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FLOAT FISH FARM, LAND BETWEEN MILK AND WATER DROVE AND OAKLEY DIKE FARCET, CAMBRIDGESHIRE

AN ARCHAEOLOGICAL EVALUATION

CHER No. ECB 3230

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|---|----------------------|--|
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| NGR: TL 2288 9462 | Report No: 3387 | |
| District: Farcet | Site Code: AS1117 | |
| Approved: Claire Halpin | Project No: 3396 | |
| Signed: | Date: September 2009 | |

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OASIS SUMMARY SHEET

| Project details | | | |
|---|---|---|---|
| Project name | Float Fish F | arm, Farcet, Cambridg | eshire |
| at Float Fish Farm, Farce undertaken in compliance v | et, Cambridg with a plannir uired by the le d at the req | eshire (NGR TL 2280 ng condition attached to ocal planning authority. quest of the client by | o the approval of proposed fish An archaeological desk-based AS (Thompson 2009). An |
| | 19 Ditch F1 | 034), 11 tree hollows/re | comprising two linear features oots (Trs. 15 - 20, & 23) and a features' are undated. |
| | nd alluvial lay | ers present at the site. | erbox samples were taken from The full stratigraphic sequence |
| Project dates (fieldwork) | 15-21/09/09 | 1 | |
| Previous work (Y/N/?) | N | Future work | |
| P. number | P3396 | Site code | AS1117 |
| Type of project | An archaeol | logical evaluation | |
| Site status | n/a | | |
| Current land use | Agricultural | | |
| Planned development | Fish farm | | |
| Main features (+dates) | Sequence through fen and pre-fen landscape | | |
| Significant finds (+dates) | None | | |
| Project location | | | _ |
| County/ District/ Parish | Cambridges | shire | Farcet |
| HER/ SMR for area | Cambridge | Historic Environment R | ecord (CHER) |
| Post code (if known) | - | | |
| Area of site | 0.4ha | | |
| NGR | TL 2280 94 | 68 | |
| Height AOD (max/ min) | c.2-3m AOE |) | |
| Project creators | | | |
| Brief issued by | (CAPCA) C | Cambridgeshire County | Council |
| Project supervisor/s (PO) | Walter McC | all | |
| Funded by | Mick George | e Ltd | |
| Full title | | | lk and Water Drove, and Oakley Archaeological Evaluation |
| Authors | McCall, W | - | |
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| Date (of report) | September | 2009 | |

FLOAT FISH FARM, LAND BETWEEN MILK AND WATER DROVE, AND OAKLEY DIKE, FARCET, CAMBRIDGESHIRE AN ARCHAEOLOGICAL EVALUATION

SUMMARY

In September 2009, Archaeological Solutions Ltd (AS) conducted an archaeological evaluation at Float Fish Farm, Farcet, Cambridgeshire (NGR TL 2280 9468). The evaluation was undertaken in support of a planning application for a proposed fish farm development. An archaeological desk-based assessment was prepared at the request of the client by AS (Thompson 2009). An archaeological evaluation was undertaken immediately adjacent (Brogan et al 2008)

Seventeen `features' were recorded within the 12 trenches comprising two linear features (Tr.15 Gully F1055 and Tr. 19 Ditch F1034), 11 tree hollows/roots (Trs. 15 - 20, & 23) and a fallen tree in Trench 13. Sparse finds were recovered, and the `features' are undated.

Environmental samples were retrieved for further analysis. Letterbox samples were taken from each of the various peat and alluvial layers present at the site. The full stratigraphic sequence was documented in a column sample (Tr. 18).

1 INTRODUCTION

1.1 In September 2009, Archaeological Solutions Ltd (AS) conducted an archaeological evaluation at Float Fish Farm, Farcet, Cambridgeshire (NGR TL 2280 9468: Figs. 1 & 2). The evaluation was undertaken in support of a planning application for a proposed fish farm development. An archaeological desk-based assessment was prepared at the request of the client by AS (Thompson 2009). An archaeological evaluation was undertaken immediately adjacent (Brogan *et al* 2008)

1.2 The evaluation was carried out in accordance with a brief issued by Cambridgeshire Archaeology Planning and Countryside Advice, Cambridgeshire County Council (CAPCA) (dated 10/06/2009), and a written scheme of investigation compiled by AS (dated 13/07/2009). It followed the procedures outlined in the Institute of Field Archaeologists' *Code of Conduct* and *Standard and Guidance for Archaeological Field Evaluations* (revised 2001) and *Standards for Field Archaeology in the East of England* (Gurney 2003).

1.3 The evaluation aimed to determine the location, extent, date, character, condition, significance and quality of any surviving archaeological remains liable

to be threatened by the proposed development. The evaluation also aimed to identify areas of previous ground disturbance on the site.

1.4 The important research issues for the project were to identify any evidence of activity associated with prehistoric or Romano-British activity within this part of the fen basin, to characterise and date this activity, and to characterise and date the sequence of local fen deposits, along with any palaeoenvironmental remains.

Planning policy context

1.5 The relevant planning policies which apply to the effect of development with regard to cultural heritage are Planning Policy Guidance Note 15 'Planning and the Historic Environment' (PPG15) and Planning Policy Guidance Note 16 'Archaeology and Planning' (PPG16) (Department of the Environment).

1.6 PPG16 (1990) is the national Planning Policy Guidance Note which applies to archaeology. It states that there should always be a presumption in favour of preserving nationally important archaeological remains in situ. However, when there is no overriding case for preservation, developers are required to fund opportunities for the recording and, where necessary, the excavation of the site. This condition is widely applied by local authorities.

1.7 PPG15 (1994) is the national Planning Policy Guidance Note which applies to the conservation of the historic environment by protecting the character and appearance of Conservation Areas and protecting listed buildings (of architectural or historical interest) from demolition and unsympathetic change and safeguarding their settings as far as is possible. This condition is also widely applied by local authorities.

2 DESCRIPTION OF THE SITE (Figs.1 & 2)

2.1 The site is located in a rural setting approximately 2km to the east of the village of Farcet. The town of Yaxley lies *c*. 4km to the south-west, Whittlesey lies *c*. 5km to the north-east and the city of Peterborough is *c*. 5km to the north-west. The assessment area is situated approximately 400m to the south-east of King's Delph Gate Farm on the eastern side of Ramsey Road (B1095 Milk and Water Drove). The modern, channelled, River Nene flows *c*. 1km to the north of the assessment site, but its former course (which still carries water) passes closer to the site (*c*. 600m to the north-west). The site lies at between 2 and 3m AOD.

2.2 The area to be investigated (Area 1) centred on NGR TL 2285 9460, comprises a rectangular field of 8 acres located at the southern end of the land that was previously evaluated (Brogan *et al.* 2008), and is bounded by the track

called King's Delph Highway to the south-west, and the Oakley Dike drain to the north-east. (Figs. 1 & 2).

3 TOPOGRAPHY, GEOLOGY AND SOILS

3.1 Farcet Fen consists primarily of Glacial Till (boulder clay), although there are areas (including the site itself) where gravels are exposed along with intermediate mixed gravely clay deposits. By the end of the Neolithic period, aall of the lower-lying ground in the area supported peat fen, and during the early Bronze Age, a soft blue-coloured material ('fen clay') was laid down to the south of Clapgate Farm (Hall 1992:19).

3.2 Soils within the assessment area belong to the Ireton Association, described as permeable humose coarse and fine loamy soils, associated with humose calcareous, coarse loamy over sandy soils. To the north and west, below the Farcet ridge, soils are mainly river alluvium over peat (Midelney Association), described as stoneless clayey soils mostly overlying peat. (SSEW 1983).

3.3 The site at Float Fish Farm has a varied micro-topography. Area 1 is lowlying and would have lain within the peat fen, between the fen 'island' to the south and the peninsula of high ground approaching Whittlesey to the north. As such, it would probably have been increasingly waterlogged and subject to peat growth from the Neolithic onwards, although earlier prehistoric land surfaces may survive under the peat. These subtle topographical variations are now masked by several millennia of peat growth, and subsequent peat shrinkage following the draining of the Fens in the 17th century. Today, the wider area around the site appears as one large fen island, rising to over 3m AOD in places; a relatively high area in comparison with the Bedford Level to the south-east, where much land lies below sea level.

4 ARCHAEOLOGICAL BACKGROUND

4.1 *Early prehistoric*

4.1.1 During the Mesolithic and Neolithic periods, human activity appears to have been concentrated on the higher land of the fen edge, although this apparent distribution may simply reflect the fact that much of the evidence of earlier prehistoric activity is sealed beneath layers of later peat growth and alluvium.

4.1.2 About 1.6km to the south-east of Float Fish Farm, on the 'peninsula' leading to modern Whittlesey, is a probable settlement site, represented by a flint scatter. The majority of the flintwork is dated to the Neolithic, although a small

Mesolithic blade and a Bronze Age scraper were also recovered (FHER 10871; Site 1, Hall 1992, 19, fig. 10; see below). Palaeoenvironmental research suggests that the assessment site may have been dry land at this time (French & Pryor 1993, fig. 70), although numerous canoes or logboats have been recovered from the fen in this area (PHER 2955), indicating the extensive use of waterways and inlets The Peterborough HER notes that sparse Neolithic flint implements have been found widely scattered in the area to the north-west of the site, near Horsey Bridge, which was on dry land at this time (PHER 2953), with further Neolithic and Bronze Age flint recovered during fieldwalking at Stanground (PHER 51229; 51230).

4.2 Bronze Age

4.2.1 During the early Bronze Age, rising water levels resulted in marine flooding, reducing land available for settlement and agriculture. The Fenland Survey suggests that the site lay just within the peat fen in the later Bronze Age, with the edge of a fen island immediately to the west, running along the southwestern side of Ramsey Road (Hall 1992, fig. 10). To the east, the fen edge probably ran along the line of Oakley Dyke (Hall 1987, fig. 38; Hall 1992, fig. 10). These projected areas of fen, skirtland and dryland in the immediate vicinity of King's Delph remain untested except by trial trenching carried out in 2007 (HER MCB 17937) (Fig. 7 and see below, Section 4.3.5).

4.2.2 Two possible Bronze Age settlement sites are noted at Farcet and Whittlesey in the Fenland Survey (Fig. 4). The first is *c*.1.6km south-east of the site (Site 1; Hall 1992, 19, fig. 10), and comprises a principally Neolithic flint scatter with some Bronze Age material, located 'on the gravelly peninsula extending from Whittlesey'. An area of burnt flint at Redshank Farm *c*.1.8km to the south-west of the site, and on the former fen island, was interpreted as a pot boiler or cooking site (FHER 10873; Site U2; Hall 1992, 22, fig. 10), and *c*.1km to the south of the site a food vessel is recorded from Whittlesey Road, to the north-west (PHER 7832).

4.2.3 A bowl barrow nationally recognised as a Scheduled Ancient Monument (HER 07727, SAM 3393) lies less than 350m east of the site. The barrow has been reduced by ploughing, but still survives as a gravel rise 0.2m high and 23m in diameter, though its surrounding ditch has now been filled in. The barrow is located on the fen edge on a gravel peninsula in proximity to the prehistoric course of the river Nene (Hall 1987, fig. 38). The plough-damaged remains of two further barrows are located to the south-east of the site, on the higher ground of the fen 'island', near Park House Farm (Fenland Survey Sites 2 (FHER 10872) and U1 (FHER 10873); Hall 1992, 19-21, fig. 10). They now remain as low mounds *c*.14m in diameter and 30cm high (Hall 1992, 19-21). A cluster of four ring ditches are known *c*.150m west of the site from cropmarks (HER 06804); these might represent the ditches around barrow mounds or another category of buried feature (see Taylor 1981, 108).

4.2.4 Numerous Bronze Age implements have been found in the River Nene and along its banks near Horsey, including a socketed axe and two palstaves (PHER 2950). In addition, a large fragment of a late Bronze Age spearhead was discovered near Wakes Farm, *c.* 700m south of the site (HHER 2922), and a late Bronze Age leaf-shaped sword was found at Stanground, near Horsey Toll (PHER 2937). These finds suggest Bronze Age water-based ritual activity.

