

Cover Images

Machine stripping, Soham	On-site surveying
Roman corn dryer, Duxford	Guided walk along Devil's Dyke
Bronze Age shaft, Fordham Bypass	Medieval well, Soham
Human burial, Barrington Anglo-Saxon Cemetery	Timbers from a medieval well, Soham
Blue enamelled bead, Barrington	Bed burial reconstruction, Barrington Anglo-Saxon Cemetery
Aethusa cynapium 'Fool's parsley'	Medieval tanning pits, Huntington Town Centre
Digging in the snow, Huntingdon Town Centre	Beaker vessel
Face painting at Hinchingsbrooke Iron Age Farm	Environmental analysis
Research and publication	Monument Management, Bartlow Hills

AFU Report Number 971

Papworth Everard Bypass Project

Post-Excavation Assessment and Updated Project Design

Dan Hounsell BA, PhD.

With contributions by

Val Fryer BA, FSA MIFA
Steve Boreham BSc. PhD.
Matt Leivers BA PhD MIFA
Sarah Percival BA MA
Alice Lyons BA MIFA
Natash Dodwell MA
Chris Faine BA MSc
Rachel Fosberry
Chris Montague

Site Code: PEV BYP 06
CHER Event Number: ECB2108
Date of works: December 2005 – April 2006
Grid Ref: TL 290/620, 278/627 284/639

Editor: Elizabeth Popescu BA, PhD MIFA
Illustrator: Crane Begg BSc

Oasis Number 31214

PROJECT DETAILS				
Project name	Papworth Everard Bypass Project, Papworth Everard, Cambs			
Short description	Excavation of a an Iron age Field System, maintained and re-used during the Roman period. Also a Bronze Age cremation Cemetery			
Project dates	Start	Dec '05	End	April '06
Previous work	CAM ARC Evaluation		Future work	No
Associated project reference codes	PEV BYP 06			
Type of project	Excavation			
Site status	Closed			
Current land use (list all that apply)	Agricultural			
Planned development	Bypass			
Monument types / period (list all that apply and use <u>thesaurus of monument types</u>)	Agricultural, field boundary systems, Ritual and Burial			
Significant finds: Artefact type / period (list all that apply and use <u>MDA object thesaurus</u>)	Pottery, Cremation urns, Cremated Human Bone			
PROJECT LOCATION				
County	Cambridge	Parish	Papworth Everard	
HER for region	Cambridge			
Site address (including postcode)	Papworth Everard Bypass, Papworth Everard, Cambridgeshire			
Study area (sq.m or ha)	10.50ha			
National grid reference	Easting (6 figure)	278	Northing (6 figure)	627
Height OD	Max OD	55.84	Min OD	37.71
PROJECT ORIGINATORS				
Organisation	Cambridgeshire County Council, CAM ARC			
Project brief originator	Andy Thomas – Principal Archaeologist Planning and Countryside Advise, Cambridge County Council			
Project design originator	Aileen Conner- CAM ARC			
Director/supervisor	Dan Hounsell			
Project manager	James Drummond Murray			
Sponsor or funding body	Department of Transport, Cambridgeshire County Council			
ARCHIVES	Location and accession number		Content (e.g. pottery, animal bone, database, context sheets etc)	
Physical				
Paper				
Digital				
BIBLIOGRAPHY				
Full title	Papworth Everard Bypass Project			
Report number	971			
Series title and volume				
Page numbers	103			
Author(s)	Dan Hounsell			
Date	January 2007			

Summary

Between December 2005 and April 2006 the Cambridgeshire County Council Archaeological Field Unit (CAM ARC) carried out an archaeological excavation along the line of the proposed Papworth Everard Bypass. The southern end of the bypass formed a junction with the A428 at TL278/627, while the northern end joined the B1040 just to the west of Papworth at TL290/620.

The work was commissioned by S. Atkins Consultants Ltd on behalf of the Department of Transport of Cambridgeshire County Council, in advance of the construction of the bypass.

A prior evaluation of the site had led to the identification of three main areas for excavation within the footprint of the bypass and during the course of the work a further three were also identified.

At the far south - eastern end of the excavation area a mid Bronze Age cremation cemetery was discovered. This was entirely unexpected, and being sealed by 1m+ of alluvium was entirely intact. Excavation of the area of the cemetery which fell under the footprint of the bypass revealed 39 cremations, some of which were urned. There were also a number of other features associated with the cremations, including ash dumps and post holes - within which sat the burnt remains of wooden posts.

Across the rest of the excavation area, the archaeological works revealed the remains of a substantial mid to late Iron Age field boundary system which, based on the density and location of finds, appeared to lie near to its associated settlement at the north - eastern end of the excavation area. However, the excavation did not uncover this settlement.

In addition to these field boundary features a number of seemingly isolated structural features were also identified at the southern end of the excavation area (a single huge posthole and a number of beam-slotted short linear ditches, one of which was clay lined). These sat on the top of a hill overlooking the rest of the site. The exact function of these was not clear but it is thought that they may have had some sort of ritual function.

The use of the site continued into the early Romano-British period with a number of the earlier Iron Age field boundary ditches being maintained / cleared out, as well as a few new ones being established.

Later evidence for use of the site consisted of traces of medieval ridge and furrow activity, and modern plough scars.

Contents

1	Introduction	1
2	Geology and Topography	1
3	Archaeological and Historical Background	1
3.1	General	1
3.2	Prehistoric	2
3.3	Roman	3
3.4	Saxon and Medieval	3
3.5	Post Medieval and Modern	4
3.6	Previous Archaeological Works	5
4	AIMS and Objectives of the Excavation	6
4.1	Objectives	6
4.2	Original Research Aims	6
4.2.1	The Potential of the Site to Contribute Toward National Research Aims	6
4.2.2	The Potential of the Site to Contribute To Regional Aims	7
4.2.3	The Potential to Contribute to Local Research Aims	9
4.2.4	Site Specific Aims	9
5	Excavation Strategy and Methodology	10
5.1	Open Area Excavation	10
5.2	Summary of Excavation Results and Phasing	11
5.3	Period 1: Middle to Late Bronze Age (c. 1500BC – 700BC)	12
5.4	Period 2: Early Undatable Features (probably early to Late Iron Age, (c.700BC – 43AD)	16
5.4.1	Phase 1	17
5.4.2	Phase 2	22
5.4.3	Period Summary	23
5.5	Period 3: Late Iron Age to Roman (c.100BC – 200AD)	24
5.5.1	Phase 1	24
5.5.2	Phase 2	27
5.5.3	Phase 3	29
5.5.4	Period Summary	30
5.6	Period 4: Mid to Late Romano British (3 rd – 4 th Century AD)	30
5.7	Period 5: Later Undatable Features	31
5.8	Period 6: Medieval to Modern	32
6	Assessment of Archaeological Potential	32
6.1	Excavation Summary	32
6.2	Statement of Potential	33
6.3	Stratigraphic and Structural Data	34

6.3.1	Quantity of Written and Drawn Records	34
6.3.2	Quantity of Environmental Samples	35
6.3.3	Quantity of Finds	35
6.3.4	Range and Variety	35
6.3.5	Condition of the Excavation Area	36
6.3.6	Condition of the Primary Excavation Sources and Documents	36
6.4	Survey Data	37
6.5	Artefact Assemblage Summaries	37
6.5.1	Metal Objects (Appendix 5)	37
6.5.2	Prehistoric Pottery (Appendix 2)	37
6.5.3	Romano British Pottery (Appendix 3)	38
6.5.6	Animal Bone (Appendix 4)	38
6.5.7	The Cremation Cemetery (Appendix 7)	39
6.5.8	Inhumation Burial (Appendix 7)	40
6.5.9	Environmental Remains (Appendix 6)	41
7	Updated Research Aims and Objectives	42
8	Method Statements	43
8.1	Full Analysis	43
8.1.1	Stratigraphic Analysis (Tasks 1 – 17)	43
8.1.2	Pottery Analysis (Tasks 25 – 26)	44
8.2	Partial Analysis	44
8.2.1	Cremated Human Bone (Tasks 28 and 30)	44
8.3	Little / No Further Analysis (Tasks 28a-c)	44
8.3.1	Miscellaneous Finds	44
8.4	Documentary Studies (Task 8)	45
8.5	AMS Dating (Task 30)	45
9	Report Writing, Archiving and Publication	45
9.1	Report Writing (Tasks 9-14; 18-23)	45
9.2	Archiving (Task 17)	45
9.3	Publication (Tasks 9-14; 16)	46
10	Resources and Programming	47
10.1	Staffing and Equipment	47
10.1.1	Project Team	47
10.2	Task Identification	48
	Acknowledgements	
	Bibliography	

List of Figures

Figure 1: Drawing conventions

Figure 2: Area 1

Figure 3: Area 2

Figure 4: Area 3

Figure 5: Area 4

Figure 6: Area 6

Figure 7: Sections

Figure 8: Terrain Model

List of Plates

Plate 1: Cremation 1870

Plate 2: Cremation 1724

Plate 3: Area 4

Plate 4: Cremation 1883

List of Tables

Table 1: Summary of Cremation cemetery contexts

Table 2: Summary of Structural Features

Table 3: Summary of Area 6 Features

Table 4: Summary of Ditch Contexts

Table 5: Summary of Archaeological Finds from Boundary Features

Table 6: Summary of Archaeological Finds from Boundary Features

Table 7: Summary of Archaeological Finds from Pit Features

Table 8: Summary of Archaeological Finds from re-cutting Boundary Features

Table 9: Summary of Archaeological Finds from Ditch Features

Table 10: Summary of Archaeological Finds from Feature 1796

Table 11: Summary of Archaeological Finds from Ditch Features

Table 12: Summary of Archaeological Finds from Pit Features

Table 13: Quantification of Written and Drawn Record

Table 14: Environmental Sample

Table 15: Principal Assemblages

Table 16: Summary of Feature Types

Table 17: Project team

Table 18: Breakdown of principal tasks

Table 19: Quantity and weight of pottery by spot date and area.

Table 20: The feature types from which the assemblage was retrieved, listed in descending order of pottery weight (%).

Table 21: The Romano-British pottery quantified by fabric and listed in descending order of percentage of weight.

Table 22: Catalogue of Metal object finds

Table 23: Plant macrofossil Remains From None cremation deposits

Table 24a: Plant macrofossil Remains from cremation deposits (Samples 42 – 117).

Table 24b: Plant macrofossil Remains from cremation deposits (Samples 122 – 161).

Table 24c: Plant macrofossil Remains from cremation deposits (Samples 162 – 206).

Table 25 Percentage pollen data from Papworth Bypass

Table 26: Summary of Residues Sorted from the Environmental samples

Table 27: Summary of Ceramic Remains from Cremation Cemetery

Table 28: The number of individuals identified in each age category by feature type. The figure in brackets represents an individual identified in a deposit which could derive from an earlier feature and therefore represents a maximum figure.

Table 29: Summary table of features containing cremated bone from more than 1 individual (the number & age category in brackets represents an individual that is possibly intrusive)

Table 30: Summary Table showing all of the deposits containing cremated bone in the cemetery

List of Appendices

- Appendix 1: Health and Safety Statement
- Appendix 2: Assessment of the Prehistoric Pottery
- Appendix 3: An Assessment of the Romano-British Pottery
- Appendix 4: The Animal Bone
- Appendix 5: Metal Objects
- Appendix 6: Assessment Of Environmental Evidence.
- Appendix 7: The Cremation Cemetery and Human Bone

1 Introduction

Between December 2005 and April 2006 the Cambridgeshire County Council Archaeological Field Unit (CAM ARC) carried out an archaeological excavation along the line of the proposed Papworth Everard Bypass. The southern end of the bypass forms a junction with the A428 at TL278/627, while the northern end joins the B1040 just to the west of Papworth at TL290/620.

The work was commissioned by S. Atkins consultants Ltd on behalf of the Department of Transport of Cambridgeshire County Council in advance of the construction of the Papworth Everard Bypass (planning application no. S00388/03/cc & H/05005/03/CC). The excavation was conducted in accordance with a design brief drawn up by Andy Thomas of Cambridgeshire Archaeology Planning and Countryside Advice (CAPCA - January 24th 2003) and a specification, by Aileen Connor of CAM ARC (15th November 2005).

The aims of the excavation as laid out in the brief and specification, were to mitigate the impact of the development on the archaeological resource of the area and to preserve the archaeological evidence contained within the site by record and attempting to reconstruct the history and use of the site. The site specific research aims are dealt with in Section 4.2.4 below.

2 Geology and Topography

The route of the proposed bypass runs along a narrow valley to the west of Papworth Everard. The valley contains exposed upper Jurassic clays and limestones which are overlain by glacial and a grey mudstone. The later glacial deposits are predominantly chalky Boulder Clay. The excavation area was roughly T – shaped. The western end lay in the bottom of a valley at roughly 40.37m OD, while the eastern end lay toward the top of the hill, at 55.25m OD. From this point the site sloped down to 37.03mOD at its extreme southern end. The present land use is that of arable agriculture.

3 Archaeological and Historical Background

3.1 General

The content of this section draws upon a desktop study that was undertaken prior to the initial evaluation in order to assess the archaeological potential of the area to be affected by the road scheme (Hatton, 2002), as well as presenting a synopsis of nearby archaeological works, including the evaluation.

3.2 Prehistoric

Early prehistoric finds are few in the Papworth Everard area. These are mainly represented by lithic stray finds, i.e. a late Neolithic polished axe c. 1km to the south of the village, and flint arrowheads and scrapers exposed during ploughing in the village in the 1940s.

The later prehistoric period is better represented. Recent excavations and aerial photographic re-assessments have revealed evidence for settlement occupation on the heavy clay soils that had previously gone undetected through traditional air reconnaissance and chance discovery. In particular, sparse evidence for Bronze Age/Iron Age seasonal and transient occupation in the form of cooking pits containing burnt flint and stone has emerged during investigations conducted in the 'south-east quadrant' of the village, off Ermine Street (Alexander 1998). Further to the east and north, trenching revealed the presence of a more permanent settlement dating to the Bronze Age/Early Iron Age (Kenney 2000; SMR 13049). This latter consisted of a beam slot, a posthole, and the base of an hearth indicating the presence of structures within a large circular enclosure. Two parallel ditches outside the main enclosure may have represented droveways, possibly associated with a separate use of the enclosure for livestock holding.

The distribution of known finds may suggest that occupation in the earlier prehistoric period was mainly confined to the well-drained gravels of the river valleys. However, there is growing evidence for Bronze Age/Early Iron Age activity on marginal heavy clay soils in Cambridgeshire. This is a trend observed elsewhere in Britain, which may point to increased pressure on land from the later Neolithic period.

With reference to Cambridgeshire, recent excavations on the Boulder Clay at Caldecote have produced evidence for a multiphase Iron Age farmstead complex which may have continued into the Roman period (Kenney, *per comm.* forthcoming). This pattern of use has been confirmed by excavations in Cambourne (Wessex Archaeology, 2003) and St Neots, Loves Farm site, (Hinman, forthcoming) where Iron Age sites, including complex and long lived structures seem to have been part of an organised landscape of economically specialised settlements, set within an agricultural hinterland of well defined and organised bounded fields, droveways and enclosures. Both of these sites also showed that the study sites were under some limited and less intensive use during the Bronze age, and that this use became more substantial and intensive during the Iron Age, with the settlements expanding and becoming even more intensively used in the Romano-British period.

3.3 Roman

The main feature of the local Roman landscape is represented by Ermine Street that connected London (*Londinium*) to York (*Eboracum*). The projected course of the road runs northwards between Braughing and Godmanchester (*Durovigutum*) through Papworth Everard (Margary 1967). Roman forts (e.g. Cambridge-*Durolipons* and Godmanchester) were established in the late 1st century along this route. At a later stage *vici* and *mansiones* developed around the forts that, by then, had become redundant.

Despite the presence of Ermine Street, no Roman finds are known from the Papworth Everard area. Cropmarks of possible Iron Age or Roman date are visible on aerial photographs in areas where ridge and furrow are less prominent, i.e. to the west of the village. Similar features have been observed in aerial reconnaissance on other areas of heavy clay soils (Cox 1996).

The various excavations in the area, mentioned above, have confirmed the presence of Iron Age sites continuing into the Roman period.

3.4 Saxon and Medieval

Saxon Papworth remains elusive and no artefacts of this period are known in the area, despite a possible hundred or Wapentake meeting place (HER 11833) having been located off Ermine Street, some 0.5km north of the present village core. During recent fieldwalking a single sherd of hand-made Saxon pottery was recovered some 0.5km to the south-east of St Peter's church.

Papworth (*Pappeworda*) is recorded in the Domesday survey (AD 1086) as a manor including Papworth Wood east of Papworth Hall (below), now a nature reserve. It was held in demesne by Count Alan, lord of Richmond. The place-name derives from the personal name *Pappa* and *worp* meaning '*Pappa's enclosure*', possibly the same *Pappa* after which Papley Grove in Eltisley was named. Everard derives from Evrard de Beche (Reaney 1943, 171) who was lord of the manor in the 12th century.

The manor remained in honour of Richmond until the 17th century (VCH 1989, 359 ff.). The location of the manor house is uncertain. It is traditionally identified with a large moated site depicted on the Enclosure Map of 1815/1826 and on the Tithe Map of 1844 in the grounds of Papworth Hall (HER 0921), to the east of Ermine Street. However, no medieval finds were recovered from this site during excavations in 1970 (VCH 1989, 361).

Other possible locations for the manor house are two smaller moats (SMR 1050 and 1051), of which little is now visible above ground. The former is located in the grounds of Fir Tree Farm, some 100m to the north of the 13th century Church of St Peter. The latter moat lies further away, 0.5km south of the church, off Ermine Street and is visible as a wooded depression. Both sites are known from cartographic evidence, being depicted on the Enclosure Map of 1815/26 (SMR 1051) and on the Tithe Map of 1825/1844 (SMR 1050). A fourth moated site is located near Papley Grove Farm in the parish of Eltisley (SMR 1049). Earthwork remains associated with these latter include a fishpond.

The Church of St Peter (SMR 02468), re-furbished in the course of the 17th and 20th centuries, is thought to have represented the focus of the medieval settlement that grew west of Ermine Street. Earthwork remains of a shrunken village and a holloway c. 1m deep along the southern boundary of the graveyard partially survive on either sides of a steep valley south of the church and around a spring (SMR 02469).

During the Middle Ages most of the land in the parish was open fields subdivided into furlongs. Ridge and furrow still survive around Papworth as earthwork remains and cropmarks visible on aerial photographs (e.g. SMR 02525, 02527, 05753). South of the holloway (above) 12th – 14th century sherds of pottery have been found. Further (undated) irregular earthworks (SMR 11253) are visible in the open pasture area in front of the church. Finally, earthwork remains survive in the front gardens of Papworth Hall (SMR 11252). These include possible sections of ridge and furrow and a platform.

By the late 16th century the arable land was divided into three open fields, Southbrook Field, Crabbush (later Woodbrook field and Hamden (later Londonbrook) Field (VCH 1989, 362).

The 1815/1826 Enclosure Map shows scattered ancient closes between Ermine Street and the turnpike road to the west, i.e. in the area of the medieval settlement. The pre-enclosure 'allotments' probably date to the late medieval/early post-medieval period. They consist of linear boundaries some of which, as in the case of the 'Rector's Allotments,' are likely to be associated with established properties. Circular enclosures may represent reclaimed wooded areas that were cleared during the 13th and 14th centuries due to growth in the size of the population.

3.5 Post-medieval and Modern

The post-medieval settlement developed along the Old North Road (Ermine Street) that was first tumpiked in 1663. Tollgates were set up and travellers charged for use of the road to cover the costs of its maintenance. The first tollgate was erected on the Papworth Everard/Caxton boundary and later moved to Arrington Bridge (VCH 1989, 357; Parker 1977, *passim*).

Few post-medieval houses survive in Papworth Everard. Papworth Hall (SMR 02443) was completed at the beginning of the 19th century. It was built as a two-storey square building within the setting of a landscaped park. After witnessing the changing fortunes of two owners, the Hall was occupied by the Cambridgeshire Tuberculosis colony. The establishment of the colony transformed the face of the village. Renamed 'Papworth Village Settlement' in 1927, it brought staff, patients and families into the area. During the 19th – 20th centuries new accommodation was built, and light industry for wood carving, leather manufacture, and book-binding introduced. Amenities such as a village hall, a theatre and a sports ground were also provided (VCH 1989, *passim*).

3.6 Previous Archaeological Works

The footprint of the proposed by-pass was the subject of geophysical reconnaissance (magnetometer) survey, conducted by Northamptonshire Archaeology in September 2002, followed by an evaluation, conducted by CAM ARC in November 2002. This work was commissioned by S. Atkins consultants Ltd on behalf of the Department of Transport of Cambridgeshire County Council.

The survey discovered two areas of interest – revealing a series of rectilinear and curvilinear anomalies, a single weakly magnetic semi-circular anomaly was also detected - this appeared to be attached to one of the linear ditches, possibly denoting a small enclosure or pen.

The evaluation, which followed the non - intrusive survey, consisted of the excavation of 48 trenches, the total length of trenching was c. 2500m and totalled 5250m², equivalent to a 5% sample of the bypass route. The trenches were located across and within the road corridor in order to obtain a representative coverage of the area under investigation. Special attention was paid to the two areas on interest identified by the geophysical survey. In addition an area located close to trenches 24 and 25 was surveyed after the trenches had been excavated, the point being to define archaeological features identified in the trenches. This did however, produce indifferent results.

The evaluation demonstrated the presence of a generally low level concentration of archaeology across the footprint of the proposed bypass, and three areas of more concentrated human activity. Two related to the areas identified in the geophysical survey and a further area toward the southern end of site was subsequently surveyed by the magnetometer. This work provided dating evidence ranging between the late prehistoric through to the 3rd century Romano-British period. The features present appeared to indicate the presence of small scale industrial activity together with agricultural practices identified through the presence of enclosure ditches. The evaluation did not appear to demonstrate the presence of any settlement on the site.

4 Aims and Objectives of the Excavation

4.1 Objectives

The project's objectives as set out in the specification were:

- to preserve by record the archaeological evidence found within the road corridor;
- to reconstruct the history and land-use of sites found within the road corridor;
- to address relevant research issues for sites found within the road corridor with reference to local, regional and national research priorities;
- to make the results of the archaeological works available to the public.

4.2 Original Research Aims

4.2.1 *The potential of the Site to Contribute toward National Research Aims*

The desktop assessment and initial evaluation had shown that the area of the road scheme had been used or occupied by people in the prehistoric, Roman and possibly medieval period. It was thought that the excavation phase of the Papworth Everard Bypass project had potential to make a meaningful contribution towards a number of national research aims.

1) *Contribution toward an understanding in the transition from the pre - Roman (Briton) to Roman period*

The evaluation identified a landscape that appeared to have showed a continuity in use between the Late Iron Age and Romano British periods. Understanding the transition between these periods, with particular reference to settlement, social and economic organisation had been identified as a high research priority.

2) *Contribute toward and understanding of Late Bronze Age and Iron Age landscapes*

The evaluation of the study site, and the results from excavations of sites in the vicinity suggest that these landscapes saw some low level Bronze Age use, which became intensified during the Iron Age. How these landscapes and the use of the landscapes continued / changed between these periods has been identified as a research priority.

3) *Contribution toward and understanding of settlement hierarchies and interaction.*

The collection of artefacts, ecofacts and structural evidence from sites with well understood depositional processes and with good and consistent sampling techniques has been identified as a critical factor in the study of settlement hierarchies and interaction. The Papworth Everard bypass project presented the opportunity to collect data from more than one activity site which may be temporarily associated, and therefore provide the potential to contribute toward this research aim

4) Contribute towards understanding of rural settlement patterns

Settlement patterns have been identified as being key to the understanding of the economic, social and political structures of rural England. The Papworth Everard bypass project has the potential to contribute towards identifying settlement patterns for the prehistoric and historic period – with particular reference to the Romano - British period.

5) Contribute towards an understanding of patterns of agriculture

Research into past agriculture has often been ignored and has therefore been highlighted as a key national research priority. Work along the Papworth Everard bypass offered the potential to contribute to the study of past agriculture and its relationship to settlement in the prehistoric period. There is also potential to investigate patterns of agriculture in the historic period with particular reference to the Romano - British period.

4.2.2 Potential Of The Site To Contribute To Regional Aims

The Papworth Everard Bypass project has the potential to contribute towards several of the research priorities highlighted in the framework for a regional research agenda and strategy for the Eastern Counties (Brown and Glazebrook 2000).

6) Contribute toward and understanding of changing patterns of burial practices between the Bronze Age and later periods.

A single, unexcavated, possibly crouched burial identified during the evaluation may be prehistoric in date and may be indicative of a wide cemetery / ritual landscape.

7) Contribute toward a better understanding of Iron Age chronology

The regional research agenda has cited chronology as a gap in knowledge for the region during the Iron Age and has recommended that several techniques should be applied in order to establish a chronology. These include scientific dating techniques, and the investigation of pottery sequences and datable pottery assemblages. The Papworth Everard project provides the potential for recovering a

well preserved and stratified Late Iron Age pottery assemblage, which may contribute to research into the chronological sequence for this period.

8) Contribute towards and understanding of the development of the Agrarian economy in the Iron Age and Roman periods

The increase in agricultural production has been identified as being the most important development in the Iron Age of the region. Evidence for the nature of the Iron Age agrarian economy had been cited as very high priority. At an individual site level this excavation has the potential to increase current understanding of the pattern of exploitation and settlement of the landscapes of southern Cambridgeshire clays in these periods. In addition, this work may contribute to the understanding of how the landscape changed to accommodate the expanding agricultural economy. Particularly valuable data can be gathered from the collection of charred grain deposits and animal bones from datable deposits.

9) Contribute toward an understanding of the process of economic / social change and development during the Late Iron Age / Roman transitional period

The evaluation has shown that this site was in use from the prehistoric through to the medieval period, and that in particular it may have been settled during the Iron Age and Romano - British periods. As a result it has potential to throw light on how the transition between these periods affected rural settlements.

10) Contribute toward an understanding of the inter-relationships between the urban and rural landscapes – there is even a lack of field classification systems for settlements

The evaluation indicated that the route of the proposed Papworth Everard bypass ran across a substantial Roman field system that may lie close to the associated settlement that farmed the land. Thus, the excavation has the potential to uncover both a fuller extent of the field system, as well as the associated settlement and so contribute toward this area of understanding.

11) Contribute towards an understanding of rural settlement layout and economy in the Roman period

It has been recognised that evidence for rural settlement layout rarely extends beyond ground plan, in the case of villas, and settlement enclosure on other sites. There is potential for this excavation to look at both the layout of a rural settlement and its associated agricultural hinterland.

4.2.3 The Potential to Contribute to Local Research Aims

The Papworth Everard Bypass provided an opportunity to study a strip of land roughly 3.5km long and 30m wide in the Papworth area, potentially contributing to the following research aims:

12) *Investigate the character and morphology of Late Iron Age and Romano - British activity in the area, including evidence for settlement industry and agriculture. The main feature of the Roman landscape in the locality is represented by Ermine Street with small settlements and farmsteads sitting just off its course. In the case of Papworth the exact location of the settlement has not been identified although the features seen in the evaluation trenches would suggest that it is nearby.*

13) *Examine evidence for the impact of the Roman occupation of the region, with particular regard to the impact of Roman Ermine Street and the development of the major urban centre at Godmanchester 7km to the north.*

14) *To contribute to an understanding of the way the local environment has changed through the Bronze Age, Iron Age and Romano-British periods.*

4.2.4 Site Specific Aims

- Establish the nature and date of the human burial (trench 34) and the possible mortuary enclosure (trench 20).
- Investigate the character and morphology of Late Iron Age and Romano – British activity at the site, including evidence for settlement and industry, with particular reference to the potential oven / kiln (trench 25).
- Characterise the prehistoric activity in this area and establish its form, function and chronology.
- Characterise the Romano – British activity in this area and establish its form, function and chronology.
- Establish the function and date of the large ditch features discovered in the evaluation.
- Characterise the nature, function and date of the stratigraphic sequence and deposits noted, particularly, at the far south - eastern end of the site.

5 Excavation Strategy and Methodology

5.1 Open Area Excavation (fig. 1)

The entirety of the footprint of the A428 to B1040 stretch of the Papworth Everard Bypass was excavated in open plan with two 360° mechanical excavators under close archaeological supervision. This

opened an area of c. 10.50ha. The removed overburden was placed in bunds to either side of the excavation corridor by 8 wheeled dumpers.

The excavation area was not continuous but was subdivided into a number of areas. **Area 1** was c. 0.42ha in size and consisted of 220m of length (by 20m wide) north of the small access road leading to Fir Tree Farm. Beyond this the bulk of the site (**Area 2b**), consisted of 0.76ha. This area ran south from the Fir Tree access road, up the hill to a point parallel with the Yelling Road, at which point the excavation corridor took in the footprint of a proposed new roundabout. At this point an east – west aligned, narrow access track for plant (dumpers and mechanical excavators) was left in. Beyond this, the area of the excavation corridor (**Area 3**) followed the footprint along the ridge of the hill, south - east down the hill, descending into to the valley. This area was 1.33ha in size and its the western edge ran to a point 213m south west of the proposed new roundabout, where it was delineated by the terminal end of the access track, which turned northward to allow plant to enter the site compound. **Area 4** was located in the lowest point of a valley, c. 281m to the south east of Area 3 and adjacent to the north - western edge of a small brook. This area was 0.10ha in size and was initially identified for excavation due to the interesting nature of the geology as noted during the evaluation. During the excavation the area was seen to contain a Bronze Age cremation cemetery. Areas **5**, **7** and **8** were all small areas located to the north (Areas **7** and **8**, each less than 100m²) and south west (Area **5**, 160m², located on the other side of the brook and running up the hill on the other side of the valley) to Area 4.

Area 6 was located just to the west of the western end of Area 3, beyond the access track. This area of 0.30ha ran south west to join up with the existing B1040.

The excavation areas were, where necessary, cleaned by hand in preparation for planning and excavation. All features and deposits were described using the CAM ARC single context *pro forma* recording sheets. Base plans were hand drawn at a scale of 1:20, with more detailed features drawn at 1:10. The sections were drawn at 1:10 or 1:20 as appropriate. The features were photographed as appropriate. The site and spoil heaps were repeatedly subjected to metal detector sweeps throughout the excavation. The site was surveyed using a

Leica Total Station Theodolite and was located to the Ordnance Survey National Grid and Ordnance Datum.

