35004]	
35004	35	Curvilinear cut 1.4m long x 0.6m wide x 0.22m deep	Cut of gully	
35005	35	Dark greyish brown silty clay 0.09m thick	Fill of [35006]	-
35006	35	E-W linear cut 0.58m wide x 0.08m deep	Cut of gully	
35007	35	Light grey silty clay 0.27m thick	Buried soil	
35008	35	Mottled mid yellowish brown/greyish blue clay	Natural	
35009	35	Mid yellowish/reddish brown sand and gravel	Natural	
35010 35011	35 35	Dark grey silty clay 0.06m thick	Buried soil	_
36001	36	Mid greyish yellowish brown sandy clay 0.17m thick	Buried soil Buried soil	_
36001	36	Light whitish grey silty clay  Dark greyish brown clayey silt 0.35m thick	Topsoil	
36002	36	Surface finds in 0-5m from E end of trench	Finds	+
37001	37	Dark greyish brown clayey ilt 0.34m thick	Topsoil	
37001	37	Light brownish grey silty clay 0.15m thick	Buried soil	+
37002	37	Orange/light grey mottled clay with gravel patches	Natural	+
38001	38	Dark brown silty clay 0.35m thick	Topsoil	
38002	38	Dark brown sitty clay with peat 0.25m thick	Peat layer	
38002	38	Mid blueish grey clay 0.17m thick	Alluvium	
38003	38	Mid orange gravel/clay at 0.77m depth	Natural	
39001	39	Mid reddish yellow silty clay/gravel	Natural	
39002	39	Dark greyish brown clayey silt 0.31m thick	Topsoil	
39002	39	Amorphous cut	Tree root/animal	
-,000			burrow	
39004	39	Dark greyish brown clayey silt	Fill of [39003]	
40001	40	Mid reddish yellow silty clay/gravel	Natural	
40002	40	Dark greyish brown clayey silt 0.38m thick	Topsoil	
41000	41	Dark greyish brown silty clay 0.35m thick	Topsoil	
41001	41	Mid reddish brown/mid yellowish brown sandy clay	Natural	
41002	41	Light greyish brown sandy silty clay with frequent charcoal	Fill of [41004]	
41003	41	flecks 0.23m thick Dark brownish grey silty clay with very frequent charcoal		
		flecks and occasional flecks of burnt clay 0.59m thick	Fill of [41004]	
41004	41	E-W linear cut 1.4m long x 0.62m wide x 0.59m deep	Ditch terminus	
41005	41	Light to mid greyish brown clay with common charcoal flecks 0.2m thick	Fill of [41011]	
	l		<del> </del>	+
41006	41	Mid greyish reddish brown silty clay with occasional	Fill of [41011]	

Context	Trench	Description	Interpretation	Date
		flecks 0.22m thick		
41008	41	Mid yellowish brown clay with occasional charcoal flecks 0.34m thick	Fill of [41011]	
41009	41	Light greyish reddish brown silty clay 0.32m thick	Fill of [41011]	
41010	41	Mid greyish brown silty clay with occasional charcoal flecks 0.25m thick	Fill of [41011]	
41011	41	E-W linear cut 1.8m wide x 0.8m deep	Cut of ditch	
41012	41	Same as (42003)	Fill of [41013]	
41013	41	Same as (42004)	Cut of ditch	
42000	42	Dark greyish brown silty clay 0.35m thick	Topsoil	
42001	42	Mid reddish brown/mid yellowish brown sandy clay	Natural	
42002	42	Mid reddish greyish brown silty clay	Fill of [42004]	
42003	42	Mottled mid reddish brown/greyish blue/yellowish clay 0.32m thick	Fill of [42004]	
42004	42	Linear cut 2.3m wide x 0.3m deep	Broad linear feature	
43001	43	Dark brown silty clay 0.54m thick	Topsoil	
43002	43	Mid greyish yellow clayey silt with orange mottling 0.16m thick	Roddon	
43003	43	Mid blueish grey clay 1.5m thick	Alluvium	
43004	43	Clacky mid orange gravels and clay at 2.2m depth	Natural	

#### **Appendix 3: Lithic Assessment**

Barry Bishop May 2008

#### Introduction

A programme of fieldwalking, testpitting and Evaluation trenching at the above site resulted in the recovery of 234 struck flints and a small quantity of burnt flint fragments. This report quantifies and describes the material, and discusses its significance in understanding the chronology and nature of the activities represented.

#### Condition

Overall the material is in a good and often sharp condition although a high number, around a half of the flakes and blades, were broken and around a quarter exhibited fine edge chipping and abrasion. This would be consistent with an assemblage which was *in situ* or had not moved far from where originally discarded, but which had also experienced a limited degree of trampling and abrasion due to settling within the burial matrix. A few pieces exhibited more extensive damage, mostly after recordication and possibly arising from plough strikes or through activities such as pit digging etc.

The material was variably recorticated, ranging from completely absent to quite heavy. This variation may suggest that the assemblage had been manufactured over a period of time, rather than during a single period of occupation. However, variable recortication is a very unreliable indicator of age and no technological distinctions were apparent between the differentially recorticated pieces, suggesting that the assemblage belongs at least broadly to the same period.

#### Raw Materials

The colour of the flint could often not be ascertained due to the extent of recordication. The unrecordicated material, and those pieces with fresh breaks, indicates that a variety of coloured flint was used. Fine grained translucent black and grey flint seems to have been preferred, but also smaller amounts of opaque black, cherty grey and semi-opaque toffee coloured flint were used.

Cortex, where present, ranged from rough but weathered to smooth rolled, and a number of ancient thermal scars were also present. The raw materials used were predominantly small, thermally affected rounded to angular alluvial pebbles, which would have been available locally.

#### Quantification

	Decortication Flake	Core Tablet	rejuvenation	Flake	Flake Fragment	Cortical Blade	Blade	Blade-like Flake	Core	Chunk	Retouched	Micro-burin	Micro-shatter	Natural
No.	33	3	5	34	17	19	49	22	16	3	12	2	19	4
% Struck	14.1	1.3	2.1	14.5	7.3	8.1	20.9	9.4	6.8	1.3	5.1	0.9	8.1	

Table 1: Quantification of Lithic Material

The assemblage was technologically homogeneous and the product of a blade based reduction strategy, characteristic of Upper Palaeolithic to Early Neolithic industries, the dominance of small and narrow systematically produced blades suggested that most of the material probably dated to the Later Mesolithic (Table 1). Such a date is also confirmed by many of the retouched implements and the micro-burins, although the presence of a leaf-shaped arrowhead of Early Neolithic date indicates some later material is also present. A few thicker and shorter flakes may indicate some flintworking occurring later than this, although no diagnostically later pieces were present and if later flintworking is represented, it formed a very minor component of the overall assemblage.

Blades formed nearly 30% of the overall assemblage, to which may be added the blade-like flakes, which contributed nearly 10% more. The blades tended to be small and narrow. The great majority may be termed micro-blades, these consisting of blades less than 12mm wide. Virtually all had been systematically produced, having narrow and carefully trimmed striking platforms and parallel margins and dorsal scars.

Cores formed 6.8% of the assemblage, this relatively high figure at least partly reflecting the number recovered during fieldwalking, which is more likely to recover larger pieces such as cores, and these represented over 20% of the fieldwalked material. Conversely, cores only represented 3.3% of the material excavated from the test pits and evaluation trenches, a figure closer to that more typically recorded from non-activity specific lithic working sites.

Just over a third of the cores had single striking platforms (Clark *et al.* 1960 type A2), and these were closely followed by two-platformed cores, mostly opposed platformed types (type B1) with one having platforms at right angles (type B3). A single multi-platformed core (type C) was present, the others consisting of minimally worked, 'testing nodules', which had been abandoned at an early stage due to the development of thermal flaws. All of the more extensively reduced cores showed some evidence of having produced blades, several being dedicated micro-blade cores and many exhibited careful trimming along the striking platform/core face edge and attempts at rejuvenation by removal of failing striking platforms or problematic core faces. Most had been abandoned due to the presence of thermal flaws and partial disintegration, a few due to the development of severe hinge fractures. They were all small, the largest weighed just 132g, they averaged 43g and several of the more extensively reduced examples weighed under 20g at discard.

Much of the assemblage consisted of knapping waste, there was a high proportion of decortication flakes present, and around a third of the blades retained some cortex. Many of the flakes were small and probably arose from trimming the core, and the presence of micro-shatter, tiny flakes and flake fragments, indicate core working in the vicinity. Core rejuvenation flakes represented 3.4% of the assemblage, indicating a great concern with prolonging the cores' working lives, and there were also some indications that cresting was practiced, although this does not appear to have been routinely attempted. The number of core rejuvenation flakes combined with the great extent to which most of the cores had been reduced suggests that raw materials may have been at a premium. Although flint would have been easily obtained in the vicinity, much of this would have been of limited knapping quality and when good pieces were encountered, it appears that the most was made of them.