4.3 Iron Age

The Late Bronze Age and Iron Age were wet periods, during which peat would have formed in the lower-lying areas around the site (Hall 1992, 22). The scarcity of Iron Age sites in the area is a reflection of the wet conditions of the period, but sites of this date are not absent from the region. This indicates that there were some areas where the land was dry enough for occupation or more sporadic activity; even when covered by peat, the area would have had value in its wetland resources. Two sites are known within *c*. 600m to the east and northeast of the site, the first a pot boiler site (FHER 7726), and the second a settlement site with early and middle Iron Age ditches (FHER 51374). By the time of the Roman Conquest the fens were beginning to become drier, presumably due to climatic change, as there is no evidence for early deliberate drainage (Potter, 1981, 81).

4.4 Roman

4.4.1 During the Roman period, major investment in communications and drainage works in the Fenland occurred, and it is thought that the rich grazing and tidal streams may have been exploited as parts of a single large imperial estate (Jackson & Potter 1996; Salway 1981, 127). During the 3rd century AD, widespread freshwater flooding in the southern Fenland, when alluvium was washed inland and deposited, may have caused populations to move to higher ground (Mackreth 1996, 235). Silty organic clays derived from eroded topsoils were deposited in the later Roman and early medieval periods. Although the growth of the peat and silt had been temporarily arrested during the Roman period, the fens would continue to expand until the advent of large-scale drainage schemes from the 17th century onwards

4.4.2 The distribution of Roman remains suggests that the peninsula to the north-east of the site was still dry land at this time. Possible settlements were located at Horsey Toll (PHER 1364; Phillips 1970 188) where fieldwalking and excavation have revealed Roman building stone, flue tile and 1st to 3rd century pottery, as well as a Romn ditch and burial (EH NMR 642852; see also PHER 4018). Roman coins are also recorded from this area (NMR_NATINV-367135), as well as stray finds of pottery (PHER 1369). Inhumations as well as pottery sherds spanning the Roman period have also been found *c*.250m north-west of

the site (HER 2957a). In the same location, a burial was found in 1906 under a stone slab (HHER 02811), while a skull was also ploughed out near an area of cropmarks, indicating a potential occupation area with an associated cemetery (HHER 2957).

4.4.3 During construction work at Park Farm, Stanground, west of Horsey Toll, builders found an inhumation (PHER 3129), building stone, flue tiles, and 1st to 3rd century pottery (PHER 4015). Four 3rd century kilns have been excavated at Park Farm, Stanground (PHER 3128).

4.4.5 Excavations in the 1950s on the 'peninsula' near Bunting's Farm, to the north-east of the site, found five Romano-British burials dating to the mid 2nd century (FHER 999), as well as 2nd to 4th century ditches, baked clay debris possibly reflecting an industrial site (FHER 994), worked bone (FHER 999a), jet and bronze items (FHER 999b), coins and Roman pottery (FHER 995). Fieldwalking during the Fenland Survey noted a small dark area with tile and potsherds in the near-vicinity (FHER 7734).

4.5 Anglo-Saxon, Norman and medieval

4.5.1 The name Farcet is first recorded in the 10th century as *Faresheued*, meaning 'Bull's headland or hill' and indicates the presence of a substantial farm specialising in rearing stock (Kirby & Oosthuizen 2000; Mills 1991, 127). Farcet is not mentioned in the 1086 Domesday survey but was one of the earliest endowments of Thorney Abbey, given in the 10th century. During medieval times, much of the Nene water passed between Farcet and the Fen and much of the northern part of the fen would have been covered by floodwater in wet seasons (Darby 1940). The fen island would have provided good grazing during summer, as the peat covering was only slight (Hall 1992, 22). Ridge and furrow earthworks have been noted on higher ground at Stanground, to the north-west (PHER 51234; 50653). Here, a geophysical survey was carried out, noting traces of ridge and furrow along with possible pits and linear features. Two areas produced anomalies that may indicate ancient settlement and boundary features (PHER51234).

4.5.2 The north-east boundary of Area 1 is formed by a drain marked on the 1999 OS map as Oakley Dike. This water channel was first documented in 1285, when it was referred to as *Suthende de Kinggesdelfe*; *Northende de Kinggesdelfe* was recorded at the same time, referring to (modern) King's Dike, which passes *c*. 1.1km north of the assessment site. The name 'King's Delph', which originally referred to these dikes, survives in several local place-names (including that of the farm to the north of the assessment site and the trackway which passes though it). An earlier (*c*. 1250) source refers to the northern dike as *Swerdesdelf*. By the early 17th century, the name *Sword Dyke* had been transferred to the northern dike, which was also known as *Whittlesey Dyke*, and by the late part of that century, both were being called *Canutus/ Knutus* or *Kings*

Dyke. The name *Oakley Dyke* was first recorded in 1821 (Reaney 1943, 208). The origin of these dikes remains unknown, though clearly they predate the mid to late 13th century, Roman (*cf.* Reaney 1943, 260) and post-Roman (*cf.* Hall 1987, 66) dates are both plausible. The late 17th-century name for the dykes results from their reputedly having been made by King Cnut (Reaney 1943, 260). The Victoria County History notes the recovery of a late Anglo Saxon (10th or 11th century) spearhead and sword (both now lost) from the junction of King's Dike and the River Nene (Salzman 1967, I, 325, 326) but it is not clear whether these came from the bed or the banks of the watercourse.

4.6 Post-medieval

4.6.1 In the mid 17th century, a civil war pentagonal fort was built at Horsey Grange Farm, 1.3km to the north of the site (PHER 1996). This guarded the toll road from Peterborough and Stangate to Whittlesey, where it crosses the River Nene. However, the area was under strong Parliamentarian control and the fort is unlikely to have been involved in any significant campaign or military action. It was during the 17th century that Farcet Fen was drained and entirely inclosed. At this time, traces of a fen island were found in the gravel. The drainage of Whittlesey Mere was authorised by an Act of Parliament in 1762 (Page 1936, 166).

4.7 Modern

4.7.1 Horsey Toll Airfield, north-west of the site, was a Second World War airbase (PHER 50570, 50571, 50572, 50573, 50574 & 50575).

4.8 *Previous Archaeological Investigations*

4.8.1 A previous phase of trial trench evaluation to the immediate north of the site was carried out by AS (Brogan et al 2008), it revealed little in the way of archaeological features, but did yield struck flint and pottery of Late Neolithic/early Bronze Age date. A sequence through the fen and pre-fen landscape was established. An open guarry face to the west of the site revealed a full sequence of deposits overlying the natural Pleistocene gravel terrace. Over the gravel was a uniform layer of grey silty clay with gravel and flint inclusions derived from the underlying gravels, although this alluvial sediment was a firmer blue grey clay, probably formed locally under standing water. A palaeosol (L1003) formed over the alluvial sediments (L1004). This buried soil horizon contained horizontally bedded leaves of Phragmites, Typha or Iris, suggestive of at least a periodically wet landscape. The formation of this layer varied across the site from a maximum depth of 0.25m in Trench 3 to only 0.03m in Trench 7. In Trenches 5 and 8 there was a very thin layer of tufa rich silt (L1024) between layers L1004 and L1003, and this may represent a period of open fresh water pools. There were no archaeological features present to further refine the dating of the formation of the fen west of Ramsey Road, the suggested fen edge by the Fenland Survey, and only one piece of Bronze Age pottery was located and this was unstratified. Thick deposits of peat had formed over the old land surface L1003. Three differing types of peat were noted. These were relatively common across the site, being predominately black or dark brown, oxidised detrital, structureless and non-minerogenic peat. In Trenches 1, 6, 7 and 8 a red peat, derived from horizontally bedded laminations of wood, had formed between the lower dark brown peat L1002 and the uppermost black peat layer L1001).

5 METHOD OF WORK (Trial trenching)

5.1 Twelve trenches, labelled 12 - 23, were excavated using a mechanical excavator fitted with a toothless ditching bucket (Fig. 2). The trenches were located immediately south-east of a previous phase of trial trenching (Phase B & C, Trenches 1-11, Brogan 2008). The trench locations were approved by CAPCA and were located to provide a broad coverage of the area of development.

5.2 Topsoil and undifferentiated overburden were mechanically excavated under close archaeological supervision down to the level of the visible archaeology. Exposed surfaces were cleaned by hand and examined for archaeological features. Deposits were recorded using *pro forma* recording sheets, drawn to scale, and photographed as appropriate. Excavated spoil was searched for finds and the trenches scanned were by a metal detector.

| Trench No. | Length (m) | Width (m) | Orientation |
|---------------|---------------|--------------|-------------|
| 12 | 44.50 | 1.80 | NW/SE |
| 13 | 45.80 | 1.80 | NE/SW |
| 14 | 43.50 | 1.80 | NE/SW |
| 15 | 42.00 | 1.80 | NW/SE |
| 16 | 47.80 | 1.80 | NE/SW |
| 17 | 48.30 | 1.80 | NE/SW |
| 18 | 37.60 | 1.80 | NW/SE |
| 19 | 41.00 | 1.80 | NE/SW |
| 20 | 48.50 | 1.80 | NE/SW |
| 21 | 37.70 | 1.80 | NW/SE |
| 22 | 45.80 | 1.80 | NE/SW |
| 23 | 48.80 | 1.80 | NE/SW |

5.3 The measurements and orientation of each trench are tabulated below:

6 DESCRIPTION OF RESULTS

Individual trench descriptions are presented below.

Trench 12 (Fig. 3, DP 1)

| O a serie o a sti a s | 00 | | |
|-----------------------|-------------------|--|--|
| | Sample Section 36 | | |
| North-west end, | north-ea | ist facing | |
| 0.00m = 0.93m | | | |
| 0.00m – 0.20m | L1000 | Topsoil. Loose dark grey brown gleyed silty alluvium | |
| | | with occasional round stones and organic material. | |
| 0.20m – 0.65m | L1002 | Dark brown peat. Semi compact, moist humified | |
| | | structureless sedge peat and occasional wood. | |
| 0.65m – 1.20m | L1025 | Compact, dark blue-green grey silty clay. Alluvial | |
| | | deposit. | |
| 1.20m+ | L1005 | Friable light yellow and orange brown coarse sand | |
| | | and gravel. | |

Description: No archaeological features or finds were present.

Trench 13 (Fig. 3)

| Sample Section North-east end, 0.00m = 0.81m | | ast facing |
|--|-------|---|
| 0.00m – 0.05m | L1000 | Topsoil. As above Tr.12. |
| 0.05m – 0.56m L1002 Dark brown peat. As above Tr.12. | | |
| 0.56m+ | L1025 | Dark blue-green grey alluvial clay. As above Tr.12. |

Descriptions: No archaeological features or finds were present. A large fallen tree was preserved in the peat layer at the north-eastern end of the trench (DP 2).

Trench 14 (Fig. 3)

| Sample Section | 41 | | |
|-----------------------------------|---------------|---|--|
| North-east end, south-east facing | | | |
| 0.00m = 0.90m | 0.00m = 0.90m | | |
| 0.00m – 0.20m | L1000 | Topsoil. As above Tr.12. | |
| 0.20m – 0.82m | L1002 | Dark brown peat. As above Tr.12. | |
| 0.82m+ | L1025 | Dark blue-green grey alluvial clay. As above Tr.12. | |

Description: No archaeological features or finds were present.

