A Ring Ditch at Third Drove, Fengate, Peterborough

Spencer Cooper

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Cambridgeshire County Council
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Commissioned By Mr M Walters of Walters Office World
A Ring Ditch at Third Drove, Fengate, Peterborough

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SUMMARY

Between September 14th and 30th 1998 the Archaeological Field Unit of Cambridgeshire County Council carried out an archaeological investigation of a plot of land off Third Drove, Peterborough (TL2135 98667). The work was commissioned by Mr. M. Walters of Walters Office World before the sale and development of the site.

Following completion of a desk top assessment of archaeological potential and an archaeological evaluation, excavation revealed a multi-phase ring ditch with a central cremation. Two phases of the ring ditch were identified, a V shaped ditch penannular in plan recut by a shallower U shaped ditch which completed the circuit. This finding was of particular significance because ring ditches which are burial-related are under-represented within the Fengate landscape.

Interpretation of the site was hindered by severe truncation of the archaeological deposits and a paucity of artefacts recovered. However it is plausible that the ring ditch formed part of a hengiform monument or a barrow. It may be the case that attempts to categorise these smaller monuments within the traditional classifications are unhelpful since their use changed over time. Therefore it may be more useful to view the ring ditch at Third Drove in terms of a monument that was evolving, using several of the constructional elements present in monuments of the Neolithic and Bronze Age.
INTRODUCTION

Between September 14th and 30th 1998 the Archaeological Field Unit of Cambridgeshire County Council carried out an archaeological excavation on a plot of land off Third Drove, Fengate, Peterborough (TL 2135 9866). The work was commissioned by Mr M.Walters of Walters Office World before sale and possible development of the site. The investigation was undertaken in accordance with a specification drawn up by the Archaeological Field Unit of Cambridgeshire County Council in response to a design brief written by Ben Robinson of Peterborough City Council Archaeological Service.

The site is located to the south-east of the City of Peterborough and comprises about 0.34 hectares of land bordered by Fengate (formerly known as Storey's Bar Road) to the north-west and by Third Drove to the south-west. At present the site is rough grassland, but in fact it has been stripped of topsoil probably during the 1980s when the area immediately adjacent to the site was being developed as an industrial estate.

Following completion of a desk top assessment of archaeological potential an archaeological evaluation uncovered part of a multi-phase ring ditch with a central cremation.

From the outset it was anticipated that basic research questions would be addressed concerning the date of the ring ditch and the cremation. Likewise wider issues such as the status and function of ritual monuments within the Fengate landscape would be considered.

It was hoped that the excavation would make a useful contribution to an area which has been subjected to intensive archaeological study since the 1970’s.

TOPOGRAPHY AND GEOLOGY

The site lies on the first terrace gravels of the River Nene at 2.05m OD. An archaeological evaluation of land to the south-west of Third Drove carried out by Birmingham University Field Archaeology Unit in 1998 uncovered a natural subsoil close to the subject site which consisted of a red sand and gravel mix. A similar reddish sandy gravel subsoil was uncovered by the present investigation.

ARCHAEOLOGICAL BACKGROUND

General

The subject site lies within the rich and well researched archaeological landscape of the Fengate area which is of international importance. This importance is derived from the areas attractiveness to early settlers, which resulted in intensive exploitation of the landscape from the early Neolithic to the Roman period coupled with exceptional conditions that exist here for the preservation of archaeological deposits.
Figure 1 Location plan showing development area
The earliest settlement would appear to be early Neolithic, and the fen edge was first occupied by people living a broadly Neolithic way of life sometime before 4000 BC. Fengate "site 11" excavated in the late 1960s was an earlier Neolithic mortuary enclosure which lay about 600m north of the subject site. Between it and Third Drove lay further sites of similar date, including two separate mortuary structures: the Padholme Road "house" and a second probable mortuary structure excavated at the Co-op site in 1997 (Gibson 1998). A multiple burial found during excavation of the Cat's Water subsite is also of earlier Neolithic date.

