

Excavations at Langtoft, Lincolnshire

The Freeman Land.



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An Archaeological watching brief and excavation was undertaken by a team from Cambridge Archaeological Unit on behalf of Hanson Aggregates PLC on a 7.93ha site at Baston No. 1 Quarry. The excavation revealed field systems of Middle Bronze Age date, in addition to pits, wells and postholes with complimentary domestic debris. The remains of two ring ditches, associated cremations and an inhumation provided an insight to the community of the Bronze Age people and how they buried their dead and placed the site in context in the surrounding landscape.

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| <ul style="list-style-type: none"> Quarried Areas Freeman Land Site Other Investigations | <ol style="list-style-type: none"> 1. Baston Quarry Area A (1998) 2. Baston Quarry Area B (2001) 3. Baston Quarry Area C (2002) 4. Baston Quarry Areas D-E (2003) 5. Outgang Road Excavation (Heritage Lincs.) 6. Outgang Road Watching Brief (Heritage Lincs.) 7. Cross Road Watching Brief (1998-99) 8. Langtoft Common Watching Brief (2001) 9. Areas F-H The Bluebell Land (2006) 10. Glebe Land (2007) 11. Freeman's Land (2007) 12. Whitfield Land (2007) 13. Northampton Archaeological Unit (2007) |
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Figure 1. Location map

Introduction

An archaeological excavation was undertaken at Hanson Aggregates Plc, Baston Quarry No.1, Langtoft, Lincolnshire (NGR TF 133 152), from 16th July to 31st August 2007 in an area known as the Freeman land. This area was part of three phases of stripping by machine that was undertaken consecutively in three different areas; Whitfield (CAU Report 823), Glebe (CAU Report 837) and Freeman. Approximately 50% (7.93ha) of Freeman was uncovered and excavated; the remainder will be investigated at a later date. A 10m wide area was stripped around the perimeter of the Development Area (DA) to provide a soil bund. Part of the western transect was expanded to fully expose one of two ring ditches that were encountered. The results of the investigation are presented in an interim format, and a full report will be produced after completion of the whole area. Archaeological evidence at Freeman comprised of linears, pits, wells, postholes, watering holes, ring ditches with associated cremations and an inhumation. The linears formed part of the extensive field system that extended into the areas of Glebe and Whitfield and beyond, and pits/wells with similar morphology to features in those two areas. The artefact assemblage included two toggles, pottery, flint, worked wood, in addition to faunal and human remains.

Topography, Geology and Archaeological Background

The site lies on First Terrace river gravels which overlie Oxford Clay, and is situated approximately 1 mile west of Older Marine Alluvium and Nordelph peats at the former fen edge between 2.00-3.00m OD. The geology of the area is characterised by the River Welland (the site is approximately 2.5km due north of the Welland) and associated interconnected alluvial belts within which are numerous palaeochannels. This was capped by a ploughed topsoil horizon, ranging from 0.30-0.45m in depth in the southern part of the excavation to 0.20-0.30m towards the northern half. Abundant archaeology is known both within the quarry environs and surrounding landscape of the fen-edge gravel in Langtoft parish. The archaeological background of the Langtoft environs and wider context was fully presented in the report of the Whitfield and Glebe excavations (Hutton 2008a and 2008b). Further associated archaeological information will therefore be summarised here. The Middle Bronze Age field system and associated features that were previously recorded on Whitfield and Glebe continued into Freeman on the same orientation. This field system covered an extensive area and was probably constructed by a community that lived within that system. The settlement that was recorded at Glebe represents a small farmstead that was occupied by an extended family that formed part of that community (Hutton 2008a and 2008b).

Successive excavations by the CAU within the quarry have provided evidence for settlement spanning later prehistory through to the Romano-British period (Hall 1998; Webley 2007; Hutton 2007). Three watching briefs carried out immediately south of the Whitfield Land in 1998 and 1999 revealed archaeological remains consisting of a small number of pits, postholes and linear ditches. None contained any dateable artefacts, except for one pit which contained a sherd of prehistoric shell-tempered pottery (Higbee 1998; 1999).

Meanwhile extensive excavations on the Meadow Lands 2.5km southwest of the present site (in Areas A to D) have revealed Late Bronze Age and Middle to Late Iron Age features (Hall 1998; Webley forthcoming). A cluster of discrete features in the northern part of the Meadow Lands consisted of 3 posthole structures, 18 large pit/wells and several smaller pits, all containing Deverel-Rimbury pottery.

The landscape surrounding the investigated area attests to the occupation of a community and the place of the dead within that landscape. Numerous cropmarks of the surrounding area indicate the remains of barrows and ring ditches, some of them as standing monuments or as soil marks within the fields. A full list of probable ring ditches and barrows within a 4km radius of the Freeman Land can be seen in Table 12 in the Appendix.

One such example was a barrow at Deeping St Nicholas that was ploughed almost flat and was sited on a low gravel promontory next to a relict watercourse. Prior to the construction of the mound, the central burial of a child was surrounded by nine concentric rings of stakes. There was no burial associated with the mound itself which could suggest that the mound could represent a memorial. These posts were removed before the erection of the mound.

After the mound was constructed burials were interred into the mound with grave goods that consisted of four jet beads and a polished pig's tusk (French 1994). There was further remodelling to the barrow including the erection of posts and additional burials and 6 to 10 cremations placed in the berm. No burials came into contact with each other suggesting that there was a surviving memory on where previous burials were placed (French 1994).

An excavation carried out by Archaeological Project Services 1.34km to the northeast of Freeman, and revealed the remains of a Middle Bronze Age settlement that included pits, postholes, hearths and traces of fires together with material culture such as flint tools, pottery and faunal remains with signs of butchery marks (APS 1998). A barrow was also recorded nearby with an upstanding mound (HER 34191). Adjacent to the Freeman land on the western side, an excavation was undertaken by Northamptonshire Archaeology Unit and a range of features were recorded. The remains were predominantly Roman, with the Middle Bronze Age field system continued through this area towards the northwest (Mudd *pers. comm.*).

Methodology

The area was stripped to an archaeological level with a 360° tracked excavator with toothless ditching bucket under careful supervision of an experienced archaeologist. The unit modified version of MoLAS recording system was used; features were planned at 1:50, with sections drawn at 1:10. Small pits and postholes were hand excavated half sectioned, and linear features were sampled at appropriate intervals. Archaeological features were assigned a unique number (e.g. **F.001**; bolded upon introduction within the text) and each stratigraphically distinct episode (e.g. a cut, a fill) was recorded with a unique context number (e.g. [001]). All work was carried out with strict accordance with statutory Health and Safety legislation and with recommendations with SCAUM. Hanson quarry safety regulations pertaining to wearing of Personal Protective Equipment (PPE) were also followed. The site was surveyed into the Ordnance Survey Grid and Ordnance Datum by means of a RTK GPS unit.

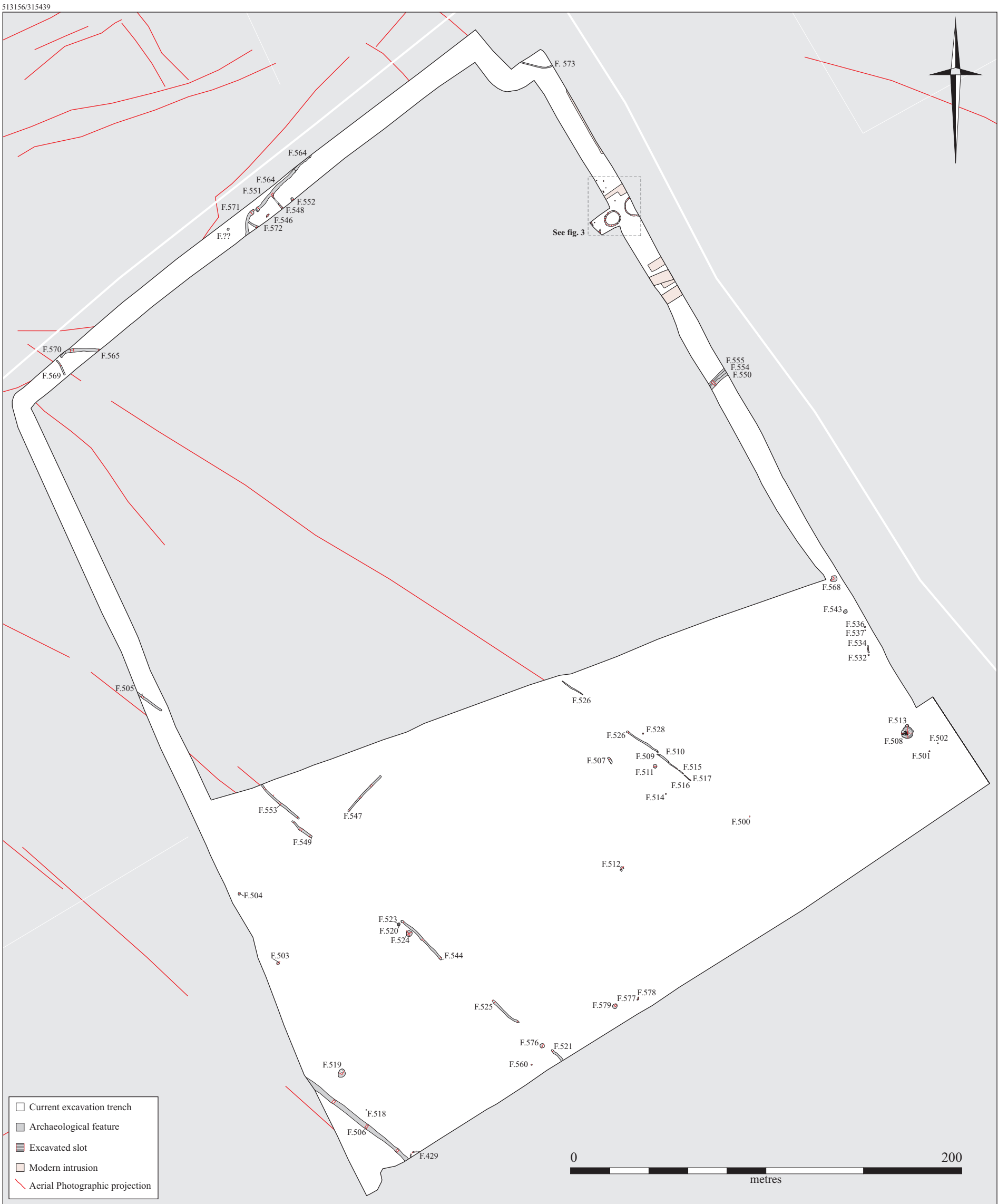


Figure 2. Plan of Features.

Excavation Results

There were 64 distinct archaeological features within the area that consisted of 29 linears, 12 cremations, 10 pits and wells, 10 post-holes, 3 ring ditches, 1 inhumation and 1 large watering hole. The majority of the features produced pottery, burnt clay, burnt stone, faunal remains, worked wood and flint. The field system that was recorded in Whitfield and Glebe continued into Freeman on the same orientation and the majority of features dated to the Middle Bronze Age (Hutton 2008a and 2008b). The earliest dated feature was a pit (**F.579**) towards the south of the area that contained Collared Urn pottery that weighed 109g as well as faunal remains (81g) and attests to the ephemeral occupation of previous periods.

Linears

Twelve of the segmented linears formed part of the extensive Middle Bronze Age field system that also traversed through areas Whitfield and Glebe. The fills and profiles were fairly consistent and two of them contained pottery dated to Middle Bronze Age, (**F.509** and **F.510**).

Two linears, (**F.506** and **F.550**) had evidence of three re-cuts and no artefactual evidence was recovered, although the northwest-southeast alignment formation produced a flint arrowhead. Completion of the area will be beneficial to sample the linear further for confirmation of date and association.

There was also a series of semi-curved features in the top transect of the area, possibly representing an enclosure (**F.564** and **F.571**), although only a small area was uncovered and the features may continue into the centre of the field. In addition, two features to the southwest (**F.565** and **F.569**) suggest further activity in the area. **F.564** was the only feature to produce pottery which probably dates to the Middle Bronze Age.

A linear (**F.533**) that was partially exposed adjacent to the ring ditches could be associated with the field system and appears to terminate at this point. Further investigations will confirm their relationship and that of the field system with the ring ditches. A cremation was also placed in the terminal point of this linear suggesting that the cremation cemetery was later than the field system.

Pits and wells

A variety of pit/wells were also recorded, most of them contained pottery and wood. There was a cluster of features (**F.532**, **F.534**, **F.536**, **F.537** and **F.543**) towards the south-eastern part of the area that contained material culture including pottery, indicating the possibility of further activity towards the east. The remaining pits were located adjacent or in close proximity to the linears. A large pit (**F.524**) that produced 623g of Deverel-Rimbury pottery was adjacent to a linear (**F.544**) and a crouched inhumation (**F.523**). Cut into the grave was a small pit (**F.520**) into which the remains of a fire or hearth were placed. The pottery recovered from both pits was contemporary and indicates that they were probably originally dug either at the same time, or immediately after each other.

F.543 contained an upright stake that was placed in the centre at the base of the pit. Similar features were found at the West Deeping excavation as well as the programme of investigations undertaken at Eye Quarry, Peterborough (Patten 2003, Murrell forthcoming). These types of features with central upright stakes have been interpreted at flax retting pits (Gibson *et al*, 1998). Brackish water was an essential component for this process, which would have been within easy access in this part of the area during the Middle Bronze Age (Schofield *et al* 2005). It is likely that they were used for processing material, leaving little physical evidence. The environmental sample may have evidence of pollen or seeds which could indicate the function of this feature. This will be processed at a later date. The pits from this area as well as those from Whitfield and Glebe probably had multiple uses. The first was the extraction of gravel, the second was as a water resource, and when the water may become contaminated some form of processing would have taken place.

Postholes and other features

A number of irregular features in an informal linear pattern were observed during the topsoil stripping in the centre of the southern area. These were sampled and were deemed to be fairly modern features. In addition four tree throws (**F.512**, **F.518**, **F.546** and **F.548**) were recorded on the northern transect of the area and contained charcoal, bone and burnt clay.