Trench 15 (Fig. 3, DP 3)

| Sample Section | 31 | | |
|--|-----------------------------------|---|--|
| South-east end, | South-east end, north-east facing | | |
| 0.00m = 0.85m | | | |
| 0.00m – 0.21m | L1000 | Topsoil. As above Tr.12. | |
| 0.21m – 0.70m L1002 Dark brown peat. As above Tr.12. | | | |
| 0.70m – 0.95m | L1025 | Dark blue-green grey alluvial clay. As above Tr.12. | |
| 0.95m+ | L1005 | Sand and gravel. As above Tr.12. | |

Description: Trench 15 contained a very large tree hollow, F1053, located near the north-western end of the trench. It also contained a small gully, F1055, located in the middle of the trench. Both features cut the peat layer, L1002, and the underlying clay layer, L1025. They were sealed by the topsoil, L1000.

Tree Hollow F1053 ($3.75 \times 0.95 + \times 0.65m$) was visible in the south-western baulk of the trench. It had irregular sides and an irregular base. Its fill, L1054, was a compact dark grey brown clayey silt. No finds were present.

Gully F1055 (2.00+ x 0.86 x 0.33m) was linear, orientated NE / SW. It had moderately steep sides and a concave base. Its fill, L1056, was a compact mid grey brown clayey silt. It contained decayed wood.

| Sample Section | 42 | |
|-----------------|----------|---|
| North-east end, | south-ea | ast facing |
| 0.00m = 1.08m | | |
| 0.00m – 0.09m | L1000 | Topsoil. As above Tr.12. |
| 0.09m – 0.30m | L1001 | Black peat layer with moderate brown and orange mottling. |
| | | Humified, structureless and dessicated humic peat with silt |
| | | and occasional rootlets and wood. |
| 0.30m – 0.47m | L1002 | Dark brown peat. As above Tr.12. |
| 0.47m – 0.82m | L1042 | Very moist and compact mid brown silt layer with some |
| | | black mottling. Alluvial deposit of peaty clayey silt. |
| 0.82m+ | L1025 | Dark blue-green grey alluvial clay. As above Tr.12. |

Trench 16 (Fig. 3)

Description: Trench 16 contained two tree hollows and two tree roots. No archaeological features or finds were present.

Trench 17 (Fig. 4)

| Sample Section | 23 | | |
|-----------------|-----------------------------------|---|--|
| North-east end, | North-east end, south-east facing | | |
| 0.00m = 1.33m | | | |
| 0.00m – 0.22m | L1000 | Topsoil. As above Tr.12. | |
| 0.22m – 0.36m | L1006 | Loose, dark red brown peat. Humified and dessicated peat | |
| | | with silt matrix and numerous visible laminations of wood | |
| 0.36m – 0.65m | L1002 | Dark brown peat. As above Tr.12. | |
| 0.65m – 0.90m | L1042 | Moist, mid brown alluvial silt layer. As above Tr.16. | |
| 0.90m – 0.98m | L1025 | Dark blue-green grey alluvial clay. As above Tr.12. | |
| 0.98m+ | L1005 | Sand and gravel. As above Tr.12. | |

Description: Trench 17 contained three natural features which cut the alluvial clay, L1025, and were overlain by the alluvial silt, L1042. Two tree hollows, F1049 and F1051, were present in the north-eastern half of the trench and a long tree root, F1047, was present in the south-western length of the trench.

Tree Hollow F1049 (1.64 x $0.58 \times 0.14m$) was irregular in plan. It had moderately sloping sides and a concave base. Its fill, L1050, was a loose, black sandy silt with decomposed wood. No finds were present.

Tree Hollow F1051 (1.40 x $0.63 \times 0.27m$) was irregular in plan. It had steep sides and a concave base. Its fill, L1052, was a loose, black sandy silt with decomposed wood. No finds were present.

Tree Root F1047 (1.61+ x 0.50 x 0.08m) was linear in plan with shallow sides and a concave base. Its fill, L1048, was a loose dark grey and black silt with decomposed wood. No finds were present.

| Sample Section | 19 | | |
|-----------------|-----------------------------------|---|--|
| North-west end, | North-west end, north-east facing | | |
| 0.00m = 1.34m | | - | |
| 0.00m – 0.29m | L1000 | Topsoil. As above Tr.12. | |
| 0.29m – 0.40m | L1006 | Dark red brown peat. As above Tr.17. | |
| 0.40m – 0.55m | L1001 | Black peat. As above Tr.16. | |
| 0.55m – 0.65m | L1002 | Dark brown peat. As above Tr.12. | |
| 0.65m – 1.00m | L1042 | Moist, mid brown alluvial silt layer. As above Tr.16. | |
| 1.00m – 1.42m | L1025 | Dark blue-green grey alluvial clay. As above Tr.12. | |
| 1.42m+ | L1005 | Sand and gravel. As above Tr.12. | |

Trench 18 (Fig. 4, DP 4)

Description: Two tree hollows, F1043 and F1045, were present near the southeastern end of the trench. They cut clay layer, L1025, and were overlain by the alluvial silt L1042.

Tree Hollow F1043 (1.42 x 0.95+ x 0.15m) was irregular in plan with irregular sides and an irregular base. Its fill, L1044, was a loose, dark grey brown sandy silt. It contained animal bone (24g).

Tree Hollow F1045 (0.82 x 0.76+ x 0.18m) was irregular in plan with irregular sides and an irregular base. Its fill, L1046, was a loose, dark grey brown sandy silt.

Trench 19 (Fig. 4)

| Sample Section | 11 | |
|-----------------|----------|--|
| South-east end, | north-ea | ast facing |
| 0.00m = 1.63m | | |
| 0.00m – 0.28m | L1000 | Topsoil. As above Tr.12. |
| 0.28m – 0.42m | L1006 | Dark red brown peat. As above Tr.12. |
| 0.42m – 0.54m | L1001 | Black peat. As above Tr.16. |
| 0.54m – 0.62m | L1002 | Dark brown peat. As above Tr.12. |
| 0.62m – 0.84m | L1003 | Compact dark grey clayey silt with orange mottling. It |
| | | contained a fragment of CBM |
| 1.84m+ | L1004 | |
| | | Calcareous (malty) coarse, wet alluvial deposit. |

Description: Trench 19 contained two natural features and a large ditch. Tree Hollow F1032 was located in the north-eastern half of the trench. Tree Hollow F1036 and Ditch F1034 were present near the south-western end of the trench. All three features cut silt layer L1004, and were sealed by alluvial silt L1003.

Tree Hollow F1032 ($1.33 \times 0.73 \times 0.14m$) was oval in plan with shallow sides and a concave base. Its fill, L1033, was a compact, mid grey brown clayey silt with orange mottling. No finds were present.

Ditch F1034 (2.00+ x 1.04 x 0.23m) was linear in plan, orientated N / S. It had irregular sides and a concave base. Its fill, L1035, was a compact, mid grey brown clayey silt with orange mottling. No finds were present.

Tree Hollow F1036 (1.34 x 1.08 x 0.21m) was oval in plan with moderately steep sides and an irregular base. Its fill, L1037, was a compact, mid grey clayey silt with orange mottling. No finds were present.

Trench 20 (Fig. 5, DP 5)

| Sample Section 1 North-east end, south-east facing 0.00m = 1.86m | | | |
|--|--|---|--|
| | 0.00m – 0.30m L1000 Topsoil. As above Tr.12. | | |
| 0.30m – 0.46m | | Dark red brown peat. As above Tr.17. | |
| | | Black peat. As above Tr.16. | |
| 0.60m – 0.80m | | Dark grey clayey silt. As above Tr.19. | |
| 0.80m+ | L1041 | Compact, light grey white clayey silt with orange mottling. | |
| | | Alluvial silt layer, similar to L1004. | |

Description: Two natural features were present. A deep tree hollow, F1027, was located in the north-eastern half of the trench and a shallow root hollow, F1030, was located in the south-western half of the trench. F1027 cut L1003 and L1041. F1030 cut L1041 and was sealed by L1003.

Tree Hollow F1027 (1.08 x 0.80 x 0.40m) was circular in plan with steep sides and a concave base. Its fill, L1028, was a semi-compact, dark grey brown clayey silt with orange mottling.

Root Hollow F1030 (0.35 x 0.19 x 0.03m) was irregular in plan with shallow sides and a concave base. Its fill, L1031, was a semi-compact light grey brown clayey silt with orange mottling. It contained a fragment of animal bone (38g) and a struck flint (24g).

Trench 21 (Fig. 5)

| Sample Section 9 | | | | | |
|------------------|--|--|--|--|--|
| North-west end, | North-west end, north-east facing | | | | |
| 0.00m = 1.83m | | | | | |
| 0.00m – 0.30m | 0.00m – 0.30m L1000 Topsoil. As above Tr.12. | | | | |
| 0.30m – 0.38m | 0.30m – 0.38m L1006 Dark red brown peat. As above Tr.17. | | | | |
| 0.38m – 0.60m | 0.38m – 0.60m L1001 Black peat. As above Tr.16. | | | | |
| 0.60m – 0.76m | L1040 | Loose, mid green grey sandy silt with orange mottling. | | | |
| 0.76m+ | | | | | |

Description: No archaeological features or finds were present.

Trench 22 (Fig. 5, DP 6)

| Sample Section 7 North-east end, south-east facing 0.00m = 2.31m | | | | |
|--|--|---|--|--|
| 0.00m – 0.40m | 0.00m – 0.40m L1000 Topsoil. As above Tr.12. | | | |
| 0.40m – 0.54m | .40m – 0.54m L1006 Dark red brown peat. As above Tr,17. | | | |
| 0.54m – 0.68m | 0.54m – 0.68m L1001 Black peat. As above Tr.16. | | | |
| 0.68m – 0.85m | 0.68m – 0.85m L1003 Dark grey clayey silt. As above Tr.19. | | | |
| 0.85m – 1.24m | L1041 | Light grey white clayey silt. As above Tr.20. | | |
| 1.24m – 2.05m | L1025 | Dark blue-green grey alluvial clay. As above Tr.12. | | |
| 2.05m+ | 2.05m+ L1005 Sand and gravel. As above Tr.12. | | | |

| | Sample Section 8 | | | | |
|-----------------|--|--|--|--|--|
| South-west end, | South-west end, south-east facing | | | | |
| 0.00m = 1.92m | | | | | |
| 0.00m – 0.13m | 0.00m – 0.13m L1000 Topsoil. As above Tr.12. | | | | |
| 0.13m – 0.22m | L1006 | 006 Peat. As above tr.17. | | | |
| 0.22m – 0.39m | 0.22m – 0.39m L1001 Black peat. As above Tr.16. | | | | |
| 0.39m – 0.60m | 0.39m – 0.60m L1040 Green grey sandy silt. As above Tr.21. | | | | |
| 0.60m – 0.70m | L1003 | Dark grey clayey silt. As above Tr.19. | | | |
| 0.70m+ | | | | | |

Description: No archaeological features or finds were present.

Trench 23 (Fig. 5)

| Sample Section 6 | | | | | |
|------------------|--|--|--|--|--|
| North-east end, | North-east end, north-west facing | | | | |
| 0.00m = 2.14m | | | | | |
| 0.00m – 0.42m | 0.00m – 0.42m L1000 Topsoil. As above Tr.12. | | | | |
| 0.42m – 0.60m | 0.42m – 0.60m L1001 Black peat. As above Tr.16. | | | | |
| 0.60m – 0.80m | 0.60m – 0.80m L1003 Dark grey clayey silt. As above Tr.19. | | | | |
| 0.80m+ | | | | | |

Description: A small tree root, F1038, was present near the centre of the trench and extended beyond the northwest baulk. It cut silt layer L003, and was sealed by Peat L1001.

Tree Root F1038 (0.37 x 0.30 x 0.10m) was oval in plan with moderately steep sides and a flattish base. Its fill, L1039, was a loose, dark red brown mix of silt and wood. No finds were present.

7 CONFIDENCE RATING

7.1 It is not felt that any factors inhibited the recognition of archaeological features and finds during the archaeological evaluation.