The common alignment of these broadly contemporary features led Pryor to suggest that the earlier Neolithic landscape was organised and laid out in a deliberate fashion (Pryor 1978). The alignment, though consistent, was different from that of the later Neolithic/ Bronze Age landscape, which was laid out at right angles to the nearby fen. The earlier Neolithic alignment seems instead to be orientated to an inlet partly defined by the 2m contour, which was identified in an evaluation undertaken by Birmingham University's Field Archaeology Unit (BUFAU) just to the north-east of the subject site (Cutler 1998). The alignment of surviving features of the earlier Neolithic landscape on the inlet may demonstrate that the latter was a contemporary feature, in the same way that it demonstrates that the nearby fen was not and only began to encroach in the late Neolithic/ Bronze Age.

One of the most significant discoveries at Fengate is of an organised landscape, based upon ditched droveways and rectangular fields, and laid out along and at right angles to the contemporary fen-edge. This alignment represented a radical reorganisation of the landscape from the earlier Neolithic, and appears to have been laid out in the late Neolithic or early Bronze Age and continued in use for about a millennium. Dispersed among the fields and trackways of this landscape were the remains of contemporary roundhouses. That the land was already being divided up in this way in the later Neolithic is suggested by the results of the Storey's Bar Road subsite excavations where a settlement producing late Neolithic Grooved Ware pottery was uncovered together with contemporary ditched fields. These earlier fields were parallel to the later Bronze Age trackways.

Although intensive occupation of domestic character has been found from the earlier Bronze age, there is a distinct lack of ritual or ceremonial sites from this period. This imbalance of evidence contrasts with substantial evidence in the late Bronze Age. Excavations at the Power Station subsite have produced very large numbers of Bronze Age artefacts which had been apparently deliberately deposited beside and amongst the posts of a massive timber alignment. This ran out from what was dry land in the Bronze Age across the Flag Fen basin which was under water in the Bronze Age, to Northey Island.

The function of the Flag Fen timber platform is uncertain but it probably had a symbolic or ritual purpose. This ritual focus seems to have begun in the middle Bronze Age but carried on until the later Bronze Age at least. The timber alignment across the fen was both a ceremonial focus and a boundary. It was clearly linked to the fen edge landscape since one of the droveways of that system joins up with its western landfall.
Previous Archaeological Excavations

Two previous archaeological investigations have taken place within 100m of the subject site, namely at Storey’s Bar Road Subsite (Pryor, 1978) and at a plot of Land off Third Drove to the south-west of the subject site (Cutler 1998).

The excavation at Storey’s Bar Road Subsite revealed two areas of settlement which could be divided into two phases. The earliest phase of settlement lay in the southern corner of the site and was defined by a Late Neolithic rectilinear enclosure. Pits and postholes within the enclosure contained sherds of Grooved Ware. A second later enclosure lay in the north-west corner of the site and incorporated a large ring ditch. The later phases of the ring ditch incorporated cremations and two burials. A later quarry pit dug around 1000BC contained the waterlogged remains of an alder log notched to form a ladder.

Archaeological evaluation undertaken by BUFAU on the land off Third Drove to the south-west of the present site revealed occupation from the earlier Neolithic to the later Iron Age. The trenches nearest to the subject site revealed a scatter of pits, post holes and related features, dated to the second millennium BC. It is possible that these finds represent a contemporary and later development of the Grooved Ware Settlement of the Storey’s Bar Road subsite, which lies less than 100m to the north of Cutler’s trench 1. If so it would be one of the largest of the known Late Neolithic / Early Bronze Age settlements in England (Cutler 1998).