Type	Arrowhead	Burin	Edge	Microlith	Piercer	Scraper	Serrate	Truncated
			trimmed					Blade
No.	1	2	1	1	1	3	2	1

Table 2: Retouched Implements

Eleven retouched implements were recovered, representing a relatively high 5.1% of the overall assemblage. A wide variety was present (see Table 2). Scrapers were marginally the most frequent type and typically showed much variation; a broken piece that may have been a long-end scraper, a slightly 'nosed' scraper made on a core tablet and a convex scraper made on a thermal potlid spall all present. The serrates were all made on blades, one was heavily worn whilst the other had a short stretch of serrations along one edge, and may have been abandoned before being finished. The burins both consisted of longitudinally spalled types, one having a worn and rounded working edge. The piercer consisted of a sturdy blade with inverse retouch around its distal end forming a chisel-like edge, which may have been used more like a burin than a point. The truncated blade was a distal blade segment with a sinuously worked truncation forming a point, and the edge trimmed implement consisted of a relatively large cortical flake with inverse retouch along one edge. The microlith consisted of a simple obliquely truncated point of Jacobi's (1976) type 1a. It was broken but measured over 25mm long by 9mm wide and 3mm thick. Although technically a broad blade microlith, typical of Early Mesolithic assemblages (Switsur and Jacobi 1979), this one falls within the size and shape ranges consistent with Later Mesolithic assemblages, as established by Pitts and Jacobi (1979, 169-70: fig 5). The arrowhead was a finely made leaf-shaped type with all-over invasive thinning and it had its very tip broken off. It measured >33mm X 20mm X 4mm and would conform to Green's type 3Bp (1980, fig 28, table II.18), these being the commonest types found in East Anglia (ibid. table IV.1).

In addition to the retouched implements, a flake with a very acute, faceted striking platform with a pronounced lip, and numerous shallow, multidirectional dorsal flakes, was recovered from context [30010]. It represents a flake from axe manufacturing, either from thinning a flaked axe or, quite possibly, from sharpening a transverse axe.

## Distribution

The material forms two broad clusters, located on the north and the south side respectively of a palaeochannel. The fieldwalked material (Fig 15) principally came form the southern side and this tended to cluster towards the southwest of the investigated field, with a few outliers scattered across the rest of it. This distribution is also reflected in the excavated material from the test pits and evaluation trenches.

Most of the flintwork, over 80% of the excavated material, came from the southern side of the palaeochannel, with possible clusters being present in the vicinities of Trenches 16/21 and 30, with the density of flint trailing off away from these. Most of the material came from a buried soil preserved

along the edge of the channel, or from within features recorded beneath it. However, the features may have originally cut through a contemporary soil which would later continue to form over the infilled cut. Although some of these features contained substantial quantities of flint, pit [21005] produced 69 pieces and 17 came from pit [16010], none of this refitted, it was in a variable condition and a mix of raw material types were present. There was no evidence for *in situ* knapping and it is perhaps most likely that this material was residually introduced into later features. They do, however, reveal a density of flintwork in those areas. On the north side of the palaeochannel the material appeared more evenly distributed, with the greatest number of pieces coming from Test pit 43, which provided 5 pieces.

No differences in the technological traits of the material from either side of the channel could be identified and they appear at least broadly contemporary. The technological make-up, or 'signature', of both assemblages also appear broadly comparable, and it appears that raw materials were prepared and reduced, and tools made and discarded, on both sides. The size of the assemblages, particularly that from the northern side, means that any potential smaller-scale variations would probably not be apparent and larger assemblages would be required in order to adequately establish and compare the precise nature and dating of the activities represented.

On both sides of the channel there was no clear patterning evident in the distribution of the types of pieces present. The decortication flakes, which represent the initial working of cores, the cores themselves, which represent discarded waste materials, and retouched pieces, which represent tool use, all appear to be distributed randomly within the overall scatters and no obvious concentrations, or 'zonings', of any particular types could be identified. The relatively small quantities recovered so far would, however, make it difficult to identify any individual knapping scatters or zones where specific activities were undertaken. It is clear, however, that a relatively dense concentration of flintwork does exist on both sides of the channel.

#### Discussion

The assemblages from all areas examined represented both lithic reduction and tool use. It was technologically homogeneous and principally geared towards the manufacture of small systematically produced blades, these being most typical of Later Mesolithic industries, a date confirmed by the microlith, micro-burins and some of the other retouched pieces. The presence of leaf-shaped arrowhead would indicate activity continuing in to the Early Neolithic. It has been suggested that in the Fens, characteristic Mesolithic and Early Neolithic implements are often found juxtaposed, and this may indicate not just chronologically mixed assemblages, but a final, transitional stage between the Mesolithic and Neolithic periods (Reynolds and Kaner 2000). This could be the case here although it is equally possible that the arrowhead represents a stray loss, perhaps whilst hunting along the river margins, that occurred some time after the main phase of Mesolithic occupation.

The distribution of the material indicates that possible clustering maybe occurring, perhaps representing palimpsests of overlapping knapping events or activity foci, although this would need to

be tested by further investigations. The assemblage as a whole indicates that raw materials were procured and reduced, and tools made and used. The range of tools present would indicate varied activities were undertaken, this includes, but is not limited to, microlith manufacture and microlithic tool-kit repair, and although the assemblage as recovered so far is not large, it is perhaps most characteristic of 'home base' occupation rather than task-specific activities. The few pieces of burnt flint recovered may indicate that the lithic using activities were accompanied with hearth use.

The activities appear to concentrate along the banks of a palaeochannel, perhaps on islands in the palaeo-Nene. The distribution of the material and its topographical setting is very comparable to other sites excavated along the river margins of the southern Fens (Reynolds and Kaner 2000; M Knight pers comm.) as well as further afield, such as at Fiskerton in the Witham valley (Rylatt 2004)

#### Bibliography

- Clark, J.G.D., Higgs, E.S. and Longworth, I.H. 1960 Excavations at the Neolithic Site at Hurst Fen, Mildenhall, Suffolk (1954, 1957 and 1958). Proceedings of the Prehistoric Society 26, 202 - 245.
- Green, H.S. 1980 The Flint Arrowheads of the British Isles: a detailed study of material from England and Wales with comparanda from Scotland and Ireland: Part I. British Archaeological Reports (British Series) 75.
- Jacobi, R, 1976 The Mesolithic of Sussex, in P L Drewett (ed), Archaeology in Sussex to AD 1500, CBA Res Rep, 29, 15--22
- Pitts, M.W. and Jacobi, R.M. 1979 Some aspects of change in flakes stone industries of the Mesolithic and Neolithic in southern Britain, *J Archaeol Sci*, 6, 163-77
- Reynolds, T. and Kaner, S. 2000 The Mesolithic of Southern Fenland: a review of the data and some suggestions for the future. In: R. Young (Ed.) *Mesolithic Lifeways: current research from Britain and Ireland*, 191 197. Leicester Archaeology Monograph 7.
- Rylatt, J. 2004 Witham Valley, Fiskerton, Lincolnshire (FWV 03). Lithic Materials: assessment. Unpublished Archive Report.
- Switsur, V.R. and Jacobi, R.M. 1979 A radiocarbon chronology for the early postglacial stone industries of England and Wales, in R Berger & H E Suess (eds), *Radiocarbon Dating*, Berkeley & London: University of California Press, 42--68

## Appendix 4

# THE FINDS

#### INTRODUCTION

Pottery, fired clay, ceramic building material, charcoal, stone, clay pipe and glass were recovered from the site. The majority of this material dates to the medieval period or later. Of note are four small and abraded sherds from (16011) and (21006). The sherd from the former is certainly pottery although the three fragments from (21006) may be fired clay; these are tentatively identified as Prehistoric although their condition prevents confirmation of this identification.

#### POST ROMAN POTTERY

By Anne Boyle

#### Introduction

All the material was recorded at archive level in accordance with the guidelines laid out in Slowikowski *et al.* (2001). The pottery codenames (Cname) are in accordance with the Post Roman pottery type series for Lincolnshire, as published in Young *et al.* (2005) and the Cambridgeshire equivalents are listed in Table 1. Two investigations were carried out; the evaluation produced a total of 23 sherds, from 21 vessels weighing 126 grams and the field walk 12 sherds from 12 vessels, weighing 594 grams

## Methodology

The material was laid out and viewed in context order. Sherds were counted and weighed by individual vessel within each context. The pottery was examined visually and using x20 magnification. This data was then added to an Access database. An archive list of the pottery is included in Archive Catalogue 1 and a summary is included in Table 1. The pottery ranges in date from the medieval to the early modern period.

#### **Condition**

Pottery from the excavation was in fairly fresh condition, although the average sherd weight is low at five grams. The material from field walking is in variable condition, with a mix of small, abraded

sherds and larger, fresher sherds. A single large fragment accounts for the high average sherd weight of 49 grams.

## **Results**

Table 1, Summary of the Post Roman Pottery Archive

Cname	Full name	Cambs	Earliest	Latest	E۱	/ALUATI	ON	F	IELDWAI	_K
		cname	date	date	NoS	NoV	W (g)	NoS	NoV	W (g)
BERTH	Brown glazed earthenware	PMR	1550	1800	3	3	30	1	1	10
BONC	Bourne/Colne Type ware	BONC	1450	1650				1	1	38
BOUA	Bourne-type Fabrics A, B, C, E, F and G	BONA	1150	1400	1	1	10	3	3	76
BS	Brown stoneware	ENGS	1680	1850	1	1	4			
CREA	Creamware	CREA	1770	1830	1	1	1			
ELY	Ely-type ware	MEL	1175	1350				1	1	4
EMHM	Early Medieval Handmade	EMW	1100	1250				1	1	14
	ware									
FREC	Frechen stoneware	FREC	1530	1680				1	1	38
GRE	Glazed Red Earthenware	GRE	1500	1650	2	2	29	2	2	45
MISC	Unidentified types	-			5	4	5			
NCBW	19th-century Buff ware	-	1800	1900	1	1	1			
PEARL	Pearlware	PEARL	1770	1900	4	3	14			
SLIP	Unidentified slipware	STSL	1650	1750	1	1	27			
SWSG	Staffordshire White Salt glazed	-	1700	1770	3	3	3			
	stoneware									
TOY	Toynton Medieval Ware	TOYN	1250	1450				2	2	369
TPW	Transfer printed ware	TRANS	1770	1900	1	1	2			
				TOTAL:	23	21	126	12	12	594

# **Provenance**

## Evaluation

Most of the pottery is from the backfills of marling pits in trenches 9, 19 and 27. Pottery also came from Pit [16010] and [21005] in trenches 16 and 21, and ditches [9005] and [12003] in trenches 9 and 12. An early modern sherd was associated with modern drain [27013] in trench 27. All of the pottery appears to represent accidental or gradual accumulation in these modern features; none of the material is indicative of primary deposition.