8 DEPOSIT MODEL

8.1 Five trenches were machined to the level of L1005, sand and gravel (DP 1, 4, 6). Generally, the level of the sand and gravel sloped downwards in a southwesterly direction from 0.26m AOD (Tr. 22) to -0.08m (Tr. 18), -0.13m (Tr. 15, and -0.27m (Tr. 12). The ground levels rose slightly in Trench 17 to a height of 0.35m AOD, and the ground level was also highest in the north-eastern sector of the site (2.31m AOD in Trench 22 as opposed to 0.92m in Trench 12). Although the occurrence of specific layers varied between the trenches, the general stratigraphic sequence remained constant: topsoil, peat, alluvial silts, silty clay deposit, and sand and gravel.

8.2 The topsoil, L1000, was a dark grey/brown silty alluvium with occasional rounded stones. It was generally 0.30 to 0.42m thick in the north-west (Trs. 19-23) and much truncated in the south-western half of the site e.g. 0.05m thick in Trench 13. Directly below the topsoil in each trench were layers of peat. Three distinct layers were visible throughout the site. L1001 was a black humified structureless and dessicated humic peat (0.10 – 0.25m thick) with occasional rootlets, gravel and wood. Often brown and orange mottling was present suggesting waterlogging over time followed by drainage for agriculture. L1001 was only present in the north-western half of the site (Trs. 18 - 23, and Tr. 16), and may document the extent of agricultural activity. In some trenches (18 - 22), a thinner layer (0.08 – 0.16m) of dark red brown humified and dessicated peat, L1006, was distinguished just above L1001. This layer contained frequent wood laminations throughout, usually decayed tree roots and branches.

8.3 L1002 was a more compact dark brown moist humified structureless peat layer containing less silt. It resembled sedge peat. L1002 was present in Trenches 12 – 19, and the south-western end of Trench 20. In the trenches containing both L1001 and L1002, the drier agricultural black peat always sealed the brown sedge peat. Trench 17 was unusual in that it contained the woody dark red brown peat layer, L1006, above L1002, without the black peat layer, L1001, intervening.

8.4 Immediately below the peat were layers of alluvial silt, which generally become increasingly moist the lower they occurred. L1003 (0.10 - 0.25m) was a compact mid to dark grey brown humic clayey silt with some orange mottling. In the previous phase of evaluation, this layer was interpreted as a buried soil horizon. It is now understood to be the most recent in a sequence of alluvial

deposits and represents a transition between the peat above and silt below. The orange mottling may have occurred as a result of gleying or due to the presence of organic material, such as the small tree hollow, F1027 (Tr. 20), and the tree root, F1038 (Tr. 23). L1003 occurred only in Trenches 19, 20, 22, and 23, and represents a lake or flood plain (*c*.185m x 75m). It petered out in the southwestern end of Trench 22 and was not present in Trench 21. In Trench 21 it is replaced by a layer of coarse mid green grey sandy alluvial silt with occasional orange mottling, L1040 (0.16-0.21m). The latter was a more recent, isolated deposit, running through the middle of the silted flood plain.

8.5 Directly below L1003 in Trenches 19 and 23, and L1040 in Trench 21, was L1004, a compact, light grey white layer of coarse, calcareous alluvial clayey silt. The silt of L1004 was much wetter than that of L1003, although the presence of tree hollows (F1032, F1034, and F1036, Tr. 19) suggests that the soil had become dry enough to support growth. In Trenches 20 and 22, L1004 was a compact light grey white clayey alluvial silt with orange mottling. L1041 was visually very similar to L1004, but featured much more orange staining. As with L1004, L1041 was much wetter than L1003, above, but had dried out enough to allow the growth of a tree root, F1030, Tr. 20.

8.6 The full stratigraphic sequence was observed in Trench 22 (DP 6). Here, the alluvial silt layer, L1041, sealed a very thick layer of compact dark blue-green grey alluvial clay (0.81m thick). This layer may represent a deep water feature and overlay sand and gravel, L1005.

8.7 In the middle of Trench 20 the sand and gravel, L1005, rose to form an island in the midst of the alluvial silt (DP 5). The surface of L1005 is at a height of 0.83m AOD, approximately 0.57m above the level of L1005 in Trench 22 and 0.91m above that in Trench 18.

8.8 The stratigraphy in the south-western half of the site varied from that in Trenches 19 to 23. The topsoil was much truncated, the black and dark red brown peat layers peter out, and the level of the natural deposits falls. In Trenches 16 - 18 (DP 4), the sequence of alluvial silts is replaced by a single silt layer, F1042 (0.19-0.35m). L1042 was an extremely wet, compact layer of mid brown peaty, clayey silt with some black mottling. This soil was unique to the site. It was so wet that water still ran out of it when squeezed. It was mid brown with occasional black mottling when first excavated, but after only a few minutes of exposure to the air, it turned black. L1042 was the only silt layer not cut by natural features. Tree hollows F1043 and F1045 (Tr. 18) and F1047, F1049 and F1051 (Tr. 17) cut clay layer, L1025, and were sealed by L1042. The full sequence was exposed in Trenches 15 and 18 revealing a thick layer of alluvial clay (0.25m and 0.42m respectively) directly overlying the sand and gravel, L1005.

8.9 Finally, in Trenches 12 to 14, the alluvial layers are absent. Peat, L1002 directly overlay the alluvial clay, 1025. In Trench 12, L1025 (0.55m thick) sealed L1005 (DP 1).

9 DISCUSSION

9.1 *Summary*

9.1.1 Seventeen `features' were recorded within the 12 trenches comprising two linear features (Tr.15 Gully F1055 and Tr. 19 Ditch F1034) and 11 tree hollows/roots (Trs. 15 - 20, & 23), and a fallen tree in Trench 13. The features present in Trenches 13 and 15 in the south-western sector of the site cut the brown sedge peat layer, L1002. Those in Trenches 16, 17, and 18, in the centre of the site, cut the blue grey alluvial clay, L1025. The features in Trenches 19, 20, and 23 at the north-east end cut the alluvial silt, L1004.

9.1.2 The majority of the features were well preserved with little evidence of truncation. They are tabulated below:

| Trench | Feature | Description |
|--------|-------------|-------------|
| 13 | | Fallen Tree |
| 15 | F1053 | Tree Hollow |
| 15 | F1055 | Gully |
| 16 | Unexcavated | Tree Root |
| 16 | Unexcavated | Tree Root |
| 16 | unexcavated | Tree Hollow |
| 16 | unexcavated | Tree Hollow |
| 17 | F1047 | Tree Root |
| 17 | F1049 | Tree Hollow |
| 17 | F1051 | Tree Hollow |
| 18 | F1043 | Tree Hollow |
| 18 | F1045 | Tree Hollow |
| 19 | F1032 | Tree Hollow |
| 19 | F1034 | Ditch |
| 19 | F1036 | Tree Hollow |
| 20 | F1027 | Tree Hollow |
| 20 | F1030 | Root |
| 23 | F1038 | Tree Root |

9.1.3 None of the features yielded diagnostic archaeological material. The finds comprise a struck flint (24g) and animal bone (38g) from Tree Root F1030, and an animal bone (24g) from Tree Hollow F1043.

9.2 Interpretation of the site: archaeology and history

9.2.1 The desk-based assessment identified a low potential for pre-Roman settlement in the waterlogged soils of the fens. The peat levels of Farcet formed during the later Bronze and Iron Ages (Fig. 4). During the Roman period, watertables were generally lower and the fens were becoming drier. The distribution of Roman sites suggests that the peninsula to the north-east of the site was dry between the 1st and 3rd century.

9.2.2 The current evaluation yielded sparse evidence for settlement of any period, with only one ditch and one gully discovered. As the deposition model states, L1001, a black peat layer formed through alternating periods of drainage and inundation, but was only present in the north-eastern half of the site. One ditch F1034 is sealed by the peat layers, but as it contained no dateable finds it is not possible to use this evidence to further refine dating of the formation of the fen. The gully F1055 cuts through peat layer L1002, which formed under open fen conditions, and the underlying clay layer L1025. The lack of artefacts recovered from the ditch make it impossible to date precisely, although it must post-date the Iron Age when the area would have been subject to inundation.

9.3 Finds and environmental evidence

9.3.1 Sparse finds were recovered from the 12 trenches, and too few for comment.

9.3.2 Fourteen environmental samples were retrieved for further analysis. Ten of these were letterbox samples from each of the various peat and alluvial layers present at the site. The full stratigraphic sequence was documented in a column sample, taken from Trench 18 in the area of a test pit at the north-west end. 10L bulk samples were taken from Ditch F1055 and Tree Hollow F1043.

9.4 Research potential

9.4.1 A principal objective of the evaluation was to understand, preserve and document the environmental conditions observed at the site. More precisely, it was a priority to characterise the site in terms of its depositional history and its role in the development of the larger fenland region. In this particular context, the stratigraphy within the trenches was sufficient to identify the larger fen edge as well as specific past environmental events such as the deposition of flood plain silts and slow moving deep water alluvial clay.

9.4.2 Analysis of environmental samples taken from the site will contribute to a greater understanding of site conditions. Further research into the ecological data of other fenland sites, including palynological and pedological evidence, will help place the site in the larger environmental history of the region.

ARCHIVE DEPOSITION

Archive records, with an inventory, will be deposited with any donated finds from the site at Cambridge County Archaeological Store (CCAS). The archive will be quantified, ordered, indexed, cross-referenced and checked for internal consistency. In addition to the overall site summary, it will be necessary to produce a summary of the artefactual and ecofactual data.

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BIBLIOGRAPHY

Brogan, G, McCall, W, O'Brien, L & Unger, S, 2008, *Float Fish Farm, land Between Milk & Water Drove and Oakley Dike, Farcet, Cambridgeshire; An Archaeological Investigation (Trial Trenching),* AS Report 3027

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

Glazebrook, J (ed.), 1997, *Research and Archaeology; A Framework for the Eastern Counties.* 1. *Resource Assessment,* East Anglian Archaeology Occasional Papers 2

Thompson, P, O'Brien, L, Grassam, A & Unger, S, 2009, 8 Acre Extension at Float Fish Farm, Farcet, Peterborough, Cambridgeshire; An Archaeological Desk-based Assessment, AS Report 3283

Appendix 1 Cambridgeshire and Peterborough Historic Environment Record Information

Key -

PHER=Peterborough Historic Environment Record FHER=Fenland Historic Environment Record HHER=Huntingdonshire (Cambridgeshire) Historic Environment Record CHER=Cambridge Historic Environment Record

| HER No. | NGR TL | Туре | Description | | |
|---------------|------------|---|--|--|--|
| Geological | Geological | | | | |
| FHER 3196 | 233 954 | Bone | Ichthyosaur bone, possibly 1.6 million | | |
| - MCB3959 | | | years old. | | |
| Prehistoric - | 1 | | | | |
| PHER 51229 | 210- 957- | Flint scatter and later artefacts | 0 , | | |
| Neolithic 430 | | 1 | | | |
| PHER 2955 | 222- 962- | Log boat | In 1828 a complete dug-out canoe was discovered at Horsey near Peterborough "in the bog which forms the bank of the old river with the junction of the Nen". It was 30 ft long and 2 ft 8in wide (at the widest point). Near it was found a second canoe formed of two logs pinned together. Neither Trollope nor Artis mention a lifting and one is left with the impression that they were possibly left in situ. See PHER 2951 for objects found with the canoes. | | |
| FHER 10165 | 2440 9439 | Flint | Flint blade tool with slight patination, retouched, noted in Fenland Survey | | |
| PHER 2953 | 21 96 | Flint scatter | Neolithic implements, widely scattered, but scarce. One chipped chisel. Majority found at Horsey Bridge. Peterborough Museum have on display many implements from this area. The museum | | |

