Archaeological Field Unit

An Iron Age and Roman Settlement on Land North of The Brook, Sutton, Cambridgeshire: An Archaeological Evaluation

Rob Atkins

June 2004

Cambridgeshire County Council

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An Iron Age and Roman Settlement on Land North of The Brook, Sutton, Cambridgeshire: An Archaeological Evaluation

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June 2004

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Report No. 725

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SUMMARY

Between the 4th and 17th May 2004 the Archaeological Field Unit (AFU) of Cambridgeshire County Council conducted an archaeological evaluation of land north of The Brook, Sutton, Cambridgeshire (TL 4427 7916) in advance of construction of 106 houses.

Twelve trenches and an open area of c.11m by c.6m adjoining trench 2 (total length 550m) were excavated within the proposed development area (c. 3 ha). The extreme eastern part of an Iron Age and Roman settlement was uncovered in the north-western corner of the development area. Trenches to the north-east, east and south found no archaeological remains showing that the majority of the settlement was to the west. This settlement was on a south facing slope overlooking the fens about a kilometre to the south.

A large sub rectangular watering hole for cattle measuring c.7m by c.5m and more than 1.8m deep was found. A small ditch ran from the south side of the watering hole and may represent an overflow channel leading to lower land to the south. Some of the watering hole's edges were poached by animal use. A posthole directly to the south of the watering hole may have been part of a mechanism to extract water.

After the watering hole had gone out of use, it was backfilled as a single process with soil from at least two different sources within the settlement. Material was tipped into the hole mostly from the north. Within these layers there was a moderate to large quantity of middle Iron Age and Roman pottery, animal bone as well as some daub with wattle impressions. Environmental evidence from the backfill of the watering hole shows that crop processing was taking place in the vicinity of the watering hole. It is therefore likely that mixed farming was being carried on around the settlement.

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An Iron Age and Roman Settlement on Land North of The Brook, Sutton, Cambridgeshire: An Archaeological Evaluation
(TL 4427 7916)

1 INTRODUCTION

An archaeological evaluation was carried out on land north of The Brook, Sutton, Cambridgeshire (TL 4427 7916) to fulfil the requirements of planning application E/00851/03/F. The application was to build houses with a public open space in the north-western part of the site. Construct Reason Limited funded the archaeological evaluation. This evaluation was carried out by the Archaeological Field Unit of Cambridgeshire County Council between the 4th and 17th May 2004.

The Brief for archaeological work was dated 30th March 2004 (Gdaniec 2004). As part of the requirement for work the Brief stipulated that an assessment of aerial photographs of the area should be carried out (Palmer 2004; Appendix 3). The archaeological objectives for the evaluation were recorded in the Specification for the site dated 6th April 2004 (Roberts 2004). These objectives were to establish the character, date, state of preservation and extent of any archaeological remains within the proposed development area.

The Specification and the proposed location of the archaeological trenches were approved by the Cambridgeshire County Council Archaeological Office (CAO) and the site was monitored by Kasia Gdaniec (CAO).

2 GEOLOGY AND TOPOGRAPHY

The geology has been mapped as being Upper Jurassic Kimmeridge Clay in the extreme south of the site which was overlaid by boulder clay (glacial tills of the Pleistocene glaciation) on the majority of higher ground to the north (BGS 1978). Glacial sands and gravel was mapped to the north-east of the site.

Good exposures of the glacial tills were seen in the trenches as stiff, light brown to grey-brown chalky clays containing numerous angular and sub-rounded clasts of flint, limestone, cementstone and derived Jurassic fossils (Steve Critchley pers. comm.). Periglacial ground ice features were abundant in some trenches, remaining as light orange-brown, sandy, infilled ice wedges and polygons. Tills exposed in the upper portion of the site were much more gravely in nature, a result of late Pleistocene weathering and solifluxion. Material derived from these processes increasingly accumulated towards the lower portion of the site as a colluvium cover to the tills.

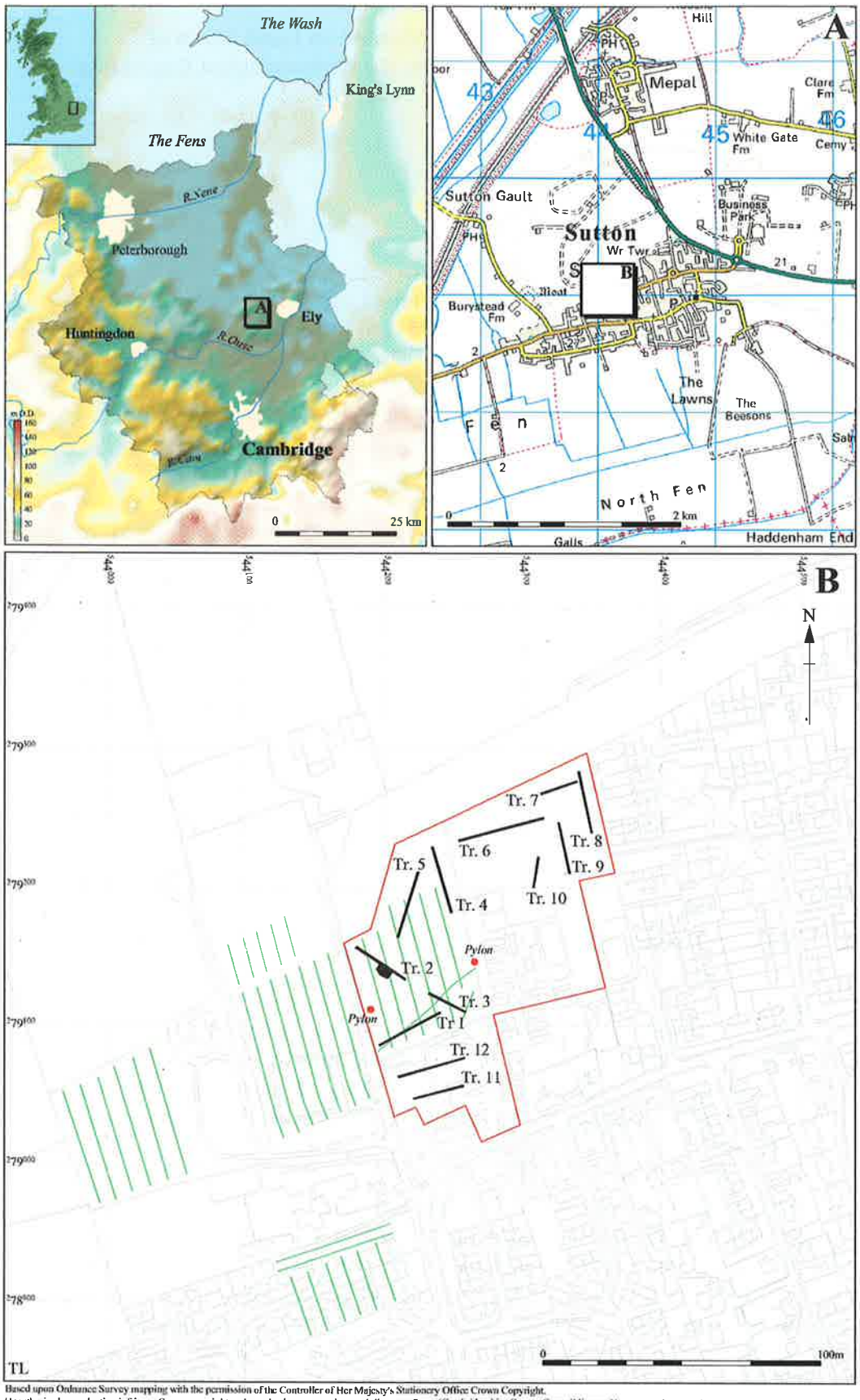

Figure 1 *Location of trenches (black) with the development area outlined (red) and cropmarks (green)*

The site was on a fairly gentle sloping, south-facing, valley side. It was at 20.52m AOD in the southern area near The Brook rising to 23.59m AOD at the northernmost part of the site.

3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Important prehistoric remains have been found in the parish of Sutton, mostly on the rises and islands of lighter soil in the fens, particularly North Fen and Sutton Meadowlands three kilometres to the west and south-west of the village (Hall 1996). These sites include Mesolithic, Neolithic and Bronze Age period activity including long barrow(?s) and round barrows.

