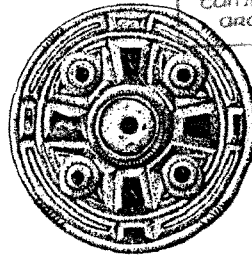




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Archaeological Field Unit

**'Claying' at Kings Farm Chatteris. TL456857.
An Archaeological Evaluation.**

Steve Kemp

1996

Cambridgeshire County Council

Report No. A93

Commissioned By Tarmac Roadstone (Central) Limited.

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An Archaeological Evaluation.**

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1996

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Report No A93

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SUMMARY

Archaeological desk based research and fieldwork was carried out by the Archaeological Field Unit of Cambridgeshire County Council at Kings Farm, Chatteris during April and May 1996. Archaeological work was undertaken on behalf of Tarmac Roadstone (Central) Limited. The proposed development includes an irrigation lake within 5.2 hectares of land presently used for arable and pasture.

Twenty-six trenches of up to 20m in length and 1.8m wide were machine excavated on a staggered grid across the development area. The basic stratigraphic sequence consists of terrace gravels, overlain by up to 0.33m of silts which weathered to expose the remnants of a buried soil. This was in turn overlain by up to 0.76m of desiccated peat which was largely truncated as a result of nineteenth century farming activities.

All trenches contained parallel sub-rectangular pits averaging 1.8m x 1.12m in size where they cut through the buried soil. They did not cut into the gravels. The pits form continuous linear arrangements orientated north-west to south-east across the site. They are typical of 'claying', an agricultural technique employed in the nineteenth and twentieth centuries, which attempted to reduce peat erosion by introducing clay as a binding agent into the ploughsoil. The process of claying destroyed the original stratigraphic sequence across much of the site. However, remnants of a buried soil and deposits reflecting the initialisation of peat growth are preserved in pockets throughout the development area. Buried soils representative of former woodland soils have been identified in similar locations nearby. The buried soil within Trench 21 is characteristic of the Ed horizon of an arillic brown earth or former woodland soil (French pers. comm.).

In Trench 21 hand excavation of the buried soil which had formed within or collapsed into a tree root depression revealed two flint artefacts; a core and a flake which are probably of Neolithic or Bronze Age date. Further investigation revealed no additional traces of prehistoric activity.

Other than the presence of 19th or 20th century hand dug 'claying' pits no other archaeological features were present. Given the results of the extensive trenching strategy undertaken it is unlikely that any other archaeological remains are present within the application area.

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APPENDIX 2 Kings Farm, Chatteris: Soil Assessment

'Claying' at Kings Farm, Chatteris. TL456857
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1 INTRODUCTION

Archaeological desk based research and fieldwork was carried out by the Archaeological Field Unit, Cambridgeshire County Council at Kings Farm, Chatteris during April and May 1996. The archaeological work was undertaken on behalf of Tarmac Roadstone (Central) Ltd in advance of the excavation of an irrigation lake. The subject site covers 5.2ha and is partly cultivated and partly under pasture.

2 TOPOGRAPHY AND GEOLOGY

The site lies to the east of Chatteris and south-west of Manea, within Langwood Fen. Langwood Hill Drove lies 300 metres to the west of the site, whilst Vermuden's Drain lies to the north (Figure 1). The 'island' of Chatteris and the Ampthill clay ridge of Langwood hill lie to the west.

Geology consists of Ampthill Clays overlain by 1st and 2nd Terrace Gravels. During the Bronze Age the extremities of the parish of Chatteris were affected by an early marine inundation; these marine clays are largely restricted to the channels of former rivers (Hall 1992, 84).

Until the fens adjacent to Chatteris were drained in the seventeenth century the peat had risen to 3.5m OD (Hall 1992, 84). The site presently lies at sea level with the present ground surface dipping slightly to the east and north-east. This suggested that any archaeological site which formed within the peats, and above the present sea level, would now only exist as a lag deposit. The heavier artefacts would have remained 'on site' whilst associated peat layers became desiccated and wasted away.

3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The Sites and Monuments Record for Cambridgeshire lists two artefact find spots within one kilometre of the development site. A Palaeolithic handaxe (SMR 5812) was found 500m to the north-west of the site, and a Neolithic axe (SMR 5843) was found about 900m to the north-east. Within two kilometres of the site, and adjacent to Langwood Hill Drove, lie two Neolithic and Bronze Age artefact scatters. Fieldwalking has recovered an average of 0.57 flint artefacts per hectare within Langwood Fen, suggesting a sparsely occupied landscape (Hall 1992, 90).