4 METHODOLOGY

Prior to the commencement of fieldwork the AFU conducted a desk top review of the development area including a review of historic maps, previous archaeological work and an examination of all available SMR entries. Historic maps held at Peterborough City Museum and Art Gallery were consulted with a view to reconstructing the former land use across the site. One of the main aims of this work was to seek evidence of truncation or destruction of ancient deposits by more recent forms of landuse, such as buildings or quarrying. Although quarries in particular are shown on old maps none were found within the area of the site itself. No evidence was found of former buildings on the site. Also the field boundary subsequently revealed in trenches 1 and 2 was not depicted on any of the maps consulted.

Following this a series of three trenches totalling 100m in length were excavated using a JCB with a toothless ditching bucket. Trenches 1 and 3 were located in order to locate field boundaries relating to the Fengate field system. Trench 2, located within the centre of the development area, was extended because of the identification of a ring ditch at the evaluation stage. Evidence from aerial photographs did not suggest the presence of a ring ditch within the centre of the subject site and its partial recovery was entirely fortuitous. Given the rarity of this type of monument within the Fengate area further excavation of this feature was a priority and an area excavation measuring 20 x 20m was centred on this. Seven 2m long sections were excavated across the ring ditch at approximately 2m intervals. In addition segments were extended to elucidate the stratigraphy of the monument. In
total 70% of the ring ditch was excavated making it one of the most intensively sampled burial related ring ditches in Cambridgeshire.

After machining was completed each trench was cleaned by hand and photographed and recorded using the AFU standard archaeological recording system. In addition all of the spoil heaps from the trenches were scanned both by eye with a metal detector to maximise artefact retrieval.

RESULTS

The desk top assessment suggested that the site had potential to contain well preserved remains sealed beneath alluvium and a buried soil. However, the evaluation showed that the soil profile had been severely truncated with only a very thin rubble layer 0.10m-0.20m deep overlying a reddish sandy gravel.

The evaluation revealed a multi phase ring ditch with a possible central cremation in trench 2 and a linear feature and a large pit in trench 1. Trench 3 revealed no features of archaeological interest.

Trench 1 (Figure 2)

Trench 1 was 27m long by 2.5m wide and was positioned on an east-west alignment. A linear and a large pit were located in the western part of the trench. The large pit 39 was 2.20m wide and 0.70m deep and contained fills 35, 36, 37 and 38. The primary fill (38) of this feature was 0.08m thick and consisted of a dark yellowish brown sandy silt. This basal fill may have represented remnants of discarded organic material. The upper fill 35 which was 0.34m deep and consisted of a greyish brown silty sand appeared to represent a deliberate episode of backfilling. One possible waste flake was recovered from the primary fill. The function of this pit is problematic, certainly the lack of artefacts recovered from it would discount the view that it was a rubbish pit. It may have been some kind of storage pit or alternatively it may have been for quarrying of sand and gravel.

Cut 39 truncates a linear 8 which seems to form a corner of a field boundary. No artefacts were recovered from this feature. This linear seems to run on the same alignment as the east-west linear revealed at Storey's Road Bar Subsite.

Cut 16 located in the in the north-eastern corner of the trench was 0.80 m wide and 0.20m deep and produced a number of modern bricks. It contained one fill a brown silty sand with a moderate amount of small gravel. This feature ran on a north-west south-east alignment and may be the same linear as 22 uncovered in trench 2. Although modern material was recovered from this linear there is still a possibility that this feature represents a continuation of the Bronze Age field system identified at Storey's Road Bar Subsite. The modern material may have been incorporated when the topsoil was stripped.

Cut 9 represents modern disturbance in the northern corner of the trench. It contained a sandy silty fill which produced a large number of modern bricks.
Figure 3  Plan of ring ditch and key sections.
Trench 2 (Figure 2)

Trench 2 as initially excavated during the evaluation was 29m long and 2.5m wide and positioned on a north-south alignment in order to locate possible drove ways and land divisions associated with the Fengate landscape. It was subsequently extended to an area of 20m x 20m to allow excavation of the ring ditch discovered during evaluation.