The preliminary phasing is based on a combination of stratigraphic relationships and finds material.

5.2 Summary of Excavation Results and Phasing

Evidence for human activity comprised features and deposits of Bronze Age, Iron Age and Romano-British date. The medieval / post-medieval archaeology was limited to drainage ditches, occasional field boundaries, hedge row remnants, topsoil and subsoil.

As with many rural sites very little complex stratigraphy was present, although toward the northern end of Area 2 there was a number of quite complex intercutting and re-cutting linear features. The preliminary phasing presented in this work is largely based on stratigraphic relationships, spatial associations and, to a certain extent similarity in alignment for linear features. Where possible this has been combined with dating evidence provided by stratified artefacts, primarily pottery. However, only small amounts of pottery were recovered during the excavation, making the dating of many features problematic. In this report, features such as linear ditches or large pits, which have been excavated at more than one place, have been assigned a master number, indicated in bold text. These refer to the feature as a whole rather than the individual slots excavated in it.

Six main periods have been provisionally identified;

Period 1. Bronze Age. Definitive Bronze Age features were restricted to Area 4 and to human cremations noted within this area.

Period 2. Early un-datable features. This consists of those features which cannot, by the various means outlined above, be placed in any definite, dated phase, but which were seen to be stratigraphically below more datable features. The nature of the site would seem to indicate that, on balance, these features would be largely early to late Iron Age in date.

Period 3. Late Iron Age to the 2nd century AD. This period comprises most of the datable features on site. The features placed within this phase all contained a mix of both late Iron Age pottery (100BC – 43AD) and early Romano British pottery. This appears to imply a relatively long life for these features as well substantial re-use and maintenance.

Period 4. Late Romano British. Comprises features containing pottery of the 3rd – 4th centuries AD.

Period 5. Later un-dateable features. Consists of features that appear to be later than the Period four features (on the basis of stratigraphy, alignment etc.) but which appear to be earlier than the Period 6 features.

Period 6. Medieval to modern. Remains of this date consist of, primarily, medieval ridge and furrow remnants, medieval hedgerow remnants and modern plough scars.

5.3 Period 1: Middle to Late Bronze Age (c. 1500BC -700BC). Figs 1, 4, 7 & 8. Plates 1 - 4.

Remains of this period consisted of a cremation cemetery, within Area 4. This cemetery was located toward the eastern edge of the area, occupying only 184m² of the excavated area. There had been no modern (or ancient) disturbance as, the cemetery was sealed by 2.20m of overburden – consisting of a thin topsoil (1917) and then two fairly thick subsoils (1918 and 1919). The former was so thick (c.1m) due to its location i.e. at the bottom of a valley, where material had washed down and accumulated. Subsoil 1919 was probably the remnants of a paleochannel. All of the features in this area were sealed by 1919, and cut into the underlying natural clay (1920). This cemetery contained four types of feature:

Cremations. The excavation identified 41 human cremations within this area. Of these 8 contained definite remains of a pottery vessel (urn) in which the human remains had been placed, with another 4 containing the fragmentary, possible, remains of urns. These vessels were of poorly fired clay and were in an extremely soft and fragmentary state. They were typically 0.42m in diameter and 0.35m tall, with fairly straight sides and flat rims. Rims were present (at least partially) on all of the vessels examined, indicating that they were placed in the ground the right way up. However, none of the urns recovered had bases. The bottom edges did not appear to be broken or rough which would indicate that either the vessels were deliberately made without bases or, perhaps, that the bases had been dissolved over time by the action of water moving through the soil layers. The staining this would result in, being lost amongst the general staining of the vessel and the ashy cremation fill. The recovered pottery provides the basis for the dating of this period of the site (see Appendix 7).

A single cremation, (1724) appeared to lie within a wooden vessel. The container was visible as a substantial layer of large, woody, charcoal fragments lining the cut of the cremation, but was quite different from the finer ashy charcoal of the cremation deposit itself. The burnt nature of the wooden urn suggested that the cremated human remains were placed into the vessel while still quite hot, charring the vessel in the ground. The visible remains demonstrated that the wooden vessel was 0.30m in diameter, 0.20m tall and 1cm thick. In profile the sides were slightly shallower with a slightly more

bowled profile than that of the pottery urns, and the base of this wooden vessel had partially survived.

The remaining cremations were all simple pit types where the human remains were placed directly into a pit cut into the alluvial deposited natural. These cremations were all roughly circular in plan, between 0.35m – 0.60m in diameter and between 0.20m and 0.40m deep with concave, bowled profiles.

Typically each cremation (including urned cremations) consisted of a lower layer of dark, fine ash, mixed with the underlying silty clay, containing little cremated bone. This layer was probably not a deliberately deposited packing layer of some sort but, a layer generated by smaller, finer particles migrating downward through the main cremation fill and becoming mixed with the underlying natural deposit via natural processes. Above this layer was the true cremation deposit, a layer of heavy, black ash mixed with substantial quantities of very burnt and calcined, white, fairly well ground human bone. This layer was usually overlain by a dark black / orange, ashy, clayey silt, consisting of the surrounding natural alluvial soil, incidentally mixed with ash from the cremation. This material was probably deliberately placed to seal the cremation, covering it over to 'bury' it and protect it from scavenging animals and the elements. The pits into which the urns were placed were cut slightly larger than the urns themselves to allow placement of the vessels. This meant that a packing fill (of naturally derived alluvial material) was backfilled in around the urn once it had been placed.

The cremation cemetery was fairly dense, and had seen a relatively long use life, with later cremations truncating earlier ones. The layout of the individual cremations within the cemetery appeared to be fairly random, although there may be some clustering within the wider plan. As a whole the cremation cemetery formed a loose rectangle with long axis aligned north to south.

Ash dumps. As well as the cremation pits there were 18 other pits that, while roughly the same size and shape as the cremations, appeared to have a different function. These features were filled by deposits of black ash that contained very little burnt bone and which was sometimes but not always, sealed by a layer of re-deposited natural soil. One hypothesis for the function of these features is that the area of the pyre(s), where the human remains were cremated, was periodically 'cleaned out'. The ash that resulted from this cleaning was seen as sacred (due to the nature of its origins) and was therefore buried in the sacred area. Twenty of these ash dump features were noted and, had been cut, seemingly randomly, into the cremation area. Some cutting other earlier ash dumps or cremations, some being cut by later ash dumps or cremations.

Postholes. In addition to the cremations and ash dumps, 8 structural features were also noted. The majority of these features consisted of a

concave, bowl - shaped pit with a central, well defined, post pipe that consisted of decayed and ashy wood remains. These features were between 0.20m – 0.40m in diameter and 0.15m – 0.30m deep. They appeared to represent the presence of some sort of structure in the area that was, at some point in its life, burnt. It is possible that these structural features represented the remains of one or more pyres, the burning of the body of the deceased taking place within the same sacred area as the burial of the remains. In plan the structural remains left did not appear to form any obvious structural footprint, and it is possible that the remains seen represented the partial remnants of two or more pyres.

Boundary Ditch. As previously mentioned, while there was no obvious internal structure to the layout of the cremation burials, there did appear to be a general north-south alignment to the layout of the cemetery as a whole. This appeared to follow the alignment of an ancient river (context 2399) to the immediate east of the cemetery. The western boundary of the cemetery appeared to be delineated by a similarly aligned ditch, (1603). This ditch was observed at 11m long, with a rounded terminus at its southern end (the northern end disappeared under baulk of Area 4). It was typically 1.05m wide and 0.20m deep with a gently rounded and concave, bowl - shaped, profile. The fill (1602) was a firm mid orange brown silty clay that appeared to be largely naturally derived from the surrounding soils. This material did yield one small piece of, probably intrusive, Late Iron Age pot. At its southern terminal end, this ditch truncated a substantial pit, (1640). This combination of terminus and pit was suggestive of some form of access way, with superstructure, into the cemetery.

Environmental samples taken from the cremations and ash dump contexts yielded tubers of onion couch and seeds from a variety of grasses and grassland herbs. These deposits were almost certainly derived from both uprooted plant materials gathered for use as kindling or fuel and from plants burnt *in situ* beneath the pyres. The material appears to indicate that grassland conditions were locally prevalent throughout the Bronze Age.

5.3.1 Discussion and Comparisons

The cremation cemetery, which was the principal feature of this period, was probably the most important archaeological element uncovered by this excavation. Comparative cemeteries have been found near by at Broom (CAM ARC, Mortimer R, per comms) and Barleycroft farm (CAU report 283, Evans and Knight 1998) however, neither were as extensive or as well preserved.

The 41 cremations that comprised the visible and excavated extent of the cemetery (the full extent of the cemetery was not revealed by this

work) were *all* complete and un-truncated. The depth of the alluvial type subsoil's that overlay this area of the site (each around 1m) being the cause of this preservation. As a result the cremation deposits were complete and undisturbed, as were the few cremation vessels present. This has allowed a complete assessment of the cremated bone and cremation vessels something which no other cremation cemetery in, even the wider regional area, has offered. All of the 44 cremations uncovered at Broom, and the 32 discovered at Barleycroft, had been heavily truncated by plough activity.

Of the 41 cremations identified at Papworth certainly 9 and possibly up to 12 appeared to have been placed within a vessel (urn). These vessels were extremely soft and friable but, they were *complete* (or, at least not truncated). Again this appears to be unique. The 12 vessels recovered from Broom were all heavily truncated by later ploughing, removing the top part of the vessels. The 10 vessels recovered from Barleycroft were also severely truncated.

The location of the cemetery was also interesting and, again, has few parallels. It was located at the bottom of a river valley, very close to the river itself (within 10m) and at a point in the landscape where it was overlooked on all sides by surrounding hills. This would have had the effect of hiding the cemetery within the landscape. Furthermore there did not appear to be any other archaeological remains other than those associated with the cemetery, within the vicinity of the cemetery. This resulted in the cemetery being located in a quiet, secluded point in the landscape, near to a source of quiet but constant movement (the brook), a very ritualistic location. This compares to both Broom and Barleycroft where the cemeteries were located on areas of flat land at high or moderately high points in the landscape and amidst other archaeological remains not always directly associated within the cemetery.

As mentioned above The Papworth cemetery appeared to have a long, linear, NNW – SSE layout. Following the alignment of a river on one side and being bounded by a similarly aligned ditch on the other. Again this layout appeared to be unique within the region. The Broom cemetery, in plan, formed a very loose triangle with one edge (the south western edge) showing a very clear NW-SE aligned delineation. However what sort of boundary this edge followed was not clear, as there was no surviving evidence for a boundary feature in the archaeological record. The Barleycroft cremation cemetery truncated the southern quarter of an outer ditch of an earlier double ditch ring ditch feature. The cemetery, very roughly, followed the curve of this ditch, but was not delineated by it. The spread of the cemetery truncated the northern edge of the outer ditch, spread across the gap between the ditches and over the southern edge of the inner ditch. However, other 'linear' type cremation cemeteries are known from the region e.g. Eye, Cambridgeshire (Dodwell 2004) and Coneygre Farm, Nottinghamshire (Allen *et al* 1987).

The 41 cremations identified within the Papworth cemetery contained 50 individuals, this is due to the presence of 9 juvenile's / Infants all of which shared a cremation with an adult (two male, one female, the rest unidentifiable). In fact, there was only one juvenile that did not appear to share its cremation with another individual.

Within the cemetery itself there was no clearly discernible pattern to the lay out of the individual cremations themselves. However there did appear to be two or three distinct clusters of cremations toward the northern end of the site, focused around cremations **2067**, **2257**, and **1894**. Unfortunately the lack of data regarding gender means little can be inferred about family groups etc. However, of the the c. 11 cremations of the **1894** cluster two were completely unidentifiable. Seven were adults, including one double interment consisting of an adult and an infant and two were young / sub adults. Of the adult burial

one was positively identifiable as female and two were urned (unsexed). Of the **2257** group *all four* of the cremations were double interments consisting of an adult and an infant. Two of the adults were identifiable as male (the rest could not be sexed). One of the double cremations had been placed within an urn. The final, loose group, centred around **2101** consisted of 5 un-urned cremations – 3 adults (one identifiably female) and 2 young / sub adults.

This seemingly random layout within which a few clusters of cremations could be seen, was a pattern present at both Broom and Barleycroft.

These factors of location, alignment and degree of preservation serve to make the Papworth cremation cemetery unique to the area and, as such it must be seen to be of significant regional, if not national, importance. The cemetery was not known or even suspected prior to the archaeological works and, was not anticipated by the evaluation. As a result the original research aims and objectives for the excavation, as set down in the brief / specification, did not include those relevant to such remains. Further study of this cemetery is required to fit it into the regional and national frameworks. The specific research objectives relevant to this work are covered in the updated research aims section of this work.

5.4 Period 2: Early Undatable Features (Probably Early to Late Iron Age, c.700BC - 43AD)

The lack of datable artefacts from across this site generally meant that a large number of features could not be absolutely dated. None of the features placed into this period contained any datable material (pottery), yet due to their generally nature (type of fill, alignment etc.) and stratigraphic relationship with other more firmly datable features, they appeared to be early rather than late.

This period has been divided into two phases based on stratigraphic relationships.

5.4.1 Phase 1

Area 1 (fig. 2)

Within this area Phase 1 consisted of 14 features, 6 pits and 6 ditches a possible pond and a palaeochannel

The pits, (1122, 1057, 1059, 1078, 1090 and 1140) did not demonstrate any sort of alignment or shape, in plan they appeared to be randomly laid out across the area, variable in form and unclear in function. With the exception of 1090 and 1122 they were all very roughly sub-circular in plan, less than 0.60m in diameter, less than 0.30m deep and with irregular, loosely concave sides and irregular and asymmetrical profiles. Pit 1122 was a more regular, straight sided, oval in plan. It was 3.10m long, 0.62m wide and 0.50m deep with straight near vertical sides and a flat base giving the impression of a slot rather than a pit. The full extent of feature 1090 was not seen as it only partially emerged from the baulk, meaning that as well as a pit, it may also have been the terminal end of a ditch. That portion of the feature that was seen indicated the presence of a substantial feature. In plan it was semi circular, >0.50m long, 1.40m wide and 0.44m deep with fairly regular concave sides. In the main these features were filled with a naturally derived and deposited material, in general this material was fairly sterile containing no archaeological material.

The ditches in this phase were all fairly degraded and indicative of an agricultural hinterland under low intensity use, likely functioning as boundary and drainage features.

Features 1069 and 1017 were aligned roughly NNE – SSW, both were also fairly sinuous in plan. Ditch 1017 was fairly short at 7m, while ditch 1069 was >46m long. Both were fairly narrow at around 0.60m (although 1069 varied from 0.10m – 1.00m in width) and shallow at typically 0.15m depth. Both also showed shallow, irregular and bowled profiles. The function of neither of these features was clear, although they may have been drainage channels. Naturally cut drainage channels may have become re-enforced and re-cut by man, possibly explaining their irregular and variable nature.

The other four ditches (1110, 1114, 1053 and 1145) all followed a loosely WNW – ESE alignment. The full extent of the features was not observed as they extended outside the excavated area. The visible size of these features varied from 6m to 20m in length, 0.40 – 0.80m wide and 0.10 – 0.35m deep.

In addition to these features a large natural hollow or possible pond was also noted in this area (1126), as was a large palaeochannel (1513).

All of the features within this area were filled with a leached and degraded naturally deposited material that typically contained no

artefacts, and no environmental data. The exception to this was 1114 that contained a little metal slag and some, un-datable ceramic material. However, this was probably intrusive. 1126, also contained a little unidentifiable ceramic material. Analysis of environmental samples collected from these features also yielded no data.

Areas 2 and 3 (figs 3, 4 & 7).

These areas contained 70 features, which have been placed into this phase.

Within this phase 9 linear ditches were of a more substantial nature, and appeared to represent the presence of an early, well established field boundary system. These ditches, 1340, 1299, 1223, 1399, 1566, 1492, 1838, 1266 and 1380 were all aligned NE-SW across the site. Of these all but 4 of the features ran across the entire width of the site (>30m long). Of the remaining 4 features, three of them (1299, 1340 and 1399) terminated at one end within the boundary of the site but continued beyond the L.O.E. at the other (and so were >5.50m, >17.50m and >21m in length respectively). Both ends of features 1838 and 1566 were recognised within the confines of the site. These linears were seen to be 30m and 18m long respectively, each showing rounded terminals at both ends. These nine linear features varied from 0.30m – 2.40m wide, but were typically around 0.70m wide. The depth of these linears varied from 0.30m – 0.80m, with most showing a slightly irregular, moderate to steep, concave and slightly bowled profile. With the exception of 1838 all of these linear features contained between one and three naturally deposited, clayey silt type fills, which contained no datable artefacts. Ditch 1838 contained a small fill, 2162 (0.13m thick and 0.50m wide), that appeared to be a deliberately backfilled (tipped) stony clay material. However, this fill did not contain any datable artefacts and was only very small, limited to an area of less than 1m at the southern end of the ditch.

These features have been discussed together due to their broad similarity in nature; their shape, alignment etc. which appeared to indicate that these features formed part of a large field boundary system that ran across the site. However, there is no other pattern to the layout, the ditches were not regularly spaced across the landscape. How contemporary these ditches may have been was also not clear. Many, but not all of the ditches were cut by later, more dateable features but this does not necessarily indicate that these features were all open at the same time.

Toward the southern end of area 2 there was located a further 6 small linear ditches (or elongated oval pits) which may well have functioned together. These features 1538, 1554, 1546, 1571, 1542, 1552 and 1540 were all loosely aligned WNW – ESE and varied in length from

2.20m – 10.40m, all with rounded terminal. The alignment and arrangement of these features served to create an, intermittent, linear feature approximately 48m long. The features were typically 0.60m wide and 0.10m – 0.25m deep with irregular, steep sided sides and concave based U-shaped profiles. Again, all of these features contained only one or two naturally deposited, slightly gravely, clayey silt fills. The nature, alignment, shape and presence of large quantities of small gravel (pea grit) in the base of these features indicated that they may have been the remnants of an ancient hedge line located high up on the slope of the hill.

Also on the top of the hill, within area two, was a further small complex of 2 minor linear ditches, **1583** and **1610**. Together these appeared to form a large enclosure / field boundary system. **1583** was 55m long, 0.50m wide and 0.30m deep, aligned NE-SW across the site, with both ends vanishing under the site baulk. The NE end of this ditch interfaced with **1610**, this feature was aligned perpendicular to **1583** and was 50m long (ending in a rounded terminus at its SE end), 0.75m wide and 0.35m deep. Both ditches had slightly irregular bowled profiles and were filled with 2 naturally deposited, gravely silts.

In addition to these boundary features there were 27 linear features located across areas 2 and 3 that did not seem to be part of an identifiable boundary or enclosure system. These features probably represented a portion of a boundary / enclosure system the majority of which was not seen, or the remnants of some other sort agricultural use, such as plough furrows or drainage and remnant ancient hedge lines. These, fairly regular linear features varied from 3m to 55m long (some continuing beyond the L.O.E. at one or both ends), 0.30m to 1.40m wide and 0.04m to 0.80m deep.

These feature all contained one or two naturally derived clayey silt fills, none of which contained any datable artefacts.

In addition, there were also 31 pit features located across areas 2 and 3. Like many of the features from this phase these features contained only one or two naturally deposited, slightly gravely, clayey silt fills. The functional nature of many of these features was unclear, is it likely that a number had a waste disposal function (i.e. rubbish pits) while others were more structural (post / stake holes) while others had, an as yet unclear, agricultural function. However, the remnant nature of the features and the sterile nature of the fills, meant that these functions, could not, with any certainty, be ascribed to any of these pits. In plan these features were either roughly circular or roughly oval, however a plan of these features does not reveal the footprint of any structure. These pits were roughly circular or oval and varied from 0.40m – 1m in diameter and from 0.09m – 0.40m in depth. The typical profile of these features was a shallow U-shape, with shallow, irregular, slightly concave sides and a concave base. None of the features contained

any archaeological finds, and the environmental samples taken from these features yielded no results. The exception to this was **1981** that contained seeds from herbs and trees. The function of these features

was not clear, none were obviously structural or obviously rubbish dumps.

In addition to these pits there existed a further 2 with a more definite function. Features **1770**, and **2277** were all more definite structural features, their shape and profiles indicating that they were postholes. Both were fairly substantial features;

Cut Number	Number of fills	Length / width or diameter (m)	Depth
1770	2	1.80	0.48
2277	1	0.83 / 0.75	0.22

Table 2: Summary of Structural Features

1770 and **2277** both contained clayey silt, naturally deposited, fills that did not contain any datable artefacts.

Feature **2088** was a further structural feature located high up on the slope of the hill in area 2. This oval pit was 3.4m long, 0.60m wide and 0.44m deep. The feature was backfilled with clean, heavy, plastic clays, the upper most of which, **2121**, was then cut by **2122** - a beam slot. This indicated that pit **2088** and its clay fills were acting as a foundation for a larger, wooden, superstructure. Exactly what the functional nature of this superstructure was, and what it looked like, was not clear. Animal bone, including the antler of a red deer, were found within the clay fills of **2088**.

Two small graves were located toward the northern end of area 2. Grave **1528** was cut by later grave **1525**, although the two were probably broadly contemporary. Both were fairly small and both were heavily truncated by modern activity (ploughing etc.) and the amount of human bone that remained was very small. **1528** contained around 10g of human bone, that was not readily identifiable. **1525** contained a little more bone, including fragments of the mandible, vertebra, metacarpals, ribs and pelvis. The positioning of these bones within the grave was suggestive of a crouched (or flexed) burial, with the head at the western end of the burial.

None of the fills of any of the features detailed in this area and phase yielded any substantial, or datable archaeological finds. A few contained small quantities of animal bone (typically less the 500g) and / or small pieces of unidentifiable and un-datable ceramic material. The environmental samples taken from these features yielded only very little data, including a few snails (less than 10) and a little burnt flint (less than ten fragments).

Area 6 (fig. 6).

This area was, essentially, a continuation of area 3 however none of the features in this area ran into area 3 to interact with any of the area 3 features. Furthermore, none of the features seen in area 6 contained any datable finds, and only a very few of the features from within this area had any stratigraphic interaction with each other. Again, as with areas 1, 2 and 3 the archaeological features seen in area 6 likely had an agricultural function. Although, again, the lack of finds from this area made ascribing a definite function to any feature very difficult.

Cut Number	Type	Num Fills	Length / width (m)	Depth (m)	Possible Function
2298	Oval pit	1	0.50 / 0.95	0.13	unclear
2300	linear ditch, NW-SE	1	6.20 / 0.40	0.12	drainage gully
2304	linear ditch, NW-SE	1	3.50 / 0.28	0.10	furrow / plough
2310	linear ditch, NW-SE	1	8 / 0.60	0.10	furrow
2321	linear ditch, ENE – WSW	2	>14 / 0.90	0.44	boundary / enclosure
2325	linear ditch, WNW – ESE	1	12.80 / 0.64	0.19	boundary / enclosure
2327	linear ditch, WNW – ESE	1	>6 / 0.80	0.16	furrow
2339	oval pit	1	3.10 / 0.70	0.22	unclear
2341	circular pit	1	dia 0.90	0.15	structural – posthole
2343	circular pit	1	dia 1.10	0.10	structural – posthole
2345	sub circular pit	1	0.80 / 0.90	0.07	natural depression
2349	linear ditch, NNE – SSW	1	4.40 / 0.60	0.34	enclosure / boundary
2351	sub circular pit	1	0.40 / 0.55	0.21	rubbish / storage pit
2355	Sub oval pit	1	0.88 / 0.64	0.11	unclear
2363	sub circular pit	1	0.44 / 0.64	0.15	rubbish / storage pit
2365	oval pit	1	1 / 0.33	0.07	rubbish / storage pit
2367	linear ditch, NW-SE	1	>26 / 0.60	0.25	boundary / enclosure
2371	linear ditch, NW-SE	1	5 / 0.50	0.29	boundary
2378	oval pit	1	0.93 / 0.37	0.19	tree throw
2393	circular pit	1	0.70 / 0.46	0.30	storage / rubbish pit
2403	linear ditch, N-S	1	>1.3 / 0.57	0.15	unclear
2409	Oval pit	1	3.50 / 0.75	0.21	hedgerow
2413	Linear ditch	1	25 / 1.20	0.36	Boundary / enclosure

Table 3: Summary of Area 6 Features

Almost all of these features contained a single fill that was derived, and deposited, naturally. The exception to this are those features above which are listed as being storage or rubbish pits. These contained darker, more organic fills that appeared to have at least some element of backfilling to them. However, NONE of these features contained ANY archaeological finds of any sort and thus their date, function and how contemporary these features were in relation to both themselves and the rest of the features across the site remained unclear. In plan, none of these features appeared to operate together

to demonstrate the presence of an identifiable structure, or coherent system of land boundaries or enclosures.

Analysis of the material collected for environmental and residue analysis also yielded little result.

5.4.2 Phase 2

Period 1 had, in general, a very simple stratigraphic structure, with few features interacting with each other. Those few features that were identifiably stratigraphically later than the features identified in phase 1 have been placed into this phase.

Area 1 (fig 2).

Seven features have been allocated to this phase in this area, this includes two pits and 5 ditches.

Pits **1503** (truncating **1513**) and **1076** (truncating **1017**) were both roughly circular in plan with shallow, bowled profiles and sterile, naturally derived and deposited fills. The function of neither was clear. **1503** was 0.70m x 1.40m and 0.50m deep, while **1076** was 1.35m x 0.80m and 0.17m deep.

Data for the ditches, **1015** (truncating **1114**), **1019** (truncating **1076**), **1147** (truncating **1149**), **1149** (truncating **1144**) and **1161** (also truncating **1144**) is tabulated below;

Cut Num	Shape	Num Fills	Length / width (m)	Depth	Poss function
1015	Linear, NW - SE	1	25 / 0.63	0.13	Boundary / enclosure
1019	Curvi-linear, NNE - SSW	1	6.60 / 0.40	0.06	Boundary / hedgerow.
1147	Linear, NE - SW	1	>29 / 1.85	0.65	Major boundary
1149	Linear, NE - SW	1	14.50 / 0.73	0.32	Drainage feature associated with boundary 1147
1161	Linear, NNE - SSW	1	15 / 0.40	0.10	Drainage

Table 4: Summary of Ditch Contexts

The layout of these features did not suggest that they were related functionally. The exception to this being features **1149** and **1147**, where **1149** appeared to be acting as a drainage feature for the more substantial boundary **1147**. The lack of datable finds from these features, combined with lack of obvious structure in layout means that it is difficult to assess how contemporary these features were.

Areas 2 and 3 (figs 3, 4 & 7).

Only 3 features from these areas have been allocated to this phase, two pits and a ditch. Pits **1241** and **1219** both truncated grave **1525**. Both were roughly oval in plan, c. 0.77m long, 0.37m wide and 0.17m

deep with steep concave sides and a concave base. Both contained, a sterile, naturally derived and deposited fill. The function of both pits was not clear, although some form of structural function (i.e. posthole) was likely.

Ditch **1836** was located high up on the hill of area 2, truncating the phase 1 boundary ditch **1838** and in fact appeared to be a later clearing re-cut of the ditch. As a result **1836** was as long as **1838**, at 30m, but narrower at a maximum of 0.90m (as opposed to 1.50m) and shallower at 0.42m (as opposed to 0.70m). Ditch **1836** also only contained one fill, which was dark and organic in nature and contained a quantity of animal bone as well as fragments of, unidentifiable and un-datable, fired clay. This indicating some degree of backfilling, as opposed to purely natural infilling. Environmental samples taken from this fill did not yield any results.

Area 6 (fig. 6)

Phase 2 in this area comprised 3 small ditches (**2315**, **2372** and **2369**), which while probably functioning as boundary, enclosure or drainage features, did not appear to form part any coherent enclosure system. Either individually or as a group with other nearby features.

5.4.3 Period Summary

This period sees what appears to be the first steps in the agricultural use of the landscape in which the site lies, field boundaries are put in place and a number of small pits with a probable agricultural function are opened up. There is also some evidence that the area is also being used for other functions, in the odd structural elements seen in this period. The dearth of archaeological material from these features would seem to indicate that, at this time, the area of the site is removed from any major settlement, it is effectively an agricultural hinterland serving a settlement some distance away. The exact time frame within which this period can be placed is unclear, due to the

paucity of datable artefacts. Bronze age use of the landscape is known (from the cremations) and more intensive Late Iron Age use of the landscape follows this period. It is therefore likely that this period is either associated with the Bronze age use of the landscape and / or falls between this use and the Later Iron age use of the area. The single isolated structural element at the top of the hill in area 2 may suggest that during this period this area still had a ritual significance to the local populace, which may be an indication that this period was closer in time to the Bronze age (and the use of the landscape as a cemetery) rather than the Late Iron Age, but this is mere conjecture.

5.5 Period 3: Late Iron Age to Roman (100B.C. – 200A.D.)

This phase is so broad, chronologically, as very few of the features that contained late Iron Age (LIA) pot, solely contained LIA pottery, they usually contained, some, early to mid Romano British material as well. This would appear to imply a long use life for many features, that the features were maintained and so filled up relatively slowly over a long period of time.

5.5.1 Phase 1

This period has been divided into 3 phases, based purely on the stratigraphic and spatial relationship of the features placed into this period.

Area 1 (fig. 2)

This area contained only a single feature that could be placed in this phase (1086). This was a large, irregular, loosely circular feature, which only partially emerged from the eastern L.O.E. It was - as visible - 5.2m long, 1.90m wide and 0.40m deep, with regular, straight, gently sloping sides and a concave base. The exact nature of the feature was not clear, however, the fills it contained appeared to indicate that the feature had been flooded during its life. It may, therefore have been some form of pond or watering hole for livestock.

Area 2 and 3 (fig 3, 4 & 7)

Many of the most significant features in areas 2 and 3 belong to period 3. In this phase this includes 9 linear features (ditches) and 6 discrete pit type features.