Throughout the area there were isolated postholes and small pits that contained little artefactual material, however **F.502** contained 65g of Deverel-Rimbury pottery and frequent charcoal with burnt stone which could be the remains of a fire or hearth indicating domestic activity within the vicinity.

Ring Ditches, cremations and burials

Within this area of investigation there were three ring ditches; one of them was uncovered 100%, while the other two were only partly exposed at the edge of the excavation. In addition a crouched inhumation with grave goods and accompanied by a dig were found associated next to a linear that formed part of the Middle Bronze Age Field system.

One of the ring ditches (**F.429**) was on the southern edge of the area with approximately 50% uncovered. It was heavily truncated and no dateable artefacts were recovered; therefore it cannot accurately be determined whether it is an eaves gully or a ring ditch associated with a barrow.

A crouched inhumation of an adult male (**F.523**) was recovered from a pit adjacent to a linear that formed part of the field system (**F.544**). A small dog was also interred and placed above the left shoulder of the body. Dogs during the Middle Bronze Age would have played an important part in the lives of the community, and canine remains found at Glebe were testament to this (Hutton 2008b). Artefacts within the grave consisted of two toggles made from cannel coal were placed on either side of the neck of the skeleton (Figure 5). These personal adornments have thought to have been hair decorations, fasteners for clothing, pendants or even earrings. Similar artefacts have been recovered from barrows throughout England. The position of the toggles in this case suggests clothes fasteners of some type, as one of them is perforated and the other had evidence of some twine or equivalent being wrapped around the indent.

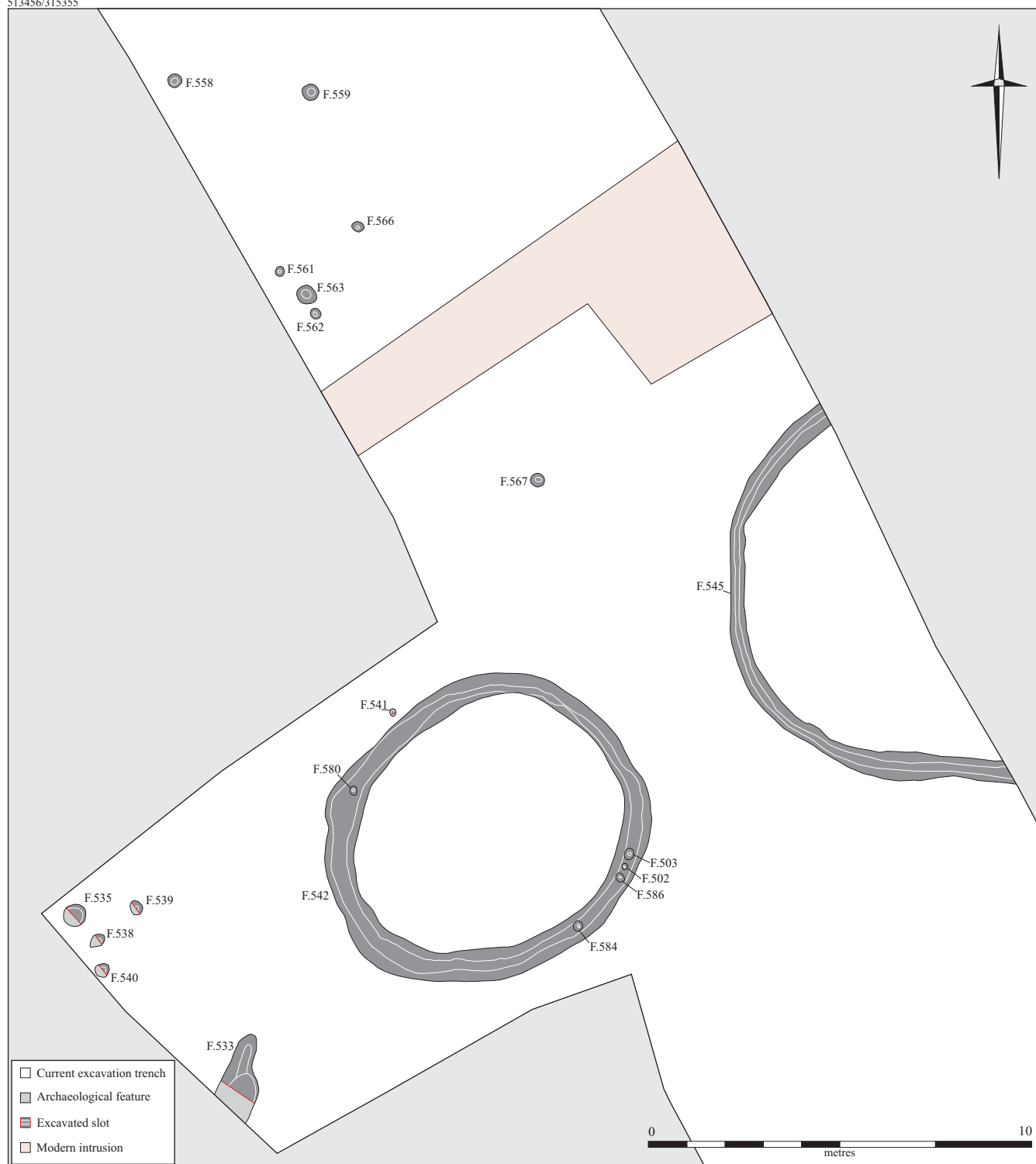
On the eastern transect two ring ditches were uncovered; **F.542** was completely uncovered and 100% excavated with Deverel-Rimbury pottery assemblage; **F.545** was adjacent to the east and was only half uncovered, the rest presumably remains underneath the soil bund. There were no associated inhumations with either of these ring ditches. However there was a cluster of twelve cremations to the north in two distinct clusters, possibly representing family or social groups. **F.535**, **F.538**, **F.539** and **F.540** were clustered together to the northwest of F.542. A further cluster of cremations were to the north at the edge of excavation (**F.561**, **F.562**, **F.563** and **F.566**). There was no overlapping or disturbance of cremations which indicated that there was either an awareness or memory of previous burials, and markers could have been placed to indicate where the buried remains of the community were. This could have taken the form of small mounds, or upright stone or wooden posts.

Watering Hole

F.508 was a large watering hole that cut a small pit (**F.513**) which contained a domestic assemblage that included Deverel-Rimbury pottery and numerous cattle bones that probably represents one animal. The watering hole was fully excavated and revealed several pieces of timber utilised as revetment to keep the central area and aid access to the water. One large piece of oak that appeared to be still *in situ* had three square cut notches cut into one side with small depressions between. Numerous tools marks were also evidence on the opposite side. This piece of timber was re-used and was probably used as a structural component.

The majority of the pottery recovered was Deverel-Rimbury, however there was one fragment of Middle Iron Age pottery which could be intrusive. A dendrochronological date from the largest piece of timber would be beneficial, however, this would only provide the felling date of the tree, and as it was a re-used piece of timber, it cannot date the watering hole with any accuracy.

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Figure 3. Plan of ring ditches and cremations.



Figure 4. Ring ditches and cremations.



Figure 5. Crouched inhumation and toggles.

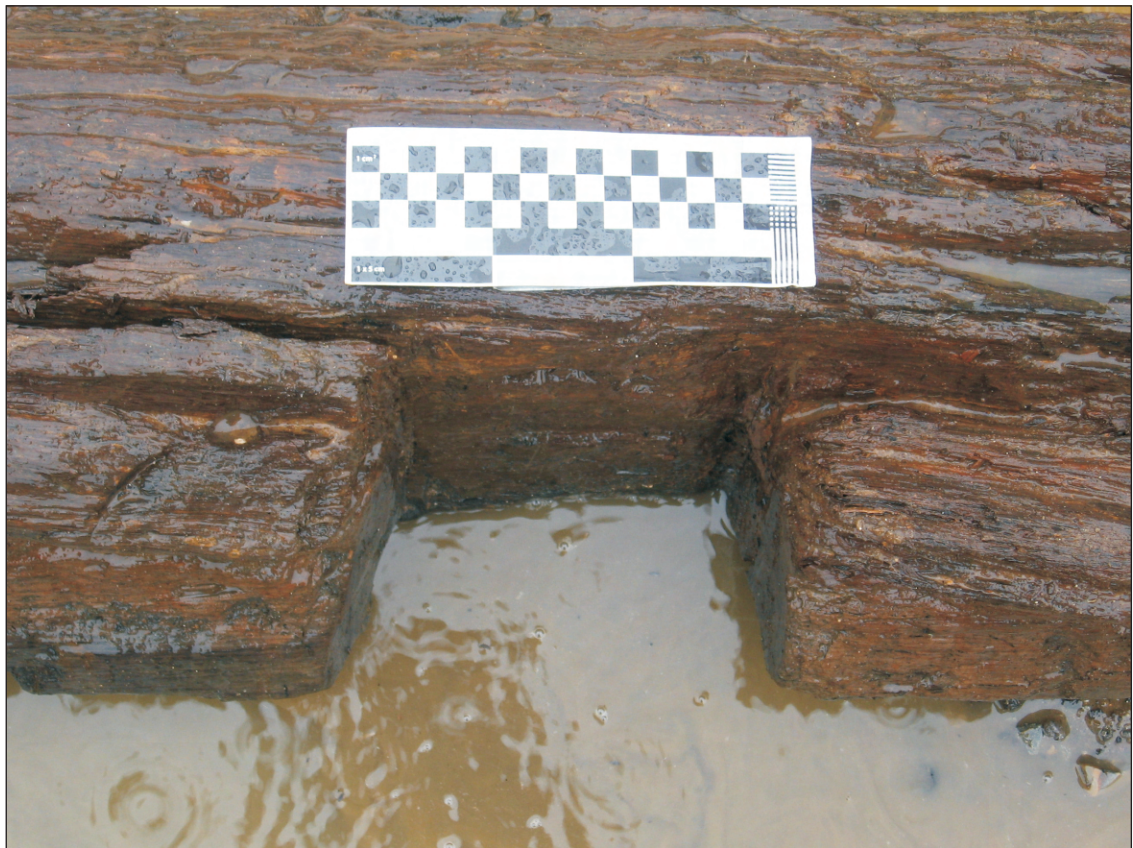


Figure 6. Watering hole with revetment timber.

Specialist Reports

An Assessment of the Bulk Environmental Samples

By Anne de Vareilles

Methodology

Ten bulk soil samples from a range of ditches, pits and two cremations were chosen for analysis. They were floated using an Ankara-type flotation machine, where the flots were collected in 300µm meshes and dried indoors. The heavy residues were washed over a 1mm mesh but have not been sorted. Sample <523> F.555 was also processed for waterlogged remains, i.e. 500ml of soil were floated using a 300µm mesh and the flot kept wet. Only the wet flot from this feature was analysed.

Sorting and identification of plant macro-remains were carried out under a low power binocular microscope. Identifications were made using the reference collection of the George Pitt-Rivers Laboratory, McDonald Institute University of Cambridge. Floral nomenclature follows Stace (1997). All archaeological remains are listed in tables 10 and 11.

Preservation

Although charcoal was found in all but the waterlogged sample, no charred grain was recovered and wild plant seeds were only found in the cremations. A poor assemblage of waterlogged remains was recovered from F.555.

All samples contained modern rootlets and the blind burrowing snail *Ceciloides acicula*, which are a sign that archaeological layers have, to some extent, been disrupted through bioturbation.

Results and Discussion

Two cremations, one hearth and five ditches were sampled. Apart from ditch F.542 [812], the hearth and other ditches contained very little charcoal. A grass root was also recovered from [812], and a grass seed from ditch F.521 [589]. More charcoal from the hearth may be found in the heavy residue.

As well as burnt wood the cremations contained some unidentified grass roots, a small range of seeds from crop-weeds or plants of disturbed soils and some false-oat grass bulbs/roots (*Arrhenatherum elatius* subsp. *bulbosum*).

Botanical remains suggestive of turf are not altogether unexpected in Bronze Age cremations (de Vareilles 2006, Robinson 1988, Stevens 1996). Small tubers, monocot (grass) roots and the basal culms of false oat-grass (*Arrhenatherum elatius* subsp. *bulbosum*) indicate a layer of topsoil was burnt either as part of, or unintentionally with the funerary pyre. False oat-grass spreads in un-grazed grasslands; it grows in dense tussocks, often favouring derelict land no longer exploited for cultivation, and represents a stage in land development between arable or pasture and scrubland (Robinson 1988). Burnt bone fragments >2mm were removed from the flots and returned to Finds.

A small assemblage of waterlogged plant remains was recovered from ditch F.555 [801]. The three most commonly occurring species demonstrate that the area around the ditch was wet meadow or grassland and that the ditch was probably permanently waterlogged.

Conclusion

Not unlike the nearby site of Whitfield (Hutton 2008a), no traces of processing or eating crops were found. It seems that the site was not inhabited for any length of time, but may have been an old cultivated landscape upon which cremations were later buried. Plant remains from the pyres appear to represent old arable or fallow land, very occasionally, if at all, grazed. The local vegetation can not be described from a single (poorly preserved) waterlogged assemblage, although the latter does suggest damp grassland conditions.

An Assessment of the Pottery

By Mark Knight

The prehistoric pottery assemblage comprised 658 sherds with a total weight of 4238g. The assemblage was made up of small to medium sized sherds many of which were abraded. Feature sherds included 18 rims, nine base angles and nine sherds with applied cordons. Eight sherds were decorated although the abraded condition of much of the material means that others may have once carried decoration prior to erosion/weathering. As with LWT 07 and LGL 07 the predominant fabric type was medium hard with abundant crushed fossil shell (occasionally dissolved) and associated with Deverel-Rimbury sherds.

	Number	Weight (g)	MSW (g)
Collared Urn	5	109	21.8
Deverel-Rimbury	636	3868	6.1
Middle Iron Age	17	261	15.3

Table 1: Assemblage breakdown

Collared Urn

Pit F.579 produced a small number of Collared Urn sherds including two rim fragments and part of a collar all of which were plain and possibly burnt (four of the five sherds were the same uniform pale buff colour even across breaks).

