

Archaeological Field Unit

**Middle and Late Iron Age and Roman Settlement at
Highfields, Caldecote, Cambridgeshire:
Assessment and Post-Excavation Project design**

S Kenney

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**Middle and Late Iron Age and Roman Settlement at
Highfields, Caldecote, Cambridgeshire:
Assessment and Post-Excavation Project design
(TL 5882/3546)**

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1 INTRODUCTION

Excavation has been undertaken in Caldecote Highfields, Cambridgeshire (TL 3546/5882). The excavation was commissioned by JS Bloor Homes Ltd., who are currently redeveloping the site and was undertaken by Cambridgeshire County Council Archaeological Field Unit (AFU).

The general potential of the site was defined by a phase of evaluation trenching carried out by the AFU during 1996. Results from the evaluation suggested that an Iron Age and Roman occupation site had survived in the form of earth-cut features such as ring ditches, enclosure systems, and pits. It was suggested in the evaluation report that the site did not extend across the whole of the current development area (Oakey 1996). The background contained in the report will not be reiterated here.

A summary of the excavation results is presented below, along with the results of post-excavation assessment, and an updated project design for further analysis work leading to publication. This assessment has been carried out in accordance with English Heritage guidance (English Heritage 1991) and the requirements of the agreed specification for archaeological works.

2 AIMS AND OBJECTIVES

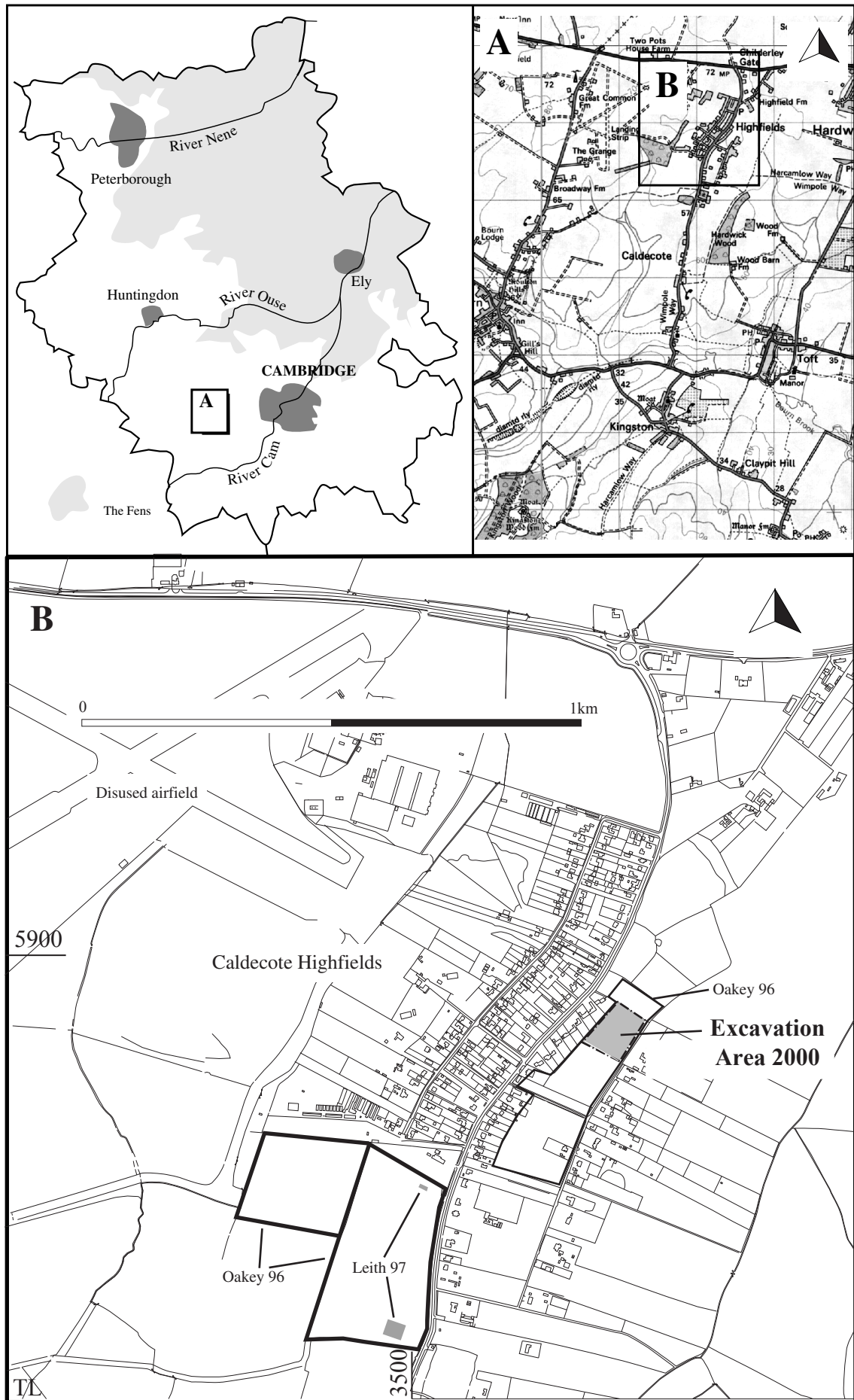
The original research framework for the excavation analysis and reporting of archaeological remains at High Street, was defined by Cambridgeshire County Council Archaeology Office in their brief (Kaner, February 2000):

Firstly, the context within which the investigations were taking place was defined:

- ‘1.4 There is increasing evidence for Iron Age activity on the Cambridgeshire claylands. In addition to the present site, investigations on land to the west of Highfields Road, Caldecote demonstrated further evidence for Iron Age and Romano-British field systems (Leith, S, 1997, *Late Iron Age, Roman, and Medieval Enclosures and Settlement Features at Highfields, Caldecote: An Archaeological Excavation*, CCC AFU Report 144). Ongoing evaluation and investigation being undertaken by Wessex Archaeology within the site of the Cambourne New Settlement a short distance to the west has produced evidence for Iron Age farmsteads, as well as Roman, Saxon and medieval occupation. In addition, to the northwest, recent evaluation at Papworth Everard has demonstrated the presence of Bronze Age and/or Early Iron Age and Roman settlement on the clays (Kenney, S. 2000, *Iron Age Occupation off Ermine Street, Papworth Everard: An Archaeological Evaluation*, CCC AFU Report A154). The present site therefore has great potential to increase understanding of the early use of this landscape.’

Next, the aims and objectives were defined:

- ‘4.1.1 The primary objective is to preserve the archaeological evidence contained within the site **by record** and to attempt a reconstruction of the history and use of the site. The following research priorities are important considerations, although the project manager is welcome to



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Figure 1 Site Location Plan

propose others. Attention is drawn to the issues raised in Glazebrook, J. (ed.) 1997, *Research and Archaeology: A Framework for the Eastern Counties 1. Resource Assessment*. East Anglian Archaeology, Occasional Paper 3.’

Furthermore, the research priorities were defined as follows:

- ‘4.2.2.1 To investigate the morphology of the settlement and its relationship with the field systems, and to investigate the chronological development of this relationship.’
- ‘4.2.2.2 To contribute to an understanding of the domestic economy of the Late Iron Age in this area.’
- ‘4.2.3.1 To contribute to an understanding of the spatial/temporal relationship of the Iron Age and Roman settlement and agricultural use of south-west Cambridgeshire and pre-medieval use of areas with heavy clay soils.’

