



CCC AFU Report Number 985

Multi-period excavation at New Road, Chatteris, Cambridgeshire

Post-excavation Assessment and updated project design

Chris Thatcher

October 2008

CAM ARC Report Number 985

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Post-Excavation Assessment and Updated Project Design

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CHER Event Number: ECB 2211
Date of works: 20th November 2006 to 16th March 2007
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PROJECT DETAILS				
Project name	Multi period excavations at New Road, Chatteris, Cambridgeshire			
Short description	Between November 2006 and March 2007 the Cambridgeshire County Council Archaeological Field Unit (CAM ARC) carried out an archaeological excavation on the land at New Road, Chatteris. Two areas, covering a total of 0.7ha were opened. Area A was situated to the north of the partition wall that subdivided the development area whilst Area B lay to its south. Evidence for human activity spanning the Mesolithic to Medieval periods was recovered, although features directly associated with settlement appeared to date predominantly to the Iron Age and were concentrated toward the southern end of Area B. These comprised boundary ditches and gullies, pits and a very large number of postholes, some of which were concentrated into clusters that appeared to represent the sites of repeated construction, probably of fairly temporary structures. Three cremations dating to the Middle Bronze Age were recorded in Area A. Two inhumations also recovered from Area A were tentatively dated to the Roman period. A number of sherds of Saxon pottery were recorded across the site but of particular significance was the recovery of a sherd of imported North French Blackware. This was an extremely rare find in the county, with Chatteris being just the third site to produce such material. This pottery is thought to have had strong associations with the wine trade and it may therefore be that during this period Chatteris formed a staging post for travel and trade throughout the region.			
Project dates	Start	20-11-06	End	16-03-08
Previous work	Archaeological Evaluation Report No. 868		Future work	No
Associated project reference codes	CHA NER 06 ECB 2211			
Type of project	Excavation			
Site status	None			
Current land use	Undeveloped land			
Planned development	Residential			
Monument types / period				
Significant finds: Artefact type / period	Cremations, inhumations, enclosure/boundary ditches, pits, postholes			
PROJECT LOCATION				
County	Cambridgeshire	Parish	Chatteris	
HER for region	Cambridgeshire			
Site address	New Road, Chatteris			
Study area (sq.m or ha)	0.6ha			
National grid reference	TL 3944 8625			
Height OD	Min OD	8.82	Max OD	9.30
PROJECT ORIGINATORS				
Organisation	CAM ARC			
Project brief originator	CAPCA			
Project design originator	James Drummond Murray			
Director/supervisor	Chris Thatcher			
Project manager	James Drummond Murray			
Sponsor or funding body	Sovereign Homes			
ARCHIVES				
	Location and accession number	Content (e.g. pottery, animal bone, database, context sheets etc)		
Physical	CAM ARC	Pottery, CBM, Small finds, Environmental samples, faunal remains, human remains.		
Paper	CAM ARC	Primary site records and indices, plans, sections. Excavation report, specialist reports, print and slide film		
Digital	CAM ARC	Survey data, finds & context database, reports, correspondence, photographs		
BIBLIOGRAPHY				
Full title	Multi period excavations at New Road, Chatteris, Cambridgeshire			
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Summary

Between November 2006 and March 2007 the Cambridgeshire County Council Archaeological Field Unit (CAM ARC) carried out an archaeological excavation on the land at New Road, Chatteris. An evaluation conducted in 2006 had confirmed that the site had high archaeological potential and a condition was placed on planning consent requiring a scheme of archaeological work to be undertaken prior to any development. This specified the opening of two areas, covering a total of 0.7ha. Area A was situated to the north of the partition wall that subdivided the development area whilst Area B lay to its south.

Evidence for human activity spanning the Mesolithic to medieval periods was recovered, although features directly associated with settlement appeared to date predominantly to the Iron Age and were concentrated toward the southern end of Area B. These comprised boundary ditches and gullies, pits and a very large number of postholes, some of which were concentrated into clusters that appeared to represent the sites of repeated construction, probably of fairly temporary structures.

Three cremations dating to the Middle Bronze Age were recorded in Area A. Two inhumations, also recovered from Area A, were tentatively dated to the Roman period.

A number of sherds of Saxon pottery were recorded across the site but of particular significance was the recovery of a sherd of imported North French Blackware. This is an extremely rare find in the county, with Chatteris being just the third site to produce such material. This pottery is thought to have had strong associations with the wine trade and it may therefore be that during this period Chatteris formed a staging post for travel and trade throughout the region.

Contents

1	Introduction	1
	1.1 Project Background	1
	1.2 Geology and Topography	1
2	Archaeological and Historical Background	1
	2.1 Prehistoric	2
	2.2 Roman	2
	2.3 Saxon	2
	2.4 Medieval	3
3	Aims and Objectives of the Excavation	3
	3.1 Prehistoric	3
	3.2 Iron Age and Roman	3
	3.3 English Heritage Research Priorities	4
4	Excavation Methodology	5
	4.1 Evaluation	5
	4.2 Excavation	6
5	Summary of Excavation Results	6
	5.1 Provisional Site Phasing	7
	5.2 Period 1: Mesolithic to Early Bronze Age	8
	5.3 Period 2: Middle Bronze Age	9
	5.4 Period 3: Early Iron Age to Late Iron Age	9
	5.5 Period 4: Roman	11
	5.6 Period 5: Saxon	11
	5.7 Period 6: Medieval to Modern	12
6	Assessment of Archaeological Potential	12
	6.1 Statement of Potential	12
	6.2 Stratigraphic and Structural Data	13
	6.3 Artefact Assemblage Summaries	15
	6.4 Environmental Remains	16

7	Updated Research Aims and Objectives	17
	7.1 Research Priorities	18
	7.2 Project Research Objectives	18
8	Methods Statements	19
	8.1 Full Analysis	20
	8.2 Partial Analysis	20
	8.3 Little/No Further Analysis	21
9	Report Writing, Archiving and Publication	21
	9.1 Report Writing	21
	9.2 Archiving	21
	9.3 Publication	22
10	Resources and Programming	22
	Acknowledgements	36
	Bibliography	36
	List of Figures	
	Figure 1: Location of trenches outlined (black) with the development area outlined (red)	
	Figure 2: Excavation areas showing location of previous trenches	
	Figure 3: Phase plan, all phases	
	Figure 4: Area A, Period 1 Mesolithic to Early Bronze Age	
	Figure 5: Area B, Period 1 Mesolithic to Early Bronze Age	
	Figure 6: Area A, Period 2 Middle Bronze Age	
	Figure 7: Area A, Period 3 Early Iron Age to Late Iron Age	
	Figure 8: Area B, Period 3 Early Iron Age to Late Iron Age	
	Figure 9: Area A, Period 4 Roman	
	Figure 10: Area A, Period 5 Saxon	
	Figure 11: Area B, Period 5 Saxon	
	Figure 12: Period 6 Medieval to modern	

Drawing Conventions

Plans

Limit of Excavation	_____	
Deposit - Conjectured	- - - - -	
Natural Features	_____	
Sondages/Machine Strip	- - - - -	
Intrusion/Truncation	- - - - -	
Illustrated Section	_____ S.14	
Archaeological Feature		Archaeological Deposit
Excavated Slot		Furrow
Modern Deposit		Roman Inhumation
Cut Number	118	Modern animal burial

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	$\frac{18.45\text{m OD}}{\wedge}$	
Inclusions		

List of Appendices

Appendix 1: Health and Safety Statement

Appendix 2: The Small Finds, by Nina Crummy

Appendix 3: Lithics, by Barry John Bishop

Appendix 4: The Pottery Assemblage, by Paul Blinkhorn

Appendix 5: Analysis of the Human Bone, by Natasha Dodwell

Appendix 6: The Faunal Remains, by Chris Faine

Appendix 7a: Environmental Appraisal of Samples, by Rachel Fosberry

Appendix 7b: An assessment of the charred plant macrofossils, by Val Fryer

1 Introduction

1.1 Project Background

Between November 2006 and March 2007 the Cambridgeshire County Council Archaeological Field Unit (CAM ARC, now OA East) carried out an archaeological excavation on the land at New Road, Chatteris, centred on TL 3944 8625.

The work was commissioned by Sovereign Homes Limited (planning application no. F/YR04/4303/O). The excavation was conducted in accordance with a design brief drawn up by Kasia Gdaniec of Cambridgeshire Archaeology Planning and Countryside Advice (CAPCA – November 2 2006) and a specification, by James Drummond Murray, of CAM ARC (October 2006).

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 to attempt a reconstruction of the history and use of the site. The site-specific research aims are dealt with in Section 3 below.

1.2 Geology and Topography

The site lies on an island of Ampthill clay with patches of March and terrace deposits. Surrounding the island are fen deposits, including peats sealed by marine clays laid down in the early Bronze Age (British Geological Survey 1995, sheet 172). The site lay at between 8.82mOD and 9.30mOD and was fairly level with a recorded variation in height across the site of less than 0.50m.

2 Archaeological and Historical Background

The site lies in the historic core of Chatteris and there is a large body of evidence for the occupation of the area from the prehistoric period onwards. CAM ARC conducted an archaeological excavation immediately to the south of the site in 2001, which revealed multiple phases of occupation (Cooper 2004). The results of this work have been incorporated into the background for this report.

No archaeological deposits were identified during evaluations conducted to the east and southeast of the development area at No. 48-56 New Road (Taylor and Thorne 2003) and St Martins Road (Prosser and Boyer 2001), though these sites lay on more marginal land outside the core of the settlement.

2.1 Prehistoric

During the Neolithic period a major river channel, with associated tributaries, ran close to the northern edge of the island. Tidal or intertidal marshes lay between the tributaries and, whilst much of the island was dry land, the soils were too heavy to attract settlement (Hall 1992). The majority of the settlement and finds evidence come from the southern and eastern part of the island although a flint scatter and Neolithic axe found to the west of the modern settlement and a polished axe from Delve Terrace suggest limited occupation elsewhere.

During the Bronze Age, peat fen encroached on the area covering the marine sediments. The relative dryness of much of the land during this time appears to have led to more extensive occupation of the island, as evidenced by the considerable amount of Bronze Age metalwork reported from Chatteris, possibly as a result of cemeteries being disturbed by agriculture. A dispersed barrow field occupying the eastern half of the island towards the fen edge was the chief monument from this period and comprised at least fifteen barrows (Hall 1992).

The archaeological excavation carried out immediately to the south of the development area recorded pits which contained fragments of Beaker and Collared Urn pottery as well as worked antler dated to the Bronze Age.

Late Bronze Age and Early Iron Age pottery forms found in two areas suggest continued intensive occupation into the Iron Age period (Hall 1992). A number of pits and postholes dateable to the Early Iron Age were also recorded during the CAM ARC excavation in 2001, immediately to the south, and smaller settlement sites of later Iron Age date have also been identified.

2.2 Roman

Chatteris appears to have been an important area in the Roman period with evidence for settlement and a local economy based on stock rearing. A continuous sequence of occupation was identified to the south of the development area in 2001 in the form of ditches (suggesting a field system), pits and postholes dateable to the Late Iron Age/Early Roman period and enclosure systems, structures and industrial features dateable to the 2nd to 4th century.

2.3 Saxon

No Saxon remains were identified by the Fenland Project survey around Chatteris Island, away from the town. It is possible that the

present town is built over the Saxon settlement and a number of features recorded during the 2001 excavations to the south support this theory. These consisted of pits, postholes and ditches suggestive of structural remains dateable to the Anglo-Saxon period. The main island was subjected to Midland-type strip cultivation in the medieval period.

2.4 Medieval

Two manors are known for Chatteris from the medieval period. Athelstan Mannesson gave a part of Chatteris to Ramsey Abbey; Edgar confirmed the gift in 974. Eadnoth, Abbot of Ramsey founded a small nunnery at Chatteris between 1006 and 1008 (Hall 1992).

The church of SS Peter and Paul consists of a chancel, north and south chapels, a north vestry, clerestoried nave, aisles, two south porches and a west tower. It is built of rubble with stone dressings and the roof is part tiled and part leaded. The oldest remaining part of the structure dates from the mid-14th century and the porch is 15th century.

The archaeological evidence for this period recovered from the excavations of 2001 consisted of a number of pits.

3 Aims and Objectives of the Excavation

The main aim of the project was to preserve the archaeological evidence contained within the excavation area by record and to attempt a reconstruction of the history and use of the site. A number of aims and objectives were identified (Drummond Murray 2006), based largely on the results of the evaluations and surveys undertaken during 2006.

3.1 Prehistoric

To investigate the nature of the prehistoric activity in the area, with particular regard to its topographic context and the prehistoric landscape.

3.2 Iron Age and Roman

To investigate the nature of Iron Age and Roman activity in the area with particular regard to the development of established settlement on the Chatteris fen island, and to inter-relate this evidence with that recovered from the neighbouring site to the south.

In particular to investigate the extent of the area of human remains revealed in the evaluation and other Iron Age structures and features, suggesting the presence of settlement activity on the site.

3.3 English Heritage Research Priorities

There are a number of national research priorities that English Heritage (English Heritage 1997) identify which provide the framework for investigation and can be applied to the evidence found at New Road, Chatteris.

Landscapes

There has been a growing sense of the need to place archaeological 'sites' within a better understanding of the landscape as a whole (English Heritage 1992a). Landscape projects are not mere survey; they are an attempt to explore complex relationships, which may draw upon a number of theoretical constructs. Landscapes may be defined using a variety of criteria, including political, cultural, physical, or belief-system determinants, and a number of temporal landscapes may be present in any given geographic area. Their scale, and the methods of researching them, depends upon the constructs being examined (English Heritage 1997, 55).

Briton into Roman (c 300 BC-AD 200)

A high level of continuity in settlement and land use and, by implication, in social and economic organisation, between the Late Iron Age and Romano-British periods is becoming increasingly apparent, as are contemporary regional variations. Increasing awareness of the complexity of the transition, combined with issues of ethnicity, and social and economic dislocation, would seem to offer great potential for exploiting complex data sets (English Heritage 1997, 44).

The late Saxon to medieval period (c 700-1300 AD)

Late Saxon origins have been demonstrated for many medieval towns and villages in southern England, but the nature of urban form is still poorly understood. Major reorganisation of the cultivated landscape also appears to have occurred in this period; studies of its field systems, crops and husbandry are likely to continue to produce results. New research avenues for the crucial 8th-11th century are being developed from the MPP settlement-mapping project (Stocker 1995b). The changes that followed the Norman conquest, and the way that settlement patterns and economic structures developed, are still poorly represented in archaeological research: work on aspects of daily life, exchange systems and the urban form, are needed to compliment current historical research (English Heritage 1997, 44).

4 Excavation Methodology

4.1 Evaluation

The evaluation was undertaken in response to a brief from the County Archaeology Planning and Conservation (CAPCA) Office (Thomas 2005), which stated that the site had a high archaeological potential requiring a scheme of archaeological work to be undertaken at the site.

4.1.1 Trial Trenching and Watching Brief

Trial Trenching

In April 2006 ten trenches were excavated under archaeological supervision in the designated parts of the development area. This amounted to a total area of 304m², or approximately 5% of the site. The only significant restriction to the placement of the trenches was a partition wall aligned east to west across the centre of the development area, which divided it into two zones: five trenches were excavated in each, resulting in a good sample of the development area being obtained.

Two concentrations of archaeological features were recorded. To the northeast, Trenches 8, 9 and 10 revealed two grave cuts, containing what appeared to be supine burials aligned east to west, a series of postholes forming part of a post-built structure, a hearth and several isolated features. The inhumations were not excavated during the course of the evaluation whilst the cut features, dated to the Early Iron Age, suggested that some form of settlement was present on the site.

The second concentration of archaeological remains was recorded further to the south in Trenches 1, 2 and 3 and consisted of a series of ditches and pits whose basal fills contained deposits of faunal remains, pottery and worked stone.

The pattern of features in these southernmost trenches bore some similarity to the Early Iron Age features recorded during the High Street excavations of 2001, the majority of which were located in the northern part of that site. A greater concentration of evidence for ritual behaviour was recorded during the evaluation than was encountered during the High Street excavations

No finds dated to later than the Iron Age were recovered during the evaluation.

Watching Brief

Subsequent to the evaluation a watching brief was conducted during the excavation of geological test pits within the development area. The small size of the test pits precluded any firm conclusions as to the form and function of the archaeological features it revealed from being drawn, although the spatial distribution of those remains that were encountered did produce evidence that was comparable with and helped to further elucidate the results of the evaluation.

4.2 Excavation

The evaluation confirmed that the site had high archaeological potential and a condition was placed on planning consent requiring a scheme of archaeological work to be undertaken prior to any development. This specified the opening of two areas, covering a total of 0.7ha. Area A was situated to the north of the partition wall that subdivided the development area whilst Area B lay to its south.

There was limited space on site for the storage of spoil, which meant that it had to be stripped in two stages. Area A, to the north, was stripped first and the overburden stockpiled on Area B, to the south. The process was to be reversed upon the completion of the works in Area A, which would be reinstated before being used to stockpile the soil from Area B. However, ground conditions on the site had deteriorated considerably by the time Area B came to be stripped with much of the eastern half of the site flooded, which made it impossible to reinstate the ground. As a result the topsoil removed from Area B was stored around the edge of the excavation area and the remaining subsoil stockpiled on dry ground to the north.

The stripping of both areas was carried out in two phases. The first comprised the removal of the topsoil. At this point each area was metal detected to recover any objects and their locations were recorded in three dimensions. The lower soils were then subject to a gridded test-pitting scheme to check for the presence of artefacts. These were hand excavated in 100mm spits on a 10m grid. Once this exercise was completed the remaining lower soils were removed by machine under archaeological supervision.

5 Summary of Excavation Results

Evidence for human activity comprised features and deposits spanning the Mesolithic to Medieval periods, although features directly associated with settlement appear to date predominantly to the Early Iron Age to Late Iron Age (c 700BC - c AD100).

5.1 Provisional Site Phasing

As with many rural sites very little complex stratigraphy was present, although toward the southern end of Area B a number of quite complex intercutting and re-cutting linear features were recorded. 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. Six main periods have been provisionally identified, although these may be subject to refinement for analysis and publication:

Period 1. Mesolithic to Early Bronze Age (c10, 000BC - c.3300BC). Twenty eight struck flints and a small quantity of burnt flint fragments were recovered during the excavation. These were predominantly derived from the tertiary fills of features.

Period 2. Middle Bronze Age (c1500BC - c.1000BC). Three cremations recorded in Area A were attributed to this period. Only one was urned and this enabled the deposit to be dated. The close proximity of the remaining cremations suggests that they too dated to this period.

Period 3. Early Iron Age to Late Iron Age (c 700BC - c AD100). This period comprises most of the datable features on site. It included a very large number of postholes, some of which were concentrated into clusters that appeared to represent the sites of repeated construction, probably of fairly temporary structures, and a number of boundary ditches and gullies, located towards the south of Area B.

Period 4. Roman (c AD430 – AD 410). This period was represented by the two inhumations recovered from the northern part of the site.

Period 5. Saxon (c AD450 – c AD1066). The evidence for activity from this period is overwhelmingly derived from the pottery assemblage recovered from a number of features, mainly in Area B. Much of this is thought to be residual material derived from the tertiary fills of features across the site.

Period 6. Medieval to modern (c AD1066 – present). Remains of this date consist of, primarily, medieval ridge and furrow remnants, medieval hedgerow remnants and a number of animal burials, predominantly located in Area A.