Deverel-Rimbury

	Sherds	Weight (g)	MSW (g)
F.513	13	253	19.5
F.520	51	454	8.9
F.521	76	547	7.2
F.524	88	623	7.1
F.542	253	1216	4.8
F.560	80	170	2.1
Totals:	561	3263	5.2g

Table2: Major Deverel-Rimbury Assemblages

The upper fills of the ring-ditch F.542 bore 253 sherds (1216g) of Deverel-Rimbury pottery including pieces of a cordon decorated with diagonal slashes and some base angle fragments. The small pit F.513 produced only plain body sherds whereas the pit F.524 contained a large rim fragment from a thick-walled and large diameter (c. 35cm) bucket-shaped vessel alongside some smaller rim pieces belong to a similar shaped vessel only this time with a flattened out-turned rim.

A T-shaped rim was present within the ditch terminal F.521 and F.536 had a decorated cordon (impressed with fingertip impressions). Comb-point decoration adorned a rim sherd (flattened with external lip) from F.534.

The shell-rich fabric along with the bucket forms with simple rims and occasional applied cordons situates the assemblage together with the Whitfield and Glebe assemblages as another impressive collection of Deverel-Rimbury sherds. What differentiates this material from the other two sites is the size and condition of the sherds.

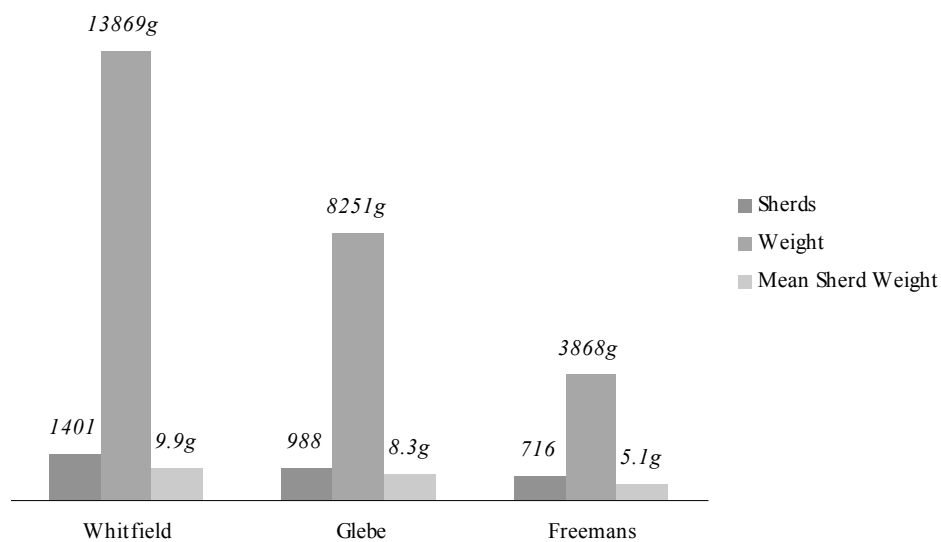


Chart 3: Three Deverel-Rimbury assemblages from Langtoft

The Freeman assemblage was made up predominantly of small abraded pieces whilst Whitfield comprised mostly large un-abraded pieces and Glebe somewhere in between.

An Assessment of the Faunal Remains

By Vida Rajkovača

Introduction

The animal bone assemblage recorded from the Langtoft Freeman site excavation elicited a sample of 519 bone fragments. The assemblage was recovered from both the hand excavated deposits and the bulk soil samples. The assemblage is predominantly made up of livestock species, with very little evidence of wild fauna.

The assemblage represented a continuation of archaeological investigation in the area (Higbee 1998, 1999; Hall 1998; Patten 2003; Webley 2004 a, b; Hutton 2007) and builds on zooarchaeological research executed by Higbee (1998b), Swaysland (2004a, b) and Seetah (2007). The majority of diagnostic bone fragments were recovered from pits, droveway ditches and Bronze Age field system ditches. One isolated pit (F.579) contained Collared Urn pottery, with the rest of the assemblage being dated to Middle Bronze Age. Therefore, based on the chronology of the material, this has been considered as a single assemblage, dated to Bronze Age period.

Method

The zooarchaeological investigation followed the system implemented by Bournemouth University with all identifiable elements recorded (NISP: Number of Identifiable Specimens) and diagnostic zoning (amended from Dobney & Reilly 1988) used to calculate MNE (Minimum Number of Elements) from which MNI (Minimum Number of Individuals) was derived. Ageing of the assemblage employed fusion of proximal and distal epiphyses (Silver 1969) and toothwear data (Grant 1982). Identification of the assemblage was undertaken with the aid of Schmid (1972) and reference material from the Cambridge Archaeological Unit; Grahame Clark Zooarchaeology Laboratory, Dept. of Archaeology, Cambridge. Where possible, the difference between sheep and goat elements has been made (Boessneck 1969; Schmid 1972) and the measurements have been taken (Von den Driesch 1976). Taphonomic criteria including indications of butchery, pathology, gnawing activity and surface modifications as a result of weathering were also recorded when evident.

Preservation details

The assemblage exhibited moderate overall preservation. Of 39 contexts studied only six were 'quite good' or 'good' with minimal or no weathering and bone surface exfoliation. 25 contexts showed 'quite poor' or 'poor' preservation, with eight demonstrating 'moderate' preservation. The actual sums that these figures correspond to, demonstrate that 180 bones showed some signs of erosive damage and 339 were of a good overall preservation. The assemblage has a large percentage of bones which were only possible to assign to a size category (Large, Medium and Small Mammal) and that is due in part to the relatively high numbers of fragmented limb bones. Detailed figures of fragmentation show the total number of 46 bones fragmented (modern breaks). If a number of fragments were discovered to refit from the same bone, they were recorded as one specimen. Seven bones had carnivore gnaw marks. Of the total 104 cow bones, 50 were fragmented, eroded or fragmented and eroded.

Results

Species representation

The assemblage has a high proportion of bones from common domestic species and almost a complete absence of wild fauna and small mammals. The overall preservation of the assemblage has resulted in a very low percentage of bones identifiable to species. Of 519 bones, only 298 (57.4 %) were possible to identify to element and further 182 (35 %) to species.

Species	NISP	% NISP
Cow	104	57.1
Dog	30	16.5
Ovicaprids (Sheep/Goat)	21	11.5
Goat	4	2.2
Pig	13	7.2
Horse	7	3.9
Red deer	3	1.6
UUM	17 ($\Sigma=124$)	-
ULM	112 ($\Sigma=213$)	-
UMM	97 ($\Sigma=213$)	-
USM	2 ($\Sigma=213$)	-

Table 4: Species frequency by NISP (Number of Identifiable Specimens)

Key: USM, UMM & ULM = Unidentified Small, Medium and Large Mammal / UUM = Unidentified Fragment. NB: Species percentages are out of 182. These differ from the unidentified counts as these are calculated on the basis of element identification (for USM, UMM & ULM) and total fragments (for UUM).

Species	MNI	% MNI
Cow	4	28.6
Dog	1	7.1
Ovicaprids (Sheep/Goat)	3	21.5
Goat	1	7.1
Pig	2	14.3
Horse	1	7.1
Red deer	2	14.3

Table 5: Species frequency by MNI (Minimum Number of Individuals)

Large quantity of cow specimens has been recorded in F.513 ([551]; sub-oval pit). This context has produced seven ageable cow specimens, all giving the same age of the animal (30-36 months). It is likely that this represents an articulated cow skeleton, although the bones were disturbed and had not been noted or recorded as being articulated.

Two common domestic species dominate the assemblage (Table 4; 5) within both NISP and MNI context: cattle (57.1% by NISP and 28.6% by MNI) and ovicaprids (11.5% by NISP and 21.5% by MNI). Large number of dog specimens identified had been found in a single feature (F.523; [611]) which also contained a human inhumation ([596]).

Following specialists examination (see Dodwell, this report), this was recorded as a poorly preserved adult male skeleton buried in a crouched position on its left side with the head in the southwest of the grave. All dog specimens appear to be from the same animal (equal distribution of left and right portions), although it has not been recorded as being articulated in great detail by the excavator. Therefore, even though it has produced the MNI count for one individual animal, it has not been decided to count it as one specimen. Sporadic cow and ovicaprid bones have also been found in the same feature.

Based on the presence of horn cores and metacarpals recovered in F. 543 ([687]), goat was positively identified (Schmid 1972:91; Boessneck 1969: 355) with four specimens. Pig and horse were recovered in small quantities (13 (7.2%) and seven (3.9%) specimens respectively). There was no evidence of pathology observed.

Ageing

Seven ageable cow specimens (mandible, tibia, calcaneum, humerus, femora, and ulna) came from the same context ([551]; F.513) and were aged to 30-36 months (Grant 1982; Silver 1969). Two cow mandibles were aged: one as a young adult and one was aged to 18-30 months (Grant 1982). Two ovicaprid ageable specimens were recorded (radius and humerus), both giving the age of 3 years. Only one pig radius was possible to age: 1-3 years (Silver 1969). Mandibular tooth wear and epiphyseal fusion data demonstrate the presence of both juvenile and adult animals on the site, with no senile individuals. For multipurpose animals, such as cattle and ovicaprids, this could suggest that they have been kept for traction as well as for other secondary products such as wool and milk.

Wild fauna

The presence of red deer on the site has only been confirmed with the fragments of antler. The question we should try to answer is whether this was just a raw material and whether this implies the red deer antler trade on the site. It could also be suggested that red deer were not killed and that the antler were collected after having been shed. One of the antler fragments shows the evidence of being sawn, possibly to be worked later in the process. The fragment of an antler crown was recovered and had a palmate shape to it, possibly suggesting that it belonged to a mature red deer stag. Another red antler fragment has been found with the base preserved.

Butchery and worked bone

Eight bone fragments were observed with some butchery evidence. Butchery marks were mostly characteristic for disarticulation and meat removal, observed on cattle scapula, metacarpals, skull and astragalus and mostly performed using blades.

Cut marks recorded on rib fragments are likely to be representative for pot-sizing. In addition to butchery, only one red deer antler fragment had been sawn off, possibly to be worked later in the process.

Carnivore Activity

Carnivore gnawing was apparent on some bones (7 specimens; 1.3 %), and overall the bones of the larger animals showed proportionally more gnawing than the bones of the smaller animals. It is probable that this is a result of smaller bones being completely destroyed by dogs whereas the larger bones will survive albeit in a damaged condition.

Conclusion

Although the species representation has not proved to be very rich, this assemblage has produced a fair amount of butchery evidence, as well as ageing and measuring data, which could improve our understanding of the site's economy in the Bronze Age. Furthermore, for what is considered to be a non-food species (horse), some butchery evidence was observed. Horse scapula was found with two chop marks as well as with the hole noted on a blade. Human inhumation with possibly articulated dog skeleton also seems like an important find (F.523) and it would be of great importance to look for more similar finds in the area. The presence of red deer confirmed with the fragments of antler might indicate that this was just raw material brought to the site for trade purposes or as a product of a trade. This could also be supported by one antler showing the evidence of being sawn off, possible to be worked later in the process.

Although not recorded in great detail, there was clear butchery evidence that employed special tools and techniques. Butchery marks were observed on a small proportion of specimens (8 out of 519); again taphonomic factors have masked or obliterated such evidence. Although limited, ageable and measurable specimens could still be used to suggest some principles of site's economy and husbandry. The results reflect great importance of cattle in the Bronze Age economy and diet.

Future investigations should involve the quantification of diagnostic material as well as the analysis of the age structure of the common livestock species. Although wild fauna is poorly represented, study of seasonality would be of great importance. Ageing data and kill-off patterns of the main domestic species could also provide valuable data for the study of seasonality. Future research should seek to synthesise the available information not only from the excavations on this site (Higbee 1998b; Swaysland 2004a; b; Seetah 2007), but also from the excavation of the other contemporary sites in the area (i.e. Clarke 2000; 2002a; 2002b; Clarke and Dodwell 2000; Higbee 1998b; 1998c; Swaysland 2004c; 2005).

An Assessment of the Human Remains and Cremations

By Natasha Dodwell

Introduction

During the archaeological assessment of land at the Freeman site, Langtoft, an inhumation burial and at least ten features containing cremated human bone were recorded. The skeleton (F.523) had been buried in a tightly crouched position on his left side with a dog, and two cannel coal toggles were recovered from the neck region. The grave was c. 1.5m away from the terminus of a linear ditch (F.544) and lay directly beneath a hearth (F.520). Cremated human bone was identified in ten features and a further two surface spreads associated with Bronze Age barrows/ ring ditches. None of the cremated bone was contained within or associated with a vessel.

Methodology

The age of the skeleton was ascertained by the degree of skeletal and dental development and dental attrition (Ubelaker 1989, Brothwell 1991). Sex was determined by the diagnostic traits on the skull. For the cremated bone age was assessed by the size of the bones and the degree of fusion, and in one instance a sex was tentatively suggested but this was based on a single trait (blunt orbital margins/slightly supraorbital ridges).

During excavation all deposits containing cremated bone, were subject to 100% recovery as whole earth samples. For this assessment, only two of the deposits that contained cremated bone (F.535 and F.558) were selected for analysis. Samples from these were wet sieved, through 10mm, 5mm and 2mm sieves and all extraneous material was removed from the >5mm fraction. Osteological analysis followed procedures for cremated human bone outlined by McKinley (2002 and 2004). All bone >5mm was examined and the residues from the smaller fractions were scanned and identifiable elements separated.

For the other deposits containing burnt bone the larger fragments which had been lifted during excavation were scanned, weighed and recorded in tabular form (n.b. the samples for these are yet to be processed and so the weights are a *minimum*).

Results

The skeleton, [596] was that of a poorly preserved adult ? male, buried in a crouched position on his left side with his head in the southwest of the grave. The grave itself was a large sub-circular pit (1.48 x 1.26 x 0.52m). The skull is represented only by fragments of the frontal and temporal bones and a portion of the mandible. The limb bones are gracile but none are complete and most of the articulating ends are missing. Small scraps of tarsal bones were identified. No pelvis, vertebrae or ribs were recovered from the articulated skeleton, although fragments of the left pelvis and scapula and hand were recovered from [611], the fill of the hearth which truncates the grave. The degree of molar wear suggests that this individual was over 35 years old.