English Heritage (1997) identify the following themes which provide the broader framework for this investigation:

‘Processes of change

Communal monuments into settlement and field landscapes (c 2000-300 BC)

The gradual change from the monument-dominated landscape of the Neolithic and Early Bronze Age to the settlement-dominated landscape of later prehistory was clearly far from uniform or synchronous across Britain. The processes involved, and the scale of their regional variation, are still poorly understood

Briton into Roman (c 300 BC-AD 200)

A high level of continuity in settlement and land use and, by implication, in social and economic organisation, between the Late Iron Age and Romano-British periods is becoming increasingly apparent, as are contemporary regional variations. Increasing awareness of the complexity of the transition, combined with issues of ethnicity, and social and economic dislocation, would seem to offer great potential for exploiting complex data sets.’

In addition, the following supplementary objectives were listed in the Specification (Spoerry, 2000):

- ‘4.4 The creation of a model of land-use and organisation over time

The evidence from this project will be set within the framework of existing knowledge of the Iron Age/Romano-British archaeology of the area and will make a valuable contribution to ongoing local research, such as the interpretation of cropmark evidence in surrounding parishes, and in characterising the previously unrecognised later Iron Age and Roman utilisation of these claylands.’

The results of the excavation and assessment, together with updated project aims and objectives are presented below.

3 EXCAVATION METHODS

The format for excavation was set out by Cambridgeshire County Council (Development Control) in accordance with established PPG 16 mitigation practice. The programme of work included the excavation of a single open area, to be excavated as two contiguous halves.

In the area immediately to the north of the site, ground works and subsequent construction for the development were under way at the same time as the archaeological investigations, and it was therefore necessary to excavate certain areas in advance of others in order to not hinder the development programme.

Machinery for the removal of topsoil was supplied by the developer. Two 360° tracked excavators were used for most of the topsoil stripping, with additional excavation work undertaken by a third during stripping of the second half. Topsoil and subsoil depth varied between 0.20m and 0.60m over the excavated areas. The topsoil and any subsoil from Area 1 was removed from the site by lorry; spoil from Area 2 was stockpiled on Area 1 once excavation was completed on the first half of the site.

After machine stripping selected areas were cleaned by hand. Archaeological features were outlined using spray paint in order to assist visibility in poor weather and then planned by hand at a scale of 1:100. A metal detector survey was conducted across the site in order to pinpoint metal finds within features, and certain objects were excavated from within the medieval plough furrows at this stage. An arbitrary grid was set up during stripping of the first area, and was subsequently located with respect to the Ordnance Survey. Grid pegs were located in each area at 10 metre intervals. These were used to plan excavated features by hand at a scale of 1:50 or 1:20. Sections and elevations through excavated features were drawn at a scale of 1:10 or 1:20. All excavated deposits and cuts were described on AFU single context recording sheets. Monochrome and colour photographs were taken to supplement the drawn and written record.

4 EXCAVATION AREA SUMMARY

Although the two areas of excavation were spatially contiguous, they were not both open contemporaneously, and thus it was a useful tool during excavation to consider them as separate entities. The results laid out below continue this scheme for ease of reference.

4.1 Area 1 (North)

Area 1 consisted of slightly less than half of the total excavation area. Two things quickly became apparent during the first stage of stripping the area. Firstly, the pattern and alignment of the ridge and furrow was clearly seen to match that detailed within the Aerial Photographic Assessment, with one major exception – a surviving headland which had been visible as an upstanding earthwork before stripping began did not appear on the AP survey. This headland did not conform to the modern hedge line, but ran NE-SW across Area 1, and changing direction, continued south across Area 2. When the topsoil and subsoil were removed, the headland could be seen to be tracing the path of two parallel narrow linear features. Secondly, a large ditch which had not been seen in the evaluation produced some small sherds of Roman pottery, which had not previously been recovered from the extreme north end of the site. It soon became apparent that the ditch was forming part of a large, probably rectangular enclosure, within which were evident further linear and potentially rectilinear features. This enclosure was delimiting an area to the north of the excavation area, and the north-south arm of the ditch was evident during stripping for the road through the new housing estate. Evaluation had not picked up archaeology other than the ridge and furrow, and Trench A3 had just missed the north-south enclosure ditch. Other features within this enclosure included several stony patches and a number of pits. The enclosure ditch cut a large quarry feature which also contained Roman pottery. Curiously, there seemed to be a dramatic change in character to the boundary at this point, the ditch having terminals on both sides of the quarry, with the western one cutting the upper fill. On the eastern side, the terminal did not cut the quarry fill, but was inserted through a gravel surface around its edge. Between the terminals were a series of large postholes or small pits, mostly subrectangular in plan.

In the extreme north-west corner of the site, one of the medieval furrows cut through an interrupted narrow circular feature some 5m in diameter, enclosing several small postholes. This was interpreted as an Iron Age roundhouse, and sherds of pottery recovered from cleaning across the fill seemed to support this. A section had been placed across the roundhouse gully in evaluation Trench B8, although it had not been interpreted as such due to the narrow window available to view it. Iron Age pottery was recovered from the fill of the gully. After cleaning, there were clearly seen to be two or more phases of the roundhouse gully, a possible pit cut by one of the gully segment terminals, and further postholes, although the latter did not form an obvious structural pattern.

To the south of the roundhouse were several small ditch or gully features, elements of a possible enclosure system, and to the east of these, a very large pit or series of pits, the surface of which was scattered with numerous sherds of Iron Age pottery. Upon excavation, despite its rather figure-of-eight shape, this turned out to be a single feature, probably a quarry, with a long, shallow ramp into the pit from the north.

Southeast of the quarry was a small rectangular enclosure, two sides of which had been seen in evaluation Trench B7, and from which Roman pottery was recovered. Within the enclosure, a small posthole or pit contained fragments of a decorated flagon which may once have held a cremation, and the whole may have been a funerary structure.

In the south-east corner of the area, the two narrow parallel linear features mentioned above ran roughly NE-SW from baulk to baulk, although they were traced through into Area 2 to the south. The appearance was of two ditches or gullies flanking a trackway.

4.2 Area 2 (South)

Area 2 consisted of slightly more than half of the total excavation area. As seen in evaluation Trenches B5 and B6, much of the northern part of the area was archaeologically blank apart from the ridge and furrow, however, the southern edge was a very different story. Several phases of an enclosure system were uncovered, apparently surrounding a settlement to the south of the present site. This settlement was hinted at in the evaluation, and the enclosure system was investigated in Trench B4, although it did not extend as far south and east as Trenches B1-B3. The enclosure demonstrated complex entrances which shifted over time, and the earliest phase enclosed a far greater space than subsequent phases, at least within the limits of this excavation. It appeared that the final phase was marked by destruction, as the fill was black in many places with charcoal and fragments of burnt daub seen throughout.

To the east of the enclosure, the trackway continued south, although at the point where it changed direction abruptly, the flanking linears were discontinuous, and another narrow gully ran E-W across the break. As well as the trackway, several other narrow gullies were excavated to the east of the enclosure, on a variety of alignments. Two pits were dug at the northern limit of Area 2, both of which were later than the trackway and Roman in date.