5.2 Period 1: Mesolithic to Early Bronze Age. (c 10, 000BC – c 1500BC) (Fig. 4 & 5)

5.2.1 Flint Assemblage

A total of 28 struck flints and a small quantity of burnt flint fragments were recovered during the excavation. The assemblage predominantly consisted of waste from controlled blade production typical of industries dateable to the period spanning the Mesolithic and Early Neolithic. The relatively small size of the assemblage indicates that flint working was only a peripheral activity on site and that whilst the raw materials were probably obtained and at least partially worked locally they were in all likelihood put to use elsewhere. As such, the lithic material indicates low-key visiting of the site by mobile communities as part of a much wider inhabitation of the landscape.

The struck flints were primarily recovered from the tertiary fills of features, many of which contained finds from later periods. This suggests that they were, in the main, residual material rather than *in situ* and as such the features from which they were derived have been dated to later periods. The locations of these finds are marked on figs. 4 & 5 as findspots.

Two concentrations of flint were identified on the site. The first lay to the west of Area A (Fig. 4). Included within this group were several retouched implements for which tentative dating was possible (Appendix 3). They were a bifacially serrated blade (1206), dated to the Mesolithic/Early Neolithic, a diminutive scraper of Late Neolithic/Early Bronze Age provenance (1381) and a retouched blade of Late Neolithic date (1381).

The second group was situated towards the northeast corner of Area B (Fig. 5). These apparent concentrations accounted for 50% of the assemblage with the remaining pieces distributed across the site. It is therefore possible that they represented the residual elements of two flint scatters because although they were not necessarily recovered *in situ* they were derived from areas of the site whose concentrations of archaeological features were typical of the site as a whole. This may suggest that the increased frequency of recovery at these points was a result of these areas previously being the focal point of primary flint working activity.

5.3 Period 2: Middle Bronze Age (c 1500BC –c 1000BC) (Fig. 6)

5.3.1 Cremations

Three cremations, located within approximately a 10m radius of one another, were excavated in the northeast corner of Area 1. They were all found to comprise adult remains. Burial 1 (**1355**) was the only urned burial and the vessel had been heavily truncated, surviving to only a depth of 70mm. The majority of the cremated bone was recovered from inside the truncated vessel whilst the fill of the pit cut was interpreted as mainly consisting of redeposited pyre debris. The presence of a cremation vessel enabled the deposit to be dated to the Middle Bronze Age.

The remaining cremations, Burial 2 (**1357**) and Burial 3 (**1398**), had possibly been interred within an organic container, which had not survived the intervening years; these were tentatively identified as a male and female respectively and also found to contain the remains of an immature individual (aged less than 5 years). The close proximity of these features to one another implies that they were all of Middle Bronze Age date.

5.4 Period 3: Early Iron Age to Late Iron Age (c 700BC - c AD100) (Fig.7 & 8)

A large number of postholes were recorded and it was apparent that some of these were gathered into clusters, especially in Area B, where those that contained finds were predominantly dated to the Iron Age. Whilst the sheer number of postholes made it very difficult to discern individual structures or alignments of features it seems likely that these clusters represented the sites of temporary structures, possibly constructed as and when the water table allowed, on the periphery of the main settlement to the south. The inference that the archaeological deposits recorded represented a relatively ephemeral settlement is borne out by the range of fabric types recovered dating to this period, which is typical of low-level Iron Age activity (Appendix 4).

The largest cluster of postholes was recorded on the eastern side of Area B close to a series of intercutting ditches forming the northeast corner of an enclosure that continued beyond the southern limit of the site. This enclosure was recorded in the excavations immediately to the south of the site in 2001. A line of postholes (**1923, 1925, 1925, 1929, 1935, 1951, 1955**) aligned northwest to southeast were discernable within this group that may, in conjunction with several postholes aligned perpendicular (**1699, 1707, 1927, 1939**) to the southernmost in this line have formed two sides of a structure. This possible structural remnant was recorded on the same alignment as the ditches in this area and its close proximity to the enclosure

suggests that it, and the surrounding postholes, may well have been in use during the life of the enclosure.

Numerous recuts of this ditch were recorded along with a series of shallow gullies just to the north of the enclosure ditch, which suggests that this boundary was maintained and adhered to over an extended period of time, from the Iron Age onwards.

A number of probable wells were recorded across the site. Those in Area B (**2052, 2089, 2198**) were all located within enclosure **2061** parallel to its northern boundary. In Area A such features (**1171, 1195, 1197, 1545 & 1576**) were spread across the site with **1545** apparently surrounded by an arrangement of postholes, which may have formed a structure around the feature. The height of the water table, which at the time of excavation lay less than a metre below ground level, makes it seem likely that such a structure would have taken the form of a lean too or shelter rather than being associated with any kind of apparatus for the recovery of water from depth.

Activity on the site during this time, although heightened in comparison with the other periods, still appears to have been fairly ephemeral and at best temporary, probably as a result of the continued risk of inundation and waterlogging.

This prehistoric piece is a fragment of a loom weight from context (2148). Round in section, it belongs to a period before the triangular loom weight became the standard form in lowland Britain, c 500 BC. When complete, it probably tapered slightly to a rounded top, a form that occurs in the substantial assemblage of loom weights and clay blocks from Willington, Derbyshire, where it is contemporary with the Late Bronze Age/Early Iron Age pottery of the site's Assemblage I (Elsdon 1979, 198, fig. 80, II). The presence of loom weights on occupation sites is evidence for the use of textile production on a warp-weighted loom, and, by extension, the keeping of flocks of sheep for wool or the use of vegetable fibres. In some instances the use of loom weights had a ritual aspect. For example, at the Caburn, East Sussex, nearly all the loom weights (35 out of 38) were found only in the bottom 'third' of pits, as were many other types of finds, and it has been argued that this recurring pattern is evidence that the infilling of the pits was a ritual act, possibly a public one (Hamilton 1998, 29, 38, fig. 5). The context of the Chatteris fragment allows it to be identified as an example of this practice and its selection implies that the rite was associated with either the agricultural cycle or the rhythms of domestic life.

5.5 Period 4: Roman (c AD43 – AD 410) (Fig. 9)

5.5.1 Inhumations

The inhumation burials were adjacent and parallel to each other in the southeast corner of Area A. The positions of the bodies in the graves suggested a Roman or later date. Skeleton **1405** (grave **1244**) was a mature adult male, laid out supine and extended with his head in the west of the grave. The arrangement of the hands below the pelvis suggested that the body might have been shrouded. Skeleton **1407** (grave **1243**) was perhaps slightly younger and was once again laid out supine, extended and with his head in the west of the grave. The right arm was tight against the body, the left flexed at the elbow with the clenched hand on the right hip, and the feet tight together, again suggesting that the body may have been shrouded.

Seven sherds of Roman pottery were recovered from various features on the site, these were however thought to be residual as the prime focus of Roman activity in the area appears to have been located immediately to the south on the site of the excavations of 2001 (Cooper 2004).

5.6 Period 5: Saxon (c AD450 – c AD1066) (Fig. 10 & 11)

The evidence for activity from this period was overwhelmingly derived from the pottery assemblage recovered from a number of features, mainly in Area B. Although some of this material was recovered from a cluster of shallow gullies and postholes in the northwestern part of Area B, much of the remainder appeared to be residual material derived from the tertiary fills of features across the site.

5.6.1 Pottery

Material spanning the Saxon period was recovered and included 13 sherds of hand-built pottery. The dating of Early Saxon hand-built pottery is entirely reliant on the presence of decorated sherds (Appendix 4). In this case, none of the hand-built pottery had any form of decoration, however, none of it occurred in contexts with dateable Middle Saxon wares such as Ipswich or Maxey types. It seems, therefore, that an early Saxon (5th – 7th century) date is the most likely for the hand-made pottery (Appendix 4).

The Middle Saxon period was represented by Ipswich ware, although occupation could not be closely dated other than to within the broad period of AD725 – 850. Of particular significance was the recovery of a sherd of imported North French Blackware. This is an extremely rare find in the county, with Chatteris being just the third site to produce such material. It is likely to have been brought in as a by-product of the

wine trade, with wine being of some expense and status in the middle Saxon period, it may therefore be that Chatteris formed a staging post or service centre between ecclesiastical centres (Appendix 4).

A small number of sherds of late Saxon Thetford ware were recovered. This suggests that there was continuous activity at the site from the end of the Middle Saxon to late Saxon periods, although late Saxon activity was probably short-lived and low level with the general paucity of the assemblage indicating it was the product of secondary deposition (Appendix 4).

5.6.2 Animal Bone

The largest quantity of dateable faunal material on site was recovered from Saxon contexts; cattle remains dominated the assemblage with lesser, but roughly equal, proportions of sheep/goat and pig remains (Appendix 6). The presence of bird, cat and dog remains suggested settlement nearby.

This evidence, taken in conjunction with the information gleaned from the pottery finds, suggests that whilst Saxon activity on the site itself was probably limited to agricultural practises, the area in the immediate vicinity may have had some significance during this time perhaps, as suggested above, as a stop-off point between ecclesiastical centres such as the Lady Chapel, Ely and the probable Saxon nunnery at Castor in the extreme north-west of the county (Appendix 4).

5.7 Period 6: Medieval to modern (c AD1066 – present) (Fig. 12)

The archaeological features attributed to this period consisted of ridge and furrow remnants, medieval hedgerow remnants and a number of animal burials, predominantly located in Area A. The Medieval ceramic assemblage was quite small but typical of the region, comprising mainly unglazed wares of various types, along with a few fragments of glazed jugs, suggesting that there was low-level activity at the site throughout the medieval period.

6 Assessment of Archaeological Potential

6.1 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 Mesolithic to medieval 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 documentary research into the Iron Age and Saxon periods at Chatteris.

6.2 Stratigraphic and Structural Data

6.2.1 Quantity of Written and Drawn Records

Area	CHA NER 06 Evaluation	CHA NER 06 Area A	CHA NER 06 Area B
Context Register		14	17
Context numbers		542	687
Context records		542	687
Trench Record sheets	10		
Level record sheets		6	4
Plan Registers			1
Plans at 1:10		5	1
Plans at 1:20		1	
Plans at 1:50		15	12
Total Station Survey	1	1	1
Sections register sheets		6	6
Sections at 1:10		226	220
Sample Register sheets		6	4
Photo Register sheets		7	4
Black and White Films		3	2
Colour slide		4	2
Digital photographs			
Small finds register sheets		1	1

Table 1: Quantity of written and drawn records

6.2.2 Quantity of Environmental Samples

	CHA NER 06 Evaluation	CHA NER 06 Area A	CHA NER06 Area B
Number of Samples	7	57	37

Table 2: Quantity of environmental samples

6.2.3 Quantity of Finds

Site/Area	CHA NER 06 Evaluation	CHA NER 06 Area A/B
Type		
Flint	0	28
Pottery	0.54kg	7.561kg
Animal Bone	5.27kg	17.76kg
Human Bone (Cremated)	0	2.319kg
Inhumations	0	2
Metal Objects	0	65

Table 3: Quantity of Finds

6.2.4 Range and Variety

Cut features comprise ditches, pits, postholes, graves (animal, inhumation and cremation), tree throws, furrows and animal burrows.

Feature types often varied from period to period. The Iron Age phase of occupation appeared to comprise mainly postholes, pits and boundary/enclosure ditches whilst the evidence for later activity was represented by putative Roman grave cuts, Saxon postholes and medieval furrows.

Deposits mostly comprised feature fills although buried soils were also present. Most of the features contained dark grey brown silty sand fills.

Relatively little complex stratigraphy was encountered and features were mostly cut into the natural underlying geology. The sole exception to this was an area of intercutting ditches and gullies that ran parallel to the southern boundary of the site.

6.2.5 Condition of the Excavation Area

The survival of the archaeological features on site was on the whole good, although horizontal truncation was in evidence in Area A as a result of medieval ridge and furrow agriculture and, more recently landscaping associated with the use of Area A in the modern period. There was also evidence of animal activity that had led to disturbance, most significantly in Area A. The depth of soil deposits in Area B was greater which resulted in better overall preservation of the archaeology in this part of the site.

6.2.6 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. Site matrices have been drawn up for selected/more complex areas. All primary records are retained at the offices of OAM East, Bar Hill. The site code CHA NER 06 is allocated and all paper and digital records, finds and environmental remains are stored under the respective site 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.

6.2.7 Survey Data

The excavation 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.

6.3 Artefact Assemblage Summaries

6.3.1 Small Finds (Appendix 2)

A total of 65 small finds were recovered, the majority of the which date to the high medieval, post-medieval or modern periods, and represents a typical urban and manorial assemblage. The absence of early craft tools, and the high number of later post-medieval or modern pieces, meant that there was no other distinctive character to the assemblage. The largest group of finds consisted of general fittings, including nails, followed by dress accessories, which included two buckles, part of a strap-end, several buttons and part of a ring that may have been used as a buckle.

The earliest piece was a loom weight from context (2148) that was round in section and dated to the Late Bronze Age/ Early Iron Age.

The results will be integrated with the site phasing and a summary will be included in the publication report. This data will add to the general interpretation of site activities and has good potential to address the projects Research Objectives.

6.3.2 Flint assemblage (Appendix 3)

The assemblage consisted of 28 worked pieces and a small quantity of burnt flint, scattered across the site. The flint was in generally good condition but was probably residually introduced and not suitable for dating the features. No stratified groups or concentrations of material were identified that could indicate significant or persistent lithic-using activities at the site.

Three retouched pieces were recovered, including a partially serrated blade dated to the Mesolithic or Early Neolithic, an unusually small scraper most comparable to Later Neolithic or Early Bronze Age 'thumbnail' types and a fragmentary flake with light, alternating bifacial retouch typical of later Neolithic transverse arrowheads.

Two cores were also present and these had both produced at least some blades. The remainder of the assemblage was dominated by blades and blade-like flakes.

The results will be integrated with the site phasing and a summary will be included in the publication report. This data will add to the general interpretation of site activities and has good potential to address the project's Research Objectives. Furthermore, the assemblage does indicate flintworking occurring at the site during the Mesolithic or Early Neolithic and probably later in the prehistoric period.

6.3.3 Pottery Assemblage (Appendix 4)

The pottery assemblage comprised 183 sherds from a range of wares well known in the region, this was indicative of low-level activity at the site during the early Iron Age, early, middle and late Saxon, medieval and early post-medieval periods.

Of particular interest was a sherd of Middle Saxon North French Blackware, which is only the third occurrence of imported middle Saxon pottery in Cambridgeshire. This is likely to have been brought in as a by-product of the wine trade raising the possibility that the site was a staging post or service centre between ecclesiastical centres.

The results of the assessment will be included in the publication report. This data will add to the general interpretation of site activities and has good potential to address the project's Research Objectives.

6.4 Environmental Remains

6.4.1 Human Remains (Appendix 5)

The assemblage of human remains comprised two inhumations and three cremation burials, recorded in Area A. The inhumation burials were undated but undoubtedly contemporary due to their location parallel and adjacent to one another. Preservation of both skeletons was excellent despite many post-mortem breaks.

Both inhumations were elderly men with osteoarthritic changes and dental pathologies analogous with increased age. Both were supine and extended with their heads in the west of the graves, suggesting a Roman or later date.

Of the cremation burials, the two unurned burials are undated but the urned cremation burial dates to the Middle Bronze Age. All three cremation burials contained the remains of an adult, with two also containing the remains of an immature individual (aged less than 5 years).

The human remains have good potential to address the project's Research Objectives and it is recommended that further work to establish the dates of both the cremated burials and the inhumations

be conducted so that they can be considered in relation to other features on the site and in the wider landscape.

6.4.2 Faunal Remains (Appendix 6)

The total assemblage consisted of 543 fragments, of which 302 were identifiable to species (55.6% of the total sample). Fifty-three contexts contained identifiable faunal remains. These features largely consisted of pits, ditches and a number of deliberate animal burials. Preservation of the animal bone was extremely good, albeit fragmented. The assemblage of domestic mammals was dominated by cattle, with lesser proportions of pig and sheep/remains, Horse remains make up the rest of the domestic assemblage. Dogs and cat remains most likely represent commensal species. Numbers of bird and fish remains were also recovered. Evidence on the surrounding environment can be seen from the rodent and small reptile remains. The largest amount of dateable material was recovered from Early-Middle Saxon contexts.

The material from environmental samples shows (despite limited changes in land use), the general environment remained the same, with the presence of reptile, amphibian and small mammal remains being indicative of damp pasture or grassland.

The results will be integrated with the site phasing and a summary will be included in the publication report. This data will add to the general interpretation of site activities and has good potential to address the projects Research Objectives.

6.4.3 Charred Plant Remains (Appendices 7a & 7b)

A full written summary of the report should be included within any publication of data from the site. This data will add to the general interpretation of site activities and has good potential to address the projects Research Objectives.

7 Updated Research Aims and Objectives

Completion of the post-excavation assessment has shown that all of the original aims and objectives of the excavation can be met through the analysis of the excavated materials. A number of new objectives have also been identified as a result of the assessment process, many of which will contribute to a variety of research themes at national, regional and local levels.

The following research objectives draw upon national (English Heritage 1997) and regional (Brown and Glazebrook 2000) research assessments and agendas. These will supplement the original Research Objectives outlined in Section 3 above.

7.1 Research Priorities

7.1.1 National (English Heritage 1997)

The Late Saxon to Medieval Period (c 700 – 1300AD)

The nature of urban form is poorly understood. Major reorganisation of the cultivated landscape appears to have occurred during this period; studies of its field system, crops and husbandry are likely to produce results.

Settlement hierarchies and inter-action

Settlement hierarchies and inter-actions offer a productive of developing our understanding the complexity of past societies.

7.1.2 Regional

- Understanding shifting settlement patterns and land use in the eastern region, particularly the fen islands.
- Investigation of the adoption of an agrarian economy and changing patterns in agricultural production and consumption through full quantification and standardised reporting of environmental remains.

7.1.2 Local

- Study of the Middle Bronze Age landscape of the fens
- Understanding the Iron Age origins of the settlement and continuity of use into the Roman period.
- Investigation of the Saxon origins of the settlement and its immediate environs.

7.2 Project Research Objectives

In the light of the potential established by the assessment, a number of revised aims and objectives have been defined to maximise the potential of the site data. The following are based on period specific aims.

To investigate whether the Iron Age deposits represent continuous occupation or more seasonally based activities.

- What evidence for the type of settlement can be inferred from the faunal, artefactual and environmental data?
- Does the spatial distribution of the posthole clusters and wells have any parallels at nearby contemporary sites?

To ascertain the nature of the environment and economy of the site in the Iron Age through investigation of the evidence from this period.

- What evidence for mixed farming economy and local environment can be inferred from the faunal remains and environmental data?
- Is the pottery assemblage similar to that excavated at nearby contemporary sites, and if so what does this suggest about regionality and trade links?

To understand the development of the site in conjunction with the results of the excavation immediately to the south and the role the areas investigated played in relation to this more dense area of settlement.

- Analysis of the alignment and stratigraphic relationships of the ditches combined with study of the pottery, and other remains to determine the type, and changes within, of landscape and land use on the site during its life.
- Spatial analysis of the cremation and inhumation burials to determine their relationship with other contemporary features.

To investigate the evidence for Saxon occupation on Chatteris and the role it may have played as a stop off point along trade routes across the region.

- Were there any ecclesiastical centres on Chatteris that would have likely been part of trade networks during this time and if so does their proximity to the site suggest that it formed part of such a complex, fulfilling perhaps an agrarian role rather than an area of habitation?

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 Iron Age and Saxon settlement activities.

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 for the project. Detailed task lists are presented in Section 10.