No Iron Age material has been recovered from the parish and only a few Roman remains. The lack of artefacts/occupation findspots within the parish for these two periods is partly because only about half of the parish was surveyed as part of the Fenland Project (Hall 1996). The present site was not field walked. The cutting of a drainage trench in 1955 along the Oakes Lane in Sutton (a kilometre to the east of the site) uncovered a cremation urn of probable 2nd century AD date (Phillips 1970, 215; Fig. 3 SMR No. 5744). The ashes were contained in a large storage jar with another smaller jar placed inside.

There have been some unprovenanced Roman objects found in Sutton. Tebbutt found pottery sherds in 1953 at TL 3929 7897 'on a roddon' (Hall 1996, 58). Hall says that a site at that location is unlikely and the finds probably represent some outliers of the Roman complex in neighbouring Colne Fen on the west. A bronze statuette of Hercules was found before 1891 (Heichelheim 1937, 73) and a Christian hoard of six large platters and a pewter tazza of the 4th century were known in 1898 (Toynbee 1964, 176).

Anglo-Saxon remains including a gold ring (Albert 1849) have been recorded in the parish but these again have been unprovenanced. Archaeological work in the village has found dwellings (more than 500m to the south and south-west) dating from the 9th century to later medieval period (Abrams 2000; Hatton 2002 and Wills 2004). The medieval village probably clustered around the church and along the High Street (Roberts 2004). The village is L-shaped, more than a kilometre long, and runs along the former main road from Ely to Chatteris.

Aerial photographs have shown the site was within the medieval field system for Sutton (Fig. 1; Palmer 2004; Appendix 3). This agricultural use continued to recent times with the first edition 1891 Ordnance Survey Map showing the site within two large fields. Later the northern part of the site was part of Mepal WW2 Bomber Airbase. With the disuse of the airfield the site became part of two farms. The former ridge and furrow has been levelled. Several

farm buildings were demolished on the extreme southern part of the site before archaeological work took place.

4 METHODOLOGY

A mechanical excavator with a 1.8m wide ditching bucket was used to excavate 12 trenches under archaeological supervision (Fig. 1). A few of the trench locations were changed due to an overhead cable running across part of the site, trees and other obstructions. After a monitoring meeting with the County's Planning Archaeologist, trench 2 was widened to uncover a feature partially visible within the original trench (Fig. 2). It was also decided by the CAO that the proposed trench under the northern farm buildings did not need to be excavated. A total of 550m of trenching was excavated providing a 4% sample of the site.

Trench 2 was planned at 1:100 and sections drawn at 1:20. All features and deposits were recorded using the AFU single context system. Each distinct cut, fill, and layer was allocated individual numbers. The context list appears as Appendix 2. In the text cut numbers are in **bold** and deposit numbers in plain text. Monochrome, colour slide photographs and digital pictures were taken. All features were investigated.

5 RESULTS

Aerial photographic assessment

The aerial photographic assessment of the site examined an area of some 3 hectares (centred TL 442 791) which was mapped at 1:2500 (Fig. 1; Palmer 2004). A copy of the full report appears as Appendix 3. The only archaeological features visible on aerial photographs were indications of medieval cultivation most of which is now plough-levelled. This ridge and furrow was both within the site as well as to the south of it running to within 120m of the High Street.

Trenches

Only one trench (trench 2) had definite archaeology within it although there was a possible posthole in trench 3 and a shallow irregular probably natural feature in trench 5 (Table 1). Ten of the 12 trenches (trenches 1-10) were in fields and had the same two layers (topsoil and subsoil) overlying the natural geology on site (Table 1). The topsoil was a dark brownish grey clayey silt with very occasional stones less than 60mm long. There were very rare slate, brick/tile and glass fragments and charcoal/coal flecks. The subsoil was a mid

brown very clayey silt with very occasional stones less than 80mm long and very rare charcoal flecks. This subsoil may represent the levelled ridge and furrow.

Trenches 11 and 12 were located in an area of former farm buildings. There were no features within these two trenches. There were three modern layers in both trenches with the upper layer, 0.40m-0.45m thick, consisting of a loose dark brown loam with frequent modern artefacts including metal, plastic and glass. The middle fill, 0.2m thick, consisted of mid grey brown silty clay with occasional modern (20th century) pottery and glass pieces. The lower layer, 0.2m thick, was a light yellow brown clay with a little silt.

Trench 3 had a single possible posthole **305** sealed by the subsoil, 3.25m from the western end of the trench. It was oval, 0.42m long, 0.36m wide and 0.20m deep, with steep edges and a flat base. The posthole had been backfilled with two layers. The lower fill, 304, 0.10m thick, was a pale to mid brown silty clay with very occasional small stones less than 40mm in length and very occasional chalk fragments. The upper fill, 303, was 0.10m thick and was a mid brownish grey very clayey silt. There were rare small chalk fragments and flecks less than 20mm in length. A single sherd of Iron Age pottery was recovered from it. Trench 5 had a single undated sub-rounded feature, 503, which was 1.1m in diameter and 0.20m deep. The edges were somewhat irregular and filled with a light to mid orange brown silty clay.

Trenches	**Length (m)**	**Topsoil Depth (m)**	**Subsoil Depth (m)**	**Archaeological features**
Trench 1	50	0.27	0.25	No
Trench 2	43*	0.22-0.26	0.10-0.40	Yes
Trench 3	30	0.30	0.25	?posthole **305**
Trench 4	50	0.25-0.30	0.30	No
Trench 5	50.5	0.23-0.27	0.35-0.40	?treebowl 503
Trench 6	64	0.30	0.40	No
Trench 7	28.5	0.25	0.25-0.30	No
Trench 8	46	0.25-0.30	0.3-0.35	No
Trench 9	38	0.30	0.20	No
Trench 10	34	0.25	0.20-0.25	No
Trench 11	37.5	**	**	No
Trench 12	50	**	**	No

Table 1 Trench by length, depth and archaeological remains
* in addition an area of 11m by 6m was opened up
** Modern disturbance