5 PERIOD SUMMARY

5.1 Middle Iron Age or earlier (Figures 2 & 7)

The excavation produced a single artefact which belongs to a period earlier than the Iron Age, and this is the fine, narrow flint axe found during removal of furrow 17 in area 1. It was probably derived from the fill of the Iron Age quarry, although it is certainly Neolithic or earlier in origin.

It is entirely possible that the trackway is an early feature of the local landscape, as the Middle Iron Age settlement might be said to respect the line of it near the southern limit of excavation.

5.2 Middle Iron Age (Figure 3)

The multiple phases of enclosure seen at the southern limit of Area 2 all date to the Middle Iron Age. It is harder to date the adjacent trackway(s) and other small gullies, straight and otherwise, but they may well represent field systems being re-aligned over time.

5.3 Late Iron Age (Figure 4)

A single roundhouse with an interrupted gully was found in the north-west corner of the site. The latest phase was a black fill which may have been at least partially derived from the fill of a pit which was cut by the terminal end of the northern arc. Pottery from these features and the large quarry south-east of them has been dated to the Late Iron Age

5.4 Roman (Figure 5)

The large enclosure in the north-east corner of Area 1, the quarry across which its putative entrance was placed and all the features within it, including a probable building, have been securely dated to the first to second centuries AD. The smaller funerary enclosure to the south-west dates to the same period.

5.5 Medieval (Figures 6 & 7)

The site contained a sizeable snapshot of the local medieval ridge and furrow pattern, including a headland which conformed to the route of the prehistoric trackway. This headland was still extant as an upstanding earthwork bank before stripping of the site began. As can clearly be seen in Figure 6, the headland changes direction when the trackway does, and the width of the gap between the furrow ends is mirrored in the spacing of the trackway ditches. This suggests that the trackway survives as a route or boundary feature until the medieval period and is then preserved beneath the bank of the headland.

5.6 Post-Medieval

A number of post-medieval field drains and modern pipe trenches were found within the development area. The modern field boundaries do not conform to the medieval headland alignment seen on the site.

6 ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL

6.1 STRATIGRAPHIC AND STRUCTURAL DATA by Scott Kenney

6.1.1 Quantity of material and records

The number of records relating to the excavated features are as follows:
423 context records, of which 261 describe deposits, 160 describe cuts, and 2 refer to general cleaning. There are also 37 records which refer to master numbers

24 hand drawn plans at scale 1:100; 1 hand drawn plan at scale 1:50

66 section drawings at scale 1:20; 16 section drawings at scale 1:10

111 photographs;

25 sample records.

6.1.2 Provenance and dating

The majority of datable deposits can be attributed to the Iron Age and Roman periods based on pottery spot dates, stratigraphic and spatial associations and alignment of features. A small number of excavated deposits contained no datable evidence.

In area 1, 50% of the excavated deposits could be dated by pottery to the Middle Iron Age, and a further 43% contained pottery dating to the Roman period. Of the remaining deposits, 3% can be stratigraphically attributed to the Late Iron Age, 2% can be attributed to the Roman period by association, and the remaining 2% are undated but stratigraphically pre-medieval. Despite the lack of artefactual material other than metalwork, the furrows were assigned to the medieval period because of their morphology.

In area 2, 90% of the excavated deposits could be dated by pottery to the Middle Iron Age, and 2 deposits contained burnt daub fragments sometimes found associated with Iron Age features. A further 5% of excavated deposits contained no datable material but could be placed in the Middle Iron Age or earlier for stratigraphic and associative reasons. Despite the lack of artefactual material, the furrows were assigned to the medieval period because of their morphology. The remaining deposits can be attributed to the Middle Iron Age on the grounds of association, alignment or stratigraphy.

6.1.3 Range and variety

Feature types are almost entirely confined to cut features containing one or more deposits, the vast majority of which were waterlogged at their base. Evidence for surviving deposits outside cuts was sparse but included several gravel or cobble surfaces in Area 1.

The site was characterised by ditches, both deep boundary ditches from the Roman period, and shallow ditches of Iron Age date which apparently divided

the land into smaller areas. A small number of pits were excavated which can be attributed to the Roman period and a single pit was dug belonging to the Late Iron Age, additionally two large quarry pits were investigated, one Late Iron Age and one Roman. Two buildings can be discerned in plan on the site, both at the northern end, one a Late Iron Age roundhouse and the other a possible stone-built Roman structure.

Table of excavated feature types by area

Area	Pits	Ditches/gullies	Hearths	Post holes	Buildings	Cremations
	No. of cuts	No. of cuts	No. of cuts	No. of cuts		
1	6	83	1?	12	2	1
2	1	49		3		

6.1.4 Condition

The archaeological deposits were horizontally truncated across the site, and there was no evidence for buried soils or surviving surfaces associated with the buildings. There was, however, apparent survival of the line of a prehistoric trackway as a boundary feature through into the medieval period. Topsoil was between 0.2 and 0.3 metres in depth, and in the area of the headland there was up to a further 0.3m of subsoil. Intrusions from post-medieval or later features were limited to a few pipe trenches.

Features were largely intercutting, but in relatively discrete groups, and these stratigraphic relationships may be used to aid in phasing of the site, alongside the pottery spot dating.

6.1.5 Primary sources/documentation

The records for excavated deposits are complete and have been checked for internal consistency. Written records have been completed on archival quality paper using light-fast, waterproof ink, and are fully indexed. Drawn records are in pencil on film are clear, annotated, and fully indexed. A matrix has been produced for those areas of the site which had greater stratigraphic complexity than simply below topsoil and above natural.

Primary records for both the evaluation and the excavation are all retained at AFU offices, Fulbourn, Cambridge.

6.1.6 Means of collecting the data (method of assessment)

The primary paper records have been checked in conjunction with the site matrices and the assessments of artefactual and ecofactual materials to amass the information for this assessment. General finds information for individual contexts has been collated using the computer database. Preliminary grouping of contexts into discrete features has been undertaken. Raw stratigraphic phasing has been used as a tool to aid in grouping the intercutting features. Phase interpretations will also draw on artefact dates, spatial associations and alignments.

6.1.7 Selection of data for further analysis

By setting the site within its local and regional context, it is possible to assign a scale of significance to the remains from different periods. Most significant would be the Middle and Late Iron Age component, followed by the Roman, with the Post-Roman the least significant. It is therefore suggested that those contexts which are thought to be Middle or Late Iron Age in date and associated with the earliest settlement of Highfields should be subjected to the most detailed analysis. Similar attention will be paid to the Roman component, with particular emphasis on the possible chronological overlap of the two settlement areas.

6.1.8 Statement of potential

The contextual data is likely to be sufficient to provide a solid foundation on which to build the site narrative. A wide range of the available context types were fully excavated and recorded. In addition, the archaeological features present on the development area were all recorded in plan. The presence of buildings and settlement boundary features will provide a good base for the analysis and interpretation of spatial and typological distributions.

It is crucial that the site data is properly analysed and reported on in order that it may form a solid foundation upon which the finds data can be based. Without a solid, well-constructed and cross-referenced site database, information from other sources is likely to be compromised.

Establishing a dating sequence will be crucial in establishing phasing sequences and will help to establish a tighter dating sequence for similar sites elsewhere in the region.