8.1 Full Analysis

8.1.1 Stratigraphic Analysis

Full but selective further stratigraphic analysis is required, concentrating on the following key sequences and areas:

- Finalise site groups and phasing, with particular emphasis on the Late Iron Age ditches, postholes and pits (CT). Also to include comparative analysis of the Iron Age pit fills to determine whether they represent structured deposits (CT).
- Full integration of the artefact dating and phasing (CT).
- Compilation of text sections for all features, ordered by phase, and group to enable interpretation and discussion (CT).
- Compilation of group, phase and site narrative (CT), and site phase/group plans to illustrate the development of the site (ILL).
- Full integration of the site stratigraphy, groups and phasing with that of the site immediately to the south to enable the interpretation and discussion of the settlement as a whole.

8.2 Partial Analysis

8.2.1 Human Remains

- A faunal specialist will examine the possible animal bone present in the cremations.
- C14 dates to be obtained for both the cremated burials and the inhumations so that they can be considered in relation to other features on the site and in the wider landscape.
- Comparative study of the inhumations and cremations in relation to those recorded during the excavations immediately adjacent to this site.

8.3 Little/No Further Analysis

8.3.1 *Miscellaneous Finds*

The remaining finds assemblages require full integration into the results of the further analysis and adding final phasing of the report. These are generally relatively small assemblages where catalogues and appropriate levels of analysis have already been undertaken as part of the assessment process and will only require small amounts of work for publication. All of these assemblages have potential to address the research objectives and as such will provide the basis for summaries for the inclusion in the publication.

- Metal Objects:** The results will be integrated with the site phasing and a summary will be included in the publication report.
- Pottery Assemblage:** A number of the sherds to be illustrated and incorporated, along with the results of the assessment, with the site phasing and a summary, which will be included in the publication report.
- Flint assemblage:** The results will be integrated with the site phasing and a summary will be included in the publication report.
- Charred Plant Remains:** a full written summary of the report will be included within any publication of data from the site.
- Faunal Remains:** The results will be integrated with the site phasing and a summary will be included in the publication report.

9 Report Writing, Archiving and Publication

9.1 Report Writing

A full report will be compiled from the results of the further analysis detailed above.

9.2 Archiving

Excavated material and records will be deposited with, and curated by, Cambridgeshire County Council (CCC) in appropriate county stores under the site code CHA NER 06 and the county HER code ECB 2211. A digital archive will be deposited with ADS. OA East requires transfer of ownership prior to deposition. During analysis and report preparation, OA East will hold all material and reserves the right to send material for specialist analysis.

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

9.3 Publication

It is proposed that the site be published in conjunction with the results of the excavations immediately adjacent to this site, as they are essentially two parts of the same settlement. This approach will enable the site to be put into context and facilitate a wider interpretation of the areas under investigation. The outlet for this is currently under discussion but is likely to be EAA or PCAS.

10 Resources and Programming

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

10.1 Staffing and Equipment

10.1.1 Project Team

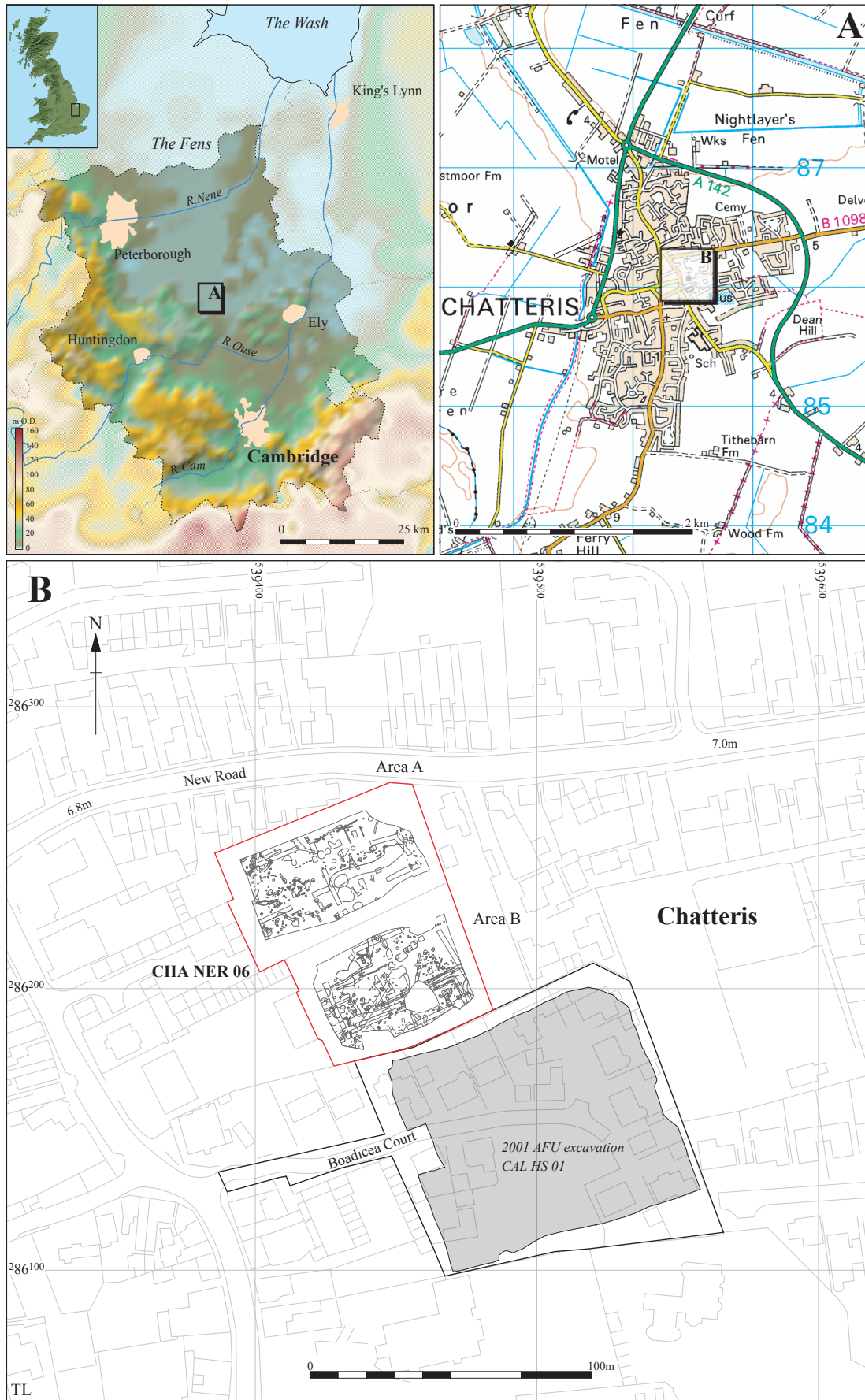
Name	Initials	Project Role	Establishment
Chris Thatcher	CT	Project Officer	OA East
James Drummond Murray	JDM	Project Manager	OA East
Elizabeth Popescu	EP	Editor/Publications Manager	OA East
Crane Begg	CB	Report Illustrator	OA East
Gillian Greer	GG	Illustrate selected small finds and pottery	OA East
Chris Faine	CF	Animal Bone	OA East
Illustrator	ILL	Digitise selected sections	OA East

Table 4: Project Team

10.2 Task Identification

Task No.	Task Description	No. Days	Staff
Stratigraphic Analysis			
1	Finalise site phasing of key groups		CT
2	Disseminate final phasing to relevant specialists		CT
3	Compile archive report for archaeological sequence		CT
4	Write Period/Group text		CT
5	Review and collate results of specialist analysis		CT
6	Liaison with specialists		CT
7	Collate and review background evidence/research into comparative sites		CT
8	Write background text		CT
9	Write discussion and conclusions		CT
10	Produce synthesis for publication and collate/edit captions, bibliography appendices etc.		CT
11	Internal edit		EP/JDM
12	Incorporate internal edits		CT
13	Final edit		EP/JDM
14	Final edits and HER summary		CT
15	Collate/submit publication synthesis to appropriate journal		CT
16	Archiving		CT
Illustrations Tasks			
17	Compile list of illustrations/liaison with illustrators		CT
18	Produce plans/section/location drawings		ILL
19	Publication figure preparation		CB
20	Finds illustration (pottery, small finds)		GG
21	Check/edit finds illustrations		CT/ILL
22	Project management		JDM/CT
Finds Analysis			
23	Animal Bone analysis and report		CF
Meetings			
29	Post-Excavation Meetings		CT, JDM EP

Table 5: Task list



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Figure 1: Location of trenches outlined (black) with the development area outlined (red)



Figure 2: Excavation areas showing locations of previous trenches

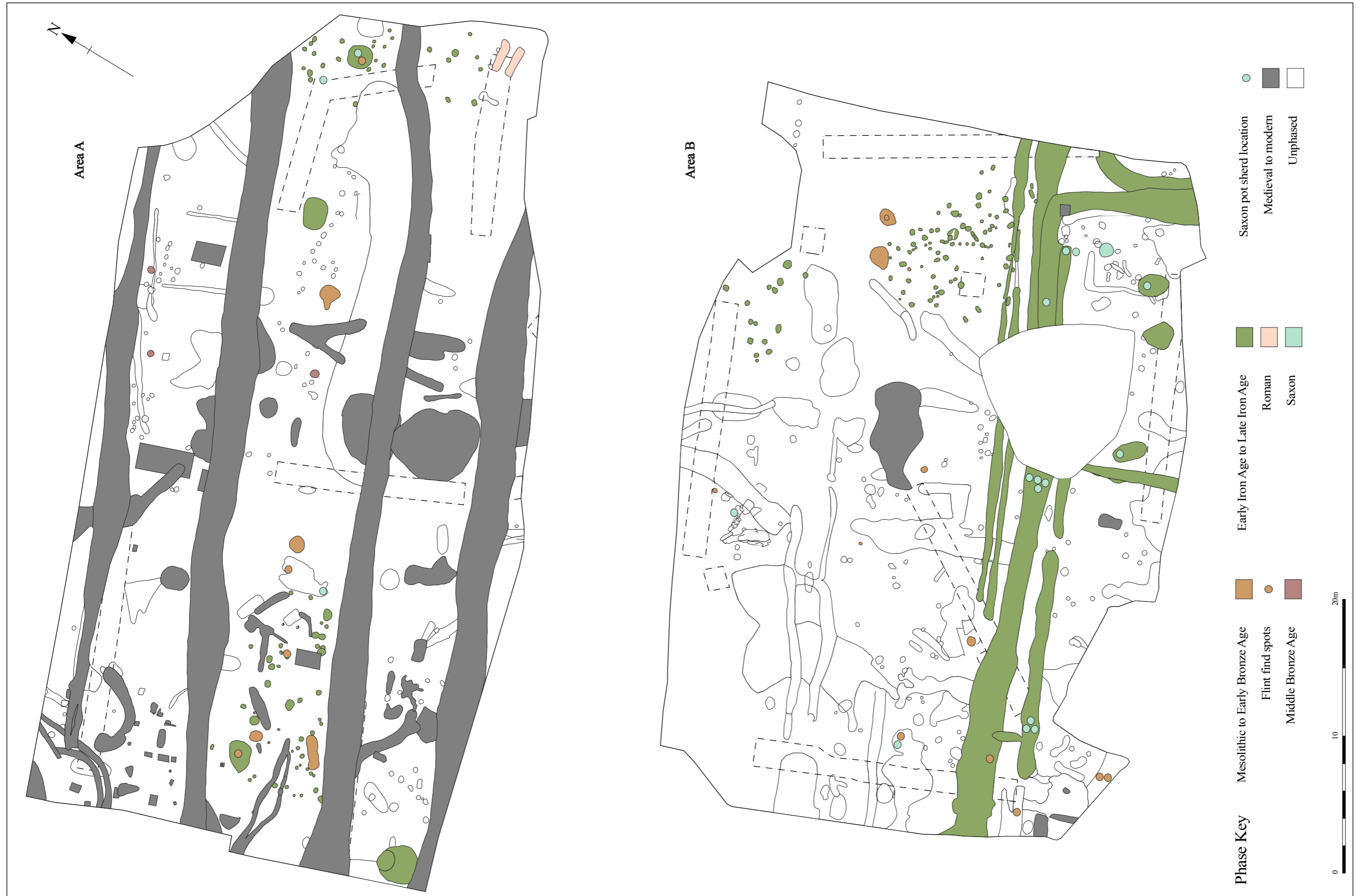


Figure 3: Phase plan, all phases

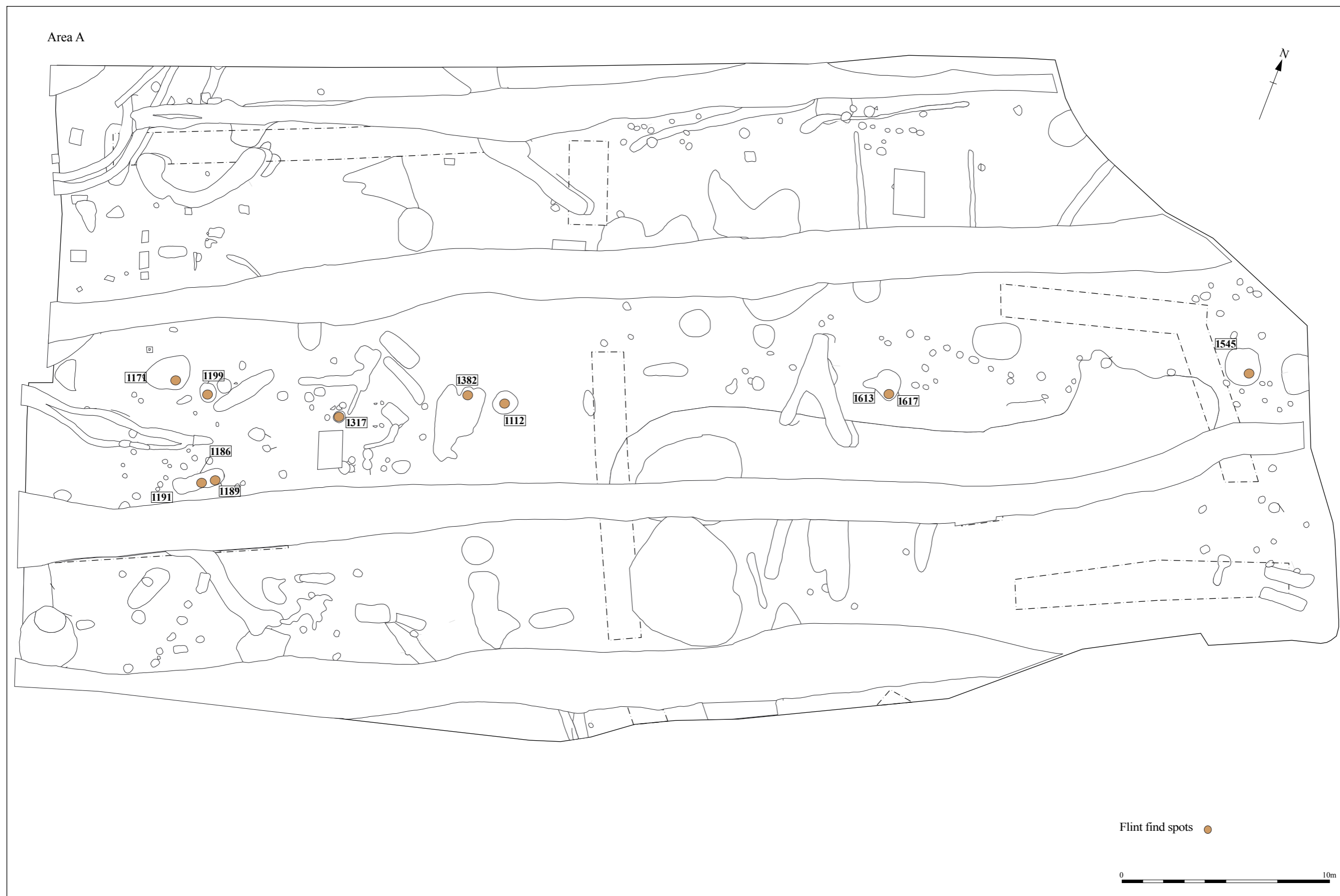


Figure 4: Area A, Period 1. Mesolithic to Early Bronze Age (c.10,000BC - c.3300BC)

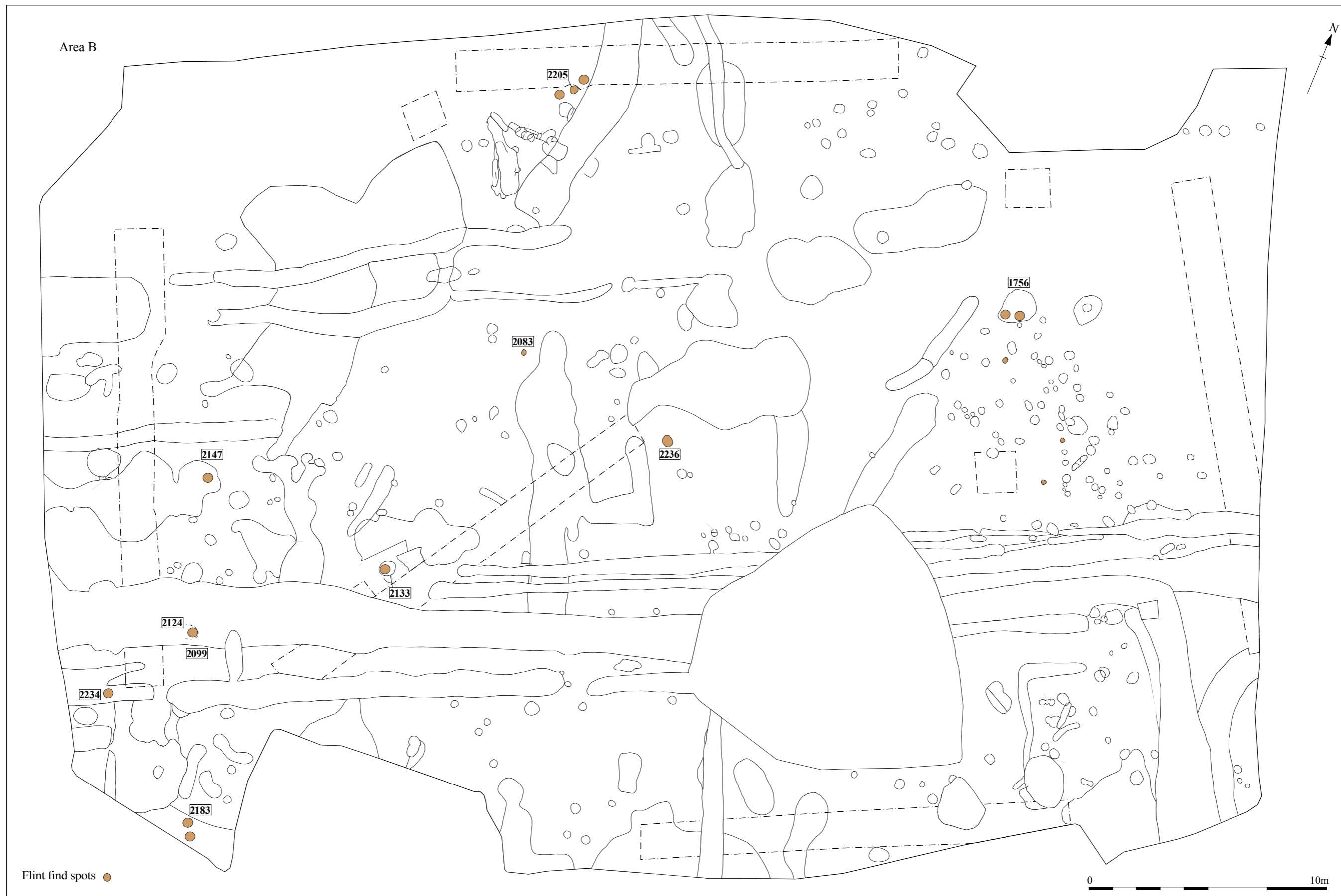


Figure 5: Area B, Period 1. Mesolithic to Early Bronze Age (c.10,000BC - C.3,300BC)