## Field walk

Twelve sherds were recovered during field walking.

## Range

The range of medieval ware types is similar to other assemblages from the area and includes locally produced wares alongside regional imports from Lincolnshire. The post medieval and early modern pottery is again typical for Cambridgeshire; a single Frechen vessel is the only continental import.

## **Potential**

The pottery poses no problems for long-term storage and should be retained. The assemblage does not require further work.

## **Summary**

A small assemblage of pottery was recovered from excavation and field walking at the site. The amount of material is too small to draw many conclusions, other than it indicates medieval, post medieval and early modern activity occurred in the vicinity.

#### CERAMIC BUILDING MATERIAL

By Anne Boyle

#### Introduction

All the material was recorded at archive level in accordance with the ACBMG guidelines (2001). A total of seven fragments of ceramic building material, weighing 318 grams were recovered from excavation and a field walk at the site.

## Methodology

The material was laid out and viewed in context order. Fragments were counted and weighed within each context. The ceramic building material was examined visually and using x20 magnification. This data was then added to an Access database. An archive list of the ceramic building material is included in Table 2.

### **Condition**

The ceramic building material is represented by flakes and abraded material. No diagnostic features are present, although the brick does all appear to be handmade. The average fragment weight is 45 grams.

### Results

Table 2, Ceramic Building Material Archive

Cxt	Cname	Full name	Fabric	NoF	W (g)	Description	Date
p128	PNR	Peg, nib and ridge tile	Oxidised smooth + ca	1	55	Flat roofer; mortar; cut to shape pre-firing; leached; BONC fabric	14th to 16th
p162	MODTIL	Modern tile	Light firing	1	32	Curved; abraded	19th to 20th
9008	BRK	Brick	Vitrified	1	16	Sand moulded; corner; burnt; handmade	18th to 19th
12006	MODDRAIN	Modern drain		1	40		18th to 20th
16002	BRK	Brick	Vitrified	1	61	Flake; handmade	18th to 19th
16002	BRK	Brick	Oxidised; fine sandy	1	113	Abraded; fenland brick; handmade	14th to 18th
27014	CBM	Ceramic Building Material (generic)		1	1	Flake; burnt	19th to 20th

### **Provenance**

## Evaluation

Brick and tile came from marling pit [9009], ditch [16001], pit [21005] and modern drain [9005]. It is likely all of the ceramic building material was deposited during backfilling of these features.

### Field walk

Two fragments of tile were recovered during field walking.

## Range

Most of the brick and tile is modern in date, although two fragments of earlier material (p128) and (16002) are present.

### **Potential**

The brick and tile poses no problems for long-term storage and some fragments are suitable for discard. The assemblage does not require further work.

## **Summary**

A small collection of brick and tile was recovered from the site, most of which dates from the 18th to the 20th century,

### FIRED CLAY

By Anne Boyle

### Introduction

All the material was recorded at archive level in accordance with the ACBMG guidelines (2001).

## Methodology

The material was laid out and viewed in context order. Fragments of fired clay were counted and weighed within each context. This data was then added to an Access database. An archive list of the fired clay is included in Table 3.

### **Condition**

The fragments are small flakes and lack diagnostic features.

## Results

Table 3, Fired Clay Archive

Cxt	Fabric	NoF	W (g)	Description
21006	OX/R; light firing	3	1	Flakes

#### Provenance

All the fragments of fired clay came from pit [21005] in trench 21.

## **Potential**

The fired clay poses no problems for long-term storage and the assemblage does not require further work.

## **Summary**

Three fragments of non-diagnostic fired clay were recovered from a single context.

## **GLASS**

By Gary Taylor

## Introduction

A single piece of modern glass weighing 3g was recovered.

### **Condition**

The glass is in good, archive-stable condition.

## **Results**

Table 4, Glass Archive

Cxt	Description	NoF	W (g)	Date
16002	Colourless bottle glass	1	3	20th century

### **Provenance**

The glass was recovered from a ditch fill.

## **Potential**

As a single modern artefact the glass has negligible potential, other than providing dating evidence.

## **CLAY PIPE**

By Gary Taylor

#### Introduction

Analysis of the clay pipes followed the guidance published by Davey (1981) and the material is detailed in the accompanying table.

### **Condition**

All the clay pipe is in good condition and presents no problems for long-term storage.

## **Results**

Table 5, Clay Pipe

Context	Bore	diamete	r /64"			NoF	NoF W(g) Comments		Date
no.	8	7	6	5	4				
9006			1			1	5	Stem only	17 <sup>th</sup> century
9010			1	1		2	7	Stems only, 5/64" glazed yellowish	18 <sup>th</sup> century
19004		1			1	2	6	Stems only; mixed	19 <sup>th</sup> century
27010					1	2	3	Stem and bowl fragment, 17 <sup>th</sup> century type; mixed	19 <sup>th</sup> century
Totals		1	2	1	2	7	21		

### **Provenance**

All of the clay pipe fragments were recovered from marling pit fills (9006, 9010, 19004 27010). Almost half the clay pipe came from a single trench (Trench 9).

## Range

Mostly stems were recovered and one was partially glazed, indicating it was toward the mouthpiece. One piece of bowl, a thick example of 17<sup>th</sup> century type, was also recovered.

## **Potential**

Other than providing dating evidence the clay pipe is of limited potential.

## **OTHER FINDS**

By Gary Taylor

### Introduction

A mixed group of other finds, mostly stone and fire residues, comprising 8 items with a total weight of 180g, was recovered.

## **Results**

Table 6 Other Materials

Cxt	Material	Description	NoF	W (g)	Date
2005	stone	Schisty stone, looks to have been cut/shaped	1	155	
9010	stone	Burnt stone	1	6	
12006	charcoal	charcoal	1	2	
19004	coal	coal	1	4	
27010	iron	nail	1	7	
27010	coal	coal	2	5	
30003	stone	slate	1	1	
Totals			8	180	

## **Provenance**

The other finds were recovered from animal/root disturbance (2005), marling pit fills (9010, 19004, 27010), ditch fill (12006) and a buried soil (30003).

## Range

Stone and fire residues were found, as well as an iron nail.

## **Potential**

As a small mixed group of undatable material the assemblage of other finds has negligible potential. The fire residues occur disparately, so are unlikely to indicate any localised burning.

### **SPOT DATING**

The dating in Table 7 is based on the evidence provided by the finds detailed above.

*Table 7, Spot dates* 

Cxt	Date	Comments
9004	18th	
9008	18th to 19th	
12006	18th to 20th	Date on CBM
16002	18th to 19th	Date on CBM
16011	-	Contains non-diagnostic pottery
19004	18th to 19th	
21006	-	Contains non-diagnostic pottery
27008	19th	
27010	18th	
27012	17th to 18th	Date on a single sherd
27014	19th to 20th	СВМ

## **ABBREVIATIONS**

ACBMG	Archaeological Ceramic Building	NoF	Number of Fragments
	Materials Group	NoS	Number of sherds
BS	Body sherd	NoV	Number of vessels
CBM	Ceramic Building Material	TR	Trench
CLAU	City of Lincoln Archaeology Unit	UHJ	Upper Handle Join
CXT	Context	W(g)	Weight (grams)
LHJ	Lower Handle Join		

## **REFERENCES**

- ~ 2001, Draft Minimum Standards for the Recovery, Analysis and Publication of Ceramic Building Material, third version [internet]. Available from <a href="http://www.geocities.com/acbmg1/CBMGDE3.htm">http://www.geocities.com/acbmg1/CBMGDE3.htm</a>
- Davey, P. J., 1981, Guidelines for the processing and publication of clay pipes from excavations, *Medieval and Later*Pottery in Wales 4, 65-88
- Lyman, R. L., 1996, Vertebrate Taphonomy, Cambridge Manuals in Archaeology (Cambridge)
- Slowikowski, A. M., Nenk, B., and Pearce, J., 2001, *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics*, Medieval Pottery Research Group Occasional Paper 2
- Young, J., Vince, A.G. and Nailor, V., 2005, A Corpus of Saxon and Medieval Pottery from Lincoln (Oxford)

