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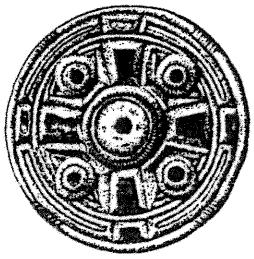

Archaeological Field Unit

A Post-Medieval Ridge and Furrow System on Land off Bakewell Road and Great North Road, Orton Waterville, Peterborough: An Archaeological Evaluation

Rebecca Casa Hatton

2000

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Commissioned by Pell Frischmann Milton Keynes Ltd
On Behalf of English Partnerships

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November 2000

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Summary

Between the 13th and 15th November 2000 an archaeological evaluation was undertaken on 5.5 hectares of land adjacent to, and to the south of, the East of England Show Ground, Orton Waterville, Peterborough (TL 1390 9480), by staff of the Cambridgeshire County Council Archaeological Field Unit (AFU). The work was carried out prior to development of the site involving the construction of industrial units with associated access roads and services.

Eight evaluation trenches totalling 814m were excavated across the site. Remnants of furrows were uncovered and interpreted as evidence for agricultural use of the land during the post-medieval period.

The absence of earlier finds on the site can probably be taken to indicate a low level of activity prior to the post-medieval period.

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TL 1390 9480

1. INTRODUCTION

Between the 13th and 15th November 2000 staff of the Cambridgeshire County Council Archaeological Field Unit carried out an archaeological evaluation on land off the A1 Great North Road (Site 'M'), to the south of the East of England Show Ground, Orton Waterville, Peterborough. The work was commissioned by Pell Frischmann Milton Keynes Ltd on behalf of English Partnerships, in connection with a planning application for the site involving the construction of industrial units with associated access road.

The work was carried out according to a brief for archaeological evaluation issued by Peterborough City Council Archaeological Service (PCCAS) (Robinson 2000). The work was supervised on site by Andrew Hatton. The project was managed by Mark Hinman.

2. GEOLOGY AND TOPOGRAPHY

Site 'M' is located between the A1 Great North Road and Bakewell Road, in the Civil Parish of Orton Waterville, *c.* 1km to the south of the village of Alwalton and some 0.5Km to the north of the A1-A605 junction (Haddon Parish) (Fig. 1). It is centred at TL 1390 9480.

The development area comprises some 5.5 hectares of former arable land now covered by low vegetation, at a height ranging between 23.3m in the south corner and 18m in the north east corner. A contour map of the site shows that the land gradually slopes north-eastwards[1].

The site is located on the interface of the third terrace sands and gravel of the river Nene and on Oxford Clay (Horton 1984, BGS 172).

