LAND OFF VICARAGE FARM ROAD Fengate, Peterborough

An ArchaeologicalWatching Brief



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Cambridge Archaeological Unit carried out a 'watching brief' on land off Vicarage Farm Road, Fengate, Peterborough (TL 2170 9960) from the 31^{st} October 2005 to the 3^{rd} July 2006. The watching brief revealed a substantial ditch and associated bank and a former embayment. A Bronze Age drove way, initially exposed during an excavation to the north, was revealed extending into the watching brief site; whilst evidence for potential occupation was provided by a post hole and two pits to the south of the embayment on the higher gravels.

Introduction

Location, topography and geology

Megacars Ltd commissioned the 'watching brief'. The development area comprised c.2.4 hectares of land to the west of Edgerley Drain Road and north of Vicarage Farm Road in Fengate, on the eastern edge of Peterborough (centred TL 2170 9960, Figure 1). The site was at a height of between 3.1m-3.8m OD, sloping gently from west to east, down towards the prehistoric and Roman fen edge, located to the east of the site. The central, eastern area of the site dipped slightly, where a peat filled former embayment, identified during the previous evaluation was located (Vaughan & Trevarthen 1998). The underlying geology is 1st Terrace River Gravels (British Geological Survey 1984).

Archaeological background

A trial trenching based evaluation carried out at the site prior to the watching brief (Vaughan & Trevarthen 1998) exposed archaeological activity spanning the Bronze Age. Evidence for Early Bronze Age activity was provided by features yielding Beaker pottery, whilst several ditches exposed at the site are compatible with the wider Bronze Age Fengate field system. Finally, evidence for later Bronze Age activity was provided by a pit (Vaughan & Trevarthen 1998).

The site is located northwest of the Flag Fen basin, in an area where extensive research has revealed an important archaeological landscape. The Fengate Project (1971-8) in particular, in addition to more recent investigations, exposed significant and widespread archaeological activity. Neolithic and Early Bronze Age features were revealed amongst a substantial Bronze Age field system (Pryor 1974; 1978; 1980; 1984; Evans 1992; 1993; Gdaniec 1996; Gibson 1998), whilst Iron Age and Romano-British occupation was exposed at several sites (Pryor 1984, Evans 1992, Evans & Pryor 2001).

Further evidence for nearby prehistoric activity has been provided by recent excavations; later Neolithic archaeological activity was exposed immediately to the north-west of the watching brief site, at Newark Road (Mudd 2001). Whereas Bronze Age and Late Iron Age/Romano-British boundary ditches and settlement evidence were revealed further to the north west of the site (Vaughan & Last 1999). Additional evidence for Bronze Age field systems and occupation, and Late Iron Age/Romano-British ditches and occupation were also uncovered to the northwest (Wotherspoon 2003).



Figure 1. Location map

Watching brief strategy

The watching brief was in two components; the first monitored topsoil clearance, whilst the second monitored the car showroom beam slots and pipe/drainage trenches. The initial soil clearance removed the upper 100 mm of topsoil across the southern part of the site. The car showroom beam slots were located in the south-eastern part of the site, whilst the pipe/drainage trenches extended north-south; the full length of the site to the east of the building, and across the southern half of the site to the west of the building (Figure 2). The majority of the building beam slots and pipe/drainage trenches were machined with a narrow toothed bucket, with two exceptions; a 2m wide toothless ditching bucket was used to machine Trench 9F and L1 to a level that revealed archaeological features.

When archaeological features were exposed they were recorded as accurately as their location and the circumstances permitted. Features revealed in Trenches 9F and L1 were excavated in sections, whilst features exposed in the sides of narrow deep trenches were recorded in section. The recording followed a CAU modified MoLAS system (Spence 1990); assigning context numbers (e.g. [fill], [cut]) to stratigraphic units and feature numbers, F., to interrelated stratigraphic units (e.g. a ditch's cut and fills). Base plans were drawn at 1:50, sections at 1:10. Although where trench sections were inaccessible, sketch sections were drawn as accurately as the situation permitted.

The photographic archive comprises colour and black and white slides as well as digital images. A bulk sample was taken from the ditch exposed in Trench L1. All work was carried out in strict accordance with statutory Health and Safety legislation and with the recommendations of SCAUM (Allen and Holt 2002).