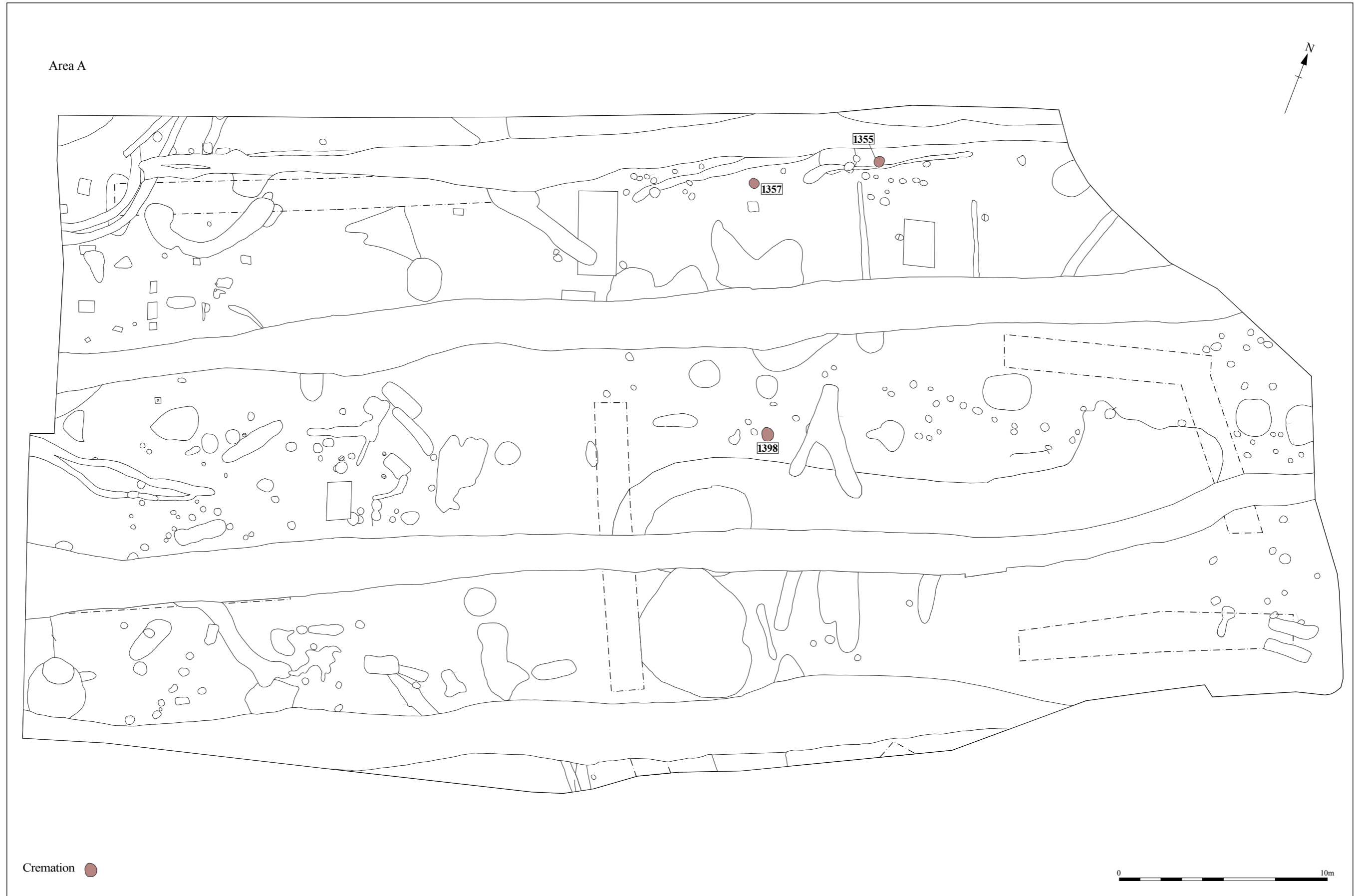


Figure 6: Period 2 Middle Bronze Age (c.1,500BC - 1,000BC)



Figure 7: Area A, Period 3. Early Iron Age to Late Iron Age (c.700BC - c.AD100)

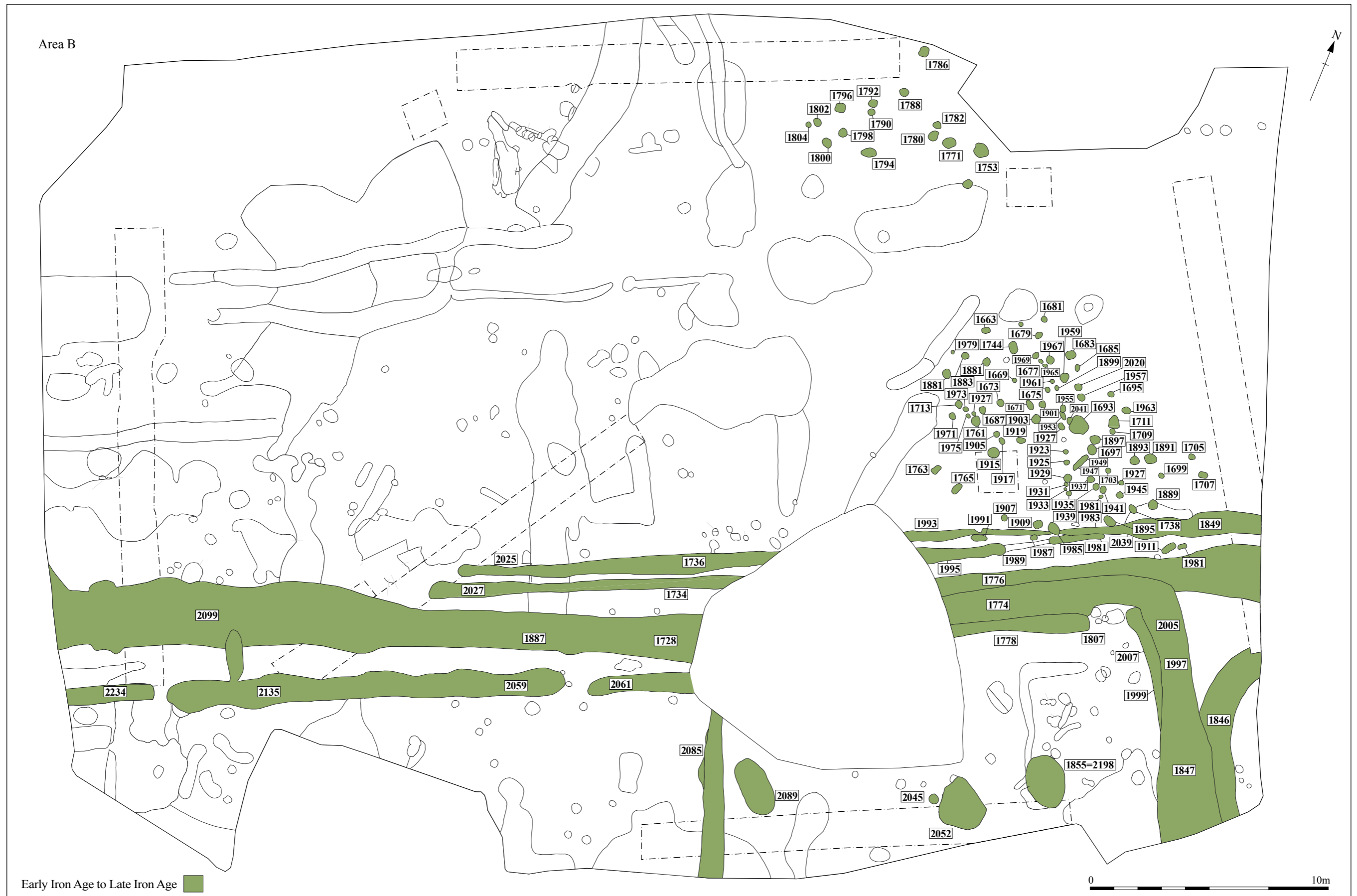


Figure 8: Area B, Period 3. Early Iron Age to Late Iron Age (c.700BC - c.AD1000)

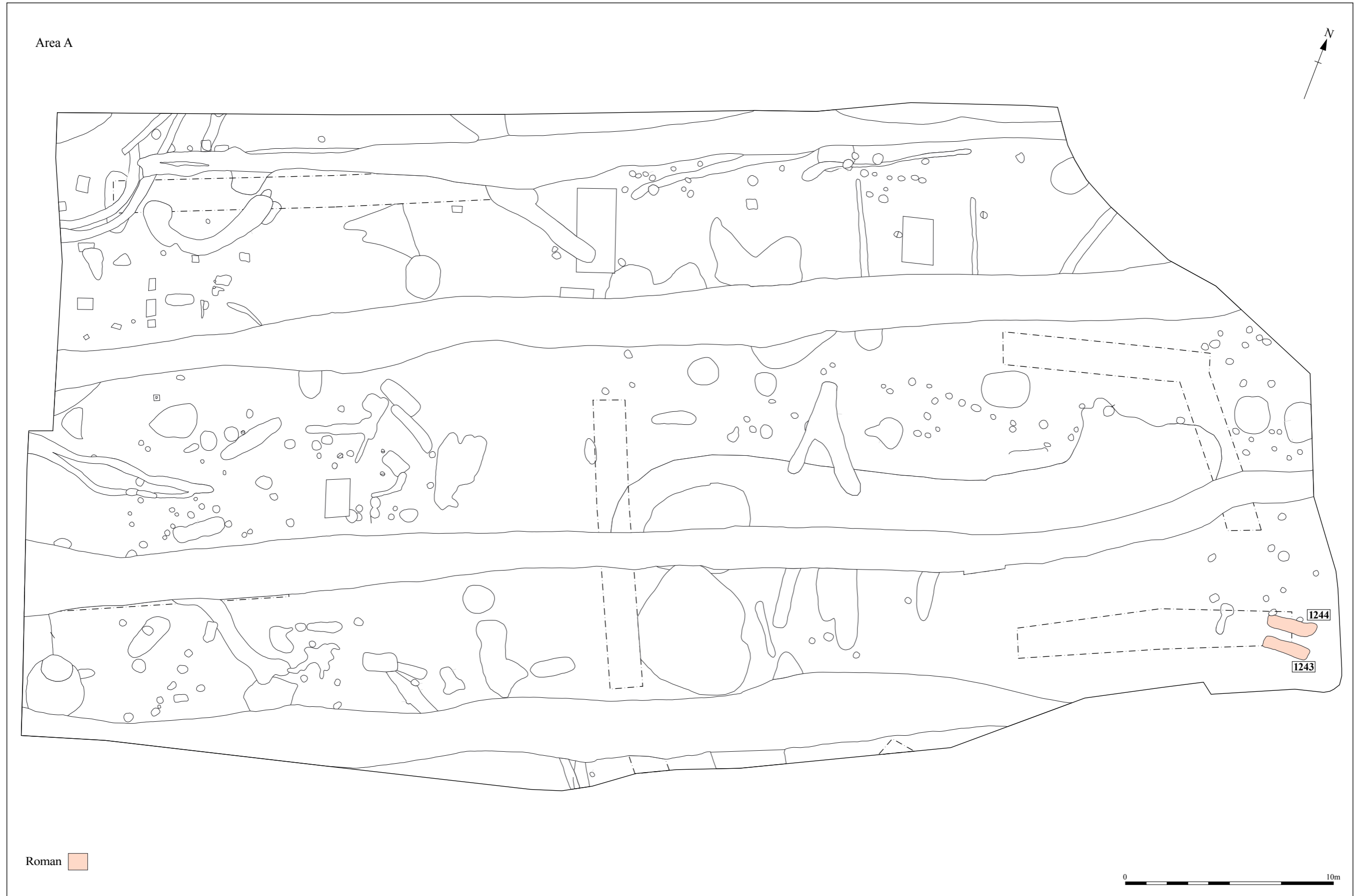


Figure 9: Area A, Period 4. Roman (c.AD43 - AD410)

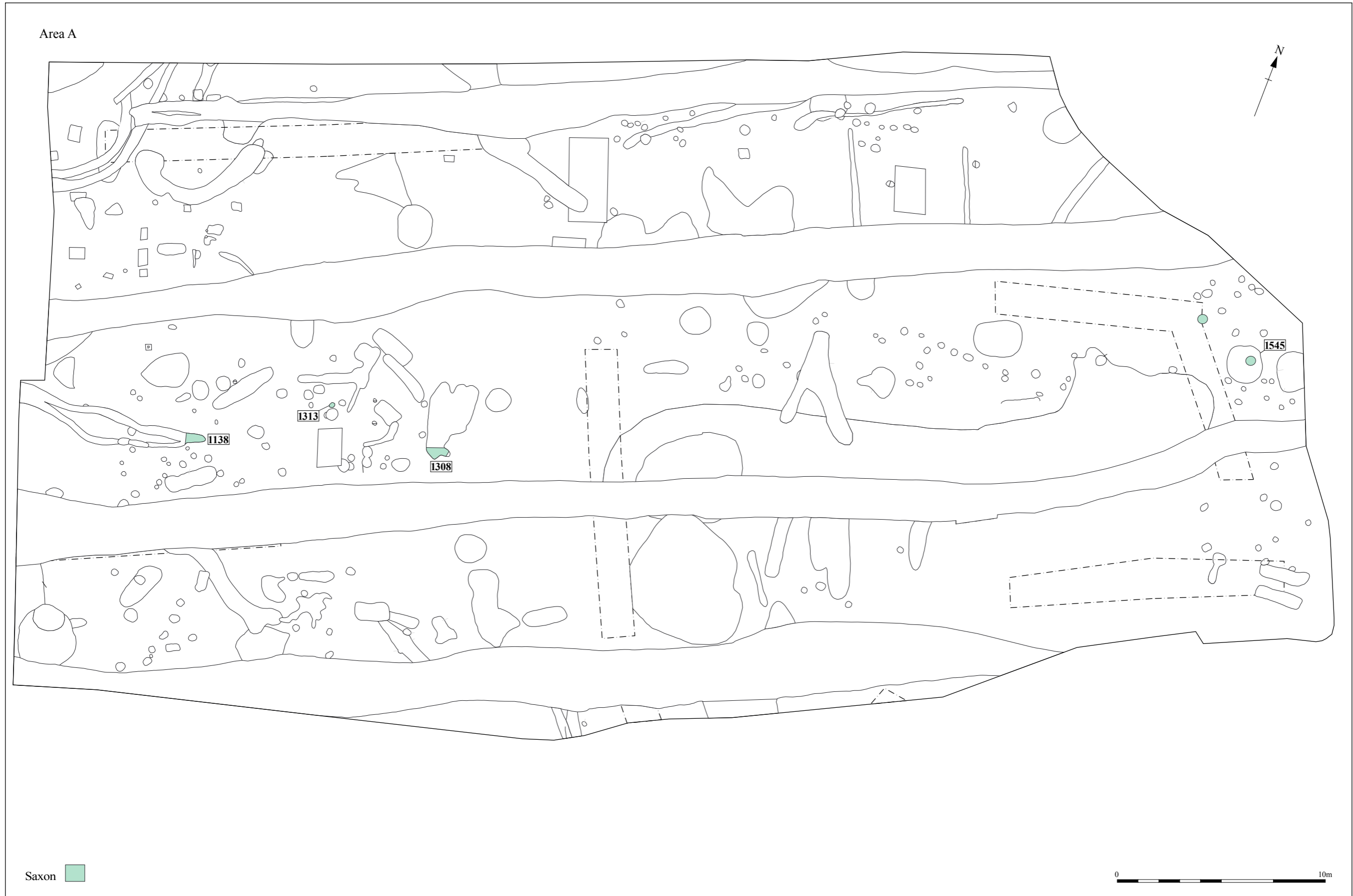


Figure 10: Area A, Period 5. Saxon (c.AD450 - c.AD1066)

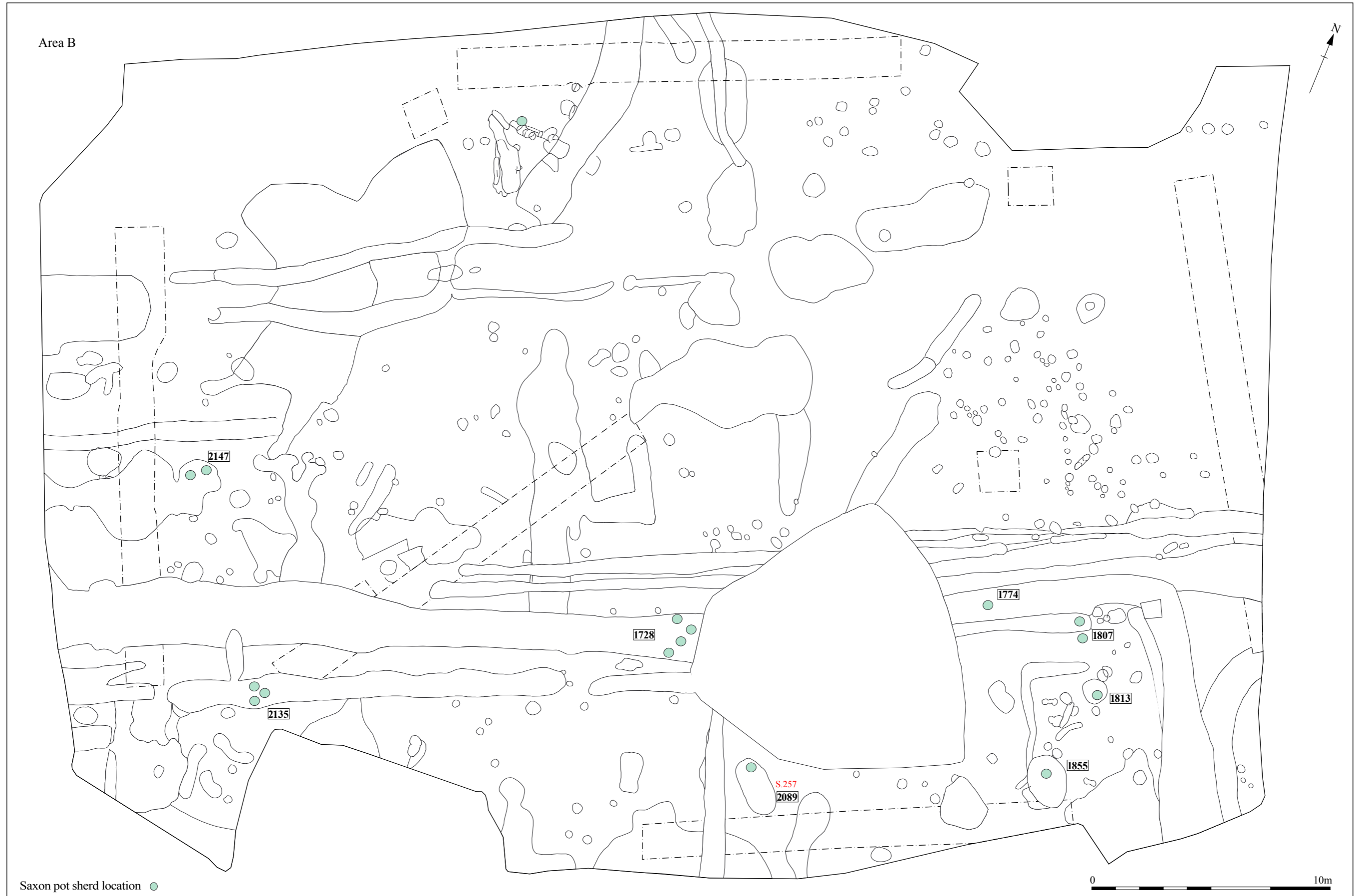


Figure 11: Area B, Period 5. Saxon (c.AD450 - c.AD1066)