[1] The contour map was produced by Pell Frischmann Milton Keynes Ltd

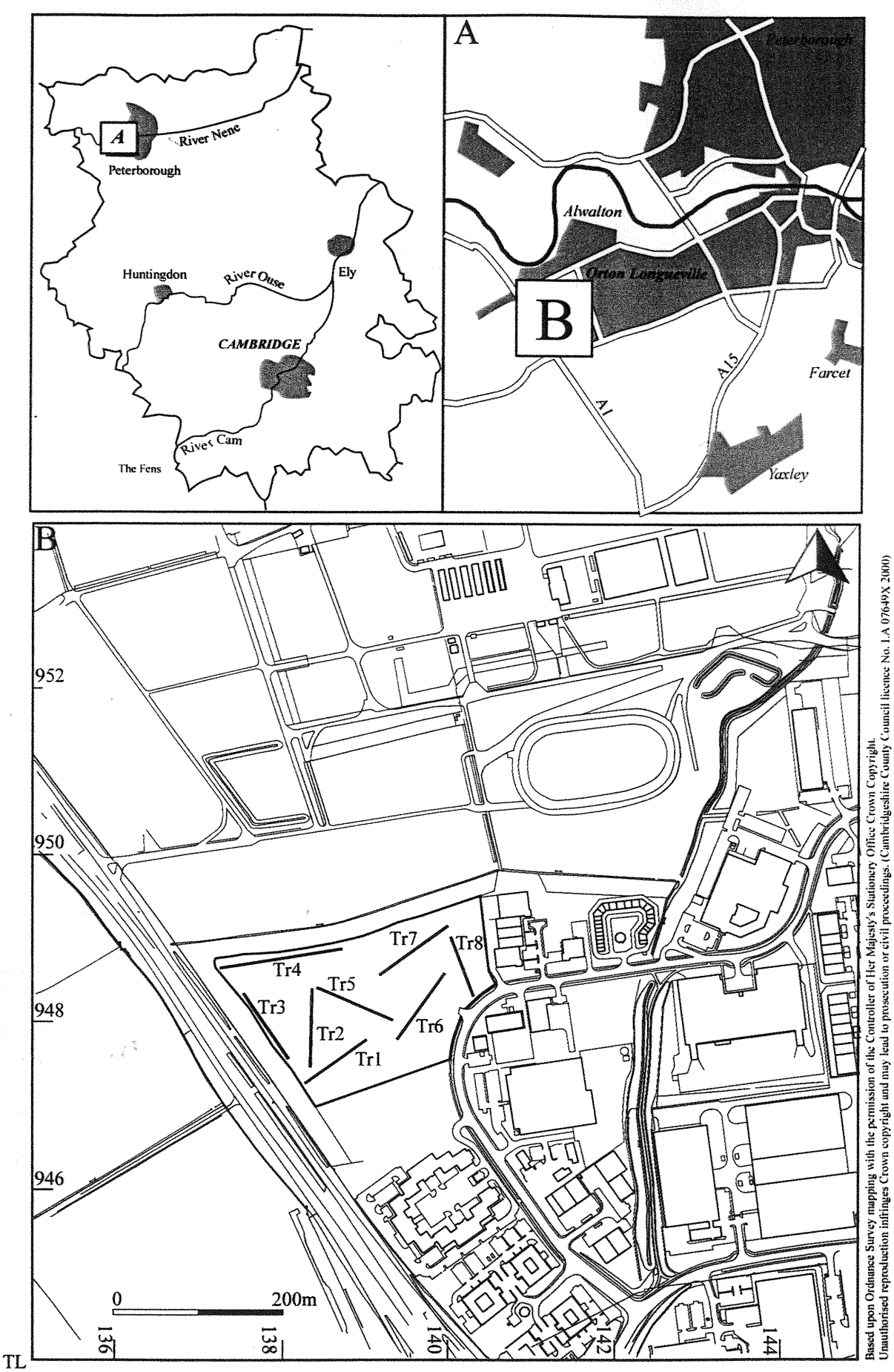

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Figure 1 *Site Location Map*

3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Prehistoric Period

The prehistoric period is represented by records of barrows and ring-ditches in the area, primarily known from aerial photographic evidence. A scheduled barrow cemetery (PCCSMR 01436, SAM 193) lies to the north-east of the development area, on the eastern side of the A1139.

Three ring-ditches are located within the East of England Show Ground (PCCSMR 09174, 09186 and 50346). Two of them (PCCSMR 09174 and 09186) were identified from aerial photographs taken by the Ordnance Survey. Recent re-examination of these photographs has failed to confirm the existence of the two cropmarks (Palmer 1999). During an evaluation conducted at the East of England Show Ground in 1999 a further ring-ditch of shallow depth and some 24m in diameter was identified and generically dated to the prehistoric period (Wall & Hatton 1999).

Evidence of a Neolithic and/or Bronze Age presence has also emerged in the form of lithic finds. Some 234 worked flint artefacts were recovered from the by-pass site (Haddon Lodge Farm) less than 1km south of the subject area (French 1994). Of these 141 were recovered from pre-excavation fieldwalking (Middleton in French 1994, 85-88). The flint appears to fall into two distinct categories comprising abraded material of an early Bronze Age date (namely, a relatively large number of denticulates, with some notched flakes and borers) and un-abraded 'crude' material from Romano-British contexts.

Iron Age

Iron Age evidence in the area appears to be limited to a range of Late Pre Roman Iron Age features excavated at Haddon Lodge. This latter is a farmstead complex established in the late Iron Age and thought to be continuously used at least until the fourth century AD (French 1994; Hinman forthcoming).

Roman

The A1 Great North Road that follows the line of Roman Ermine Street flanks the western perimeter of the development site.

Excavations conducted on land off Ermine Street to the south of the development area have produced evidence for Romano-British rural activity and occupation, as at Haddon Lodge Farm (French 1994; Hinman, forthcoming) and at the Roman villa and Saxon settlement 600m further to south (Upex 1993).

To the north of the site Ermine Street is flanked by the Roman town of *Durobrivae* around which are located a variety of contemporary villas, burial grounds, industrial areas and other sites.

Saxon

Clear evidence for the re-furbishment and use of Romano-British structures during the Saxon period has been illustrated through excavation to the south of Haddon Lodge Farm (Upex 1993).

Saxon evidence has also emerged in and around Alwalton. A site on the eastern edge of the village has produced evidence of Roman and middle Saxon occupation. (Roberts 1999). A subsequent excavation uncovered further evidence for Saxon occupation and an early Saxon cemetery (Hertfordshire Archaeological Trust 1999).