-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	3	2	1		1	2	3	/	/	x	x	8		

All of the surviving teeth were heavily worn and flecks of calculus were recorded on all of the dentition. An external draining abscess was recorded below the 2nd mandibular premolar and two molars had been lost prior to death (the sockets have completely healed).

Two cannon coal toggles were identified in the region of the neck and a partially articulated dog skeleton had been placed above the left shoulder.

Information regarding the cremated bone recovered from features F.535 and F.558 is presented in the table below.

	context	deposit type	weight >5mm (g)		age/sex	depth
F.535	[663]	unurned burial - ?bag	58	1001	adult	0.26m
	[664]		912			
	[665]		31			
F.558	[815]	un-urned/redeposited pyre debris	278		adult ? male	0.19m

Table 6; Summary of the processed cremation deposits

In F.535 the great majority of the cremated bone was found in a concentration, [664] in the centre of the feature mixed with charcoal stained silt, suggesting the it was originally contained within an organic container i.e. a cloth or basket. The surrounding fills were paler and contained far smaller quantities of cremated bone. The bones were predominantly buff white although some fragments appear to be unfired. Fragment size was generally small with most recovered from the 5mm fraction. Just over 1 kg of bone was recovered from the feature. The largest fragments were in the concentration of bone, with the largest being 83mm long. A small quantity (2g) of possible animal bone was identified.

The cremated bone from F.558 is mixed with a charcoal rich silt possibly representing redeposited pyre debris. The bone is predominantly buff white in colour although some of it is far less well fired. The bone fragments were predominantly small with the majority again being recovered from the 5mm fraction; the largest fragment was only 33mm long.

The larger fragments of bone which were collected from the cremation burials were scanned and the results summarised in the table below

Feature	context	catalogue	weight (g)	* these are just notes on the larger frags; still need to be recorded when samples processed.
F.533	[651]	<076>	22	immature
F.538	[667]	<096>	73	older subadult/adult
F.539	[670]	<098>	17	older subadult/adult
F.540	[672]	<101>	57	Immature. Some poorly fired. Appears to be 1 or 2 frags. of more robust limb - of adult/subadult?
F.559	[816]	<135>	18	immature
F.561	[819]	<137>	5	immature
F.562	[823]	<139>	1	unidentifiable frags but probably human
F.563	[825]	<140>	182	adult
F.566	[843]	<146>	54	older subadult/adult
?	surface	<165>	26	older subadult/adult

Table 7; Summary of cremation burials that have yet to be processed (information gleaned from the larger fragments recovered during excavation)

Recommendations for further work

No further work needs to be done on the skeleton itself although its relationship with the ditch and hearth should be discussed. Examples of cannel coal toggles around the head area have been recorded with inhumations excavated recently in Cambridgeshire (e.g. at the ring ditches/barrows at Barleycroft and Over) but parallels should be sought for burials accompanied by dogs. The samples from the remaining features containing cremated bone need to be processed and sorted. The number of immature individuals identified in the scanned material is interesting and it is likely that ages can be refined. In addition the bone >5mm needs to be sorted and weighed by body part (e.g. skull, axial skeleton, upper limb) to determine whether there was any deliberate selection or sorting of the bone prior to burial.

An Assessment of the Toggles

By Jacqui Hutton

Two toggles were recovered with a crouched inhumation (F.523) of an adult male and a canine burial. They were placed on either side of the neck, just above the shoulders. The toggles were manufactured from a carbonaceous material (jet, cannel coal or bog coal), and were black in colour and in good condition. Both had indentations at the waist and were stylistically similar, although one had a much finer finish (<69>) as well as a central perforation through the waist. Toggle <70> had scoring on the indent that suggests the possible wrapping of thin cord or twine around it. The outer areas were worn smooth suggesting that they were worn in such a way that they rubbed against a fairly soft surface, cloth, hair or skin.

Traditionally these have been thought to be part of necklaces, however alternative types of adornment can be suggested; such as toggles or fasteners for clothing, decorative pieces for hair or even ear rings. Jet and shale was commonly used during the Bronze Age period for the manufacture of personal adornments such as beads, toggles, and less common, cups. Similar toggles as well as pendants are known from 'Wessex' burials, including five beads recovered from Shrewton (Green & Rollo-Smith 1984). Several items were also found at the Middle Bronze Age enclosure at Cock Hill, Sussex (Radcliffe-Densham 1961). Within the local area, the barrow at Deeping St Nicholas had jet beads as well as a polished pigs tusk as grave goods for an inhumation. All of these examples were associated with Deverel-Rimbury pottery.

The source of this material was not derived from the local area so adds credence to trade or at least travel for these artefacts. Sources have been confirmed in Midlothian, Yorkshire, Derbyshire and Cornwall (Dr G Lott, British Geological Survey, *pers comm*). Whether they arrived in this form or as raw material is uncertain.

<69> perforated toggle from F.523.

It was 220mm in length, 11mm at the indented centre and 16mm and 13mm at the ends. The perforation through the side of the toggle was 4mm. It is almost asymmetrical. The material was dark grey/black cannel coal and weighed 3g.

<70> toggle from F.523.

It was 18mm in length, 8mm in the centre and 14mm and 11mm at the ends. It has an hour glass profile and not as finely made as the other. There was evidence of fine grooves on the indented area suggesting something was wrapped around the middle. Outsides bosses were also worn smooth.

An Assessment of the Wood

By Maisie Taylor

Introduction

Although there were only three pieces of wood from the excavation, they need reporting fully. They are unusual for timbers found in a waterhole, and one in particular is probably unique.

The material

The wood from the site consists of one piece of timber debris and two large timbers, all from one large pit or waterhole. All of them are oak (*Quercus* sp.) and derived from fairly large trees. The piece of timber debris is radially split and trimmed square. It is quite 'chunky'. Although it is only 310mm long and 75mm wide, it is 35mm thick.

The two pieces of timber are both split tangentially from the outside of the tree. They have then been hewn square, although not all the sapwood has been removed. Both have what appears to be wet rot. The larger of the two timbers has wet rot on the upper surface and a series of notches along one edge. There are traces of toolmarks in two of the slots. The toolmarks measure 37:2 and 32:3 and are in the slot at the north end of the timber. The toolmarks in the slot at the other end are too skewed and incomplete to measure. There appears to have been no attempt to make the notches equal in size and shape, suggesting that they were precisely cut to fit into an asymmetrical structure.

As well as the deep square notches, there are also a number of rounded notches on the same face: 5 definite ones, 2 possible and 1 probable ones. These notches are less pronounced and much more rounded than the deep ones. One end of the timber is trimmed flat and the other is either trimmed, or worn, to a blunt point. The smaller of the two timbers has wet rot on the outer surface. There is also one notch, which measures 290 x 50mm and an ancient break. The quality of the wood for the timbers is quite good, although there are a few knots.

Discussion

The timber debris is too thick and chunky to have been derived from splitting. It is also differently aligned from the timbers and therefore is unlikely to be related to their working. The squaring suggests that it may have been modified and could even originally have been an artefact in its own right.

If the wood had been worked in the immediate vicinity there would be more than one piece of debris. The hewing of such large timbers would also have generated large quantities of small woodchips. The timbers are also unlikely to have been re-worked. It is rare to find any evidence for the reworking of prehistoric timbers, especially with bronze tools. Experiments have shown that once oak has seasoned, the heartwood is too hard to work with bronze tools. It can generally be assumed that re-used timber has not been reworked. In any case the notches on the larger timber are clearly nothing to do with the structure in the waterhole. The wet rot on the upper and outer surfaces of the timbers must have formed when they were in contact with wet surfaces (such as mud) for extended periods of time. This wet rot does not coincide with the alignment in the waterhole.

This is further confirmation that the timbers are not only reused but also re-aligned. Originally, they must have been set in the ground horizontally, but with the notches in a different plane.

Both the timbers are tangentially split and this is a technique which is generally used on larger trees and may suggest that the timbers are not necessarily derived from domestic structures (Taylor in prep). They are too heavy, for example, to be part of a loom or similar. Both timbers are split from the outside of trees with a certain amount of sapwood and could be the product of squaring large trunks to remove the sapwood. If the timbers were designed to be earth-fast, it might be expected that more of the sapwood would have been removed.

Timbers re-used as steps in wells and waterholes are not unknown. A large oak timber from a waterhole at Pode Hole Quarry (PHQ) near Peterborough was re-used, for example (Daniel forthcoming). This timber is 1800mm (The two from this site are 1200mm and 2730mm long respectively.) and extremely wide: 400mm, compared with 235 and 285mm for the timbers here. It was found re-used as a step in the bottom of a waterhole. The wet rot on this timber suggested that it had originally been set vertically. A second oak timber was recovered from the same quarry but from a different site (PC259). This too has many of the characteristics of these other large timbers. Although only a relatively short length (575mm) survives, the width (200mm) is very similar to the timbers here. It is also very thick for its width (95mm), as one of the timbers here is. It too is tangentially split out of an oak tree, and that tree appears to have been well over 400mm diameter. Although it was not possible to calculate the precise diameter of the tree from which the timbers here are derived, it is likely that they came from a tree of similar size.

The joints on the larger timber are not comparable with any housing or lap joints in the type series from Flag Fen (Taylor 2001 203-212), and cannot, at the moment be matched with any other joints or notches from other sites. They are not highly finished and they are all different shapes suggesting that they were probably cut *ad hoc*. They are, however, sharply cut with clear chamfered shapes and straight sides, suggesting that they were made to accommodate specific timbers. The smaller notches also cannot easily be paralleled, although it seems likely that the timber was cut and notched to fit into a specific conformation.

These large timbers can be very tantalising. Joints and other shaping can give hints that they are derived from sophisticated structures. There is rarely enough material in one context or feature, however, to identify the precise nature of these structures. This is the case here, which makes it all the more important that the timbers are fully recorded and published for future reference.

Catalogue

Feature 508 [548]

Timber debris radially split and trimmed square, oak (*Quercus* sp.) L.310 x 75 x 35mm

Timber, tangentially split and hewn, upper surface wet rot oak (*Quercus* sp.) L.1200 x 235 x 90mm

Timber, tangentially split, hewn, outer surface ?wet rot, notched, oak (*Quercus* sp.) L.2730x285x33mm

An Assessment of the Flint

By Emma Beadsmoore

A total of 15 (<42g) flints were recovered from the site; nine (<19g) of which are worked, five (20g) are worked and burnt, whilst one (1g) is just burnt. The flints were recovered from ditches and pits exposed at the site and are listed by feature and type in Table 8.

Feature	Type									Totals
	chip/chunk	secondary flake	tertiary flake	tertiary blade	flake knife	miscellaneous scraper	leaf shaped arrowhead	barbed and tanged arrowhead	unworked burnt chips/chunk	
511									1	1
516	1	1								2
519	1						1			2
521			1			1				2
526		1								1
530				1				1		2
534	1									1
577		3								3
579					1					1
Sub totals	3	5	1	1	1	1	1	1	1	15

Table 8 – Flint quantities and types

Evidence for limited Neolithic activity at the site was provided by flint recovered from a pit and a ditch. F.530 yielded a residual Late Mesolithic/earlier Neolithic blade. Whilst an earlier Neolithic arrowhead recovered from pit F. 519 could either have been residual in or broadly contemporary with the feature, which did not contain any additional datable material. A fragment of a possible Neolithic scraper was recovered from ditch F.521.

Earlier Bronze Age flint was recovered from a ditch and a pit; ditch F.530 yielded a barbed and tanged arrowhead, whilst a flake knife was recovered from pit F.579. Nearby pit F.577 contained three flints that are also likely to be Bronze Age. Flints recovered from ditches F.516 and F.521 were the products of expedient flake production/core reduction, which was prevalent from the Middle Bronze Age. The remaining material recovered from the site is chronologically non-diagnostic.

The flint from the site provides evidence for background Neolithic activity, albeit limited. A few Early Bronze Age were also recovered, whilst the products of expedient flint working is suggestive of Middle Bronze Age activity.

An Assessment of the Burnt and Worked Clay

By Jacqui Hutton

There were 298 fragments of burnt clay recovered from Freeman weighing 1446g. It was fragmentary and any suggestion that they formed part of a loom weight or related to briquetage furniture cannot be ascertained. They were recovered from a variety of features, including one of the ring ditches (F.542), tree throws and pits. The burnt clay recovered from F.542 (which was the fully excavated ring ditch) weighed 868g. One of the pieces had two smooth surfaces suggesting that it could be the fragment of a loomweight or a pedestal associated with salt production; it is too fragmentary to be certain although there was no evidence of a central perforation. The staining on the exterior could also suggest salt production as this residue was commonly found on briquetage furniture (Lane 2001). The distribution of the burnt clay mainly clusters towards the eastern area of the excavation, suggesting that the main area of occupation was more to the east.

Feature No.	Context No.	Number	Weight g	Fabric Type	Description
502	504	11	124	14 3	2 different fabric types, one piece was orange/red with one buff edge with no smooth surfaces, friable with small voids and no inclusions. The majority of the pieces were grey/brown/buff. One large piece had two smooth surfaces forming base and side of object. Voids and occasional flint inclusions. Off white staining on exterior could suggest that this was a fragment of pedestal
511	535	50	437	3	2 different fabric types, one type has exterior orange/red fine sandy clay, interior was dark grey fine with rare organic matter and flint. The other type was orange/brown/buff in colour, sandy clay with occasional flint and organic matter inclusions
520	584	2	18	3	Orange/buff in colour, one has smooth flat surface, the other slightly more curved. Occasional organic matter
542	685	1	116	3	One large piece plus crumbs with 2 smooth surfaces representing the base and side of a loomweight or pedestal. Red/orange interior, grey/buff exterior with occasional flint and organic matter. Possible pedestal as there was no evidence of central perforation and had off white staining on exterior

Table 9; Descriptions of worked clay fragments

Discussion

The archaeological features and artefact assemblages recorded on Freeman compliment and add to the information recorded from the two excavations previously conducted by the CAU upon the areas of Whitfield and Glebe. The extensive axial field system located in those previous investigations continued into Freeman and the land adjacent excavated by Northamptonshire Archaeological Unit (Mudd *pers. com.*).