The largest and most significant features from this phase were a series of large boundary ditches running across up the hill in area 2, beginning at the northern end of area 2 and running up to the central section of this area. Ditch 1332 was located at the northern end of area 2. This ditch consisted of a northern, NE – SW aligned element that was at least 30m long, with the northern end of the feature vanishing under the northern L.O.E. and the southern end vanishing under the western L.O.E. At a point mid way along its length this ditch split and a spur ran off following a NW – SE alignment for 20m before turning through 90° and heading SW for 30m before disappearing under the western L.O.E. This feature was typically 1.45m wide and 0.58m deep with steep, regular sides, concave base and U – shaped profile. This ditch typically contained a single fill that was largely naturally derived and deposited, although there was some element of deliberate backfilling mixed in with this.

Ditch **1374** was another substantial boundary feature that appeared to function with **1322** to create a boundary system. **1374** was an L shaped ditch that followed the same pattern of alignment as **1374** and was located just to the south of it. The location and layout of **1374** seeming to represent the northwestern quadrant of an enclosed area parallel to that enclosed by **1332**. The total length of **1374** was 65m, with the ends of the feature disappearing under the baulk of the site. This feature was typically 1.70m wide, 1m deep with a profile similar to **1332**.

These two substantial ditches were the main elements of this boundary system visible within area 2. However, ditches **1208** and **1409** may also have been part of the system. Both were only partially seen, with much of the body of these ditches lying beyond the L.O.E. of the site. Feature **1208** aligned NW-SE at the northern end of the site may have been the eastern return arm of ditch **1332**. While **1409** located just south of **1374** was an L shaped feature, which just emerged from the eastern L.O.E. and may have represented the north west corner of another enclosure, similar to **1374**.

Context	Finds (Kg)					
	Pottery	A. Bone	Stone	Shell	Charcoal	Fired clay
1208	0.013	0.028				0.092
1332	0.432	4.243	0.433	0.001	0.001	0.001
1374	5.871	2.797	0.281	-	-	0.015
1409	0.003	0.004	-	-	-	-

Table 5: Summary of Archaeological Finds from Boundary Features

It is notable that this period 3 boundary system is, loosely, aligned in the same way as the period 2 boundary system in the same area. The period 3 system does not, however, respect the period 2 system as elements of the later system cut across and truncate many elements of the earlier system.

In addition to this substantial boundary phase there were a number of other linear ditches in area 2 that were indicative of a more minor boundary system. This may have operated in tandem with the more substantial boundary system or, may have been an earlier / later phase of use. As the datable ceramic material from both systems is

broadly similar and, they do not physically interact, it is difficult to say which of these hypotheses is more likely.

Features **1198**, **1573** and **1448** all lay toward the central / southern end of area 2 and were all fairly narrow features, varying from 1.20m – 0.45m wide and typically shallow, varying from 0.12m – 0.48m in

depth, with fairly shallow, concave, slightly irregular bowl shaped profile. All were aligned ENE – WSW and ran across the width of the site (> 21m in length).

It is interesting to note, that in character and alignment these features very much resemble the ditches of the period two, phase one boundary system seen in this area. It is possible that the period two boundary system was actually LIA in date (and so should be placed in this period) i.e. That the features seen in this period (3) were actually part of a much larger boundary system that included all of the linear ditches seen in period two, these just not containing any datable material. Alternatively these later period 3 features may have represented, at least a partial maintenance and re-cutting / clearing of the earlier system.

Ditch 1451 may also have been part of this system. This ditch emerged from the eastern L.O.E. at a point between the eastern ends of ditches 1578 and 1448. Feature 1451 was aligned perpendicular to the afore mentioned features and terminated (in a rounded terminus) at a point 3.40m from the eastern edge of site. The nature and character of this ditch was broadly similar to that of 1198 etc.

Context	Finds (Kg)			
	Pottery	A. Bone	Flint	Fired Clay
1198	0.046	0.356	0.089	0.014
1448	0.002	-	-	-
1451	0.005	-	-	-
1573	0.003	-	-	-

Table 6: Summary of Archaeological Finds from Boundary Features

A single ditch (2057) on the top of the hill, area 3, has been placed in this period due to the LIA pottery found within it. This feature was a 7m long short linear (or long oval ditch), aligned NNW – SSE, 1.30m wide and 0.50m deep with an irregular, bowled profile.

Five pits have been placed into this period on the basis of the LIA / 2nd Century pot found within them. The functional nature of many of these features was, again, unclear (likely a mix of rubbish pits, post holes and other agricultural functions). In plan none appeared to form any discernable structure. These features were all typically sub circular in shape and varied from 1.50m – 2.40m in diameter and 0.22m – 0.60m in depth, with irregular, often steep, concave sides and deeply bowled profiles. The fills of these features were typically naturally deposited clayey silt with a small to moderate element of backfill material.

Context	Finds (kg)				
	Pottery	A. Bone	Flint	Stone	Fired Clay
1397	0.059	0.001	-	-	0.006
1423	0.042	0.245	-	-	-
1426	0.11	-	-	-	-
1467	0.040	-	-	-	0.013
1985	0.128	0.285	0.00 1	0.236	0.003

Table 7: Summary of Archaeological Finds from Pit Features

A single pit located at the top of the hill, in area two, stood out from the other pits as it was much larger and had a more identifiable function. This feature, **1569** was c. 1.40m in diameter and 1.25m deep, with regular, steep and straight sides, a deeply concave base and a V shaped profile. This pit contained 6 fills, some of which appeared to be the result of natural infilling while others were representative of backfilling and the deliberate dumping and tipping of material into the feature. This substantial pit almost certainly supported a major post, which may have been up to 4m tall and 0.30m in diameter. Quite what the function of this structure may have been was unclear as it appeared to exist in isolation at the top of the hill. The only archaeological material contained within this feature was a small amount (0.004kg) of LIA pottery and a few fragments of animal bone retrieved from the environmental sample residue.

5.5.2 Phase 2

This consists of 10 features (9 linear ditches) spread across areas 2 and 3.

Ditches **1334**, **1376**, **1382** and **1849** represented the re-cutting, clearing and maintaining of the substantial boundary / enclosure system established in phase 1. Ditch **1334** recut and partially cleared phase 1 ditch **1332**, the later ditch following the line of the earlier ditch exactly, but being a little narrower at 0.50m and shallower at 0.40m, but with a similar steeply bowled profile.

Ditches **1376** and **1382** recut and partially cleared phase 1 ditch **1374**. Ditch **1376** ran NNW-SSW, truncating the same leg of **1374** while **1382** truncated the ESE-WNW leg of **1374**. As with **1334**, ditches

1376 and **1382** were a little narrow and shallower than the early phase boundary, at a typical width of 1.9m and depth of 0.80m, both had a profile similar to **1334**.

Ditch **1849** re-cut, and slightly re-aligned the "L" shaped corner ditch **1409**. The later re-cut was 1.50m wide by 0.52m deep with a similar profile to the earlier ditch.

All four of these later re-cutting boundary ditches contained a fill that was much darker than the fill of the early phase boundary features, and seemed to be indicative of more backfilling, this is reflected in the archaeological material contained within the fill;

Context	Finds (Kg)						
	Pottery	A. Bone	Stone	Shell	Charcoal	Fired clay	Flint
1334	0.699	3.888	0.004	0.036	0.001	0.055	-
1376	2.532	1.329	-	-	-	0.04	-
1382	0.585	0.234	-	-	-	-	0.011
1849	0.378	0.327	-	-	0.001	0.002	-

Table 8: Summary of Archaeological Finds from re-cutting Boundary Features

Environmental samples also indicated that **1376** contained charred seeds of grassland herb varieties.

Ditches **2053** and **2059** were located just off (to the south east of) the brow of the hill in area 3. In plan both of these ditches were semi circular with rounded terminals. Both were aligned roughly NE-SW and bowed out toward the south west with **2059** being located parallel with, and roughly 10m to the south west of, ditch **2053**. In plan this created the effect of concentric "rings" of ditches roughly 10m apart, **2059** being the outer (most westerly) of these rings. **2053** was 38m long, 0.70m wide and 0.70m deep, **2059** was 40m long, 0.90m wide and 0.30m deep. Both of the ditches demonstrated regular, steeply bowled profiles with naturally derived and deposited fills.

Context	Finds (Kg)		
	Pottery	A. Bone	Stone
2053	0.668	0.007	-
2059	0.04		4.962

Table 9: Summary of Archaeological Finds from Ditch Features

Area 3 also contained ditches **1796**, **2212** and **2213**. Features **2212** and **2113** were both located up on the brow of the hill of area 3, roughly in line with area 2 and both appeared to be little more than very remnant land boundary features or remnant LIA / 2nd Century agricultural (plough) marks. Feature **1796** was more unusual. Located c. 10m to the south of **2059** ditch **1796** was, in plan, a loose M shape, with the long axis aligned roughly NE-SW and the tops of the M looping out toward the north east, either end of the feature vanishing below the western baulk of the site. The extent of the feature, as seen, was 49m long, 1m wide and typically 0.60m deep with regular concave

sides and base and a moderately dark fill. This fill appeared to be largely naturally derived and deposited but with some element of backfilling in its make up.

Context	Finds (Kg)			
	Pott ery	A. Bon e	Char coal	Fired clay
1796	0.119	0.051	0.129	0.025

Table 10: Summary of Archaeological Finds from Feature 1796

In addition, what appeared to be a ceramic loom weight was also recovered from this context.

The single small pit (1808) placed in this phase was located toward the southern end of area 2. The feature was 0.45 long, 0.15m wide (and so sub oval in plan) and 0.10m deep with shallow, concave sides and a concave base. The nature of the feature was not clear however it did not appear to be structural, nor did the naturally derived and deposited fill suggest a rubbish pit

5.5.3 Phase 3

A limited number of features can, on the basis of datable finds, and stratigraphic relationship, be placed into a later, phase 3, within this period. This phase consists of 4 ditches and 2 pits.

Of the ditches, 1378 represented a further re-cutting of one of the substantial land boundary ditches established during phase 1 of this period. This ditch re-cut the NNE-SSW leg of ditch 1374 and so truncated the phase 2 re-cut 1376. Although again the re-cut / clear out cut of this phase was not as substantial a feature as the one it truncated, at a typical width of 1.40m and depth of 0.30m.

Ditch 1232 was only partially seen, it emerged from the eastern baulk edge of site and ran for roughly 7m along a SW-NE alignment, truncating phase two re-cut 1382 before ending in a rounded terminus. This ditch (1232) may have been a partial re-cut or clearing / maintenance cut, but it certainly did not represent the complete reuse or maintenance of the substantial boundary system upon which it sat. This feature was typically 1.95m wide and 0.29m deep with an irregular, open, bowled profile and concave sides.

Context	Finds (Kg)			
	Pottery	A. Bone	Stone	Fired clay
1232	0.263	0.124		
1378	0.14	1.01	0.017	0.008

Table 11: Summary of Archaeological Finds from Ditch Features

Charred seeds recovered from an environmental sample taken from 1378 demonstrated the presence of both woodland and open country species of plants nearby.

The other ditches from this phase represented a probable land boundary feature that did not appear to fit into any other, visible, larger system of land division (1436) within area 2, and a small, probable drainage feature located just off the brow of the hill in the south eastern leg of area 3 (1940). The two pits, both located in area 2 and both roughly circular in plan were probably a post hole (1351) and some sort of dump (1291). The single fill of all of these features appeared to be naturally derived and deposited, although the fill of 1291 was much darker than the others, leading to the interpretation of this feature as a dump during at least one point of its life. All contained a little pot of mixed LIA and 2nd century date as well as a little animal bone.

5.5.4 Period Summary

During this period we see the creation of a substantial land boundary system toward the northern / central end of area 2. This boundary system was maintained over time with periodic clear outs and re-cuts of areas of the boundary ditch that had begun to fill up via natural processes. In tandem with this the low level agricultural usage of the southern end of area 2, and much of area 3 continues. The presence of some unusual curvi-linear ditches within area 3 may suggest that other activities than just agricultural were taking place within this area, i.e. ritual activities, although it is equally possible that these unusual curving ditches had some more mundane function, such as the guided movement and corralling of livestock. The dearth of finds from this area makes it exceedingly difficult to understand the nature of these features.

The majority of the finds from this period came from the various fills of the cuts and re-cuts of the substantial land boundary feature located at the northern end of area 2, finds density dropping off very severely as the archaeological investigation southward. This would seem to imply that the settlement that this agricultural hinterland served was located near to the northern end of area 2 with this area being visited, fairly regular, by the iocai population. The areas to the south being visited far less regularly and so having less material dumped / dropped into them.

5.6 Period 4: Mid to Late Romano British (3rd - 4th century AD).

This feature consisted of only a few features, two ditches and a pit.

The ditch, 1285 was only very partially seen in the site, it emerged from the eastern baulk and ran on an SW - NE alignment for 0.5m

before ending in a rounded terminus, truncating ditch **1232** a late re-cut of the substantial land boundary system seen toward the southern end of area 2 in period three. Quite what the function of this ditch (**1285**) was is unclear, it may have represented the continued use, in some different or more limited form, of the substantial land boundary system first seen in period 3, this feature was only very remnant in nature (0.61m wide and 0.03m deep).

Ditch **1465** was located further up the hill in area 2 this short linear feature was aligned NNW-SSE, was only 9m long with rounded terminals at both ends, 0.40m wide and 0.15m deep. The function of this feature was not clear, it appeared to exist in isolation in this period truncating an earlier pit. It is possible that this feature represented the very remnant and partial remains of a hedgerow or furrow.

The pit from this period also cut an element of the substantial enclosure system identified in period 3. Pit **1254** (1.60m in diameter and 0.85m deep), truncated ditch **1334** at its western end, right against the western baulk of site. The function of this pit was not obvious, it may have been a substantial post hole, or a rubbish pit, neither appeared to be overtly indicated in either the form of the feature or its fill. The single fill of this substantial pit was like that of all of the other features from this period, which also only contained one fill. It was a mid brown silty clay, largely naturally derived and deposited but with some element of deliberate backfilling.

Context	Finds (Kg)			
	Pott ery	A. Bon e	Ston e	Fired clay
1254	0.014	0.768	0.024	-
1285	0.490	0.014	-	0.128
1465	0.020	-	-	-

Table 12: Summary of Archaeological Finds from Pit Features

Period Summary

Very few features could be definitely assigned to this period, however the presence of some archaeological features of this date would seem to indicate that the site was continuing to be used, and for similar agricultural purposes. However the extent and intensity of this use cannot be known for certain. It is possible, indeed probable, that some of the features from the following period may well have been of a mid to late Roman date.

5.7 Period 5: Later Undatable Features

This period contains those features which, on the basis of alignment and stratigraphic relationship, appeared to be later than the features assigned to periods 3 and 4. But which could not be dated due to a lack of datable material recovered from them. These features were located in areas 2 and 3 and consisted of 4 pits and 10 ditches of moderate size and unclear function. The pits were roughly circular in plan and varied in size from 0.30m to 0.80m in diameter and 0.03 – 0.50m in depth. The function of these was largely unclear, none were obviously structural nor obviously rubbish dumps although many were filled with a mixture of naturally derived and deposited material mixed with backfill material, often containing a little bone.

The ditches were all also fairly minor features, between 5m and 25m long (a number, particularly in area vanishing under the site L.O.E's at both ends), 0.35m and 1m wide and 0.05m to 0.30m deep. Again the function of these was largely unclear. They were all probably agricultural in nature, either plough scars, furrows or very remnant boundary / enclosure features – although no overall pattern of enclosure was obvious. The fills of these ditches were either slumped in natural gravels, sterile naturally derived and deposited silty clay and a mix of this natural type fill mixed with small amounts of backfill some of which contained small amounts of animal bone.

5.8 Period 6: Medieval to Modern

This period was characterised by remnants of medieval ridge and furrow – largely confined to area 3, small medieval pits of unclear function, a number of modern machine cut pits filled with modern debris and modern plough scars that were extensive across areas 2 and 3.

6 Assessment of Archaeological Potential

6.1 Excavation Summary

This excavation was successful in identifying a long lived agricultural hinterland, the southern edge of which was located – at least during the late Iron Age, relatively near to the settlement the land served, at least near enough that the various boundary features dividing up the land were regularly being used as dump sites for waste material from the settlement.

The earliest, datable, use of this site was as a Bronze age cremation cemetery. The area of land used in this ritual way was located at the bottom of a river valley, which was never afterwards used for any other function, until modern times. During the Iron Age the, probably limited, earlier agricultural use of the land exploded and major boundary ditches dividing up regular parcels of land were created. This usage continued into the early / mid Romano British period with the earlier, substantial, boundary features being maintained and new (albeit more minor ones) excavated. The agricultural usage of this land continued into the medieval period, as evidenced by the remains of ridge and furrow activity, continuing through to the modern era, the land being under crop at the time of excavation.

It is the linear features associated with this agricultural use that we are most able to understand – as furrows, drainage gullies, plough scars and boundary features. There were however, scattered across the site, a large number of pits varying from quite small to very large. The function of many of these was not clear, some were obviously post holes and so structural in nature, others contained a fill that indicated they had been used as dumps. But for many of these discrete features neither their shape nor their fill hinted at a clear function.

Although the primary usage of the land investigated by this excavation was agricultural, with there being no evidence for building type structures or settlements on this parcel of land, there was some evidence for other, possible, ritual activity. This is most clearly seen in the burials located at the southern end of area 2 (**1528 and 1525**). In addition odd, isolated structural elements located high up on the crest of the hill at the southern end of area 2 also hinted at ritual use of the landscape. This included the huge post hole feature **1569** and the unusual beam slot feature **2088**. Quite what the nature and function of these features were was not clear.

The survival of archaeological features on the site was, on the whole good. Although there had been some horizontal truncation as a result of medieval, post medieval and modern ploughing. There had also been some, limited, animal disturbance.

Across the site as a whole, deposits were mostly confined to feature fills. Most of the features contained single naturally derived and deposited silty clay fills and / or slumped in gravely clay fills. In some instances darker, more organic, silty clays were also noted. This appeared to indicate the presence of some backfilling of the feature, which had mixed material from another location with the naturally derived material building up in the feature and had often introduced archaeological material into the fill, typically pottery and animal bone.

An alluvial subsoil was present across all of the site (all areas) and was typically 0.30m – 0.90m thick, except area 4 where this alluvial deposit was typically around 1m thick, but up to 1.50m thick in places.

It was the depth of this subsoil in area 4 that had allowed the cremations to survive intact.

6.2 Statement of Potential

The written and drawn elements of the contextual record form the main components of the excavation data and are sufficient to form the basis of the site narrative. The main phases of activity on the site span the mid Bronze age through to the mid Romano-British period, with agricultural use of the site continuing through to the medieval and modern periods.

Whilst all of these periods will be addressed by the aims and objectives of the post-excavation analysis the main areas of research will focus on the nature of, and changes in, the land use of this clay upland area. The greatest potential for addressing regional and national research priorities lies in further analysis of the mid to late Bronze Age cremations. Further study of the Late Iron Age and Roman field system within the wide topographic and archaeological context will also enhance understanding of the development and use of this important clay upland.

6.3 Stratigraphic and Structural Data

6.3.1 Quantity of Written and Drawn Records

Type	PEVBYP06 excavation
Context register	35
Context numbers	1421
Context records	1381
Contexts not used	40
Level record sheets	12
Plan registers	7
Plans at 1:50	256
Plans at 1:100	1
Plans at 1:200	13
Total station survey	Point data on network
Section register	12
Sections at 1:10	522
Sections at 1:20	10
Sections at 1:50	1
Sample register sheets	22
Photo register sheets	25

Type	PEVBYP06 excavation
Black and White films	13
Colour slide	12
Digital photographs	773
Small/spot finds register sheets	1

Table 13: Quantification of Written and Drawn Record

6.3.2 Quantity of Environmental Samples

Environmental samples	PEVBYP06 excavation
Number of samples	214
Flotated samples	214

Table 14: Environmental Sample

6.3.3 Quantity of Finds

Site/Area Type	PEVBYP06 excavation (kg)
Antler	1.076
Animal Bone	20.154
Ceramic	17.92
Cinder	0.009
CBM inc Fired Clay	0.425
Flint	0.151
Glass	0.063
Mortar	0.004
Shale	0.003
Shell	0.045
Slag	0.003
Stone	7.082

Table 15: Principal assemblages

6.3.4 Range and Variety

The cut features comprised ditches, pits, post-holes and other structural features such as beam slots, graves, cremations, furrows, plough scars, 'tree throws' and animal burrows.

Feature types appeared to vary somewhat between the different periods of use present on the site. The Bronze age was characterised by a cremation cemetery. The Iron Age was characterised by large boundary ditches and a number of structural features. The Roman

period by re-use and reinstatement of the Iron age ditches as well as limited excavation of smaller boundary and enclosure features. The Medieval and post medieval presence largely consisted of agricultural process remains – furrows and plough scars.

Deposits mostly comprised feature fills, although a thick layer of alluvium was present in area 4, sealing the cremation cemetery. Most of the features on site contained single light brown, soft, sandy silts. The only significant exceptions to this were the fills of the cremations and one of the more substantial Roman boundary re-cuts, which was darker and more organic.

Relatively little complex stratigraphy was encountered within the excavation area.

The below table summaries the features type, by period, for the excavation. Note that period six has been excluded as it contained only Medieval, post medieval and modern features such as furrows and plough scars

Period	1	2	3	4	5
Feature Type					
Cremations	39				
Ash dumps	20				
Ditches	1	67	22	2	10
Pits	1	58	7	1	4
Post Holes / Structural features	6	4	2		
Rubbish pits			1		
Graves (human)		2			
Ancient River	1				
Pond / palaeochannel		2			
Deep alluvium	1				

Table 16. Summary of Feature Types

6.3.5 Condition of the Excavation Area

The survival of Archaeological features on the site was, on the whole very good with relatively little horizontal truncation having occurred, and this largely the result of Medieval and post medieval ploughing. In Area 4 a thick layer of alluvium had been deposited anciently and this had served to protect the underlying cremation cemetery completely. Meaning that it had not suffered at all from this more recent agricultural activity.

6.3.6 Condition of the Primary Excavation Sources and Documents

The records are complete and have been checked for internal accuracy. Written and drawn records have been completed on archival quality paper and are indexed. All paper archives have been digitised

into the individual site Access Database. Site drawings have been digitised in AutoCAD. A complete site matrix has been created and entered into an Excel spreadsheet. All primary records are retained at the offices of CAM ARC in Bar Hill. The site code, PEV BYP 06 is allocated and all paper and digital records, finds and environmental remains are stored under this code.

The site data is of sufficient quality to address all of the project's Research Objectives and form the basis of further analysis and targeted publication of the key features, finds and environmental assemblages.

6.4 Survey Data

All of the excavated areas were located onto the Ordnance Survey with the aid of a Leica TCR705 Total Station Theodolite. All survey data is stored in digital format with the archive.

6.5 Artefact Assemblage Summaries

The following section comprises summaries of the reports contained within the appendices; reference to the project's original Research Aims and Objectives (outlined in section 4, above) is included with the recommendations.

6.5.1 Metal Objects (Appendix 5)

A Total of 23 objects were examined. Most came from the metal detecting of the subsoil and spoil heaps. These objects ranged in date from Roman to modern. The Roman remains consisted three Roman coins, 70 – 100AD in date, while the majority of the other objects were nails and the remains of buckles and harnesses of a 18th – 19th century date.

All of the metal objects have been preserved 'in house'

Potential Recommendations

No further detailed analysis of the metalwork is required. A report on, particularly the coins, as well as other metal objects should form part of the published site report, providing references to comparable items and assemblages where appropriate. Such a report should focus of the Roman remains and only briefly catalogue the later items.

The metalwork, integrated with the results of other artefacts and the stratigraphic data from the excavations has some potential to contribute to a number of the projects Regional and Local Research Objectives, in particular RO's 1, 9, 12 and 13 and.

6.5.2 Prehistoric Pottery (Appendix 2)

The prehistoric pottery assemblage comprised 480 sherds of hand made pottery, weighing 3134g. The earliest pottery was present was of Later Bronze Age date (c.1000-800BC) – although this consisted of only 4 sherds weighing 21g. The majority of the sherds were of a Mid to Late Iron Age (c.300BC – 43AD). The pottery was mostly poorly preserved and showed a high degree of abrasion. Most of this Iron Age pottery was recovered from the fills of pits, postholes and ditches. Three main fabric groups were present, with most sherds being made of sandy, quartz rich fabrics. Vessel forms included globular jars and angular shouldered vessels.

Potential and Recommendations

Detailed analysis will include an examination of the Iron Age feature fills and include integration of site date and phasing. It will also include a comparison of the assemblage from this site to the assemblages discovered at other contemporary sites from the region, in particular Wardy Hill, Dragonby, Fison way and Loves farm.

Further analysis of the prehistoric pottery, and research into comparative assemblages, has good potential to contribute to the projects National, Regional and Local research objectives, in particular RO's 1, 7, 9 and 12

6.5.3 Romano-British Pottery (Appendix 3)

A total of 1560 sherds, weighing 9.047kg of Romano British pottery was recovered, mostly derived from ditches. The pottery was severely abraded, with an average sherd size of only c.6g.

The majority of the pottery found was a utilitarian sandy grey ware of unsourced, but probable local, manufacture. The most common vessel type found was a medium mouthed jar, with high shoulders and rolled rims. The assemblage also contained a lesser range of domestic fine wares and a small amount of imported samian. This Romano British pottery was, in the main, datable to the early Roman period – predating the industrialisation of pottery production in the mid 2nd Century AD.

Potential and Recommendations

Further work should comprise full fabric and form analysis of this material integrated with the phased site data and the results combined with previous research in the area to establish (if possible) where the pottery originated from.

This additional work would also have to potential to shows how local goods combined with traded goods to provide sufficient ceramic wares for the community. When looked at in tandem with the prehistoric pottery it may also be possible to see how pottery use, in this area, changed with time, from the mid Iron Age through to the Mid Roman period. The further analysis of the Romano-British pottery has potential to contribute to research aims 1, 9, 12, and 13.

6.5.6 Animal Bone (Appendix 4)

A total of 766 "countable" animal bones were recovered, largely from the sealed fills of features across the site, from features of all date ranges. The condition of the bone was, as a whole, quite poor, due largely to environmental factors. The assemblage was dominated by domestic mammals, with cattle being the most prevalent (38.5% of the identifiable assemblage) followed by horse (27.3%) – with smaller amounts of ovicaprids (7.4%) and pigs (6.6%). A number of adult and juvenile wild dogs were also identified, while wild animals were represented by quantities of red and roe deer antler.

Potential and Recommendations

No further work is recommended on this material. All countable elements have been fully recorded and entered on to an Access database. The results, integrated with the final stratigraphic phasing and other ecofactual and artefactual data, will be included in the publication report, as they provide important evidence for farming and craft working activities throughout the main periods of occupation on the site.

This assemblage has the potential to contribute toward research objectives 1, 2, 4, 5, 8, 9, 10, 11, 12, 13 and 14

6.5.7 The Cremation Cemetery (Appendix 7)

This cemetery, located in area 4 of the site and contained 35 definite human cremations, with another 19 features that contained a mix of probable pyre debris and human remains. Of these cremations 8 were definitely contained within pottery urns while another 3 may have once have been contained within urns – these vessels having since decayed and being indicated only by very fragmentary pottery remains within the cremation.

The Pottery

The pottery assemblage consisted of 358 extremely soft and degraded sherds as well as an unquantified number of small fragments, from a total of 11 contexts. The poor state of the ceramic being due to both the poorly fired nature of the material and the environmental conditions

within which the vessels had been sat. The assemblage was Mid to Late Bronze Age in date (c.1500 –700BC). Very few diagnostic sherds survived, those that did indicated a flat rim, slightly expanded internally and externally.

Recommendations for Further Work

No further work is recommended on this assemblage, due largely to the extremely poor level of preservation of the material. All countable elements have been fully recorded and entered on to an Access database. The results, integrated with the final stratigraphic phasing and other ecofactual and artefactual data, will be included in the publication report

The Human Remains

Due to the un-truncated nature of the cremation cemetery it was possible to recover 100% of the Human remains from the cremations.

From the 35 features positively identified as burials, 41 individuals were identified. Of these 6 died before the age of twelve and 5 before the age of five. 1 was believed to be an older sub adult / young adult, 2 were sub adult and 28 were adult. This appears to indicate that fewer immature individuals and more adults were identified here than at two contemporary cremation cemeteries, Pasture Lodge farm, Lincs and Broom, Beds.

The small quantities of bone, combined with a lack of diagnostic elements made sexing the individuals extremely difficult. As a result the sex of only 9 individuals could be positively identified, 6 females and 3 males.

Recommendations for Further Work

No further analysis of the human bone is required, however radiocarbon, AMS, dating is recommended as only a few pottery urns were discovered and many of these were so poorly preserved that their dating cannot be certain. A summary report, including the integration of the radiocarbon date and comparative research, will be included in the publication report.

Potential

Taken as a whole, the cremation cemetery may provide important evidence for the early ritual use of the landscape, and contribute to the overall site interpretation. As a result the cemetery has the potential to contribute to the project's Regional and Local Research Objectives, in particular RO's 2, 4, 6 and 14

6.5.8 Inhumation Burial (Appendix 7)

In addition to the cremation cemetery a single inhumation burial was recorded at the northern end of area 2. Only a few scraps of human bone were recovered from the grave fill, including fragments of limb shafts, femoral heads, the extremities and 2 teeth. The bones were that of a middle/mature adult. It was not possible to determine the position of the body in the grave, nor the date of the grave.

Potential and Recommendations

No further analysis of the bone is recommended, due largely to the extremely poor level of preservation of the burial of the paucity of material. The remains have been fully recorded and entered on to an Access database. The results, integrated with the final stratigraphic phasing and other ecofactual and artefactual data, will be included in the publication report. This burial has the potential to contribute toward Research Objectives 6 and 12.

6.5.9 Environmental Remains (Appendix 6)

215 environmental samples (each at least 10 litres in volume) were taken from across the site. Of these 103 samples were taken from areas other than area 4, and were extracted in order to examine the plant macrofossils they may yield. The other 112 were taken from the cremation cemetery (area 4) in order to examine both the plant macrofossils and the cremated Human bone present. In addition the site was attended by a pollen specialist (Steve Boreham) in order to target the extraction of samples suitable for yielding pollen. An additional 5 samples were taken.