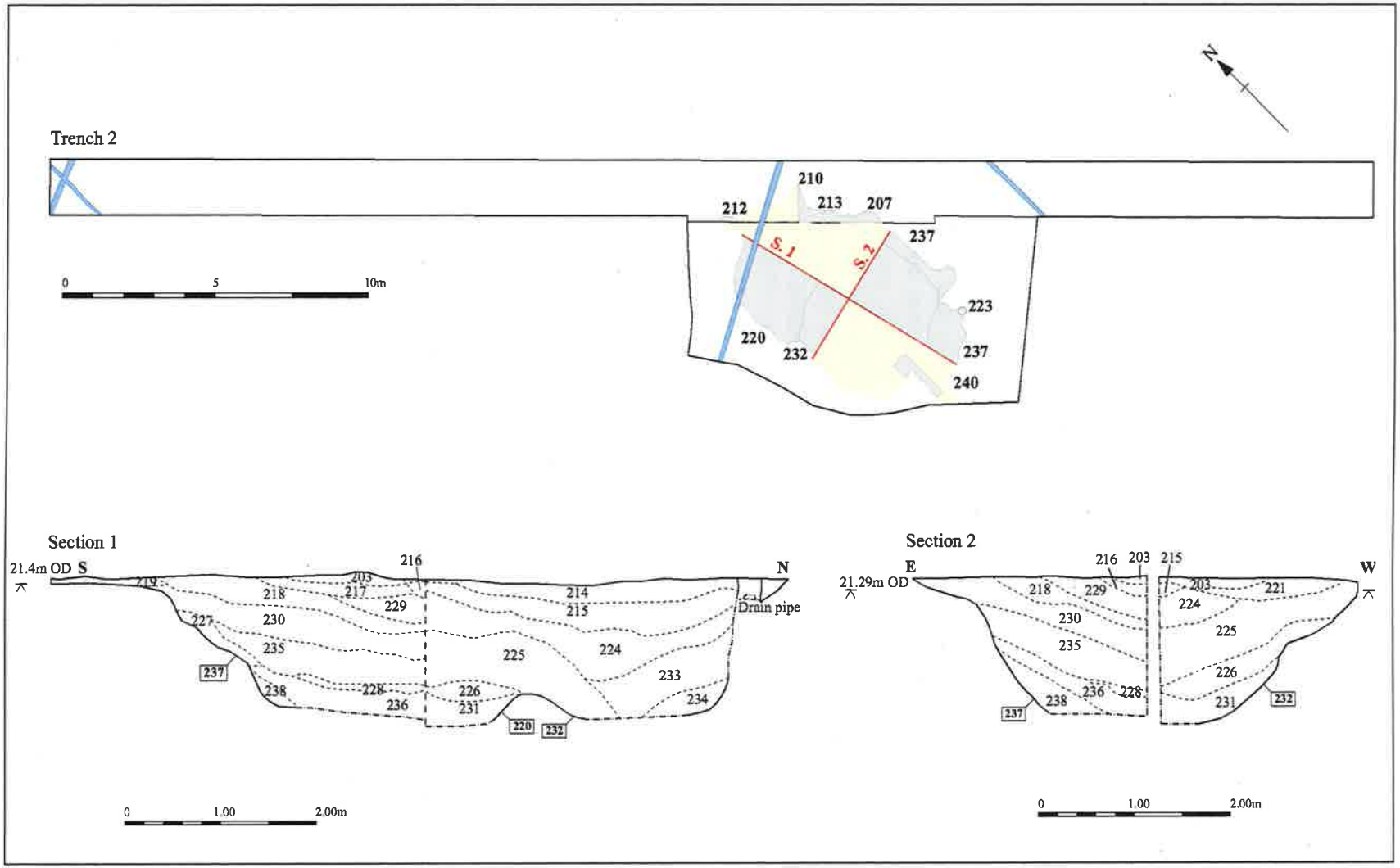

Figure 2 *Trench plan and section drawings*

Trench 2

Trench 2, at the extreme north-west of the site, had archaeological features sealed by subsoil (Fig. 2). There was a probable watering hole, a ditch **240** which ran down from the south of it and a possible posthole **223,** directly to the south side of the watering hole. The ditch could have been a run off gully to allow excess water to drain from the watering hole to lower land to the south. The posthole could have been part a mechanism to extract water from the watering hole.

The watering hole was a slightly irregular large sub-rectangular feature(s) which was partly uncovered in the original evaluation trench. Initially, it was thought there were several different features (**207**, **210**, **212** and **213**) although excavaion when the watering hole had been fully exposed proved it was a single feature *c.*7m long and *c.*5m wide and more than 1.8m deep. It was excavated by taking out the north-west **220** and **232** and south-east **237** quadrants (Fig. 2). The north-west quadrant was given two cut numbers as the watering hole was irregular and deeper on the northern side (Fig. 2, S1). The edges were moderate to steep from *c.*45° to *c.*60°. The south-western edge appeared poached and could have been used by cattle to reach the upper parts of the watering hole.

The watering hole was backfilled in a short space of time (Fig. 2; table 2) although several tip layers are visible. Some of the layers in the two quadrants were the same but were given different numbers in each quadrant (they are given = numbers in the text below). Excavation has revealed the sequence of deposits (Fig. 2, S1 and 2). Due to health and safety reasons the excavation was stopped at 1.8m below top of excavated surface. The angle of the sides imply that the bottom of the feature was probably only a little further down.

The base of the north-west quadrant **220** contained four layers 238, 236=231, 228=226 and 227 which were tipped in from the north. These were overlaid by layers 235 and 230 = 225 which were also tipped from the north and sealed deposits in quadrant **220** as well as being the first fills noted in **232**. Layers 234 and 233 were then tipped into quadrant **232** from the south. These were sealed by layers 218 and 229=224, 217 which were tipped in from the north. Layers 216, 215 and 214 were deposited from the south, 221 from the west and the watering hole was sealed by layer 203.

Layer	Fill Description	Finds/Environmental data
203	Mid-pale yellowish brown silty clay. Moderate chalky fragments up to 90mm	Cu alloy fitting. 1 Iron Age and 30 Roman sherds. 1 daub fragment with wattle impressions. 1 whelk shell.
205	Mid-dark brownish grey clayey silt. Rare stones less than 60mm and rare charcoal flecks	
206	Dark grey clayey silt. Occasional charcoal and burnt clay fragments	A single Iron Age sherd
208	Similar to 205	3 Iron Age and a single Roman sherd

209	Mid yellowish grey silty clay with a little sand. Occasional stones less than 50mm	5 Iron Age sherds and 2 water vole bones
211	Similar to 205	
214	Light greyish brown clay silt. Rare flint and gravel	7 Iron Age sherds and 1 cattle bone
215	Mid greyish brown silty clay. Rare flint and gravel	27 Iron Age and 34 Roman sherds. 2 fired clay fragments. 6 cattle, 6 horse, 1 sheep/goat and 1 large mammal bone. 1 spelt grain
216	Mid greyish brown silty clay. Occasional chalk fragments up to 50mm	
217	Light brownish grey silty clay. Occasional chalk fragments up to 80mm	A single Roman sherd. 3 cattle and 1 sheep/goat bone
218	Mid brownish grey silty clay, occasional stone fragments less than 5mm and rare chalk framents less than 70mm	51 Iron Age sherds. I clay object. 5 cattle, 1 horncore, 1 dog/fox, 1 horse and 3 sheep/goat bones. A few charred and lemna grains
219	Pale to mid grey brown silty clay with occasional small stone less than 50mm	31 Iron Age sherds. 2 cattle, 1 sheep, 3 sheep/goat and 1 medium mammal bones
221	Pale to mid grey brown silty clay	6 Iron Age A single Roman sherd
224	Mid greyish brown clay silt with moderate amounts of small stones	12 Iron Age and 29 Roman sherds. 10 fired clay and daub fragments. 3 cattle, 3 horse, 2 sheep/goat and 2 water vole bones. Lemna grains. Some *Cepaea* shells
225	Mid grey brown silty clay with moderate amounts of flint and gravel	5 Iron Age sherds
226	Mid grey silty clay with moderate amounts of small stone	1 horse bone
227	Light brownish grey silty clay with rare small stone fragments less than 40mm in length	11 Iron Age sherds. 3 cattle and 1 sheep bones.
228	Mid grey silty clay	1 amphibian and 2 cattle bones. Abundant lemna and two types of cereal grains as well as weed seeds
229	Mid brownish grey silty clay	2 Iron Age sherds. 1 horse and 1 sheep/goat bones
230	Mid-brownish grey silty clay with occasional stone fragments less than 80mm	5 Iron Age sherds. 1 daub fragment with wattle impressions. 2 cattle and 1 large mammal bone
231	Mid grey silty clay with rare stone and rare charcoal	1 Iron Age
233	Mid grey silty clay with moderate amounts of stone	10 Iron Age and 6 Roman sherds. 1 cattle bone
234	Mid grey silty clay with rare stone	
235	Dark greyish brown silty clay with rare stone fragments up to 50mm	3 Iron Age sherds. 1 fired clay object and 1 daub with wattle impressions. 2 cattle, 2 sheep/goat, 1 swan and 1 medium mammal bone
236	Mid grey silty clay with very rare stone fragments up to 40mm in length	1 large mammal bone
238	Light grey silty clay with rare stone fragments up to 50mm in length	6 Iron Age sherds

Table 2 Fills in waterhole with their finds data

Ditch **240** ran roughly north to south and the relationship with the watering hole was not certain. It was 0.6m wide and 0.23m deep and backfilled with a light to mid orange grey brown silty clay with occasional small stones.

There is a possible posthole **223**, 0.65m to the south of the main watering hole edge. It was oval measuring 0.58m by 0.5m in diameter and 0.13m deep. It was filled with a mid to pale brown and brownish orange silty clay. There were large amounts of charcoal and rare very small stones. It could represent a post burnt *in situ*. A soil sample was taken which produced large amounts of charcoal only.

6 DISCUSSIONS AND CONCLUSIONS

The evaluation has found evidence of a previously unknown Iron Age/Roman settlement. Features (a watering hole and probable related features) were only found within trench 2 on the extreme north-west of the site. The lack of features and artefacts within evaluation trenches to the south, east and north-east of trench 2 shows the settlement does not extend in this direction. The majority of the settlement is therefore presumed to be to the west of the site, under the present Sutton football pitches and perhaps beyond the pitches.

The watering hole was not lined but the underlying clay would have held the water and it would have been largely rain fed. This was seen during the excavation when water was retained in the feature. A ditch, led from near the top of the feature to lower land to the south and would have allowed excess water to drain from the watering hole. A posthole directly to the south of the watering hole could have been part a mechanism to extract water from it. The south-western edge of the watering hole appeared poached and could have been used by animals to reach the water.