Results

Topsoil clearance

The soil clearance was initially continuously monitored until it was clear the topsoil was being removed to a consistent depth, within, but not below the topsoil horizon. Consequently, following a prior agreement with the County Archaeological Officer, the topsoil clearance was subsequently checked occasionally rather than constantly monitored. The repeated checks confirmed that the soil clearance stayed within the topsoil horizon.

Car showroom beam slots

The car showroom beam slots were constantly monitored, although the slots only occasionally dipped into the underlying geology; the level at which archaeological features should potentially be exposed. The slots were deeper towards the southern end of the building; generally 0.6m deep, machined through the alluvial topsoil, sometimes into the subsoil, and occasionally exposing a buried soil layer at a rough depth of between 0.5m and 0.6m. Towards the centre of the building the beam slots extended into, but not below the topsoil; whilst at the northern end of the building they were machined into the made ground but did not reach the underlying topsoil.

The occasional small dips into the underlying geology were too limited to either expose any archaeological features or establish a convincing lack of features; consequently the individual slots are not shown in plan, just the outline of the building (Figure 2).

Pipe/drainage trenches

The pipe/drainage trenches extended north-south the full length of the eastern site boundary and north-south across the southern half of the site to the west of the building. As the trenches were deeper than the building beam slots, many of them exposed the underlying geology and archaeological features; including a few discrete features and several prehistoric ditches, occasionally with surviving banks. Trenches that were deep enough to reveal the underlying geology are shown in Figure 2.

Embayment and gravel terraces

The earlier evaluation at the site identified a former embayment extending from the eastern fen edge west, into the centre of the site (Vaughan & Trevarthen 1998). The watching brief trenches confirmed the location of deeper peat deposits along the eastern edge of the site in Trenches 9B, 9C, 9D and 13B, whilst Trench L1 located the former embayment in the centre of the site (Figure 2). The deepest peat deposits exposed by the trenches were 0.75m, in the centre of the site in Trench L1. The pipe/drainage trenches also cut through the higher gravel terraces that bracketed the deeper, former embayment to the north and the south. Buried soils were located on these terraces, and intermittently present underlying the deeper peat deposits in the centre of the site.

Prehistoric ditches

Two ditches were exposed in the north-eastern corner of the site in Trenches 9E and 9F; F. 6 and F. 7 (Figure 3). A section of Trench 9F was machined with a ditching bucket to expose the underlying geology and reveal one of the ditches, F. 7 (Plate 2). The ditch was on the same alignment and was comparable in form and dimensions to a Bronze Age drove way ditch identified during an excavation immediately to the north of the site at Edgerley Drain Road (Beadsmoore 2005). The Edgerley Drain Road drove way cut Late Neolithic features, was cut by Late Bronze Age features and has been dated to the Middle Bronze Age (Beadsmoore 2005). Five flints were recovered from ditch F. 7 at the watching brief site, including residual Late Neolithic/Early Bronze Age material, alongside flint that could either be residual Beaker flint working waste, or material manufactured during the Middle Bronze Age and therefore broadly contemporary with the feature (Appendix 1). Trench 9E was machined with a narrow toothed bucket, revealing the second ditch F.6 in the sides of a deep narrow trench (Figure 3). The ditch extended across the north-south trench, was smaller than F. 7 and had a uniform silty fill.



Figure 2. Trench location plan



Figure 3 Plan of archaeological features



Plate 1. Feature 8 Ditch with adjacent bank



Plate 2. Feature 7 Bronze Age ditch

A substantial third ditch F. 8 was exposed in the centre of the site in Trench L1, which was machined with a toothless ditching bucket to the underlying geology (Figure 3 and Plate 1). The east-west aligned ditch was in the former fen embayment, which extended across the site from the eastern fen edge. A possible palaeochannel was to the south of the ditch. At 4.3m wide and 0.7m deep, the ditch contained a series of weathered and waterlogged fills. However, analysis of the bulk sample revealed poor preservation, suggesting that the ditch fill was intermittently, as opposed to continuously waterlogged (see Appendix 2). A lime and alder woodland environment was revealed by the sample, which would have provided material for coppicing. As lime is slow to colonise, it probably predated the ditch. The woodland may have been open, and was probably damp; the mollusc evidence suggests that the ditch contained either slow moving or stagnant water. Although no chronologically diagnostic material was recovered from the ditch, the peat free fills predate the peat formation at that height, suggesting that the ditch is potentially Bronze Age.