Medieval

Ridge and furrow systems were identified near Haddon Lodge Farm. They were at an angle of 45° to the natural slope, following the orientation of earlier Romano-British field systems to minimise the effects of soil / water erosion on this slope (French 1994, 74; Hinman, forthcoming).

An evaluation on land to the north of the East of England Show Ground uncovered traces of a ridge and furrow field-system (Bray 1998).

Medieval ridge and furrow agriculture is evident from aerial photographs of several other areas near the site (PCCSMR 09824, 01436a and 08750).

Medieval hammered coins were recovered from the area to the west of Bakewell Road, opposite the present development site. They were intepreted as evidence that economic transactions may have taken place possibly in connection with a fair (Steve Critchley, *pers. comm.*).

Post-medieval

The parish of Alwalton was enclosed in 1805 under a private act of Parliament. An enclosure map of 1809 shows the area divided into separate fields. The first edition OS 1-inch map, published in 1824 but surveyed between 1808 and 1817, shows the area within the East of England Show Ground as open land without fences or hedges. By contrast, element of the post-enclosure field boundaries within the parish of Haddon (enclosed in 1809) are still present within the local landscape, re-aligned, in respect to the earlier ridge and furrow system (Upex in French 1994).

4. METHODOLOGY

In order to provide a context for the evaluation a brief review of currently accessible sources relating to archaeological sites and finds spots within at least 1km radius of the subject site was undertaken (see above).

4.1 Aerial Photographic Assessment

Discussions with Air Photo Services suggested that aerial photographic survey work offered little likelihood of useful results as the depth of colluvium and the base geology would not be receptive to such techniques.

4.2 Sites and Monuments Record and Past Excavations

The content of the historical and archaeological background of the site (above) has drawn upon two main sources of information which were summarised and integrated by Wall & Hatton 1999, and Hinman 1999:

- Peterborough City Council Sites and Monuments Record (PCCSMR) and Cambridgeshire County Council Sites and Monuments Record (CCCSMR).
- Elton-Haddon by-pass excavations (French 1994; Hinman, forthcoming).

4.3 Fieldwork

Eight trenches totalling 814 linear metres (3% sample) were excavated using a mechanical excavator with a 2m wide toothless ditching bucket. The trenches were located across the area of the proposed development in order to obtain maximum coverage thus increasing the possibility of discovering any archaeological features.

The modern topsoil and colluvium were removed to the top of the geological clay deposits, between 0.25m and 0.55m below the present ground surface. The trenches and the spoil heaps were scanned with a metal detector to maximise artefact recovery.

The trenches were located using a Zeiss RecElta 15 Total Station, and a digital base plan of the site was produced with Prosurveyor mapping software. Significant archaeological features were sample-excavated and recorded using the pro-forma recording sheets of the Archaeological Field Unit. All trenches excavated during the evaluation were described with details of topsoil and colluvium depths and the natural geology visible in the base of the trench. A photographic record was compiled that consisted of colour slides.

5. RESULTS

Six of the excavated trenches (Trenches 1, 3, 4, 5, 6 and 7) contained remains of a ridge and furrow field-system. Figure 1 shows the general location of the trenches, whilst figure 2 shows the plan of the furrows in greater detail.