It was backfilled with domestic refuse with large amounts of middle Iron Age and early Roman pottery (some unabraded), animal bone and some daub with wattle impressions. Backfilling probably took place over a short period with several layers visible as tip lines mostly deposited from the north. There seem to be at least two different sources of material used in the backfilling of the feature. The lack of pig bones in the assemblage and the abraded nature of the pottery with no cross fits implies that these sources were not domestic midden deposits but from digging features at the edges of the settlement. This differential use of sources can be implied by the fact that about 90% of the pottery was found in deposits in the upper metre of the watering hole.

The lack of later Roman artefacts from this feature does not indicate that the settlement was abandoned by the 2nd century AD. Later activity may have taken place in areas well away from the watering hole. Environmental evidence from the backfill of the watering hole shows that crop processing

was taking place in the vicinity. It is therefore likely that mixed farming took place around the settlement.

As a feature, in terms of position close to the settlement and its dating, it is similar to the watering hole (P28) at Ely, Prickwillow Road just 10km to the east of Sutton (Fig. 3; Atkins and Mudd 2003 fig. 8 and p12). Here, the watering hole was located just to the north of the settlement, it was smaller with a 3.3m in diameter and 1.3m deep but it was also backfilled with a large amount of rubbish with five backfill layers containing both hand made Iron Age and Belgic wheel thrown pottery dating to the mid 1st century AD.

This Iron Age/Roman site at Sutton is one of many Iron Age and Roman settlements known in the area (Fig. 3). In the last few years more than half a dozen sites has been found through archaeological evaluations and excavations during new building developments such as at Ely, Prickwillow Road (Atkins and Mudd 2003), Soham (Nichol 2001; Atkins 2004) and Bluntisham (Hatton forthcoming). Major excavations have taken place on five sites in the area (Fig. 3) and all have shown Iron Age occupation carried into the Roman period. Most of the other site spots in Fig. 3 have been identified from finds found in field walking and so the dating here is tentative.

Figure 3 shows that where the settlements are most dense they are about a kilometre apart. Therefore, the higher land above the fens in these areas was seemingly intensively used. There have still been relatively few settlement sites found to the south-west of Ely in contrast to the northern and central part of the Isle of Ely and around The Cove. With relatively little development yet taken place in this area, for example in around Sutton, Wentworth and Witchford, in contrast to Ely itself, it may be prudent to hold judgement on this apparent present disparity in numbers of settlement sites.

The development site was part of the medieval field system around Sutton. Palmer has recorded that ridge and furrow overlay this site as well as land to the south. This ridge and furrow was ploughed out in recent times. Modern farm buildings were built on the southern and middle parts of the development area.

ACKNOWLEDGEMENTS

The author would like to thank Construct Reason Limited, in particular David Wyatt, who commissioned and funded the archaeological work. The project was managed by Judith Roberts and the fieldwork team comprised Rob Atkins, Tony Baker, Thomas Eley and Michael Fradley. Steve Critchley both metal detected and wrote the geology interpretation for the site. Emily Oakes and Crane Begg produced illustrations. Ian L Baxter, Paul Blinkhorn, Nina Crummy, Carole Fletcher, Rachel Fosberry, Stephen Macaulay and Rog Palmer were specialists who reported on the finds and aerial photographs.

The Brief for archaeological works was written by Kasia Gdaniec, Planning Officer (CAO), who visited the site and monitored the evaluation.

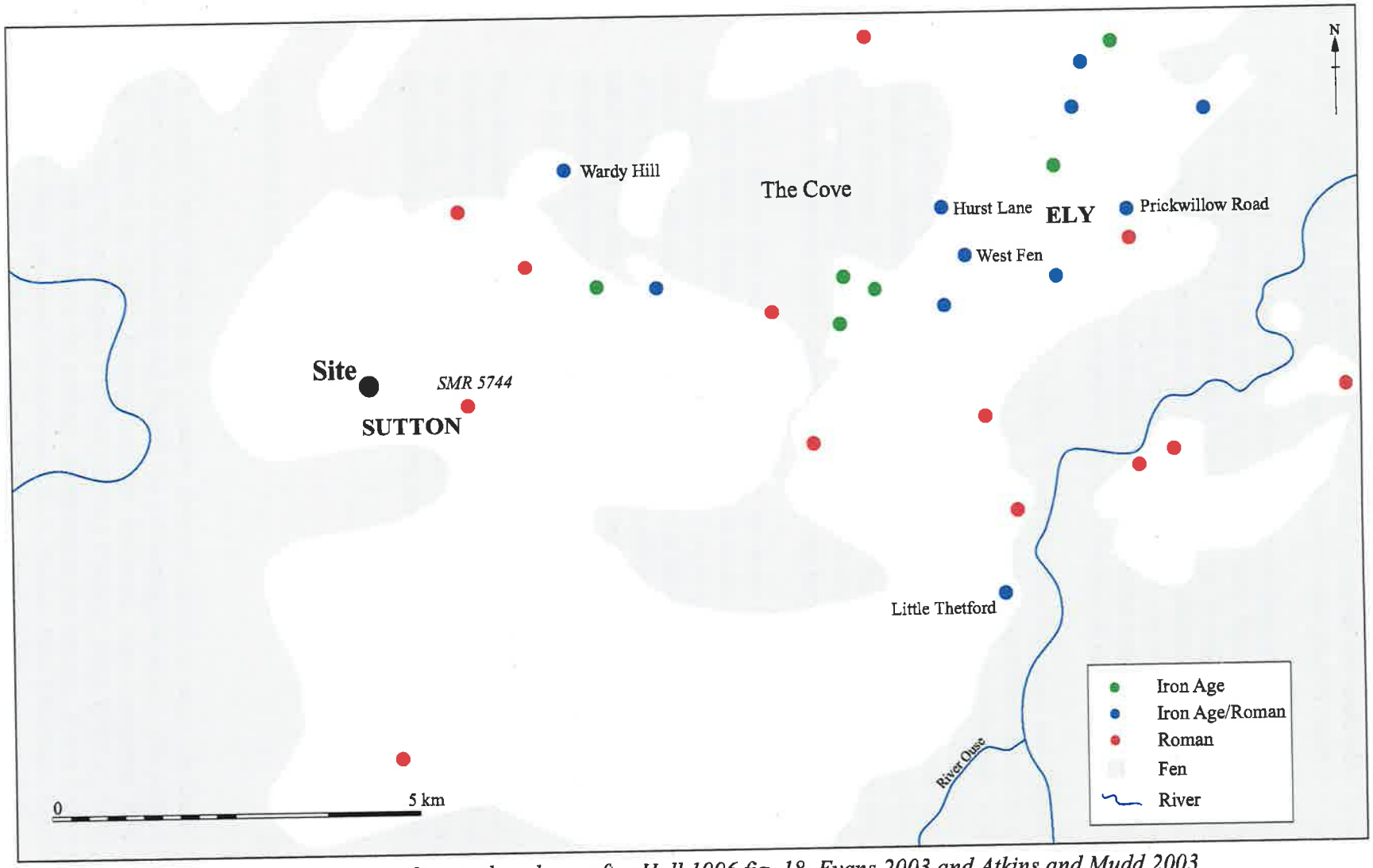

Figure 3 *The site with fens and surrounding archaeology, after Hall 1996 fig. 18, Evans 2003 and Atkins and Mudd 2003*

BIBLIOGRAPHY

Abrams, J., 2000. *Medieval Drainage, Red Lion Lane, Sutton: An Archaeological Evaluation*, Cambridgeshire County Counc. Archaeol. Field Unit Report No. A162 (unpublished)

Albarella, U. and Davis, S.J.M. 1994. *The Saxon and Medieval animal bones excavated 1985-1989 from West Cotton, Northamptonshire,* English Heritage AML Report 17/94 (London)

Albert, W., 1849. *A note in Archaeol. J.* 6, 60

Andrews, A. H. and Noddle, B. A. 1975. Absence of Premolar Teeth from Ruminant Mandibles found at Archaeological Sites, *Journal of Archaeol. Science* 2, 137-144

Armitage, P.L. and Clutton-Brock, J. 1976. A System for Classification and Description of the Horn Cores of Cattle from Archaeological Sites, *Journal of Archaeol. Science* 3, 329-348

Atkins, R., 2004, *Iron Age and Saxo-Norman to Post-Medieval Remains on Land off Clay Street, Soham, Cambridgeshire*, Cambridgeshire County Counc. Archaeol. Field Unit Report No.714 (unpublished)