| | 22 0) (07 7000 fl:+ |
|---|---|
| North Hunts Gravels | labelled as from 'The |
| Northamptonshire A winter of 2002/2003 concentration of recovered from the survey area, centrer references given ab by the survey. It co Bronze Age materia quantities or concer firm conclusions activities. It is possi distribution is ass features defined by See also PHER 51 51233. | ible that the recorded sociated with buried geophysical survey. 1229, 51231, 51232 & |
| Survey (Hall 1992). small Mesolithic bla flints and a Br (unpatinated) occurr | recovered in Fenland As well as Neolithic, a ade, 2 large patinated ronze Age scraper red in the assemblage |
| Bronze Age 2,300 – 700 BC | hannan an minimum an an |
| FHER 07727 2345 9474 Barrow SAM 33393. Bowl b - MCB 9336 MR NI- gravel rise; 23m diar 1381585 1381585 1381585 1381585 | barrow surviving as a meter, 0.2m high |
| | aerial photographs. ? M 33393 |
| | e U1 (Hall 1992). BA v (14m diameter, 0.3m |
| survey 2ploughed-out barrowFHER 10872high) at 2.1m AOD | ie 2 (Hall 1992). BA v (14m diameter, 0.3m |
| NMR-NI2450 9415Barrow fieldsBarrow field at Suet367149 | - |
| | by crop marks |
| HHER6804221 948Ring ditchesRing ditches shown- MCB 8208- MCB 8208 | |
| - MCB 8208 Burnt mound Fenland Survey < | ite U2 (Hall 1992). nound site with burnt al |
| - MCB 8208Burnt moundFenland survey SFenland2135 9332Burnt moundFenland survey Ssurvey U2Prehistoric burnt m pebbles and charcoaFenland2339 9326Flint scatterFenland survey S | nound site with burnt al |
| - MCB 8208Burnt moundFenland survey SFenland2135 9332Burnt moundFenland survey Ssurvey U2Prehistoric burnt mpebbles and charcoaFenland2339 9326Flint scatterFenland survey Ssurvey 1Prehistoric burnt mNeolithic and BA flimPHER 783221- 96-CeramicFood vessel. Found | nound site with burnt al Site 1 (Hall 1992). |

| 02922 – | | | found near Wakes Farm, reported in 1954 |
|------------------------------------|------------|-------------------------------|---|
| MCB 3683 | | | |
| PHER 2937 | 222-964- | Sword | O1, Late BA leaf shaped sword found at Horsey Toll Farm during ploughing. On Ioan to Peterborough Museum. (R1)O2, The sword is on display in Peterborough Museum. |
| Fenland | 209 943 | Socketed | BA socketed axe and a flint discoidal |
| survey Gazetteer | | axe | knife, both without exact findspots. Accessioned with Peterborough Museum in 1976 (L1251) |
| PHER 2950 | 222- 960- | Flint handaxe, palstave | Many BA implements found in the course of the Nene and its banks near Horsey. A socketed axe and two palstaves are in Peterborough Museum (Bodger Collection). No history of the collection is known other than that the major portion came from the Horsey / Whittlesey areas. |
| CHER MCB 17937 | 2275 9475 | Ceramic | Unstratified Early Bronze Age beaker sherd recovered from a sequence of peat deposits overlying a buried land surface and palaeosol. The sherd may have come from this buried soil |
| PHER 51373 | 2100 9545 | Cremation cemetery | Excavation in 2005 found a Middle Bronze Age cremation cemetery of 19, and a ditch (see PHER 51374, 51375, 51696 |
| Iron Age 700 | BC – AD 43 | | |
| FHER 1719 | 233- 954- | Ceramics | Sherds of grey ware found at Horsey Toll, possibly in same area as Roman pottery finds (FHER 7734). (The description sounds Roman) |
| FHER 7726 | 2365 9467 | Pot boiler site | Fenland Survey Site 1. Dark area with burnt stone, bone, sherds. 24 artefacts |
| PHER 51374 | 2100 9545 | Settlement | 2005 excavation found Early Iron Age ditch and Middle Iron Age E-W aligned ditches with pottery, possibly an unenclosed cemetery see PHER 51373, 51375, 51696 |
| Roman AD 43 | 1 | | |
| FHER 7734 - MCB 9344 | 2333 9528 | Ceramics | Small dark area with tile and sherds found in Fenland Survey near Bunting's Farm |
| CHER 7735 | 2326 9565 | Ceramics | Small dark area with 19 artefacts comprising tile, sherd and bone |
| Fenland survey Gazetteer | 195 943 | Ceramics | Roman pottery recovered from brick clay pits (Page 1926, 255) |
| HHER 2811, Fenland survey U3 | 2194 9438 | Burial | Discovered in 1906 near Palmer's Barn; skull and Romano-British pot covered by a stone slab 1.8m by 0.7m. Skull ploughed |

| | | | out in 1944, Fenland Survey Site U3 (Hall |
|---------------------------|----------------------|--|---|
| | | | 1992) |
| HHER 2957 – MCB 3673 | | Occupation | Crop marks indicate a Roman settlement near Palmer's Barn; a skull was uncovered during ploughing but no other finds. |
| HHER 2957a MCB 3674 | 221- 949- | Ceramics | Scatter of C1 – C4 potsherds found by fieldwalking in "Hill Field" (the field centred TL/221-/949) north of Palmer's Barn in November 1950. For settlement site and cropmarks centred at TL/220-/943- see HHER 02957. |
| HHER 6810 | 216- 937- | Occupation | Cropmarks indicate a Roman site, probably associated with HHER 02957 (Ro cropmark settlement site); no surface remains. |
| PHER 1364 | 233- 954- | Occupation ?Inhumations | Stray finds and excavation at Horsey Toll Farm in the 1950s recovered 1st to 3rd century pottery, red tile, burnt pebbles, and a ditch; inhumations may have been found too. |
| PHER 2939 | 233- 963- | Ditch, pottery | Stray finds of pottery. Finds scatter at Black House Farm |
| FHER 994 | 233- 954- | Industrial site, inhumation, kiln waste, pottery | Baked clay debris, probable industrial site. Finds are described in Museum Records as coming from Horsey Toll - an adjacent site in Stanground. The finds are dated 1955 - 1957. Some items are dated between late C2 and up to C4. Certain finds are mentioned as originating in specific graves. See also FHER 995, 999 and 1364 for adjacent Roman sites. |
| FHER 995 | 233- 955- | coin, ditch, human remains, inhumation, pottery | From TL/233-/953- to TL/233-/957-, Ditches with coins and C1 - C4 pottery; TL/233-/955- inhumation and pottery. A collection of Samian sherds in the Norris museum is attributed to this site. See also FHER 994 and 999 for adjacent Roman sites. |
| FHER 999 FHER 0999a | 233- 954 233- 954 | Inhumation, pottery Awl, needle, | Site to the E of Horsey Hill. The pottery found came from a ditch traced for 600 yards. The late 2nd to 4th century pottery is a series of sherds from ten different vessels, all bearing the same owner's mark, an N or reversed N, incised after firing. 5 Romano British burials with mid 2nd century pottery have also been found, as well as ? Parts of a kiln. See also FHER 999a, 999b, 994 and 995. Site description is given in FHER 00994 |

| | | | Dana finda in Chikan Museum are as |
|------------|-----------|--|---|
| | 233- 954- | pin, scoop, whistle | Bone finds in St Ives Museum are as follows:- Part of ? whistle Bone scoop or scraper? Borer or awl, carved from a bone and worked to a point at one end Bone pin with swelling two thirds of the way up shaft, round head Bone pin or needle fragments. See also FHER 00999, 00999b, 00994 and 00995. Site description is given in RN 00994. |
| FHER 0999b | 233- 954- | Bead, bracelet, toilet implement, tweezers | Bronze finds in St Ives Museum are as follows:- jet bracelet fragments penannular bronze bracelet piece of plaited bronze, presumably from bracelet pair blunt-ended bronze tweezers; 2 pieces round sectioned bronze from ligulae; half large green glass bead. See also FHER 00994, 00995, 00999 and 0099a. |
| PHER 1369 | 222-967- | Beaker, dish, jug, vessel | Stray finds of pottery found in 1957-1959 at Horsey Toll Farm. |
| PHER 3128 | 2153 9669 | Kiln, kiln waste, pottery | Two 3rd century Roman pottery kilns excavated at Stanground Park Farm by B R Hartley and G B Dannell in 1965. Two further kilns found 50 ft to the NE in 1967, with an associated gully containing a kiln load of wasters, mostly samian ware with black colour coat on a grey paste. A watching brief was carried out in 1993 and the remains of a rectilinear beam-slot structure were identified, ditches with large amounts of pottery, many pieces of kiln debris and ash (possibly resulting from the kiln fires. Beyond the ditch line on the SE side of the site only isolated features were visible. See PHER 03127 - further Ro finds from this area, 03129 - Ro pottery, skeleton, 03130 - earlier Ro finds from the area, 10090 – Ro inhumations from nearby. |
| PHER 3129 | 214- 965- | Inhumation, pottery | Park Farm housing estate: 3rd century Roman pottery found with human skeleton in 1964. or 1966, See also PHER 03127 - Ro finds, RN 03128 - ", RN 03130 - ", RN 03131 - ". |
| PHER 50514 | 2250 9565 | Enclosure | 2005-6 excavation found prehistoric flint scatters, Neolithic pit, Iron Age pits and post-holes and Roman rectangular double ditched enclosure with pottery and bone. Recut in the Saxon period with pottery, loomweight and metalwork found |

| PHER 50561 | 2178 9632 | Pottery | Sparse Roman pottery noted in 1994 excavation at Park Farm, Stanground |
|-------------|-------------|---|---|
| PHER 51232 | 21709 95585 | Building, settlement | A fieldwalking survey was carried out by Northamptonshire Archaeology during the winter of 2002/2003. A concentration of Roman pottery and tile, centred at the given grid reference, was recorded within the field named 'Field 8' for the purpose of this survey. The recovered pottery included Nene Valley Wares colour coated vessels (post 250 AD) and greywares. The pottery is not heavily abraded, suggesting recent plough disturbance of buried deposits. The presence of tile fragments suggests buried building remains survive here. See record numbers 51229, 51230, 51231, 51233, for other fieldwalking survey finds. |
| PHER 4015 | 224- 962- | Architectural fragment, pottery, settlement, tile | Horsey Toll Road. Building stone, flue tiles, etc, pottery C1 - C3. TL/2242/9608 lot of red tile and limestone rubble: building stone sherds etc, noted in 1983 |
| PHER 4016 | 221-961- | Coin | Roman coins, Horsey Bridge |
| PHER 4018 | 2243 9573 | Burial | A "burial site" is marked on the "Map of Roman Sites" in the VCH to the south of Horsey Hill Fort, but no mention of it is made in the text. See also RN 04017 - Ro pottery. |
| PHER 51226 | 210 953 | Settlement | 2005-6 excavation found an Iron Age roundhouse, hearth, pit and field system and a Roman trackway |
| PHER 51232 | 21709 95585 | Ceramics | Roman pottery including Nene Vallley Colour Coat found during field walking |
| PHER 51375 | 2100 9545 | Enclosure | 2005 excavation Late Iron Age and Roman enclosure, and pit with kiln bars, pot dating the end to the 2 nd or 3 rd centuries. See PHER 51373, 51374, 51696 |
| Medieval AD | 410 1500 | | |
| PHER 50514 | 2250 9565 | Settlement | Recut Roman enclosure containing Saxon pottery, loomweight and metalwork |
| PHER 51696 | 2100 9545 | Ridge and Furrow | 2005 excavation see PHER 51373, 51374, 51375 |
| PHER 51234 | 20973 95647 | Agriculture | A geophysical survey, comprising magnetic gradiometer scanning followed by detailed gradiometer survey, was carried out over a prospective development area of 95 hectares during |