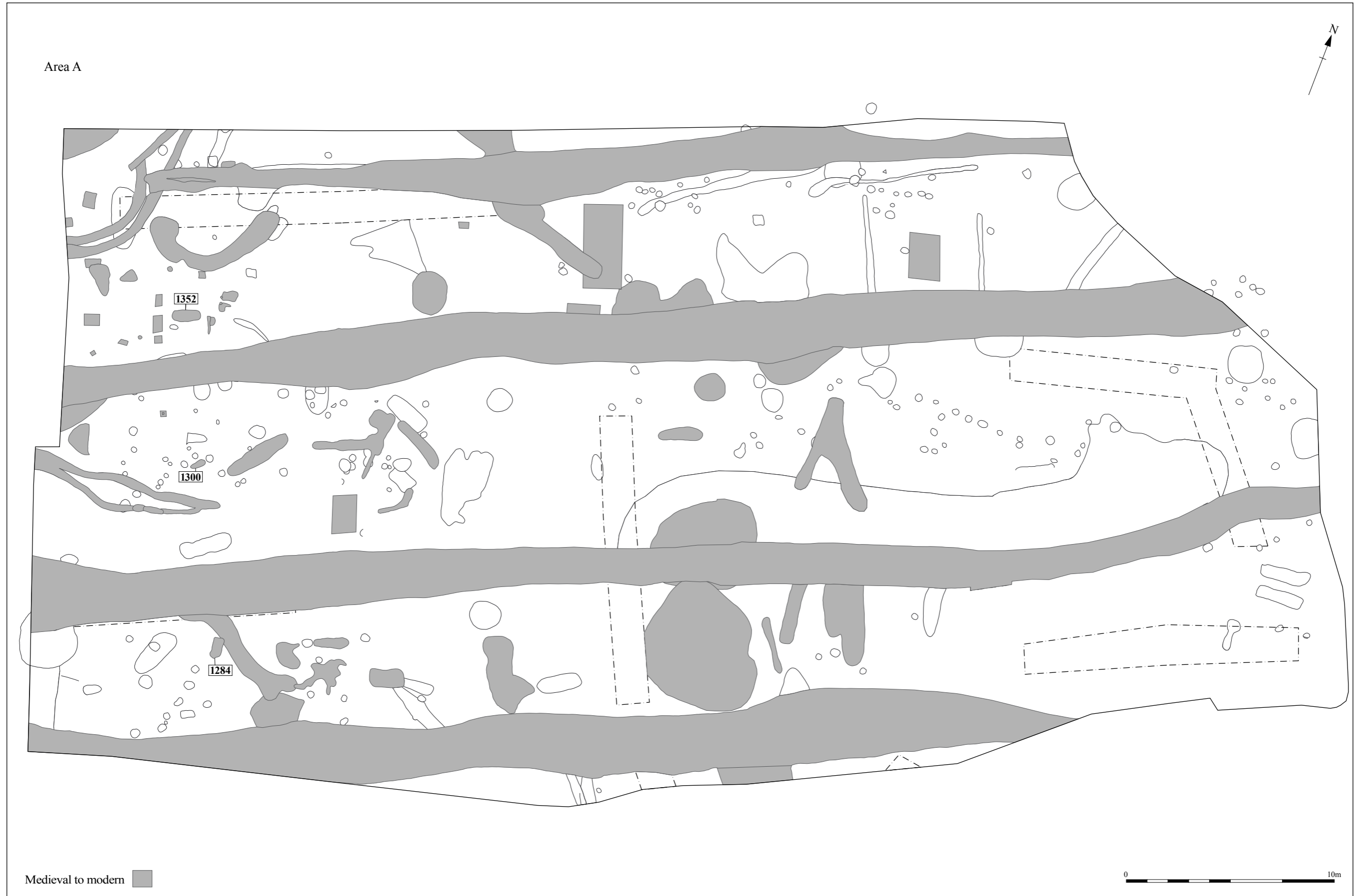


Figure 12: Area A, Period 6. Medieval to modern (c.AD1066- present)

Acknowledgements

The author would like to thank Sovereign Homes who commissioned and funded the archaeological work and Kasia Gdaniec of the County Archaeology Planning and Conservation (CAPCA) Office who monitored the project. The project was managed by James Drummond Murray. Chris Thatcher directed the fieldwork with the assistance of Glenn Bailey, Benjamin W Brogan, Spencer Cooper, Tom Eley, Nick Gilmour, Steve Graham, Ian Hogg, Claire Martin, Lucy Offord and Daniel Wheeler. A number of specialists contributed to this report: Barry Bishop, Paul Blinkhorn, Nina Crummy, Natasha Dodwell, Chris Faine, Rachel Fosberry and Val Fryer.

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Appendix 1: Health and Safety Statement

OA East will ensure that all work is carried out in accordance with Oxford Archaeology's 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 OA East office will be adhered to.

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

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

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

Appendix 2: The Small Finds

by Nina Crummy

1 Introduction and Summary

The majority of the objects date to the High Medieval, post-medieval or modern periods, but the earliest piece in the assemblage dates to the Late Bronze Age/ Early Iron Age.

This prehistoric piece is a fragment of a loom weight from context (2148). Round in section, it belongs to a period before the triangular loom weight became the standard form in lowland Britain, c 500 BC. When complete, it probably tapered slightly to a rounded top, a form that occurs in the substantial assemblage of loom weights and clay blocks from Willington, Derbyshire, where it is contemporary with the Late Bronze Age/Early Iron Age pottery of the site's Assemblage I (Elsdon 1979, 198, fig. 80, II). The presence of loom weights on occupation sites is evidence for the use of textile production on a warp-weighted loom, and, by extension, the keeping of flocks of sheep for wool or the use of vegetable fibres. In some instances the use of loom weights had a ritual aspect. For example, at the Caburn, East Sussex, nearly all the loom weights (35 out of 38) were found only in the bottom 'third' of pits, as were many other types of finds, and it has been argued that this recurring pattern is evidence that the infilling of the pits was a ritual act, possibly a public one (Hamilton 1998, 29, 38, fig. 5). The context of the Chatteris fragment allows it to be identified as an example of this practice and its selection implies that the rite was associated with either the agricultural cycle or the rhythms of domestic life.

The assemblage of High Medieval (hereafter medieval) and later items are divided below by function, using the categories defined in Crummy 1988. As is often the case, dress accessories form a large proportion of the group, exceeded only by general fittings, which includes iron nails. Many of the medieval finds are typical of urban and manorial assemblages of the period, but the absence of early craft tools or similar items, and the high number of later post-medieval or modern pieces, means that there is no other distinctive character to the assemblage.

The dress accessories consist of two buckles, part of a strap-end, several buttons and part of a ring that may have been used as a simple buckle. All came from context (1653). The strap-end (Fig. 000, SF 37) is the earliest piece, dating to the late 13th to 14th century; at least one of the buttons is modern.

Two of the household items, part of a tap and a drape or curtain ring, are also from context (1653). The tap fragment (Fig. 000, SF 22) is similar to more complete examples from Exeter, Salisbury and London, although the moulding at the curve is more pronounced. The Exeter tap is from a context dated to c 1500, the London one is 14th century (A. Goodall 1984, 348, fig. 193, 180; Egan 1998, 242, fig. 189). The section of the ring is typical of 14th-15th century examples from London (*ibid.*, 62-4). The oval form of a copper-alloy spoon from (1101) dates it to sometime after the 13th century and it may be as late as 17th century (Fig. 000, SF 8; *ibid.*, 246; Crummy 1988, 36, fig. 39, 1950, 1953).

A lead weight from (1653) is of rudimentary form and cannot be closely dated. It may have been used on a steelyard rather than an equal-armed balance. A fragment of an iron harness buckle from (1101) is also a form with a long period of production. Several examples of the same type from Winchester came from contexts dated from the late 11th century to the 13th or 14th century (I. H. Goodall 1990, 526, nos 1302-1305). One was found in a late 16th century context at Chelmsford, but was probably residual; another came from an unphased context at Worcester (I. H. Goodall 1985, 57, fig. 34, 77; Crummy 2004, 401, fig. 239, 130).

None of the tools can be closely dated. A punch and file may be as late as the modern period. An iron knife (Fig. 000, SF 38) is likely to be medieval; it is small and would have been used for eating or for personal grooming, such as trimming the nails. Of the general fittings none can be dated on form alone to the medieval period and several are modern; the same is true for the miscellaneous items. A single piece of lead shot is here defined as military equipment, but it may equally well have been used for hunting.

2 Prehistoric

Fig. 000, SF 45. (2148). Fragment of a fired clay loom weight of round section, with a perforation towards the top, which is missing but was probably rounded. The fabric is an iron-rich clay with occasional flint grit, fired to buff. Weight 450 g. Maximum dimensions 101 mm, width 94 mm.

3 Medieval and later

Dress accessories

Fig. 000, SF 18. (1653). Copper-alloy double oval buckle; the tongue is missing. The outer ends of the buckle are decorated with a lozenge

and there is a foliate element at the end of the central bar. Length 50 mm, width 28 mm. late medieval or early post-medieval.

SF 36. (1653). Fragment of a large copper-alloy curved buckle frame. Length 24 mm, width 50 mm. Medieval to post-medieval.

Fig. 000, SF 37. (1653). Forked spacer from a composite copper-alloy strap-end with circular element and knopped terminal. The upper end of one fork is missing. Length 50 mm. Complete strap-ends of this form from London come from contexts ranging in date from the late 13th to 14th century (Egan & Pritchard 1991, 140).

SF 27. (1653). Copper-alloy button with flat head and integral loop for attachment. Diameter 25 mm, length 13 mm. Post-medieval or modern.

SF 25. (1653). Copper-alloy button as SF 27 above; the loop is broken. Diameter 27 mm.

SF 29. (1653). Copper-alloy button as SF 27 above but with thinner head. Diameter 23 mm, length 8 mm. late post-medieval or modern.

SF 20. (1653). Composite? Chrome-plated copper-alloy button with broken attachment loop. Diameter 17 mm. Modern.

SF 28. (1653). Oval copper-alloy plaque, with two small projections on the upper side and the remains of a hinge on the underside; probably the back-plate from a brooch or badge. Length 35 mm. late post-medieval or modern.

SF 30. (1653). Bent copper-alloy ring, possibly used as a buckle. Diameter 25 mm. Medieval or later.

Household equipment

Fig. 000, SF 22. (1653). Fragment of a copper-alloy tap, broken at the junction with the handle that controlled the flow of the water. The curve above the spout has a stout geometric moulding. Length 41 mm, diameter 15 mm.

Fig. 000, SF 8. (1101). Copper-alloy spoon with large oval bowl, missing most of the handle. Length 88 mm, diameter 50 mm.

SF 42. (99999). Tongue-shaped fragment of a triangular-section copper-alloy casting; possibly part of a vessel foot. Length 21 mm, width 25 mm, height 7 mm.

SF 19. (1653). Copper-alloy curtain or drape ring of flattened oval section. Diameter 32 mm.

Measuring

SF 17. (1653). Perforated drum-shaped lead weight. Height 18 mm, diameter 24 mm. Weight 56 g.

Harness

Fig. 000, SF 62. (1101). Iron buckle, possibly from harness. The tongue is missing and the riveted bar on which it was hinged is broken. Length 34 mm, width 35 mm.

Tools

Fig. 000, SF 38. (1653). Small iron knife with whittle tang; the top is missing. The back of the blade is slightly rounded; the edge rises to meet it. Length 93 mm.

SF 64. (1101). Iron punch or chisel with burred head and rectangular-section shank. The point is missing. Length 80 mm.

SF 52a. (1101). Fragment of a narrow iron tanged file of plano-convex section. Length 95 mm, width 10 mm.

Fittings

SF 21. (1653). Fragment of a copper-alloy cog. Diameter 40 mm. late post-medieval or modern.

SF 26. (1653). Small and delicate copper-alloy hollow moulded shank with knopped bow, probably a key used for winding a watch or musical box. Length 44 mm. late post-medieval or modern.

SF 50. (1413). Iron handle with narrow leaf-shaped terminal. The lower end is broken. Length 93 mm.

SF 51. (1101). Iron gasket fragment, with the head of a copper-alloy peg in one of the holes. Diameter 52 mm. Modern.

SF 49. (1625). Thin iron shank with screw thread. Length 9 mm. Modern.

Iron nails

Nails described as complete may have the very tip of the shank missing.

SFContextNumber/Description	Length (mm)
601132 nails, round head, incomplete; 1 nail, rectangular head, complete	44, 33; 67
6511011 nail, round head, incomplete	64
5611011 nail, round head, incomplete	45
6111011 nail, round head, incomplete	37
5311011 nail, round head, incomplete; 1 nail, rectangular head, incomplete	57; 39
5511011 nail, triangular head,	77;

complete; 1 headless nail, complete	69
5811011 nail, rectangular head, incomplete; 3 shank fragments	38; 72, 61, 60
5211012 nails, round head, complete	91, 70
1012361 nail, round head, complete	77
1413641 nail, round head, incomplete	43
1313641 shank fragment	52
4616251 shank fragment	26
4421252 nails, round head, incomplete; 1 shank fragment	63, 28; 22
5999991 nail, round head, incomplete	42

Table 6: Quantification of nails by context

Military equipment

SF 32. (1653). Lead shot. Diameter 16 mm. Weight 25 g.

Miscellaneous

SF 43. (1873). Tiny chip of cobalt blue glass. Weight <1 g.

SF 31. (1653). Copper-alloy decorative fitting with four bent projections on the reverse for attachment to leather or textile. Length 74 mm, maximum width 49 mm. late post-medieval or modern.

SF 41. (99999). Unstratified. Tapering copper-alloy strip fragment, hooked at the wider end. Length 27 mm, maximum width 12 mm. late post-medieval or modern.

SF 46. (99999). Unstratified. Copper-alloy pierced gadrooned fitting, probably a decorative terminal. Length 13 mm, diameter 15 mm. Modern.

SF 54. (1350). Small fragment of an iron bar or shank. 21 by 10 mm.

SF 57. (1101). Cast iron plate fragment, in two pieces. Length 160 mm, maximum width 34 mm. Modern.

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Appendix 3: Lithics

Barry John Bishop

1 Introduction

Excavations recovered 28 struck flints and a small quantity of burnt flint fragments. This report quantifies the material by context, describes its basic technological and typological characteristics in order to suggest a chronological framework, includes some preliminary impressions and interpretations of the material and recommends any further work required. No contexts contained sufficient quantities to enable detailed contextual analysis and the recovered material has generally been treated as one assemblage.

2 Quantification

The struck flint represents a small assemblage of 28 worked pieces and a small quantity of burnt flint, present as a light scattering across the site. In total, 26 individually numbered contexts produced struck flint, mostly comprising single pieces or very small collections, which, despite their generally good condition, could still be residually introduced and cannot be used to confidently date the features. No stratified groups or concentrations of material were identified that could indicate significant or persistent lithic-using activities at the site.

Context	Decortication Flake	Crested blade	Rejuvenation Flake	Flake	Flake Fragment	Blade	Blade-like Flake	Core	Retouched	Burnt Flint (no)	Burnt Flint (wt:g)
TP26 Sp1						1					
TP30 Sp2				1							
TP30 Sp3					1						
1111										1	2
1170				1							
1187	1										
1188									1		
1198 SF4						1					
1316							1				
1381 SF16									1		
1616						1					
1649					1						
1666 SF59						1					
1690						1					
1700				1							
1743				1							
1750							1				
1872	1										
1950						1					
2082				1		1					

2120						1					
2131				1							
2148				1							
2180			1							1	11
2206		1						1	1		
2231								1			
2235										1	8
Total	2	1	1	7	2	8	2	2	3	3	21
%	7.1	3.6	3.6	.0	5	7.1	28.6	7.1	7.1	10.7	

Table 12: Quantification of the Lithic Material by Context

2.1 *Burnt Flint*

Three burnt flint fragments were recovered. These were burnt to variable degrees and would be most consistent with accidental burning arising from casual hearth use at the site. The quantities were too small to indicate any actual settlement foci in the immediate vicinity, and they are more likely to represent residual, incorporated background waste.

2.2 *Struck Flint*

Raw Materials

All of the worked material was manufactured from flint. It ranged in colour from translucent to opaque grey, brown and black and its original cortex also varied from being only slightly weathered to being smoothed and worn. It was most probably obtained from local alluvial gravel deposits.

Condition

The material was mostly in a good condition although a few pieces had become somewhat edge-chipped and some pieces, notably those from the testpits, had also gained a glossy silica sheen caused by sustained movement within an active burial matrix, such as a plough or topsoil horizon.

Description

Although only a small assemblage, three retouched pieces, representing a relatively high proportion of the total, were present. These included a partially serrated blade from context 1188, a diminutive scraper with steep scalar retouch around its perimeter, completely removing all original edges, from context 1381 and a fragmentary flake with light, alternating bifacial retouch along one of the surviving margins, from context 1206. In addition, the decortication flake from context 1187 had light edge wear along a non-cortical lateral margin and may have been used as a knife. The serrated blade

would be typical of Mesolithic or Early Neolithic industries and these are often associated with plant processing. The scraper is unusual due to its very small size, measuring just 17mm by 15mm, but it is perhaps most comparable to Later Neolithic or Early Bronze Age 'thumbnail' types. The bifacially retouched flake is difficult to identify due to its fragmentary condition but the style of retouch is very comparable to that frequently used to manufacture Later Neolithic transverse arrowheads.

The two cores that were present were both fragmentary, one having been burnt and the other having shattered along pre-existing thermal faults, probably during its reduction. They were both multi-platformed and had produced at least some blades. The remainder of the assemblage included a high proportion of blades and blade-like flakes and also included a partially crested blade and a core-tablet type rejuvenation flake.

3 Discussion

The assemblage's technological attributes would indicate that it predominantly consists of waste from controlled blade production and would be typical of industries dateable to the Mesolithic and continuing into the Early Neolithic. The serrated blade and both of the cores are also likely to belong to this period of activity. Although the assemblage is too small for firm conclusions to be formed, what was present suggests that during this period the site was used primarily for the reduction of presumably locally obtained raw materials with the intention of producing blades and other usable pieces, possibly for use elsewhere. The size of the assemblage indicates that, at this location, this was a peripheral activity although more-intensive activity may be present in the vicinity but beyond the site's perimeter. As such, the lithic material indicates low-key visiting of the site by mobile communities as part of a much wider inhabitation of the landscape.

Only two pieces, the scraper and possibly the bifacially retouched flake, could be assigned to the later Neolithic or Early Bronze Age although it is possible that some of the less-diagnostic waste flakes also belonged to this period. This material also suggests that the site was used for low-key activities involving tool-use but was peripheral to any areas of more intensive settlement.

4 Recommendations and Further Work

Due to its size and paucity of typologically diagnostic artefacts, this report is all that is required of the material for the purposes of the archive and no further analytical work is proposed. The assemblage does indicate flintworking occurring at the site during the Mesolithic or Early Neolithic and probably later in the prehistoric period, and a short description should be included in any published account of the investigations.

Appendix 4: The pottery assemblage

By Paul Blinkhorn

1 Introduction

The pottery assemblage comprised 183 sherds with a total weight of 2678g. The estimated vessel equivalent (EVE), by summation of surviving rimsherd circumference was 1.84. In addition, 315 sherds (4883g, EVE = 0) were retrieved from the test-pits. The assemblage comprised a range of wares, which show that there was low-level activity at the site during the Early Iron Age, Early, Middle and Late Saxon, medieval and early post-medieval periods. Most groups were small in size, and comprised a range of fabrics well known in the region.

The most notable occurrence was a sherd of Middle Saxon North French Blackware, which means that Chatteris is just the third site in Cambridgeshire to have produced imported middle Saxon pottery.