## **ARCHIVE CATALOGUES**

Archive catalogue 1, Post Roman Pottery

Cxt	Cname	Fabric	Form	Part	NoS	NoV	W (g)	Decoration	Description	Date
12006	BERTH	Oxidised; fine sandy	Jar	BS	1	1	14		Abraded; fe spots in glaze	Late 16th to 17th
16011	MISC	Reduced; fine sandy + flint	?	BS	1	1	1		Very abraded	-
19004	BS		Hollow	BS	1	1	4			18th to 19th
19004	GRE	Oxidised; medium sandy	Bowl	BS	1	1	8		External soot	16th to 17th
19004	MISC	OX/R/OX; medium sandy	?	BS	1	1	1		Very abraded	-
19004	SWSG		Small hollow	Base	1	1	1		Footring	18th
19004	SWSG		Small jar?	Rim	1	1	1	Horizontal neck cordon		18th
21006	MISC	OX/R; light firing + flint	?	BS	1	1	1		Flake; prehistoric or fired clay?	-
21006	MISC	Reduced	?	BS	2	1	2		Leached; burnt; soot; fe concretion; prehistoric?	-
27006	NCBW		?	BS	1	1	1		Flake	19th
27008	CREA		?	BS	1	1	1		Flake	Mid 18th to 19th
27008	PEARL		Open	Base	1	1	3	Green transfer print	Footring	19th
27010	BERTH	Oxidised; medium sandy	Jar	BS	1	1	3		Fe spots in glaze	Late 16th to 17th
27010	PEARL		Small hollow	Rim	1	1	1	Blue hand painted design		Mid to late 18th
27012	GRE	Oxidised; medium sandy	Jar/ bowl	Base	1	1	21		Abraded; fe spots in glaze	17th to 18th
27014	TPW		Hollow	Rim	1	1	2	Blue transfer print	Abraded	Early to mid 19th
9004	BERTH	Oxidised; medium sandy + flint	Bowl	BS	1	1	13		Salt surfaces, fe spots in glaze	Late 16th to 17th
9004	SWSG		?	BS	1	1	1			18th
9008	BOUA	В	Jar	BS	1	1	10		Internal soot; abraded	Late 12th to 14th
9008	PEARL		Cup	Rim + BS	2	1	10	Hand painted flora and fauna design		Mid to late 18th
9008	SLIP	Oxidised; coarse sandy	Bowl?	BS	1	1	27	Yellow slip wavy line	Abraded	18th

p031	BOUA	A/C	Jug	BS	1	1	3		Very abraded; possibly not Bourne product; light firing	13th to 14th
p037	EMHM	Fulbourn fabric 8	?	BS	1	1	14		Very abraded	Mid 11th to Early 13th
p063	TOY		Jug	Base	1	1	262		Internal reduced glaze; spalled; external trimming	13th to 14th
p096	FREC		Bottle	Base	1	1	38		Worn basal angle	16th to 17th
p110	BONC	Sandy	Pipkin	Handle	1	1	38		Abraded; Colne?	14th to 16th
p137	BOUA	A/B	Jug	Handle	1	1	31		U shaped handle; fe concretion; light firing; misfired	13th to 14th
p150	GRE	Oxidised; fine sandy	Jar	Rim	1	1	27		Abraded; inturned hollow rim	17th to 18th
p172	BERTH	Oxidised; medium sandy	Jar/ bowl	Rim	1	1	10		Abraded; soot; everted rim	16th to 17th
p198	TOY		?	BS	1	1	107		Think fabric possible tile; ?ID; reoxidised; unusual	17th to 18th
p230	ELY		?	BS	1	1	4		Very abraded	Late 12th to 14th
p286	GRE	Oxidised; medium sandy	Jar	Rim	1	1	18		Abraded	17th to 18th
p299	BOUA	A/B	Jug	Handle	1	1	42	Stabbing down centre of handle	Strap handle; very abraded; reoxidised; ?ID	13th to 14th

#### **Appendix 5:**

# AN EVALUATION OF THE CHARRED PLANT MACROFOSSILS AND OTHER REMAINS FROM GAUL ROAD, MARCH, CAMBRIDGESHIRE (MAGR 08)

Val Fryer, Church Farm, Sisland, Loddon, Norwich, Norfolk, NR14 6EF May 2008

#### **Introduction and method statement**

Evaluation excavations at Gaul Road, March, undertaken by Archaeological Project Services, recorded pits, ditches and other discrete features of probable prehistoric date. Samples for the evaluation of the content and preservation of the plant macrofossil assemblages were taken, and six were submitted for assessment.

The samples were processed by manual water flotation/washover and the flots were collected in a 500 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x 16 and the plant macrofossils and other remains noted are listed on Table 1. Nomenclature within the table follows Stace (1997). With the exception of more recent mineral replaced root fragments, all plant remains were charred. Modern contaminants including fibrous roots and fungal sclerotia were noted throughout.

A further fifty seven samples were taken for the retrieval of microliths and other small pieces of worked flint. These were wet sieved through a 500 micron mesh sieve and all residues were retained for sorting. The latter work will be undertaken by Archaeological Project Services, along with the sorting of the six residues from the flotation samples.

#### Results

Although charcoal/charred wood fragments are present throughout, other plant macrofossils are exceedingly scarce. Hazel (*Corylus avellana*) nutshell fragments are present within the assemblages from samples 3 (feature {30007]) and 5 (buried soil [16008]), and some pieces from sample 5 have been separated into a glass vial for potential C14/AMS dating. Small pieces of charred root/stem are also recorded along with three indeterminate charred seeds. All six assemblages contain fragments of mineral replaced roots and/or mineralised root channels, and some mineral concretions are present on many of the charcoal fragments.

## Conclusions and recommendations for further work

In summary, the assemblages are all small (<0.1 litres in volume) and somewhat sparse, and the origin of the material is generally unclear. Hazel nutshell fragments are often noted within prehistoric assemblages and, as appears to be the case with the current material, most are thought to be derived from the charred remains of incidental 'snacks'.

As none of the current assemblages contain sufficient material for quantification (i.e. 100+ specimens), additional analysis will not be required at present. However, if further excavations are proposed within this area of March, it is essential that additional plant macrofossil samples of approximately 20 – 40 litres in volume are taken from all recorded features. Analysis of the recovered plant remains (including the identification of charcoal) could potentially provide valuable data about the local environment during the prehistoric period and also pinpoint additional material suitable for dating. **Important note:** as a result of the natural mineral coating of the macrofossils within the current assemblages, it is possible that some plant materials may still be retained within the non-floating residues. If any are noted during the sorting process, they should be removed and submitted for evaluation at the earliest possible date.

## Reference

Stace, C., 1997

New Flora of the British Isles. Second edition. Cambridge University Press

## **Key to Table**

x = 1 - 10 specimens xx = 10 - 50 specimens xxx = 50 - 100 specimens cf = compare Feat. = feature B.soil = buried soil

Sample No.	1	2	3	4	5	7
Context No.	28006	28004	30008	30010	16008	41003
Feature No.	28007	28005	30007	30009		41004
Feature type	?Feat.	?Feat.	Feat.	Linear	B.soil	Ditch
Plant macrofossils						
Corylus avellana L.			xcf		XX	
Charcoal <2mm	Х	XXX	XXX	XX	Х	XXX
Charcoal >2mm			Х	Х		XX
Charred root/stem		Х	Х		Х	X
Indet.seeds			Х	Х		Х
Other materials						
Black porous 'cokey' material						X
Black tarry material	Х		Х			X
Mineralised soil concretions				XX	XX	
Mineral replaced roots/root channels	XX	XX	Х	х	XXX	XX
Small coal frag.					х	
Sample volume (litres)	10	20	20	20	20	20
Volume of flot (litres)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
% flot sorted	100%	100%	100%	100%	100%	100%

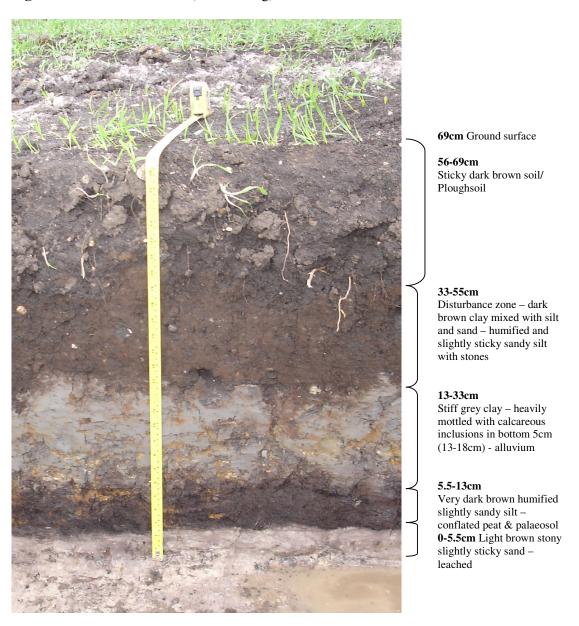
Table 1. Charred plant macrofossils and other remains from Gaul Road, March, Cambridgeshire.

#### 1

# Appendix 6: Site visit, auger transect and preliminary pollen assessment at Gaul Road, March, Cambridgeshire (MAGR08)

The archaeological evaluation site at Gaul Road, March, being investigated by Archaeological Project Services in advance of proposals for a new housing development, was visited on March 18<sup>th</sup>, 2008. The EAC was specifically asked to consider and report on the sediments and organic deposits revealed in several of the evaluation trenches, an example of which is illustrated in Fig. 1. The site includes a small fen embayment opening westwards with Neolithic/Mesolithic flint scatters on each side of the mouth of the bay.

**Figure. 1**. Section Trench 17 (West-facing)



It was clear that the trenches lying in the valley floor were not bottomed and it was decided to conduct a short auger transect across the valley between Trenches 23 and Trench 10. Five boreholes were laid out at approximately 25m intervals and cored to the underlying geology.

A sixth core was recorded on the valley floor at the east end of the site. The results were used to reconstruct a profile of the deposits infilling the valley floor.

## **Auger Transect**

Coring was carried out using a 1 metre long 25mm diameter hand operated gouge auger, and deposits were cored to underlying gravels or till. The line of the auger transect is shown in Fig. 2. The core logs are presented in the Appendix and the reconstructed profile in Fig. 3.