Following the processing of these samples 43 were submitted for assessment, 30 from cremation or cremation associated deposits, 13 from other deposits across the rest of the site

The samples taken from other than area 4, including the 5 taken by the pollen specialist yielded very little information as they were virtually barren of both plant macrofossils and faunal remains. Those few remains that were present appeared to indicate a short turfed grassland landscape that was occupied post clearance, rather than immediately post glacial, and in which some cereal may have being produced during the Roman period.

The pollen extracted from the Bronze Age cremations, and associated features, in area 4 yielded a little more information. The seeds / fruits of a variety of grasses and grassland herbs were present along with some poorly preserved cereal grains. These would appear to have been derived from both uprooted plant materials gathered for use in kindling or fuel and from plants burnt *in situ* beneath the pyres. This assemblage would appear to indicate that grassland conditions were locally prevalent throughout the Bronze Age period, with only limited evidence for marginal damp grasslands or nearby agricultural activity.

Potential and Recommendations

None of the assemblages, from any of the samples, contained sufficient material for quantification (i.e. 100+ specimens) and so no further analysis of the material is deemed necessary. It is not possible to C14 or AMS date the material collected from the areas of the site other than area 4, and within area 4 it is thought that AMS dating of the cremated Human bone will produce more useful results.

The assemblage has been fully recorded and entered on to an Access database. The results, integrated with the final stratigraphic phasing and other ecofactual and artefactual data, will be included in the publication report. This environmental data has the potential to

contribute, albeit in a limited way, toward Research Objectives 1, 2, 4, 5, 8, 12, 13 and 14.

7 Updated Research Aims and Objectives

Completion of the post excavation assessment has shown that most of the original aims and objectives of the excavation can be met through the analysis of the excavated material.

One objective (RO 3) however, could not be met through this work and the material recovered;

"3) Contribution toward and understanding of settlement hierarchies and interaction.

The collection of artefacts, ecofacts and structural evidence from sites with well understood depositional processes and with good and consistent sampling techniques has been identified as a critical factor in the study of settlement hierarchies and interaction. The Papworth Everard bypass project presented the opportunity to collect data from more than one activity site which may be temporarily associated, and therefore provide the potential to contribute toward this research aim."

The excavation did, in fact, demonstrate that there was no evidence for any settlement on the site itself and that more than one activity site was not present. The site, in actuality, presented an agricultural hinterland, peripheral to an unknown settlement which saw a long period of use and re-use, but largely for the same function. As a result data of the sort needed to address this objective could not be collected.

However, more information than first suspected, was collected regarding the ritual use of the area during the Bronze age – addressing objective 6 particularly;

"6) Contribute toward and understanding of changing patterns of burial practice in the Bronze Age between the Bronze Age and later periods.

A single, unexcavated, possibly crouched burial identified during the evaluation may be prehistoric in date and may be indicative of a wide cemetery / ritual landscape."

In fact, the single crouched burial yielded little information due to its poor state of preservation. However, the major cremation cemetery uncovered in area 4 of the site has much greater potential. This cemetery when examined, analysed and compared alongside other similar, contemporary, sites in the area, and then contrasted with later period cemeteries has the potential to contribute much to this area of our understanding.

In addition the EAA state that;

"Human impact on the natural landscape, including changing patterns of alleviation, woodland management and clearance, are vital elements in any understanding of developments during the 4th – 1st millennia"

Examination of the preserved charred plant remains and other macro flora recovered from the samples taken from the cremation area have the potential to contribute toward this aim.

8 Methods Statements

The assessment and updated research objectives have identified the key areas for future analysis and wider dissemination through publication. This further work will aim to present a synthesis of the project results, concentrating on the earlier prehistoric elements of the site, in particular the Bronze age cremation cemetery in addition to the Middle to late Iron Age and Romano British land use and field systems. Analysis of the finds assemblages will focus on the, Iron Age and Roman pottery and the cremated human bone.

The following section summarises which elements have been identified for full, partial or no further analysis in order to meet the potential of the excavated data and the Updated Research Aims of the project. Detailed task lists are presented in Section 10. The Project team members (and initials) are outlined in table 17.

8.1 Full Analysis

8.1.1 Stratigraphic Analysis (Tasks 1 - 17)

Full but selective further stratigraphic analysis, concentrating on the following key sequences and areas (to address Research Objectives 1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 13, 14).

- Finalise site groups and phasing, with particular emphasis on the cremation cemetery, the clay lined, beam slot structural features and the Late Iron Age/Early Roman field system ditches (DDUH).
- Full integration of the artefact dating and phasing (DDUH)
- Compilation of text sections for all features, ordered by phase, and group to enable interpretation and discussion and to provide information for key specialists (DDUH).
- Compilation of group, phase and site narrative (DDUH), and site phase/group plans drawn to illustrate the development of the site (ILL)

8.1.2 Pottery Analysis (Tasks 25 - 26)

Full cataloguing (fabric identification) and analysis of the stratified, Iron Age and Roman pottery assemblages and to search the Cambridge site and monuments record for possible location of nearby pottery manufacture sites, to address Research Objectives 1, 9, 12 and 13 (AL and SP)

8.2 Partial Analysis

8.2.1 Cremated Human Bone (Tasks 28 and 30)

AMS dating of the cremated human bone, to address RO's 2, 4, 6 and 14.

- AMS dating of the cremated human bone should firmly tie down the time frame when the cremation cemetery was in use. Allowing it to be fitted into a wider, contemporary, landscape (SUERC).
- Integration of the AMS dates and production of a summary report (DDUH)

8.3 Little / No Further Analysis (Tasks 28a-c)

8.3.1 Miscellaneous Finds

No further work is recommended for a number of the finds assemblages, other than integration of the results during analysis, adding final phasing. These assemblages are generally either small, poorly preserved and / or represent an assemblage where an appropriate levels of analysis has already been undertaken as part of the assessment process, which will only require a small amount of work for publication. All of these assemblages have potential to address the research objectives (in brackets), and as such will provide the basis for summaries for inclusion in the publication

- Metal objects: summary report on the stratified Roman objects, with a brief catalogue of the later items that have been selected for illustration, and discussion of comparable objects (CM / ILL / DDUH) (1, 9, 12 and 13).
- Animal bones: Integration of final phasing; summary report and catalogue (CF/DDUH) (1, 2, 4, 5, 8, 9, 10, 11, 12, 13 and 14).
- Plant macrofossils: Integration of final phasing; summary report and catalogue (RF/VF/DDUH) (1, 2, 4, 5, 8, 12, 13 and 14).
- Miscellaneous finds (brick/tile, fired clay, burnt stone): Integration of final phasing; summary report and catalogue (Cf / DDUH) (1, 9, 12 and 13).

8.4 Documentary Studies (Task 8)

Research into documentary and cartographic evidence, in addition to other sources such as aerial photographic surveys, will be undertaken to place the site within its wider context. This will focus on exploring the evidence for earlier prehistoric ceremonial and monumental features along the valley, contemporary Iron Age activity and the location of Roman settlements, villas, field systems and routeways (DDUH) (2, 4, 5, 8, 9, 11, 12, 13, 14).

8.5 AMS Dating (Task 30)

AMS dating will be used to date the human bone from the cremation cemetery to determine whether it is Bronze Age or later. The dating will be performed by the Scottish Universities Environmental Research Centre. Suitable bone samples have been selected by the Osteologist (ND).

9 Report Writing, Archiving and Publication

9.1 Report Writing (Tasks 9 -14; 18-23)

Tasks associated with report writing and illustrations are identified in Table 18 below.

9.2 Archiving (Task 17)

Excavated material and records will be deposited with, and curated by, Cambridgeshire County Council (CCC) in appropriate county stores under the Site Code PEV BYP 06, and the county HER code ??????? (PEV BYP 06). A digital archive will be deposited with ADS. CCC requires transfer of ownership prior to deposition. During analysis and report preparation, CCC AFU will hold all material and reserves the right to send material for specialist analysis.

The archive will be prepared in accordance with current CCC AFU guidelines, which are based on current national guidelines.

9.3 Publication (Tasks 9-14; 16)

It is proposed that the results of the project should be published in the journal 'The Proceedings of the Prehistoric Society', under the title 'A Bronze Age Cremation Cemetery At Papworth Everard'. This will comprise approximately 17 pages of text, 5 figures, 6 plates and 2 tables. It is hoped that this will be published toward the end of 2008.

10 Resources and Programming

In order to realise the site's full potential, to meet the original project aims and revised research aims, as well as to contribute to broader research topics, the following resources and programming are required to complete the analysis and report writing phases.

10.1 Staffing and Equipment

10.1.1 Project Team

Name	Initials	Project Role	Establishment	No. of days	Day rate/cost
Dan Hounsell	DDUH	Project Officer	CAM ARC	52	
James Drummond Murray	JDM	Project Manager	CAM ARC	10	
Elizabeth Popescu	EP	Editor/publications management	CAM ARC	8	
Crane Begg	CB	Report illustration	CAM ARC	12	
Sarah Percival	SP	Prehistoric pottery	Norfolk Archaeology Unit	1	£196
Alice Lyons	AL	Roman-British and early Saxon pottery	CAM ARC	3.5	£170
Carole Fletcher	CF	Pottery	CAM ARC	1	
Rachel Fosberry	RF	Environmental remains	CAM ARC	2	
Val Fryer	VF	Environmental remains	Freelance	2	£132
Chris Faine	CF	Animal Bone	CAM ARC	1	
Natash Dodwell	ND	Human Bone	Freelance	21	£130
Chris Montague	CM	Metal objects	CAM ARC	1	
Illustrator	ILL	Digitise selected sections. Small finds, and pottery	CCCAFU	12	
Scottish Universities Environmental Research Centre	SUERC	AMS dating	Freelance	15 samples	£290 per sample
Assistant	ASST	Archiving	CCCAFU	2	

Table 17: Project team

10.2 Task Identification

Task No.	Task	Staff	No of Days
Stratigraphic analysis and report preparation			
1	Finalise site phasing of key groups	DDUH	2
2	Submit samples for C14 dating	DDUH	1
3	Disseminate final phasing to relevant specialists	DDUH	1
4	Write Period/Group text	DDUH	10
5	Compile archive report for archaeological sequence	DDUH	5
6	Review and collate results of specialist analysis	DDUH	4
7	Project management and liaison with specialists	DDUH	3
8	Collate and review background evidence/research into comparative sites	DDUH	4
9	Write background text	DDUH	3
10	Write discussion and conclusions	DDUH	3
11	Collate/edit captions, bibliography, appendices etc for publication (etc)	DDUH	2
12	Internal edit	E P/JDM	3
13	Incorporate internal edits	DDUH (PO)	2
14	Final edit	E P/JDM	2
15	Produce HER summary	DDUH	1
16	Submit to PCAS/journal	DDUH	1
17	Archiving	DDUH /Site Assistant	2
Total			48
Illustration tasks			
18	Compile list of illustrations/liaison with illustrators	DDUH	4
19	Produce plans/sections/location drawings	ILL	10
20	Publication figure preparation	ILL	5
21	Finds illustration (pottery, metal finds, flint)	ILL	3
22	Finds photography (Roman pottery)	RF	1
23	Select and check finds illustrations	DDUH	2
24	Project Management	JDM/DDUH	3
Finds Analysis			
25	Prehistoric pottery: scan, full identification/catalogue/analysis of Grooved ware pits and MIA assemblage, study of comparative groups, preparation of report	SP	4
26	Roman pottery: full identification/catalogue/analysis, research into comparative assemblages, preparation of report	AL	3
27	Integration of final phasing/AMS dating, preparation of summary reports:	DDUH	3
28	Human Bone	ND	0.5
29a	Metal Objects	CM	0.5
29b	Animal Bone	CF	0.5
29c	Environmental Remains	VF / RF	0.5
Dating			
30	Radiocarbon dating of 15 samples	SUERC	70
Meetings			
31	Post excavation Meetings	DDUH / JDM / EP	3

Table 18: Breakdown of principal tasks

Acknowledgements

The author would like to thank S. Atkins consultants Ltd who commissioned the archaeological works and the Department of Transport of Cambridgeshire County Council who funded the works, as well as Jacksons Ltd, the on site contractors who greatly assisted during the course of the works. The project was managed by James Drummond Murray, Dan Hounsell directed the field work with the assistance of Emma Nordstrum, Kathy Grant, Gareth Rees, Louise Bush, Tom Eley, Tom Lyons, Gemma Tully, Adam Loden, Chris Faine, Ian Hogg, Dave Brown, Dave Strachan, Spencer Cooper, Claire Martin, Helen Stocks, Andy Corrigan and James Fairbairn. A number of specialists contributed to this report; Alice Lyons, Sarah Percival, Natasha Dodwell, Val Fryer, Steve Borham, Matt Leivers, Chris Faine, Rachel Fosberry and Chris Montague. The illustrations were done by Cane Begg and Andy Corrigan.

Bibliography

- | | | |
|---------------------------------|------|---|
| Alexander, M. | 1998 | <i>An Archaeological Evaluation At Papworth Everard, South-East Quadrant. Cambridgeshire. Cambridge Archaeological Unit Rep. No. 279</i> |
| British Geological Survey (BGS) | 1973 | Geological Survey of Great Britain (England and Wales). <i>Solid Drift Edition, Map Sheet 205.</i> |
| Brown N. and Glazebrook J. (ed) | 2000 | <i>Research and Archaeology: A framework for the Eastern Counties. 2. Research Agenda and Strategy. East Anglian Archaeology Occasional Paper No. 8.</i> |
| Casa Hatton, Rebecca | 2002 | <i>Papworth Everard By-Pass: A Desktop Assessment. Cambridgeshire County Council Rep. No. A195</i> |
| Conner, A. | 2006 | <i>Specification for an Archaeological Evaluation: Papworth Bypass</i> |
| Cox, C. | 1996 | "Church Lane/Ermine Street Papworth, Cambridgeshire (TL283627) Aerial Photographic Assessment" in E. Guttman 1996. |
| English Heritage | 1997 | <i>English Heritage Archaeology Division research agenda. Draft report</i> |
| Guttman, E. | 1996 | <i>An Archaeological Evaluation At Church Lane Papworth Everard. Hertfordshire Archaeological Trust (H.A.T.) Rep No. 198</i> |
| Hatton, R.C. | 2002 | <i>Papworth Everard By-Pass: A Desktop Assessment Cambridgeshire County Council Rep. No. A195.</i> |
| Hatton, R.C., and Kemp S.N. | 2002 | <i>Iron Age and Roman Archaeology along the proposed route of the Papworth By-Pass: An Archaeological Evaluation Cambridgeshire County Council Rep. No. A211.</i> |
| Kenney, S. | 2000 | <i>Iron Age Occupation Off Ermine Street, Papworth</i> |

*Everard: An Archaeological Evaluation. Cambridgeshire
County Council Archaeological Field Unit, Rep. No. A154*

- | | | |
|-----------------------|------|--|
| Margary, I.D. | 1967 | Roman Roads In Britain |
| Reaney, P.H. | 1943 | <i>The Place-Names of Cambridge And The Isle Of Ely.
English Place-Name Society, Vol XIX. Cup.</i> |
| Thomas, A. | 2005 | <i>Brief for Archaeological Investigation: Papworth Everard
Bypass.</i> |
| Wessex
Archaeology | 2003 | <i>Cambourne New Settlement, Cambridgeshire Wessex
Archaeology Report 45973.1</i> |

Appendix 1: Health and Safety Statement

The CCC AFU will ensure that all work is carried out in accordance with Cambridgeshire County Council's Health and Safety Policies, to standards defined in *The Health and Safety at Work, etc. Act, 1974* and *The Management of Health and Safety Regulations, 1992*, and in accordance with the manual *Health and Safety in Fieldwork Archaeology* (SCAUM 1997).

Risk assessments prepared for the CCC AFU office will be adhered to.

The CCC AFU has Public Liability Insurance. Separate professional insurance is covered by the Public Liability Policy held by the CCC AFU as part of Cambridgeshire County Council. The CCC AFU's insurance cover is:

Employers Liability	£20,000,000
Public Liability	£30,000,000

Full details of Cambridgeshire County Councils' Health and Safety Policies and the archaeological unit's insurance cover can be provided on request.

Appendix 2: Assessment of the Prehistoric Pottery

By Sarah Percival

1. Introduction

Four hundred and eight sherds of handmade pottery weighing 3134g were recovered from 67 excavated contexts from five of the excavation areas. The majority of the assemblage is of later Iron Age / transitional Romano British date, 1st century BC to 1st century AD (88.86%, 2785g). A small quantity of later Bronze Age pottery was also found (Table 19). The pottery is mostly poorly preserved and shows a high degree of abrasion, however condition varies. The average sherd weight for the assemblage is small (7.6g) probably because the assemblage is largely redeposited, being mostly recovered from the fills of ditches. No complete vessels were found and few rims, bases or profiles are present.

Area Number	Pottery spotdate	Quantity	Weight (g)
Area 1	Later Iron Age /transitional	1	12
	NCD	2	2
Area 2	Iron Age	1	6
	Later Iron Age	23	225
	Later Iron Age /transitional	292	2409
	NCD	12	45
Area 3	Later Bronze Age	4	21
	Later Iron Age /transitional	51	364
	NCD	14	21
Area 4	Iron Age	1	2
	NCD	2	2
Area 8	Iron Age	5	25
Total		408	3134

Table 19: Quantity and weight of pottery by spot date and area.

2. Methodology

The assemblage was analysed using the pottery recording system described in the Norfolk Archaeological Unit Pottery Recording Manual and in accordance with the Guidelines for analysis and publication laid down by the Prehistoric Ceramic Research Group (PCRG 1992; 1997). The total assemblage was studied and a full catalogue was prepared. The sherds were examined using a binocular microscope (x10 magnification) and were divided into fabric groups defined on the basis of inclusion types present. Fabric codes were prefixed by a letter code representing the main inclusion present (F representing flint, G grog and Q quartz). Vessel form was recorded; R representing rim sherds, B base sherds, D decorated sherds and U undecorated body sherds. The sherds were counted and weighed to the nearest whole gram. Decoration and abrasion were also noted. The pottery and archive are curated by CAM ARC.

3. Summary by Area

3.1 Area 1

Three sherds weighing 14g were found in two features. A base sherd from a later Iron Age / transitional jar was recovered from the fill of a pond (1085), and a small undatable sherd was found in a modern agricultural feature (1114).

3.2 Area 2

Area 2 produced the largest assemblage found during the excavations. Three hundred and twenty eight sherds weighing 2,685g were found in forty two excavated contexts, predominantly the fills of ditches. The majority of the sherds are handmade and all date the later Iron Age and transitional Romano British period. A small quantity of pottery was found in the fills of three pits, of these one ([1569]) contained a single sherd of later Iron Age type and two ([1397] and [1467]) contained later Iron Age / transitional sherds. The assemblages from the ditch fills are mostly small being of less than twenty sherds, however a large later Iron Age / transitional assemblage was found in ditch ([1346]) which contained 136 sherds weighing 903g. The assemblage contained the remains of six vessels including a large grog tempered storage jar similar to an example from Fison Way, Thetford (Gregory 1992, fig.146, 161) dating to the 1st century BC to 1st century AD and combed and incised open jar forms with rounded profiles. This context also contained a substantial early Romano British assemblage (A Lyons *pers. comm.*).

3.3 Area 3

The majority of the pottery from Area 3 is similar in form and general date range to the assemblage from Area 2. Again the pottery was mostly recovered from ditch fills, however no large assemblages were present most features producing less than ten sherds.

Four sherds weighing 21g of later Bronze Age post Deverel-Rimbury type pottery, dating to c.100-700BC was found in pit ([2025]). The sherds are decorated with a single row of fingernail impressed decoration which probably ran along the shoulder of a large thick walled jar.

The remaining assemblage is all of later Iron Age / transitional forms and includes sherds from a small, fine jar of a type found at Dragonby, Scunthorpe (May 1996 fig.19.26, 117) which dates to around the late 1st century BC (ditch [1940]), and a corrugated jar with drilled repair holes similar to examples from Wardy Hill, Ely (Evans 2003, fig.78 3) dated to the early 1st century AD (pit 1985).

3.4 Area 4

Three small sherds weighing 4g were found in two contexts in area 3. One sherd, from ditch fill ([1599]) is of general Iron Age date. The remaining sherds from the fill of a pit ([1859]) are not closely datable.

3.5 Area 8

Area 8 produced five sherds, 25g, which are probably of Iron Age date but are otherwise not closely datable. All the sherds were found in the fill of a pond ([2406]).

4. Discussion

The small quantity of post Deverel-Rimbury found in Area 3 indicates a 'background noise' of activity at the site in the later Bronze Age, around 1000-800BC.

The remainder of the handmade assemblage appears to be broadly contemporary with the earlier Romano British pottery with which it was found, perhaps dating to the 1st century BC to 1st century AD. The presence of the handmade vessels does not necessarily suggest an earlier Iron Age occupation of the site as many of the handmade forms continued in use alongside wheelmade products. Vessel forms present suggest a domestic assemblage including small to medium sized cooking jars and larger thick walled storage jars. The vessels are found in a range of fabric types, principally grog tempered fabrics but also shell tempered and chalk tempered wares. This range of fabrics and particularly the use of grog temper are typical of the later Iron Age assemblages in East Anglia (Hill 2002, 152).

5. Further Work

A short publication report would include a summary of fabric and form types present, comparing the assemblage to other contemporary sites from the region in particular Wardy Hill (Evans 2003), Dragonby (May 1996) and Fison Way (Gregory 1992). A maximum of fifteen sherds should be chosen for illustration and a full illustrated sherd catalogue produced.

6. Bibliography

- | | | |
|--------------|-------|---|
| Gregory, T., | 1992. | <i>Excavations in Thetford, 1980-1982, Fison Way, East Anglian Archaeology 53</i> |
| Hill, J.D., | 2002. | <i>'Just about the Potter's Wheel? Using, making and depositing middle and later Iron Age pots in East Anglia' in Woodward, A. and Hill, J.D. Prehistoric Britain. The Ceramic Basis. PCRG Occasional Publication 3. Oxbow. Oxford.</i> |

-
- May, J., 1998. *Dragonby: Report on Excavations at an Iron Age and Romano British settlement in North Lincolnshire. Oxbow. Oxford.*
- Prehistoric Ceramic Research Group, 1992. *Guidelines for the Analysis and Publication, PCRG, Occasional Paper 2. Revised 1997.*
- Evans, C., 2003. *Power and Island Communities: Excavations at the Wardy Hill Ringwork, Coveney, Ely. East Anglian Archaeology 103.*

Appendix 3: An Assessment of the Romano-British Pottery

By Alice Lyons

1. Introduction

A total of 1560 sherds, weighing 9.047kg (8.29 EVE) of Romano-British pottery was recovered during the excavation of the Papworth Everard Bypass. This pottery was severely abraded, with an average sherd size of only c. 6g. Some evidence of use and wear survived, but most has been destroyed by post-depositional processes (such as middening, ploughing and water damage). This pottery was part of a multi-period assemblage, both pre- and post-Roman, that was collected during this project.

The majority of datable pottery originates from the early Roman period and consist of locally produced proto-grey wares. These are utilitarian coarse ware sherds that contain a variety of inclusions (including sand, grog and flint) and are an intermediate form produced using both Iron Age and Romano-British design and technology (Lyons 2000). It is of interest that a small amount of pottery within this assemblage dates from the mid-to-late Roman period, but this material is in the minority. The ceramic evidence suggests the landscape from which this pottery was collected changed in use through out the Roman period – perhaps used less intensively after the mid 2nd century AD.

The vast majority of the Romano-British assemblage (89.83% by weight) was recovered from enclosure or boundary ditches (Table 20) in the northern part of the site. A small quantity of pottery was also recovered from pits.

Feature	Quantity	Weight (kg)	EVE	Weight (%)
Ditches	1448	8.127	7.55	89.83
Pit (or post-hole)	65	0.352	0.18	3.89
Pot contents	10	0.314	0.43	3.47
Unstratified or unallocated	28	0.227	0.13	2.51
Plough scar or furrow	7	0.019	0.00	0.21
Pond (or hollow)	2	0.008	0.00	0.09
Total	1560	9.047	8.29	100.00

Table 20. The feature types from which the assemblage was retrieved, listed in descending order of pottery weight (%).

2. Methodology

The assemblage was assessed in accordance with the guidelines laid down by the Study Group for Roman Pottery (Webster 1976; Darling 2004; Willis

2004). The total assemblage was studied and a preliminary catalogue was prepared.

The sherds were examined using a magnifying lamp (x10 magnification) and were divided into fabric groups defined on the basis of inclusion types present. The fabric codes are descriptive and abbreviated by the main letters of the title (Sandy grey ware = SGW). Vessel form was recorded. The sherds were counted and weighed to the nearest whole gram. Decoration and abrasion were also noted.

Non Romano-British pottery has been separated from this material and sent to the relevant specialists for assessment.

3. The Romano-British pottery (Table 21)

A total of twenty Romano-British pottery fabrics were recovered during this project, some in very small quantities. This assemblage mostly consists of utilitarian coarse wares, as fine and specialist wares were not common. No amphora was recorded, although a significant amount of Southern Gaulish, and one Central Gaulish sherd, of samian were retrieved. The Southern Gaulish material consisted of two plain dishes and two decorated bowls, one of which retained a crisp moulded figure of a rabbit or hare. This samian dates from the later part of the 1st century AD. The Central Gaulish sherd was in the form of a conical cup and dated to the 2nd century AD. No makers' marks were found.

The only other contemporary (early) fine ware recorded was a soft grey fabric. This material was mostly found as undiagnostic body sherds, some of which were rouletted. This material is often referred to as 'London-type ware' and is known to have been produced in the Nene Valley (Perrin 1999, 106-108) as well as other regional centres (Tomber and Dore 1998, 137; 184 and 185) between the mid 1st and mid 2nd centuries AD. Although the Nene Valley material was probably produced at Chesterton in the second quarter of the 2nd century.

The majority of the pottery consists of unsourced (but locally produced) Sandy grey wares, most of which pre-date the industrialisation of this industry (Gibson and Lucas 2002) in the mid 2nd century AD. These early Roman sherds often lack the refinement of later material and can be referred to as 'proto grey wares'. The range of forms in use at this time is limited. Medium mouthed jars are the most common vessel type; found with high-shoulders and rolled rims, everted rims and also as lid-seated variants. Wide mouthed jars are also common, as are a number of lids. A small number of external sooty residues and fume marks survive on these sherds indicating they were used near open fires, probably as cooking pots. Most of these vessels were undecorated with only mid-body single grooves and multiple fine grooves on the vessel shoulder recorded.

Fabric	Code (Appendix 1)	Vessel types	Quantity	Weight(kg)	EVE	Weight (%)
Sandy grey ware	SGW	Beaker, dish, medium and wide mouthed jars and lids.	885	4.725	4.21	52.23
Sandy oxidised ware	SOW	Bowl, medium mouthed jar and lid	373	1.189	0.30	13.14
Lower Nene Valley shell tempered ware	NVSTW	Medium and wide mouthed jars, also storage jars	16	0.704	0.20	7.78
Nene Valley white ware	NVWW	Bowls and a jar	24	0.544	0.57	6.01
Sandy reduced ware	SRW	Narrow, medium and wide-mouthed jars, also storage jars	65	0.475	0.38	5.25
Black surfaced red ware	BSRW	Narrow, medium and wide-mouthed jars	55	0.328	1.43	3.64
Stanground grey ware with orange surfaces	STAN	Lid	17	0.296	0.00	3.27
Shell tempered ware (unsourced)	STW	Medium and wide mouthed jars	22	0.174	0.28	1.92
Samian	SAM	Bowl, cup and dish	20	0.148	0.45	1.64
Fine grey ware	GW(fine)	Bowls	46	0.104	0.24	1.15
Oxidised ware with grog inclusions	OW(grog)		7	0.099	0.00	1.09
Nene Valley colour coat	NVCC	Flanged dish	4	0.087	0.12	0.97
Sandy grey ware with calcerous inclusions	SGW(cal)		6	0.059	0.00	0.65
White ware	WW		10	0.051	0.00	0.56
Nene Valley gritty white ware	NVGRITTY		3	0.025	0.00	0.27
Oxfordshire red colour coat	OXRCC		2	0.018	0.00	0.20
South Midland shell tempered ware	SMSTW	Lid	2	0.009	0.04	0.10
Nene Valley grey ware	NVGW	Jar	1	0.008	0.07	0.09
Sandy oxidised ware with micaceous inclusions	SOW(mica)		1	0.003	0.00	0.03
Colour coat (unsourced)	CC		1	0.001	0.00	0.01
Total			1560	9.047	8.29	100.00

Table 21. The Romano-British pottery quantified by fabric and listed in descending order of percentage of weight.

Sandy oxidised fabrics were the second most commonly retrieved fabric. These wares are also unsourced (but locally produced) and probably have the same origin as the Sandy grey ware fabric. Some are almost certainly mis-fired proto grey wares. Most of the sherds consisted of undiagnostic flagons (handle and base sherds were retrieved), but single examples of a lid-seated and everted rim medium mouth jar were recorded; as were a reeded rim bowl and two lids.

The Lower Nene Valley shell tempered fabric was the third most common fabric by weight (although not by sherd count). This was found mostly as large storage jar fragments, although medium and wide mouthed jars were also found. This fabric is very plain and no decoration was recorded.

Nene Valley products are well represented within this assemblage as the Shell tempered ware and White ware material demonstrate. The white wares were not found in the form of mortarium (another specialist ware not represented within this assemblage) but mostly as bowls. One almost complete example of a reeded rim bowl was found. Other Nene Valley products found in small numbers include an oxidised gritty fabric, some grey ware Stanground sherds (Cooper 1989) and a more typical Nene Valley grey ware (Perrin 1999, 78-90) fabric.

It is worthy of note however, that the Nene Valley colour coated material which is very common in this area between the late 2nd and early 5th centuries AD (Tomber and Dore 1998, 118) was only found in very small quantities within this assemblage and then only in the form of a late Roman flanged dish. Other late Roman fabrics such as Oxfordshire red colour coat (*ibid*, 175) and South Midland shell tempered wares (*ibid*, 115), are also present but only in very small quantities.

The only other fabric found in significant amounts within this assemblage are the locally produced (but unsourced) Sandy reduced wares and their mis-fired equivalent Black surfaced red wares. These fabrics were found as narrow, medium and wide mouthed jars, also as storage jars. Decoration on these vessels is rare, although some have combed designs incised up on the vessel body. No evidence for use survives on these sherds.