Atkins, R., and Mudd, A., 2003. An Iron Age and Romano-British settlement at Prickwillow Road, Ely, Cambridgeshire: Excavations 1999-2000, *Proc. Cambridge Antiq. Soc.* 92, 5-55

Barone, R. 1980. *Anatomia Comparata dei Mammiferi Domestici. Vol. III Splancnologia,* (Bologna)

Baxter, I.L. 1998. 'Species identification of equids from Western European archaeological deposits: methodologies, techniques and problems' in Anderson, S. (ed.) *Current and Recent Research in Osteoarchaeology*, pp. 3-17. Proceedings of the third meeting of the Osteoarchaeological Research Group. Oxbow (Oxford)

Baxter, I.L. 2003, 'The mammal and bird bones' in Hinman, M., *A Late Iron Age Farmstead and Romano-British Site at Haddon, Peterborough*, Cambridge Archaeological Field Unit Monograph No. 2. / BAR (British Series) 358, pp.119-132, and Appendix 2, John & Erica Hedges Ltd. (Oxford)

Boessneck, J. 1969. 'Osteological Differences between Sheep (*Ovis aries Linne*) and Goat (*Capra hircus Linne*)' in Brothwell, D.R. and Higgs, E. (eds.) *Science in Archaeology*, pp. 331-359. Thames and Hudson (London)

British Geological Survey (BGS)., 1978. Geological Survey of Great Britain (England and Wales). Solid and Drift Edition, Map Sheet 173

Crossley, D., 1990. *Post-Medieval Archaeology in Britain* (Leicester University Press)

Davis, S.J.M. 1980. Late Pleistocene and Holocene equid remains from Israel, *Zoological Journal of the Linnean Society* 70 (3), 289-312

Davis, S.J.M. 1992. *A rapid method for recording information about mammal bones from archaeological sites,* English Heritage AML Report 19/92

Davis, S.J.M. 1997. The Agricultural Revolution in England: some zoo-archaeological evidence *Anthropozoologica* 25/26, 413-428

Driesch, A. von den. 1976. *A guide to the measurement of animal bones from archaeological sites,* Peabody Museum Bulletin 1 Cambridge Mass. (Harvard)

Eisenmann, V. 1981. Etude des dents jugales inferieures des *Equus* (Mammalia, Perissodactyla) actuels et fossiles *Palaeovertebrata* 10, 127-226

Evans, C., 2003. *Power and Island Communities Excavations at the Wardy Hill Ringwork, Coveney, Ely*, E. Anglian Archaeol. 103

Gdaniec, K., 2004. Brief for Archaeological Evaluation, Cambridgeshire County Council, County Archaeological Office

Grant, A. 1982. The Use of Tooth Wear as a Guide to the Age of Domestic Ungulates. In: Wilson, R., Grigson, C. and Payne, S. (eds.) *Ageing and Sexing Animal Bones from Archaeological Sites*, pp. 91-108. BAR British Series 109 (Oxford)

Hall, D., 1996. *The Fenland Project, Number 10: Cambridgeshire Survey, The Isle of Ely and Wisbech*, E. Anglian Archaeol. 79

Hatton, A., 2002. *Medieval Activity at Red Lion Lane, Sutton*, Cambridgeshire County Counc. Archaeol. Field Unit Report No. A206 (unpublished)

Hatton, A., Forthcoming, An Iron Age and Roman site at Rectory Road, Bluntisham

Heichelheim, F. M., 1937. On some unpublished Roman bronze statuettes in the Museum of Archaeology and Ethnology, Cambridge, *Proc. Cambridge. Antiq. Soc.* 37, 52-67

Hill, J. D., 2003. Iron Age and Early Roman pottery in C. Evans *Power and Island Communities: Excavation at the Wardy Hill Ringwork, Coveney, Ely,* E. Anglian Archaeol. 103, 146-84

Jackson, D., 2003. Iron Age Pottery in R. Atkins and A. Mudd An Iron Age and Romano-British settlement at Prickwillow Road, Ely. Excavations 1999-2000, *Proc. Cambridge Antiq. Soc.* 92, 22-5

Kiesewalter, L., 1888. Skelettmessungen an Pferden als Beitrag zur theoretischen Grundlage der Beurteilungslehre des Pferdes. (Leipzig)

Kratochvil, Z., 1969. Species criteria on the distal section of the tibia in *Ovis ammon* F. *aries* L. and *Capra aegagrus* F. *hircus* L. Acta Veterinaria (Brno) 38, 483-490

Lawrence, M.J. and Brown, R.W., 1968. Mammals of Britain: Their Tracks, Trails and Signs. Blandford Press (London)

Levine, M.A., 1982. 'The use of crown height measurement and eruption-wear sequences to age horse teeth' in Wilson, R., Grigson, C. and Payne, S. (eds) *Ageing and Sexing Animal Bones from Archaeological Sites*, pp. 223-250. BAR British Series 109 (Oxford)

Nichol, K., 2001 *Excavation at Clay Street, Soham, Cambridgeshire, 2000-2001: Post-Excavation Assessment and Research Design,* Birmingham University Field Archaeology Unit Report No. 759.01 (unpublished)

Palmer, R., 2004. *The Brook, TL442791, Sutton, Cambridgeshire: Aerial Photographic Appraisal*, Air Photo Services Report No 2004/14 (unpublished)

Payne, S., 1969. 'A metrical distinction between sheep and goat metacarpals' in Ucko, P. and Dimbleby, G. (eds.) *The domestication and exploitation of plants and animals*, pp. 295-305. Duckworth (London)

Payne, S., 1985. Morphological distinctions between the mandibular teeth of young sheep, *Ovis*, and goats, *Capra. Journal of Archaeological Science* 12, 139-147

Phillips, C, W., (ed.) 1970. *The Fenland in Roman times: studies of a major area of peasant colonization with a gazetteer covering all known sites and finds*, Royal Geogr. Soc. Res. Ser.5 (London)

Roberts, J., 2004, Specification for Archaeological Evaluation, The Brook, Sutton

Spoerry, P., 2002. Medieval pottery production, marketing and the growth of urban forms and functions: Evidence from Ely, *Proc. Cambridge Antiq. Soc.* 91, 152

Toynbee, M, C., 1964. *Art in Britain under the Romans*, (Oxford)

Wills, J., 2004. *31 High Street, Sutton, Cambridgeshire: An Archaeological Evaluation*, Cambridge Archaeological Unit Report (unpublished)

APPENDIX 1 FINDS

Metal Object by Nina Crummy

A Late Iron Age-early Roman "fitting" was found in 203, the top layer of the watering hole. It was a sheet of copper alloy metal wrapped around a wooden forme. The same technique was used on torcs, rings and armlets.

Lithics by Rob Atkins

There was four flints recovered from the site. A late Neolithic core and a possible flake came from 214 and a Neolithic blade and a possible flake from 215.

Pottery

295 sherds weighing 4004g were recovered from the excavation. All but seven sherds (160g) were found in the backfill of the watering hole. The pottery assemblage was looked at by Stephen Macaulay who commented on the Roman pottery and then by Paul Blinkhorn who examined all the sherds. The handful of medieval and post-medieval sherds were dated by Paul Blinkhorn and Carole Fletcher.

Iron Age by Paul Blinkhorn

The pottery assemblage comprised 183 sherds with a total weight of 2,462g. The estimated vessel equivalent (EVE), by summation of surviving rimsherd circumference was 0.75. The following fabrics were noted:

F1: *Sandy-shelly ware.* Sandy texture, moderate to dense sub-rounded quartz up to 0.5mm, rare grains up to 1mm, sparse to moderate sub-angular shell and other calcareous material up to 1mm, rare to sparse sub-rounded red iron ore up to 2mm. 65 sherds, 939g, EVE = 0.44.

F2: *Sandy ware.* Sandy texture, moderate to dense sub-angular quartz up to 0.5mm. 99 sherds, 1,195g, EVE = 0.24.

F3: *Smooth ware.* Slightly sandy texture, sparse fine sub-rounded quartz up to 0.5mm. 11 sherds, 157g, EVE = 0.04.

F4: *Grogged ware.* Moderate to dense sub-angular grog up to 2mm. 1 sherd, 30g, EVE = 0.

F5: *Organic and shell ware.* Moderate to dense chaff voids up to 5mm, sparse shell fragments up to 3mm. 4 sherds, 86g, EVE = 0.