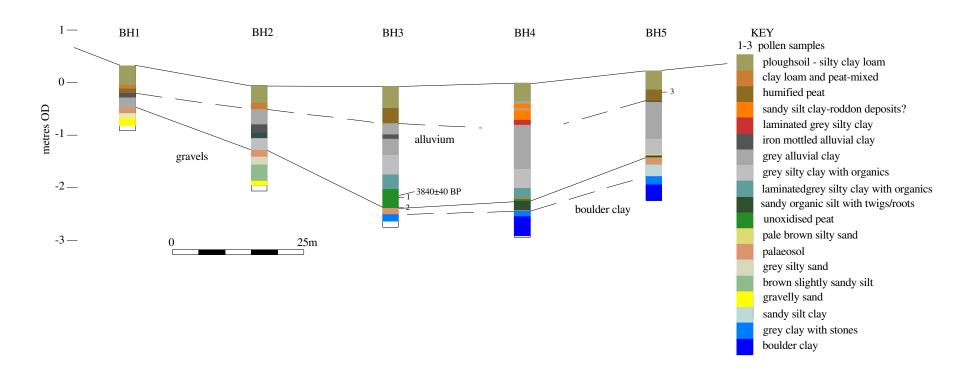
**Figure 2**. The line of five boreholes is laid out northwards from BH1 just by the white tub. The trench in the foreground is Trench 23 and those in the background Trenches 18 and 10. The land drops 0.4m between BH1 in the foreground and BH3 fifty metres to the north.

The geology differs across the site. The south side is underlain by gravels, while the north side is underlain by chalky till reflecting the edge of the 'island' on which March sits. The underlying slope is greater on the south side of the site. A palaeosol horizon was recognised in most of the auger holes overlying the drift geology and is present at the base of the sequence in Fig. 1 overlying the leached sands at 0-5.5cm. On the floor of the valley at a depth of over 2.00m reed peats and organic silts overlie the palaeosol at approximately -2.4m OD. It is possible that the base of BH4 (Fig. 3) where dark grey brown silty peat and fine sand occur may mark a disturbed former stream edge environment. The 0.3m of reed peat visible in BH3 appears truncated to no more than 0.05m in BH4. In BH5 there is a thin organic horizon overlying the palaeosol, but in BH1 and 2, this is absent except for traces of organics in the overlying alluvial clay.

Laminated silty clays above the organic sediments in BH3 and 4 reflect fluctuating water levels which may correspond to an episode of marine transgression in the fens to the west. These grade into grey alluvial clays which occur across the whole transect and suggest saltmarsh and upper saltmarsh sediments and reach a height of -0.21m OD in BH1. In BH4 the upper part of the sequence includes laminated slightly sandy clayey silts which reflect the presence of a roddon which could be traced in several of the evaluation trenches. In the other boreholes the alluvial clays are overlain by a very humified peaty layer visible in Fig. 1 immediately below the ploughsoil, and lying between -0.8 (base in BH3) and 0.11m OD (top in BH1). This represents an episode of permanent waterlogging on the valley floor but the deposits are now dried and extremely humified probably as a result of recent drainage. There is no stratigraphic relationship to indicate whether the roddon deposits or the peats came first.

Fig. 3. Gaul Road, March – Reconstructed profile across the valley floor.

18/08/2008



Borehole 6 (BH6) was cored to the east end of the site in the lowest part of the field. With a similar sequence to the transect cores the lower organic deposit is humified and includes chalk (see Appendix), overlying a chalky sandy silt interpreted as the palaeosol. The overlying grey clays are also calcareous indicating a much greater calcium carbonate content in the sediments in this area, presumably incorporated from the underlying chalky till deposits.

Two radiocarbon samples were taken from the deposits in BH3, one a hazelnut shell at a depth of 208cm and a piece of wood at 226cm. The latter was not positively identified as stem wood rather than root wood so the hazelnut shell was selected for radiocarbon dating. In addition three pollen samples were collected (numbered 1-3 on Fig. 3) in order to establish the presence and condition of any pollen in the deposits.

## **Radiocarbon Result**

A sample of hazelnut shell from approximately 20cm above the base of the organic sediments in Borehole 3 was submitted for radiocarbon dating to Beta Analytic Inc. of Florida and the following result was obtained.

Sample Data	Measured Radiocarbon Age	13C/12C Ratio	Conventional Radiocarbon Age(*)
Beta - 244195 SAMPLE : MAGR08-BH3-208cm	3900 +/- 40 BP	-28.4 o/oo	3840 +/- 40 BP
ANALYSIS: AMS-Standard deliver MATERIAL/PRETREATMENT: ( 2 SIGMA CALIBRATION:		to 4140) AND Cal BC 217	0 to 2150 (Cal BP 4120 to 4100)

The result indicates the onset of peat formation and a rising watertable in this small valley in the early Bronze Age or a little before, but suggests that at this location it is unlikely that any of the waterlogged deposits are contemporary with the adjacent late Mesolithic/early Neolithic flint scatters.

### Preliminary pollen assessment

Jane Wheeler

#### Introduction

Three sediment samples (approximately 1cm³) were collected for preliminary palynological assessment during the coring of the auger transect. Two samples were obtained from BH3 (midway between Trenches 10 and 18) at 210cm and 230-231cm from the two basal deposits containing reed peat (200-230cm) and organic sandy silt (230-243cm) respectively (Fig. 3). An additional sample was collected from BH5 (to the immediate north of Trench 10) at 40-41cm from the upper humified organic horizon (Fig. 3).

The assessment of pollen from BH3 and BH5 was undertaken to assess levels of pollen preservation and to provide a window at these specific depths of species diversity to determine:

- i) the potential of the sediment for further standard palynological analysis
- ii) to provide a relative date based on pollen spectra for the deposits at these depths (radiocarbon date forthcoming)
- to assess the potential effects of development and landscaping on sediment in, firstly, the southern sector of the site, and secondly, the impact of landscaping on the northern boundary adjacent to the River Nene.

#### Methodology

Sample preparation and extraction followed Hunt (1985) and Wheeler (2007). A tablet containing Lycopodium spores (c. 10000 spores per tablet) was added to each sample during processing to provide a marker by which archaeological pollen could be quantified and preservation levels assessed. A pollen sum of 300 total land pollen grains (TLP) was used, excluding spores, to assess the representation of sub-fossil pollen at the site. A count rate of 300 grains was considered adequate to present a realistic assessment of the local vegetation at this preliminary stage. Rare pollen types are quantified at  $\leq 2\%$ . Spores (including the Lycopodium 'spike') and microscopic charcoal ( $>5\mu$ m) were counted in addition to TLP but not included in the total pollen sum. These data-sets are expressed as percentages of 300. Microscopic charcoal data was collated to assess the presence of palaeopollutants in respect of the sedimentary sequence sampled from Borehole 3 to reflect episodes of local and/or regional burning. Fungal spores (after van Geel  $et\ al.\ 2003$ ) were also identified and recorded to provide additional proxy markers reflective of anthropogenic and/or natural impacts at the site, i.e. eutrophication resulting from the presence of animal dung, including manuring, and depositional and erosional phases.

Pollen was counted and identified using a Leica Galen III microscope at magnification x400. Equal traverses were made across the width of each microscope slide with all identifiable and damaged pollen, and *Lycopodium* spores being counted. Pollen was identified in accordance with the keys in Moore *et al.* (1991), Beug (2004), supported by Reille (1999, 1998, 1991) and a modern pollen type-slide reference collection. Nomenclature follows Stace (2001). Descriptions of supernatant hues observed during extraction and details of the macrofossil presence are presented in Table 1. Pollen data are presented in tabular format (see Table 2).

# Interpretation and assessment of the sub-fossil pollen and proxy data Borehole 3

Species composition for Sample 1 (210cm) and Sample 2 (230-231cm) is similar in terms of ubiquity. The comparison of percentage values between the deeper, and theoretically older deposit (Sample 2), and Sample 1 reveals an overall decline, with the exception of Ouercus (oak), in arboreal taxa. Low frequencies of Quercus, Ulmus (elm), Tilia (lime), Alnus (alder), and Pinus (Pine) pollen at 230-231cm provide a relative post-elm decline date (after c. 5500 BP) for this and the overlying sample. Taxa diversity, including the presence of Corylus (hazel) and ferns (*Polypodium* (Polypody) and *Pteridium* (bracken), is consistent with a mixed deciduous woodland in the vicinity of the site. The presence of Salix (willow) 6% and Myrica gale (Bog Myrtle) with relatively high frequencies of Cyperaceae 18.3% and Poaceae (most probably *Phragmites australis* Cav. (Common Reed)) 35.7% is representative of a wet and boggy environment. Herbaceous marker pollen such as Ranunculaceae 1.7% (Buttercup family) and Plantago lanceolata (Ribwort) 0.3% and Plantago media (Hoary Plantain) 0.7%, whilst quantifiably rare, are indicative of anthropogenic disturbance at the site. The high ratio of microscopic charcoal 105% in comparison to a lower presence in Sample 1 (58.7%) is consistent with an episode of burning, natural or anthropogenic, which may have resulted in the clearance of the site adjacent to the water source.

The rise of *Quercus* to 21.7% in Sample 1, along with the rise in *Corylus* and *Myrica gale*, and *Betula* (birch), in comparison to the overall decline of arboreal taxa, particularly *Ulmus* and *Tilia*, is consistent with a regeneration phase favourable to colonising and light-loving species within a relatively open environment. Whilst the corresponding decline in *Salix* 2.7% and Cyperaceae 6% and the slight rise in Poaceae 38% suggest the site was becoming drier. The decline of spores is also consistent with an open and much drier environment. Interestingly the reduction in microscopic charcoal particulates at 210cm, which corresponds with the influx of

*Corylus* and *Myrica gale*, may be reflective of the ability of these taxa to withstand fire. The significant rise in *Quercus* also appears to be consistent with regeneration following a phase of clearance which, in this context, may have been triggered by fire. Rises in anthropogenic markers in Sample 1 are also suggestive of exacerbated disturbance at the site which may have also been influenced by drier conditions.