2 Analytical Methodology

The pottery was initially bulk-sorted and recorded on a computer using DBase IV software. The material from each context was recorded by number and weight of sherds per fabric type, with featureless body sherds of the same fabric counted, weighed and recorded as one database entry. Feature sherds such as rims, bases and lugs were individually recorded, with individual codes used for the various types. Decorated sherds were similarly treated. In the case of the rimsherds, the form, diameter in mm and the percentage remaining of the original complete circumference was all recorded. This figure was summed for each fabric type to obtain the estimated vessel equivalent (EVE).

The terminology used is that defined by the Medieval Pottery Research Group's Guide to the Classification of Medieval Ceramic Forms (MPRG 1998) and to the minimum standards laid out in the Minimum Standards for the Processing, Recording, Analysis and Publication of post-roman Ceramics (MPRG2001). All the statistical analyses were carried out using a Dbase package written by the author, which interrogated the original or subsidiary databases, with some of the final calculations made with an electronic calculator. All statistical analyses were carried out to the minimum standards suggested by Orton (1998-9, 135-7).

3 Fabrics

The pottery from both the excavation and the test-pitting stage is included in this report. Where a sherd quantification is given, it is for the excavation stage. Any total for the test-pit pottery is preceded by 'TP ='. If a combined total is given, this is stated.

3.1 Iron Age

A total of 107 sherds of Iron Age pottery (1165g, EVE = 0.70) were noted, along with four sherds (27g) from the test-pits. The fabrics were as follows:

F1002: Sparse to moderate shell up to 3mm, sparse to moderate sub-rounded quartz up to 1mm. 10 sherds, 227g, EVE = 0.11 (TP = 0)

F1003: Flint. Sparse to moderate angular white flint up to 4mm, rare rounded red iron ore up to 2mm, rare to sparse quartz up to 1mm. 85 sherds, 677g, EVE = 0.52 (TP = 4 sherds, 27g, EVE = 0).

F1004: Sparse to moderate angular white flint up to 10mm; sparse to moderate organic material up to 5mm. 9 sherds, 240g, EVE = 0.07 (TP = 0).

F1005: Sparse shell up to 4mm; sparse to moderate sub rounded grey grog up to 2mm. 3 sherds, 21g, EVE = 0 (TP = 0).

3.2 Romano-British

A total of 7 sherds (50g) of Romano-British pottery were noted (TP = 0).

3.3 Early/Middle Saxon

A total of 13 sherds of early/middle Saxon hand-built pottery was present (weight = 110g, EVE = 0.), with the test-pits producing a further two sherds (28g, EVE = 0). The following fabrics were noted:

F1: **Chaff**. Moderate to dense chaff voids up to 10mm, few other visible inclusions except for rare quartz or sandstone grains up to 1mm. 1 sherds, 33g, EVE = 0 (TP = 0).

F2: **Fine quartz**. Moderate to dense sub-angular quartz less than 0.5mm. 8 sherds, 48g, EVE = 0 (TP = 0).

F3: **Granitic**. Sparse to moderate sub-angular granite up to 2mm, free flakes of biotite mica and quartz grains. 4 sherds, 29g, EVE = 0 (TP = 2 sherds, 28g).

3.4 Middle Saxon

The following Middle Saxon wares were present.

Ipswich Ware, AD725-850 (Blinkhorn in prep.) Middle Saxon, slow-wheel made ware, manufactured exclusively in the eponymous Suffolk wic. The material probably

had a currency of AD 725x740 - mid 9th century at sites outside East Anglia. There are two main fabric types, although individual vessels, which do not conform to these groups, also occur:

F95: GROUP 1: Hard and slightly sandy to the touch, with visible small quartz grains and some shreds of mica. Frequent fairly well-sorted angular to sub-angular grains of quartz, generally measuring below 0.3 mm in size but with some larger grains, including a number which are polycrystalline in appearance. 1 sherd, 19g, EVE = 0.05 (TP = 0).

F96: GROUP 2: Like the sherds in Group 1, they are hard, sandy and mostly dark grey in colour. Their most prominent feature is a scatter of large quartz grains (up to c 2.5mm) that either bulge or protrude through the surfaces of the vessel, giving rise to the term "pimply" Ipswich ware (Hurst 1959: 14). This characteristic makes them quite rough to the touch. However, some sherds have the same groundmass but lack the larger quartz grains, which are characteristic of this group, and chemical analysis suggests that they are made from the same clay. 3 sherds, 733g, EVE = 0.16 (TP = 0).

F97: **Maxey-type Ware.** Exact chronology uncertain, but generally dated c. AD650-850 (eg. Hurst 1976). Wet-hand finished, reddish-orange to black surfaces. Soft to fairly hard, with abundant fossil shell platelets up to 10mm. Vessels usually straight-sided bowls with upright, triangular, rim-mounted pierced lugs. 2 sherds, 24g, EVE = 0.04 (TP = 0).

F98: **North French Blackware.** Hard, wheel-thrown sandy ware with black, burnished outer surfaces,? 8th – 9th century. Vessels mainly jugs, and made at a number of probable sources in France and the Low Countries. 1 sherd, 13g, EVE = 0 (TP = 0).

3.5 *Late Saxon and Medieval*

F100: **St. Neots ware type T1(1)** c. AD900-1100 (Denham 1985). Moderate to dense finely crushed fossil shell, with varying quantities of quartz and/or ironstone. Usually purplish-black, black or grey, with fairly fine, dense inclusions. Main forms small jars with sagging bases, although a few lamps are known. 1 sherd, 3g, EVE = 0 (TP = 0).

F102: **Thetford-type ware**, 10th – 12th century (Rogerson and Dallas 1984) Range of reduced, wheel-thrown and hand-finished fabrics mainly comprising quartz sand up to 1mm. Produced at many centres in eastern England (eg Hurst 1976), although most of these appear to be the products of the eponymous Norfolk centre. 7 sherds, 52g, EVE = 0.09 (TP = 2 sherds, 12g, EVE = 0).

F319: **Lyveden/Stanion 'A' Ware** (McCarthy 1979). c. AD1150-? 1400. Handmade/Wheel finished. Moderate to dense, ill-sorted shelly limestone platelets up to 3mm, sparse to moderate red ironstone up to 10mm, occasional quartz, ooliths, black ironstone. Produced at numerous kilns in the villages of Lyveden and Stanion in northeast Northants. 1 sherd, 34g, EVE = 0 (TP = 1 sherd, 3g, EVE = 0).

F325: **Heddingham Ware:** Late 12th – 14th century. Fine orange micaceous glazed ware (McCarthy and Brooks 1988, 300-2). 1 sherd, 6g, EVE = 0 (TP = 0).

F328: **Grimston Ware:** 13th – 15th century (Leah 1994). Wheel-thrown. Dark grey sandy fabric, usually with grey surfaces, although orange-red and (less commonly) buff surfaces are known. Manufactured at the eponymous production centre near Kings Lynn, Norfolk. 1 sherd, 8g, EVE = 0 (TP = 0).

F329: **Ely Ware**, mid 12th -15th century (Spoerry 2002): Generic name for a quartz sand and calcareous tempered group of pottery fabrics mainly manufactured in Ely, but also with a second possible source in the Hunts. Fenland. Jars, bowls and jugs dominate the assemblage. Earlier vessels hand-built and turntable finished, later vessels finer and usually wheel-thrown. Wide distribution, including King's Lynn, where it was originally identified as 'Grimston Software'. 5 sherds, 81g, EVE = 0 (TP = 3 sherds, 32g, EVE = 0)

F330: **Shelly Coarseware**, AD1100-1400 (McCarthy 1979). Products of numerous known and very probably many unknown kilns on the Jurassic limestone of west Northants/east Bedfordshire. Pale buff through virtually all colours to black, moderate to dense shelly limestone fragments up to 3mm, and any amount of ironstone, quartz and flint. Full range of medieval vessel types, especially jars and bowls, and 'Top Hat' jars. 3 sherds, 85g, EVE = 0 (TP = 1 sherd, 5g, EVE = 0).

F360: **Sandy Coarseware**? 12th C+. Hard grey to brown ware with moderate to dense sub-round white, grey and orange quartz up to 0.5mm, rare grains up to 1mm. Local? 6 sherds, 46g, EVE = 0.06 (TP = 5 sherds, 54g, EVE = 0)

F365: **Late Medieval Reduced Ware**, 1400 – 1500. Very hard grey sandy ware in a range of developed late medieval utilitarian forms, some with a dark green glaze. Numerous kiln sites throughout the southeast midlands, at places such as Higham Ferrers in Northamptonshire (Blinkhorn in print).

F401: **Bourne 'D' Ware**: c. 1450-1637 (McCarthy and Brooks 1988, 409). Production as the 'A' ware. Fairly hard, smooth, brick-red fabric, often with a grey core. Some vessels have sparse calcitic inclusions up to 2mm. Full range of late medieval to early post-medieval vessel forms, jugs, pancheons, cisterns etc. Vessels often have a thin, patchy exterior white slip, over which a clear glaze had been applied. 10 sherds, 89g, EVE = 0 (TP = 44 sherds, 902g, EVE = 0).

F402: **Late Medieval Oxidized ware**. Mid 15th – 16th century. Very hard orange sandy ware in a range of developed late medieval utilitarian forms, some with a dark green glaze. Numerous kiln sites throughout the southeast midlands, at places such as Glapthorn in Northamptonshire (Johnston 1997). Similar to material from many sites in the region, such as the 'Orange Sandy Ware' from Denny Abbey (Coppack 1980). 1 sherd, 6g, EVE = 0 (TP = 0)

F404: **Cistercian Ware**: c. AD1470-1550. Hard, smooth fabric, usually brick-red, but can be paler or browner. Few visible inclusions, except for occasional quartz grains. Range of vessel forms somewhat specialized, and usually very thin-walled (c. 2mm). Rare white slip decoration. Manufactured at a number of centres, including Potterspury in Northamptonshire (Mayes 1968) and, during the 16th and 17th centuries, at Ely (Hall 2001, 7). 0 sherd, 0g, EVE = 0 (TP = 3 sherds, 12g, EVE = 0)

F425: **Red Earthenware**, 16th – 19th century. Fine sandy earthenware, usually with a brown or green glaze, occurring in a range of utilitarian forms. Such 'country pottery' was first made in the 16th century, and in some areas continued in use until the 19th century. 4 sherds, 45g (TP = 55 sherds, 878g)

F426: **Iron-glazed Earthenware**, late 17th – 18th century. Range of large, heavy utilitarian vessels, mainly pancheons, with a thick, black, internal glaze. 0 sherds, 0g (1 sherd, 26g).

F437: **Manganese Mottled wares**. c late 17th – 18th century. A uniform buff-fired fabric in a moderately sorted matrix. The inclusions are occasional sub-angular and rounded black ironstone up to 0.6mm. This ware is characterised by its brown 'tiger striped' manganese glaze. 1 sherd, 9g (TP = 1 sherd, 9g)

F438: **English Stoneware**: White/grey stoneware with a white salt glaze. Made at numerous centres, such as Staffordshire, London and Nottingham, from the later 17th century onwards, in a wide range of utilitarian forms (Crossley 1990). 0 sherds, 0g, (TP = 1 sherd, 10g)

F439: **Creamware**. c 1740-1880. A cream-coloured earthenware, made from a calcinated flint clay (Jennings 1981, 227), and with a lead glaze, resulting in a rich cream colour. Range of tableware forms. 1 sherd, 11g (TP = 17 sherds, 113g).

F443: **Staffordshire white salt-glazed stonewares**. c. 1720-1780. Hard, fine uniform white coloured stoneware evenly covered with a white salt-glaze. Range of table wares such as tea-bowls, mugs etc. 1 sherd, 1g (TP = 0)

F1000: **Miscellaneous 19th and 20th century wares**. 1 sherd, 2g (TP = 149 sherds, 2569g).

4 Chronology

4.1 Iron Age

The range of fabric types suggest that there was low-level Iron Age activity at the site. Flint-tempered fabrics, which dominate the assemblage, are typical of the Late Bronze Age and Early Iron Age in the region, with the majority of sites showing that flint was replaced by sand, grog or shell as the main tempering ingredient at the end of the latter, c 300BC (Percival 205, 59). One sherd (Fig. CH1) in the shell-tempered fabric 1002, had finger impressions along the carination, a decorative techniques typical of the late Bronze Age/Early Iron Age in the region to the north and north-west of Chatteris (Knight 2001, Fig. 12.3).

One sherd with possible scoring was noted, in flint-tempered fabric F1003. Scored ware (Elsdon 1992), which is commonly found on middle – late Iron Age sites in the south-east midlands, particularly Northamptonshire, is thought to be of Middle Iron Age date, i.e. 5th/4th – 1st centuries BC, although it does appear alongside wheel-thrown wares in later Iron Age pottery assemblages in the lower Nene Valley (Knight 2002, 134-6).

The small number of diagnostic sherds present, would suggest that activity at the site took place from the later part of the Early Iron Age to the early part of the Middle Iron Age. The fact that a shelly ware vessel had decoration typical of the early Iron Age, and a flint-tempered vessel showed Middle Iron Age characteristics suggests that the assemblage has parallels with the two different traditions to the north-west and south-east of the site, and that the settlement may have had a somewhat liminal position in terms of cultural affinities.

4.2 Early/Middle Saxon

The dating of Early Saxon hand-built pottery, is entirely reliant on the presence of decorated sherds. It seems that the Anglo-Saxon generally stopped decorating hand-built pottery around the beginning of the 7th century (Myres 1977, 1), but it cannot be said that an assemblage which produced only plain sherds is of 7th century date. Usually, decorated hand-built pottery only comprises around 3 – 4% of domestic assemblages, as was the case at sites such as West Stow, Suffolk (West 1985) and Mucking, Essex (Hamerow 1993). In this case, none of the hand-built pottery had any form of decoration, but the assemblage is too small to date to the 7th century with any confidence. However, none of it occurred in contexts with dateable Middle Saxon wares such as Ipswich or Maxey types. Two small and somewhat abraded sherds occurred in a context which was stratigraphically later than a definite Middle Saxon contexts, but it seems that an Early Saxon (5th – 7th century) date is the most likely for the hand-built pottery.

4.3 Middle Saxon

The presence of an assemblage of Ipswich ware at this site means there is no doubt that there was occupation here in the Middle Saxon period, although it cannot be closely dated other than to within the broad period of AD725 – 850 (Blinkhorn in prep.). For the purposes of this report, Maxey Ware will be given a general Middle Saxon date, but it is entirely possible that, in western Cambridgeshire at least, it was only used in the earlier part of the period, and had virtually fallen from use by the time of the *floruit* of Ipswich Ware.

4.4 Late Saxon

The main Late Saxon pottery type, Thetford ware, cannot really be dated other than to within the Late Saxon and Saxo-Norman periods (broadly, AD850-1100), although Dallas (1993, 127) noted that, for Thetford ware, small vessels and frequent rouletted decoration are characteristically early. One rouletted sherd was present here, and just two jar rims, both with a diameter of 180mm or greater. Dallas defines 'small' Thetford ware jars as those in the 90 – 110mm diameter range. It is possible therefore that there was continuous activity at this site from the end of the Middle Saxon to Late Saxon periods, although the Late Saxon assemblage is probably too small to allow this to be advanced with any confidence. St Neots ware, a relatively common find on Late Saxon and Saxo-Norman sites in the region, was very rare, with Denham's type T1 (2) (ibid. 1985), a reliable indicator of 11th and 12th century activity, entirely absent, so it seems likely that the late Saxon activity at the site was short-lived, and probably dateable to the 10th century.

4.5 Medieval and Later

The range of medieval pottery types is fairly typical of sites in the region, comprising sandy and shelly coarsewares along with smaller quantities of glazed wares, and later medieval wares mainly in the form of Bourne 'D' ware. They suggest that activity at the site lasted throughout the medieval period, albeit at a fairly low level. The medieval phases, based on the wares present, are defined in the pottery phase summary in Table 7.

5 Pottery Occurrence

Each context specific pottery group has been given a ceramic phase date, based on the ware types presence, as shown in Table 7. The pottery occurrence per phase, adjusted with reference to the stratigraphy, is in Table 8.

Phase Defining Ware Chronology

E/MS	Hand-built Saxon wares	AD450-725
M	Slpwich Ware, Maxey Ware	AD725-850
LS1	Thetford ware, St. Neots Type T1(1)	AD850-1000
LS2	St. Neots type T1(2)	AD1000-1100
M1	Shelly Ware, Sandy Ware	AD1100-1150
M2	Ely Ware, Lyveden 'A' ware	1150-1200
M3	Grimston Ware, Hedingham ware	1200-1400
M4	Late Medieval Reduced ware	1400-1450
M5	Late Medieval Oxidized ware, Bourne 'D'	1450-1550
PM1	GRE	1550-1600
PM2	TGE	1600-1650
PM3	Staffordshire Slipware, Manganese ware	1650-1750
PM4	SWG, Creamware	1750-1800
MOD	Mass-produced earthenware	1800+

Table 7: Pottery phase dates, Anglo-Saxon and later pottery

Table 8: Pottery occurrence per ceramic phase, Anglo-Saxon and later pottery (Table excludes residual RB and IA material)

6 The Assemblages

6.1 Prehistoric

A single, extremely small sherd (1g) was noted which may be a fragment of a late Neolithic/Early Bronze Age beaker. It has a fragment of linear decoration, which may be cord impression, and was in a fine shelly fabric. It was simply too small and abraded for the identification to be made with confidence.

6.2 Early-Middle Iron Age

As noted above, the assemblage was dominated by flint-tempered fabrics, and yielded just to diagnostic sherds, which suggest that the assemblage probably dates to the Early-Middle Iron Age transition. The Iron Age pottery was all fairly fragmented. The mean sherd weight is 10.9g, but this is slightly distorted by a single large sherd (128g), which had disintegrated during excavation. When this is ignored, the mean sherd weight falls to 9.8g, which is perhaps a more accurate reflection. Nine rimsherds were noted, most of which were slightly closed forms with simple upright or slightly everted forms, although two upright and slightly flattened examples were also noted (see Figs. CH1 - CH4). The sherd with the fingertipped carination had such a rim profile.

Illustrations

Fig. CH1: Context 1902, F1002. Rimsherd with sharply angled, finger-tipped shoulder. Uniform black fabric.

Fig. CH2: Context 1972, F1003. Dark grey fabric with dark-purplish brown surfaces.

Fig. CH3: Context 1974, F1003. As CH2. Partially drilled hole near rim.

Fig. CH4: Context 2181, F1003. Uniform black fabric, burnished outer surface.

6.3 Early Saxon

The Early Saxon assemblage comprised entirely plain bodysherds, making dating impossible other than to within the broad period. Just one sherd was burnished.

6.4 Middle Saxon

The middle Saxon assemblage is typical of the growing number of small groups of Ipswich and Maxey ware known in Cambridgeshire. The imported sherd (Fig. CH9) is however extremely rare find in the county, and with Chatteris being just the third site to produce such material. Imported Middle Saxon imported pottery is not an unusual occurrence in the *wics* of the period such as Southampton (Timby 1988), London (eg Blackmore 1988; 1989), Ipswich (Wade 1988), but it is considerably rarer find at sites in the hinterland (Blinkhorn in prep. a & b). When such wares occur at inland sites, it is usually at places with a significant ecclesiastical component, such as North Elmham Minster, Norfolk (Wade 1980) and Barking Abbey, Essex (Redknapp 1991), and at royal estates such as Old Windsor, Berks. (Dunning et al. 1959). Occasional sherds occur at rural sites in Norfolk, usually close to the sea, such as West Walton (Blinkhorn 2005b, 179), and a small number are known from Lincolnshire, such as Riby Crossroads, (Steedman 1991). Finds are similarly rare in Cambridgeshire. Three sherds of North French Blackware occurred alongside an assemblage of Ipswich Ware at the Lady Chapel, Ely (Blinkhorn in archive), and seven sherds were noted at a probable Middle Saxon nunnery at Castor in the extreme north-west of the county (Green et al. 1987). Such pottery is likely to have been brought in as a by-product of the wine trade, with wine being of some expense and status in the Middle Saxon period. It may be significant that Chatteris is located between these two sites; if the settlement itself was not of high status, it may be that some sort of staging post or service centre between the two ecclesiastical centres was established there.