| | | | 2002 (R1). Detailed survey areas amounting to 10 hectares were allocated across the area according to archaeological potential indicated by the scan results. Traces of ridge and furrow were identified across most of the prospective development area, along with possible pits and linear features. Two areas produced anomalies that may |
|--------------|-----------------|------------------|--|
| | | | indicate ancient settlement and boundary features. See PHER 51235 & 51236. |
| PHER 51215 | 2250 9630 | Agricultural | An aerial photographic assessment was undertaken and a couple of archaeological features emerged, including medieval fields of ridge and furrow and a linear ditch. |
| PHER 5056 | 2178 9632 | Ridge and furrow | Ridge and furrow earthworks noted in aerial photographic survey of land at Stanground |
| Post-medieva | al AD 1500-1900 | | |
| PHER1996 | 2331 9598 | Fort | Civil War Fort |
| Modern AD 1 | | • | |
| PHER 50570 | | Airfield | Site of former aircraft maintenance base used during the second world war for repairing Hawker Hurricane fighter planes. Runway was grass and has now been turned into arable fields. The accompanying buildings have been converted for use as warehousing and offices. Part of the landing light array was possibly sited at TL/2277/9693 but the local farmer has removed it to the side ditch at TL/2271/9705. See also PHER 0571, 50572, 50573, 50574 & 50575. |
| PHER 50571 | 2229 9639 | Building | Former bowser garage used during second world war at maintenance airfield. To east of building is two fuel stand pipes and location of possible subterranean fuel tank. See also PHER 50570, 50572, 50573, 50574 & 50575. |
| PHER 50572 | 2231 9639 | Building | Possible volatile materials store used during second world war at the maintenance airfield. See also PHER 50570, 50571, 50573, 50574 & 50575. |
| PHER 50573 | 2233 9635 | Building | Hangar. Belonging to former maintenance airfield. See also PHER 50570, 50571, 50572, 50574 & 50575. |
| PHER 50574 | 2234 9630 | Building | Hangar. Belonging to former maintenance airfield. Possibly of Type A1 standard. See also PHER 50570, 50571, 50572, |

| | | | 50573 & 50575. |
|------------|-------------|-----------------------------|--|
| PHER 50575 | 2230 9630 | Building | Possible former engine repair and test shed belonging to former aircraft maintenance base. See also PHER 50570, 50571, 50572, 50573 & 50574. |
| Undated | | | |
| PHER 51236 | 21182 95504 | Ditch, boundary ditch | Magnetic gradiometer survey at Stanground centred on the given grid reference produced anomalies suggestive of former field divisions. See record numbers 51234, 51235 for entire survey. |
| FHER 6776 | 243- 946- | Enclosure | Aerial photography at Suets Hill Farm. Enclosures - some uncertain, stray geological background. Square and rectilinear enclosures among geological cracks and splodges. |
| PHER 50653 | 2105 9545 | ? Enclosure | A desk top study in advance of possible housing allocation considered land between Stanground and the old course of the River Nene.Fragmentary cropmarks suggestive of ditched enclosures were located in two areas (see RN 8155 and at TL/2169/9546). Soilmark remains of ploughed down ridge and furrow and headlands were identified across the site. Earthwork ridge and furrow is preserved in pasture in one area (see RN 51156). One third of the site was field-walked as part of the Fenland Survey, but no significant archaeological finds were recorded here. |
| PHER 8155 | 213-959- | Enclosure | Cropmarks of enclosures. |

APPENDIX 2 CONCORDANCE OF FINDS

| Feature | Context | Description | CBM (g) | A.Bone (g) | Other |
|---------|---------|-------------|---------|------------|---------------|
| 1003 | | Layer | 15 | | |
| 1030 | 1031 | Ditch Fill | | 38 | Flint (1) 24g |
| 1043 | 1044 | Pit Fill | | 24 | |

APPENDIX 3 SPECIALIST REPORT

The Baked Clay

Andrew Peachey

A single fragment (15g) of baked clay was contained in Layer L1003. The fragment is consistently oxidised to a light orange colour and may have been sun-dried or baked at a low temperature. The fabric of the fragment included sparse chalk and organic matter, probably chaff and grass (now voids). Baked clay of this type may have been used as daub or hearth lining, probably in the prehistoric period, but remains inconclusive without any associated evidence.

The Struck Flint

Andrew Peachey

A single struck flint implement (24g) was contained in Ditch F1030 (L1031). The implement comprises a piercer, with a short point formed by working two notches into the lateral edge of a hard-hammer struck, rectangular, tertiary flake. The flake is in a dark grey flint with a thin, smooth brown-grey cortex suggesting it may have been sourced from a riverine context. The technological characteristics of this piercer suggest a late Bronze Age date, but similar implements were produced from the Neolithic through to the Bronze Age.

The Animal Bone

By Dr James Morris

The trial trench evaluation recovered two small pieces of animal bone weighing a total of 62g, both were badly preserved. F1030 contained a single shaft of a cow's radius weighing 38g. F1043 contained a distal end of a pig humerus from the left hand side of the animal. No further information is available due to the small sample size.

Pollen Analysis

Dr. Rob Scaife

Introduction

An analysis of the sub-fossil pollen and spores within the differing sedimentary units observed at Float Fish Farm has been carried out. The aims of this pollen assessment were;

* To ascertain if sub-fossil pollen and spores are present in the deposits.

* If pollen is present, to provide a preliminary view of the vegetation types present and the environment during the time-span represented by the peat and sediment deposition.

* To ascertain if there was any evidence of human prehistoric activity in the pollen record.

* To assess the potential for fuller pollen analysis of the site at a future date. That is, if required for publication.

The analysis proved to be successful with pollen and spores being recovered from all of the samples examined. A pollen diagram has been constructed which provides useful information on the vegetation and environment of the late-prehistoric and early historic (Romano-British?) periods of this site. This is in a region where most previous pollen analyses have concentrated on earlier sedimentary sequences.

Pollen Method

Monolith samples taken from the excavated archaeological section of trench 18 which had the most representative range of sedimentary units found on the site. The monoliths were sub-sampled for pollen and the stratigraphy described in the laboratory. Samples (12 in total) of 2ml were processed using standard techniques for the extraction of the sub-fossil pollen and spores (Moore and Webb 1978; Moore et al. 1992). Identified and counting was carried out using an Olympus biological research microscope fitted with Leitz optics. A pollen sum of up to 400 grains of dry land taxa per level was counted for each level where possible. Additionally, all extant spores and pollen of marsh taxa (largely Cyperaceae and Typha/Sparganium), fern spores and miscellaneous microfossils were counted for each of the sample levels analysed. A pollen diagram has been plotted using Tilia and Tilia Graph (figures 1 and 2). Percentages have been calculated as follows:

| Sum = | % total dry land pollen (tdlp) |
|-----------------|--------------------------------|
| Marsh/aquatic = | % tdlp + sum of marsh/aquatics |
| Spores = | % tdlp + sum of spores |
| Misc. = | % tdlp + sum of misc. taxa. |

Taxonomy, in general, follows that of Moore and Webb (1978) modified according to Bennett *et al.* (1994) for pollen types and Stace (1992) for plant descriptions. These procedures were carried out in the Palaeoecology Laboratory of the Department of Geography, University of Southampton

The Pollen Data

Pollen data come from monoliths taken from Trench 18 which contained the most representative stratigraphy. Pollen and spores were well preserved in all of the samples examined, even the in the upper soil developed in the upper gleyed

alluvium (context L1000). In general, absolute pollen frequencies are high in the order of 100,000 grains/ml or greater. However, in some levels, pollen numbers are less but with exceptionally high numbers of fern (Pteropsida) spores (L1001). This perhaps reflects drying of the peat and differential preservation of the spores. Alternatively, however, the presence of *Thelypteris palustris* spores also indicates on-site importance of the fern which would also give high absolute values.

Interpretation of the pollen data can be separated into the wetland/mire pollen elements and to the dry-land vegetation of the interfluves. A number of local pollen assemblage zones have been recognised in the sequence which relate to both of these aspects. The principal characteristics of these local pollen assemblage zones (l.p.a.z.) are given in table 1 (wetland) and table 2 (terrestrial) below. Zones are described from the base of the sequence/profile upwards.

The wetland flora

Because of the substantial changes which occur in the marsh flora (compared with the dry-land taxa), separate zonation has been carried out as follows in order to describe the on-site vegetation.

| | Alnus becomes important (to ca. 55%) |
|------------------|---|
| I.p.a.z. FL1: E | in the upper context (L1000). That is, |
| | within the gleyed alluvial clay/silt |
| 24cm to 10cm | capping. Cyperaceae and Typha |
| | angustifolia type percentages decline. |
| Alnus | This suggests a change from peat |
| | forming fen to overbank alluviation with |
| | nearby alder carr woodland on the |
| | floodplain. There was a change in |
| | taphonomy. |
| | Cyperaceae increase to highest values |
| I.p.a.z. FL1: D | (38%) while <i>Typha angustifolia</i> and |
| 20 and to 24 and | monolete Pteropsida decline to low |
| 38cm to 24cm | values (to 6% and 15% resp.). Alnus |
| Cuporação | starts to become important (to 40%). Salix has a minor peak. Lythrum |
| Cyperaceae | salicaria is present. It appears that the |
| | fen was becoming drier or at least was |
| | changing in character to a grass-sedge |
| | fen again with fringing <i>Alnus</i> and <i>Salix</i> , |
| | probably carr. Wood at <i>ca.</i> 28cm also |
| | indicates this. |
| | Typha angustifolia remains important |
| I.p.a.z. FL1: C | throughout (40-50%) but with rapid |
| | expansion of Cyperaceae to 25%. This |
| 64cm to 38cm | and occasional Potamogeton type |

| <i>Typha angustifolia</i> type- Cyperaceae-Poaceae-Pteropsida | indicate that conditions were again becoming wetter. <i>Alnus</i> and <i>Salix</i> values decline and this may be in response to the increasing wetness pushing the fringing woodland (carr?) away from the sample site through waterlogging. Fern spores reach extremely high values (99% sum+spores). Poaceae (<i>ca.</i> 50%) may also from part of this, grass-sedge fen habitat. |
|---|---|
| <i>I.p.a.z. FL1: B</i> 80cm to 64cm <i>Typha angustifolia</i> type-Pteropsida | There is a change from the shallow water conditions of zone 1A to a reed swamp dominated by <i>Typha angustifolia</i> and/or <i>Sparganium</i> (50%) with other elements including <i>Typha latifolia</i> , <i>Alisma</i> plantago-aquatica and the fern <i>Thelypteris palustris</i> . Alnus remains important (to 40%) on the fringes of the mire but with increasing <i>Salix</i> (10%). Pteropsida (<i>Dryopteris</i> type and <i>Thelypteris palustris</i>) become important. These are probably from autochthonous growth of ferns. |
| <i>I.p.a.z. FL1: A</i> 98cm to 80cm <i>Myriophyllum spicatum</i> | Shallow water aquatic conditions with <i>Myriophyllum spicatum</i> (peak to 20%). <i>Typha angustifolia/Sparganium</i> type starts to expand (9%) at the top of the zone. Initial Cyperaceae decline (6% to absence). A single grain of <i>Ruppia</i> also indicates standing water, possibly stagnant or slow flowing. <i>Alnus</i> (52%) is also more important in the lower alluvial silt levels and was probably fringing the wetland which was becoming wetter at this point. |

Table 1: Pollen zonation and changes within the marsh taxa

The terrestrial Zone

Pollen from surrounding drier ground is broadly homogeneous throughout the sediment sequence although there are greater tree and shrubs pollen numbers and diversity in the lower part of the profile. The upper pedogenic horizon developed in capping alluvium also has a slightly different assemblage. Thus,

three local pollen assemblage zones have been defined. Details of these are given in table 2 below.

| l.p.a.z. FL:3 | This upper level falls within the upper context (1000) which is contemporary soil development within the |
|----------------------|---|
| 10cm to 12cm | upper alluvial clays. Thus, the taphonomy is likely to be complex with incorporation of more recent and old pollen. Thus, the expansion of cereal pollen which characterises this upper zone may be from recent cultivation. In addition, tree and shrub pollen values are low., |
| I.p.a.z. FL: 2 | There is reduction in numbers and diversity of arboreal pollen (i.e. <i>Tilia</i> and <i>Fraxinus</i>). <i>Corylus avellana</i> type |
| 12cm to 56cm | declines (ca. 10%) while <i>Quercus</i> remains consistent throughout (at <i>ca</i> 18-20%). Herbs become more diverse with Poaceae dominant at high values (58%). This probably comes from a range of habitats including the local fen/marsh community. |
| l.p.a.z. FL: 1 | In this lower zone, there are greater numbers and diversity of trees and shrubs. These are dominated by |
| 56cm to 96cm | <i>Quercus</i> (to 20%) and <i>Corylus avellana</i> type (to 38%). This zone also has more <i>Ulmus</i> , <i>Tilia</i> , <i>Fraxinus</i> |
| Quercus-Corylus | excelsior and Fagus sylvatica than the subsequent |
| <i>avellana</i> type | zone. There are fewer herbs than the subsequent zone but with increasing <i>Plantago lanceolata</i> at <i>ca</i> . 50- 60cm. Poaceae are the dominant herb taxon but may also relate to the development of grass-sedge fen. <i>Alnus</i> and <i>Salix</i> are noted in table 1. |

Table 2: Pollen zonation of the terrestrial pollen assemblages.