6.1.9 Analysis methods and quantity statement

It is suggested that the site data is subjected to rigorous analysis. All contexts dating to the main period of occupation should be grouped and phased based on information from pottery, scientific dating techniques, and based on feature types and their spatial distribution. This information should then be distributed to specialists so that they are able to analyse the different material categories on the basis of the contextual data. The site report will be based on a combination of the contextual data and the reports compiled by individual specialists, it is therefore envisaged that the final report will not be written until all specialist analysis is completed. Reference to, and comparison with other sites of a similar period and type will be made wherever possible. In particular it is thought that some useful comparisons could be made with Wessex Archaeology's excavations at nearby Cambourne, and the AFU's previous excavations at Highfields, in addition to various other sites.

6.1.10 Potential of methods to meet aims and objectives

By subjecting the contextual data to rigorous analysis and incorporating all the specialist data into the site record it should be possible to produce a database and report which can be used for useful comparison with other excavations of sites of the Iron Age period. This is especially important given the current lack of data for sites of this period on the Cambridgeshire claylands. A number of stratigraphically linked context groups can be used to establish phasing for the

site and this will be dated by reference to the pottery. Useful work will be done on spatial distribution and comparison of feature types. It is thought likely, for example that associations between individual boundary ditches may be established in order to assess the longevity of the various settlements and whether there are any signs of zoning in activities, status and so on within the settlement(s). It will be especially important to identify when the settlement ceased to exist in this area and whether there is any continuity other than the trackway into the medieval period

6.1.11 Task list (accompanied by estimate of time)

Compile groups and phasing for distribution to specialists (PO)	10 days
Liaise with specialists and incorporate specialist reports	3 days (PO)
Compile illustrations list and liaise with illustrator	1 day (PO)
Write excavation report	5 days (PO)
Contribute to report, the site in its regional context	1 day (FUM)
Complete Archive	2 days (PO)
Edit Report	1 day (PM)
Incorporate edits	2 days (PO)
Proof reading	1 day (PM)
Draw and mount maps/plans/sections/pot drawings	3 days (ILL)

Where Cons = Conservator, ENV = Environmental supervisor,
ILL= Illustrator, PM = Project Manager, PO = Project Officer,
FUM= Field Unit Manager

*The above does not include publication staff costs.

6.2 POTTERY by Paul Seeley

6.2.1 Provenance and quantity

The material from Caldecote Highfields consists of 2255 sherds weighing 20.85kg. It derives from pits, ditches, postholes and structural gullies across the site.

6.2.2 Dating

The assemblage is approximately 10% Roman with the majority being Middle and Late Iron Age. In general, most of the excavated contexts contained pottery of only one period, with the particular exception of the penultimate fill 106/109/134/264 in quarry pit **108/137/270**, which contained Late Iron Age pottery and Pre-Flavian Roman pottery belonging to the conquest period, c.AD 43-60. Some of the storage vessel sherds are of the local Horningsea wares.

6.2.3 Fabric and forms

A significant portion of the assemblage is of hand-made Middle Iron Age wares, including some from the East Midlands scored ware tradition. These fabrics also occur as a small component of some later contexts.

The largest group consists of Late Iron Age and conquest period material. This is comprised of wheel-thrown sherds in sandy wares derived ultimately from the Aylesford-Swarling or 'Belgic' ceramics so well-represented to the south in Late Iron Age Hertfordshire and Essex. Some of this 'Belgic' pottery from Caldecote is hand-made and might represent locally-made copies.

The Roman pottery forms the minor component of the whole assemblage and ranges from the conquest period material mentioned earlier to such late fragments as a 3rd/4th century AD mortarium.

6.2.3 Primary sources and documentation

This assemblage will be compared to those published from Edix Hill, Barrington (Woudhuysen 1998), Lingwood Wells, Cottenham (Hill 1999b), Castle Hill in Cambridge (Farrar et al 1999) and the Aylesford-Swarling cremation cemetery at Hinxton (Hill et al 1999). Other unpublished assemblages may be studied if time allows.

6.2.4 Data collection

Each context will have the sherds separated into periods and then subdivided into fabric types.

6.2.5 Discussion and potential

To understand the significance of the Caldecote pottery, one needs to look at broad picture for Iron Age pottery in south Cambridgeshire. The period begins with two overlapping pottery style zones of flint-tempered wares known as Chinnor-Wandlebury and Darmsden-Linton (Cunliffe 1968,178-81,figs 1-4; 1974,39,325-6; 1978,41-2,359-60) current c.650-300 BC. This is followed by a plain ware tradition of sand-tempered vessels; a regular minor component on some sites are vessels inspired by the east Midlands scored ware tradition.

From c.50 BC the region is exposed to the new Aylesford-Swarling “Belgic” wheel-thrown and grog-tempered ceramic of Essex and Hertfordshire (Thompson 1982).

The middle Iron Age assemblage from the site is important because a middle Iron Age pottery tradition in south-east Cambridgeshire still awaits definition (Woudhuysen 1998,37-8), at least in published format. There is enough pottery of middle Iron Age type to provide at least two pages of A4 illustrations. Present amongst this material (and in lesser quantities in later contexts from the site) are sherds derived from the east Midlands scored ware tradition (Elsdon 1992).

The late Iron Age and early Roman contexts include such middle Iron Age pottery but with increasing quantities of wheel-thrown sherds in sandy wares derived ultimately from the Aylesford-Swarling or “Belgic” ceramics so well represented to the south in late Iron Age Hertfordshire and Essex. Some of the “Belgic” pottery from Caldecote is hand-made and might represent local copies. An attempt could usefully be made to quantify the incidence of hand-made and wheel-thrown pottery to assess the pace at which pottery technology was developing in the period.

Late Iron Age and conquest period groups of the kind described allow one to address the problem discussed by Hill (1999a,202), the validity of the traditional division of the East Anglian Iron Age into an early, middle and late phase. Hill has rejected the tripartite division on the grounds that middle Iron Age wares remained current in Cambridgeshire until the Roman invasion.

This is understandable, but the partial adoption of “Belgic” pottery in south Cambridgeshire (as Hill himself demonstrated at the Aylesford-Swarling cemetery of Hinxton) (Hill *et al.* 1999) suggests we should not abandon the existing phasing without further discussion.

This explains the importance of Caldecote. As we have seen, there are contexts with wares of exclusively middle Iron Age type. But (larger) groups of late Iron Age and conquest period date are also present. Several distinct strands can be identified in these late Iron Age and conquest period contexts:

- middle Iron Age hand-made wares,
- east Midlands scored ware,
- late Iron Age wheel thrown wares of “Belgic” affiliation,
- imported Roman wares, and
- early Romano-British pottery.

Groups like this should give an opportunity to gauge the rate at which “Belgic” pottery was adopted in south Cambridgeshire on a settlement site. The

presence of more securely dated conquest period groups in which so-called late Iron Age pottery traditions are evidently contemporaneous with middle Iron Age pottery types gives scholarship an opportunity to define and quantify and date this poorly understood period of cultural transition.

These transitional middle to late Iron Age groups document the hesitant adoption of Aylesford-Swarling “Belgic” pottery in a region reluctant (for whatever reason) to forsake its traditional ceramic identity. Some of this “Belgic” pottery is grog-tempered and may represent “imports” from Essex or Hertfordshire. But most of the Caldecote “Belgic” is sand-tempered (like the middle Iron Age pottery from the site) and evidently represents Aylesford-Swarling pottery at least one remove from its most developed Essex and Hertfordshire format. This middle to late Iron Age transition has not hitherto been addressed on the basis of a Cambridgeshire settlement site.