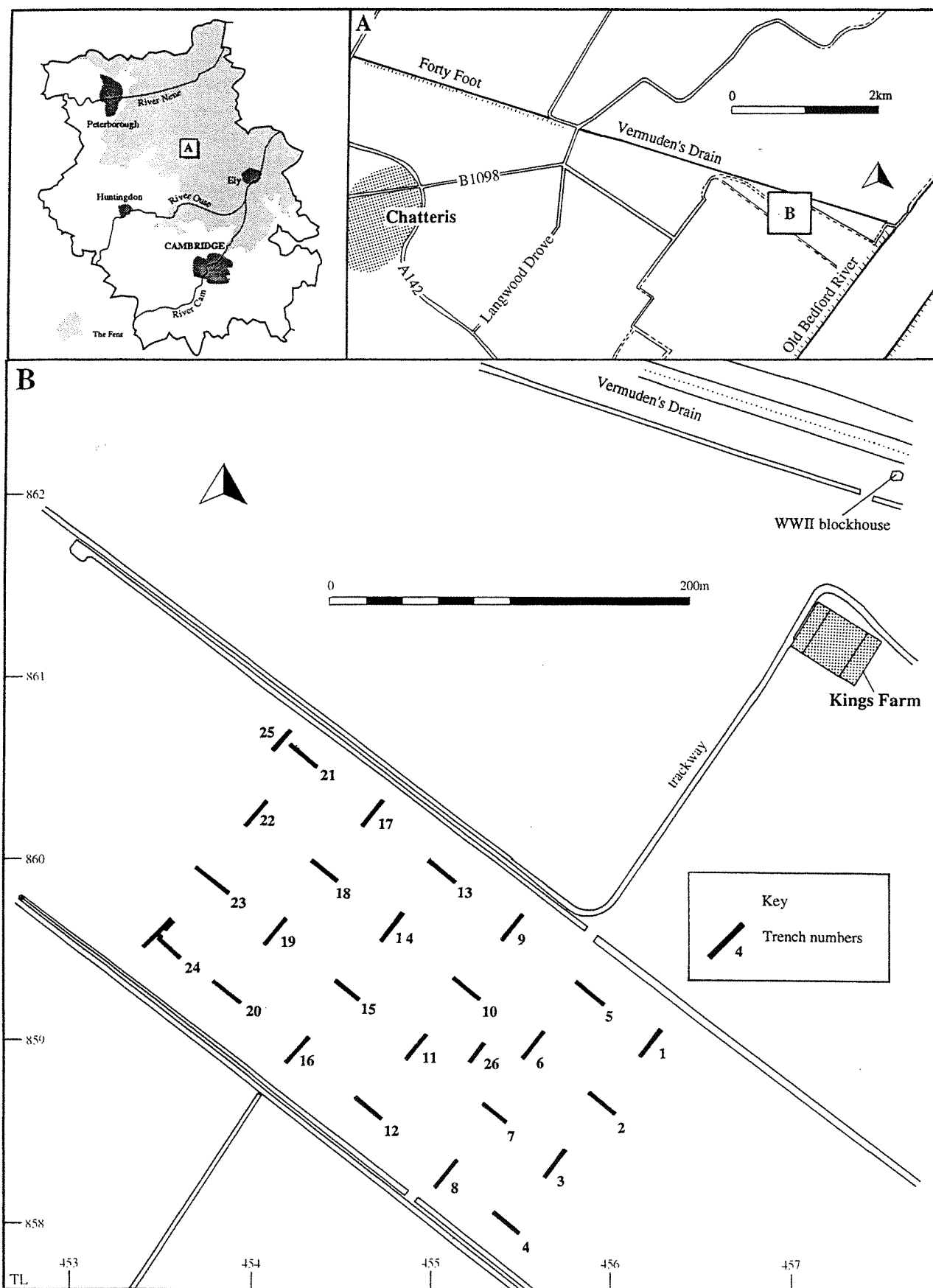


Figure 1 Location Plan

For much of the earlier prehistoric period the development area lay on dry land from the Neolithic period, tidal and intertidal boundaries lay within the parish of Chatteris; lying to the north (Byall Fen), north-west (Benson's Fen) and south of Chatteris

at Ferry Burrow, Horseley and Colne Fens. The upper 0.5m of the Terrace Gravels were mixed with clays resulting from early Holocene alluviation along the floodplain of the River Ouse. This resulted in soils which are believed to have been too heavy to attract early settlement, although there is occupation evidence for Horseley and Ferry Burrows (Hall 1992, 84).

In the Bronze Age, marsh lands associated with the intertidal zone gave way to peat fen development which encroached on all sides of the high land at Chatteris (Hall 1992, 88). The first marine inundation occurred in the early Bronze Age, in Chatteris sedimentation seems to have occurred along the major water courses, and mostly confined to larger roddons in Benson and Curf Fens (Hall 1992, 84).