The Ipswich ware assemblage comprised a base from a large jar or pitcher (Fig. CH5), a bodysherd from a jug with a handle scar (Fig. CH8) and two jar rimsherds (Figs. CH6 and CH7), one of which was a large vessel of Buttermarket type (Blinkhorn 1990). It is the sort of assemblage one would perhaps expect to see from a site from outside the East Anglian kingdom, as such groups tend to have a far greater proportion of large jars and pitchers. The small assemblage size from this site means that the nature of the assemblage may simply be due to the vagaries of archaeological sampling.

The two sherds of Maxey ware were quite small; the rimsherd has a simple upright profile, which is typical of the tradition.

Illustrations

Fig CH5: Context 1307, fabric F96. Base of large jar. Dark reddish-brown fabric with smoothed and burnished outer surface.

Fig. CH6: Context 1137, fabric F95. Jar rimsherd. Uniform dark blue-grey fabric.

Fig. CH7: Context 99999, fabric F96. Jar rim. Buttermarket-type vessel, possible with the beginnings of an upright lug on the rim.

Fig. CH8: Context 2148, fabric F96. Bodysherd from pitcher with handle scar. Dark reddish-brown fabric with blue-grey surfaces.

Fig. CH9: Context 1649, fabric F98. Hard, light grey fabric with black surfaces, outer surface burnished.

6.5 Late Saxon

A small assemblage of Late Saxon pottery was noted, consisting of seven sherds of Thetford ware (along with two more from the testing-pitting) and a single small sherd of St Neots ware. A single very small rouletted sherd was noted, along with two jar rims, both from fairly large vessels. The rest of the assemblage comprised plain bodysherds. The mean sherd weight was generally low, and the material all seems the product of secondary deposition.

6.6 Medieval

Each medieval ceramic phase assemblage was quite small, but reasonably well preserved, suggesting that there was low-level activity at the site throughout the medieval period. It is an assemblage typical of the region, comprising mainly unglazed wares of various types, along with a few fragments of glazed jugs. The later medieval assemblage consists almost entirely of Bourne 'D' ware. Just three rimsherds were noted, all from jars, two being shelly coarseware and the other sandy coarseware.

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Appendix 5: Human Bone

By Natasha Dodwell

1 Introduction

The osteological analysis of two inhumations (skeletons 1405 and 1407), and three cremation burials (cuts 1355, 1357 and 1398) is presented below. The inhumation burials were adjacent and parallel to each other in the southeast corner of Area A and although not dated are undoubtedly contemporary. The cremation burials are located in the middle and northeastern part of Area A, dispersed over an area approximately 10 x 30m. The two unurned burials are undated but the urned cremation burial dates to the Middle Bronze Age.

2 Methodology

The cremation vessel was lifted and excavated in the OA East offices. Each cremation burial was excavated in 5cm spits and these divisions were observed throughout analysis. All of the soil from each feature containing cremated bone was collected, wet sieved and the residues passed through 10mm, 5mm and 2mm sieves and all bone >5mm extracted for analysis. The 2mm residues were scanned (and have been retained) and identifiable bone and any artefacts extracted. Osteological analysis followed procedures for cremated human bone outlined by McKinley (2002 and 2004).

General methods used in the osteological evaluation of all the human skeletal material are those of Bass (1992) and Buikstra and Ubelaker (1994). With the inhumations, an assessment of age was based on the stage of epiphyseal fusion, the degree of dental attrition (Brothwell, 1981) and changes to the auricular surface (Lovejoy et al 1985) and pubic symphysis (Brooks and Suchey 1990). Sex was ascertained from sexually dimorphic traits on the skull and pelvis and from metrical data. Amongst the cremated material the degree of fragmentation and poor survival of epiphyseal ends meant that age was based on the size and robustness of the limbs and skull fragments and the appearance of the sutures of the skull. The determination of sex, where made, should be treated with caution as it is based on a single trait. The age categories used in this report are: infant (0-5yrs), adult (18years +), young adult (18-25years), older middle adult (35-45years) and mature adult (46years+).

Although all the limb bones of the two skeletons had suffered post-mortem breaks, the breaks were clean and it was easy to refit the shafts meaning that stature could be calculated using the combined femur and tibia lengths and the regression equation devised by Trotter and Gleser (1958).

3 Preservation

Both skeletons were extremely well preserved, and although many bones had suffered post-mortem breaks and the face of 1407 had been removed by machine during the site strip, the recovery of skeletal elements, particularly from the extremities, was excellent.

The cremation burials ranged in depth from 0.12 – 0.18m and whilst they had clearly been truncated (the urn survives to a height of 70mm) the degree of truncation and the quantity of bone lost, if any, is unknown.

4 Results

4.1 The Inhumation Burials

Skeleton 1405, Mature adult (45yrs+) male, 1.75m (± 3cm)

The body is supine and extended with his head in the west of the grave. Both hands lie below the pelvis suggesting that the body may have been shrouded. Much of the face and frontal bone of this skeleton, had been machined away and many of the teeth had been lost post-mortem.

Osteoarthritic changes were recorded throughout the spine; areas of eburnation, marginal osteophytes and an increase in porosity were observed on the cervical vertebrae and lower down the spine the degenerative changes, including Schmorl's nodes, were focused on the vertebral bodies. The wedge compression fracture on the 5th lumbar vertebrae is likely to be a stress fracture possibly caused by a heavy fall onto the feet or by an impact from above. The enthesopathies (spurs of bone) on both patellae and the porosity and altered morphology of the clavicles are indicative of increased age. Twenty-three teeth have been lost post mortem but the surviving teeth are heavily worn, with heavy deposits of calculus (mineralised plaque). Two external draining abscesses were recorded in the maxilla above the 1st molars.

Skeleton 1407, Older middle/mature adult male 1.80m(± 3cm)

The body is supine and extended with his head in the west of the grave. The right arm is tight against the body, the left is flexed at the elbow with the clenched hand on the right hip, and the feet tight together, again suggesting that the body may have been shrouded.

Very slight marginal osteophytes were observed at all of the long bone joints. Osteoarthritic changes were recorded on the right superior articulating facets of the 6th thoracic and on the body of the 11th

thoracic vertebra. The latter may have developed as a result of the wedge compression fracture observed on the 12th thoracic vertebra which itself is likely to be stress fracture, similar to that observed in skeleton 1405. Both parietal bones of the skull exhibited an increase in porosity, a characteristic of porotic hyperostosis and indicative of anaemia. Most of the maxilla is missing and a total of 24 teeth were recorded all of which were heavily worn. The buccal aspects of the mandibular molars were more heavily worn than the lingual sides often down to the roots. Moderate to heavy deposits of calculus were recorded on the surviving dentition.

4.2 The Cremation Burials

Only one of the cremation burials can be dated; Burial 1, the urned cremation, is Middle Bronze Age in date. Without knowing whether the other burials are contemporary, the features and their attributes will be described but further discussion must await dating. For ease of discussion each feature was allocated a burial number. The results are summarised in Table 9.

Deposit Type

McKinley (2004) makes the distinction between different types of deposit related to the cremation ritual, e.g. unurned/urned burials and deliberate depositions of redeposited pyre material. At New Road, Chatteris, the character of each of the three features containing cremated bone is different.

Burial 1, cut 1355 is an urned burial. Cremated bone was recovered from inside the truncated vessel. The surrounding fill was charcoal stained and contained burnt bone and charcoal and could be interpreted as redeposited pyre debris. Most of the bone from the surrounding fill was recovered from the upper spit and it is possible that it was originally contained within the vessel, which has been heavily truncated (the vessel survives to a depth of only 70mm).

The fill of Burial 2, cut 1357 contained a large quantity of well calcined and poorly fired bone mixed with pyre debris (a charcoal stained silt mixed with charcoal fragments and some small fragments of burnt clay/pot). Bone was recovered throughout the fill but almost 70% was identified in a concentration at the centre of the feature suggesting the possible presence of some kind of organic container.

In Burial 3, cut 1398, there is a concentration of bone in the centre of the feature, again suggesting the presence of an organic container, which was surrounded by a fill of redeposited natural with some burnt bone.

Age and Sex

All three burials contained the remains of an adult, one of which has been tentatively sexed as male (Burial 2), one as female (Burial 3). Both of these burials also contain the remains of an immature individual (aged less than 5 years). The quantities of immature bone identified should be viewed as a minimum as it is highly likely that more is contained within the 'unidentifiable' bone fragments.

Pyre Technology and cremation ritual

The colour of cremated bone is indicative of the effectiveness of the cremation process, for example the temperature of the pyre, how long and well it is maintained, and the position of the body on the pyre. Each burial is different in terms of the colour of the bone. Almost all of the bone analysed in Burial 3 is buff white in colour, indicative of complete oxidation, whilst several fragments of bone from Burial 1, notably fragments of femoral shaft and skull, are black or blue/grey in colour. These variations suggest minor inconsistencies in the degree of oxidation. The bone from Burial 2 is a mixture of white and grey/brown/black bone fragments. The large number of poorly fired fragments derive from all areas of the skeleton and may be due to poor pyre construction or maintenance or even the size of the individual being cremated; the adult bones were very robust.

The weight of collectable bone (>2mm) one might expect from an adult cremation ranges from 1000g – 2400g depending on the age, sex and build of an individual (McKinley 1993). At Chatteris, only bone >5mm was extracted and weighed and the weights ranged from 544g to 1920g. All have been truncated to some degree and it is therefore not possible to say whether all of the cremated remains were interred, but the weights are relatively high, particularly that of Burial 2, and in all three cases it seems likely that most if not all of the bone was collected for burial.

Cremated bone will fragment at many stages during the funerary process, in the burial environment and during post excavation. The largest bone fragment recorded from each of the burials was 53mm from the urned burial, Burial 1, 60mm from Burial 2 and 36mm from Burial 3. In both Burials 1 and 2 the majority of the bone analysed (57%) was >10mm. In the urned burial there was no significant difference between the fragment size inside the vessel and that surrounding it. The majority of bone from Burial 3 was much smaller and was recovered from the 5-10mm sieve fraction (63%). The bone from the concentration (?within a bag) was generally larger than the fragments surrounding it, but not significantly so.

Burial	Cut	Burial type	Depth (m)	Fill	location	Weight (g)*	Age & sex	Comment
1	1355	Urned burial	0.12	(1353)	inside urn	516	Adult	?animal bone (2g)
				(1354)	outside urn	239		
2	1357	Unurned burial (in a bag?)	0.18	(1356)	upper	448	Adult? male & infant (23g)	?animal bone (14g)
					middle	132 9		
					lower	143		
3	1398	Unurned burial (in a bag?)	0.13	(1396)	concentration	219	Young adult? female & infant (7g)	
				(1395)	Spit 1 (upper)	118		
					Spit 2	20		
					Spit 3	24		
					Spit 4 (lower)	163		

Table 9: Summary table of the cremation burials

*Total weight of bone > 5mm. Where there are adult & immature individuals in the same context the minimum weight of the immature bone is given in brackets

5 Discussion and recommendations for further work

Both inhumations are elderly men with osteoarthritic changes and dental pathologies analogous with increased age. The positions of their bodies in the graves suggest a Roman or later date. The cremation burials are all adult although two also contain some immature cremated bone. No further analysis of the bone (both cremated and unburnt) needs to be done although the possible animal bone needs to be examined by a faunal specialist. It would be useful to obtain C14 dates on both the cremated burials and the inhumations so that they can be considered in relation to other features on the site and in the wider landscape and comparisons should also be made with the material from the 2001 excavations. The text should be reviewed once dates have been obtained prior to publication.

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G.C.

Appendix 6: Faunal Remains

By Chris Faine

1 Introduction

Fifty-three contexts contained identifiable faunal remains. These features largely consisted of pits, ditches along with several deliberate animal burials. All bones were collected by hand, with preservation being extremely good, albeit fragmented. The total assemblage consisted of 543 fragments, of which 302 were identifiable to species (55.6% of the total sample). The unidentifiable fragments were classified according to size, with 230 of those classed as “large/med mammal” and 11 as “small mammal”.

2 Methodology

All data was initially recorded using a specially written MS Access database. All elements identifiable to species and over 25% complete were included in the database. Loose teeth, caudal vertebra and ribs without proximal epiphyses were noted but not included in any quantification. Elements not identifiable to species were classed as “large/medium/small mammal” but again not included in any quantification. Initially all elements were assessed in terms of siding (where appropriate), completeness, tooth wear stages (also where applicable) and epiphyseal fusion. Completeness was assessed in terms of percentage and zones present (after Dobney & Reilly 1988). Initially the whole identifiable assemblage was quantified in terms of number of individual fragments (NISP) and minimum numbers of individuals MNI (see table 13). The ageing of the population was largely achieved by examining the wear stages of cheek teeth of cattle, sheep/goat and pig (after Grant 1982). The states of epiphyseal fusion for all relevant bones were recorded to give a broad age range for the major domesticates (after Getty 1975). Any instances of butchery were noted and recorded using a separate table from the main database. The type of lesion, its position, severity and direction were all noted. The presence of any further taphonomy, i.e. burning, gnawing etc was also noted. A separate table for any pathology, giving the position and type of lesion was also used.

A variety of metrical analyses were carried out on the assemblage. All measurements were carried out according to the conventions of von den Driesch (1976). Horse withers heights were calculated using Kiesewalter (in Driesch & Boessneck, 1974). Measurements were either carried out using a 150mm sliding calliper or an osteometric board in the case of larger bones.

3 The assemblage

Table 13 shows the species distribution for the entire assemblage. As one can see a wide variety of taxa are represented. In terms of fragments (NISP) pigs are the most prevalent species. However, this is largely due to the presence of a number of complete burials, the number of individuals (MNI) is therefore a more effective quantification method in this case. In terms of the domestic mammals cattle dominate, with lesser proportions of pig and sheep/remains, these being present in more or less equal quantities. Horse remains make up the rest of the domestic assemblage. Dogs and cat remains most likely represent commensal species. Numbers of bird and fish remains were also recovered. Evidence on the surrounding environment can be seen from the rodent and small reptile remains. One of the problems with analysing this assemblage is the undated nature of many of the contexts and thus the material contained within (see figure 1). Figure 2 shows the distribution of the major domesticates by site phase. The assemblage is divided into seven phases:

- 1. Early Iron Age (LIA)
- 2. Romano-British (RB)
- 3. Early-Middle Saxon (ES)
- 4. Late Saxon (LS)
- 5. Early Medieval (EM)
- 6. Late Medieval (LM)
- 7. Post Medieval (PM)

3.1 *Early Iron Age*

Only four identifiable fragments were recovered from LIA contexts, in the form of butchered sheep/goat mandible, humerus and cattle horn core. A single fragmented frog vertebra (*Rana sp.*) was also recovered.

3.2 *Romano-British*

Only one fragment of domestic mammal bone was recovered from a Romano-British context, in the form of a butchered pig scapula. The remaining material was recovered from environmental samples. Grass snake remains were recovered from context 1649. These consisted of two vertebrae (one burnt). These snakes can often be found close to human habitation in damp pasture and farmyard manure heaps. Their presence in this context (along with eel and small gadid remains), does suggest a farming/domestic rubbish deposit.

3.2 *Early Saxon*

As one can see from figure 1 the largest amount of dateable material was recovered from Early-Middle Saxon contexts. This is dominated

by cattle remains, with lesser but roughly equal proportions of sheep/goat and pig remains. The cattle remains largely consist of cranial elements and vertebrae, along with limited numbers of meat bearing elements, such as humeri. Tooth wear and epiphyseal fusion data suggests the majority of animals were around 2 ½ to 3 years of age at death. Sheep/goat remains consisted of the remains of one individual from context 1814, along with a single butchered radius from 2148. Withers height analysis of available bones from 1814 indicate an animal with a withers height of around 57.2cm. This is at the lower end of the size range given for other contemporary rural sites (Crabtree 1990). All but one of the sheep/goat elements recovered from this period show signs of butchery.

Pig remains consist of a small number of fragmented remains from four contexts (1649, 2148, 2199 and 2419), including a fragmentary maxilla from an animal aged around 2- 2 ½ years at death. Apart from the major domesticates few other taxa were present in the Early Saxon assemblage. A single horse mandible from context 2199 was aged via crown heights to 8-12 years old at death. Context 2148 and 2149 contained a cat mandible and butchered goose tibiotarsus respectively. A single intact dog 4th metatarsal was recovered from context 1649.

3.3 Late Saxon

Far fewer identifiable remains were recovered from Late Saxon contexts, consisting largely of butchered cattle long bones along with smaller amounts of sheep/goat remains. An intact horse metatarsal was recovered from context 2086, from an animal with a withers height of around 1.44m. A single house mouse mandible was recovered from environmental samples along with two bird distal phalanges that could not be identified to species (possibly passerines?).

3.4 Early Medieval

The early medieval bone assemblage consists entirely of domestic mammal remains from three contexts. Cattle are the predominant species, consisting largely of limbs and some cranial elements. Epiphyseal fusion data suggests all animals represented were around 2- 2 ½ years of age at death. Sheep/goat and pig remains were extremely fragmented and consisted largely of lower limb elements. A single fragmented horse metatarsal was recovered from context 1101.

3.5 Late Medieval

The late medieval bone assemblage is characterised by extremely fragmentary domestic mammal remains consisting largely of cattle cranial elements and sheep/goat lower limb bones. Of most interest is the presence of domestic fowl and goose remains (although

fragmentary there is no evidence of butchery on any bird element from these contexts). Only one fragment was recovered from post-medieval contexts.

3.6 Undated material

As mentioned above the majority of identifiable faunal remains were recovered from a series of undated pig burials. Context **1283** contained the intact burial of animal aged via tooth wear and epiphyseal fusion to around 6 months old. In addition two sheep/goat lumbar vertebrae and a single rabbit tibia were also recovered (although these are likely to be intrusive). A less complete but older individual (around 7-12 years of age) was recovered from context **1299**. The remaining two burials were less complete, with context **1351** consisting largely of hind limbs with some vertebrae and complete limbs and scapula (and nothing else) being recovered from **1358**. The remains were from animals aged around 2 ½ years and 6 months respectively.

Context **1766** contained the remains of a single adult dog, including portions of skull, front and hind limbs and elements of the axial skeleton. Epiphyseal fusion analysis indicates an animal at least 2-3 years old. However, the mandibular teeth are extremely worn, most likely indicating a much older animal than suggested by fusion data alone. Metrical analysis suggests the animal stood around 53cm at the shoulder. This, coupled with examination of the cranial morphology suggests an animal roughly the size and build of small Alsatian. Pathology is present in the form of a partially healed break midshaft on one of the thoracic ribs.

Faunal material was also recovered from other undated contexts, mostly pits, postholes and a possible hearth. These largely consisted of isolated depositions of butchered domestic mammal remains. Remains from environmental samples include frog and fish remains such as eel and herring.

4 Conclusion/discussion

As mentioned above it is unfortunate that so much of the faunal material from this site is undated. However, pig burials are uncommon in the Iron Age and Roman periods and it is likely that they represent later depositions of animals that died through illness for example.