The past vegetation and environment

The pollen assemblages can be viewed in terms of the development of the onsite mire community and the more general, background vegetation from near and regional sources.

The on-site habitat

There are very clear changes in the fen mire status, which are summarised as follows.

* Initially (L1025) (I.p.a.z. FL: A), the basin was shallow water supporting aquatic macrophytes (water milfoil), algal *Pediastrum* with a surrounding fringe of alder. It is probable that rising base levels driven by regional rising sea level was responsible for transgression over the underlying land surface (L1005).

* The shallow water, aquatic environment became shallower with sedimentation and was colonised from the fringes by grass/reed fen with reed mace and/or bur reed (*Typha angustifolia/Sparganium*) (I.p.a.z. FL: B) and marsh ferns (*Thelypteris palustris*). Alder and willow also became more important in the pollen record as the fringe of carr woodland colonised outwards from the fringes of the basin. Open water became less on the site as evidenced by the progressive reduction of water-milfoil (*Myriophyllum*).

* The fen developed further with increasing importance of sedges (Cyperaceae) and grasses (Poaceae) along with reed mace/bur reed (L1002) (FL: C) This was a shallow, freshwater fen also with pond weed (*Potamogeton*) and white water lily (*Nymphaea alba*).

* The environment became drier and the mire changed from reed fen to a more pure grass sedge fen (L1001; L1006; I.p.a.z. FL: D). Alder and willow became more important again probably colonising inwards from the fringes of the mire.

* The peats (L1006/L1001/L1002) which accumulated under this changing fen mire were transgressed by river, floodplain alluvium (L1000) (I.p.a.z. FL: E). This changes the taphonomy of the pollen away from pollen which came largely from the on-site vegetation to that arriving via fluvial transport. This probably accounts for the expansion of alder (*Alnus*) which would have been growing along the fringes of the mire basin and along riverbanks.

* Plant macrofossils (seeds) should allow a more detailed assessment of this hydroseral succession.

The regional dry land and regional pollen component:

The pollen data for the general, background environments are typical of the very late prehistoric and early historic period to which these sediments are thought to date. The lower part of the profile (I.p.a.z FL: 1-2) although dominated by oak (*Quercus*) and hazel (*Corylus*), contain elements (the last vestiges) of earlier and more dominant woodland. Lime (*Tilia*) is especially diagnostic of the late-Mesolithic (middle Holocene) and Neolithic to middle Bronze Age (sub-Boreal) woodland when it was dominant over large areas of southern and eastern England (Moore 1977; Greig 1982). After woodland clearance for agriculture, usually during the middle Bronze Age (Scaife 2000), there are only occasional records such as recorded here. This similarly applies to elm (*Ulmus*) which is also present in much smaller numbers after an earlier decline at *ca.* 5,500-5,000BP (the Neolithic elm decline). Ash (*Fraxinus*), lime (*Tilia*) and beech (*Fagus*) are poorly represented in pollen assemblages and numbers present especially in 1.p.a.z. 1 but throughout 1.p.a.z.1 and 2., suggest local growth (Andersen 1970, 1973).

From I.p.a.z. FL: 3, oak and hazel remain the principal woodland elements and it is likely that these wind dispersed pollen types come from woodland within the

wider geographical region. This is typical of pollen profiles of late-Bronze Age, Iron Age and Romano-British date and is comparable with pollen data from the upper, alluvial levels analysed at Fag Fen (Scaife 2001) and Must Farm (Scaife 2008).

Human activity: There is a paucity of evidence for human activity in this profile. Widespread woodland clearance had taken place by the time of earliest sediment deposition here. Occasional cereal type pollen is present in I.p.a.z. FL: 1 and FL:3 and the upper soil levels. The latter is probably from very recent cultivation. A peak of ribwort plantain (*Plantago lanceolata*) at 60cm to 50cm associated with increasing grass pollen suggests a phase of pastoral agriculture in proximity to the mire. It is possible that arable activity would not be well represented in sediments from the middle of what was a substantial sedimentary basin.

Summary and Conclusions

The following principal points have been made in this pollen assessment study.

* Well preserved and abundant sub-fossil pollen and spores were recovered from throughout the sediment profile enabling a pollen diagram to be constructed and data on past vegetation and environments to be obtained.

* The on-site vegetation shows development of a shallow freshwater lake in this basin over an old land surface. This may have been transgressive in response to rising base levels forced by rising relative sea level in the North Sea basin.

* The shallow lake underwent seral changes through reed swamp to grass sedge fen.

* The basin was surrounded by a fringe of alder and willow.

* In the lower part of the profile (FL: 1) (L1042; L1002) pollen from the dryland/interfluves shows the last vestiges of the once dominant lime woodland which had been cleared by the middle Bronze Age. In the upper half of the profile (FL: 2) (L1001; L1006), oak and hazel remain the principal remaining woodland components.

* There is only sparse evidence for human activity with only occasional traces of cereal cultivation and a possible phase of pastoral activity present. Taphonomic factors (mainly the extent of the basin) may be responsible for such poor evidence of human activity.

* The study has provided information on the changing vegetation and environment of the late-prehistoric and early historic periods at this site/region. This adds to the very few palynological studies of this time period within this region.

Suggested further analysis

The study presented here is an extended assessment that has pollen counts numbers substantially greater than normally adopted for assessment studies. This was done in order to recover what little pollen evidence for human activity might be present in the sediments. As such, the study could stand-alone if radiocarbon dating of the profile is carried out.

If more detailed analysis is required, this should comprise analysis of additional pollen samples from intermediate levels. That is, at 4cm intervals or at intermediate levels close to the changes in the pollen flora (i.e. changes in the pollen assemblage zones). This would be desirable for publication in an archaeological journal.

References

Andersen, S.T. 1970 'The relative pollen productivity and pollen representation of north European trees and correction factors for tree pollen spectra'. *Danmarks Geologiske Undersogelse* R.II. 96,1-99.

Andersen, S.Th. 1973 'The differential pollen productivity of trees and its significance for the interpretation of a pollen diagram from a forested region pp.109-115. In Birks, H.J.B and West, R.G. *Quaternary Plant Ecology.* Blackwell, Oxford.

Bennett, K.D., Whittington, G. and Edwards, K.J. 1994 'Recent plant nomenclatural changes and pollen morphology in the British Isles'. *Quaternary Newsletter* 73,1-6

Greig, J.R.A. 1982 'Past and present lime woods of Europe'. in Bell, M. and Limbrey, S. (eds.) *Archaeological Aspects of Woodland ecology*. pp.23-55 Assoc. Environ. Arch. Symposia Vol. 2 B.A.R. (Int. Ser.) 146.

Moore, P.D. 1977 'Ancient distribution of lime trees in Britain.' *Nature,* London 268,13-14.

Moore, P.D. and Webb, J.A. 1978 *An illustrated Guide to Pollen Analysis*. London: Hodder and Stoughton.

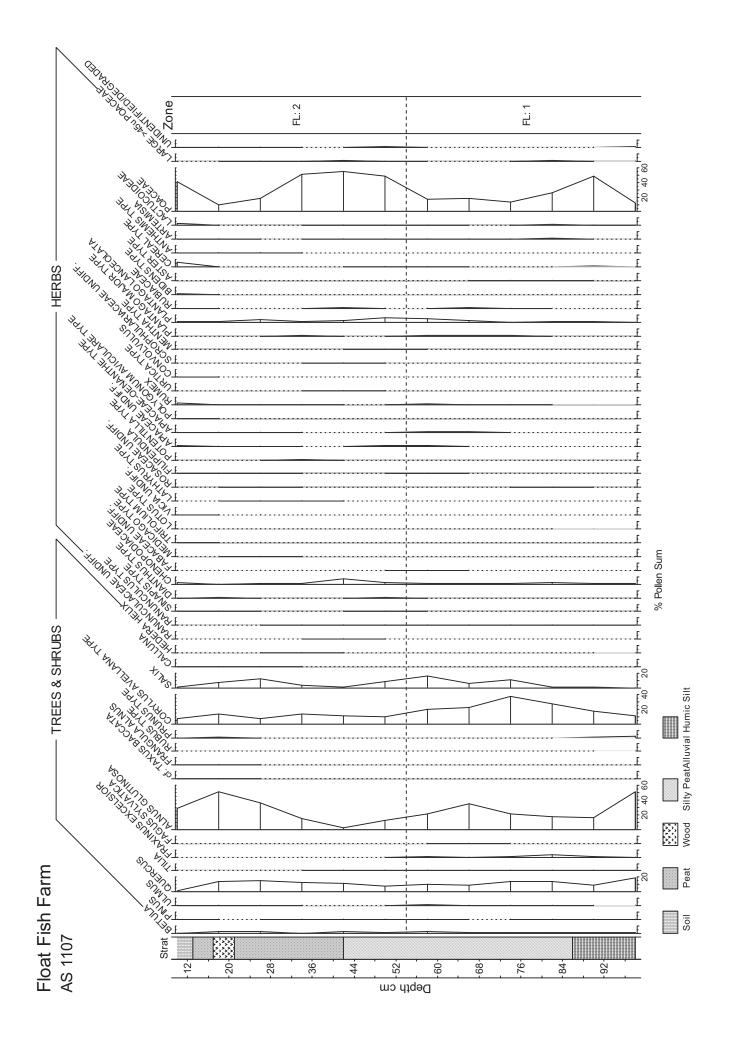
Moore, P.D., Webb, J.A. and Collinson, M.E. 1991 *Pollen Analysis* Second edition. Oxford: Blackwell Scientific.

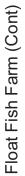
Scaife, R.G. 2000 in Sidell, J., Wilkinson, K., and Cameron, N. *The Holocene Evolution of the London Thames.* Museum of London Monograph 5. 144pp.

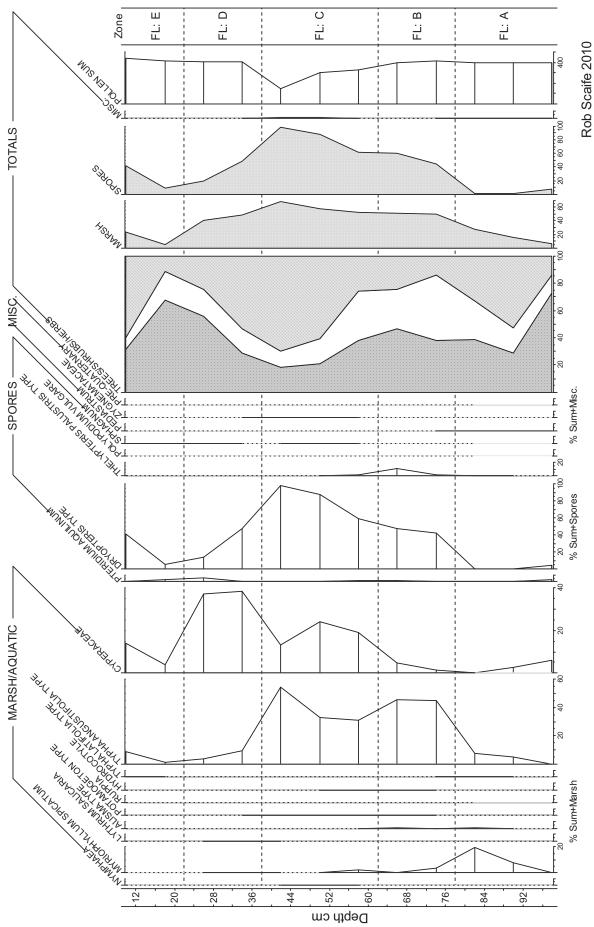
Scaife, R.G. 2001 'Flag Fen, the vegetation and environment'. pp. 351-381 in Pryor, F, *The Flag Fen Basin. Archaeology and Excavation of a Fenland landscape.* English Heritage Archaeological Reports.