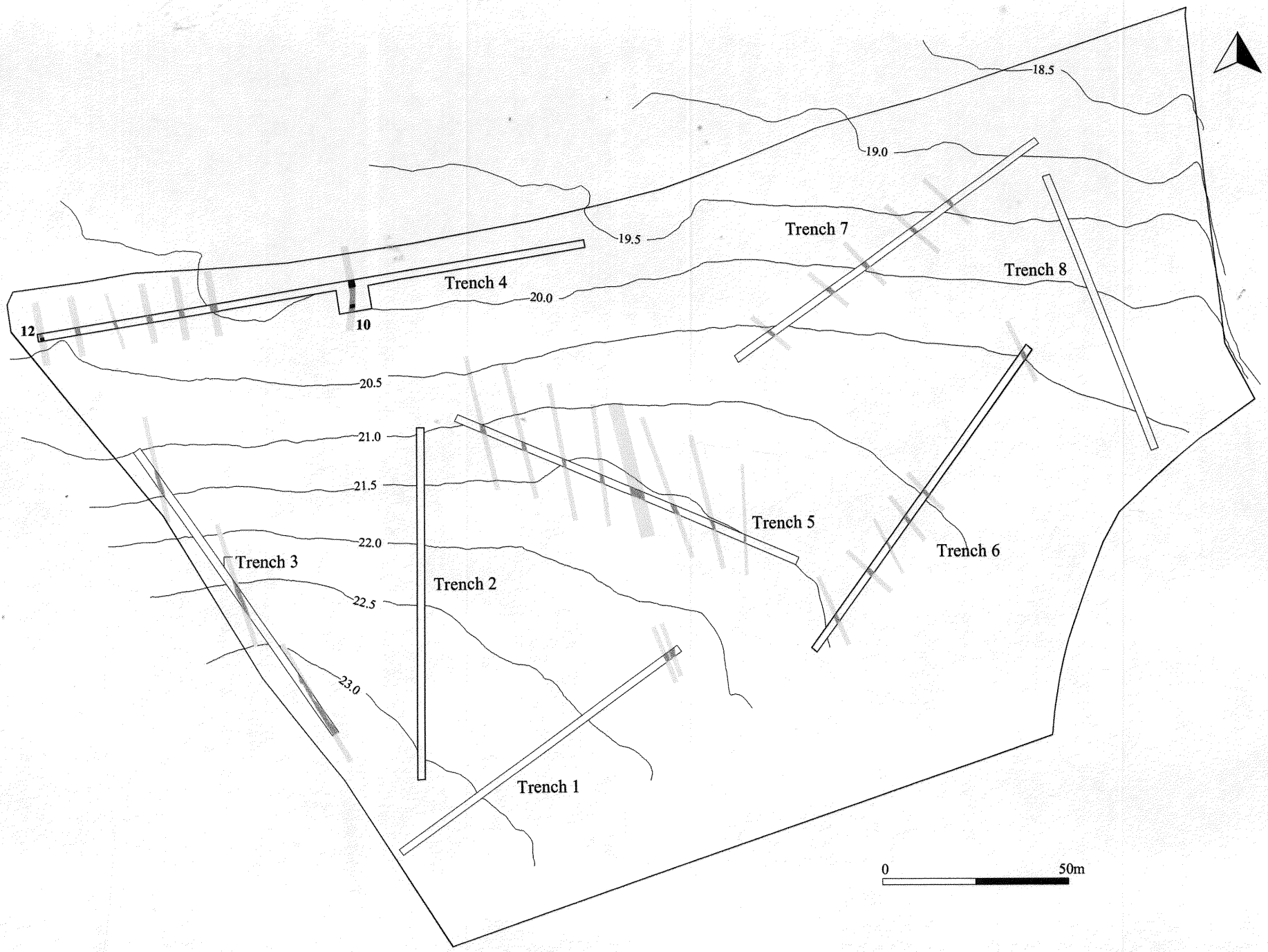

Figure 2 *Trench plans showing furrows (dark tone, excavated areas in black), probable orientation of furrows (light tone) and modern topography*

Trench 1

Trench 1 was 102m long and ran approximately north-east to south-west, parallel to the south perimeter of the development area. The topsoil was some 0.30m to 0.35m thick In the north-eastern portion of the trench it sealed remnants of north to south aligned and closely spaced furrows that scarred the geological clay deposits in the base of the trench.

Trench 2

Trench 2 was 95m long and ran north to south. The removal of the topsoil to a depth of 0.25m to 0.30m revealed the underlying geology that consisted primarily of clay deposits. No archaeological features or deposits were visible in the trench.

Trench 3

Trench 3 was 95m long and ran approximately north-west to south-east, parallel to the western perimeter of the development site. The removal of the topsoil (0.30m thick) exposed the natural geology that consisted of clay deposits and small outcrops of gravel. Remnants of furrows on a north to south alignment were exposed. The furrows were spaced at regular intervals of some 9m throughout the trench.

Trench 4

Trench 4 was 147m long. It ran approximately north-east to south-west, parallel to the northern perimeter of the site. The removal of the topsoil to a depth of 0.30 to 0.35m revealed the presence of colluvium 0.20m thick. This latter sealed remnants of furrows on a north-north-west to south-south-east orientation. The furrows were 1m wide and spaced at fairly regular intervals of *c*. 9m.

Trench 4 was extended and a small area some 55sqm excavated along the southern edge of the trench in order to expose feature **10** (below). This latter was originally thought to represent a possible ring ditch due to its slightly curvilinear shape. On re-examination of the exposed area, the feature was 'S'-shaped indicating the presence of a field boundary or head-land immediately north of the Trench.