The purpose of this field system across this large area of land was probably multi-functional. The environmental report suggests that the area on Freeman was open scrubland and hardly cultivated which suggests the keeping of livestock. This area of land was probably on the periphery of any intensive occupational activity. However, the linears recorded in the northern transect of Freeman do suggest the possibility of an enclosure; pottery dated to the Middle Bronze Age was recovered from the linear F.546. It is unclear at this time whether this is associated with a settlement or an enclosure for livestock, or if its function is linked to the ring ditches.

There were pit/wells throughout the area varying in depth and profile, both isolated and adjacent to linears, which emulate the features on Whitfield and Glebe. There was one watering hole on Freeman with a timber revetment; this piece of timber was probably derived from a structural element, and had similar morphology with the watering hole previously excavated at Glebe (Hutton 2008b). Towards the southwest of the area there were two pits (F.520 and F.524), a linear (F.544) and a crouched inhumation (F.523). The larger pit (F.524) contained burnt material suggesting a midden, and the smaller pit (F.520) had a similar fill. The location of F.520 was interesting as it was placed directly in the centre of the crouched inhumation and originally dug just deep enough to reach the bones; suggesting that the remains were decomposed to a skeletal state at that time. This suggests that the people who dug this hole was aware of the presence of the burial, either by memory or by a marker; there was no evidence of a marker, however the area had been intensively ploughed and any remaining evidence may have been truncated. Initial skeletal decomposition takes place within 3 to 5 years, and completed decomposition in 6 to 8 years (Sprenger 1999). The pottery assemblage recovered from F.520 was Deverel-Rimbury which dates the burial to the Middle Bronze Age or perhaps slightly earlier.

The burial was accompanied by a dog and two jet toggles on either side of the neck. Beads and toggles have originally been interpreted as necklaces, but they could also be hair adornments, clothes fasteners or ear-rings. Examples of jet beads and toggles are usually found in burial contexts, although jet toggles and beads were recorded on a settlement site at West Row Fen and varied in size and finish. Other examples have also been found at Cowdery's Down in Hampshire where a toggle and two pendants were found together beneath the neck of an Early Bronze Age inhumation (Millet et al 1983).

Another jet toggle was found in ring ditch at Radwell in Bedfordshire (Hall et al 1977). The location of the toggles on either side of the neck in the burial at Freeman, suggests that these could be associated with clothing and were perhaps used as fasteners; especially as one of them had evidence of twine or fine cord wrapped around the centre of one of them. To date there have been no examples of human burials recorded that were accompanied by an animal within the county. The

presence of animal remains with human remains highlights the fact that canines would have played an important role in the lives of the people who occupied this landscape during the Middle Bronze Age.

As well as the inhumation there were also cremations recorded on Freeman towards the northeast of the area on the eastern transect and adjacent to two ring ditches. The overburden of topsoil in this area was shallow (c. 0.33m) resulting in the cremations being severely truncated. The cremations were clustered to the northwest of the two ring ditches and were un-urned; Bronze Age cremation cemeteries can have both pot and uncontained remains, such as those at Pasture Lodge Farm, Lincolnshire (Allen et al 1987). Most of the cremations had evidence of cremated bone that was clustered in the centre of the fill of the small pit. They could have been placed in organic containers (cloth, leather, basket etc) before being placed into the small pit, and have since rotted away.

The clustering of cremations around earlier barrows and ring ditches can be seen throughout the surrounding area. One such example was at Deeping St James to the south (French 1994). There appeared to be two distinct clustering of cremations on the Freeman area; one group was F.535, F.538, F.539 and F.540; the other F.561, F.562, F.563 and F.566. The remains of children consisted of 50% of the cremations, (one of them had both immature and adult in the same deposit), and were not spatially grouped together. Instead the groups appear to be mixed, indicating ties with family or social grouping and they were interred close to each other, which indicates a surviving memory of who was buried and where.

The ring ditches are classed as ring ditches and not barrows as there was no surviving mounds due to ploughing activity, as well as no evidence of burials in the centre of the rings ditches. One hypothesis is that burials could have been interred into the mound itself, or that the primary function of these monuments was not for the internment of the dead, but as foci in the landscape. They were either markers for the cremation burials or used as territorial markers within a landscape of a community of people, laying claim of ownership of land within that community. Ring ditches excavated at Cherry Hinton, Cambridgeshire, also had no associated burials, (White 1998).

Barrow cemeteries can be either nucleated or linear; on Freeman there is another possible ring ditch seen as a cropmark to the northeast of the recorded ring ditches suggesting a nucleated cemetery. They could also have been multi phased and have been altered or re-modelled over time. Two burial mounds excavated to the south at Deeping St. Nicholas by Charly French indicated that the barrows were re-used over time with inhumations, cist burials and cremations in a sequence that lasted 500 years. None of the burials or cremations were overlapped indicating that some sort of 'memory' or markings must have been there. The Butchers Rise ring ditches at Barleycroft Farm, Cambridgeshire, comprised of multi ringed ditches, one of them also had an urned cremation cemetery within its boundaries. The central inhumation of Ring Ditch No. 2 had an inhumation with a jet like toggle next to the right ear (Evans & Knight 1996). It is entirely possible that the postholes observed at the base of the ring ditch F.542 could predate the creation of that feature. The posthole that is outside the area (F.541) is related to the rest of the postholes and formed a circle that is slightly off from the circumference of the ring ditch, and therefore pre-dates the erection of the barrow.

This was similar to the barrow excavated at Deeping St Nicholas where there were concentric rings of postholes prior to the construction of the barrow (French 1988).

Barrows were not just graves but also foci in the landscape and later field systems have respected and/or incorporated in their layout. It is unclear at this time what the relationship was between the linears and the ring ditches. The terminal of a linear might suggest that the linears respect the features. Burial mounds become smaller during the Middle Bronze Age, perhaps suggesting that more labour and effort was put into the establishment of the field system than monuments, (Bradley 2007).

The pottery recovered from the ring ditch F.542 was complimentary to the pottery recovered from the rest of the field system so it is probable that these two types of features were constructed at the same time. Uncovering the rest of the area will hopefully address this question, and the possibility of recovering more cremations and at least one further ring ditch is high.

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Appendix

Basic Feature Descriptions

Linears

F.500 was an oval pit/post hole that was 0.24m x 0.45m wide and 0.26m deep, the sides were steep/vertical and straight with sharp break of slope and flat base, [501]. It contained a single fill, [500] consisting of firm mottled dark grey and light grey/brown sandy silty clay with occasional gravel inclusions and frequent flecks of charcoal.

F. 505 was a linear approx 15.00m in length on a northwest-southeast alignment width ranged from 0.97m to 1.01m and depth was fairly constant ranging from 0.11m to 0.10m. The linear continues out of the current area to the northwest; however the ditch was truncated towards the southeast. Two 1.00m were excavated 1.00m apart due to it being unclear on the surface where the ditch was truncated. It consisted on one fill which continued throughout the linear becoming more gravelly to the southeast.

[512] loose and slightly moist mid to light grey silt becoming more orange towards base

[513] cut 0.97m wide and 0.11m deep with gradual concave sides and concave base

[514] loose and slightly moist mid to light grey silt becoming more orange towards base with occasional gravel inclusions

[515] cut 1.01m wide and 0.10m deep with gradual concave sides and concave base

F.506 was a linear on a northwest-southeast alignment that was recut by F.531, F.530 and F.522 running to a length of 68.30m with both ends continuing out of the area. A total of three 1.00m slots were excavated at approx 25.00m apart. Fills [622] and [637] were similar, as was [645] although that contained organic material. The north slot was;

[622] firm mottled mid to light grey/brown with occasional to moderate gravel inclusions

[623] firm iron stained redeposited natural, dark orange/brown sandy silt with frequent gravel inclusions

[624] firm to friable mottled mid to light grey/brown sandy silt with occasional to moderate gravel inclusions

[625] cut approx 2.28m wide and 0.98m deep with the western side truncated, moderately steep concave sides, gradual break of slope and concave base

The middle slot was;

[637] concreted dark orange/brown sandy silt with frequent gravel inclusions

[639] firm mottled mid to dark grey with mid grey/brown sandy silt with occasional gravel inclusions

[639] cut approx. 1.88m wide and 0.75m deep with moderately steep straight/undulating sides with moderate break of slope and flat base

The southern slot was more truncated by F.531;

[645] firm mottled mid to dark brown/grey with frequent gravel inclusions and organic material

[646] firm mottled mid orange/brown/grey sandy silt with rare gravel inclusions

[647] firm mottled mid orange/grey sandy silt with rare manganese flecks and bone

[648] cut approx 0.75m wide and 0.68m deep with moderately steep concave sides possible concave base

F.509 was a segmented linear on a northwest-southeast alignment, 13.15m in length, width ranging from 0.16m to 0.41m and 0.11m to 0.24m deep. Three slots were sampled including both terminals and an additional one in the centre, the fill was uniform throughout and constant. It was cut by a linear, F.510.

The northern terminal was square/circular in plan, 0.16m wide and 0.11m deep with moderately steep concave sides and concave base, [527]. It contained one fill, [526]; firm mottled light grey/brown and light orange/brown sandy silt clay with occasional gravel inclusions and moderate flecks of charcoal and frequent shell fragments, and contained pottery and bone.

The central slot was 0.41m wide and 0.15m deep with moderately steep concave sides and concave base, [563]. It contained one fill, [562]; firm mottled light grey/brown and light orange sandy silty clay with occasional gravel inclusions and moderate flecks of charcoal and contained pottery.

The southern terminal was rounded in plan, 0.29m wide and 0.24m deep with moderately steep concave sides and concave base, [567]. It contained one fill, [566]; firm mottled mid grey/brown sandy silty clay with rare gravel inclusions and moderate flecks of charcoal.

F.510 was a segmented linear that cut F.509. It was 6.45m in length, between 0.54m to 0.61m wide and 0.23m to 0.30m deep. Both terminals were excavated in 1.00m slots, with the fills being consistent and similar to that of F.509, and could represent a re-cut of an existing linear.

The northern terminal was 0.54m wide and 0.30m deep, with steep concave sides and concave base, [529]. It contained one fill, [528]; firm mottled light grey/brown and light orange/brown sandy silty clay with occasional gravel inclusions and moderate flecks of charcoal, and contained bone and shell.

The southern terminal was 0.61m wide and 0.23m deep with moderately steep concave sides and concave base, [565]. It contained one fill, [564]; firm mottled light grey/brown and light orange/brown sandy silty clay with occasional gravel inclusions and frequent flecks of charcoal, and contained pottery and bone.

F.515 was a segmented linear on a northwest-southeast alignment, 3.35m in length and between 0.28m to 0.29m wide and 0.10m to 0.11m deep. It is on the same alignment and between at F.509 and F.516. Both terminals were sampled at 1.00m, the fill and cut were consistent between the two slots.

The northern terminal was sharp/rounded in plan, 0.28m wide and 0.11m deep with moderately steep straight/concave sides, moderate break of slope and flat base, [569]. It contained one fill; [568] firm mid grey sandy silty clay with occasional gravel inclusions and moderate flecks of charcoal.

The southern terminal was round in plan, 0.29m wide and 0.10m deep with moderately steep concave sides and concave base, [572]. It contained one fill, [571]; firm mid grey silty clay with occasional gravel inclusions and moderate flecks of charcoal and contained bone.

F.516 was a segmented linear on a northwest-southeast alignment that was 4.60m in length, between 0.28m and 0.32m wide and 0.15m to 0.20m deep. Both terminals were sampled in 1.00m slots. There was a small posthole to the east of the southern terminal which is probably contemporary.

The northern terminal was round in plan, 0.32m wide and 0.20m deep with steep straight/concave sides and concave base, [574]. It contained one fill, [573]; firm mid grey/brown silty clay with occasional gravel inclusions and moderate flecks of charcoal and contained flint.

The southern terminal was round in plan, 0.28m wide and 0.15m deep with moderately steep concave sides and concave base, [576]. It contained one fill, [575]; firm mottled mid grey/brown silty clay with moderate gravel inclusions and occasional flecks of charcoal.

F.521 was a linear on a northwest-south east alignment 8.00m in length, continuing southeast out of the excavated area. The terminal is to the north-west where a 1.00m slot was sampled. The terminal was round in plan, 1.05m wide and 0.58m deep with steep straight/concave sides, convex towards the base with very narrow concave base, [589]. It contained two fills; [590] firm very dark brown/grey silty clay with frequent gravel inclusions, charcoal and burnt clay, and contained pottery, bone, burnt clay, flint and burnt stone and flint; [591] loose orange/brown gravelly clay with frequent gravel inclusions.

F.522 was a linear that was last in the sequence of re-cut ditches on a northwest-southeast alignment that re-cut F506, F.530 and F.531. A total of three slots were excavated at 1.00m at approx 25.00m intervals.

The northern slot was approx. 0.75m wide and 0.31m deep with moderately steep concave sides and concave base, [627]. It contained one fill, [626]; firm light grey/brown sandy silt with no inclusions.

The centre slot was 0.59m wide and 0.13m deep with gradual to moderate concave sides and concave base, [599]. It contained one fill, [598]; friable light grey/brown sandy silt with rare gravel inclusions. It contained one fill, [650]; firm to friable light brown/grey sandy silt, similar to [640] in F.530.

The southern slot was 0.42m wide and 0.42m deep with steep concave sides and sharp concave base, [650].

F.525 was a straight segmented linear on a northwest-southeast alignment, the southern terminal slightly veering towards the east that ran a length of 17.15m. Both terminals were excavated in 1.00m slots although the northern slot was slightly over-cut, probably due to animal disturbance.