**Table 1.** Observations of supernatant hue and macrofossils present in the three samples from Boreholes 3 and 5.

Borehole no.	Sample no.	Sample depth (cm)	Supernatant hue	Macrofossils present
внз	1	210cm	Very dark brown	Small twig (10mm x 4mm), rootlets, decaying plant matter i.e. stem fibres, worm capsules and small nematode capsules, and charcoal particulates
вн3	2	230-231cm	Very dark brown	Well-decayed plant matter, i.e. stem fibres and rootlets, angular mineral particles, and charcoal particulates
вн5	3	40-41cm	Very dark brown	Fine sub-angular-grained sand, worm capsules and small nematode capsules, and charcoal particulates

**Table 2.** Pollen data (%) for Borehole 3 and Borehole 5.

	ВН3		BH5
Sample	1	2	3
	210cm	230-231cm	40-41cm
Trees			
Pinus	-	3.0	5
Betula	3.0	+	-
Quercus	21.7	8.0	4.5
Ulmus	4.3	6.0	6.5
Tilia	4.3	7.3	-
Alnus	3.3	4.3	7.5
Shrubs			
Salix	2.7	6.7	-
Corylus	4.7	3.3	-
Myrica gale	5.7	3.0	2.5
Hedera helix	-	+	-
Herbaceous taxa			
Ranunculaceae	3.7	+	+
Plantago lanceolata	2.0	+	+
Plantago media	+	+	-
Anthemis type	+	-	-
Cyperaceae	6.0	18.3	35
Poaceae	38.0	35.7	37
Spores			
Polypodium	+	3.7	3.5
Pteridium	-	7.3	3.5
Charcoal			
Charcoal	58.7	105.0	197.5

The local pollen spectra presented by the preliminary pollen data for BH3 appears representative of a clearance phase (Sample 2) as a result of burning which, from the perspective of species diversity and percentage presence and the radiocarbon date above, may be representative of the late Neolithic/early Bronze Age and the early Bronze Age environment in respect of Sample 1. Fungal spore types observed in Sample 1 and Sample 2 (see Table 3) also appear consistent with anthropogenic and herbivore disturbance at the site. Of note is the presence of fungal spore type 55A in the deeper deposit (230-231cm) which has been associated with settlement (van Geel et al. 2003), whilst fungal spore types 143 and 207 suggest a local nitrogen rich environment (which could be attributed to the decomposition of rootlets at this depth (see Table 1)) and an erosional phase, the latter of which could have been instigated by burning and subsequent clearance. Fungal spore type 55A in Sample 2, may be representative of settlement during the Neolithic period, particularly as Neolithic flint scatters have been found on areas of raised ground in the northwest and south-west corners of the site (Hall 2007). The presence of fungal spores 143, 207 and 261 in the overlying deposit, whilst not representative of anthropogenic activity, do suggest disturbance which could be associated with the presence of large herbivores, such as, for example, seasonal grazing or containment within an area of managed pasture in the Bronze Age.

		Depth (cm)		
Fungal spore types	Indicator value (after van Geel <i>et al.</i> 2003)	ВН 3		BH 5
		210	230-231	40-41
55A: Sordaria-type, ascospores	Anthropogenic deposits i.e. settlement sites		<b>✓</b>	
143: Diporotheca rhizophila, ascospores	Local nitrogen-rich environment	✓	✓	
207: Glomus cf. fasciculatum, chlamydospores	Soil erosion	✓	✓	✓
261: Arnium-type, ascospores (Sordaria type)	Presence of animal dung	<b>√</b>		

**Table 3.** Fungal spore types (after van Geel *et al.* 2003) observed in sediment samples from BH3 and BH5.

## Borehole 5

Counting of TLP was halted at 200 grains as pollen preservation was quantitatively and qualitatively poor. 21.5% of the pollen identified was the 'spike' *Lycopodium*, in comparison to 7% for Sample 1 and 8% for Sample 2. 50% of indeterminate grains from BH5 (Sample 3) were corroded and degraded, in comparison to 24% and 25% of corroded and degraded indeterminate grains from Samples 1 and 2 respectively. The levels of corrosion and degradation noted in Sample 3 are indicative of periodic aeration which would be consistent with wet and dry phases in this area. Much of this degradation could be accounted for by the post-medieval drainage of the area.

The presence of *Ulmus* and *Quercus* and the absence of *Tilia* in this sample in low quantities are consistent with the spectrum being representative of a post-elm decline environment, whilst the presence of Ranunculaceae 0.5% and *Plantago lanceolata* 1.5% are indicative of anthropogenic disturbance and high levels of microscopic charcoal (197.5%) indicate a phase or regular burning in the vicinity of the site. The presence of *Alnus* 7.5%, and particularly Cyperaceae 35% and Poaceae 37% in similar quantities, and the presence of fungal spore 207 (see Table 3) suggest the location was wet and subject to erosional phases. The depth of this particular sample 40-41cm in BH5 in relation to the stratigraphy of all the boreholes indicates that this sample is much more recent than the two samples analysed from deeper sediment in BH3.

#### **Summary**

The analyses of the two samples from BH3 have revealed fluctuations in pollen spectra which are consistent with a post-elm decline environment which is confirmed by the radiocarbon date on hazelnut shell immediately above Sample 1. The pollen data suggests that the local environment had been cleared to create an open area in the immediate vicinity of the watercourse. The shift to wetter conditions at 210cm in association with herbaceous pollen indicative of anthropogenic disturbance, most probably the shift to pasture, is consistent with the Early Bronze Age and the development of organised agriculture and generally wetter environmental conditions. The presence of Mesolithic/Neolithic flint scatters to the immediate north and south of this borehole site suggest continuity of human association with the site.

BH5 has proved more difficult to interpret due to the single sample analysed, and also as a result of poor quantitative and qualitative preservation. High microscopic charcoal counts and the presence of *Ulmus* in low quantities suggest a post-elm decline environment. Its superficial depth indicates a much more recent deposit than the samples from BH3.

Development of the southern slopes of the site for housing within Field 2 (See Figure 13 in Hall 2007) particularly reduction of the current ground surface by 60cm and changes to the hydrology of the deposits from drainage and groundworks would threaten the preservation of the surviving palaeosols and lower peats, and would accelerate the destruction of the remaining evidence within the upper peat layer, which unfortunately is already seriously degraded.

#### **Discussion**

The auger transect clearly shows that the surviving palaeosol horizon visible in the trenches on the slightly higher ground continues beneath the alluvial clays and peats that infill the valley floor.

The site is very low, with the low ground of the field being at -0.08m OD and the base of the recorded post-glacial sediment sequence at -2.39m OD. The sequence equates with that recorded at Hobbs Lot Farm, on the north side of March (Waller 1994). Radiocarbon dates at Hobbs Lot Farm from organic sediments at -2.53 to -2.62m OD date to 4450 BP (Q-2574); those at -1.94 to -2.03 OD date to 4150 BP (Q-2573), while humified organic sediments at -0.53 to -0.56m OD date to 2240 BP (Q-2569). The radiocarbon results from Coldham (Rackham and Martin 2005) north east of March produced dates for the base of peats of 3810±90 BP (at -1.04 to -1.12m OD) and the top of the peats dated to 2450±40 BP (at -0.64 to -0.74m OD). The lower organic deposits at Gaul Road therefore appear likely to equate with a pre 4000 BP date and a post elm decline date (*c* 5500 BP) on the basis of the pollen, but the radiocarbon date indicates an age slightly later at 3840 BP (Beta 244195) suggesting a late Neolithic and early Bronze Age date for the organic sediments, somewhat later than the late Mesolithic and early Neolithic flint material collected from the adjacent sites on the higher ground. This is consistent with the increasing wetness in the Fens associated with rising sea levels in the 3<sup>rd</sup> millennium BC (Waller 1994).

This date indicates that the grey clays above the organic sediments equate with the period of maximum marine transgression between 3000 and 4000 BP in the West central fens (see Waller 1994 Figs 5 and 6). The upper severely humified organic deposit at Gaul Road is higher than those recorded at Hobbs Lot Farm and Coldham but could be equated with the extensive late Iron Age and Roman horizons recognised to the north around Murrow and Wisbech (Waller 1994).

The flint scatters recognised where the palaeosol has been incorporated into the modern soil or only lightly buried could continue downslope towards what may have been a small stream running through the valley. The two flint scatters lie either side of the narrowest part of the embayment on the site where the slightly higher ground forms something of a bottleneck. The proposal to excavate a deep and 20m wide ditch in this area of the site therefore prejudices any archaeological deposits associated with this palaeosol which on the data presented above are likely to be late Neolithic or earlier in date. The burial of the palaeosol on the valley floor by peats also raises the potential that archaeological survival, including organic remains, may be very good.

#### Recommendations

The radiocarbon date has established that the organic sediments on the floor of the valley at this location in this small embayment are likely to be later than the flint scatters recorded on its sides, although deposits closer to the fen edge may have a lower base level and therefore an earlier date. The proposed deep ditch excavation lies some two hundred metres west of BH3 and earlier organic sediments are certainly a possibility. The initial auger survey also indicates that a palaeosol survives beneath organic and marine sediments in the embayment of the site up to a depth of 2.3m below modern ground level and could include well preserved archaeological evidence associated with the known flint scatter sites on either side.

While there may be little physical damage to these horizons across most of the site in the western part adjacent to the two flint scatters the proposed excavation of a very large ditch may impact both on archaeological and palaeoenvironmental deposits.