F6: *Shelly limestone ware.* Moderate to dense sub-angular fragments up to 3mm. 3 sherds, 55g, EVE = 0.03.

The range of fabrics is similar to that noted at other sites in the area, such as Prickwillow Road, Ely (Jackson 2003, 23) and Wardy Hill Ringwork (Hill 2003, 166-8).

Chronology

Generally, the context-specific assemblage comprised a small number of sherds with few diagnostic pieces, other than scored bodysherds or rimsherds. Many sherds were abraded to a greater or lesser degree, and were found in company with Romano-British material. There were no vessels which could be reconstructed to a full profile. Late Iron Age, wheel-made wares were completely absent, as were earlier Iron Age carinated or finger-tipped vessels, such as those noted at Prickwillow Road (Jackson 2003, Fig. 19).

Just eight sherds (662g, EVE = 0.17) were noted with scoring, although those that ware tended to be larger, thick-walled vessels. This causes something of a problem in expressing the amount of such pottery present; by weight, it represents 24.% of the Iron Age pottery; by EVE, 22.7%, but by sherd count, just 4.4%. Both Prickwillow Road and Wardy Hill Ringwork produced scored wares as a minor part of the assemblages. In the case of the latter, 1.8% of the pottery (by weight) was scored (Hill 2003, Table 40).

The presence of a few sherds of organic-tempered pottery are of significance. Hill (2003, 168) demonstrated that a number of sites in the region of 3rd – 1st century BC date produced relatively large quantities of such pottery. Here, it comprises just 3.2% (by weight) of the Iron Age assemblage, a figure which is comparable with Wardy Hill where 9.1% of the whole Iron Age assemblage was in an organic-tempered fabric (ibid. Table 46). Such fabrics were not noted at the Prickwillow Road site (Jackson 2003, 23).

Very few vessels survived in a sufficiently complete state to allow identification of form. Those which did all appear to have had a 'slack' profile, with no evidence of a shouldering and only the most perfunctory of necks in most cases, and this had a markedly different profile to the other rims from the site. Decorated rims were very rare, with just one rim demonstrating such enhancement.

'Slack'-profiled vessels were the most common at Wardy Hill, (ibid. Fig. 70), and it seems generally that the assemblage from this site has more characteristics in common with the Phase II pottery at that site than the material from Prickwillow Road. Hill dated Phase II at Wardy Hill to the 3rd – 2nd century BC (ibid. 162), and there seems every reason to suspect that the material from this site is of a similar date.

It is perhaps a little curious that there were no wheel-made Iron Age sherds present, to fill the chronological gap between the date given to the Iron Age pottery above and the Romano-British material, despite the fact that the two types were mixed together in the water-hole feature. It would seem most likely that this was due to the Iron Age

pottery becoming mixed in with the Roman material during the backfilling of the feature. Certainly, there were no cross-fits made with any of the Iron Age material, indicating that the material is all a product of secondary deposition, and was somewhat scattered before it was deposited in the feature in which it was discovered. This suggests that the backfill material was not domestic midden refuse, but the product of digging. The fact that much of the Iron Age pottery is abraded is another factor which offers support for this; it had been subject to a considerable degree of disturbance before its final deposition.

The pottery occurrence by number and weight of sherds per context by fabric type is shown in Table 3. Each date should be regarded as a *terminus post quem*.

	F1		F2		F3		F4		F5		F6	
Cntxt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt
203			1	19								
206	1	4										
208			2	27					1	2		
209			5	9								
214	2	75	5	27								
215	9	116	16	57					2	17		
217			5	31								
218	17	370	25	357	8	138	1	30				
219	11	50	18	89							2	15
221			6	62								
224	9	32	1	4	2	7						
225	4	41									1	40
227	2	12	9	363								
229			2	27								
230	5	93										
231			1	18								
233	10	64										
235	2	52							1	67		
237	2	29	3	105	1	12						
303	1	1										
Total	65	939	99	1195	11	157	1	30	4	86	3	55

Table 3: Iron Age pottery by number and weight (in g) of sherds per context by fabric type

Roman Pottery by Stephen Macaulay

There were 106 sherds weighing 1383g recovered from the watering hole (Table 4). The Roman pottery is all 1st century AD. This date is suggested by the total absence of Nene Valley Wares and a very limited collection of Horningsea ware, which are the dominant coarse wares of the main Roman period from the 2nd century onwards in Cambridgeshire.

It was a domestic kitchen assemblage with jars, bowls and cooking vessels. Interestingly other than a possible mortaria fragment this collection is comprised entirely of coarse wares with no fineware, transport, storage or exotic wares. This implies that the site was probably of low status.

Context	No. Sherds	Weight (g)	Comments
203	30	309	?Belgic (with sooting), GW, SW, and a possible sherd of Colchester Cream ware mortarian (very abraded)
208	1	17	HGW
215	34	352	BB2, GW, HGW, OSW and a sherd of ?Oxford
217	4	34	GW
221	2	18	SHW
224	29	318	GW, OSW and SHW
233	6	335	GW, HGW, OSW and SHW

Table 4 Roman Pottery by context, number weight and period

GW = grey ware, HGW = Horningsea grey ware, BB = Black Burnished ware, SHW = Shelly ware, SW = Sandy ware, OSW = oxidised sandy ware

Medieval and post-medieval pottery by Carole Fletcher and Paul Blinkhorn

There were five medieval or post-medieval pottery sherds (158g) ranging from *c.* 13th/14th century to the 18th century. All the sherds were from the topsoil or subsoil. The collection included an Ely ware unglazed jug handle from 402 and three post-medieval red ware and one slipware.

Ely Ware, mid 12th-15th century (Spoerry 2002): generic name for a quartz sand and calcareous tempered group of pottery fabrics mainly manufactured in Ely, but also with a second possible source in the Huntingdonshire Fenland. Earlier vessels hand-built and turntable finished, later vessel finer and usually wheel-thrown. 1 sherd, 24g.

Red Earthenwares, mid 16th – 19th century. Fine sandy earthenware, usually with a brown or green glaze, occurring in a range of utilitarian forms. 3 sherds, 99g.

Metropolitan-type Slipware, 17th century. Uniform, brick-red fabric. Moderately sorted matrix, sparse red and milky quartz and red and black ironstone up to 0.5mm. Abundant grey quartz up to 0.2mm, occasional mica. Vessels decorated with geometric slip patterns under an orange glaze. Produced from c. 1615-1700, with the Harlow kilns being the best-documented (Crossley 1990, 251). 1 sherds, 35g.

Fired Clay and Daub identified by Carole Fletcher

There were 25 pieces of fired clay and daub (556g) from the watering hole (Table 5). Most of the pieces were small and abraded. There were parts of two probable objects from 218 and 235. They were too incomplete to identify the original artefact. There were four daub fragments with wattle impressions.

Context number	Count	Weight	Comment
203	2	19	1 daub fragment with wattle impressions
215	2	7	
218	4	162	4 fragments probably from the same object. 1 fragment had two sides surviving 70mm+ by 45mm+
224	10	113	1 daub fragment with wattle impressions
230	1	8	1 daub fragment with wattle impressions
235	6	247	At least 1 object with three surfaces on one fragment. 1 daub fragment with wattle impressions

Table 5 Fired clay and daub by number and weight

The Mammal, Bird and Amphibian Bones by Ian L. Baxter

Introduction

A total of 62 "countable" (see below) animal bone fragments were recovered from the site (Table 6). This is a very small assemblage with minimal interpretative value. Most of the bones were hand-collected and are therefore considered together. The bones were found in a large sub-rectangular watering hole which also contained a mix of middle Iron Age and early Romano-British pottery sherds suggesting that material from at least two separate locations and dates was used to fill the feature. The bones were generally well preserved but highly fragmented.

Taxon	Period/Total
	Middle Iron Age/ Early Romano-British
Cattle (*Bos* f. domestic)	31
Sheep/Goat (*Ovis/Capra* f. domestic)	13
Sheep (*Ovis* f. domestic)	(2)
Horse (*Equus caballus*)	12
Dog/Fox (*Canis/Vulpes*)	1
Water Vole (*Arvicola terrestris*)	4
Swan (*Cygnus* sp.)	+
Anuran (*Rana/Bufo* sp.)	1
Total	**62**

Table 6 Animal bone by number of Identified Specimens (NISP)

"Sheep/ Goat" also includes the specimens identified to species. Numbers in parentheses are not included in the total of the period. "+" means that the taxon is present but no specimens could be "counted" (see text).