It would seem that the middle and late Iron Age contexts at Caldecote belong to a site that saw uninterrupted activity right through until the Roman period. Indeed the association of pottery of Iron Age type with Roman wares allows one to date the persistence of this tradition.

The integration of pottery of Iron Age type with Roman at Caldecote suggests the project should for completeness give some account of *all* the Roman wares from the site, even late vessels such as the 3rd/4th century AD mortarium from context 65.

6.2.6 Recommendations

To understand the pottery from the site and its potential, the existing site documentation of context sheets and plans will be studied. Discussions with the excavator will take place to establish the site phasing.

All sherds will be examined with a hand-lens to determine how many different fabrics are present and the character of these fabrics.

Descriptions of the fabrics will be written. At the same time, sherds will be examined for evidence of use, decoration and manufacturing technique.

Detailed hand-written notes will be kept on each context for the site archive.

When the sherds are being examined to define the fabrics, they will be weighed and counted by fabric group within contexts.

This quantified data will be collated and tables prepared showing the incidence of fabric groups for the assemblage in total, and by phase, and for selected contexts.

The average sherd weight of the Iron Age pottery will be established.

Contexts with sherd weights significantly higher than the site average will be examined afresh to assess the extent to which they represent primary rubbish

or structured deposition.

The fabric groups will need to be related to the local solid and drift geology to establish if the pottery could have been made in the immediate locality of Caldecote.

The nearest sources to Caldecote of the fossil shell used to temper some of the Iron Age pottery need to be located.

6.2.7 Task list

Illustration and numbering of approximately XX selected sherds

3 days (ILL)

Analysis and report

17 days (EC)

6.3 THE FAUNAL REMAINS by I Baxter

6.3.1 Quantity

A relatively small assemblage of bone was recovered from hand excavated deposits. A small additional amount of bone was recovered from the heavy residues of sieved environmental bulk samples.

The total weight of the assemblage is 5887g; this figure includes material recovered from the samples. For the purpose of this assessment the whole assemblage (633 fragments) has been rapidly scanned (table.1).

Table 1. Hand-collected assemblage. Number of “countable” bones (Davis 1992; Albarella and Davis 1994) used for assessment.

PERIOD	COUNTABLE BONES					
	Cattle	Sheep/Goat	Pig	Others	Total	Comments
Iron Age/Romano-British	25	23	23	8	79	Includes horse

PERIOD	AGEABLE MANDIBLES				MEASUREMENTS				
	Cattle	Sheep/Goat	Pig	Total	Cattle	Sheep/Goat	Pig	Others	Total
Iron Age/Romano-British	2	2	3	7	7	17	10	5	39

6.3.2 Provenance

The assemblage was recovered from pits, ditches, postholes, quarries and structural gullies.

6.3.3 Range and variety

The animal bones belong exclusively to domestic species. Cattle fragments are most frequent at 32%, closely followed by sheep/goat and pig with both at 29%. The cattle include the so-called “Celtic” small horn. There is probably a recovery bias against the remains of smaller species. Horse remains are fairly common, accounting for 10% of the total.

6.3.4 Condition

The preservation of the bone ranges from good to poor, with most of the assemblage fair to poor. Much of the bone is highly fragmented.

6.3.5 Method of assessment

All the bone recovered from the site has been used as the basis for this assessment. Numbers of “countable” bones, ageable mandibles and measurable bones are recorded in Table 1. The counting system was based on a modified version of the system suggested by Davis (1992) and used by Albarella and Davis (1994).

6.3.6 Selection of data for further analysis

All of the assemblage will be used in the more detailed analysis.

6.3.7 Statement of potential

This is a very small assemblage from a rural Iron Age to Romano-British settlement site. Its potential is therefore rather limited.

6.3.8 Analysis methods and quantity statement

The assemblage is too small to warrant detailed analysis. It is therefore suggested that following dating and phasing of the site, any subsequent report is limited to a brief summary, a fragment (NISP) table and a catalogue of “countable” fragments including available measurements and mandible/tooth wear stages. This may be of use when the remainder of the site, which formed the main focus of occupation, is excavated and the site as a whole is written up and published.

6.3.9 Task list and estimate of time

Analysis of faunal remains, study of data and table production (includes spatial and temporal analysis) = 6 hours (EC)

Synthesis of data and report production = 2 hours (EC)

6.4 ENVIRONMENTAL ASSESSMENT by Chris Stevens

6.4.1 Quantity

A total of 25 flotation samples were taken for the recovery of charred plant remains and other archaeologically significant material.

A range of environmental samples were taken during the excavation to obtain data on spatial variation in site economy, local environment, and the functions of specific features. The majority of samples were bulk samples for the recovery of charred and waterlogged plant macrofossils, however, a single sample specifically for the identification and quantification of molluscs was also taken.

Animal bone was hand collected during excavation. In addition, heavy residues from flotation were sieved for the recovery of any small animal bones and other classes of environmental material.

Although marine molluscs (shellfish) were occasionally recovered during excavation, they occurred in insufficient quantities to warrant specific analysis.

The single mollusc sample was taken from the large Roman quarry feature in Area 1 because the conditions during its filling indicated a unique variation in the local environment (Boreham, pers comm).

Twenty-four samples were assessed in total from the Caldecote Highfields site for both charred plant macro remains and molluscs. Given the poor number of remains the samples were examined and quantified in full and this represents a final report.

The samples were scanned using a low-powered binocular microscope, at the Pitt-Rivers Laboratory, McDonald Institute, Cambridge. Very few of the samples produced botanical remains, although most, with the exception of those from (280), (250), (343) and (337), produced some molluscan remains. The extracted material was quantified and is presented in Table 1, an * indicates seeds that were recovered and identified from the residue rather than the flot. The nomenclature used for the botanical material was Stace (1997) and Cameron and Kerney (1979) for the land molluscan and Pflieger (1998) for the water mollusca.

6.4.2 Provenance

The full range of feature types sampled was as follows: 12 from ditch fills; 4 from pit fills; 7 from posthole fills, 1 from a quarry fill and 1 from a cremation. The table below shows the total number and type of samples by area.

Numbers of samples taken by type and area

Area	Macro -fossil	Mollusc
1	16	1
2	8	
Totals	24	1

6.4.3 The Charred Evidence

In terms of the charred remains only those samples from contexts (65), (280), (372) and (415) produced evidence for cereals. The sample from (65) produced the most, with finds of hulled wheat grain, *Triticum dicoccum/spelta*, glumes and spikelet forks, from which only *Triticum spelta* was identified. A single grain of barley, *Hordeum vulgare sensu lato* was also recovered from (415). Evidence for arable weeds was relatively scarce, and consisted of a few grains of oat from (372) and (65) and some smaller seeds of the Chenopodiaceae, fat-hen, *Chenopodium album* and *Atriplex* spp. from (272) and (280). A seed of dock was also recovered from (359) and seeds of knotgrass, *Polygonum aviculare* and (probably wild) oats, *Avena* sp. also from (280). The sample from (174) was slightly unusual in that both burnt bone and seeds of woodland-scrub species; bramble, *Rubus* spp. and hawthorn, *Crataegus monogyna* were recovered.