The ditch's bank survived to the south of the ditch, protected and preserved by the overlying peat (Plate 1). The bank was 4.2m wide and 0.23m high and made of redeposited natural sand and gravel. A layer of buried soil survived, protected underneath the bank, which had been cut through by the ditch when it was established. A bank was also exposed on the eastern edge of the site, in a second trench to the east of Trench L1 and the car showroom. Trench 9B was machined with a narrow toothed bucket, revealing a bank, F. 5, in both sections. The bank was c.3.2m wide and 0.47m high, comprising redeposited gravel and sand. Trench 9B was not consistently deep enough to expose a possible associated ditch. The bank was further north than F. 8 in Trench L1.

A second mound or bank F. 4 was exposed in Trench 9B (Figure 3). However unlike F. 5, F. 4 was only visible in the eastern section of the trench. The bank/mound may have been partially eroded, only surviving in sections, although it seemed quite robust in the eastern section. Alternatively, Trench 9B may have cut through the very end of the bank, or the feature could be a mound rather than a continuous bank. Again, the base of the trench was not deep enough to expose potentially associated cut features.

Pits and post holes

Three remaining features were exposed during the watching brief; two pits and a post hole in Trenches 13A and 13B (Figure 3). A single post hole F. 1 was revealed in the eastern section of Trench 13A, in the south-eastern corner of the site. Whilst two pits were exposed in the western section of Trench 13B further to the north. Pit F. 3 contained two fills and was clearly defined in the trench section; whilst pit F. 2 was more ephemeral.

Discussion

Two ditches F. 6 and F.7 exposed in the north-eastern corner of the site were on the same alignment as two comparable ditches that defined a drove way identified during a previous excavation immediately to the north of the site at Edgerley Drain Road (Beadsmoore 2005). The drove way began to turn within the Edgerley Drain Road site



Figure 4. Watching brief archaeological features in a wider context

and the watching brief exposes the ditches continuing out towards the fen edge (Figure 4). Pryor (2001) identifies a central/northern axial boundary system in Fengate, focused on a series of double ditched drove ways connecting the higher western ground and eastern fen edge. The drove way identified at Edgerley Drain Road was slightly unusual as it was parallel to the fen edge. However, the ditches exposed during the watching brief suggest that the drove way starts to conform to the convention by turning towards the fen edge. The former embayment in the centre of the watching brief site may have presented a gentle, accessible route to the fen, whilst the fen edge east of Edgerley Drain Road could potentially have been more difficult to negotiate.

The substantial ditch and associated bank in the centre of the site and the second and third possible banks, exposed at the eastern edge of the site are likely to be part of the same Bronze Age boundary system. The features may have been established to try and drain the deeper area as well as to define a boundary. The pits and posthole exposed in the south-eastern corner of the site were amongst comparable features revealed during the evaluation, south of the embayment on the higher, dryer ground (Vaughan and Trevarthen 1998).

Conclusion

The topsoil clearance at the site did not disturb or expose any archaeological features and the car showroom beam slots were too shallow to reveal the underlying geology for any sustained length. Consequently, no archaeological features or any clear evidence for a lack of features was revealed. In contrast, the deeper north-south pipe/drainage ditches cut into the underlying geology and exposed archaeological features in the sections. In Trenches 9F and L1 features were revealed and excavated in plan before the trenches were machined deeper.

In the context of a watching brief, the results enhanced and added to existing archaeological investigations and knowledge in the immediate area. It allowed the course of the Edgerley Drain Road Bronze Age drove way to continue to be tracked extending out towards the fen edge. Potential occupation related features were focused on the other area of higher, drier ground exposed by the watching brief; to the south of the former embayment, in the south-eastern corner of the site. A substantial, previously unidentified possible Bronze Age ditch and bank were exposed in the deeper peat deposits in the centre of the site, whilst a second bank and a third potential bank or mound were revealed in the peat at the eastern edge of the site.