4. Discussion

During the Roman period, this area was located at the edge of the four main native tribal areas (*Iceni*, *Corieltavi*, *Catuvellauni* and *Trinovantes*) within northern East Anglia (Gibson and Lucas 2002, fig. 8). The settlement that deposited this pottery also lay on the route of the major north-to-south Roman road of Ermine Street (now the A1198). This would have meant that the people who lived in the settlement that deposited this pottery would have been exposed to a number of native potting traditions, while having access to a wide range of traded goods.

It must be noted, however, that this ceramic assemblage consists largely of a limited range of locally produced utilitarian coarse wares, with a lesser range of domestic fine wares and a small amount of imported samian. This is restricted supply is however typical for a low order rural site in northern East Anglia (Evans 2003, 105).

Moreover in recent years this locality has also been the centre of much archaeological activity, with large sites explored along the route of the A428 immediately to the south of the Papworth Everard site. These sites were located between Caxton-to-Hardwick (Lyons forthcoming); at Cambourne (Seager-Smith 2003) and at Love's Farm near St. Neot's (Lyons in prep). These sites generally represent the high Romano period between the 2nd and 4th centuries, however a late Iron Age site transitional with the Early Roman period was found at Caldecote Highfields, just south of the A428 (Sealey forthcoming). While the recently excavated site at Hinchingsbrooke, near Huntingdon (Lyons in prep) is also a good example of another Early Roman site in the vicinity with which this material could be compared.

Other early pottery manufacture in the region is known at Cherry Hinton to the south-east of Cambridge (Evans 1990, 18-29); at Milton north-east of Cambridge (Hull and Pullinger 1999, 141-142, fig VII.I) and a little further a field at Coldham Clamp north of March (Potter 1965, 12-37).

This period of interchange between the late Iron Age and Early Roman eras is one of the least understood of the ceramic periods (Bryant 2000, 14-15). Moreover the Romano-British pottery from this site reflects a particularly interesting stage of ceramic development when the Iron Age potting traditions are being replaced, but the domestic industrialisation of the high Roman period has not yet begun. Of this period Going says:

"By the end of the Iron Age and the coming of the Romans, the British begin to enter history. Now, something of the territories of at least four of the principal tribes of the region (the Catuvellauni, the Coritani/Corieltauvi, the Icenii and the Trinovantes) is known from numismatics and from historical sources but of smaller groupings we know next to nothing. The initial relationships between the indigenous peoples and the newly-arrived Romans ranged from the cordial to the murderous, and their cultural links with and susceptibility to Romanitas — at least as exemplified by material finds — ranges from extensive to slight." (Going 1997, 35).

Analysis of this ceramic assemblage is relevant to the research aims of this region and will add to our understanding of this transitional period in north-west Cambridgeshire.

5. Recommendation for further work

- To integrate the final spot dates of the handmade material into the Roman catalogue to refine dating (0.25 day).
- To assign the pottery to vessel type and compare this pottery to material previously excavated in the area (1 day).
- To search the Cambridge Sites and Monuments Record for possible locations of near-by pottery manufacture (0.25 day).
- To place this pottery in the context of the site (0.5 day).
- Prepare a short illustration catalogue (0.5 day)
- Prepare a publication text (1 day).

6. Bibliography

- | | | |
|-------------------------------|-------------|--|
| Bryant, S., | 2000 | <i>'The Iron Age' in Research and Archaeology: A framework for the Eastern Counties 2. research agenda and strategy</i> |
| Cooper, N., | 1989 | <i>A Study of Roman pottery from the Lower Nene Valley kiln site at Park Farm, Stanground, near Peterborough, Cambs. Journal of Roman Pottery Studies. Volume 2</i> |
| Darling, M. J., | 2004 | <i>'Guidelines for the Archiving of Roman Pottery'. Journal of Roman Pottery Studies Vol 11</i> |
| Evans, J., | 1990 | <i>'The Cherry Hinton finewares' J. Roman pottery Stud. 3, 18-29</i> |
| Evans, J., | 2003 | <i>'The Later Iron Age and Roman Pottery' in Hinman, M., A Late Iron Age Farmstead and Romano-British Site at Haddon, Peterborough, BAR British Series 358</i> |
| Gibson, D. and Lucas, G., | 2002 | <i>'Pre-Flavian kilns at Greenhouse Farm and the social context of early Roman pottery production in Cambridgeshire', Britannia 33, 95-128</i> |
| Going, C., | 1997 | <i>Roman' in Glazebrook, J., (ed) Research and Archaeology: a Framework for the Eastern Counties, 1. resource assessment, East Anglian Archaeology Occasional Paper 3</i> |
| Hull, M.R. and Pullinger, J., | 1999 | <i>'The Roman pottery', in Alexander, J. and Pullinger, J., Roman Cambridge: excavations on Castle Hill 1956-1988, Proc. Cambridge Antiq. Soc. 88, 141-144</i> |
| Lyons, A.L., | Forthcoming | Appendix 15. The Roman Pottery (on the CD-ROM) in Abrams, J. and Ingham, D., <i>'Farming on the edge: archaeological remains on the clay uplands to the west of Cambridge'</i> , EAA |
| Lyons, A.L., | In prep | <i>'The Roman Pottery' in Hinman, M., Love's Farm, Cambridgeshire, Cambridgeshire County Council Archaeological Field Unit (CAM ARC)</i> |
| Lyons A. L., | 2000 | <i>'The Roman Pottery' in Bates, S., Excavations at Quidney Farm, Saham Toney, Norfolk 1995, Britannia. Volume XXXI 201-237</i> |
| Perrin, J.R., | 1999 | <i>Roman Pottery from Excavations at and near to the Roman Small Town of Durobrivae, Water Newton, Cambridgeshire, 1956-58, J. Roman Pottery Stud. 8</i> |
| Potter, T., | 1965 | <i>The Roman Pottery from Coldham Clamp and its affinities, Proc. Camb. Ant. Soc. Vol. LVIII, 12-37</i> |
| Seager-Smith, R., | 2003 | <i>'The Roman Pottery' in Gardiner, J., (ed) Cambourne New Settlement, Cambridgeshire, Wessex Archaeology (unpubl. rep. 45973.1)</i> |
| Sealey, P. R., | Forthcoming | <i>Reports on the Late Iron Age pottery and Fired Clay, Roman Pottery and Roman Brick and tile from Caldecote Highfields, in Kenney, S., 'A Banjo Enclosure and Roman Farmstead: Excavations at Caldecote Highfields, Cambridgeshire', Proc. Cambridge Antiq. Soc.</i> |
| Tomber, R and | 1998 | <i>The National Roman Fabric reference collection, A Handbook.</i> |

Appendix 4: The Animal Bone

By Chris Faine

1. Animal bone

The assemblage consists of 766 fragments of which 242 are identifiable to species (31% of the total sample). The condition of the bones is quite poor, with the majority of elements being extremely porous and fragmented. This is due to both butchery and environmental factors. The assemblage is dominated by domestic mammals, with cattle being the most prevalent (38.5% of the identifiable sample) along with lesser numbers of Sheep/Goat and Pig (7.4% and 6.6% of the sample respectively). Interestingly horse is the second most prevalent species, both in terms of individual fragments (27.3% of the sample) and minimum number of individuals (18.3%). Further work will clarify whether this is due to preservation bias i.e. the more robust larger mammal elements surviving better than those of smaller taxa. A number of adult and juvenile dogs (some quite large) were also recovered, most often in conjunction with butchered cattle remains. Wild mammals are represented by quantities of red and roe deer antler, along with some fragmentary post-cranial elements. These are largely confined to two or three contexts.

Although the identifiable assemblage is relatively small, there remains some small potential for some further work, both in terms of comparing animal use strategies between the Iron Age and Romano-British phases of the site, and examining the assemblage within a wider geographical context (i.e. Love's Farm, the A428 improvements etc).

Appendix 5: Metal Objects

By Chris Montegue

Small find number	Context Number	Feature Type	Description
1	Metal detected		Cu. Roman coin of the Ass denomination - Titus - Nero, possibly Vespasian era, portrait is facing to the right, coin dates to 70 - 100 AD
2	Metal detected		Cu. Harness ring 16th - 18th C.
3	Metal detected		Cu. Crotal Bell frag 17th - 18th C.
4	Metal detected		Cu. Roman coin. House of Constantine (Constantinopolis) c.360 - 380 AD
5	Metal detected		Cu. Small medieval buckle (possibly from a garter - pin missing), late 13th - early 14th C.
6	Metal detected		Cu. Shoe press stud - buckle. 17th - 18th C.
10	1348	Ditch	Cu. Roman coin of the Ass denomination - Titus - Nero era, portrait is facing to the left coin dates to 70 - 100 AD
11	1469	Ditch	Fe. Building nail 19 th - 20th C.
13	1469	Ditch	Fe. Fragment of building suspension hook / farm machinery 18-19th C.
15	1477	Furrow	Fe. Box fitting 18th - 19th C.
16	2124	Ditch	Fe. Building nail 18 th - 19th C.
19	1152	Ditch	Fe. Object of uncertain nature 19th C.
20	1308	Ditch	Fe. Nail fragment, building nail, 18th - 19th C.
21	1350	Ditch	Fe. Fragment of Knife Blade, whittle and tang c. 50% missing 17th - 18th C.
22	1262	Ditch	Fe. Building nail fragment 18th - 19th C.
23	1070	Ditch	Fe. Fragment of farm hand tool - possibly a sickle / sythe, 17th - 18th C.
24	1211	Plough Scar	Fe. Nail fragment, building nail, 18th - 19th C.
25	1298	Ditch	Fe. Building nail 18 th - 19th C.
26	1292	Ditch	Fe. Small ring - possible small nail, 18th - 19th C.
100	1125	Pond / natural hollow	Cu. Bronze Dross (from metal working of coins / jewelery etc.)

Table 22: Catalogue of Metal object finds

Appendix 6: Assessment Of Environmental Evidence.

1. AN ASSESSMENT OF THE CHARRED PLANT MACROFOSSILS AND OTHER REMAINS.

By Val Fryer

1.1 Introduction and method statement

Excavations along the route of the Papworth bypass, undertaken by the Cambridgeshire Archaeology Field Unit (CAMARC), revealed a number of Bronze Age cremation burials and a small number of other discrete features of Bronze Age and Roman date. Samples for the retrieval of the plant macrofossil assemblages were taken from across the excavated area. The samples were bulk floated by CAMARC and the flots were collected in a 500 micron mesh sieve. Flots were air dried prior to sorting. An initial evaluation of the flots, undertaken by CAMARC, highlighted a total of thirty eight (thirty from cremation deposits and eight from other features) which, because of their plant macrofossil content, merited full assessment.

Material within these thirty eight assemblages was scanned by the author under a binocular microscope at magnifications up to x 16, and the plant macrofossils and other remains noted are listed on Tables 23 and 24(a-c). Nomenclature with the tables follows Stace (1997). All plant remains were charred. Modern contaminants, including fibrous roots, seeds and abundant arthropod remains, were present throughout.

1.2 Results

With the exception of charcoal/charred wood fragments, plant macrofossils were comparatively scarce within most of the assemblages studied; cereal grains and seeds/tubers were recorded, but often as single specimens within an assemblage. Preservation was generally good, although some specimens were puffed and/or distorted, probably as a result of combustion at high temperatures.

The assemblages from the Bronze Age cremations (Table 24(a-c)) were relatively sparse, although tubers of onion couch (*Arrhenatherum* sp.) type did occur within all but three of the samples studied. Seeds/fruits of grasses and grassland herbs, including indeterminate small legumes (Fabaceae), goosegrass (*Galium aparine*), persicaria (*Persicaria maculosa/lapathifolia*) ribwort plantain (*Plantago lanceolata*) dock (*Rumex* sp.) and vetch/vetchling (*Vicia/Lathyrus* sp.), were also recorded along with three very poorly preserved cereal grains. Three samples (69, 70 and 160) contained wetland plant macrofossils including spike-rush (*Eleocharis* sp.) fruits and blinks (*Montia fontana*) seeds. Charcoal/charred wood fragments were common or

abundant throughout, along with indeterminate root, rhizome or stem fragments. Other plant macrofossils included indeterminate buds, thorns and tuber fragments. Although burnt bone fragments were present within all thirty of the cremation deposits, other materials occurred very infrequently, with the fragments of black porous and tarry material possibly being residues of the cremation processes.

Of the eight samples taken from non-cremation deposits (Table 2), only three contained assemblages of note. A Late Bronze Age pit (sample 149) produced an assemblage which was very similar in composition to the cremation deposits, containing a low density of seeds of grassland herbs. Sample 18, from the fill of a first to second century A.D. enclosure ditch (context [1327]), contained a small number of weed seeds, most notably those of black bindweed (*Fallopia convolvulus*), dock and indeterminate small legumes. The origin of this material is uncertain, but it may possibly be indicative of a small deposit of waste generated during the final cleaning of a batch of grain prior to consumption. Sample 19, from Early Roman ditch [1338] contained a small assemblage of terrestrial snail shells, most notably those of species common within short-turfed grassland habitats.

1.3 Conclusions and recommendations for further work

In summary, the assemblages from the Bronze Age cremation deposits are almost certainly derived from both uprooted plant materials gathered for used as kindling or fuel and from plants burnt *in situ* beneath the pyres. Similar assemblages have been noted from a number of contemporary cremation deposits from sites excavated throughout Lowland Britain. The material from Papworth appears to indicate that grassland conditions were locally prevalent throughout the Bronze Age period, with only very limited evidence for marginal damp grassland habitats, nearby agricultural activity or incursive scrub growth. Analysis of the charcoal/charred wood present within the assemblages may give some indications about other local resources available within the Papworth area during the Bronze Age, although such analysis may be limited by the generally small size of the material available.

As none of the assemblages contain sufficient material for quantification (i.e. 100+ specimens), no further analysis other than that mentioned above is recommended.

Sample No.	2	18	19	45	149	174	176	180
Context No.	1095	1328	1325	1979	2026	2133	2116	2158
Feature No.	1096	1327	1338	1981		2134	2117	2159
Feature type	Ditch	E.ditch	Ditch	Pit	Pit	Pit	Dump	Pit
Date	C1-3	C1-2	C1-2	U/D	LBA	BA	BA	BA
Food plants								
Large Fabaceae indet.		x						
Herbs								
<i>Anthemis cotula</i> L.		x						
<i>Arrhenatherum</i> sp. (tubers)						x	x	x
Brassicaceae indet.		x						
<i>Chenopodium album</i> L.		x						
Chenopodiaceae indet.					x			
Fabaceae indet.		xx			xx			
<i>Fallopia convolvulus</i> (L.)A.Love		xx xxtf			x			
<i>Galium aparine</i> L.		x			x			
<i>Persicaria maculosa/lapathifolia</i>					x			
Small Poaceae indet.		x						
Large Poaceae indet.				x				
<i>Polygonum aviculare</i> L.					x			
<i>Rumex</i> sp.		xx						
<i>R. acetosella</i> L.		x						
<i>Vicia/Lathyrus</i> sp.					x			
Tree/shrub macrofossils								
<i>Prunus</i> sp. (fruit stone frags.)						x		
<i>Rubus</i> sp				x				
Other plant macrofossils								
Charcoal <2mm	xxxx	xxx	xx	xxxx	xxx	xxxx	xxx	xxxx
Charcoal >2mm	x			xx		x		
Charred root/stem		x			x	x	x	xx
Indet.seeds	x	x	x		x			
Indet.tuber								x
Mollusc shells								
Woodland/shade loving species								
<i>Carychium</i> sp.			xx					
Zonitidae indet.			x					
Open country species								
<i>Helicella itala</i>			x					
<i>Pupilla muscorum</i>			xx					
<i>Vallonia</i> sp.			xx					
<i>V. costata</i>			x					
<i>V. pulchella</i>			x					
<i>Vertigo</i> sp.			x					
<i>V. pygmaea</i>			x					
Catholic species								
<i>Cochlicopa</i> sp.			x					
<i>Trichia hispida</i> group			xx					
Other materials								
Black porous 'cokey' material		x		x	x			
Black tarry material				x				x
Bone	x					xb	xb	xb
Sample volume (litres)	10	0.1	10	10	20	10	5	10
Volume of flot (litres)	<0.1	<0.1	<0.1	0.1	<0.1	0.1	<0.1	<0.1
% flot sorted	100%	100%	100%	100%	100%	100%	100%	100%

Sample No.	42	58	59	69	70	72	80	81	83	84	105	117
Context No.	1722	1784	1786	1839	1858	1854	1875	1875	1868	1869	1871	1953
Feature No.	1724	1787	1787	1840	1859	1855	1876	1876	1872	1872	1872	1910
Cereals												
Cereal indet.(grains)							xcf					
Herbs												
<i>Arrhenatherum</i> sp. (tubers)	x				x	x	x	x	x	xx	x	x
Fabaceae indet.							x					
<i>Galium</i> sp.							x					
<i>G. aparine</i> L.								x				
<i>Persicaria maculosa/lapathifolia</i>							x					
<i>Plantago lanceolata</i> L.					x							
Small Poaceae indet.					xcf							
Large Poaceae indet.				x								
<i>Polygonum aviculare</i> L.								x				
<i>Valerianella dentata</i> (L.)Pollich												xcf
<i>Vicia/Lathyrus</i> sp.												x
Wetland plants												
<i>Eleocharis</i> sp.				x								
<i>Montia fontana</i> L.				x								
<i>Sparganium erectum</i> L.					xcf							
Other plant macrofossils												
Charcoal <2mm	xxxx	xxxx	xxxx	xxxx	xxx	xxx	xxxx	xxx	xxx	xxxx	xxxx	xxxx
Charcoal >2mm	x	x	X	x	x	x			x	x	x	x
Charred root/stem		x	X		xx	x	xx	xxx	x	xxx	xx	x
Indet.seeds		x			x			x		x		
Indet.thorn (<i>Prunus</i> type)									x	x		
Indet.tubers			X					x	x	x		x
Other materials												
Black porous 'cokey' material					x							
Black tarry material				x	x		x					
Bone	xxxb	xxxb	xxb	xxb	xb	xb	xxb	xxb	xb	xxb	xxb	xxb
Burnt/fired clay											x	
Burnt stone				x	x							x
Pottery	xcf											
Sample volume (litres)	25	50	50	100	20	10	20	30	20	25	15	20
Volume of flot (litres)	<0.1	0.1	0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
% flot sorted	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table on previous page;

Table on this page;

Table 23: Plant macrofossil Remains From None
cremation deposits

Table 24a: Plant macrofossil Remains from
cremation deposits (Samples 42 – 117).

Sample No.	122	124	128	135	141	142	146	156	159	160	161
Context No.	1988	1990	1996		2065	2066	2074	2037	2042	2046	2047
Feature No.	1991	1991	1997	1910	2067	2067	2075	2094	2043	2048	2048
Cereals											
<i>Triticum</i> sp. (grain)			xcf							xcf	
Herbs											
<i>Anisantha sterilis</i> L.	xcf										
<i>Arrhenatherum</i> sp. (tubers)	xcf	xcf	x	Xcf	x	x	x	x	x	x	x
Fabaceae indet.					x					xcf	
Small Poaceae indet.							x				
<i>Rumex</i> sp.							x	x			
<i>Vicia/Lathyrus</i> sp.				Xcf	x						
Wetland plants											
<i>Eleocharis</i> sp.										x	
Other plant macrofossils											
Charcoal <2mm	xx	xxxx	xxxx	Xxxx	xxxx	xxx	xxxx	xxxx	xx	xxx	xxxx
Charcoal >2mm			x	X	x	x		x	x	x	x
Charred root/stem		x	x	X		x	x	xx	x	x	x
Indet.buds		x									
Indet.inflorescence frags.								x			
Indet.seeds	x			X	x				x		
Indet.tubers		x	x	X	x	x	x			x	
Other materials											
Black porous 'cokey' material				X			x				
Bone	xxb	xb	xb	Xb	xb	xb	xxxxb	xxb	xxb	xxb	xxb
Burnt/fired clay		x						x			
Sample volume (litres)		20	80	120	140	220	30	25	10	10	15
Volume of flot (litres)	<0.1	<0.1	0.1	0.1	0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
% flot sorted	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 24b: Plant macrofossil Remains from cremation deposits (Samples 122 – 161)

Sample No.	162	163	197	200	201	203	206
Context No.	2044	2095	2139/2255	2256	2096	2098	2134
Feature No.	2045	2039	2049/2257	2257	2099	2099	2185
Herbs							
<i>Arrhenatherum</i> sp. (tubers)	x	x	x	xx	x	xx	x
<i>Medicago/Trifolium/Lotus</i> sp.					xcf		
Small Poaceae indet.				x	x		
Large Poaceae indet.			xcffg				
Other plant macrofossils							
Charcoal <2mm	xxx	xx	xxx	xxxx	xxx	xxxx	xxxx
Charcoal >2mm	x					x	
Charred root/stem	x	xx	x	x	x	x	x
Indet.seeds				x	x		
Indet.tubers				x		x	
Other materials							
Black porous 'cokey' material	x						
Black tarry material			x				
Bone	xxxb	xb	xb	xxxb	xb	xxxb	xxb
Burnt/fired clay							x
Burnt stone					x		
Sample volume (litres)	30	10	80	140	120	100	20
Volume of flot (litres)	<0.1	<0.1	<0.1	0.1	<0.1	0.1	0.1
% flot sorted	100%	100%	100%	100%	100%	100%	100%

Table 24c: Plant macrofossil Remains from cremation deposits (Samples 162 – 206)

Key to Tables

x = 1 – 10 specimens xx = 10 – 50 specimens xxx = 50 – 100 specimens xxxx = 100+ specimens

cf = compare b = burnt fg = fragment E.ditch = Enclosure Ditch

C = century U/D = undated BA = Bronze Age LBA = Late Bronze Age

1.4 Reference

Stace, C., 1997 *New Flora of the British Isles*. Second edition.
Cambridge University Press

2. Pollen Analysis of Sediments from Papworth Bypass

By Steve Boreham

2.1 Introduction

This report presents the results of pollen analyses from five samples of sediment taken from three channel features at Papworth, Cambridgeshire.

Section A was 260cm long, and was located in the deepest part of a palaeochannel sequence located between TL28443 62070 & TL28512 62042 close to the floor of a small valley. The sequence comprised a basal band of chalky pebbles (0-2cm) overlying grey glacial till, and overlain by a grey/brown silty sand (2-24cm). A thin band of light grey/brown sandy silt (24-25cm) was sampled for pollen (24.5cm). Above this there was a unit of mottled grey/brown silty sand (25-45cm), with a band of silt with pebbles at 45-46cm, from which a pollen sample was taken at 45cm. This was overlain by orange/brown sand with occasional pebbles (45-115cm). Above this, orange/grey/brown silty medium sand with flint fragments continued (115-225cm) to the base of the ploughsoil (225-260cm).

Section B was described through a small valley-fill sequence 165cm thick, and was located at TL27805 62494. It comprised grey glacial till (0-26cm), overlain by mottled orange/brown sand with pebbles (26-57cm). This was overlain by a grey/brown sandy silt unit (57-70cm) from which a pollen sample was taken at 60cm. Above this, orange/brown silty sand (70-140cm) continued to the base of the ploughsoil (140-165cm).

Section C was 135cm long, and was located in a channel-fill sequence at the foot of a slope at TL27873 62923. It comprised grey glacial till overlain by orange/brown sand (0-25cm). A thin band of grey/brown sandy silt (25-26cm) was sampled for pollen at 25.5cm. This was overlain by a unit of mottled orange/brown sand with pebbles (26-42cm) and an orange brown silty sand unit (42-65cm). Above this, grey/brown sandy silt (65-90cm), sampled for pollen at 70cm, continued to the base of the ploughsoil (removed) (90-135cm).

The five samples were prepared using the standard hydrofluoric acid technique, and counted for pollen using a high-power stereo microscope. The percentage pollen data from these 5 samples is presented in Table 25.

2.2 Pollen Analyses

All five samples had extremely low pollen concentrations and were effectively barren, with pollen concentrations between 200 and 2000 grains per ml. Preservation of the few palynomorphs discovered was rather poor, having been subjected to oxidation. The statistically desirable total of 300 pollen grains was clearly not achieved from assessment counts of one slide for

these samples, and extreme caution must be exercised in drawing any conclusions from the percentage pollen data presented in Table 25.

Papworth Bypass					
Percentage pollen data	PBP	PBP	PBP	PBP	PBP
	Sec A	Sec A	Sec B	Sec C	Sec C
	24.5cm	45cm	60cm	25.5cm	70cm
Pinus	0	0	0	0	50
Corylus	0	0	0	16.7	0
Poaceae	100	0	100	50	0
Cereals	0	0	0	0	50
Pteropsida (monolete) undif.	0	100	0	16.7	0
Pteropsida (trilete) undif.	0	0	0	16.7	0
Concentration (grains per ml)	427	411	232	1942	411
Main Sum	1	1	1	6	2

Table 25 Percentage pollen data from Papworth Bypass

2.2.1 Papworth Bypass Sections A, B & C

The single grass pollen grains encountered in Section A 24.5cm and Section B 60cm, might tentatively suggest that these sediments date from post-clearance times. The ubiquitous resistant monolete spore encountered in Section A 45cm cannot be interpreted at all. The most tantalising glimpse of a pollen signal comes from Section C 25.5cm, where hazel, grass and fern spores were encountered. This might again originate from a post-clearance landscape with grassland and hazel scrub. Section C 70cm produced pine and cereal pollen. Pine is so widespread that little can be said about its presence, but cereal pollen is at least consistent with the idea that these channels are post-clearance rather than immediately post-glacial features.

2.3 Discussion & Conclusions

It is hard to draw a positive conclusion from this rather unsuccessful attempt to extract pollen from unpromising and somewhat oxidised palaeochannel slopewash deposits. All that can be said is that there is a hint that these palaeochannels may have been active as a result of woodland removal and soil disturbance in the catchment in post-clearance times (Late Neolithic, Bronze Age or later).