The southern terminal was round in plan, 2.01m wide and 0.67m deep with moderately steep convex sides and narrow concave base, [605]. It contained two fills; [606] firm dark grey/brown silty clay with gravel inclusions and flecks of charcoal; [607] loose orange/brown gravelly clay.

F.526 was a linear 19.80m in length on a northwest-southeast alignment, continuing northwards from F.509 and F.510. Both terminals were excavated at 1.00m slots and were between 0.71m to 0.90m wide and 0.21m to 0.34m deep.

The northern terminal was round in plan, 0.90m wide and 0.21m deep with moderately steep slightly convex sides and concave base, [888]. There was some disturbance at the base of the terminal which could represent animal or tree activity. It contained a single fill, [887]; firm brown/grey clayey silt occasional gravel inclusions and rare flecks of charcoal and burnt clay.

The southern terminal was round in plan, 0.71m wide and 0.34m deep with moderately steep convex sides and concave base, [610]. It contained two fills; [608] loose to firm orange/brown silt with occasional gravel inclusions; [609] loose to firm grey/brown silt with flecks of charcoal that increase in frequency towards the base.

F.530 was a linear that cut F.531 and was in turn cut by F.522. It was 68.30 m in length and ranged between 1.40m to 1.45m wide and 0.38m to 0.39m in depth. The dimensions and profile are similar in the two slot, although this feature is not evidence in the most northern slot of this group of features.

The central slot was 1.40m wide and 0.39m deep with moderately steep concave sides and concave base, [630]. It contained two fills; [625] firm to friable mid orange/brown sandy silt with moderate gravel inclusions; [629] firm light to mid grey/brown sandy silt with occasional gravel inclusions.

The southern slot was 1.45m wide and 0.38m deep with moderately steep concave sides and concave base, [641]. It contained one fill, [640]; firm to friable light brown/grey sandy silt with occasional gravel inclusions and contained bone and flint.

F.531 was a linear on a northwest-southeast alignment, 68.30m in length and ranging between 1.73m to 1.82m wide and 0.60m to 0.63m in depth. This linear cuts F.506 and is cut by F.530. Three 1.00m slots were sampled.

The centre slot was 1.82m wide and 0.60m deep with moderately steep straight/concave sides with moderate break of slope and flat base, [634]. It contained three fills;

[631] concreted dark orange/brown sandy silt with frequent gravel inclusions

[632] firm very light brown/grey sandy silt with rare gravel inclusions and occasional flecks of manganese

[633] firm mottled mid grey/brown and light brown/grey sandy silt with rare gravel inclusions and occasional flecks of manganese

The southern slot was 1.73m wide and 0.63m deep with moderately steep concave sides and concave base, [644]. It contained two fills;

[642] firm mid brown sandy silt with moderate gravel inclusions

[643] firm mid to dark blue/grey sandy silt with rare gravel inclusions and occasional flecks of manganese

F.534 was a possible segmented linear, 2.90m in length, 0.25-0.53m wide and 0.09-0.26m deep with gradual to moderately steep concave sides and flat/concave base, [654]. It contained a single fill, and both terminals were excavated, the northern cut being deeper.

[653] soft to firm dark grey silt with occasional gravel inclusions, finds included pottery, bone, burnt clay, burnt stone and flint.

[654] cut 2.90m x 0.25m wide and 0.09m deep with gradual to moderately steep concave sides and flat/concave base

[655] soft to firm dark grey silt with occasional gravel inclusions and flecks of charcoal

[656] cut 2.90m x 0.53m wide and 0.26m deep with gradual to moderately steep concave sides and flat/concave base

F.544 was a segmented linear on a northwest-southeast alignment that was adjacent to crouched inhumation F.523. It was 30.50m in length and ranged between 1.22m to 1.28m wide and 0.29m to 0.41m in depth. Three 1.00m slots were excavated including both terminals.

The southern terminal was sub-rounded in plan, 1.22m wide and 0.34m deep with gradual concave/straight sides and concave base, [725]. It contained three fills;

[722] firm mid grey clayey silt with occasional gravel inclusions and flecks of charcoal

[723] firm orange/grey sandy clay with occasional flecks of charcoal

[724] soft orange silty sand with frequent gravel inclusions and occasional flecks of charcoal

The central 1.00m slot was 1.28m wide and 0.29m deep with moderately steep convex sides, more stepped on western side, with concave base, [728]. It contained two fills;

[726] firm mid grey clayey silt with occasional gravel inclusions and flecks of charcoal

[727] firm orange/grey sandy clay with occasional gravel inclusions

The northern terminal was round in plan, 1.27m wide and 0.41 m deep with moderately steep straight/convex sides and flat/concave base, [738]. It contained three fills;

[735] firm mid grey clayey silt with occasional gravel inclusions and flecks of charcoal

[736] soft grey/orange sandy clay with gravel inclusions and flecks of charcoal

[737] soft orange sandy clay with occasional gravel inclusions

F.547 was a northeast-southwest aligned linear that was approx. 24.00m in length, the width ranged between 0.80m to 1.10m and 0.18m to 0.30m wide. The terminal to the southwest was excavated along with two central slots. The northeast terminal was truncated.

The southwest terminal was round in plan, 0.80m wide and 0.18m deep with gradual concave sides and flat/concave base. It contained two fills; [742] soft brown/orange silty sand with occasional gravel inclusions and contained pottery and bone; [743] soft to firm orange sandy silt with occasional gravel inclusions.

The first central slot was 1.10m wide and 0.30m deep with moderately steep concave sides and concave base, [762]. It contained three fills; [745] soft to firm orange/grey sandy silt with occasional to moderate gravel inclusions and rare flecks of charcoal; [746] soft grey/brown silty sand with moderate gravel inclusions and rare flecks of charcoal; [747] soft to firm orange/sandy silt with moderate to frequent gravel inclusions.

The second slot was 0.99m wide and 0.30m deep with moderately steep concave sides and concave base, [766]. It contained three fills; [763] soft dark grey silty clayey sand with occasional gravel inclusions; [764] soft to firm light grey/blue silty clay with orange sandy mottling with occasional gravel inclusions; [765] soft to firm orange/brown sandy silt with frequent gravel inclusions.

F.549 was a segmented northwest-southeast aligned linear, between 0.71m to 1.55m wide and 0.14m to 0.39m wide. Three 1.00m slots were sampled including both terminals.

The northern terminal was round/square in plan, 0.71m wide and 0.14m deep with sloping straight sides and flat base with sharp break of slope on western side, [754]. It contained one fill, [752]; soft dark grey/black silty clay with occasional flecks of charcoal.

The central slot was 1.55m wide and 0.39m deep with moderately steep convex sides and concave base, [758]. It contained three fills; [755] soft dark grey silty clay with occasional gravel inclusions; [756] firm blue/grey silty clay with occasional gravel inclusions and flecks of charcoal; [757] firm orange/grey silty clay with occasional gravel inclusions and flecks of charcoal.

The southern terminal was square/round in plan, 0.83m wide and 0.29m deep with moderately steep concave sides and sharp concave base, [761]. It contained two fills; [759] soft light grey silty clay with flecks of charcoal and contained bone; [760] soft orange silty clay.

F.550 was a linear 10.25m in length although both ends continue out of the excavation area that cut F.554. It was 1.30m wide and 0.15m deep with gradual concave sides and flat base, [767]. It contained one fill, [787]; loose mid brown silty sand with occasional gravel inclusions and organic material.

F.551 was a linear on a northwest-southeast alignment running at an angle of 90° from F. 564 and continuing southwards out of the area. It is approx 8.50m in length and between 0.45m to 0.62m wide and 0.05m to 0.15m deep. Three slots were sampled in this truncated ditch.

The linear running into the baulk was 0.62m wide and 0.13m deep with gradual concave sides and concave base, [751]. It contained one fill, [749]; firm dark grey silty clay with occasional gravel inclusions and flecks of charcoal and burnt clay.

The northern slot was 0.45m wide and 0.05m deep with shallow concave sides and flat/concave base, [770]. It contained one fill, [771]; firm dark grey/brown clayey silt with moderate gravel inclusions.

The central slot was 0.60m wide and 0.15m deep with moderately sloping sides and flat/concave base, [768]. It contained one fill, [769]; firm dark brown clayey silt with occasional gravel inclusions and flecks of burnt clay.

F.552 was a linear with only 1.75m exposed. The terminal was round in plan, 1.25m wide and 0.35m deep with moderately steep slightly undulating concave sides and concave base, [772]. It contained two fills and an animal burrow; [775] firm and moist grey silty clay with occasional gravel inclusions; [773] firm and moist orange/grey sandy clay with occasional gravel inclusions; [777] animal burrow.

F.553 was a northwest-southeast aligned linear, approx length 16.25m with a terminal to the south and the northern end continuing out of the area. Three 1.00m slots were excavated including the southern terminal. It was between 0.00m to 0.00m wide and 0.00m to 0.00m deep.

The central slot was 1.43m wide and 0.49m deep with steep straight/concave sides, moderate break of slope and flat base, [782]. It contained four fills;

[778] loose dark grey sandy clay with occasional gravel inclusions and flecks of charcoal

[779] firm orange/grey silty clay with occasional gravel inclusions

[780] firm mid grey clay with large flecks of charcoal

[781] loose orange sandy clay with frequent gravel inclusions

The southern terminal was sub-square in plan, 1.07m wide and 0.51m deep with moderately steep sides, concave to the west and convex to the east, with flat/concave base, [799]. It contained four fills;

[795] soft brown/grey silt with occasional gravel inclusions and flecks of charcoal

[796] soft mixed grey/blue silt with orange sandy silt with occasional gravel inclusions

[797] soft to firm orange sandy silt with occasional gravel inclusions and flecks of charcoal

[798] soft and moist grey clayey silt with sand and gravel inclusions

The northern slot was 0.99m wide and 0.33m deep with steep straight/convex sides, moderate break of slope and flat base, [786]. It contained four fills;

[783] firm orange/grey silty clay with occasional gravel inclusions

[780] firm mid grey clay with large flacks of charcoal

[781] loose orange sandy clay with frequent gravel inclusions

F.554 was a linear 10.25m in length although both ends continue out of the excavation area and cut F.555 and was cut by F.550. It was 2.94m wide and 0.77m deep with moderately steep concave sides and slightly uneven concave/flat base, [800]. It contained two fill; [788] loose mid brown/orange sandy gravel, redeposited natural; [789] firm light to mid brown silty sand with occasional gravel inclusions and flecks of charcoal.

F.555 was a linear 10.25m in length although both ends continue out of the excavation area and was cut by F.554. It was 2.38m wide and 0.46m deep with steep sides, concave on the north and convex on the south, with moderate break of slope and concave base, [801]. It contained five fills;

[794] loose coarse brown/orange sandy gravel

[790] firm grey sandy silt with occasional gravel inclusions and flecks of charcoal

[793] loose coarse mixed orange/brown/grey sandy silt

[791] soft light brown silt

[792] soft moist organic black silt with frequent organic material

F.556 was a northwest-southeast aligned linear that traversed at a 90° angle from F.571 and continued southwards out of the area. One slot was excavated against the baulk and was 1.25m wide and 0.25m deep. There was also evidence that this feature was re-cut. It contained three fills;

[806] loose mottled orange/brown/grey silty clay

[803] re-cut 0.50m wide and 0.27m deep with steep concave sides and concave base

[805] mottled cream/yellow/orange sandy gravelly clay

[804] moist and loose light grey silty clay with occasional flecks of charcoal

There was a possible further re-cut to the north although this was not recorded in section. It had shallow sides and wide base, [881]. It contained one fill, [882]; firm light grey/yellow silty clay with orange mottling.

F.564 was a northeast-southwest aligned linear that was 40.20m in length. There was a terminal towards the southwest, and the linear continued towards the northeast out of the area. Four slots were excavated including the terminal.

This terminal was 2.30m wide and 0.80m deep with moderately steep sides with sharp convex sides with sharp break of slope and flat base, [830]. It contained three fills;

[827] firm mid grey silty clay with occasional flecks of charcoal; [828] soft light to mid grey sandy clay with frequent gravel inclusions; [829] firm orange/grey clayey silt in occasional gravel inclusions and flecks of charcoal and contained bone.

A slot at the edge of excavation was approx 1.15m wide and 0.50m deep with moderately sloping slightly convex sides with concave base, [836]. It contained two fills; [838] light brown clayey silt with occasional gravel inclusions; [837] moist and firm dark brown clayey silt with occasional gravel inclusions and flecks of charcoal and burnt clay and contained pottery.

F.565 was a linear approx 17.00m in length on an east-west alignment with both ends continuing out of the excavation area. Two slots were excavated; the eastern one was against the baulk. It was between 1.40m to 1.90m wide and 0.36m to 0.70m deep.

The eastern slot was 1.40m wide and 0.36m deep with moderately steep concave sides and concave base, [832]. It contained three fills; [833] friable and moist light grey/brown sandy silt with frequent gravel inclusions and contained bone; [834] firm mid brown/orange clayey silt and sandy pockets with occasional gravel inclusions; [835] firm to friable dark grey and light orange/brown pockets with occasional gravel inclusions.

The western slot was 1.90m wide and 0.70m deep with moderately steep concave and convex sides with concave base, [877]. It contained three fills; [878] firm mid brown/orange sandy clayey silt with occasional gravel inclusions and flecks of charcoal; [879] mottled light brown/orange with white patches sandy silt with frequent gravel inclusions; [880] mottled orange/light brown/white sandy gravel.

F.569 was a linear approx 8.00m in length and was very truncated and was roughly on a north-south alignment. One slot was excavated and was 0.70m wide and 0.31m deep with moderately steep straight sides and concave base, [860]. It contained one fill, [859]; soft mid brown sandy silt with occasional gravel inclusions and flecks of charcoal.

F.571 was a curved linear that cut F.572. It was approx 12.75m in length on a roughly north-south alignment. It was 1.14m wide and 0.34m deep with moderately steep concave sides and concave base, [869]. It contained three fills; [866] firm dark grey silty clay with occasional gravel inclusions and flecks of charcoal; [867] firm mid grey silty clay with frequent gravel inclusions; [868] loose orange/grey silty sand with frequent gravel inclusions.