Appendix 1

Flint – Emma Beadsmoore

A total of five (41g) flints were recovered from the site, all from one feature, ditch F. 7. The material comprises flint working waste and one tool; a Late Neolithic/Beaker flake knife. A thoroughly worked down multiple platform core is potentially of the same date. The remaining core and two flakes were the products of expedient flake production/core reduction that can either be a component of Beaker flint working or a defining characteristic of flint working from the Middle Bronze Age onwards.

Appendix 2

Assessment of the Bulk Environmental Sample - Anne de Vareilles

Methodology

A waterlogged sample was taken from the large ditch F. 8. 300ml was processed in the George Pitt-Rivers Laboratory, Department of Archaeology, University of Cambridge, using a 300 μ m. Sorting and identification of ecofacts were carried out under a low power binocular microscope, using the reference collection of the GPR Laboratory. Nomenclature follows Stace (1997) for plants and Beedham (1972) for molluscs. All environmental remains are listed in full in Table 1.

Preservation

The waterlogged sample was taken from the ditch in order to gain some information on the natural environment in and around the bank and ditch. The analysis revealed a large variety of wild plant seeds, testimony of a rich and diverse ecology. The quantity of seeds per variety, however, is very low (see Table 1), which indicates that the context sampled has not been permanently waterlogged since deposition. Due to the loss of seeds caused by adverse environmental conditions, the interpretation below must be viewed as only tentative. Molluscs were also found; types and their habitats are listed in Table 1.

Results and Discussion

The range of wild plant seeds can be placed into three rough categories:

- 1) small plants that probably grew within the waterlogged ditch, such as pondweeds (*Potamogeton* sp.), water-plantain (*Alisma plantago-aquatica*) and common meadow-rue (*Thalictrum flavum*)
- 2) herbs and grasses that may have grown on the bank and around the ditch, such as sedges (*Carex* sp.), mint (*Mentha* sp.), clustered dock (*Rumex* conglomeratus), prickly sow-thistle (*Sonchus asper*) and wild celery (*Apium* graveolens)

3) plants of damp, possibly open, woodland which seem to define the area around that part of the ditch and bank, such as alder (*Alnus glutinosa*), lime (*Tilia cordata*), elder (*Sambucus nigra*) and brambles (*Rubus* sp.)

The association of alder and lime points to a damp woodland environment that provided excellent coppicing and pollarding material. Lime is slow to colonise new areas which suggests the ditch was built within, or on the edge of, an already existing wooded landscape (Rackham 2003). The woodland may have been quite open with a diverse undergrowth community. Conversely, if it was lime dominated it would have been very shady and therefore not conducive to many other plants. The poor assemblage of fresh water molluscs suggests the ditch contained calcium-rich, stagnant or slow moving water. As mentioned above, these descriptions can not be conclusive due to the effects of poor preservation.

Three charred seeds were also found. They are not likely to have burnt in an extensive forest fire as one would expect to find high levels of charcoal as well as other charred plant remains.