Scaife, R.G. 2008 *Must Farm: Pollen Analysis.* Report to University of Cambridge Archaeological Field Unit.

Stace, C. 1991 *New Flora of the British Isles*. Cambridge: Cambridge University Press.







PHOTOGRAPHIC INDEX



1 Trench 12, Sample Section, NW end, NE facing



2 Trench 13, NE end, SE facing, detail of fallen tree in section



3 Trench 15, Tree Hollow F1053 in section, NE facing



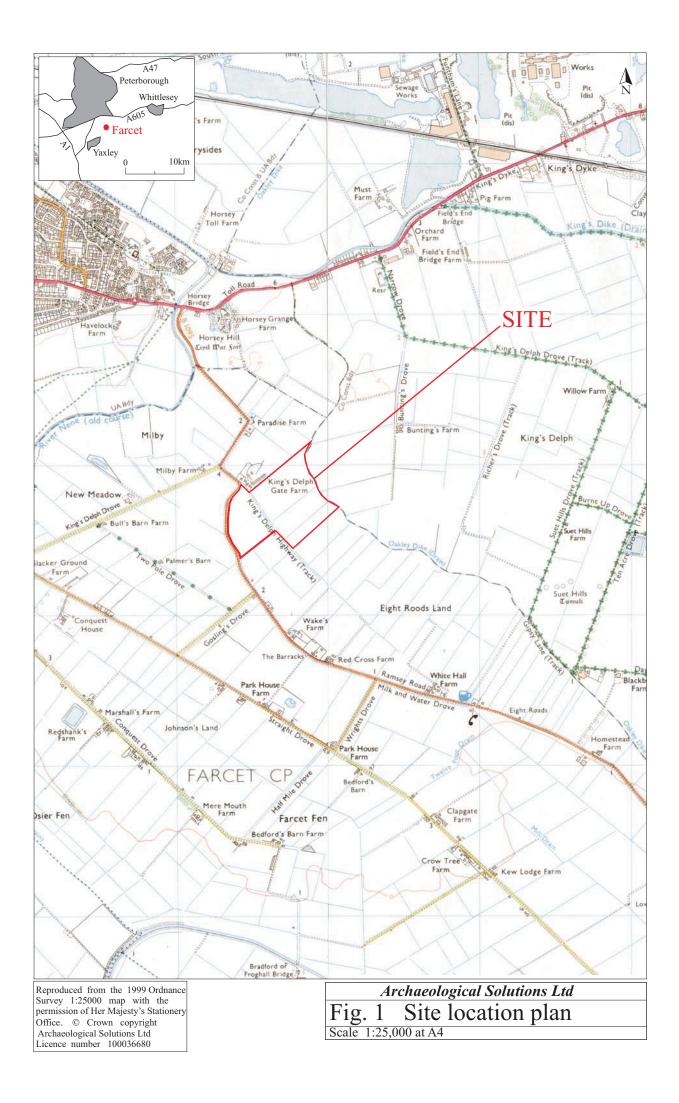
4 Trench 18, natural sands and gravel, L1005, at the bottom of test pit, looking NW



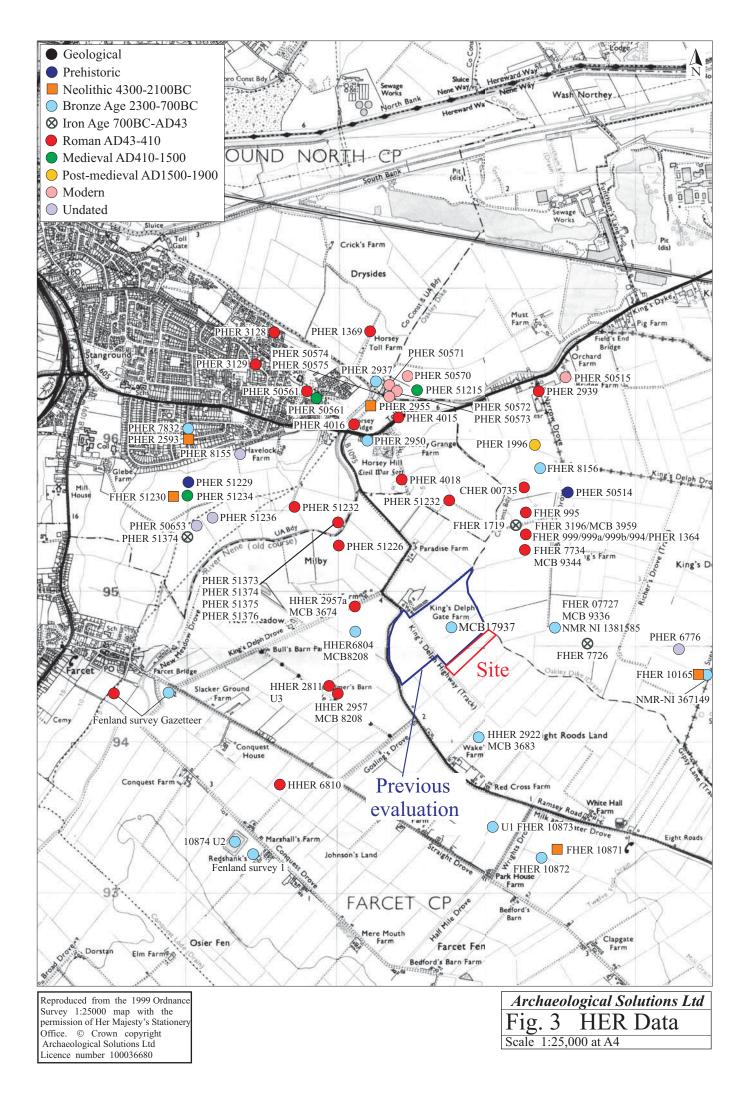
5 Trench 20, 'island' of sand and gravel, L1005, looking NE

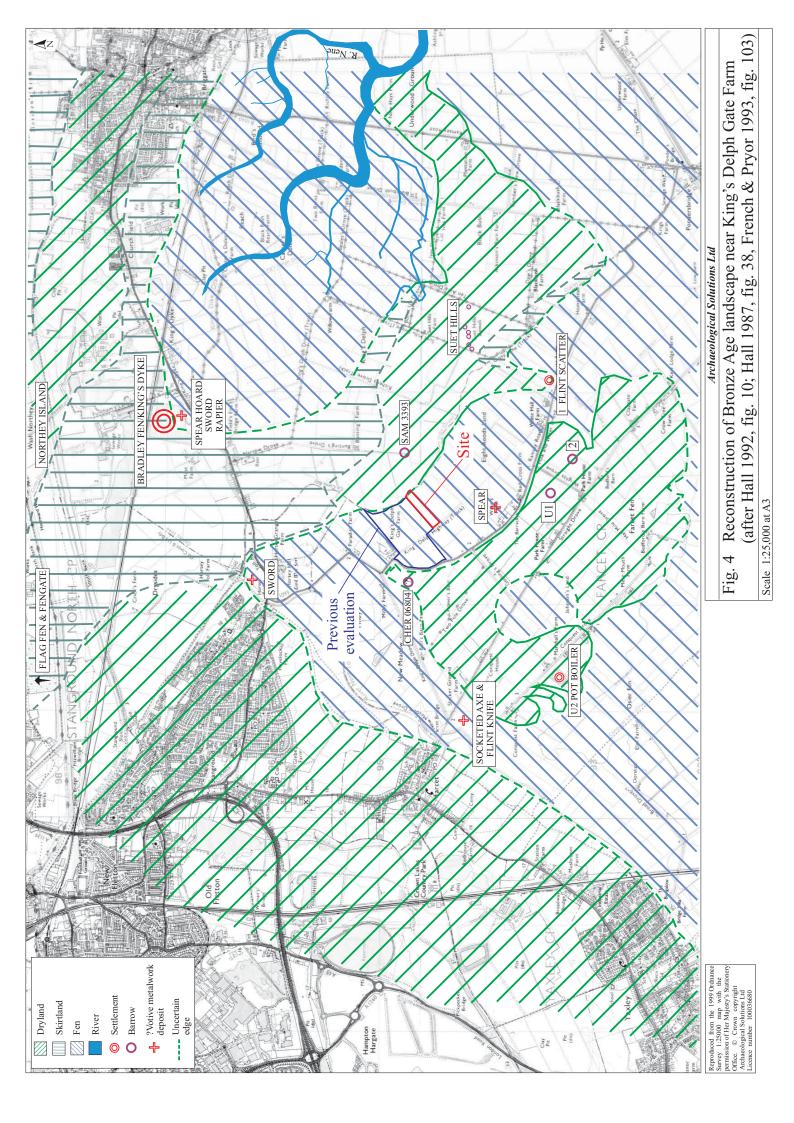


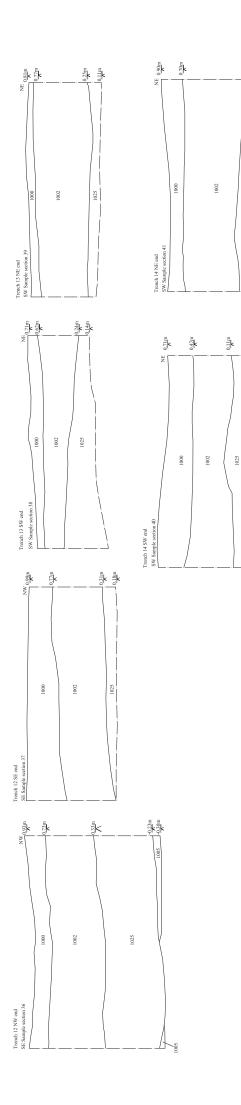
6. Trench 22, sample section, NE end, SE facing

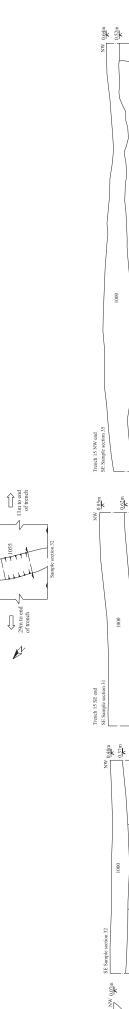












Trench 15

Plans

 $\frac{0.29}{\lambda}$ m

^m80.0 m<mark>90.0</mark>k

0<u>.06</u>m

 $\frac{-0.13}{1}$

<u>0.15</u>m

 \Leftrightarrow

0.08m A

4013m 13m 13m

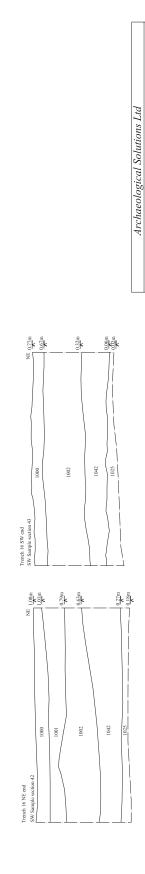


Fig. 5 Trench plans and sections Scale plans at 1:100 & sections at 1:25 at A3