F.572 was a curved linear that was cut by F.571. It was approx 13.50m in length on a roughly north-south alignment. It was 1.55m wide and 0.43m deep with moderately steep straight sides with moderate break of slope and flat/concave base, [872]. It contained two fills; [870] firm orange/grey silty clay with occasional gravel inclusions; [871] loose grey sandy silt with frequent gravel inclusions.

F.573 was a curved linear running roughly east west. It was approx 17.00m in length and was between 0.66m to 0.73m wide and 0.16m to 0.23m deep.

The western slot was 0.66m wide and 0.16m deep moderately steep concave sides and concave base, [884]. It contained one fill, [883]; firm mid grey silty clay with occasional gravel inclusions and flecks of charcoal.

The eastern slot was 0.73m wide and 0.23m deep with moderately steep concave and convex sides and sharp concave base, [886]. It contained one fill, [885]; firm mid grey silty clay with occasional gravel inclusions and flecks of charcoal.

Pits, wells, postholes and other features

F.501 was an oval small pit/post hole, 0.70m x 0.57m wide and 0.10m deep with sloping concave sides and uneven/flat base, [503]. The fill, [502], consisted of firm mid grey/light grey sandy silty clay with moderate gravel inclusions and flecks of charcoal. Contained bone and burnt stone.

F.502 was a circular small pit, 0.69m x 0.62m wide and 0.31m deep, with steep to vertical slightly concave sides with moderate break of slope and concave base, [507]. It contained three fills; [504] soft dark grey/black homogenous silt with frequent gravel inclusions and moderate flecks of charcoal and fragments of burnt clay, contained pottery and worked clay; [505] mottled soft dark grey/yellow silt and sand with occasional flecks of charcoal and burnt clay; [506] redeposited natural, light to mid yellow/orange sandy clay with occasional to moderate gravel inclusions and flecks of charcoal.

F.503 was a sub-oval pit, 1.30m x 0.70m wide and 0.69m deep with steep straight slightly convex sides and narrow concave base, [509]. It contained a single fill; [508] moist and firm dark brown to light grey sandy silt with occasional gravel inclusions and flecks of charcoal and contained pottery and bone.

F.504 was a sub-oval small pit, 1.10m x 0.96m wide and 0.70m deep with steep straight and convex sides, undercutting on south sides, base was obscured by water, [511]. It contained a single fill [510]; firm dark grey silty clay with occasional gravel inclusions and flecks of charcoal and organic material.

F.507 was an oval pit, 2.60m x 1.20m wide and 0.32m deep with moderately steep concave sides and concave base, [525]. It contained two fills; [523] firm to friable dark grey sandy silty clay with rare gravel inclusions; [524] firm mid to dark grey/brown silty clay with rare gravel inclusions and towards the base of the fill a lens of yellow/white clay associated with land snail shells.

F.508 was a large water hole that contained a re-used piece of timber utilised as a revetment to maintain a stable platform for access to water. It contained 4 fills that represent episodes of slumping and natural silting with no evidence of re-cutting.

[540] dry dark brown loamy silt with organic material with flacks and fragments of charcoal, pottery and bone

[541] mid to light brown silt with occasional gravel and chalk inclusions and pottery and bone

[542] moist and loose mixed light grey/brown/orange silt with moderate gravel inclusions

[543] loose light grey/white sandy silt with occasional gravel inclusions

[544] moist and loose grey sandy silt with occasional gravel inclusions

[545] mixed orange sand and gravel and grey silt with pottery

[548] grey silty sand with moderate gravel inclusions and flecks of charcoal with pottery and bone, including antler and wood

[557] grey silty sand with occasional gravel inclusions and flecks of charcoal

[559] light grey sandy silt with moderate gravel inclusions and flecks of charcoal

[560] loose grey/orange silty sand with occasional gravel inclusions

[657] moist and loose mixed dark grey silty sand and grey sandy gravel with organic material and bone

[558] dry and loose orange sandy gravel

[561] firm mixed grey sandy silt/orange sand and gravel

[546] [547] [587] [588] sub-oval cut 3.22m x 2.70m wide and 1.22m deep with gradual and steep concave/straight sides, more steep to the west and more gradual to the east, forming an access ramp with flat/concave base

F.511 was a circular pit, 1.70m x 1.99m wide and 0.55m deep with moderately steep convex sides, moderate break of slope and uneven/flat base, [536]. It contained six fills; [530] mid to dark grey silty clay with frequent flecks of charcoal; [531] yellow/grey silty clay with no inclusions; [532] light grey silty clay with no inclusions; [533] loose orange sandy clay with frequent gravel inclusions; [534] redeposited natural; [535] firm light grey silty sandy clay with moderate burnt clay inclusions. The pit contained, pottery, burnt flint and worked clay.

F.512 was a tree throw, 2.40m x 1.70m wide and 0.25m deep, [537]. It contained two fills; [538] firm to friable dark brown/grey silt with gravel inclusions; [539] firm to friable light brown/grey/orange sit with sandy pockets and flecks of charcoal and bone.

F.513 was a sub-oval pit that was cut by F.508 that had seven fills, probably representing episodes of dumping of hearth material and domestic debris and natural silting.

[549] firm very light grey silt with occasional orange clay nodules, with gravel inclusions and occasional flecks of charcoal

[550] loose and moist mid grey silty sand with orange clay nodules with gravel inclusions and flecks of charcoal with pottery, bone and burnt clay

[551] mixed black charcoal rich silt and grey sandy silt with occasional orange clay and white chalk inclusions with pottery and bone

[552] moist and loose mid to light grey silt

[553] & [570] cut 1.35m x 0.82m wide and 0.38m deep with moderately steep sides and concave base

F.514 was a circular pit, 0.55m x 0.52m wide and 0.37m deep with straight vertical sides, sharp break of slope and flat base, [556]. It contained two fills; [554] firm mid to dark grey silty clay with frequent flecks of charcoal with bone; [555] firm to loose grey/yellow sandy clay with occasional gravel inclusions and snail shells.

F.517 was a posthole, approx. 0.20 x 0.15m deep, [577]. It contained a single fill, [575] and is associated with linear F.516; firm mottled mid grey/brown silty clay with moderate gravel inclusions and occasional flecks of charcoal.

F.518 was an isolated circular posthole, 0.39m x 0.37m wide and 0.27m deep, with very steep/vertical straight sides, sharp break of slope and flat/concave base, [581]. It contained three fills including evidence of a pot-pipe; [578] possible post-pipe, firm mottled mid to dark grey sandy silt with moderate flecks of charcoal; [579] firm mottled grey/brown/orange sandy silt with occasional gravel inclusions and flecks of charcoal; [580] firm to loose grey/orange sandy silt with moderate gravel inclusions.

F.518 was probably tree throw, 2.45m x 1.85m wide and 0.35m deep, with uneven sides and base, [582]. It consisted of a single fill; firm dark grey silty clay with rare burnt clay inclusions and moderate flecks of charcoal. A flint arrowhead was recovered from the surface of this feature.

F.524 was a sub-circular pit that was in the same area as a linear and crouched inhumation. It consisted of one cut and nine fills representing episodes of dumping of burnt material and domestic debris.

- [600] loose black clayey silt with frequent burnt stone and burnt clay inclusions
- [601] firm dark brown clayey silt with frequent gravel inclusions and flecks of charcoal
- [602] loose dark brown/black clayey silt with frequent gravel inclusions and pottery, worked clay and burnt stone
- [603] loose orange/grey sandy clay with frequent gravel inclusions
- [697] loose orange/black sandy clay with frequent gravel inclusions
- [698] loose black clayey silt with frequent burnt stone inclusions
- [699] loose grey sandy clay with frequent burnt clay inclusions and pottery
- [700] loose orange grey sandy clay with occasional gravel inclusions and flecks of charcoal
- [701] firm light grey clay with occasional flecks of charcoal
- [702] loose orange/grey sandy clay with occasional gravel inclusions
- [604] cut, 3.00m x 3.50m wide and 0.85m deep with moderately steep sides, steep to the north and north-east and stepped to the east, with moderate to sharp break of slope and flat base

F.527 was a sub-circular posthole, 0.63m x 0.57m wide and 0.25m deep steep slightly concave sides and flat/concave base, [614]. It contained two fills; [512] firm dark grey silt with occasional gravel inclusions and frequent flecks of charcoal; [613] orange silty sand, redeposited natural.

F.528 was a circular pothole, 0.57m x 0.54m and 0.18m deep with moderately steep concave sides and flat/concave base, [619]. It contained two fills; [617] loose orange silty sand with frequent gravel inclusions; [618] loose to firm dark grey silt with occasional gravel inclusions.

F.532 was a sub-circular posthole, 0.56m x 0.50m wide and 0.10m deep with moderately steep concave sides and concave base, [636]. It contained a single fill, [635]; loose to firm dark grey/black silt with occasional gravel inclusions and flecks of charcoal.

F.536 was a small oval pit, 0.60m x 0.39m wide and 0.10m deep, with gradual sloping concave sides and concave base, [659]. It consisted of a single fill, [658]; loose to firm dark grey silt with occasional gravel inclusions and pottery, bone and burnt stone.

F.537 was a small oval pit, 0.51m x 0.31m wide and 0.06m deep with moderately sloping concave sides and concave base, [661]. It consisted of a single fill, [660]; firm dark grey silt with frequent flecks of charcoal, bone and burnt clay.

F.541 was a circular posthole adjacent to ring ditch (F.542) to the north-west, 0.19m x 0.16m wide and 0.15m deep, with vertical straight sides and flat base, [675]. It contained one fill, [674]; loose to firm grey silt occasional gravel inclusions and flecks of charcoal.

F.543 was a pit/well that contained six fills and had one cut. The sides were very steep and access to water would have been from above, and the fills represented episodes of silting and slumping. Fills [677] and [678] were rich with organic deposits and a large amount of bone was recovered from [678] which could represent a dumping episode. The upper layer represented silting.

[676] firm and dry light grey silty sand with occasional gravel inclusions and flecks of charcoal, pottery and bone

[677] firm dark grey/black silt with occasional gravel inclusions and flecks of charcoal

- [678] moist, loose and soft dark brown loamy fill and contained wooden post and bone
- [679] moist and loose light grey/orange silty sand
- [680] light grey/orange silty sand with occasional gravel inclusions and flecks of charcoal
- [681] mixed grey silt with light to mid grey/orange sand with occasional flecks of charcoal
- [682] cut 1.85m x 1.90m wide and 1.09m deep with moderately steep convex sides with sharp break of slope and flat/concave base

F.546 was possibly a tree throw, 1.75m wide and 0.29m deep, with moderately steep, uneven concave sides and undulating base, [739]. It contained two fills; [740] was firm and moist orange/grey slightly silty clay with frequent flecks of charcoal and burnt clay; [741] moist sand loose very dark grey/brown clayey silt with flecks of charcoal.

F.548 was a tree throw cut by linear F.551 and only evident in the section. It was approx. 0.90m+ wide and 0.20m deep with gradual undulating sides and uneven concave base, [750]. It contained one fill, [748] loose light grey silty clay with occasional gravel inclusions and contained burnt clay.

F.557 was removed.

F.560 was a circular pit 0.73m wide and 0.46m deep with steep straight sides, gradual break of slope and concave base, [822]. It contained a single fill, [821]; soft mid brown/grey silty clay with frequent flecks of charcoal and contained pottery.

F.568 was a modern feature.

F.570 was a large sub-oval pit excavated at the edge of the area, and cuts linear F.565. The four fills suggest natural episodes of silting and there was only one cut.

- [861] firm light brown/orange silt with occasional flecks of charcoal and chalk inclusions
- [862] firm mid to light grey/orange silt with occasional gravel inclusions and flecks of charcoal
- [863] loose mixed grey silt and orange sand with moderate gravel inclusions and flecks of charcoal
- [864] firm and moist very dark brown silt with frequent gravel inclusions and flecks of charcoal and organic material

F.576 was a medium sized circular pit, 2.60m x 2.60m and 0.70m deep, with steep sloping concave sides and concave base, [893]. It contained four fills; [889] firm light grey clayey silt with no inclusions; [890] soft mid grey sandy silt with gravel inclusions and flecks of charcoal; [891] soft orange/grey sandy silt with occasional gravel inclusions; [892] firm blue/grey clayey silt with no inclusions.

F.577 was an oval pit, 1.07m x 0.69m wide and 0.26m deep, with almost vertical straight sides creating an elongated cut with flat base, [895]. It contained a single fill, [894]; loose black sandy silt with unfired clay, bone and flint inclusions.

F.578 was a circular pit/post hole, 0.46m x 0.49m wide and 0.09m deep, with gently sloping sides and flat base, [898]. It contained a single fill, [879]; firm mid grey/brown silty sand with bone.

F.579 was a sub-circular pit, 1.30m x 1.00m wide and 0.45m deep with gradual concave sides and concave base, [900]. It contained two fills; [898] soft mid grey/brown sandy silt gravel inclusions and contained pottery, bone, burnt clay and

flint; [899] soft light blue/grey silty clay with frequent gravel inclusions and flecks of charcoal.

Ring Ditches

F.529 was a ring ditch approx. 5.50m diameter. It was severely truncated and produced no dating evidence and it is uncertain as to whether this is a structure or a ring ditch similar to those toward the northeast of the site or an eaves gully relating to a structure. The ditch was approx. 0.40m wide and 0.17m deep and sloping concave sides and base, [621]. It had one fill, [620]; firm to friable light brown/white/orange silt with moderate gravel inclusions (from natural matrix).

F.542 was a ring ditch, 8.70m (east-west axis) by 7.40m (north-south axis) and was oval in shape. The ditch was divided into twenty c. 1.m slots with alternative ones excavated first. There was mainly one silted fill, although towards the northeast and to the west there was an additional fill that contained Deverel-Rimbury pottery. Individual cut and fill numbers were given for each slot. The remaining slots were excavated after recording was finished and further numbers were given to slots that contained material culture. Three slots had evidence of circular depressions in the base of the cut, representing postholes; there was no evidence of postpipes in the fill. Towards the northeast section, and to a certain degree in the west, there was a discrete concentration of domestic debris that was probably from a dumping episode.