6.4.4 The Molluscan Evidence

Shells of both shaded conditions and wetland conditions were common in several of the samples. In particular the sample from (114) produced many shells of twisted ramshorn, *Bathyomphalus contortus* which is more commonly associated with rivers, canals, lakes or streams than ditches (Pfleger 1998). While the sample from (285) may also be associated with intermittent, possibly shallow standing water, being high in juvenile shells of dwarf pond snail, *Lymnea truncatula*, the presence of *Bathyomphalus contortus* in (65), (114) and (285) is more probably associated with occasional flooding events into the features than with standing water.

High numbers of shells tend to accumulate over time and so are more associated with features that have stayed open for longer, rather than having been rapidly in filled. The high number of shells of *Bathyomphalus contortus* from (114) might then suggest that the feature stood open for some time. High numbers of shells were also found within the 'richer' cereal containing samples, both (65) and (372). The dominant species in both these latter cases was *Discus rotundatus*, a species associated with shaded conditions. Shells of *Pomatius elegans* associated with disturbed soils and the clearance of woodland were absent, while those of *Pupilla muscorum* associated with disturbed open, often arable, but also settlement soils were also uncommon. The greater impression from the samples then is one of long-grassland, associated with *Vallonia* spp., either with elements of scrub or reverting to scrub/woodland or possibly dense hedges.

While *Carychium tridentatum* is associated with woodland and scrub, *Carychium minimum* is also associated with wet marshes as well as woods. The species presence especially in (285) might still indicate more woodland/scrub conditions, although the similar abundance of both *Hellicella itala* and *Vallonia* spp. still indicates some open grassland elements.

6.4.5 Interpretations

The lack of cereal related charred remains could be related to one or a combination of several interrelated factors. Charred remains consisting of cereals are generally associated with domestic activities. They are also associated mainly with the more frequent of these activities, namely the taking of cereals from storage and their preparation for consumption mainly on a daily basis.

The absence of cereals then tends to be associated with an absence of settlement; a short-lived settlement; the absence of domestic cereal processing; and/or the storage of cereals in such a form that wastage of grain is minimal. It may also be associated with areas where midden or hearth material is not allowed to enter features, or features are quickly in filled before material can find its way into them.

The presence of cereals within at least one sample (65) might lend itself to suggest that domestic waste was present on the site, and it should be noted that other sites in the region producing house-structures have similarly produced

very little grain when sampled (Authors own observations).

The number of molluscs from both (65), (285) and (114) might indicate that features did not in-fill quickly, but may have been open for long enough to receive domestic waste where it had been present in suitable quantities. Although (174), in that it contained seeds of ecologically similar species usually less commonly recovered from samples but no cereal remains or molluscs, could represent such rapid in filling. The sample would also indicate the burning of scrub or the use of scrub material as fuel.

The molluscan fauna itself suggests little disturbance and a strong scrub element. Continuous disturbance, especially arable and grazing, tend to diminish the scrub-land fauna, whilst allowing a mature fauna associated with both disturbed ground, and if grazing (indicated by *Hellicella itala*) a dominant grassland element as well, to develop over time. The features themselves testify to some disturbance, however, the general absence of a molluscan fauna associated with such disturbance (*Pupilla muscorum*, *Pomatius elegans*) suggests it was short-lived and may support any hypothesis of a short-period of occupation or activity on the site.

The last possibility, that cereals were stored in a more processed state so leading to less production of waste, is seen at sites such as Wandlebury in the region (authors own observations). Other sites in the region have tended to have high numbers of both glumes, and smaller weed seeds supporting the idea that they were storing crops largely unprocessed as sheaves. The evidence from Caldecote is inconclusive, as not enough material was recovered for a sound judgement to be made on this issue. However, the one sample producing several glumes, and fewer hulled wheat grains, typical of processing waste taken from storage of grain stored as spikelets, also produced few weed seeds and these were of the larger sized typical of the final stage of removal by hand. This may suggest that the samples represent the processing of grain stored as semi-cleaned spikelets, i.e. partially processed and that this may have contributed to the absence of at least weed seeds.

6.4.6 Summary

The samples were examined in full, and no further work is required on them. The lack of charred material within them has been discussed. While samples with few mollusc remains may indicate features that have filled in too quickly for the recovery of charred material, those containing molluscs suggest other reasons, such as storage of more fully processed grain or short-lived occupation, for the scarcity of charred 'domestic' waste in the samples.

The finding of cereals within the samples would tend to point to some domestic activity and the storage of cereals at the site, though whether they were farmed locally is impossible to say. The lack of disturbance and high element of scrub may be due to a lack of activity on the site, or possibly a short-lived occupation where grassland faunas and faunas of disturbed soils were unable to establish themselves. The presence of water-molluscs suggests damp conditions and possibly even some flooding of the site.

6.4.7 Task list

No further work is recommended.

6.5 OTHER FINDS

A small number of miscellaneous finds were recovered from features, these are listed below.

Tile	2 fragments, 340g
Slags	7 pieces, 1304g
Flints	2 flakes, 11g
Shell	7 fragments, 20g

6.5.1 Tile

The tile fragments are both of Roman tegula.

6.5.2 Smithing slag by Will Wall

A small sample of smithing slag derived from contexts across the site has been examined. The material comprises 1 plano-convex hearth bottom 0.13m by 0.11m and 0.05m thick, plus six smaller fragments. All of the fragments are derived from contexts of Roman date. The largest piece weighs 907g, while the smaller fragments weigh up to 188g. The sample could be regarded as 'background noise' to be expected of a settlement site, given that iron smithing for the manufacture and repair of tools was a common activity. No further analysis is recommended.

6.5.3 Shell

A very small quantity of oyster shell was recovered from features belonging to the Roman period. No further work is recommended.

6.5.4 Metals by Chris Montague

A number of iron objects found by metal detecting across can be attributed to the medieval and post-medieval periods. These included a pair of shears which may be for cloth or sheep-shearing. No further work is proposed on these finds. In addition, however, a small number of objects were found in Roman contexts and may be attributed to this period.

Copper alloy: An *As* of Domitian or Trajan
 Part of a dress pin
 A piece of bronze rod

Illustration of the *As* is recommended.

6.5.5 Task list

Illustration of coin

0.5 days (ILL)

6.6 HUMAN BONE by Rebecca Casa-Hatton

A probable cremation was found in the upper fill of a shallow gully in area 1. It was not contained in a pottery vessel and did not appear to lie in a separate cut.

The context within which the bone lay was fully excavated and bone fragments were recovered weighing 55g. The fragments were heavily calcined except for a single piece which showed an unaltered patch. Given the spatial association of the burial with both Iron Age and Roman settlements and the lack of other known cremations in the area, it is recommended that the bone is subject to full analysis.

6.6.1 Task list

Examine and report on human bone

0.5 days (EC)

7 SUMMARY OF POTENTIAL

7.1 SITE CONTEXT AND SIGNIFICANCE

English Heritage's updated survey of archaeological endeavour and agenda for future work (English Heritage, 1997) once again draws attention to the importance of archaeological remains dating to the Iron Age from the hitherto 'barren' claylands of Cambridgeshire. The more recent Regional Research Agenda and Strategy document (Brown and Glazebrook 2000) also focuses on this subject as a 'Gap in Knowledge', in particular the distribution of such settlement sites.