Burial mounds (barrows) are consistently found along the Bronze Age fen edge; fifteen are known from within the parish of Chatteris. The single barrow excavated Block Fen (Hunn 1992, 6) lay somewhere between 1.5 and -1.1m OD indicating the potential for similar remains inside the evaluation area. Occupation areas are commonly located on higher ground away from the barrows (Hall 1992, 90). Although the development area lies at the bounds of the Bronze Age fen no archaeological remains were known to lie within the application area.

The Iron Age and Roman periods saw peat growth extend up to the 2m contour. The 2m contour lies adjacent to Langwood Drove Road where a ten hectare Iron and Roman settlement was recently investigated (Evans 1994). By the medieval period peat had encroached further onto Chatteris 'island'.

Drainage combined with arable agriculture has led to major deflation of the peat deposits since the seventeenth century. The Vermuden's Drain (The Forty Foot Drain), Welches Dam and the New Bedford River (Hundred Foot Drain) formed major components of this drainage scheme which began in 1630 following the Lynn Law (Darby 1983, 64). Other major landscape include the enclosure of 5,669 acres in 1819 following the enclosure acts of 1793 and 1809. Rapid expansion of Chatteris town occurred in the early nineteenth century as the result of the dislocation of the rural population as much of the adjacent pasture was converted to arable (Pugh 1953, 103).

Vermuden's Drain was designated a 'stop line' during the second world war. This was a line of resistance designed to counter invasion from the east coast. A series of block houses survive along its bank.

4 AERIAL PHOTOGRAPHY

A programme of aerial photographic research was undertaken by Air Photo Services of Cambridge as part of the archaeological assessment. Aerial photographs from the Cambridge University Collection of Aerial Photographs and the Cambridgeshire Record Office were examined.

No obvious archaeological features were recognised, although palaeochannels and hollows were identified within the development area or in the immediate environs. The identification of old, infilled field boundaries outside of the development area, and mottling of the modern field surface suggests that the aerial photographs would have been responsive to archaeological features if they had existed in the development area (Palmer 1996, 2)

5 METHODOLOGY

Following an examination of existing archaeological records a programme of archaeological field evaluation was proposed. The research outlined in the archaeological and historical background indicated the potential for the preservation of early prehistoric remains, and the probable absence of post Bronze Age settlement due to the encroachment of peat fens during these periods.

Twenty six trenches of up to 20m in length and 1.8m wide were machine excavated on a staggered grid across the development area. Short trenches were excavated in order to provide extensive spatial coverage of the area following the recognition of the potential prehistoric activity areas within the development zone. There was also a need to test for the presence of Mesolithic archaeology surviving within undulating topography of the terrace gravels.

Following the exposure of terrace gravels, or horizons at which archaeological deposits were encountered, trenches were photographed and recorded. Twenty percent of the machine excavated topsoil and subsoil removed from these trenches was trowel scanned for artefacts. Ploughed areas within the development zone were fieldwalked.

Trenches were subsequently recorded in plan and features excavated where appropriate. A single context recording system was utilised with plans and sections drawn at 1:20 and 1:10 respectively. The site survey was undertaken using a total station with internal data logger and subsequent plans were drawn using Prosurveyor and ProCAD. The site survey was integrated with Ordnance Survey digital maps of the area.

6 RESULTS

Context descriptions can be found in Appendix 1.

The basic stratigraphic sequence across the subject area consists of terrace gravels, overlain by up to 0.33m of sandy silts (2,13) which weathered to expose the remnants of a buried soil. At the top of the sequence lay up to 0.76m of desiccated peat which was deepest at the eastern side of the site and was extremely disturbed as a result of post-medieval and modern farming activities.