It is recommended that a closer interval auger transect is laid across the area to be impacted upon by the proposed ditch and between the two flint scatters to obtain a detailed profile of the deposits across this part of the site and establish the best location for the recovery of a core sequence for detailed palaeoenvironmental study. The results of the transect can be used to determine the extent to which the ditch excavation may impact on the palaeosol horizon and any associated archaeological remains. The core for detailed analysis should be taken in a 90-100mm diameter sampling tube, using a small terrier mechanical rig or if excavation is practicable, from an exposed section of the deposits, perhaps excavated in advance of the ditch.

#### Acknowledgments

We should like to thank Mark Peachey for his assistance and weight during the augering on site.

James Rackham and Dr Jane Wheeler

The Environmental Archaeology Consultancy 25 Main Street South Rauceby Sleaford Lincolnshire NG34 8QG

14 April 2008 (revised with the radiocarbon date and updated 18<sup>th</sup> July 2008)

### References

- Beug, H-J. 2004. *Leitfaden der pollenbestimmung für Mitteleuropa und angrenzende gebiete.* München: Verlag Dr. Freidrich Pfeil.
- Hall, R. 2007. Archaeological desk-based assessment on land south of Gaul Road, March, Cambridgeshire (MAGR07). Unpublished report: Archaeological Project Services.
- Hunt, C.O. 1985. Recent advances in pollen extraction techniques: A brief review, in N.R.J. Fieller, D.D. Gilbertson and N.G.A. Ralph (eds.), *Palaeobiological investigations: Research design, methods and data analysis*: 181-188. Oxford: BAR International Series 266.
- Moore, P.D., Webb, J.A. & Collinson, M.E. 1991. *Pollen analysis* (2<sup>nd</sup>. edn.). Oxford: Blackwell Science.
- Rackham, D.J. and Martin, G.L. 2005 Coldham, nr March-COLD05. Environmental archaeology report. Unpublished report for PCA Lincoln.
- Reille, M. 1991. *Pollen et spores d'Europe et d'Afrique du nord: Supplement 1*. Marseille: Laboratoire de Botanique Historique et Palynologie.
- Reille, M. 1998. *Pollen et spores d'Europe et d'Afrique du nord: Supplement 2*. Marseille: Laboratoire de Botanique Historique et Palynologie.
- Reille, M. 1999. *Pollen et spores d'Europe et d'Afrique du nord* (2<sup>nd</sup>. edn.). Marseille: Laboratoire de Botanique Historique et Palynologie.
- Stace, C. 2001. *New flora of the British Isles* (2<sup>nd</sup>. edn.). Cambridge: Cambridge University Press.
- van Geel, B., Buurman, J., Brinkkemper, O., Schelvis, J. Aptroot, A., van Reenen, G. & Hakbijl, T. 2003. Environmental reconstruction of a Roman period settlement site in Uitgeest (The Netherlands), with special reference to coprophilous fungi, *Journal of Archaeological Science*: 30, 873-883
- Waller, M. 1994 The Fenland Project, Number 9: Flandrian environmental change in Fenland. *East Anglian Archaeology*, 70.
- Wheeler, J. 2007. The implications of iron-working on the woodlands of Rievaulx and Bilsdale, North Yorkshire, UK: Historical, palaeoecological and palaeoenvironmental perspectives circa 1068-2000. Unpublished PhD thesis, Department of Archaeological Sciences, The University of Bradford.

## APPENDIX 1 Borehole Logs.

Site Code:	MAGR08	Location: Gaul Road, March, Cambridgeshire Borehole No.: 1			Borehole No.: 1		
Equipmen	t & Method	thods: Chamber Auger Sampling Final Depth: 124cm Date: 18.03.2008					
Sam	ples	Client: Archaeological Project Services					
From (cm)	To (cm)		Description				
0	38	Grey brow	vn silty clay loam				
38	41	Grey brow	vn silty clay loam mixed with pear	t			
41	43	Grey brow	vn clay				
43	53	Dark brow	vn silty peat with flecks of grey cl	ay – showing signs of oxid	lation		
53	60	Grey clay	with ochreous mottling and peat	veins running into the clay			
60	79	Grey alluv	Grey alluvial clay with ochreous mottling and small calcareous inclusions				
79	91	Grey brow	Grey brown sandy silt with inclusions of stones and grit – Palaeosol				
91	100	Pale brow	Pale brown silty sand with inclusions of stones and grit, slightly leached – <b>Subsoil</b>				
100	124	Yellow sli	ghtly gravelly sand with clast size	es ≤ 2cm			
Remarks:  1. North of Trench 23 2. Wet at 110cm 3. Basal sediment lost below 124cm – but noted as onto gravel 4. Level taken: (Site TBM 2: 0.91m) BH1 1.5m  Sampled by: DJF				Logged by: JW Sampled by: DJR			
5. Surface C	טע = 0.32m						

Site Code	Site Code: MAGR08 Location: Gaul Road, March, Cambridgeshire				Borehole No.: 2		
Equipment & Methods: Chamber Auger Sampling Final Depth: 200cm Date: 18.03.2							
Samples Client: Archaeological Project Services							
From (cm)	To (cm)		Description				
0	34		vn silty clay loam with inclusion midden scatter from the structure				
34	45	Dark grey	brown disturbed layer of slightl	y organic silty loam	•		
45	74	Grey stiff	alluvial clay				
74	89	Grey stiff	alluvial clay with ochreous mot	tling			
89	100		alluvial clay with well-humified also signs of gleying	organic inclusions and les	s ochreous mottling that at		
100	122	Grey stiff	alluvial clay with occasional org	ganic inclusions			
122	131	Brown sai	ndy silt, slightly organic with vis	sible rootlets, and ochreous	staining -palaeosol		
131	136	Wet brow	n sandy silt, slightly organic wit	h visible rootlets, and ochro	eous staining - palaeosol		
136	151	Sharp bou	indary at 136cm onto wet grey s	lty sand with organic inclu	sions – probably roots		
151	180	Wet brow	n slightly sandy silt				
180	190	Wet light	brown gravelly silty sand				
190	200	Sediment	lost				
Remarks: Logged 1  1. Adjacent to Trench 18					Logged by: JW		
2. Wet at 131cm 3. Basal sediment lost – stopped by stones at 200cm 4. Level taken: (Site TBM 2: 0.91m) BH2 1.88m 5. Surface OD = -0.06m  Sampled by: D3					Sampled by: DJR		

Site Code: MAGR08 Location: Gaul Road, March, Cambri				ch, Cambridgeshire	Borehole No.: 3		
Equipment of	Date: 18.03.2008						
Samples Client: Archaeological Project Services							
From (cm)	To (cm)	Description					
0	41	Brown sil	lty loam – slightly stony				
40	70	Very dry	dark brown compacted and hun	nified peat			
70	91	Light gre	y alluvial clay with light brown	and ochreous mottling			
91	100	Light gre	y alluvial clay with light brown	and heavy ochreous mott	ing		
100	130	Grey allu	vial clay with ochreous staining	g in vertical rootlet/root ve	ins		
130	168		clay with inclusions of organic		rizontally layered matter,		
168	195	Moist and	nae – indicative of standing or sa d malleable light grey laminated	aturated water I silty clay with traces of c	rganic matter including		
195	200		Brown silty reed peat – degrading into solid compressed dark brown peat				
200	230		Brown reed peat with twiggy inclusions to the basal point at 230cm, and showing signs of				
230	243		ganic slightly sandy silt with oc	ecasional grit, wood fragm	ents and rootlets -		
243	256	malleable	l e grey brown silty slightly sandy	y clay and occasional grit			
256	267	Sediment	lost				
Remarks:  1. Mid-field between Trench 18 and Trench 10  2. Wet at 256cm				Logged by: JW			
3. Basal sediment lost due to 'wash out' at 256cm.				Sampled by: DJR			

Site Code: MAGR08 Location: Gaul Road, March, Cambridgeshire			larch, Cambridgeshire	Borehole No.: 4			
Equipment of	Equipment & Methods: Chamber Auger Sampling Final Depth: 294cm Date: 18.03.						
Samp	mples Client: Archaeological Project Services						
From (cm)	To (cm)		Description				
0	35	Disturb	ed topsoil with brick inclusion	18			
35	39	Mixed l	norizon – brown grey alluvial	clay			
39	49	Stiff lig	ht brown slightly sandy clay -	- overbank flooding or possib	ly rodden material		
49	52	Light b	rown alluvial clay				
52	70	Lamina	ted light brown silty clay with	n fine-grained sand partings –	possibly rodden material		
70	80	Grey sil	lty clay with vertical rootlets	and ochreous staining in the ro	oot cavities		
80	100	Grey sti	Grey stiff alluvial clay with light brown mottling – <b>no sand present</b>				
100	164		Grey brown clay with light brown mottling and slightly fine-grained sand partings – possibly				
164	171		rodden material Grey clay – going slightly blue				
171	200	Wet sof	t grey silty gleyed clay with t	races of organic matter – <b>belo</b>	w the watertable		
200	218	Soft gre	Soft grey gleyed clay with inclusions of very small flecks of shell				
218	220	Disturb	ed horizon of mixed peat and	silty clay			
220	225	Dark br	own oxidising peat with orga	nic inclusions of wood fragme	ents		
225	244	Dark gr	ey brown silty peat with occa	sional fine-grained sand, with	rootlets – showing signs		
244	253		ation – <b>possibly the basal hor</b> ey stony clay	rizon of a palaeosol			
253	290	Pale gre	ey clay – slightly stoney (wear	hered till?)			
290	294	Sediment lost					
Remarks:					Logged by: JW		
1. Southern end of Trench 10 2. Wet at 100cm 3. Basal sediment lost at 290cm 4. Stopped by stones at 294cm 5. Level taken: (Site TBM 2: 0.91m) BH4 1.83m 6. Surface OD = -0.01m				Sampled by: DJR			