3. Residues Sorted From Environmental Samples

By Rachel Fosberry

Sample No.	Context No.	Cut No.	Residue comments	Feature Type	Comments	Small animal bones	Large animal bones	Snails from residue	Pottery	CBM	Metal	Burnt flint	Flint debitage
1	1074	1076	Complete residue retained - all burnt flint	pit	charcoal rich layer	0	0	0	0	0	0	+++	0
2	1095	1096		ditch		0	+	0	0	0	0	0	0
3	1097	1099	no artefacts	ditch	contamination with fill 1098	0	0	0	0	0	0	0	0
4	1102	1086		pond	bottom of pond	0	0	0	0	0	0	0	+
5	1186	1187		ditch		0	0	++	0	0	0	0	+
6	1188	1189		ditch		0	0	++	0	0	0	0	0
7	1196	1198		ditch	Sampled for molluscs	0	0	++	0	0	0	0	0
8	1215	1217		ditch		0	+	+	+	0	0	0	0
9	1247	1250	no artefacts	ditch		0	0	0	0	0	0	0	0
10	1248	1250	no artefacts	pit		0	0	0	0	0	0	0	0
11	1249	1250	10ml charcoal	ditch		0	0	0	0	0	0	0	0
12	1253	1254	stone	pit		0	0	+	0	0	0	0	0
13	1269	1270		ditch		0	+	0	0	0	0	0	0
14	1271	1272		ditch		0	+	0	0	0	0	0	0
15	1267	1268		ditch		0	+	+	0	0	0	0	0
16	1265	1266		Ditch		0	0	+	0	0	?fe	0	0
17	1282	1283		pit	no finds from excavation	0	+	0	0	0	0	0	0
18	1328	1327	no artefacts	ditch	fill in almost complete pot	0	0	0	0	0	0	0	0
19	1325	1338		ditch		0	+	+	0	0	0	0	+
20	1370	1371	no artefacts	ditch		0	0	0	0	0	0	0	
21	1326	1327	no artefacts	ditch	from around pot SF 008 - see <18>	0	0	0	0	0	0	0	0
22	1372	1327	no artefacts	ditch	from around pot SF 008 - see <18>	0	0	0	0	0	0	0	0
23	1396	1397	no artefacts	pit		0	0	0	0	0	0	0	0
24	1369	1371		ditch		0	0	0	0	0	0	0	0
25	1422	1423		pit		0	+	0	0	0	0	0	0
26	1433	1434		ditch		0	+	+	0	0	0	0	0

Sample No.	Context No.	Cut No.	Residue comments	Feature Type	Comments	Small animal bones	Large animal bones	Snails from residue	Pottery	CBM	Metal	Burnt flint	Flint debitage
27	1392	1393	no artefacts	ditch		0	0	0	0	0	0	0	0
28	1431	1393		ditch		0	+	+	+	0	0	0	0
29	1394	1395	no artefacts	ditch		0	0	0	0	0	0	0	0
30	1432	1395	no artefacts	ditch		0	0	0	0	0	0	0	0
31	1452	1453	no artefacts	post hole		0	0	0	0	0	0	0	0
32	1524	1525	hsr	grave		0	0	0	0	0	0	0	0
33	1218	1219	poss hsr	post hole		0	0	0	0	0	0	0	0
34	1527	1528	glass fragement. HSR	grave		0	0	0	0	0	0	0	0
35	1567	1569		pit		0	++	0	0	0	0	0	+
36	1660	1661	no artefacts	ditch		0	0	0	0	0	0	0	0
37	1711	1712	no artefacts	ditch		0	0	0	0	0	0	0	0
38	1701	1702	no artefacts	ditch		0	0	0	0	0	0	0	0
39	1707	1708	no artefacts	ditch		0	0	0	0	0	0	0	0
40	1720	1724	HSR 30g	cremation		0	0	0	0	0	0	0	0
41	1721	1724	HSR 150g	pit		0	0	0	++	0	0	0	0
42	1722	1724	HSR 501g	pit		0	0	0	0	0	0	0	0
43	1723	1724	HSR 1g	pit		0	0	0	+++	0	0	0	0
44	1737	1738	5ml charcoal	post hole		0	++	0	0	0	0	0	0
45	1739	1740	80ml charcoal	pit		0	0	0	0	0	0	0	+
46	1741	1744	HSR 1g	cremation		0	0	0	+	0	0	0	0
47	1765	1767	no artefacts	pit		0	0	0	0	0	0	0	0
48	1766	1767		pit		0	0	0	0	0	0	++	0
49	1778	1780	no artefacts	pit		0	0	0	0	0	0	0	0
50	1779	1780	no artefacts	pit		0	0	0	0	0	0	0	0
51	1743	1744	HSR 2g	cremation		0	0	0	+	+	0	0	+
52	1742	1744	no artefacts or bone	cremation		0	0	0	0	0	0	0	0
53	1763	1764	HSR 56g	cremation		0	0	0	+	0	0	0	+
54	1781	1782	HSR 288g	cremation		0	0	0	0	0	0	0	+
55	1797	1798		ditch		0	0	0	0	0	0	0	+
56	1810	1801		ditch		0	0	+	0	0	0	0	0
57	1783	1787	HSR 18g	cremation		0	0	0	++	0	0	0	0
58	1784	1787	HSR 234g	cremation		0	0	0	++	0	0	0	0
59	1786	1787	HSR 178g	cremation		0	0	0	++	0	0	0	0

Sample No.	Context No.	Cut No.	Residue comments	Feature Type	Comments	Small animal bones	Large animal bones	Snails from residue	Pottery	CBM	Metal	Burnt flint	Flint debitage
60	1785	1787	HSR 454g	cremation		0	0	0	++	0	0	0	0
61	1823	1826	no artefacts or bone	pit		0	0	0	0	0	0	0	0
62	1824	1826	tiny frags burnt bone	pit		0	0	0	0	0	0	0	0
63	1825	1826	no artefacts	pit		0	0	0	0	0	0	0	0
64	1841	1845	HSR 635g	pit		0	0	0	0	0	0	+	0
65	1842	1845	HSR 3g	pit		0	0	0	+	0	0	0	+
66	1843	1845	HSR 56g	pit		0	0	0	+	0	0	0	+
67	1844	1845		pit		0	0	0	0	0	0	0	0
68	1856	1857	?hsr	pit		0	+	0	+	0	0	0	0
69	1839	1840	HSR 22g	cremation		0	0	0	+	0	0	0	0
70	1858	1859	HSR 94g	cremation		0	0	0	+	0	0	0	0
71	1829	1830	no artefacts	ditch		0	0	0	0	0	0	0	0
72	1854	1855	16g burnt bone, large lumps charcoal	pit		0	+	0	++	0	0	0	0
73	1865	1867	burnt bone	pit		0	+	0	0	0	0	0	0
74	1866	1867		pit		0	+	0	0	0	0	+	0
75	1862	1864	no artefacts	post hole		0	0	0	0	0	0	0	0
76	1863	1864		post hole		0	0	0	0	0	0	0	+
77	1874		HSR 74g	cremation		0	0	0	0	0	0	0	0
78	1879	1881	HSR 3g	cremation		0	0	0	+	0	0	0	+
79	1880	1881	HSR 115g	cremation		0	0	0	++	0	0	0	0
80	1875	1876	HSR 86g	cremation		0	0	0	0	0	0	0	0
81	1875	1876	HSR 148g	cremation		0	0	0	0	0	0	0	+
82	1884	1885	80ml charcoal	cremation		0	0	0	0	0	0	0	+
83	1868	1872	HSR 12g	cremation		0	0	0	++	0	0	0	0
84	1869	1872	HSR 533g	cremation		0	0	0	+++	0	0	0	0
85	1886	1890	HSR 116g	cremation		0	0	0	0	0	0	0	+
86	1887	1890	HSR 301g	cremation		0	0	0	0	0	0	0	0
87	1888	1890	HSR 486g	cremation		0	0	0	0	0	0	0	0
88	1889	1890	HSR 3g	cremation		0	0	0	0	0	0	0	0

Sample No.	Context No.	Cut No.	Residue comments	Feature Type	Comments	Small animal bones	Large animal bones	Snails from residue	Pottery	CBM	Metal	Burnt flint	Flint debitage
89	1860	1861	HSR 3g	cremation		0	0	0	+	0	0	0	0
90	1877	1861	HSR 9g	cremation		0	0	0	0	0	0	+	0
91	1882	1883	HSR 1g	cremation		0	0	0	+	0	0	0	0
92	1900	1903	HSR 245g	cremation		0	0	0	+	0	0	0	0
93	1905	1906		pit		0	0	0	0	0	0	+++	0
94	1899	1903	HSR 4g	cremation		0	0	0	+	0	0	0	0
95	1900	1903	HSR 675g	cremation		0	0	0	0	0	0	0	+
96	1901	1903	HSR 11g	cremation		0	0	0	0	0	0	0	0
97	1891	1892	HSR 3g	cremation		0	0	0	0	0	0	0	0
98	1893	1894	HSR 9g	cremation		0	0	0	+	0	0	0	0
99	1895	1896	HSR 8g	cremation		0	0	0	+	0	0	0	0
100	1896	1898	HSR 182g	cremation		0	0	0	++	0	0	0	0
101	1897	1898	HSR 4g	cremation		0	0	0	+	0	0	0	0
102	1913	1916	HSR 2g	cremation		0	0	0	+	0	0	0	0
103	1914	1916		cremation		0	0	0	0	0	0	0	0
104	1912	1883	HSR 102g	pit		0	0	0	++	0	0	0	+
105	1871	1872	HSR 62g	pit		0	0	0	++	0	0	0	0
106	1922	1925	HSR <1g	cremation		0	0	0	0	0	0	0	0
107	1923	1925	worked bone, HSR 38g	cremation		0	+	0	+	0	0	0	0
108	1932	1934	no artefacts	ditch		0	0	0	0	0	0	0	0
109	1915		?hsr 7g	pit		0	0	0	+	0	0	0	0
110	1955	1957	burnt bone	pit		0	0	0	0	0	0	0	+
111	1956	1957	no artefacts	pit		0	0	0	0	0	0	0	0
112	1962	1894	HSR 3g			0	0	0	0	0	0	0	0
113	1781	1782	HSR 11g	pit		0	0	0	0	0	0	0	0
114	1974	1976		pit		0	0	0	0	0	0	0	0
115	1975	1976	100ml charcoal	pit		0	+	0	0	0	0	0	0
116	1977	1978	HSR 40g	pit		0	0	0	0	0	CuA fragm ent	0	0
117	1953	1910	HSR4g	cremation		0	0	0	0	0	0	0	0
118	1963	1965	burnt bone	ash dump		0	0	0	0	0	0	0	0

Sample No.	Context No.	Cut No.	Residue comments	Feature Type	Comments	Small animal bones	Large animal bones	Snails from residue	Pottery	CBM	Metal	Burnt flint	Flint debitage
119	1964	1965	charcoal 40ml	ash dump		0	0	0	0	0	0	0	0
120	1982	1985	pot with hole	pit		0	+++	0	+	0	0	0	0
121	1983	1985		pit		0	+++	0	0	0	0	0	0
122	1988	1991	HSR 19g	cremation		0	0	0	0	0	0	0	0
123	1989	1991	HSR 646g	cremation		0	0	0	0	0	0	0	0
124	1990	1991	HSR 15g	cremation		0	0	0	++	0	0	0	0
125	1992	1994		ash dump		0	0	0	0	0	0	0	+
126	1993	1994	HSR 3g	ash dump		0	0	0	0	0	0	0	0
127						0	0	0	0	0	0	0	0
128	1996	1997	HSR 65g	ash dump		0	0	0	+	0	0	0	0
129	1986	1987	HSR 460g	cremation		0	0	0	++	0	0	0	0
130	1979	1981	no artefacts	pit		0	0	0	0	0	0	0	0
131	1908	1910	HSR 26g	cremation		0	0	0	0	0	0	0	0
132	1909	1910		cremation		0	0	0	0	0	0	0	0
133	1917	1910	HSR 17g	cremation		0	0	0	+	0	0	0	0
134	1954	1910	HSR 6g	cremation		0	0	0	+	0	0	0	0
135		1910	HSR 25g	cremation		0	0	0	0	0	0	0	+
136	2011	2012	tiny frags burnt bone	pit		0	0	0	0	0	0	0	0
137	1933	1934	no artefacts	ditch		0	0	0	0	0	0	0	0
138	1939	1940		ditch		0	0++	0	0	0	0	0	0
139	2054	2056	no artefacts	ditch		0	0	0	0	0	0	0	0
140	2055	2056		ditch		0	0	0	0	0	0	0	+
141	2065	2067	HSR 16g	pit		0	0	0	0	0	0	0	0
142	2066	2067	HSR 5g	pit		0	0	0	0	0	0	0	0
143	2070	2072		pit		0	0	0	0	0	0	0	0
144	2071	2072	HSR 235g	pit		0	0	0	0	0	0	0	0
145	2073	2075		pit		0	0	0	0	0	0	0	0
146	2074	2075	HSR 1102g	cremation		0	0	0	0	0	0	0	0
147	2003	2005	no artefacts	ditch		0	0	0	0	0	0	0	0
148	2004	2005	no artefacts	ditch		0	0	0	0	0	0	0	0
149	2026			ditch		0	0	0	+	0	0	+	0
150	2082	2083	no artefacts	ditch		0	0	0	0	0	0	0	0
151	2077	2079	no artefacts	ditch		0	0	0	0	0	0	0	0
152	2078	2079	no artefacts	ditch		0	0	0	0	0	0	0	0

Sample No.	Context No.	Cut No.	Residue comments	Feature Type	Comments	Small animal bones	Large animal bones	Snails from residue	Pottery	CBM	Metal	Burnt flint	Flint debitage
153	2096	2099	new number	cremation		0	0	0	0	0	0	0	0
154	2097	2099	new number	cremation		0	0	0	0	0	0	0	0
155	2098	2099	new number	cremation		0	0	0	0	0	0	0	0
156	2037	2094	HSR 42g	cremation		0	0	0	+	0	0	0	0
157	2038	2094	HSR 298g	cremation		0	0	0	+	0	0	0	0
158	2041	2043	HSR 8g	cremation		0	0	0	+	0	0	0	0
159	2042	2043	HSR 391g	cremation		0	0	0	0	0	0	0	0
160	2046	2048	HSR 235g	cremation		0	0	0	0	0	0	0	0
161	2047	2048	HSR 30g	cremation		0	0	0	+	0	0	0	0
162	2044	2045	HSR 67g	pit		0	0	0	+	0	0	0	0
163	2095	2039	HSR 8g	pit		0	0	0	+	0	0	0	0
164	2100	2101	HSR 7g	cremation		0	0	0	+	0	0	0	0
165	2106	2107	no artefacts	pit		0	0	0	0	0	0	0	0
166	2120	2088	no artefacts			0	0	0	0	0	0	0	0
167	2121	2088	no artefacts			0	0	0	0	0	0	0	0
168	2123	2088	?hsr			0	0	0	0	0	0	0	0
169	2120	2088	no artefacts			0	0	0	0	0	0	0	0
170	2121	2088				0	0	0	0	0	0	0	0
171	2129	2131	no artefacts	pit		0	0	0	0	0	0	0	0
172	2130	2131	burnt bone	pit		0	0	0	0	0	0	0	0
173	2132	2134	tiny bits if burnt bone	pit		0	0	0	0	0	0	0	0
174	2133	2134	HSR 5g	pit		0	0	0	+	0	0	0	0
175	2114	2115	no artefacts	pit		0	0	0	0	0	0	0	0
176	2116	2117	burnt bone, 20ml charcoal large lumps	pit		0	0	0	0	0	0	0	0
177	2118	2119	no artefacts	pit		0	0	0	0	0	0	0	0
178	2135	2138	no artefacts	ditch		0	0	0	0	0	0	0	0
179	2136	2138	no artefacts	ditch		0	0	0	0	0	0	0	0
180	2158	2159	HSR 289g	cremation		0	0	0	0	0	0	0	0
181	2156	2157	no artefacts	ditch		0	0	0	0	0	0	0	0
182	2180	2181	HSR 42g	cremation		0	0	0	++	0	0	0	0
183	2160	2164	no artefacts	ditch		0	0	0	0	0	0	0	0
184	2199	2201	no artefacts	ditch		0	0	0	0	0	0	0	0
185	2200	2201	no artefacts	ditch		0	0	0	0	0	0	0	0
186	2090	2091	many burnt stones	ditch		0	0	0	0	0	0	+	+

Sample No.	Context No.	Cut No.	Residue comments	Feature Type	Comments	Small animal bones	Large animal bones	Snails from residue	Pottery	CBM	Metal	Burnt flint	Flint debitage
187	2177	2179	HSR 37g	cremation		0	0	0	+	0	0	0	0
188	2178	2179	HSR 178g	cremation		0	0	0	+	0	0	0	0
189	2229	2230	no artefacts	ditch		0	0	0	0	0	0	0	0
190	2243	2244	no artefacts	ditch		0	0	0	0	0	0	0	0
191	2245	2246	no artefacts	ditch		0	0	0	0	0	0	0	0
192	2272	2273	no artefacts	ditch		0	0	0	0	0	0	0	0
193	2276	2277	no artefacts	pit		0	0	0	0	0	0	0	0
194	2274	2275	no artefacts	ditch		0	0	0	0	0	0	0	0
195	2258	2259	no artefacts	ditch		0	0	0	0	0	0	0	0
196	2266	2267		ditch		0	0	+	0	0	0	0	0
197			HSR 24g	cremation		0	0	0	0	0	0	0	0
198	2063	2049	HSR 337g	cremation		0	0	0	+	0	0	0	0
199	2064	2049	HSR 9g	cremation		0	0	0	0	0	0	0	0
200	2256	2257	HSR 1291g	cremation		0	0	0	+	0	0	+	+
201	2096	2099	HSR 17g	cremation		0	0	0	0	0	0	0	0
202	2097	2099	HSR 356g	cremation		0	0	0	+	0	0	0	0
203	2098	2099	HSR 130g	cremation		0	0	0	+	0	0	0	+
204	2182	2185	HSR 40g	cremation		0	0	0	0	0	0	0	0
205	2183	2185	HSR 487g	cremation		0	0	0	+	0	0	0	0
206	2184	2185	HSR 203g	cremation		0	0	0	++	0	0	0	0
207	2296	1725	/hsr 3g	cremation		0	0	0	+	0	0	0	0
208	2324	2325	no artefacts	ditch		0	0	0	0	0	0	0	0
209	2332	2333	no artefacts	pit		0	0	0	0	0	0	0	0
210	2319	2321	no artefacts	ditch		0	0	0	0	0	0	0	0
211	2352	2353		ditch		0	+	+	0	0	0	0	0
212	2360	2361		ditch		0	0	0	0	0	0	0	0
213	2404	2405		pit		0	0	+	0	0	0	+	0
214	2340	2341	no artefacts	pit		0	0	0	0	0	0	0	0
215	2354	2355		pit		0	0	0	0	0	0	0	0
216	2362	2363	no artefacts	pit		0	0	0	0	0	0	0	0
217	2350	2351	no artefacts	pit		0	0	0	0	0	0	0	0
218	2317	2318	no artefacts	pit		0	0	0	0	0	0	0	0

Table 26: Summary of Residues Sorted from the Environmental samples

Appendix 7: The Cremation Cemetery and Human Bone

1. Prehistoric Ceramic Assessment Report

By Matt Leivers

The pottery assemblage consists of 358 sherds and an unquantified number of crumbs of probable late prehistoric date. The overall condition of the assemblage is poor; there are two groups of sherds which represent substantial portions of single vessels, along with sherds distributed in small amounts within contexts across the site. Mean sherd weight has not been calculated as only a small proportion of the assemblage has been cleaned; a large portion of the assemblage remains embedded in earth. Condition and the scarcity of diagnostic sherds has hampered identification, and the assemblage can only be broadly dated as later prehistoric at this stage, primarily on the basis of fabric.

The larger portion of the assemblage is probably Middle of Late Bronze Age, and consists of two vessels and a quantity of other sherd and crumb material in two vesicular wares. Fabric V1 is distinguished by poor firing and a lack of observable grog. V2 is better fired, and contains grog in larger quantities. There are very few diagnostic sherds, and this material can only be very broadly dated, primarily on the basis of fabric, although there are some indications of form. No comparable fabrics were recorded within the Iron Age assemblages from Camborne approximately 4 km to the south-east (Leivers 2005; Percival and Lyons 2006).

A single large vessel (in a vesicular fabric rich in iron minerals) was recovered from pit **1883** (context 1911). The vesicular fabric (V1) contained some iron minerals and rock fragments, both of which are likely to have been natural inclusions. Although the fabric had a 'soapy' feel, no grog was observed. Rim sherds from this vessel indicate a flat rim, slightly expanded internally and externally. A very slight horizontal applied cordon is situated approximately 50mm below the rim. No base survives. Field records and the surviving fragmentary sherd material suggest a vessel of around 200mm diameter and at least 300mm high, with a straight, tapering wall, flaring slightly towards the base.

Fragments of a second vessel, in a similar vesicular fabric (V2) with some grog and sand, came from pit **1861** (context 1878). No sherds with diagnostic features were present, and the form cannot be reconstructed. The similarity of fabric with the vessel from 1883 suggests at least broad contemporaneity.

Very small groups of sherds were recovered from a number of other contexts across the site. Most were in quantities and sizes too small to identify, but appeared to be in fabrics similar to the two vessels discussed above. Notable exceptions included a group of 14 sherds and numerous crumbs from **2016**. These were in a well-fired, sandy fabric (Q1) with well-rounded iron minerals and a very small amount of burnt flint (both probably naturally occurring). This fabric is typical of local Early to Middle Iron Age ceramics.

The material from 1954 and 2063 consists of mixtures of charcoal, burnt bone and fired clay (which may be pottery) in soil. Identification is not possible in their current condition.

Fabric	V1	V2	Unidentified	Q1
Context				
1911	222 + crumbs			
1878		10 + crumbs		
2256			2 + crumbs	
2016				14 + crumbs
2096		8	14 + crumbs	
1915	41 + crumbs			
2041		4 + crumbs		
2037	14 + crumbs			
1768			3	
1954			11 + crumbs	
2063			15 + crumbs	
Total	277	22	45	14

Table 27: Summary of Ceramic Remains from Cremation Cemetery

Key to Table 27

- V1** common large linear and sub-angular voids; moderate medium to large well-rounded iron minerals, sparse large sub-angular iron minerals and sparse sub-angular rock fragments probably naturally occurring.
- V2** common large linear and sub-angular voids; sparse grog; moderate medium to large well-rounded iron minerals and moderate quartz sand probably naturally occurring.
- Q1** moderate quartz sand probably naturally occurring; sparse fine to medium, sub-angular calcined flint; sparse to moderate iron minerals probably naturally occurring.

2. Assessment of the Human Remains from the Excavations at Papworth Everard Bypass (PEVBYP06)

By Natasha Dodwell

2.1 Introduction

A middle Bronze Age cremation cemetery in which 53 features containing cremated human bone were identified was excavated within Area 4. Of these features, 14 unurned and 13 urned burials (including 1 in a possible box) were identified. The remaining features containing cremated bone were either intentional deposits of pyre debris, unurned burials/redeposited pyre debris or those with an unknown function.

A seemingly isolated, heavily disturbed cremation burial was identified in Area 3. It was associated with several partial vessels dating to the Iron Age. In

addition to the cremation burials a single, heavily disturbed inhumation burial of uncertain date was identified in Area 2. The analysis of these two burials is presented at the end of this report.

2.2 Methods of Recovery and Analysis

During excavation all deposits containing cremated bone, and those fills surrounding cremation urns or sealing concentrations of cremated bone in unurned burials, were subject to 100% recovery as whole earth samples. All samples were wet sieved, through 10mm, 5mm and 2mm sieves and all extraneous material was removed from the >5mm fraction. Osteological analysis followed procedures for cremated human bone outlined by McKinley (2002 and 2004). All bone >5mm was examined and sorted and weighed by body part (e.g. skull, axial skeleton, upper limb). The residue from the 2mm fraction was scanned and identifiable elements separated. A proportion of each sample was floated for retrieval of any charred plant remains. Unfortunately, the fragile nature of the cremation vessels meant that it was not possible to lift the urns and excavate them off-site but contexts identified within the vessels were kept separate and distinctions between upper and lower fills of pots were often made.

Because of the fragmentary nature of the cremated bone most of the normal osteological techniques for aging and sexing individuals could not be used. Size and robusticity of bone fragments was used to initially identify immature from adult remains and then the age of immature individuals was assessed from the stage of dental development and eruption (Brown 1985 and Ubelaker 1989). With adults, refining the age was far more problematic and where this has been attempted the degree of suture closure of the skull has been examined (Meindl and Lovejoy 1985). Because of these limitations the following age categories are used:

infant	0-4 years
juvenile	5-12 years
subadult	13-18 years
young adult	19-25 years
middle adult	26-44 years
mature adult	45 years +

There may be overlaps between categories, such as subadult/adult, or a broad category, such as adult, where insufficient evidence was present. Amongst the immature individuals it was often possible to narrow/sub-divide the age category.

No attempt was made to sex immature individuals. The sex of adult individuals was ascertained where possible from sexually dimorphic traits of the skeleton (Buikstra and Ubelaker 1994) but any determinations should be treated with caution; because of the degree of fragmentation sex was based on a single diagnostic element e.g. an orbital rim or occipital protuberance, hence ?M and ?F. Full details of identifications are held in the archive.

2.3 The Nature of the deposits containing Human Bone

For ease of analysis each deposit in the Papworth Everard cemetery, which contained cremated human bone, has been assigned a feature number in addition to the cut and fill numbers allocated on site. Each of these deposits has then been assigned one of five feature types, which are based on those described by McKinley (2004):

i) *Urned burials*

These are burials where the burnt bone is contained within a vessel. The fragile nature of the majority of urns meant that in some cases they were difficult to identify (see below). The gap between the pot and the cut has either been backfilled with redeposited natural or with pyre debris. In several cases the pot fitted snugly against the cut edge although distinguishing between natural and redeposited natural backfilling the cut was problematic and in some instances the true cut may not have been identified. The 'wooden box', F.1 has been classified as an urned burial in the following analysis.

ii) *Unurned burials*

These are burials where the burnt bone is deposited in a small pit. The bone is usually found in a concentration, often at the base of the pit suggesting that it was originally placed in an organic container such as a bag or basket. This concentration can be sealed with redeposited pyre debris or natural sub-soils.

iii) *Redeposited pyre debris*

Pyre debris comprises predominantly of charcoal with small quantities of burnt bone, burnt flint, fired clay and sometimes fuel ash slag (McKinley 1997, 137). On the context sheets it is often described as 'ash dumps'. It was found in the backfills of unurned and urned cremation burials and as formal deposits in intentionally cut features. Distinguishing between redeposited pyre debris and disturbed or truncated unurned burials can be difficult.

iv) *Unurned/redeposited pyre debris*

This deposit type covers features in the cemetery where there is no adequate description on the context sheet or where there was no concentration of bone but the deposit has been seriously truncated.

v) *Cremation related deposit*

This is a deposit that includes redeposited cremated bone where the circumstances of deposition are uncertain.

The definition of the feature type is based on on-site observations/interpretations and the osteological analysis. For instance, the context descriptions for features 42 and 48 describe 'stains of vessels' and

'remains of pot'. This and the quantity of small ceramic fragments identified in the samples have led to these being interpreted as 'urned' burials. The results are summarised in Table 30.

2.4 Level of Disturbance and Truncation

The cemetery has been truncated but it is difficult, if not impossible to determine the degree of truncation, particularly when assessing the unurned burials and deposits of redeposited pyre debris. The cuts containing urns ranged in depth from 0.10m-0.40m. The vessels are poorly fired and very degraded, meaning that none were successfully lifted but it is possible to establish their maximum survival heights in the ground from sections; 0.08m (F.22) – 0.30m (Fs. 17 and 25). Amongst the unurned burials depths of cuts ranged from 0.07m (F.30) – 0.46m (F.8), and amongst all other features containing cremated human bone depths ranged from 0.02m (F.50) – 0.35m (F.28). Several of the features, particularly in the northwest of the cemetery inter-cut and this will have led to mixing/contamination of some of the deposits.

From the context descriptions it is possible to deduce which burials are intact, i.e. which will include most if not all of the bone that was originally deposited (and survived the burial environment). For instance a vessel may not have been visible on the surface, or its rim may survive, or the fill containing the bone concentration is sealed with a clean-ish deposit. With these considerations in mind the following burials could be interpreted as relatively undisturbed and complete; Features 5, 8, 16, 18, 31 (unurned), Features 14, 22, 23, 24, 25 (urned). Given that there are burials in the cemetery <0.10m deep it is likely, although not verifiable, that some burials may have been completely truncated.

Samples from Features 17 and 24 were mislabelled/missing and from the context descriptions it has been assumed in this analysis that the mislabelled bag is from F.24 and that the bone from F.17 is missing.

2.5 Results

Of the 53 features that contained cremated human bone, 13 were identified as urned burials (12 in ceramic vessels, 1 in a wooden box or casket) and 14 as unurned burials. In addition to the 27 burials, 8 features were identified as unurned burials/redeposited pyre debris, 11 features as deposits of redeposited pyre debris and a further 7 as cremation related features.

2.5.1 Demography

Within the 27 features identified as burials (unurned and urned) a *minimum* of 32 individuals were identified. A further 3 individuals (all immature) were more tentatively identified, but their presence is probably the result of contamination of contexts from intercutting features. As discussed above several, if not all of the deposits, which have been classified, as 'unurned burials/redeposited pyre debris' may in fact be disturbed unurned burials. If these 8 features are considered with the true burials then the minimum number of individuals rises to 41 individuals (44 maximum) from 35 burial features.

Amongst the features positively identified as burials a minimum of 6 individuals (18.75% of the minimum cemetery population of 32 individuals) died at or before 12 years old. This increases to a minimum of 24.39% of the cemetery population if one includes the individuals from deposits classified as unurned burials/redeposited pyre debris (n=41). Amongst the cremated bone deposited in 'burials' 4 individuals (12.5%) died before 5 years old. This figure is far less than one would expect in a 'normal' population but similar to figures from other Bronze Age cremation cemeteries such as that at Broom, Bedfordshire where the figure was 9% of the cemetery population (Dodwell in prep). The paucity of immature remains is a common phenomenon in archaeological cemeteries of all periods but it is important to stress that immature individuals were afforded the rite of cremation – the youngest individual identified at Papworth Everard (in F.47) died at c.3ys ±12mos. At Broom, cremated bone fragments from a neonate/ young infant were identified and it is quite possible that individuals of a similar small age lie amongst the unidentifiable fragments at Papworth Everard. In addition, the fragility of immature bone may predispose it to destruction in acidic soil or loss as a result of disturbance. Interestingly the small quantities (1-3g) of immature bone fragments which were identified in Features 6, 10 and 13 (classified as two unurned burials/redeposited pyre debris and a cremation related feature) were mixed with large quantities of charcoal suggesting that the fragments were difficult to collect from the pyre site and were scooped up with a quantity of pyre debris. This phenomenon was also observed in one of the features at the Broom cremation cemetery.

Amongst the features positively identified as burials, 1 (c.3%) individual was an older sub adult/young adult, 2 (c.6%) were sub adult/adult and 23 (72%) were adult. The figures are near-identical, 1 (c.2%), 2, (c.5%) and 28 (68%) respectively if the individuals identified in the deposits classed as unurned/pyre debris are included.

These crude demography figures show that fewer immature individuals and more adults have been recorded here than at two other contemporary cremation cemeteries. Amongst the burials at Papworth Everard c.19% of the individuals identified died before 12years old and 72% as adult compared to 30% and 48% at Pasture Lodge Farm, Lincs. (Allen *et al* 1987), and 32% and 48% at Broom, Beds. (Dodwell in prep). However, these differences are unlikely to be significant given the fragility of immature remains, their

presence in non-burial contexts (e.g. Fs. 6,10 and 13 which may in fact be 'burials' – see above) and the large quantity of unidentifiable bone.

Age Category	Urned burials	Unurned burials	Total no. from burials	Unurned/pyre debris	Total No. of individuals from all features
Foetus/neonate	-	-	-	-	-
Neonate/young infant	-	-	-	-	-
Infant	1	-	1	1	2
Older infant	-	3 (4)	3 (4)	-	3 (4)
Older infant/young juvenile	1 (2)	1	2 (3)	-	2 (3)
Young juvenile	-	-	-	-	-
Infant/juvenile	0 (1)	-	0 (1)	3	3 (4)
Juvenile					
Older juvenile/young subadult		-	-	-	-
Subadult	-	-	-	-	-
Older subadult/young adult	-	1	1	-	1
Subadult/adult	2	-	2		2
Young adult	-	2	2	-	2
Young/middle adult	-	2	2		2
Middle adult	-	1	1	-	1
Middle/mature adult	-	-		2	2
Mature adult	-	-	-	-	-
Adult	10	8	18	3	21
Total no. of individuals	14 (16)	18 (19)	32 (35)	9	41 (44)

Table 28: The number of individuals identified in each age category by feature type. The figure in brackets represents an individual identified in a deposit, which *could* derive from an earlier feature and therefore represents a maximum figure.

2.5.2 Sexing

The small quantities of bone, the lack of diagnostic elements and the degree of fragmentation greatly inhibited the sexing of the deposits containing adult bone. It must be stressed again that the sexing is tentative and based on a single diagnostic element. Only bone from 9 features could be tentatively sexed; 6 as female (Fs. 4, 16, 31, 35, 41 and 46) and 3 as male (Fs. 11, 43, 49). Amongst the features containing female burnt bone, 1 is an urned burial, 4 are unurned burials and 1 is unurned/redeposited pyre debris. Amongst the features containing male burnt bone 2 are unurned burials and 1 is unurned/redeposited pyre debris.

2.5.3 Double Burials

Unfortunately it is not possible to distinguish between deliberate dual cremation or burial, and the accidental inclusion of fragments of burnt bone, which were not collected from an earlier cremation on the same pyre. At Papworth Everard, eight burials contained the cremated remains of two individuals (see table 29). It could be argued that three of these (F.38, F.43 and F.48) have been contaminated with stratigraphically earlier material from an adjacent burial (F.49) however the other five (F.4, F.8, F.14, F.47 and F.49) would appear to be genuine. All are unurned burials except for F. 14. In

addition to the burials the remains of two individuals were identified in F.27, a 'cremation related feature' and F.36, a deposit of pyre debris. Where two individuals were identified in a single deposit, it was always an adult buried with an infant or juvenile, and given the limits of sexing cremated remains, where it was possible to assign a sex, one of the adults was female and two were male. It is relatively easy to distinguish adult from immature bones, however the adult/child burial phenomena may be genuine and raises interesting questions with regards funerary practices and the social organisation of the living. Given the fragmentary nature of the burnt bone (see below) it is possible that burials containing the remains of two or more adults are present on the site but were not recognised. In addition 2nd individuals, or more of the 2nd individual identified may be present in the 'unidentified' human bone recovered from most of the features.