Little information can be gleaned from the small number of Early Iron Age and Romano-British fragments. However, given the lack of domestic mammals, and the prevalence of fish and reptile remains it seems unlikely that the site was used for any animal husbandry during this period; more likely being open land (possibly arable land). The Early Saxon period yielded the largest amount of faunal remains, with

cattle and sheep being raised to maturity before slaughter, with some being kept for secondary products and breeding. Pigs were slaughtered at physical maturity. Horses were kept for transport and traction. The proximity of settlement is suggested by the presence of bird, cat and dog remains. Although smaller, the Late Saxon assemblage suggests this pattern continued throughout the period. The medieval period saw a continuation of this pattern albeit on a smaller scale, along with the introduction of domestic birds for meat, eggs and feathers. The material from environmental samples shows (despite limited changes in land use), the general environment remained the same, with the presence of reptile, amphibian and small mammal remains being indicative of damp pasture or grassland, with the fish remains possible the result of episodic flooding. The presence of so much of this material in pits and postholes is to be expected.

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Key to tables

B: *Bos*
 O: *Ovis/Capra*
 CAF: *Canis familiaris*
 E: *Equus caballus*

For measurements see Driesch, 1976. All measurements are in 1/10ths of a millimetre.

	NISP	NISP%	MNI	MNI%
Mammals				
Pig (<i>Sus scrofa</i>)	134	44.4	16	18.8
Cattle (<i>Bos</i>)	60	19.9	25	29
Dog (<i>Canis familiaris</i>)	34	11.3	2	2.4
Sheep/Goat (<i>Ovis/Capra</i>)	29	9.8	15	17.7
Horse (<i>Equus caballus</i>)	13	4.1	7	8.3
Cat (<i>Felis sylvestris</i>)	1	0.3	1	1.2
Rabbit (<i>Oryctolagus cuniculus</i>)	1	0.3	1	1.2
Small Mammals				
House mouse (<i>Mus musculus</i>)	1	0.3	1	1.2
Black rat (<i>Rattus rattus</i>)	1	0.3	1	1.2
Birds				
Domestic fowl (<i>Gallus sp.</i>)	5	1.8	2	2.4
Domestic goose (<i>Anser sp.</i>)	2	0.6	1	1.2
Unid. Bird	3	0.9	2	2.4
Reptiles/Amphibians				
Common frog (<i>Rana temporaria</i>)	8	2.7	5	5.8
Grass snake (<i>Natrix natrix</i>)	2	0.6	1	1.2
Fish				
European eel (<i>Anguilla anguilla</i>)	7	2.4	4	4.8
Herring (<i>Clupea harengus</i>)	1	0.3	1	1.2
TOTAL:	302	100	85	100

Table 13: Species distribution for the entire assemblage

Taxon	Element	Period	45	46	47
B	Horncore	MS	300	360	660

Taxon	Element	Period	GL
B	Skull	MS	3900

Taxon	Element	Period	LG
B	Scapula	MS	600
CA	Scapula	?	300
CA	Scapula	?	300

Taxon	Element	Period	GL	Bd
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O	Humerus	?		260
CA	Humerus	?	1620	310
CA	Humerus	?	1620	340

Taxon	Element	Period	GL	Bd
E	Metacarpal	LS	2250	470

Taxon	Element	Period	GL	Bd
O	Metatarsal	MS	1170	220

Taxon	Element	Period	GL	Bd
CAF	Femur	?	1810	330

Taxon	Element	Period	GL	Bd
B	Tibia	?	3100	550
O	Tibia	LM		270
E	Tibia	LM		740

Table 14: Bone measurements

	C	V	E	H	U	a	b	c	d	e	f	g	h	j	k	l	m	n	o
M1																			
M2																1			
M3										2						1			
M1/2									2						3				

Table 15: cattle tooth wear data

Taxon	M1W	M2W	M3W	M3L	M1/2W
B	150	140	150		
B			150	330	
B					150
B					240
B					190
B					188
B				350	140
B		140			
B				350	140
B					160
B					100

Table 16: Cattle lower tooth measurements

Figure App. 6.1: Distribution of faunal remains by site phase (NISP)

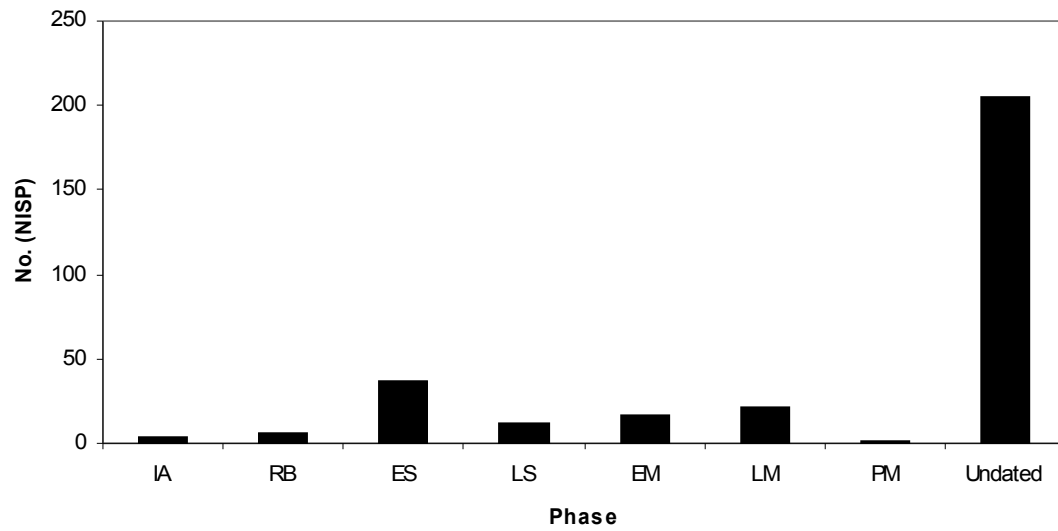
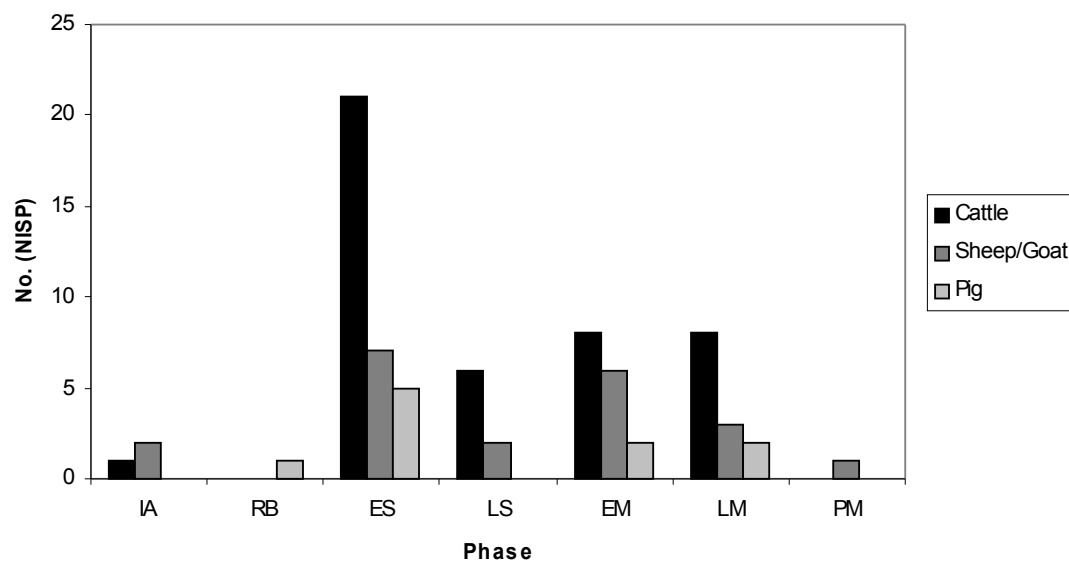


Figure App. 6.2: Distribution of domestic mammals by site phase



Appendix 7a: Appraisal of Environmental Samples

by Rachel Fosberry

1 Introduction and Methods

Ninety four bulk samples were taken from across from a variety of contexts including pits, ditches, postholes, a hearth, four cremation pits and two graves. Samples from previous evaluation of this site had produced a limited diversity of charred plant remains along with other dietary remains that included animal and fish bones.

Up to twenty litres of each sample were processed by tank flotation for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The flot was collected in a 0.5mm nylon mesh and the residue was washed through a 1mm sieve. Both flot and residue were allowed to air dry. The dried residue was passed through 5mm and 2mm sieves and a magnet was dragged through each resulting fraction prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds. The flot was examined under a binocular microscope at x16 magnification and the presence of any plant remains or other artefacts are noted on Table 11.

Twelve samples were taken from cremations (1355, 1357, 1397, 1398). These samples were processed using the same method. The <2mm fraction was scanned and discarded. The >5mm fraction was completely sorted and any human skeletal remains (HSR) was removed, weighed and sent to HSR specialist along with the >2mm<5mm fraction which was left unsorted.

2 Results

Preservation was predominantly by charring although some samples may have been waterlogged. Charred plant remains include cereal grains, legumes and weed seeds.

The total weight of HSR recovered from each cremation varied as follows:

Cut Number **Weight of HSR (g)** 1355 701 1357 1894 1397 2311 1398 330

Table 11: Weight of HSR by context

Fifteen samples were taken from deposits that had contained no finds on excavation. Three of these samples contain pottery and a further five samples contain other artefacts such as animal and fish bone.

3 Conclusions and Recommendations

Preliminary observations suggest that preservation of charred plant remains is moderate to good. The majority of flot volumes are small although some samples produced substantial volumes of up to one litre. Wood charcoal predominates providing evidence of burning with the potential of carbon dating and/or species identification. Cereal grains are present in more than half of the samples and represent both discrete deposits and general scattering of grain preserved by accidental burning. Chaff elements are extremely rare in these samples, which has implications as to whether this site is a consumer or a producer site. Lack of evidence of crop processing usually implies that clean grain has been imported onto the site. Weed seeds are common and may provide further information about agricultural practices, as crop weeds can be indicative of processing stages and methods. Further investigation of these samples is recommended.

Three of the cremations (1355, 1357, 1397, 1398) contain charred plant remains in the form of cereal grains and weed seeds. These three samples also contain pottery. Two of these cremations (1355, 1398) also contain fishbone. Sparse charred plant remains were also recovered from the samples taken from around the heads of the two skeletons. It is most likely that these dietary remains were redeposited in these features when they were backfilled. All HSR will be assessed independently by Natasha Dodwell.

The water table in this area is high and 13 samples produced flots containing abundant organic material. This suggests that the deposits had been waterlogged although uncharred seeds were rare and some of these flots also contained charred plant remains.

Twenty seven samples contain fishbone and/or fishscale suggesting that fish was a dietary constituent. Analysis of these remains could provide an insight into diet and butchery practice. It is generally accepted that fish consumption was uncommon in the Iron Age (Dobney & Ervynck, 2007). The samples containing fishbone should be re-evaluated once dates of deposits are established.

A single sample (Sample 82, Context 2026) contains metalworking residues in the form of a single spheroid of hammerscale. Spheroidal hammerscale is formed during blacksmithing and welding. It is doubtful whether the presence of a single spheroid can be considered significant.

In accordance with English Heritage policy, eleven samples were submitted to Val Fryer (Archaeobotanical Specialist) for detailed assessment and the results of this work are presented in Appendix 7b.

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Appendix 7b: Charred plant macrofossils and other remains

By Val Fryer

1 Introduction and method statement

Samples for the retrieval of the plant macrofossil assemblages were taken from across the excavated area, and ninety four were initially processed and evaluated by OA East staff (Appendix 7a). Of these, eleven contained a sufficient density of material for an assessment of the plant macrofossil assemblages to be undertaken.

The samples were bulk floated by OA East and the flots were collected in a 500 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x 16 and the plant macrofossils and other remains noted are listed in Table 10. Nomenclature within the table follows Stace (1997). All plant remains were charred. Modern contaminants including fibrous roots and seeds were present throughout.

2 Results

Cereal grains and seeds of common weeds and wetland plants were present at a low to moderate density in all eleven samples studied. Preservation was moderately good, although a high proportion of the grains were puffed and distorted, probably as a result of combustion at very high temperatures.

Oat (*Avena* sp.), barley (*Hordeum* sp.), rye (*Secale cereale*) and wheat (*Triticum* sp.) grains were recorded, with barley being predominant within most of the assemblages. Asymmetrical lateral grains of six-row barley (*H. vulgare*) were present within samples 3 and 56. Of the wheat grains, most were of a rounded hexaploid form, and single rachis nodes of bread wheat (*T. aestivum/compactum*) type were recovered from six samples. However, a small number of elongated 'drop-form' grains, possibly more typical of emmer (*T. dicoccum*) or spelt (*T. spelta*), were noted within sample 81. Two fragmentary cotyledons of indeterminate large pulses (Fabaceae) were recorded from samples 3 and 19.

Although seeds of common segetal and grassland herbs occurred in all eleven samples, they were rarely recorded as more than one specimen per assemblage. Taxa noted included stinking mayweed (*Anthemis cotula* – a common plant on the local clay soils), brome (*Bromus* sp.), dock (*Rumex* sp.) and vetch/vetchling (*Vicia/Lathyrus* sp.). Seeds of wetland plants including sedge (*Carex* sp.), spike-rush (*Eleocharis* sp.), saw-sedge (*Cladium mariscus*) and lesser spearwort (*Ranunculus flammula*) were present in four assemblages. Other plant

macrofossils included a single fragment of hazel (*Corylus avellana*) nutshell and a small number of bramble (*Rubus* sect. *Glandulosus*) 'pips'. Charcoal fragments were present throughout.

The pieces of black porous and tarry material noted within the assemblages were probable residues of the combustion of organic remains (including cereal grains) at extremely high temperatures. Bone/burnt bone fragments were recorded, although it was not clear whether these were derived from scattered cremation deposits or dietary refuse. Fish bones/scales were also present within all but one of the assemblages.

3 Discussion

Although the samples are from a range of different context types (pits, post-holes, ditches and a tree-bole), the recovered assemblages are reasonably uniform in composition, possibly indicating that much of the material has a common source. Cereal grains are present throughout, and the predominance of barley, which is the only grain to be regularly consumed whole as a constituent of soups and stews, may indicate that the material has a domestic origin. The low density of cereal chaff within the assemblages may suggest that cereal processing was not being conducted within the immediate vicinity of the site. However, it should be noted that the poor condition of some macrofossils might indicate that temperatures of combustion were sufficiently high to destroy many of the more delicate chaff elements. Similar assemblages with low densities of chaff have been noted from a number of other contemporary sites situated on heavy clay soils (for example Stanstead, Essex, Murphy 1990). In these instances it is assumed that, because of the difficulty of agricultural production, the occupants were following a largely pastoral regime and were at least partly dependant on imported batches of semi-cleaned or prime grain for their cereal requirements.

4 Conclusions

In summary, the low density of macrofossils within the assemblages almost certainly indicates that the material is primarily derived from scattered or wind-blown domestic refuse, much of which became accidentally incorporated within the features. Although cereals (most particularly barley) appear to have been of some importance to the occupants of the site, there is no evidence for on-site cereal processing. It is, therefore, assumed that grain at an advanced stage of processing was imported as required by a population engaged in a largely pastoral economy.

5 Recommendations

As the density of material is relatively low, and as the assemblages do not appear to be indicative of any specific on site activity, no further quantification is required. However, a full written summary of this report should be included within any publication of data from the site.

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- | | | |
|-----------|------|---|
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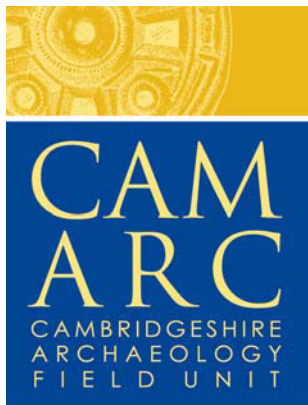
Sample No.	3	6	19	33	56	68	69	70	71	81	93
Context No.	1193	1247	1307	1419	1649	1768	1772	1773	1775	2050	2199
Feature No.	1195	1248	1308	1420	1545	1767	1774	1774	1776	2052	2198
Feature type	Pit	ph	TB	ph	Pit	Ditch	Ditch	Ditch	Ditch	Pit	Pit
Cereals and other food plants											
<i>Avena</i> sp. (grains)	xcf				xcf	xcf		xcf		x	x
Large Fabaceae indet.	xcotyfg		xcotyfg								
<i>Hordeum</i> sp. (grains)	xx	x	x	xcf	x	x	xx	x	x	x	x
(rachis node)	x										
<i>H. vulgare</i> L. (asymmetrical lateral grains)	x				x						
<i>Secale cereale</i> L. (grains)		xcf								xcf	
<i>Triticum</i> sp. (grains)	x	x	xcf	x			x	xcf	x	xx	xx
<i>T. aestivum/compactum</i> type (rachis nodes)		x			xcf	x	x	x			x
Cereal indet. (grains)	xx	xx	x	x	xx	x	x	x	x	xx	xx
(rachis internode frag.)					x						
Herbs											
<i>Anthemis cotula</i> L.	xx	x	x						x	x	
<i>Atriplex</i> sp.	x										
Brassicaceae indet.					x						
<i>Bromus</i> sp.	x	x				x	xcf			xcf	
<i>Centaurea</i> sp.									x		xcf
<i>Chenopodium album</i> L.	x										
Chenopodiaceae indet	xx				x						
Fabaceae indet										x	x
<i>Fallopia convolvulus</i> (L.)A.Love	x										
<i>Galium aparine</i> L.		x									
<i>Medicago/Trifolium/Lotus</i> sp											x
<i>Plantago lanceolata</i> L.			x								
Small Poaceae indet.	x			x							
Large Poaceae indet.	x										
<i>Ranunculus</i> sp.					x						
<i>R. acris/repens/bulbosus</i>					x						
<i>Rumex</i> sp.				x	x		x	x		x	
<i>Verbena</i> sp.	xcf										
<i>Vicia/Lathyrus</i> sp.		x			x	xx	x	x			x

Wetland plants											
<i>Carex</i> sp.					x						
<i>Cladium mariscus</i> (L.)Pohl							x				
<i>Eleocharis</i> sp.	x				xx					x	
<i>Ranunculus flammula</i> L.										x	
Tree/shrub macrofossils											
<i>Corylus avellana</i> L.					x						
<i>Rubus</i> sect. <i>Glandulosus</i> Wimmer & Grab										x	
Other plant macrofossils											
Charcoal <2mm	xxxx	xxx	xxx	xxx	xxxx	xx	xxx	xxx	xx	x	xx
Charcoal >2mm	xxxx	x	x	x	xxxx	x	x		x		x
Charred root/stem	x		x	x	x						x
Indet.infloescence frag.									x		
Indet.seed	x	x			x	x		x	x	x	
Indet.thorn (<i>Prunus</i> type)					x						
Mineralised root channels			x								
Other materials											
Black porous 'cokey' material	xx	xx	x	x	x	xx	xx	x	xx	x	x
Black tarry material			x					x	x	x	
Bone	x	x xb		xb	x	x		x			xb
Burnt/fired clay				x	x	x					x
Burnt stone						x					
Fish bone	xxx	x	x	x	xx		x	x	x	x	x
Mineralised concretions					x						
Small coal frags.	x	x		x	x	x	x				
Vitrified material	x				x			x			
Sample volume (litres)	10	5	10	10	10	10	20	20		10	10
Volume of flot (litres)	0.3	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
% flot sorted	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 10: Environmental remains present in samples

Key to Table

x = 1 - 10 specimens xx = 10 - 50 specimens xxx = 50 - 100 specimens xxxx = 100+ specimens
 cf = compare coty = cotyledon fg = fragment b = burnt



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