Methods

The mammal bones were recorded on an Access database following a modified version of the method described in Davis (1992) and used by Albarella and Davis (1994). In brief, all teeth (lower and upper) and a restricted suite of parts of the postcranial skeleton was recorded and used in counts. These are: horncores with a complete transverse section, skull (zygomaticus), atlas, axis, scapula (glenoid articulation), distal humerus, distal radius, proximal ulna, radial carpal, carpal 2+3, distal metacarpal, pelvis (ischial part of acetabulum), distal femur, distal tibia, calcaneum (sustenaculum), astragalus (lateral side), centrotarsale, distal metatarsal, proximal parts of the 1st, 2nd and 3rd phalanges. At least 50% of a given part had to be present for it to be counted.

Small rodents (murids and microtines) were identified to generic or species level on the basis of gnathic morphology following Lawrence and Brown (1968).

The presence of large (cattle/horse size) and medium (sheep/pig size) vertebrae and ribs was recorded for each context, although these were not counted. "Non-countable" elements of particular interest were recorded but not included in the counts.

The separation of sheep and goat was attempted on the following elements where present: dP_3, dP_4, distal humerus, distal metapodials (both fused and unfused), distal tibia, astragalus, and calcaneum using the criteria described in Boessneck (1969), Kratochvil (1969), and Payne (1969 and 1985). The shape of the enamel folds (Davis 1980; Eisenmann 1981) was used for identifying equid teeth to species. Equid postcrania were checked against criteria summarized in Baxter (1998).

Wear stages were recorded for all P_4s and dP_4s as well as for the lower molars of cattle and sheep/goat, both isolated and in mandibles. Tooth wear stages follow Grant (1982).

Measurements are retained on an Access database which can be found in the site archive. These in general follow von den Driesch (1976).

Discussion

Cattle bones and teeth form the largest assemblage accounting for half of the total. Remains include at least two partial and highly fragmented crania. A horncore from (218) is short horned according to the criteria of Armitage and Clutton-Brock (1976) on account of its length but otherwise has the characteristics of the small horned "Celtic" type. The mandible of a young adult was found in (228). Most of the isolated teeth found are in full wear and all of the bones with epiphyseal ends preserved are fused suggesting that adult beasts comprise a majority. The mandible from (228) appears to have the P_2 congenitally absent (Andrews & Noddle 1975). A lower 3rd molar from (227) has a reduced hypoconulid or third pillar, another,

possibly connected, genetic trait of variable frequency in cattle populations (Davis 1997). Comparatively large bones were recovered from context (224).

Sheep bones and teeth were comparatively infrequent. Nothing identifiable as goat was seen in the assemblage. A mandible from an animal aged around two years was found in (219). Horse bones and teeth are almost as frequent as those of sheep accounting for 19% of the total. A metatarsal from a pony sized animal 126cm high at the shoulder (Kiesewalter 1888) was found in (215). Teeth recovered range from two deciduous upper premolars from an animal aged less than two and a half years found in (224) to elderly (Barone 1980; Levine 1982). Three articulating cervical vertebrae from a pony sized animal were found in (215).

Single bones of a small dog or fox (*Vulpes vulpes*) and swan (*Cygnus* sp.) were found in (218) and (235) respectively. Mandibles and other gnathic remains of water vole (*Arvicola terrestris*) were found in (209) and (224). Indeterminate anuran amphibian (*Rana/Bufo*) bones were recovered from (228).

Summary and conclusion

The animal bones from the watering hole at The Brook mostly consist of those of the larger domestic species cattle and horse. The total absence of pig and relative infrequency of sheep remains suggests that the feature was not proximate to an area of human occupation. There is evidence for the presence within the cattle population of discontinuous genetic traits frequently observed in cattle from Cambridgeshire and elsewhere during the Iron Age and Romano-British periods (Baxter 2003). The horses were small pony sized animals used for herding. The wildfowl, small rodent and amphibian remains represent accidental inclusions from the surrounding environment.

Environmental appraisal by Rachel Fosberry

Introduction and methods

Five bulk samples taken from across the excavated area were submitted for an initial appraisal. Ten litres of each sample were processed by bucket flotation for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The flot was collected in a 0.5mm nylon mesh and the residue was washed through a 1mm sieve. Both flot and residue were allowed to air dry. The dried residue was passed through 5mm and 2mm sieves and a magnet was dragged through each resulting fraction before sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds. The flot was examined under a binocular microscope at x16 magnification and the presence of any plant remains or other artefacts are noted in Table 7.

Sample/ Context	Comments	Chaff	Legumes	Weed seeds	Other
1/215	Single Spelt/Emmer glume base. Lots of modern roots so probably a contaminant	+			Small animal bones +
2/218	A few charred grains - preservation very poor. Possible legume fragment. Lemna confirms wet conditions		+	+	Lemna, Chenopodium Small animal bones +
3/222	Charcoal only. Post burnt *in-situ*? No artefacts				Charcoal <2mm + Charcoal >2mm++
4/224	Lemna confirms wet conditions			+	Polygonum sp, lemna sp Charcoal < 2mm +
5/228	Abundant waterlogged seeds of Lemna sp. Two types of cereal but preservation poor. Glume bases and spikelet forks of Spelt or Emmer. At least 6 different weed seeds but only 1 or 2 of each.			+	Lemna sp, Plantago sp, Chenopodium sp, Small animal bones + Charcoal < 2mm + Charcoal >2mm ++

Table 7 Environmental Samples
+ is a frequency of 1 to 10 ++ is a frequency of 11 to 100

Results

Preservation is mainly by charring and is generally poor to moderate. Samples 2, 4 and 5 contained waterlogged seeds of *Lemna* sp (duckweed). Modern contaminants in the form of rootlets and a few common seeds such as *Chenopodium* sp. are present in most of the samples.

Charcoal fragments are present in most samples in varying quantities. The flot from Sample 3 is comprised entirely of charcoal. A few charred grains were present in three of the samples. Chaff in sample 5 identifies the cereal as either Spelt or Emmer wheat.

Conclusions and recommendations

The low density of charred plant macrofossils in Sample 1 precludes the identification of any specific activity that may be associated with this feature. The presence of duckweed in Samples 2, 4 and 5 all confirm that this feature has been waterlogged at some point. This would fit in with the excavators' interpretation of this feature as a well; however, a well would usually be expected to contain other waterlogged seeds of common plants that would have been growing locally. Sample 5 contained at least 6 weed seeds including *Plantago* sp (Plantain) and *Chenpodium* sp (Fat Hen) both of which are common plants of disturbed ground.

The presence of charred cereal grains with chaff indicates that crop processing is taking place in the vicinity. *Triticum spelta/ dicoccum* (Spelt/Emmer) are both commonly grown in the Iron Age/ Roman period.

Sample 3 was interpreted as a possible posthole. The presence of a large volume of charcoal in the flot suggests that the post was burnt *in situ*.

In conclusion, the low density of plant macrofossils in this assemblage does not add significantly to the interpretation of the features sampled. It is not considered that full analysis would add to this interpretation and further work is not recommended.

The molluscs by Rachel Fosberry

The molluscan assemblage recovered from excavation and environmental sampling of The Brook, Sutton was small. Five contexts produced shells of the common garden snail, a marine shell was recovered from context 203 and Sample 4, context 224 contains a few small shells.

Context 203 produced a marine shell of what appears to be a whelk (*Buccinum* sp.). It measures 5.5 cm in height and is missing the apex and part of the rim. It is lacking the coarse ribbing of *B. undatum* (the common whelk) although the shell may have smoothed through age. There is a pierced hole in the main body whorl; it is not possible to determine whether this has been produced by human or natural action. The whelk is a marine gastropod that would definitely have been introduced into the site. The molluscs recovered by flotation of context 224 (Sample 4) are tentatively identified as *Vallonia pulchella*, which are often abundant in damp conditions under logs, rocks, decaying vegetation or grass in disturbed areas.