Feature	Type	No. of individuals	Age	Total weight	Weight of Immature individual (minimum)	Relationship with other burials
F.4	unurned	2	Adult ?f & older infant/juvenile	260g	11g	
F.8	unurned	2	Young/middle adult & older infant	690g	14g	
F.14	urned	2	Adult & infant	662g	11g	
F.27	crem related feature	2	Subadult/adult & infant	2g	<1g	
F.36	Redeposited pyre debris	2	Middle/mature adult & infant/juvenile	64g	4g	cut by F.35 (& poss. S/A) & cuts F.37
F.38	urned	1 (2)	Adult (& immature)	355g	1g	cuts F.48 & F.49
F.43	unurned	1 (2)	Adult ?m (& older infant)	488g	2g	cuts F.49
F.47	unurned	2	Adult & older infant	211g	14g	
F.48	urned	1 (2)	adult (& older infant younger juvenile)	711g	8g	cut by F.38
F.49	unurned	2	Adult ?m 7 older infant	1798g	121g	cut by F.38 & F.43

Table 29: Summary table of features containing cremated bone from more than 1 individual (the number & age category in brackets represents an individual that is possibly intrusive)

2.6 Pyre Technology and cremation ritual

The majority of bone fragments from all of the deposits were a creamy, buff-white colour, indicative of full oxidation of the bone. A few fragments from 6 deposits (Fs. 23, 36, 38, 41, 43, and 48) showed slight variations in colour from grey to blue/black (charred). The bone most often identified as charred was the femoral shaft. The variations in colour suggest minor inconsistencies in the degree of oxidation; either fragments falling away from the main heat source to the edge of the pyre or becoming buried in fuel ash. The bone fragments in F.4 and F.11 both classified as an unurned burial/redeposited pyre debris have a weathered, chalky appearance.

2.7 Weight of bone

Studies of modern western cremation practices have determined that the weight range of collectable (>2mm fraction) cremated bone one might expect from an adult cremation ranges from 1000g to 2400g depending on the sex and build of the individual (McKinley 1993). McKinley (1989) has outlined the numerous factors, such as the efficiency of collection from the pyre and the depositional environment, which may affect the quantity of bone recovered, but it is generally recognised, that the entire burnt body was very rarely, if ever, collected for burial. As stated in the methodology only bone >5mm was sorted from the heavy residue and weighed. This will obviously mean that the weights of bone analysed will be less than those expected even before taphonomic factors are introduced. It is particularly important to stress this as during analysis it was noted that in 20 features (F.14, F.18, F.22, F.23, F.25, F.30, F.31, F.34 – F.38, F.40 – 43 and F.46 - F.49) the 2-5mm residue was almost entirely bone. Most of these unsorted but bone rich residues weigh between 100-300g but F49 contains over 1.5kg of bone rich material in the smaller unsorted fraction.

From both disturbed and undisturbed single adult urned burials (n=7), the range of bone weight was 106g – 838g with a mean of 453g. From both disturbed and undisturbed single adult urned burials (n = 8), the range of bone weight was 120g-1063g, with a mean of 481g. If one assumes that both types of burial at Papworth Everard have been disturbed/truncated to the same degree the mean weight of bone recovered from single adult urned burials is less than that recovered from urned burials, but not significantly so. Amongst the undisturbed adult urned burials (n=4) the range remains the same with the mean falling by one (452g). This figure is similar to that recorded amongst the undisturbed urned burials (481g) in the cremation cemetery at Coneygre Farm, Notts. (Allen *et al* 1987). Amongst the undisturbed adult urned burials (n=3) at Papworth Everard the range decreases to 120-895g but the mean weight increases to 557g. Even accounting for the weight of bone in the 2mm fraction it would seem that most of the burials only a token amount of bone was collected and interred.

No data exists on expected weights of bone for immature human cremated bone, partly because the modern cremation process is so efficient that often little or no bone survives. However, immature human bone does survive the cremation process in archaeological contexts even though it was undoubtedly far harder to collect from the pyre than adult remains. The weight of bone recovered from the urned burial containing an older infant/young juvenile (F.42) was only 39g. Where immature bone could be separated from adult fragments in the double burials, the most bone recovered was 121g from F.49. It is highly probably that more immature bone is amongst the unidentifiable bone fragments.

2.8 Fragmentation

McKinley (1994) has argued convincingly that bone fragment size is dependent on numerous factors such as the efficiency of the pyre, the depositional environment and methods the excavation and post excavation

processing. Amongst the urned burials the maximum recorded bone fragment was 60mm (F.48) and amongst the unurned burials the maximum fragment was 63mm (F.18). The maximum from most of the burial deposits was relatively low at <40mm. Amongst all of the urned adult burials, both disturbed and undisturbed (n=7) the majority of bone was recovered from the 5-10mm residue (51-74%). The exception to this was F.1 where 52% was recovered from the 10mm sieve fraction. Similarly, amongst all of the unurned adult burials (n=8), the majority of the bone was recovered from the 5-10mm residue (54 – 75%). These figures are almost identical when one looks at the 'undisturbed adult burials'; 51-67% of the bone in urned burials (n=4) and 54-75% in unurned burials (n=3) was recovered from the 5-10mm sieve fraction. The true percentages are likely to be slightly lower since only teeth and identifiable skeletal elements from the 2mm fraction were included in the total weights.

These figures highlight two points. Firstly that the bone from all contexts was extremely fragmentary; this inhibited identification of individuals and skeletal elements. However, there is nothing to suggest that there was deliberate fragmentation and the size of the fragments is probably the due to the acidic nature of the burial soil. Secondly, there is no difference in the bone fragment size in urned and unurned burials. One might expect that the bone fragment size might be larger in the urned burials as the vessel should afford some protection from the surrounding soil. However, it could be argued that the vessels are of such poor quality that their presence, in terms of protection is inconsequential.

2.9 Layout of the Cemetery

The cremation cemetery is laid out in a linear arrangement measuring c.12 x 6m. It is possible that the cemetery extended to the north but the extent of its western, eastern and southern limits were established. Urned and unurned burials and deliberate deposits of pyre debris appear to be randomly distributed throughout the cemetery. There is a cluster of immature burials/deposits of pyre debris, including immature individuals in double burials, forming an arc in the southeast part of the cemetery (Fs. 4, 6, 8, 10, 13, 14) and a mirror arc c.5m to the northwest (Fs. 24, 36, 42 and 37).

There is very little inter-cutting of features and so where there is, in the northwest of the cemetery, it may be deliberate, for example interment beside a close family member. The lack of intercutting suggests that the graves would have been marked in some way, for instance with mounds, stakes or stone markers, but whilst several stake/postholes were recorded they do not appear to relate directly with the burials.

The placing of the dead in the landscape is significant; cemeteries would have marked and reinforced points in the landscape such as boundaries. It is interesting that the cemetery at Papworth Everard lies adjacent and parallel to a boundary ditch butt-end, cut [1602]. The phenomenon of placing Bronze Age cremation burials in a linear arrangement has been observed elsewhere e.g. at Broom, Beds. (Dodwell in prep.), at Eye, Cambs. (Dodwell 2004), at

Shrubsoles Hill, Kent (Coles *et al* 2003) and at Coneygre Farm, Nottinghamshire (Allen *et al* 1987).

2.10 Discussion and recommendations for further work

Cremated human bone was identified in both urned and unurned burials, and adults of both sexes and immature individuals were interred. No pyre site was identified in the area of excavation but several features containing pyre debris were recognised, which suggests that its deliberate disposal was significant in the funerary ritual. The funerary rite relating to children is interesting; immature remains were identified in all categories of funerary feature, however only one true single burial was identified, the urned burial F.42. All other burials were double ones; adult and immature remains interred in vessels or as unurned burials. Tiny quantities of immature remains were identified in features classified as unurned/redeposited pyre debris (Fs. 6, 10 and 13) suggesting difficulties in collecting the bone fragments from the pyre but also the necessity of collecting them.

There are several recommendations for further work. The probable burnt animal bone from F.40 needs to be examined by a faunal specialist and if necessary the tables amended and a small paragraph added to this text. The information regarding grave/pyre goods presented in Table 30 also needs to be checked (the data was taken from the environmental processing list) and then a short paragraph added to the text. It might be useful to have short, detailed descriptions of each of the burials with contextual information amalgamated with environmental and artefactual data and possibly even a section drawing. Finally, the text should be reviewed once the C14 dates have been obtained and prior to publication.

2.11 The Isolated Cremation Burial [2500]

A small quantity (46g) of predominantly white cremated bone was identified in [2500]. The bone was associated with several partial vessels, possibly Iron Age in date but it is unclear whether it was contained within one of them. The largest fragment was 39 mm and 15g were collected in the >10mm mesh. The majority of the identifiable elements were limb shafts, although a single fragment of skull and a mandibular incisor were identified. The bones derive from an adult.

2.12 The Isolated Inhumation Burial [1218/1240]

A badly disturbed inhumation burial was recorded in Area 2. The grave cut [1525]/[1528] was only 0.08m deep and truncated by two postholes/small pits, [1219] and [1241]. Scraps of human bone were recovered from the grave fill but more substantial fragments were recovered from the later cuts. These included fragments of limb shafts, the femoral heads, the extremities and 2 teeth. The bones were that of a middle/mature adult. It was not possible to determine the position of the body in the grave.

Feature No.	Fill nos.	Cut No.	Deposit Type	Weight (g)	Depth (m)	Age & sex	Notes	Grave goods
1	[1720] – [1722]	[1724]	urn/box	644	0.30	adult	truncated by machine	
2	[1741] – [1743]	[1744]	redeposited pyre debris	4	0.30	subadult/adult	bone from basal fill	possible
3	[1763]	[1764]	redeposited pyre debris	55	0.20	adult		possible
4	[1781]	[1782]	unurned burial	260 *	0.24	adult ?female & older infant/young juvenile (11g min)	immature bone identified in sample 113	
5	[1783] – [1786]	[1787]	unurned burial	858	0.26	older subadult/young adult		
6	[1823] – [1825]	[1826]	unurned burial/redeposited pyre debris	<1	0.20	infant/juvenile		
7	[1839]	[1840]	redeposited pyre debris	22	0.27	subadult/adult		
8	[1841] – [1844]	[1845]	unurned burial	690 *	0.46	young/middle adult & older infant (14g min)		possible
9	[1854]	[1855]	redeposited pyre debris	18	0.22	subadult/adult		
10	[1856]	[1857]	unurned burial/redeposited pyre debris	2	0.11	infant		
11	[1858]	[1859]	unurned burial/redeposited pyre debris	94	0.11	adult ?male	?possible immature frag.	
12	[1860] [1877]	[1861]	urned burial	9	0.14	subadult/adult		
13	[1865] [1866]	[1867]	unurned burial/redeposited pyre debris	3	0.13	immature/unidentifiable		
14	[1868] [1869] [1871]	[1872]	urned burial	662 *	0.40	adult & infant (11g min)		
15	[1875]	[1876]	unurned burial/redeposited pyre debris	224	0.25	middle/mature adult		possible
16	[1879] [1880]	[1881]	unurned burial	120.	0.20	middle adult ?female		possible
17	[1882] [1912]	[1883]	urned burial	2 **	0.30	subadult/adult		possible
18	[1886] – [1889]	[1890]	unurned burial	895	0.17	young adult		possible
19	[1891]	[1892]	cremation related feature	2	0.23	subadult/adult		
20	[1893]	[1894]	cremation related feature	8	0.25	subadult/adult		
21	[1895] – [1897]	[1898]	unurned burial	187	0.19	adult		
22	[1899] – [1902]	[1903]	urned burial	838	0.17	adult		possible

Feature No.	Fill nos.	Cut No.	Deposit Type	Weight (g)	Depth (m)	Age & sex	Notes	Grave goods
23	[1969] [1908] [1909] [1917] [1953]	[1910]	urned burial	525	0.38	adult		possible
24	[1913] – [1915]	[1916]	urned burial	106	0.24	adult		
25	[1922] – [1924] [2296]	[1925]	urned burial	341	0.30	adult		possible
26	[1955] [1956]	[1957]	cremation related feature	<1	0.18	unidentifiable		
27	[1963] [1964]	[1965]	cremation related feature	2 *	0.23	subadult/adult & infant (<1g)		
28	[1974] [1975]	[1976]	cremation related feature	4	0.35	juvenile/subadult/adult		
29	[1977]	[1978]	Redeposited pyre debris	39	0.20	adult		possible
30	[1986]	[1987]	urned burial	446	0.07	adult		
31	[1988] – [1990]	[1991]	urned burial	657	0.30	young/middle adult ?female		
32	[1992] [1993]	[1994]	Redeposited pyre debris	4	0.30	subadult/adult	posthole. truncates F.46, possibly related to it	
33	[1996]	[1997]	Redeposited pyre debris	75	0.20	adult	Posthole-like feature, possibly related to cut [2067] F.39	
34	[2037] [2038] [2095]	[2039]	urned burial	336	0.22	adult	cuts F.35	
35	[2041] [2042] [2044]	[2045]	urned burial	381	0.20	adult ?female	cut by F.34, F.36 may be part of F.35	
36	[2044]	[2045]	Redeposited pyre debris	64 *	0.19	middle/mature & infant/juvenile (4g min)	could be fill surrounding pot F.35? cuts F.37	
37	[2046] [2047]	[2048]	urned burial	248	0.16	adult	cut by F.36	
38	[2139] [2063] [2064]	[2049]	urned burial	355 *	0.25	adult & infant/juvenile (1g min)	cuts F.48	
39	[2066] [2065]	[2067]	Redeposited pyre debris	53	0.29	subadult/adult	related to F.33?	
40	[2070] [2071]	[2072]	urned burial	229	0.28	adult	prob. contaminated with F.41	possible
41	[2073] [2074]	[2075]	urned burial	1063	0.37	young adult ?female	cut by F.40	

Feature No.	Fill nos.	Cut No.	Deposit Type	Weight (g)	Depth (m)	Age & sex	Notes	Grave goods
42	[2180]	[2181]	urned burial	39	0.10	older infant/young juvenile		
43	[2096] – [2098]	[2099]	Unurned	488 *	0.33	adult ?male & older infant (2g min)	sherd of pot in fill	possible
44	[2100]	[2101]	Redeposited pyre debris	5	0.15	subadult/adult		
45	[2132] [2133]	[2134]	Redeposited pyre debris	8	0.32	juvenile/subadult/adult		
46	[2158]	[2159]	unurned burial/redeposited pyre debris	285	0.10	adult ?female	truncated by posthole F.32, possibly related to it	
47	[2177] [2178]	[2179]	unurned burial	211 *	0.23	adult & older infant (14g min)		
48	[2182] – [2184]	[2185]	urned burial	711 *	0.25	adult & older infant/younger juvenile (8g min)	cut by F.38	
49	[2255] [2256]	[2257]	unurned burial	1798 *	0.27	adult ?male & older infant (121g min)	cut by F.43 & F.38	possible
50	[1874]	-	unurned burial/redeposited pyre debris	71	0.02	adult	spread – very truncated	
51	[1737]	[1738]	cremation related feature	1	0.27	juvenile/subadult/adult	posthole, ?related to pyre	
52	[2116]	[2117]	cremation related feature	<1	0.13	unidentifiable	posthole	
53	[2129] [2130]	[2131]	redeposited pyre debris	<1	0.29	unidentifiable		

Table 30: Summary Table showing all of the deposits containing cremated bone in the cemetery

* Total weight of bone. Where there are adult & immature individuals in the same context the minimum weight of the immature bone is given in brackets

** sample missing

2.13 References

- Allen, C.S.M., Harmen, M., Wheeler, H. 1987 Bronze Age Cremation Cemeteries in the East Midlands *Proceedings of the Prehistoric Society* 53: 187-221
- Brown, W.A.B. 1985 *Identification of Human Teeth* Adlard & Son Ltd, Bartholomew Press, Dorking, Surrey
- Buikstra, J. E. and Ubelaker, D. H. (eds) 1994 *Standards for the collection from human skeletal remains* Arkansas Archaeological Survey. Research Series No. 44. Fayetteville: Arkansas Archaeological Survey
- Coles, S. 2004 Three Bronze Age Barrows at Mockbeggar Lane, Ibsley, Hampshire *Proceedings of the Hampshire Field Club Archaeological Society* 59, 31-64
- Dodwell, N. 2004 'The Bronze Age cremation burials' in Patten R. Bronze Age & Romano British Activity at Eye Quarry, Peterborough. Phase Three CAU report 633 (unpublished)
- Dodwell, N. in prep 'Bronze Age cremation burials' in Cooper, A. & Edmunds, M. *Past & Present, Excavations at Broom Bedfordshire* Oxbow Books
- McKinley, J.I. 1993 Bone Fragment Size and Weights of Bone from Modern British Cremations and the Implications for the Interpretation of Archaeological Cremations *International Journal of Osteoarchaeology*, Vol. 3: 283-287
- McKinley, J.I. 1994 Bone Fragment Size in British Cremation Burials and its Implications for Pyre Technology and Ritual *Journal of Archaeological Science* 21: 339-342
- McKinley, J.I. 1997 Bronze Age 'Barrows' and Funerary Rites and Rituals of Cremation *Proceedings of the prehistoric Society* 63: 129-145
- McKinley, J.I. in Cox, M. and Mays, S. (eds.) 2002 *Human Osteology in Archaeology and Forensic Science* Greenwich Medical Media Ltd, London: 403-421
- McKinley, J. I. 2004 in Brickley, M. and Mckinley, J.I. (eds.) 2004 *Guidelines to the Standards for Recording Human Remains* IFA Paper No. 7: 9-13
- Meindl R.S. and Lovejoy, C.O. 1985 Ectocranial Suture Closure: a revised method for the determination of Skeletal Age at Death Based on the Lateral-Anterior Sutures. *American Journal of Physical Anthropology* 68:57-66
- Ubelaker, D.H.1989 *Human Skeletal Remains: Excavation, Analysis, and Interpretation* Taraxacum Press, Washington, D.C

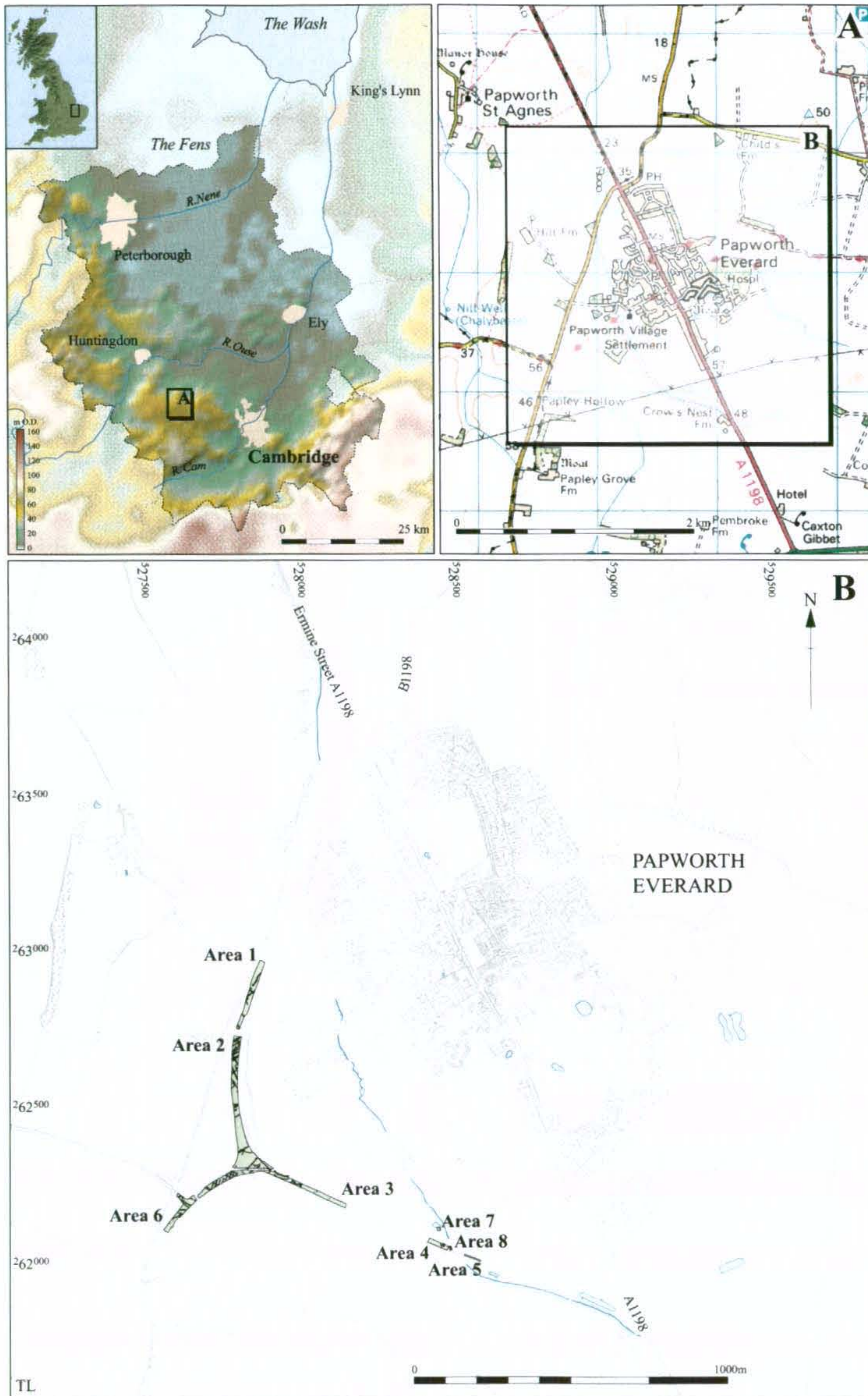
Drawing Conventions

Plans

Limit of Excavation	—————
Evaluation Trench	- - - - -
Deposit - Conjectured	- · - · - ·
Natural Feature	·····
Sondages/Machine Strip	- - - - -
Test Pit	
Intrusion/Truncation	- - - - -
Illustrated Section	————— S.14
Cut Number	118

Sections

Limit of Excavation	- - - - -
Cut	—————
Cut-Conjectured	- - - - -
Deposit Horizon	—————
Deposit Horizon - Conjectured	- · - · - ·
Intrusion/Truncation	- - - - -
Top Surface/Top of Natural	—————
Break in Section/ Limit of Section Drawing	- - - - -
Cut Number	118
Deposit Number	117
Ordnance Datum	18.45m OD ^
Stone	■
Pottery	■
Cremated Bone	■
Charcoal	◆◆◆



© Crown Copyright. All rights reserved Cambridgeshire County Council 100023205 2007

Figure 1: Location of excavation areas (green) with archaeology (black)