Site Code: N	Site Code: MAGR08 Location: Gaul Road, March, Cambridgeshire			Borehole No.: 5			
Equipment of	Date: 18.03.2008						
Samı	Samples Client: Archaeological Project Services						
From (cm)	To (cm)		Description				
0	36	Grey br	own silty loam				
36	43	Sharp p	loughsoil boundary at 36cm. Ver	y dark brown completely	humified peat		
43	57	Degrade	ed dark brown silty peat – most p	robably conflated			
57	100	Stiff gre	ey clay with heavy ochreous mott	ling			
100	130		ey clay with heavy ochreous mott 57-100cm, and slightly wetter	ling but slightly less oxidi	sed than the overlying		
130	158	Grey ve	ery silty clay with occasional included 2cm – most probably waterlain		c matter – faint laminae in		
158	161	Disturb	Disturbed horizon – light brown grey silty clay with inclusions of fine-grained sand, and traces of organic matter i.e. roots				
161	165	Light bi	Light brown slightly sandy silt with organic inclusions including small twigs and rootlets – most probably <b>top of the palaeosoil</b> - indicating the peat has been lost				
165	179		slightly organic sandy silt with or				
179	191	Definite	e boundary at 179cm. Grey fine-g	rained sandy silty clay wi	th penetrating roots		
191	200	Brown	sandy silty clay with penetrating	roots			
200	216	Wet gre	ey clay with occasional stones				
216	246	Soft ligh	ht grey chalky clay – <b>boulder cla</b>	y/till			
Remarks:  1. North end of Trench 10 2. Wet at 200cm					Logged by: JW		
<ul> <li>3. Level taken: (Site TBM 2: 0.91m) BH5 1.60m</li> <li>4. Sub-sample taken at 40-41cm (PS3) for comparative palynological assessment in relation to BH3</li> <li>5. Surface OD = 0.22m</li> </ul>					Sampled by: DJR		

Site Code: MAGR08			Location: Gaul Road, Ma	rch, Cambridgeshire	Borehole No.: 6		
Equipment & Methods: Chamber Auger Sampling Final Depth: 185cm Date: 18.0							
Samples Client: Archaeological Project Services							
From (cm)	To (cm)		Description				
0	37	Dark gr	ey loose silty loam with a clay a	nd organic component			
37	46		rk brown humic silt with occasi	onal lumps of grey clay wh	ich appear to have been		
46	51		luvial clay with brown mottling				
51	77	Grey an	d brown mottled silty clay				
77	100	Moist a	nd soft sticky grey brown silty o	lay – at 96cm calcareous in	clusions (chalk)		
100	113	Grey cla	ay with heavy calcareous inclus	ons (chalk)			
113	126		prown and very dark brown hun		with calcareous (chalk)		
126	132		inclusions – probably <b>part of the palaeosol horizon</b> Grey brown slightly organic and slightly sandy silt with penetrating root – <b>palaeosol horizon</b>				
132	141		Light grey silty clay with calcareous matter (chalk) and ochreous staining in the cracks and holes in the clay				
141	148		Stiff grey brown clay with ochreous mottling – peat appears to have been lost				
148	155	Wet stif	f grey brown clay with ochreou	s mottling			
155	185	Grey bo	oulder clay with calcareous inclu	sions (chalk)			
Remarks:  1. North of Tro 2. Wet at 77cn		er the pow	ver cables)		Logged by: JW		
<ul> <li>3. Level details TBC</li> <li>4. 148-185cm appears, as a result of the loss of alluvium and peat, to be evidence of embayment</li> <li>Sampled by: DJR</li> </ul>					Sampled by: DJR		

## APPENDIX 2. Radiocarbon calibration curve.

### CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-28.4:lab. mult=1)

Laboratory number: Beta-244195 Conventional radiocarbon age: 3840±40 BP

2 Sigma calibrated results: Cal BC 2460 to 2190 (Cal BP 4410 to 4140) and

(95% probability) Cal BC 2170 to 2150 (Cal BP 4120 to 4100)

Intercept data

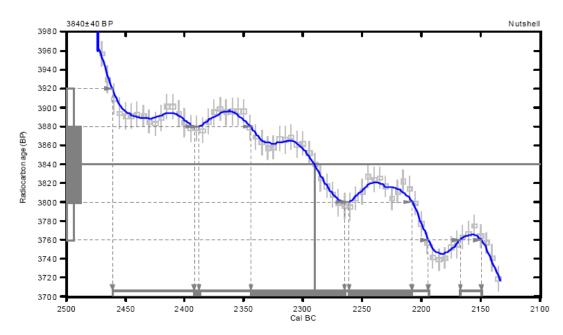
Intercept of radiocarbon age

with calibration curve: Cal BC 2290 (Cal BP 4240)

1 Sigma calibrated results: Cal BC 2390 to 2390 (Cal BP 4340 to 4340) and

(68% probability) Cal BC 2340 to 2260 (Cal BP 4290 to 4220) and

Cal BC 2260 to 2210 (Cal BP 4210 to 4160)



#### References:

Database used INTCAL04 Calibration Database

INTCAL 04 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

4985 S.W. 74th Court, Miami, Florida 33155 • Tel: (305)667-5167 • Fax: (305)663-0964 • E-Mail: beta@radiocarbon.com

## Appendix 7

#### **GLOSSARY**

Alluvium Deposits laid down by water. Marine alluvium is deposited by the sea, and fresh water

alluvium is laid down by rivers and in lakes.

**Bronze Age** A period characterised by the introduction of bronze into the country for tools, between

2250 and 800 BC.

**Context** An archaeological context represents a distinct archaeological event or process. For

example, the action of digging a pit creates a context (the cut) as does the process of its subsequent backfill (the fill). Each context encountered during an archaeological investigation is allocated a unique number by the archaeologist and a record sheet detailing the description and interpretation of the context (the context sheet) is created and placed in the site archive. Context numbers are identified within the report text by

brackets, e.g. [004].

**Cropmark** A mark that is produced by the effect of underlying archaeological or geological

features influencing the growth of a particular crop.

**Cut** A cut refers to the physical action of digging a posthole, pit, ditch, foundation trench,

etc. Once the fills of these features are removed during an archaeological investigation

the original 'cut' is therefore exposed and subsequently recorded.

**Domesday Survey** A survey of property ownership in England compiled on the instruction of William I

for taxation purposes in 1086 AD.

Fill Once a feature has been dug it begins to silt up (either slowly or rapidly) or it can be

back-filled manually. The soil(s) that become contained by the 'cut' are referred to as its

fill(s).

**Iron Age** A period characterised by the introduction of Iron into the country for tools, between

800 BC and AD 50.

**Layer** A layer is a term used to describe an accumulation of soil or other material that is not

contained within a cut.

**Medieval** The Middle Ages, dating from approximately AD 1066-1500.

**Mesolithic** The 'Middle Stone Age' period, part of the prehistoric era, dating from approximately

11000 - 4500 BC.

Natural Undisturbed deposit(s) of soil or rock which have accumulated without the influence of

human activity

Neolithic The 'New Stone Age' period, part of the prehistoric era, dating from approximately

4500 - 2250 BC.

**Post hole** The hole cut to take a timber post, usually in an upright position. The hole may have

been dug larger than the post and contain soil or stones to support the post.

Alternatively, the posthole may have been formed through the process of driving the

post into the ground.

**Post-medieval** The period following the Middle Ages, dating from approximately AD 1500-1800.

**Prehistoric** The period of human history prior to the introduction of writing. In Britain the

prehistoric period lasts from the first evidence of human occupation about 500,000 BC,

until the Roman invasion in the middle of the 1st century AD.

**Romano-British** Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.

Saxon Pertaining to the period dating from AD 410-1066 when England was largely settled by

tribes from northern Germany

Till A deposit formed after the retreat of a glacier. Also known as boulder clay, this

material is generally unsorted and can comprise of rock flour to boulders to rocks of

quite substantial size.

## Appendix 8

#### THE ARCHIVE

The archive consists of:

- 94 Context records
- 10 Context record sheets
- 40 Trench record sheets
- 8 Photographic record sheets
- 2 Section record sheets
- 1 Plan record sheet
- 17 Daily record sheets
- 1 Sample record sheet
- 7 Environmental sample sheets
- 1 Small finds record sheet
- 53 Sheets of scale drawings
- 1 Stratigraphic matrix
- 1 Box of finds

All primary records are currently kept at:

Archaeological Project Services The Old School Cameron Street Heckington Sleaford Lincolnshire NG34 9RW

The ultimate destination of the project archive is:

Cambridgeshire County Council Castle Court Shire Hall Cambridge CB3 OAP

Accession Number: ECB2886

Archaeological Project Services Site Code: MAGR 08

The discussion and comments provided in this report are based on the archaeology revealed during the site investigations. Other archaeological finds and features may exist on the development site but away from the areas exposed during the course of this fieldwork. *Archaeological Project Services* cannot confirm that those areas unexposed are free from archaeology nor that any archaeology present there is of a similar character to that revealed during the current investigation.

Archaeological Project Services shall retain full copyright of any commissioned reports under the *Copyright*, *Designs and Patents Act* 1988 with all rights reserved; excepting that it hereby provides an exclusive licence to the client for the use of such documents by the client in all matters directly relating to the project as described in the Project Specification.