Recent work has proven beyond all doubt that these claylands were exploited to their fullest potential from the Bronze Age onwards, and the number of excavated Iron Age sites is now multiplying annually as development in Cambridgeshire continues to accelerate.

The southern part of the excavated area at Caldecote forms only a fraction of a settlement site from the Middle Iron Age. The main focus of occupation lies untouched to the south of this, within another proposed housing development. It is not yet known whether this settlement was particularly long-lived, however, the excavated boundaries and probable entrances are repeatedly recut, realigned and restated over time. The final phase of filling seems to indicate a catastrophic demise for this particular site.

Coupled to the usual research aims of understanding the diet, economy and settlement development of this period, there is a particular opportunity with this site to further clarify the nature of the introduction of new pottery types during the Iron Age and to measure their persistence into the Roman period.

7.2 UPDATED PROJECT AIMS AND OBJECTIVES

The updated aims and objectives for post-excavation analysis can now be defined as:

1. Refine dates and sequence of Iron Age settlement development.
2. Contribute towards an understanding of the distribution and development of pottery of the Iron Age period in the region.
3. Contribute to knowledge about diet, health and living conditions during the Iron Age period.
4. Contribute to knowledge about the character and management of the local environment during the Iron Age period.
5. Contribute to knowledge about Iron Age buildings, and wood technology.
6. Contribute to knowledge about internal settlement organisation during the Iron Age period.
7. Consider evidence for continuity of landscape features from Pre-Middle Iron Age to the medieval period.

The Table below summarises the potential of each of the suggested analysis areas to meet the research aims and objectives.

Research Aims:	1	2	3	4	5	6	7
Main analysis area							
Stratigraphic/date	X	X	X	X	X	X	X
Pottery	X	X				X	X
Other Finds	X		X			X	
Faunal remains			X	X	X		
Plant macrofossils			X	X	X		

It is important to note that each of the areas of analysis will be of little value if studied without regard to its context both at site, local, and regional level. Assessment has indicated that there may be potential for looking at the spatial distribution of a variety of data types. It is, for example, immediately apparent that certain areas of the site were more rich in pottery than others, and that certain individual features contained disproportionately large amounts. Further analysis should show whether these differences are spatial or temporal, and thus whether we have zonation in settlement activity or change in settlement character over time.

8 PUBLICATION SYNOPSIS

It is intended to publish the report in the Cambridgeshire Archaeology report series. It is suggested that the report follows an established pattern as follows.

Background to excavation, archaeological context

The site summary - phases of activity

The pottery

The environmental remains

The faunal remains

The other finds

Discussion and Conclusions (including documented history notes, regional and local settlement context)

TASK LIST

Project Management	4 days (PM)
Report Preparation and Checking	3 days (ILL)

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Figure 2 *Middle Iron Age or earlier*