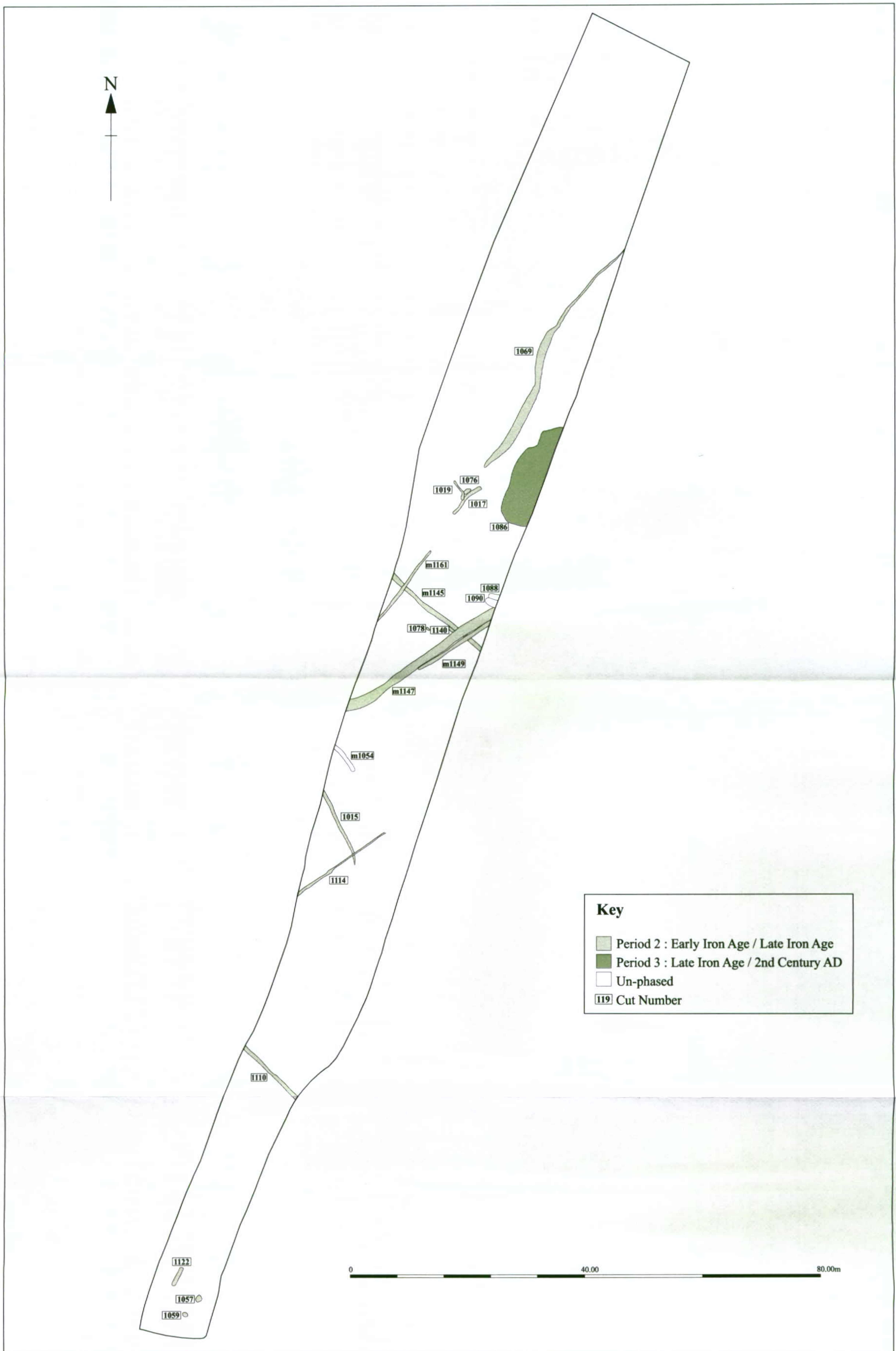


Figure 2: Area 1

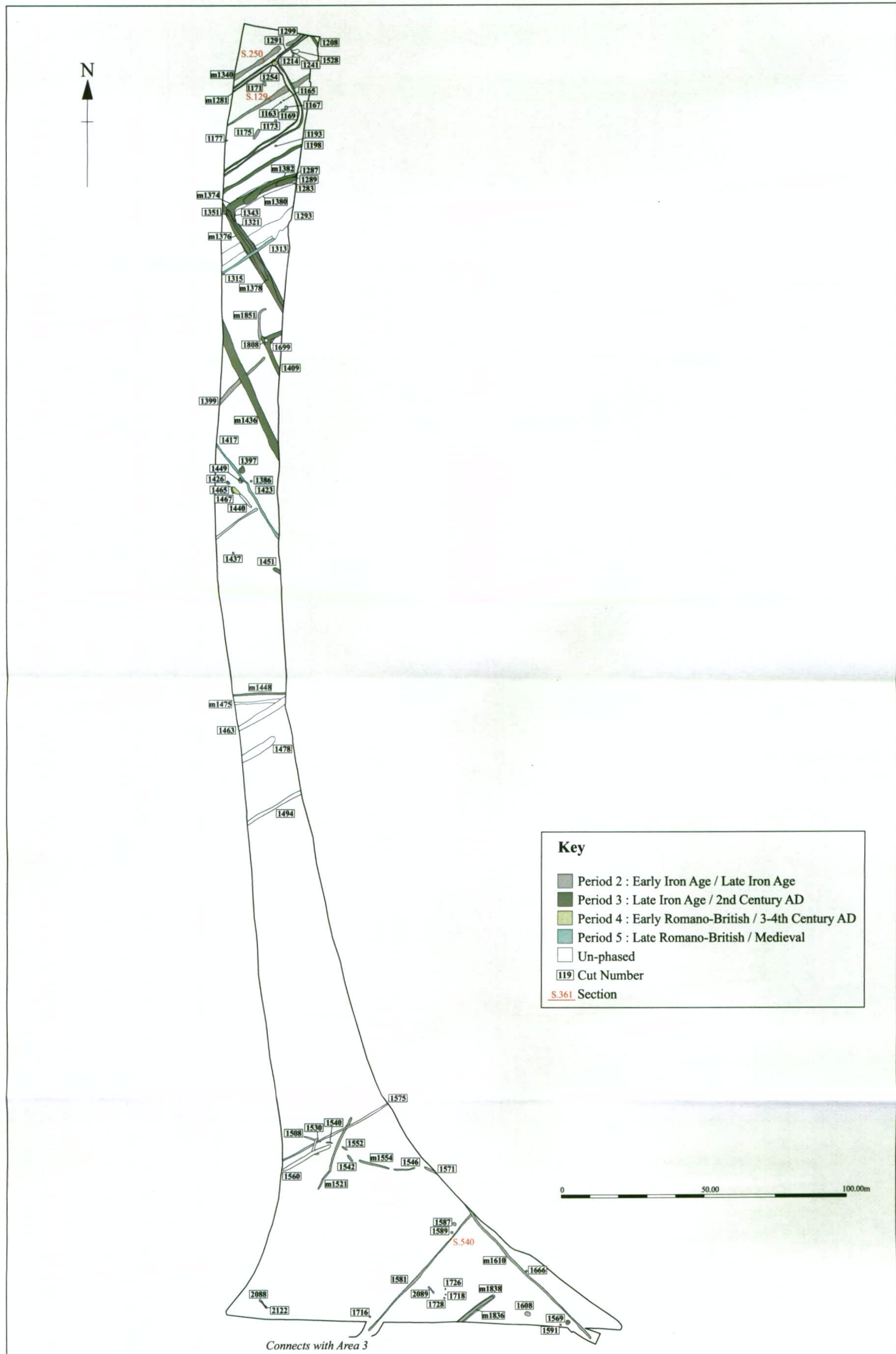


Figure 3: Area 2

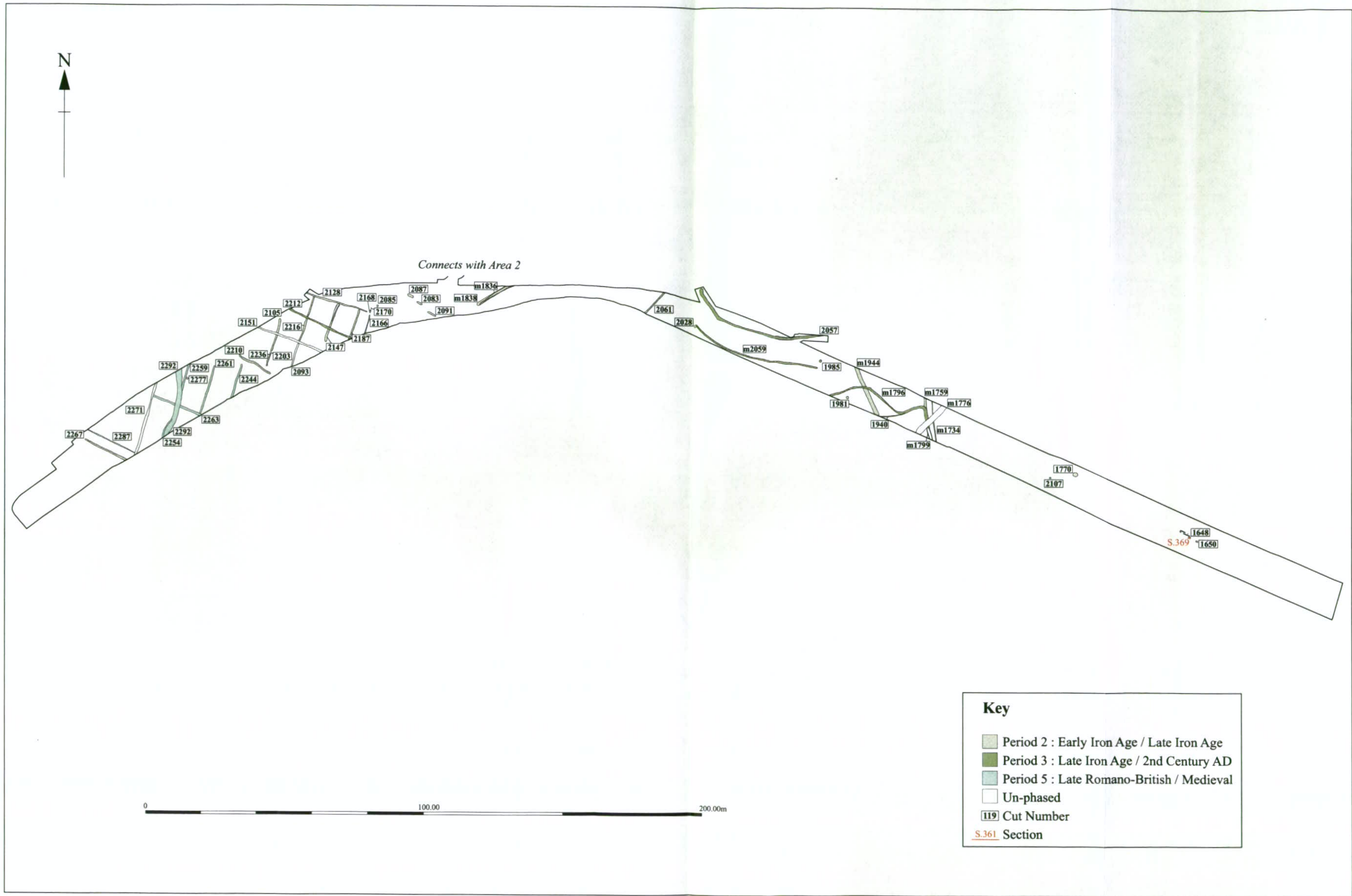


Figure 4: Area 3

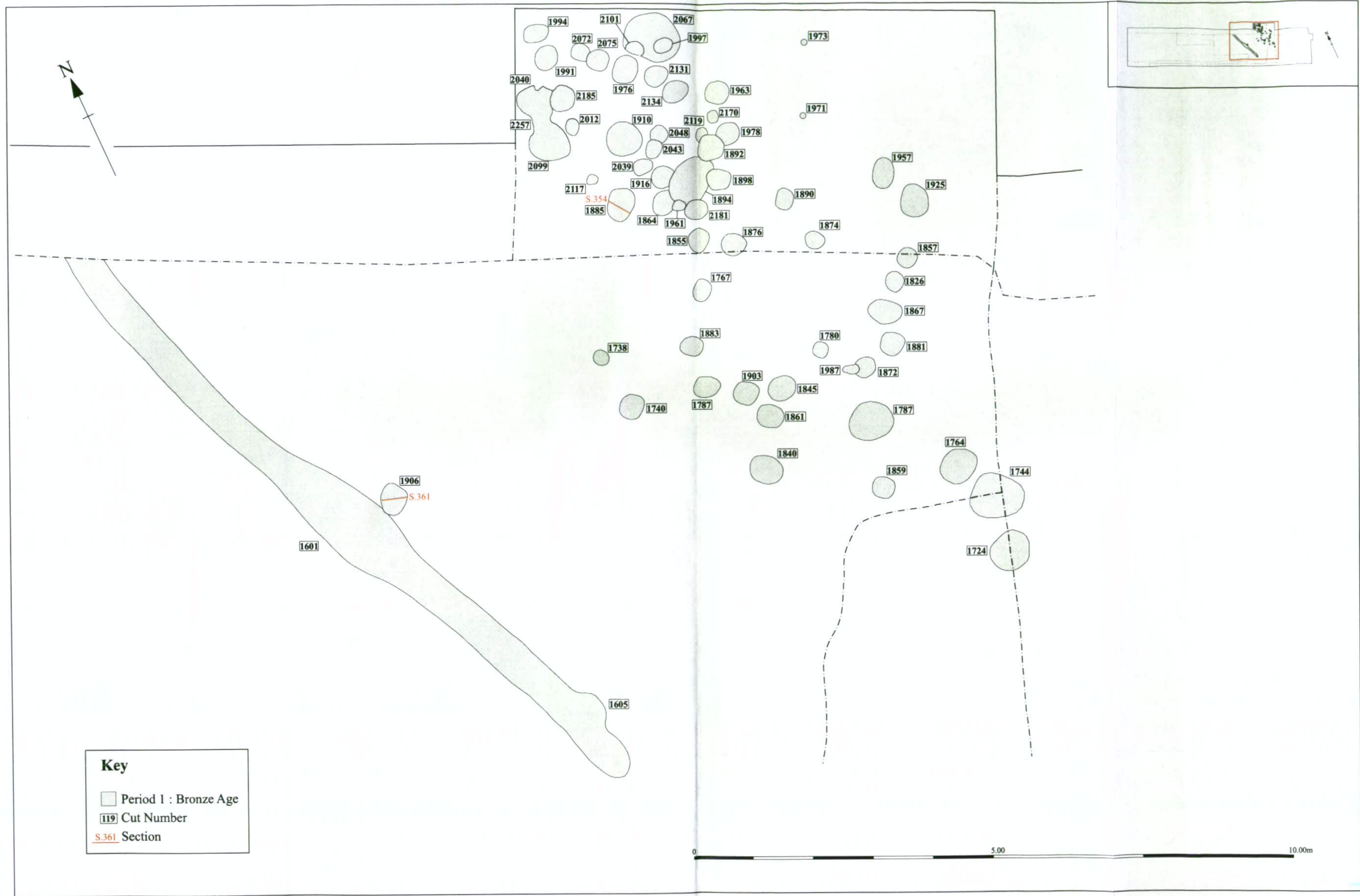


Figure 5: Area 4



Figure 6: Area 6

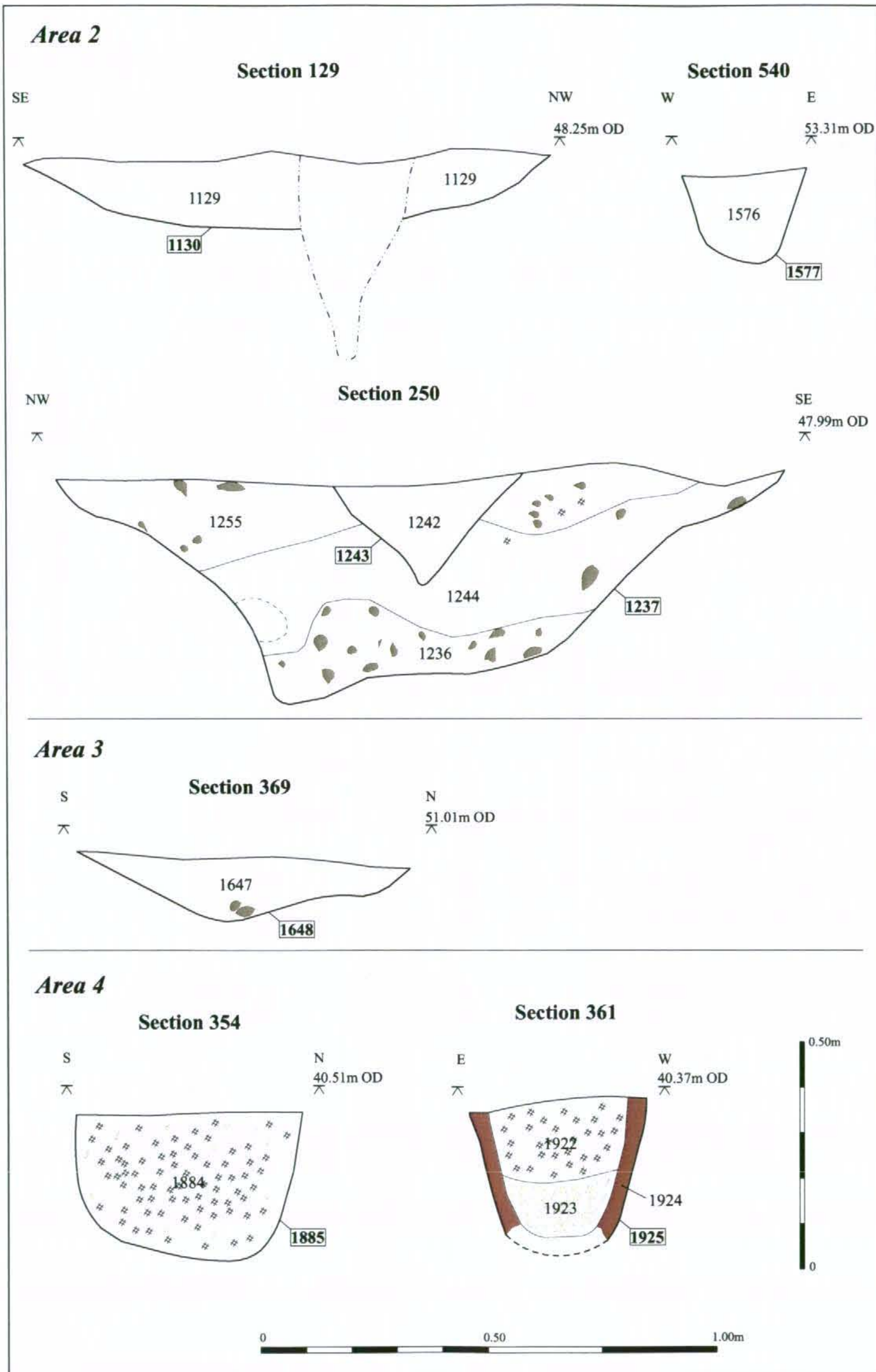


Figure 7: Section drawings

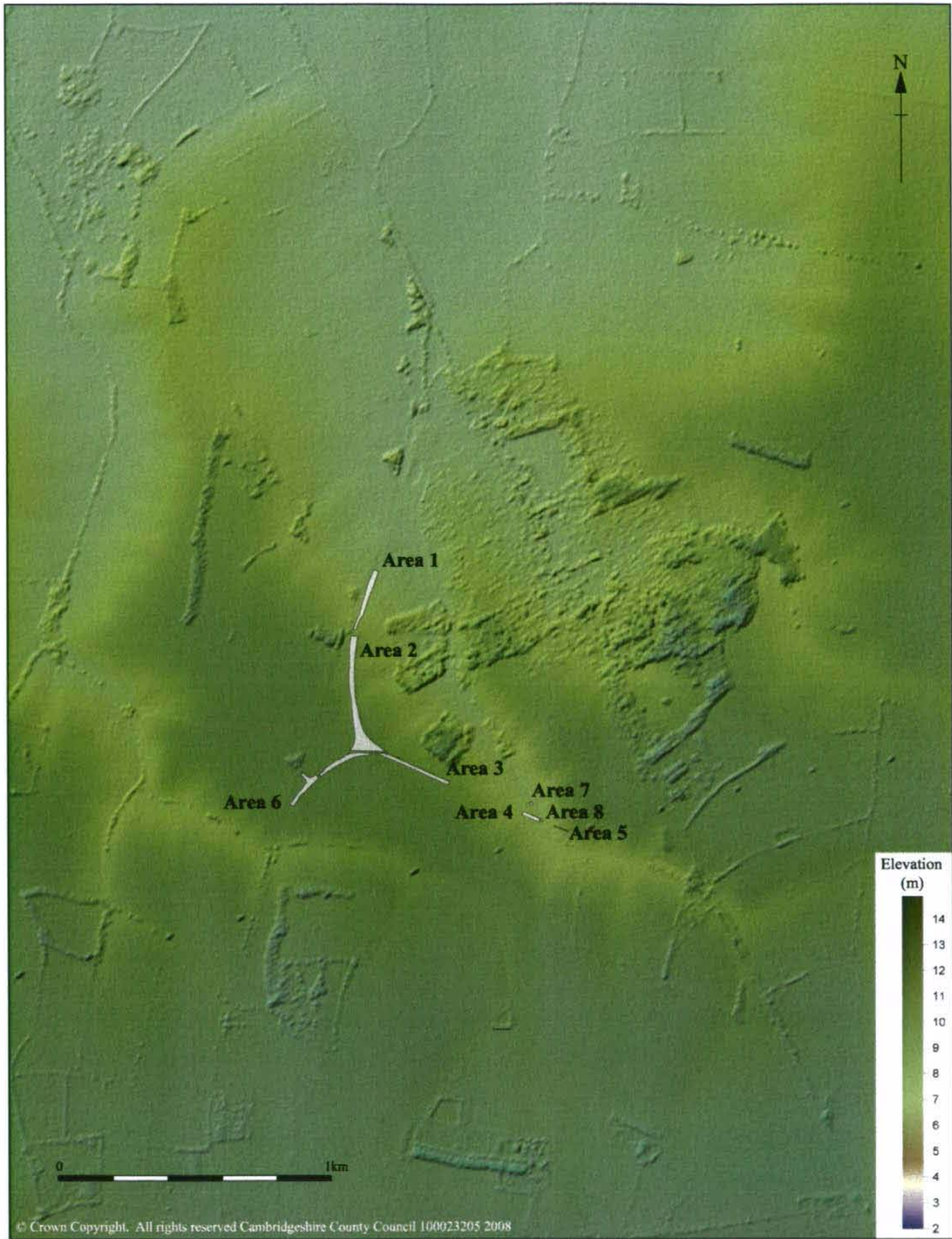


Figure 8: Terrain model map with the excavated areas

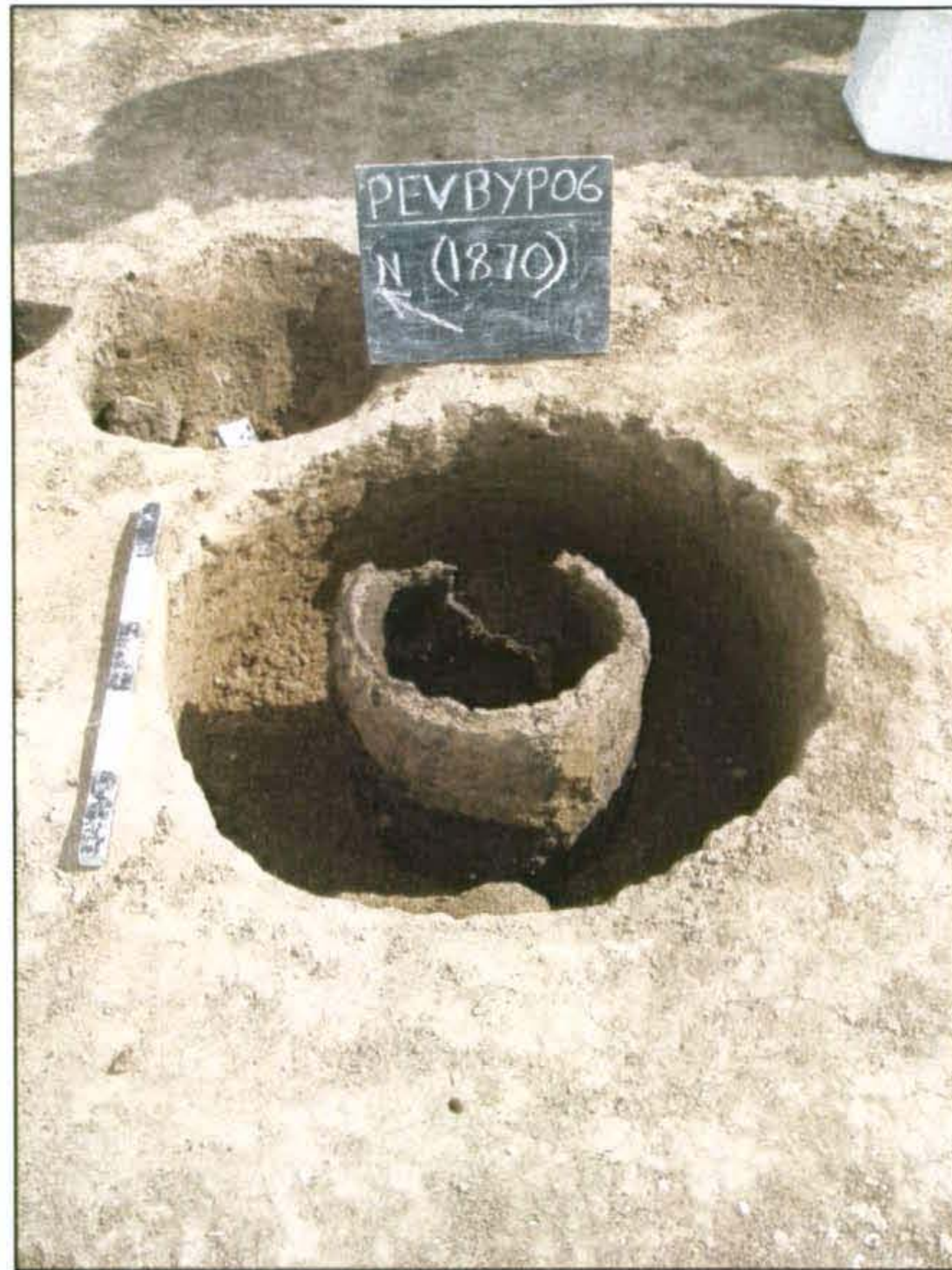


Plate 1

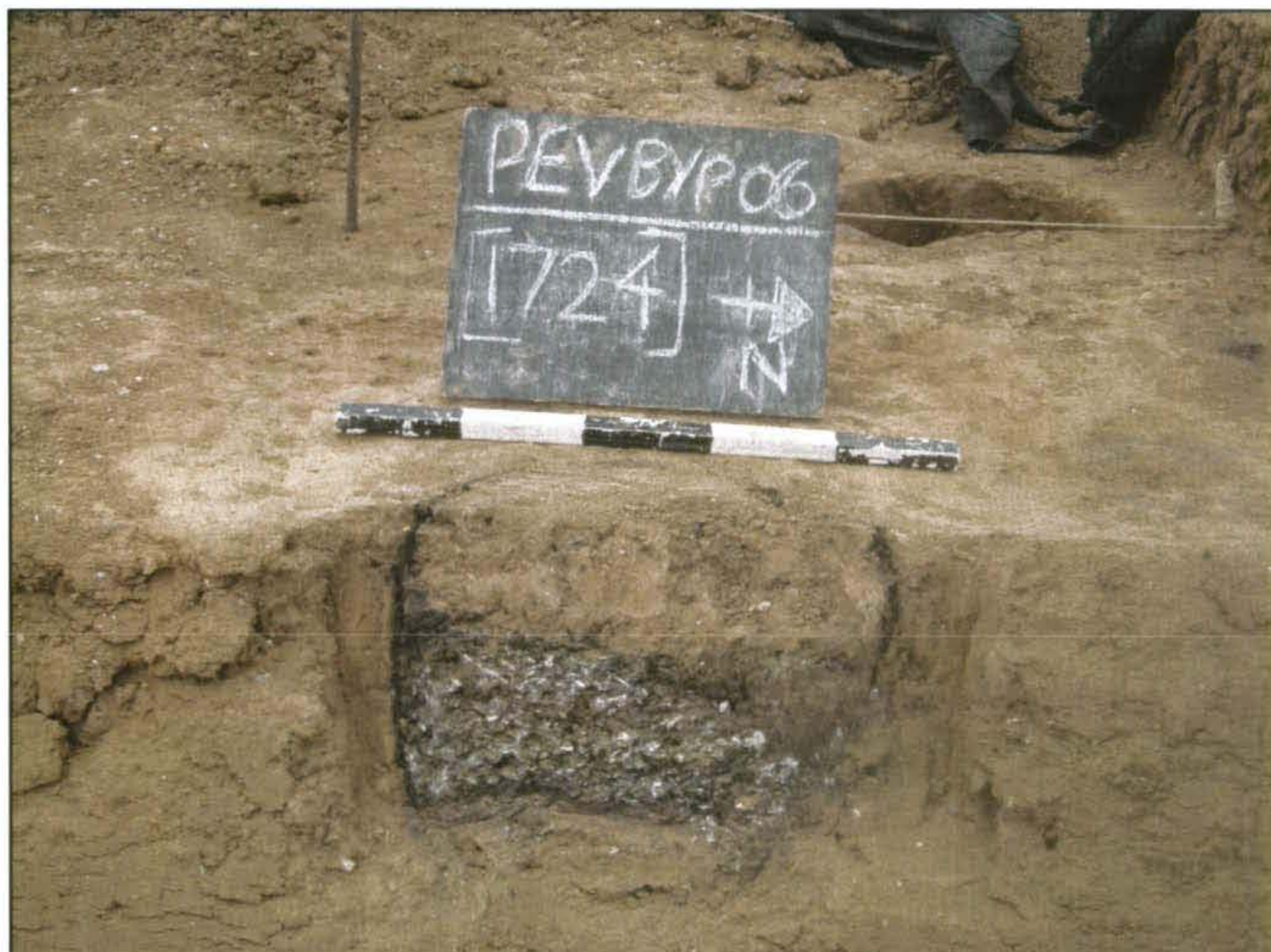


Plate 2

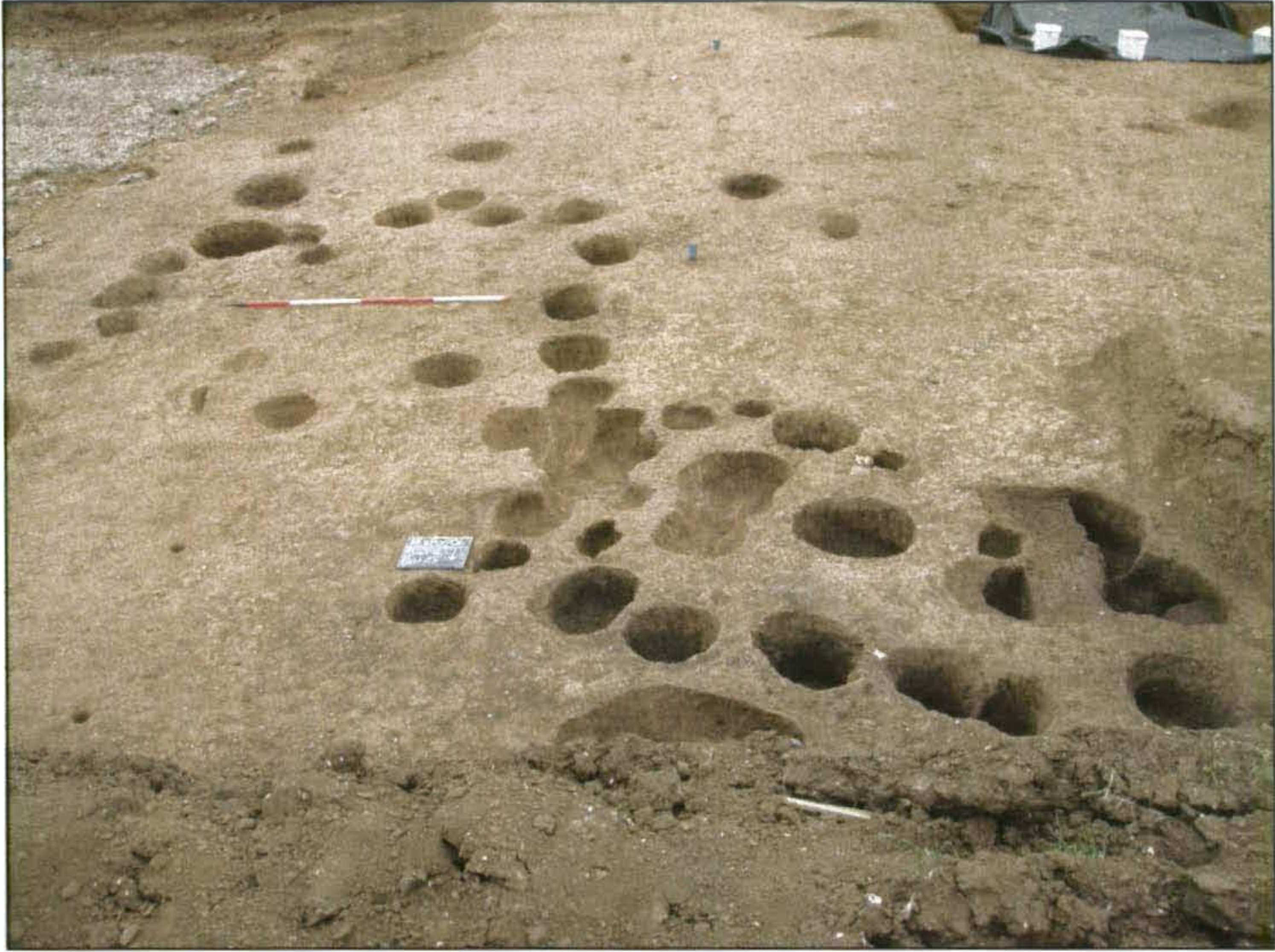
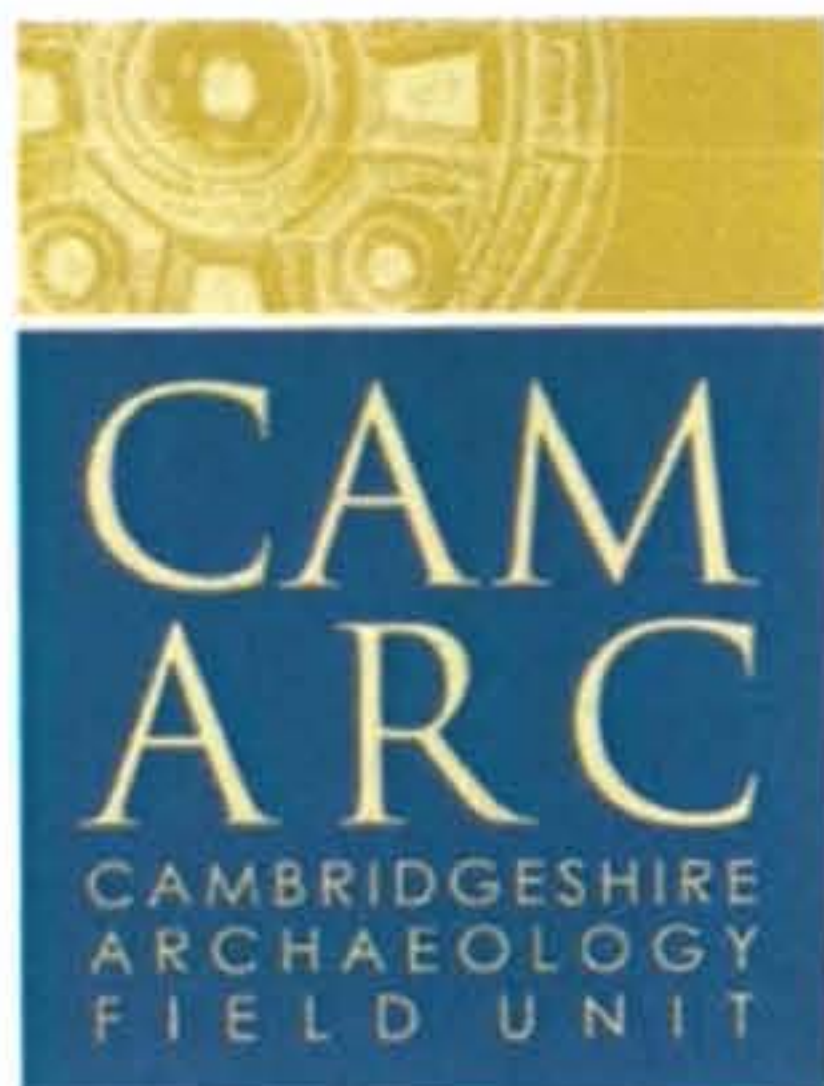


Plate 3



Plate 4



CAM ARC,
Cambridgeshire County Council,
15 Trafalgar Way,
Bar Hill,
Cambridgeshire,
CB3 8SQ

General Enquiries: 01954-204191
Fax: 01954-273376

<http://www.cambridgeshire.gov.uk/archaeology>