TRENCH 21

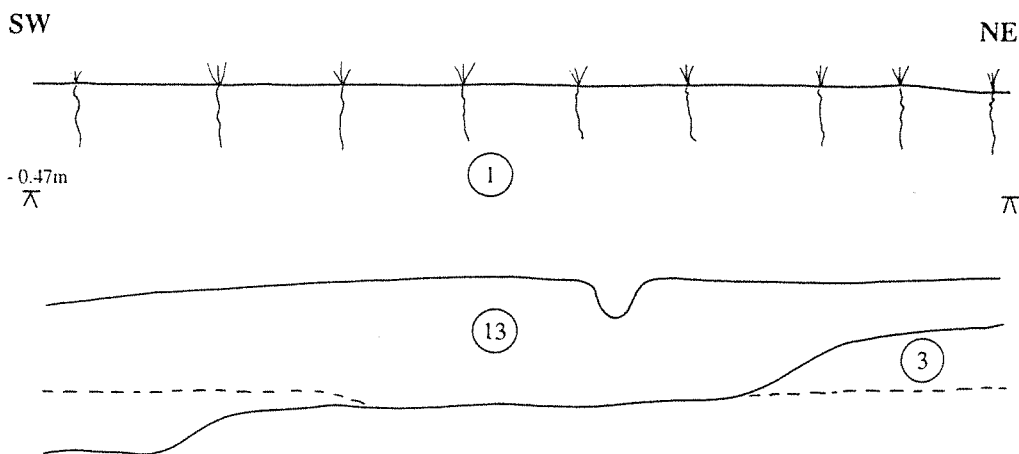


Figure 2 Trench 21: Buried Soil (13)

All trenches contained parallel sub-rectangular pits averaging 1.8 x 1.12m in size at the level at which they cut through the buried soil/alluvium (Plate 1). These pits did not cut into the gravels and could only be seen in plan below the desiccated plough disturbed peat. The gently graded sides of these pits (6 and 7), which were undercut at the base, their 'intercutting spatial arrangement' and that the upper part of these features lay within the plough zone made it difficult to define the extent of these features at the present ground surface.

During hand excavation of the buried soil in Trench 21 two flint artefacts were found. These were a core and flake of probable Neolithic or Bronze Age date; both artefacts were found within a tree root feature at the base of the buried soil (13).

Monolith samples were taken for soil micromorphological studies and pollen analysis from the burial soil and overlying peat adjacent to the two flint artefacts.



Plate 1 Aerial photograph of trenching strategy showing the subrectangular 'claying pits' which were cut into the buried soil (Photograph by Ben Robinson).

7 DISCUSSION

The rectangular pits form continuous linear arrangements orientated north-west to south-east across the site. These features are typical of 'claying' which was an agricultural technique employed in the Fens during the nineteenth and twentieth centuries. Claying attempted to reduce peat erosion by introducing clay as a binding agent into the plough soil.

The process of claying has destroyed much of the original stratigraphic sequence across the site. However, remnants of a buried soil and deposits reflecting the initialisation of peat growth are preserved in pockets throughout the development area. The buried soil within Trench 21 appears to be characteristic of the Eb horizon of an arillic brown or former woodland soil (Appendix 2). Buried soils representative of former woodland soils have also been identified in similar locations nearby (French 1994a & b).

In places a thin band of intermixed sands and peat occurs above the buried soil and below the peat. It is possible that this is related to over bank flood deposits associated with the former Ouse river system. Alternatively, these sands may be marine derived and associated with the 'upper silts' deposited around the Welney Washes in the Iron Age (Appendix 2). If associated with the 'upper silts' peat growth at this site may be Roman, and not Bronze Age as previously supposed.

Only two artefacts were recovered during the course of the field evaluation, these both came from an insecure context. Further investigation revealed no further traces of prehistoric activity. Both artefacts may therefore be considered as stray finds and associated with activities which leave no archaeological features; such as casual discard or loss by prehistoric persons travelling through this area. The presence of only two artefacts within the development area is consistent with Hall's fieldwalking findings for the area which has suggested a background scatter of 0.57 artefacts per hectare (Hall 1992, 90). If any artefact concentrations had been present within this deposit it is likely that such material would be visible at the surface, brought there as a result of claying. Sample fieldwalking was undertaken across the eastern portion of the development area. No artefacts were recovered.

The lack of substantial traces of late Prehistoric and later activity is not surprising. The area falls within the lowest part of the local fen and is overlooked by much more suitable ground for settlement. The lack of field boundaries etc. suggests that this area remained unsuitable to farming activities of the Iron Age and later communities who occupied Langwood Hill.

8 CONCLUSION

Archaeological evaluations provided no evidence for prehistoric occupation within the area. The majority of the stratigraphic sequence had been disturbed by claying. It is therefore felt that any significant artefact concentrations would have been visible at the ground surface as a result of claying, or would have been reflected in the machine spoil.

Other than the presence of nineteenth or twentieth century hand dug claying pits no other archaeological features were present. Given the results of the extensive trenching strategy undertaken it is unlikely that any other archaeological remains are present within the application area.

The presence of the remnants of a buried soil and flood deposits may be considered for further investigation. The samples already taken would fulfil this purpose and perhaps provide a useful data point for charting the environmental sequence of this area, however, during the course of these investigations no deposits offering the potential for an absolute date were encountered.

In the absence of significant prehistoric remains in the development area no further formal fieldwork is recommended. Given the proximity of Palaeolithic artefacts, as identified by the Sites and Monuments Record, occasional casual monitoring of gravel extraction may prove to be a useful exercise.

ACKNOWLEDGEMENTS

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