The most common mollusc in this assemblage is Cepaea sp which was recovered from five contexts. There are two species of this genus; *Cepaea hortensis* (White-lipped garden snail) and *Cepaea nemoralis* (Brown–lipped garden snail). In most cases the distinguishing lip is absent but a single specimen has a white lip and can probably be identified as *C. hortensis*. This is a common species and has a similar habitat *to V. pulchella.*

APPENDIX 2: CONTEXT LIST

Context	Trench No.	Category	Type
101	1	Layer	Topsoil
102	1	Layer	Subsoil
201	2	Layer	Topsoil
202	2	Layer	Subsoil
203	2	Layer	Watering Hole
204	-	-	-
205	2	Fill of 213	Watering Hole
206	2	Fill of 207	Watering Hole
207	2	Cut	Watering Hole
208	2	Fill of 210	Watering Hole
209	2	Fill of 210	Watering Hole
210	2	Cut	Watering Hole
211	2	Fill of 212	Watering Hole
212	2	Cut	Watering Hole
213	2	Cut	Watering Hole
214	2	Fill of 220	Watering Hole
215	2	Fill of 220	Watering Hole
216	2	Fill of 237	Watering Hole
217	2	Fill of 237	Watering Hole
218	2	Fill of 237	Watering Hole
219	2	Fill of 237	Watering Hole
220	2	Cut	Watering Hole
221	2	Fill of 220	Watering Hole
222	2	Fill of 223	?Posthole
223	2	Cut	?Posthole
224	2	Fill of 220	Watering Hole
225	2	Fill of 220	Watering hole
226	2	Fill of 232	Watering Hole
227	2	Fill of 237	Watering Hole
228	2	Fill of 237	Watering Hole
229	2	Fill of 237	Watering Hole
230	2	Fill of 237	Watering Hole
231	2	Fill of 232	Watering Hole
232	2	Cut	Watering Hole
233	2	Fill of 220	Watering Hole
234	2	Fill of 220	Watering Hole
235	2	Fill of 237	Watering Hole
236	2	Fill of 237	Watering Hole
237	2	Cut	Watering Hole
238	2	Fill of 237	Watering hole
239	2	Fill of 240	Ditch
240	2	Cut	Ditch
301	3	Layer	Topsoil
302	3	Layer	Subsoil
303	3	Fill of 305	?Posthole

304	3	Fill of 305	?Posthole
305	3	Cut	?Posthole
401	4	Layer	Topsoil
402	4	Layer	Subsoil
501	5	Layer	Topsoil
502	5	Layer	Subsoil
503	5	Fill/Cut	?Treebowl
601	6	Layer	Topsoil
602	6	Layer	Subsoil
701	7	Layer	Topsoil
702	7	Layer	Subsoil
801	8	Layer	Topsoil
802	8	Layer	Subsoil
901	9	Layer	Topsoil
902	9	Layer	Subsoil
1001	10	Layer	Topsoil
1002	10	Layer	Subsoil
1101	11	Layer	Modern
1102	11	Layer	Modern
1103	11	Layer	?
1201	12	Layer	Modern
1202	12	Layer	Modern
1203	12	Layer	?

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THE BROOK, TL442791, SUTTON, CAMBRIDGESHIRE:

AERIAL PHOTOGRAPHIC APPRAISAL

REPORT No: 2004/14

APRIL 2004

COMMISSIONED BY

ARCHAEOLOGICAL FIELD UNIT
CAMBRIDGESHIRE COUNTY COUNCIL
FULBOURN COMMUNITY CENTRE
HAGGIS GAP
FULBOURN
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AIR PHOTO SERVICES, CAMBRIDGE: ROG PALMER MA MIFA
Archaeological consultant for aerial photographic interpretation, accurate mapping and oblique aerial photography

THE BROOK, TL442791, SUTTON, CAMBRIDGESHIRE: AERIAL PHOTOGRAPHIC APPRAISAL

Rog Palmer MA MIFA

INTRODUCTION

This appraisal of aerial photographs was commissioned to examine an area of some 3 hectares (centred TL442791) in order to identify archaeological features and thus provide a guide for field evaluation. Mapping was to be at 1:2500 if relevant.

ARCHAEOLOGICAL AND NATURAL FEATURES FROM AERIAL PHOTOGRAPHS

In suitable cultivated soils, sub-surface archaeological features – including ditches, banks, pits, walls or foundations – may be recorded from the air in different ways in different seasons. In spring and summer these may show through their effect on crops growing above them. Such indications tend to be at their most visible in ripe cereal crops, in June or July in this part of Britain, although their appearance cannot accurately be predicted and their absence cannot be taken to imply evidence of archaeological absence. In winter months, when the soil is bare or crop cover is thin (when viewed from above), features may show by virtue of their different soils. Upstanding remains, which may survive in unploughed grassland, are also best recorded in winter months when vegetation is sparse and the low angle of the sun helps pick out slight differences of height and slope.

The most informative aerial photographs of archaeological subjects tend to be those resulting from specialist observer-directed reconnaissance. This activity is usually undertaken by an experienced archaeological observer who will fly at seasons and times of day when optimum results are expected. Oblique photographs, taken using a hand-held camera, are the usual products of such investigation. Although oblique photographs are able to provide a very detailed view, they are biased in providing a record that is mainly of features noticed by the observer, understood, and thought to be of archaeological relevance. In the collections searched, no obliques were held of the Assessment Area.

Vertical photographs cover the whole of Britain and can provide unbiased scenes on a series of dates between (usually) 1946-7 and the present. Unfortunately these vertical surveys were not necessarily flown at times of year that are best to record the crop and soil responses that may be seen above sub-surface features. Vertical photographs are taken by a camera fixed inside an aircraft and adjusted to take a series of overlapping views that can be examined stereoscopically. They are often of relatively small scale and their interpretation requires higher perceptive powers and a more cautious approach than that necessary for examination of obliques. Use of these small-scale images can also lead to errors of location and size when they are rectified or re-scaled to match a larger map scale.

PHOTO EXAMINATION AND MAPPING

Available photographs

Cover searches were made at the Cambridge University Collection of Aerial Photographs, Cambridgeshire Record Office and the National Monuments Record: Air Photographs (NMRAP), Swindon. Photographs examined were taken during routine vertical surveys.

Photographs examined

Source: Cambridge University Collection of Aerial Photographs

Vertical photographs

RC8-DC 96-97	12 July 1979	1:10000
RC8-EC 45-46	24 March 1982	1:10000

Source: Cambridgeshire Record Office

Vertical photographs

MAL/69056: 139-140	9 June 1969	1:10500

Photographs identified but not examined

Source: National Monuments Record: Air Photographs (cover search 67840)

Vertical collection

Eight sorties taken between 1946 and 1986

Base maps

Digital data from a survey scale of 1:2500 were provided by the client and used to provide background for the figure.

Photo interpretation and mapping

All vertical photographs were examined using a 1.5x magnification stereoscope. Features identified were added to a reduced-scale copy of the base map either schematically (for ridge and furrow) or by controlled sketching.

COMMENTARY

Soils

The Soil Survey of England and Wales (SSEW 1983) shows the area to be boulder clay (chalky till, soil association 411d: HANSLOPE). David Hall sub-divided this into Kimmeridge Clay with

Ampthill Clay below the 3 metre contour (Hall 1996, 54). These soils are not promising for the identification of sub-surface features on aerial photographs.

Archaeological features

The only archaeological features visible on aerial photographs were indications of medieval cultivation, most of which is now plough-levelled. The figure shows these in and immediately adjacent to the Assessment Area and there are slight traces further north and within the former airfield perimeter.

Non-archaeological features

A slightly sinuous linear feature, possibly a trench with upcast on its south side, was identified on photographs taken in 1970 crossing the southern part of the west field. This had a relatively fresh appearance and is more likely to show a recent pipe or cable than to be of archaeological origin. A shorter feature was of similar appearance. Both have been sketched in their approximate positions.

Land use

The complex of sheds in the east field has been present on all of the photographs examined and that part of the Area has not been usefully examined on aerial photographs. The remaining land in both fields has been cultivated and was seen under crops in summer photographs and as bare soil in March 1982. On photographs of all dates there have been no indications of different tones that suggest different soil depths or types other than those noted above.

RECOMMENDATION

It is recommended that no further examination of aerial photographs be undertaken for this assessment.

REFERENCES

Hall, D.N., 1996. *The Fenland Project, Number 10: Cambridgeshire Survey, Isle of Ely and Wisbech. East Anglian Archaeol.***79**.

SSEW, 1983. *Soils of England and Wales: sheet 4: Eastern England (1:250,000)*. Soil Survey of England and Wales, Harpenden.

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