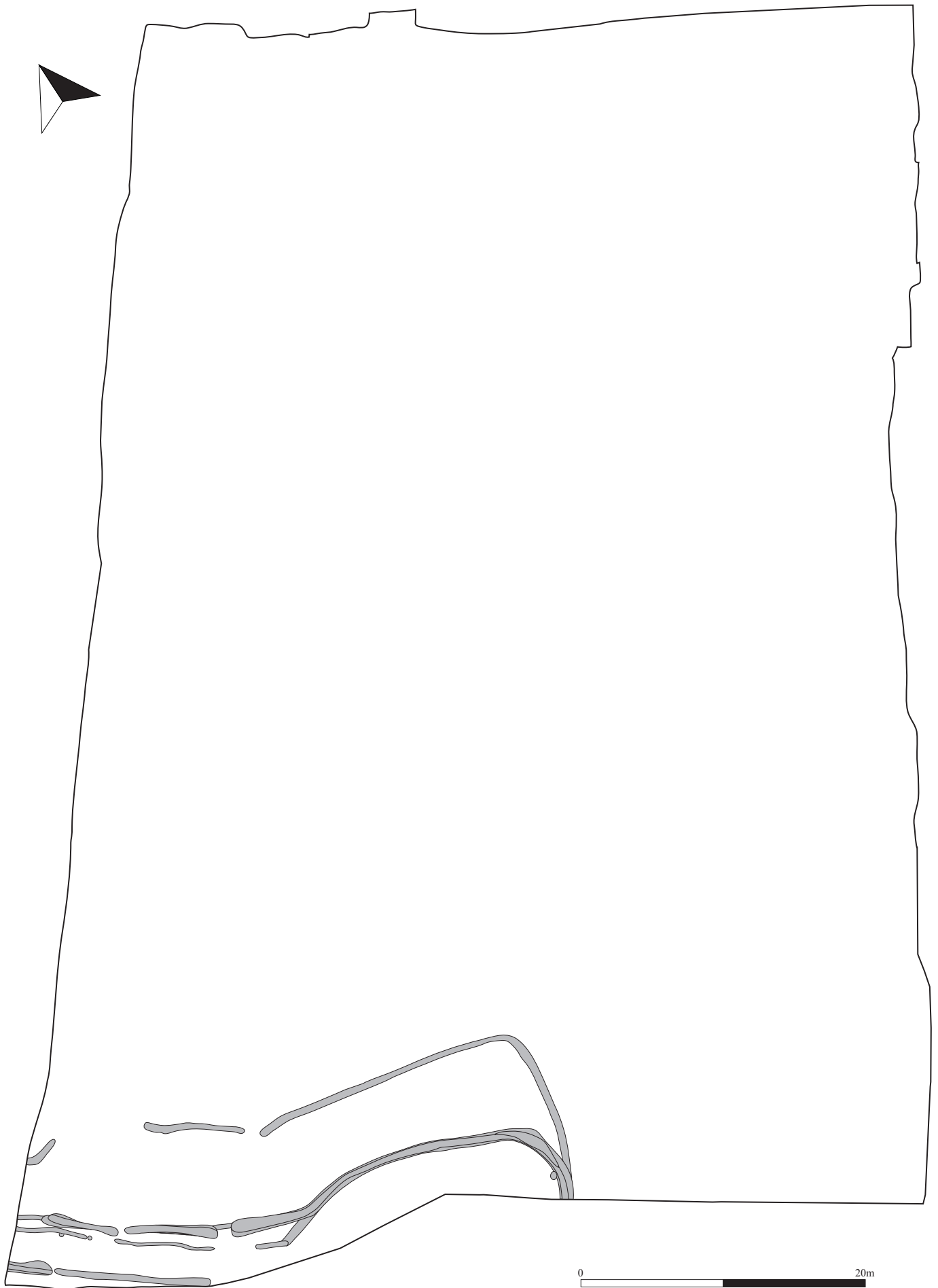


Figure 3 *Middle Iron Age*

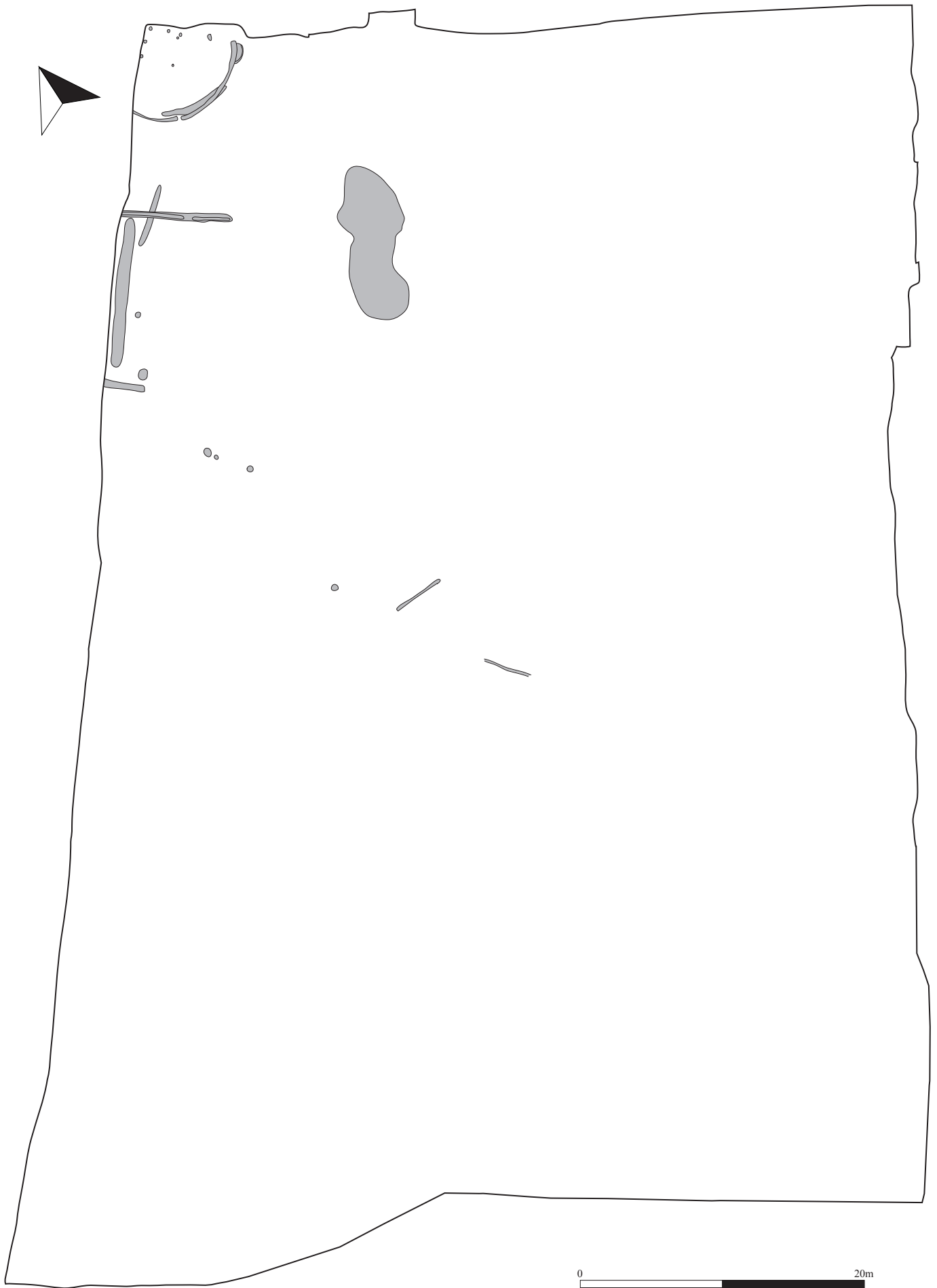


Figure 4 Late Iron Age

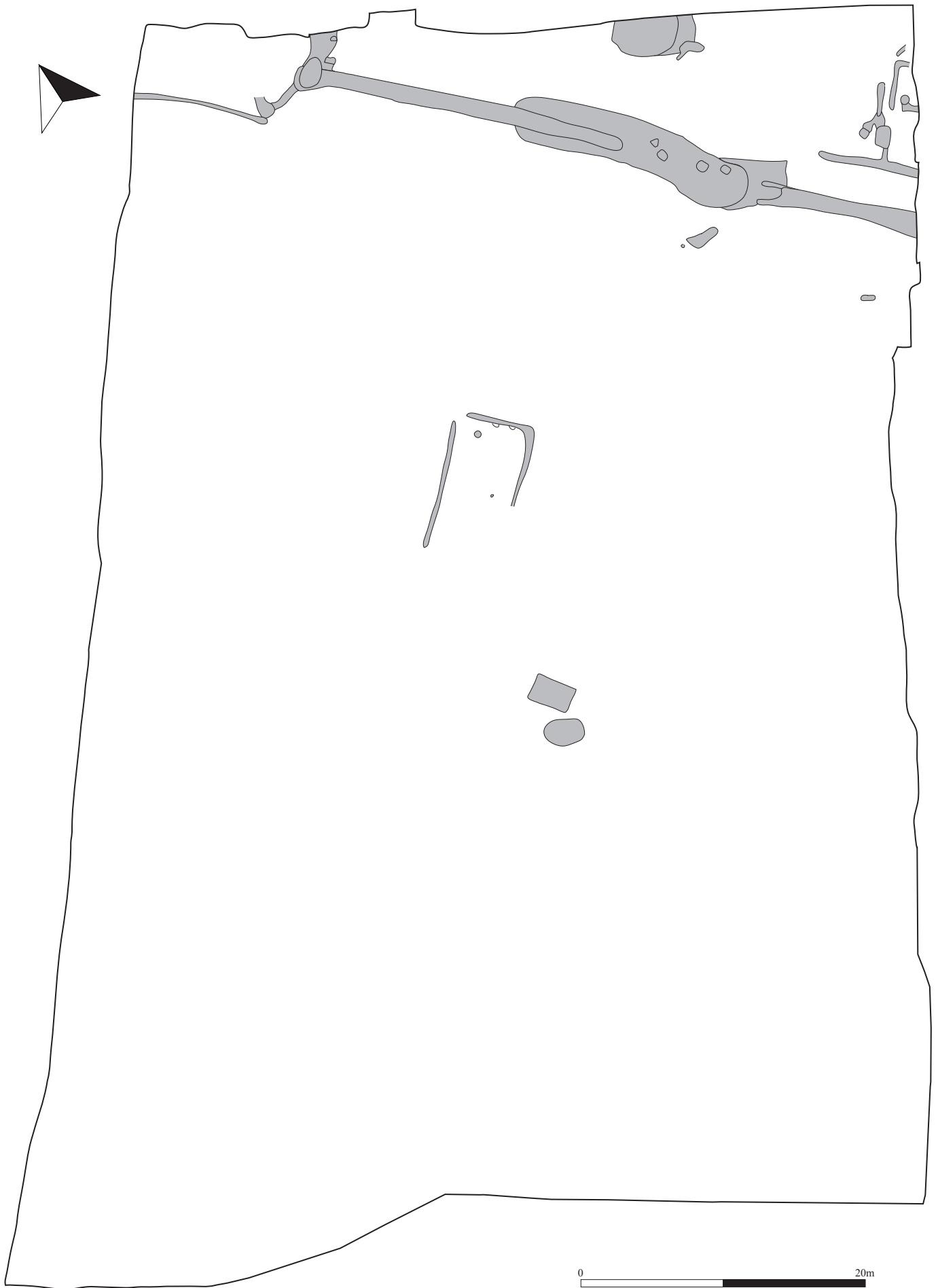


Figure 5 *Roman*



Figure 6 *Medieval*



Figure 7 *Trackway with medieval ridge and furrow superimposed*



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