Furrows **10** and **12** were excavated in order to retrieve dating evidence. The fills consisted of a light brown silty clay that produced no artefactual evidence but for small lumps of coal probably from a steam plough. Furrow **10** was only 0.20 m deep (from the base of the trench) with a wide 'U' profile. Furrow **12** had a similar profile and a depth of 0.15m. The edges of both features were sharply defined with a gradient of *c*. 45°. This evidence may suggest that the furrows had been partially hand-cut and sharpened to ensure drainage (Ben Robinson, *per. com.*).

Trench 5

Trench 5 was 100m long. It was located at the centre of the site on a north-west to south-east alignment. The removal of the topsoil to a depth of 0.30m to 0.35m revealed the presence of furrows that ran north to south. They were *c.* 1m wide and spaced at regular intervals of approximately 10m. The underlying geology consisted of clay.

Trench 6

Trench 6 was 98m long. It was located in the south-eastern corner of the site and ran north-north-east to south-south-west. The topsoil was 0.30 to 0.40m thick over geological clay deposits. It sealed furrows on a north-north-west to south-south east alignment spaced at intervals of 7m up to 14m in the south-western portion of the trench.

Trench 7

Trench 7 was 102m long. It was located between Trenches 4 and 8, on a north-east to south-west alignment. The topsoil was 0.30 to 0.35m thick over geological clay deposits scarred by remnants of furrows. The furrows were *c.* 1m wide and appeared at intervals of 10m to 14m.

Trench 8

Trench 8 was 75m long. It ran north-west to south-east, almost parallel to the eastern perimeter of the development site. The removal of the topsoil to a depth of 0.30m to 0.35m revealed the underlying geology that consisted primarily of clay deposits and outcrops of gravel. No archaeological features or deposits were visible in the trench.

The apparent absence of furrows in Trenches 2 and 8, as well as in some portions of Trenches 1 and 4, may have resulted from truncation caused by modern ploughing.

6. DISCUSSION

The evaluation of the site produced evidence for agricultural use of the land from the post-medieval period, as suggested by the presence of furrows containing sherds of abraded pottery and coal from steam-ploughs.

A well-defined system of ridge and furrow was recorded. In particular, two groups of furrows were identified on the basis of their alignments.

One group was located on the steepest part of the field, in the western portion of the site. These furrows were on a north-north-west to south-south-east

orientation, perpendicular to the natural contour of the land. The second group was located in the eastern portion of the site where the land slopes more gradually. The furrows were on a north-west to south-east alignment and bisected the contour at an angle of approximately 45°.

The orientation of the furrows appears to have been conditioned by the natural topography, to ensure drainage in the steepest portion of the site (western area), and minimise soil erosion. This could indicate that, in spite of the apparent variations in alignment, the furrows were still the result of the same ploughing event and belonged to the same field. The northern boundary of the ploughed field may have run in close proximity, and parallel, to the present southern boundary of the East of England Show Ground, as suggested by the presence of a possible head land to the north of Trench 4 (above).

The absence of earlier finds suggests that the area under investigation was not intensively used before the post-medieval period. Geological and topographic conditions may have played a major role in rendering the land unsuitable for occupation and agricultural/other activities. The topsoil was probably very poor being constantly washed from the highest point of the contour along the sloping sides of the area. Colluvium was observed in the north-western portion of the development site, where the land slopes sharply from south to north. Additionally, poor drainage caused by the presence of clay in the underlying geology must have rendered the lower areas frequently wet.

During the post-medieval period population growth and increased pressure on land may have created the need to exploit land that had been hitherto considered marginal.

7. CONCLUSION

The objectives of the project were to establish the character, date, state of preservation and extent of any archaeological remains within the site prior to development.

The project has been successful in achieving its objectives. The absence of archaeological features on the site can be taken to indicate a low level of activity prior to the post-medieval period.

ACKNOWLEDGEMENTS

The author would like to thank Pell Frischmann Milton Keynes Ltd for commissioning the work on behalf of English Parterships. Thanks are also due to the staff of the AFU and, in particular, to Andrew Hatton (Site Supervisor) who supervised the site, Scott Kenney (Site Supervisor) who helped with the total station survey and mapping and Jon Cane who prepared the illustrations in the text. Special thanks are due to Steve Critchley who carried out the metal detector survey and gave invaluable advice on the geology of the site and its interpretation. The work was carried out in response to a design brief drawn up by Ben Robinson of Peterborough City Council Archaeological Service, who also monitored the work on site.

The project was managed by Mark Hinman (Project Officer).

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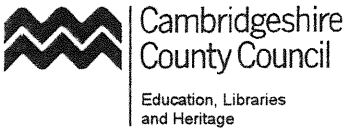
1809 Enclosure Map



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