- Slot 1 [705] firm dark grey silt with frequent charcoal inclusions and burnt stone and burnt clay
[706] firm brown/orange/grey sandy silt with occasional gravel inclusions
[707] cut 0.76m wide and 0.30m deep with moderately steep concave sides and sharp concave base (flatter in centre of slot)
- Slot 2 [729] firm grey/brown sandy silt with occasional to moderate gravel inclusions and occasional flecks of charcoal
[730] cut 0.89m wide and 0.41m deep with moderately steep straight to concave sides and concave base and contains F.580
- Slot 3 [693] firm light grey/orange sandy silt with occasional gravel inclusions and flecks of charcoal
[694] cut 0.62m wide and 0.42m deep with moderately steep concave sides and concave base
- Slot 4 [686] firm light brown/orange sandy silt with frequent pottery, charcoal, burnt stone and burnt clay
[687] firm brown/orange sandy silt with occasional gravel inclusions and flecks of charcoal
[688] cut 0.64m wide x 0.33m deep with moderately steep concave sides and concave base
- Slot 5 [685] firm grey/brown sandy silt with frequent pottery, charcoal, burnt stone and burnt clay
[684] firm grey/brown sandy silt with occasional charcoal inclusions
[683] cut 0.53m wide x 0.40m deep with steep straight/concave sides with concave base
- Slot 6 [690] firm grey/brown sandy silt with occasional gravel inclusions and flecks of charcoal, contained pottery, burnt clay and shell
[689] cut 0.38-0.58m wide and 0.16m deep with moderately steep concave sides and flat base, width becomes shallower towards the south
- Slot 7 [692] firm grey/brown sandy silt with occasional gravel inclusions and contained pottery and burnt clay
[691] cut 0.60m wide and 0.29m deep with steep straight/concave sides and concave base and contains F.581, F.582 and F.583

- Slot 8 [703] firm dark brown/grey sandy silt with occasional gravel inclusions and flecks of charcoal and contains burnt clay
[704] cut 0.58m wide and 0.23m deep with moderately steep concave and concave sides and flat base, contains F.584
- Slot 9 [696] firm mottled grey/brown/orange sandy silt with moderate gravel inclusions
[695] cut 0.81m wide and 0.33m deep with moderately steep concave sides and sharp concave base
- Slot 10 [731] firm grey/brown sandy silt with occasional gravel inclusions
[732] cut 1.00m wide, 0.26m deep with moderately steep sides, straight on east sides and more gradual and convex on west side with moderately sharp break of slope and flat base
[812] firm light brown/orange sandy silt with frequent pottery, charcoal, burnt stone and burnt clay
[813] firm brown/orange sandy silt with occasional gravel inclusions and flecks of charcoal
[814] cut 0.68m wide and 0.37m deep with moderately steep straight sides (V shaped) and sharp concave base
- Slot 11 [812] firm light brown/orange sandy silt with frequent pottery, charcoal, burnt stone and burnt clay, environmental sample <516>
[813] firm brown/orange sandy silt with occasional gravel inclusions and flecks of charcoal
[814] cut 0.68m wide and 0.37m deep with moderately steep concave sides and concave base

Postholes within F.542

Within the Ring Ditch of F.542 five cuts of postholes were recorded at the base of the ditch. During excavation there was no evidence of postpipes so it was difficult to ascertain the stratigraphy of these features, although the postholes were placed directly in the centre of the ditch and did not appear to continue around the whole of the circumference.

F.580 [901] cut circular in plan, 0.33m x 0.33m wide and 0.04m in depth with concave base

F.581 [902] cut circular in plan 0.20m x 0.20m wide with concave base

F.582 [903] cut circular in plan 0.15m x 0.15m wide with concave base

F.583 [904] cut sub-circular in plan 0.25m x 0.30m wide with concave base

F.584 [905] cut circular in plan 0.15m x 0.15m wide with concave base

F.545 was a ring ditch 11.05m wide (north-south axis) and 5.25m was exposed on east-west axis. The ditch was divided into fifteen c. 1.m slots and alternative ones excavated first. There was one silted fill and the ditch was shallow due to truncation from ploughing during historical and modern activity. Individual cut and fill numbers were given for each slot, and the remaining slots were excavated after recording was finished. No material culture was recovered from this feature.

Slot 1 [716] firm orange/grey sandy silt with occasional gravel inclusions
[708] cut 0.60m wide and 0.13m deep with sloping concave sides and flat base

Slot 3 [718] firm orange/grey sandy silt with occasional gravel inclusions
[710] cut 0.35m wide and 0.07m deep with sloping concave sides and concave base

Slot 4 [719] firm orange/grey sandy silt with occasional gravel inclusions
[711] cut 0.40m wide and 0.10m deep with sloping concave sides and concave base

- Slot 5 [720] firm orange/grey sandy silt with occasional gravel inclusions
[712] cut 0.30m wide and 0.09m deep with sloping concave sides and concave base
- Slot 6 [721] firm orange/grey sandy silt with occasional gravel inclusions
[713] cut 0.25m wide and 0.06m deep with sloping concave sides and concave base
- Slot 7 [733] firm orange/grey sandy silt with occasional gravel inclusions
[714] cut 0.50m wide and 0.19m deep with sloping concave sides and concave base
- Slot 8 [734] firm orange/grey sandy silt with occasional gravel inclusions
[715] cut 0.60m wide and 0.23m deep with moderately sloping straight/concave sides and concave base

Cremations

F.535 was a small circular pit containing a cremation, 0.47m x 0.49m wide and 0.26m deep with steep straight sides, sharp break of slope and flat/concave base, [662]. It contained three fills, all three contained cremated bones, although [664] contained the majority of remains.

[663] loose light grey/brown silty clay with occasional gravel inclusions and flecks of charcoal and cremated bone at interface with [664]

[664] dark brown/black silty clay with frequent cremated bone in a discrete cluster

[665] loose dark grey silty clay with occasional fragments of cremated bone

F.538 was a small circular pit containing a cremation, 0.35m x 0.40m wide and 0.16m deep with steep straight sides, moderate to sharp break of slope and concave base, [666]. It contained three fills with the majority of cremated bone contained in [661].

[667] loose and moist dark grey ashy silty clay with large quantity of cremated bone, occasional fragments of burnt clay, flecks of charcoal

[668] dry and loose grey/brown sandy clay

[669] moist yellow/grey sandy gravel, redeposited natural

F.539 was a sub-circular pit containing a cremation, 0.30 x 0.26m wide and 0.09m deep, with moderately steep concave sides and flat/concave base, [671]. It contained a single fill; soft black/dark grey silt with frequent charcoal inclusions and cremated bone

F.540 was a small sub-oval pit containing a cremation, 0.44m x 0.27m wide and 0.08m deep, with moderately steep straight/concave sides and flat base, [673]. It contained one fill [672]; soft black/dark grey silts with frequent charcoal inclusions burnt stone and cremated bone.

F.558 was a small circular pit containing a cremation, 0.24m x 0.27m wide and 0.19m deep with moderately sloping with concave sides and flat/uneven base, [816] It contained a single fill, [815]; friable dark grey/black charcoal rich silt with frequent cremated bone and charcoal and occasional gravel inclusions.

F.559 was a small circular pit containing a cremation, 0.34m x 0.30m wide and 0.11m deep with moderately steep sides with gradual break of slope and slightly concave base, [818]. It contained a single fill, [817]; soft friable black charcoal rich silt with moderate to frequent cremated bone, occasional gravel inclusions, flecks of charcoal and burnt clay.

F.561 was a circular pit containing a cremation, 0.21m x 0.22m wide and 0.09m deep with moderately sloping sides with concave base, [820]. It contained a single fill, [819]; firm to friable mid to dark sandy silt with occasional gravel inclusions, cremated bone and flecks of charcoal.

F.562 was a circular pit containing a cremation, 0.27m x 0.29m wide and 0.06m deep, with shallow sloping sides, gradual break of slope and concave base, [824]. It contained a single fill, [823]; friable dark grey/brown silt with moderate to frequent charcoal inclusions and occasional cremated bone.

F.563 was a circular feature containing a cremation, 0.54m wide and 0.12m deep with gradual to moderate sloping sides, gradual break of slope and concave base, [826]. It contained a single fill, [825]; soft black charcoal rich silt with frequent cremated bone which was concentrated in the centre of the fill.

Tables

Table10: Middle Bronze Age Charred Plant Macro Remains

Sample number	508	509	510	518	505	530	534	537	516
Context	663	664	665	815	585	589	521	868	812
Feature	535			558	520	521	508	571	542
Feature type	Cremation			Crema.	Hearth	Ditch	Water hole	Ditch	Ditch
Sample volume - Litres	8	7	4	8	1	7	10	10	15
Flot fraction examined -%	100	100	100	100	100	100	100	100	100
Charcoal									
>4mm	-	+	+	++	-	-			b
2-4mm	+	++	++	a	-	+			c
<2mm	a	d	c	d	+	c	+	+	d
Vitrified		-							
Parenchyma - undifferentiated plant storage tissue		+				-			
Wild Plant Seeds									
<i>Thalictrum flavum/minus</i>	Common/Lesser Meadow-rue		1						
<i>Chenopodium</i> sp.	Goosefoots			4					
<i>Fallopia convolvulus</i>	Black bindweed		1						
<i>Rumex</i> sp.	Dock		1						
<i>Plantago lanceolata</i>	Ribwort Plantain		1						
<i>Arrhenatherum elatius</i> subsp. <i>Bulbosum</i>	False-oat grass bulb/root (cf. = probable)	1, 9cf.	2, 53cf.	7cf. 2, 2cf.					
small Poaceae seed	small wild grass seed			1					
Indet. Poaceae seed	Wild or cultivated grass					1			
Indet. Poaceae root	Wild or cultivated grass root	6	15	3	11				1

Burnt Bone fragments	+	b	a	c					
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Table 11: Middle Bronze Age Waterlogged Plant Macro Remains

Sample number		523
Context		801
Feature		555
Feature type		Ditch
Sample volume - Litres		0.5
Flot fraction examined -%		100
<i>R. Subgen, BATRACHI</i>	Crowfoot	+
<i>Urtica dioica</i>	Common Nettle	-
<i>Corylus avellana</i>	Hazel-nut shell fragment	-
<i>Hydrocotyle vulgaris</i>	Marsh Pennywort	++
<i>Prunella vulgaris</i>	Selfheal	a
<i>Lycopus europaeus</i>	Gipsywort	a
<i>Carduus/Cirsium</i>	Thistles	-
<i>Sonchus asper</i> /	Prickly/Smooth S.-thistles	-
<i>Juncus</i> sp.	Rushes	-
Key: '-' 1 or 2, '+' <10, '++' 10-25, 'a' 25-50.		

Table 12; Catalogue of barrows and ring ditches from cropmarks

HER No.	Grid Reference	Description
33421	TF 122 113	Complex of cropmarks include ring ditch with central pit, 2 trackways and field boundaries
33431	TF 133 113	Complex of cropmarks that included 7 ring ditches as part of a barrow cemetery, also possible mortuary structure
34046	TF 172 122	Diffuse flint scatter over a barrow with surrounding ring ditch
34047	TF 161 133	Part of a group, visible as a slight mound and soilmark on AP, 20m in diameter and 2m in height

34048	TF 162 133	Part of a group and adjacent to 34047, 20m in diameter and 2m in height
34049	TF 162 134	The largest barrow of a group standing at 1m in height and cut by Cross Drove Drain
34050	TF 163 134	A low mound of yellowish clayey gravel, visible as a soilmark on AP, not visible in 2000
34051	TF 163 134	Part of a group, adjacent to 34050, 20m in diameter and 2m in height
34052	TF 163 137	Part of a group, conspicuous mound and yellowish soil mark, 20m in diameter and 2m in height
34053	TF 162 134	Group of round barrows (cemetery), on the edge of Deeping Fen
34183	TF 154 154	Probable barrow, part of a group, seen as a cropmark
34184	TF 154 151	Probable barrow, part of a group, seen as a cropmark
34185	TF 156 150	Probable barrow, part of a group, seen as a cropmark
34186	TF 156 150	Probable barrow, part of a group, seen as a cropmark
34758	TF 148 121	Cropmark of a ring ditch
34191	TF 147 156	Gravel mound 20m in diameter and 1m in height, 1 worked flint recovered and another possible barrow to the east
35834	TF 115 162	Cropmark of round barrow to the west of Baston Edge Drove
35840	TF 108 134	3 cropmark ring ditches to the southwest of Urn Farm

Table 13; Fabric types for burnt and worked clay

Fabric	Description
1	Hard, common to abundant coarse fossil shells, poorly sorted
2	Hard, rare to occasional fine to medium crushed fossil shells, well sorted
3	Hard, rare to occasional coarse sub-angular stones 1-12mm long, poorly sorted and abrasive
4	Hard, rare coarse sub-angular and rounded stones 2-13mm long, poorly sorted and soapy
5	Hard, moderate to common fine to medium crushed fossil shells, poorly sorted
6	Hard, occasional coarse sub-angular and rounded stones, poorly sorted, abrasive and dusty
7	Hard but friable, rare coarse fossil shells, well sorted, very abrasive and dusty
8	Hard, occasional fine to medium angular flint ≤ 1 mm long, well sorted, moderately abrasive
9	Hard, common to abundant coarse rounded stones, poorly sorted, moderately abrasive
10	Moderately soft and friable, rare coarse rounded stones, well sorted, very abrasive and dusty
11	Moderately soft and friable, very fine to medium stones ≤ 1 mm, moderately abrasive but flakey, poorly fired
12	Very hard, rare to occasional coarse sub-angular stones 1-12mm long, poorly sorted and very abrasive
13	Very hard, moderate fine to very small rounded stones ≤ 0.5 mm well sorted, very abrasive
14	Hard, common fine sand, moderately well sorted, abrasive