Table 1:	Waterlogged	Plant, Mollusca and	Entomological Remains
		/	

Sample number			<1>
Context			
Feature			
Feature type			Large Ditch
Phase/Date			
Sample volume - Litres			0.3
Flot fraction examined			1/1
Species	Common Name	Ecology	Ouantity
Ranunculus acris/ repens/ bulbosus	Meadow / Creeping / Bulbous Buttercup		1 C
R. Subgen. BATRACHIUM	Crowfoot		++
Thalictrum cf. flavum	Commom Meadow-rue	common in meadows and fens by streams	-
Urtica dioica	Common Nettle	Waste and disturbed ground, woods, fens	+
Alnus glutinosa	Alder	Wet places in woods and by fresh water	+
Atriplex patula / prostrata	Oraches	Nutrient rich soil	-
Stellaria palustris	Marsh Stitchwort	Usually base-rich marshes and fens	-
Rumex conglomeratus	Clustered Dock seeds and tepals	Damp grassy places, not often in woods	-
R. conglomeratus/ sanguineus/obtusifolius	Small seeded Dock		-
Tilia cordata	Small-leaved lime	Woods, on rich soils	-
Rubus sp.	Bramble	Open woodland, scrub and waste ground	-
Epilobium hirsutum	Great Willowherb	All sorts of damp places	+
Euphorbia sp.	Spurges		-
Oxalis acetosella	Wood sorrel	Woods, hedgebanks. Avoids heavy, wet soils	-
Hydrocotyle vulgaris	Marsh Pennywort	Bogs, fens and marshes	-
Apium graveolens	Wild celery	Damp places by rivers and ditches	-
Spiny Umbelliferae	Carrot family seed		-
Solanum dulcamara	Bittersweet	Hedges, woods, waste ground, ditches, fens, pond- sides	-
Lycopus europaeus	Gipsywort	Banks of rivers and ditches and in marshes and fens	-
Stachys sp.	Woundworts		- and 2 C
Mentha sp.	Mint		-
Sambucus nigra	Elder	Woods, scrub, roadsides and waste places	-
Cirsium / Cardus	Thistles		+
Sonchus asper	Prickly Sow-thistle	Cultivated and waste ground	-
Alisma plantago-aquatica	Water plantain	In by ponds, ditches, slow flowing rivers, cannals	++
Potamogeton sp.	Pond-weeds	Damp and wet ground	+
Potamogeton sp. type 2	Pond-weeds	Damp and wet ground	+
large <i>trilete Carex</i> sp.	Sedge	Damp ground	-
large flat <i>Carex</i> sp.	Sedge	Damp ground	-
Small Poaceae	Small grass seed		+
Indet wild plant seeds			5
Indet buds	Inc. (1
Entomological remains	Insect remains		+++
IVIOIIUSCa Bithynia tentaculata		Hard waters: quite or still waters, not small ponds	++
Lymnaea peregra		Widely distributed in fresh water	-
Physa fontinalis		Widely distributed	-
Planorbis corneus		Hard waters: stagnant or moving	-
Planorbis planorbis		Hard shallow waters, resists drying	-
Bathyomphalus contortus		Widely distributed	+
Sphaerium corneum		Widely distributed, favours moving, hard water	-

Key: '-' 1 or 2 items, '+' < 10 items, '++' 10 - 50 items, '+++' > 50 items; C = charred

Appendix 3

Feature descriptions

F. 1 Post hole; [2] width 0.14m; depth 0.34m. Not visible in plan, vertical sides and a rounded base. Fill: [1] medium grey sandy silt with charcoal. No finds.

F. 2 Pit; [4] width 0.66m; depth 0.4m; not visible in plan, concave sides sloping to a rounded base. Fill: [3] medium grey sandy silt with occasional charcoal. No finds.

F. 3 Pit; [7] width 1.23m; depth 0.25m. Not visible in plan, concave sides sloping to a rounded base. Fills: [6] light grey sandy silt; [5] medium dark grey sandy silt with charcoal. No finds.

F. 4 Mound/bank; [8] width c.3.27m; height c.0.49m. Not visible in plan, and was only visible in one side of the trench, the sides slope steadily up to a rounded crown. The mound was made of redeposited natural; orange silty sand and gravel. No finds.

F. 5 Bank; [9] width c.3.2m; height c.0.47m. Not visible in plan, but it extended across the whole trench, the sides slope steadily up to a rounded crown. The mound was made of redeposited natural; orange silty sand and gravel. No finds.

F. 6 Possible ditch; [11] width unknown; depth unknown. Fill: [10] medium grey sandy silt. No finds.

F. 7 Ditch; [14] width 1.58m; depth 0.54m. Two fills: [13] grey silty sand, contained charcoal; [12] mottled grey/orange silty sand, contained flint and charcoal.

F. 8 E-W? ditch and bank; ditch [26] width 4.3m; depth 0.7m; not visible in plan, the sides sloped steadily down to a flattish base. Nine fills; [24] medium grey clayey silt; [25] medium grey clayey silt; [23] medium/dark grey clayey silt; [22] black peaty silt; [19] medium grey/orange silty sand with gravel; [18] light/medium grey silty sand with gravel; [21] grey silty sand with some gravel; [20] grey silty sand with frequent gravel; [17] medium grey silty sand with gravel. Bank; [27] width 4.2m; height 0.23m, orange gravel/sand; [29] light grey sandy silt.

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List of contributors

On site surveyors and site assistants Donald Horne Martin Oakes *Post-excavation* Gwladys Monteil (finds co-ordinator) Anne de Vareilles (archaeobotany) Andrew Hall (computer illustration)

Project Management David Gibson

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