The excavation revealed a multi phase ring ditch which was 9m in diameter (figure 3). The circuit of the ditch was not perfectly circular but more oval in shape with the south-western arc being somewhat flattened. The shape of the ring ditch could be accounted for from evidence in segments 1, 2, 3, 6, and 7 which suggested it had at least two phases. The primary phase of the ring ditch had a V shaped profile and varied from 0.70m to 0.40m in width and from 0.20m to 0.40m in depth. This ditch contained sandy silt fills with a high gravel content. The first phase ditch was penannular in plan and did not appear in segments 4 and 5 on the southern side of the circuit. It was recut by a U shaped ditch which varied from 0.30m to 0.40m in width and from 0.10m to 0.30m in depth. The U shaped ditch appeared to follow the circuit of the ring ditch although on the southern side there was a gap which may represent an entrance.

What follows is a description of the deposits encountered within the ring ditch, divided into two phases. For the purposes of segregation of finds and the analysis of spatial variations within the fill, each excavated segment of the ring ditch was given a separate cut number. Fills were also numbered separately as they were identified in each segment. For completeness, all cut numbers and their corresponding fills are given below. The description, however, deals with all separately-numbered cuts and fills belonging to the same phase as a unity.

Phase 1

The following contexts represent the first phase penannular ditch.

First phase ditch in Segment 1 = Cut 65 filled by 62, 63 and 64
and also = Cut 121 filled by 68 and 69

" " " Segment 2 = Cut 115 filled by 112
and also = Cut 111 filled by 109 and 110

" " " Segment 3 = Cut 106 filled by 103, 104 and 105
and also = Cut 100 filled by 99, 98 and 97

" " " Segment 6 = Cut 81 filled by 79 and 80
and also = Cut 87 filled by 85 and 86

" " " Segment 7 = Cut 76 filled by 73, 74 and 75
and also = Cut 70 filled by 68 and 69

In general the first phase ditch had a V shaped profile with a flat base although there was some variation and in places the profile was more U shaped. The width of the ditch varied from 0.40m-0.70m and the depth varied from 0.20m-0.40m. The numbers of fills varied from segment to segment: in most cases three fills were observed while in some segments only two fills were encountered. This may be a reflection of differential truncation across the site. The basal fills of the first phase ditch were a yellowish brown sandy silt with a moderate amount of small gravel which
was well sorted throughout the contexts. The depth of the basal fills varied from 0.10-0.12m. No artefacts were recorded from the basal fills of the first phase. The secondary fills of the first phase consisted of a brown sandy silt with a moderate amount of small gravel which was well distributed. The depth of the secondary fills varied from 0.08-0.10m. The upper fills of the first phase ditch consisted of a reddish brown sandy silt with a moderate amount of small gravel. The depth of the upper fills varied from 0.10-0.20m. No artefacts were recorded from the upper fills of the first phase.

The termination of cut 87 in segment 6 suggested that the first phase had a large entrance on the south-western side of the circuit (see figure 3).

**Phase 2**

The following contexts represent the second phase of the ditch.

Second phase ditch in Segment 1 = Cut 117 filled by 116
and also = Cut 61 filled by 60

" " Segment 2 = Cut 113 filled by 112
and also = Cut 108 filled 58

" " Segment 3 = Cut 102 filled by 101
and also = Cut 97 filled by 95 and 96

" " Segment 4 = Cut 21 filled by 20
and also = Cut 94 filled by 93

" " Segment 5 = Cut 122 filled by 88
and also = Cut 92 filled by 91

" " Segment 6 = Cut 78 filled by 77
and also = Cut 84 filled by 82 and 83

" " Segment 7 = Cut 67 filled by 88
and also = Cut 72 filled by 71

The secondary phase consisted of a U shaped recut with a rounded base which varied from 0.30m-0.40m in width and 0.25-0.15m in depth. The number of fills present ranged from 1-2 in each segment. No artefacts were recovered from these fills.

The basal fills of the second phase ditch were brown sandy silts and yellowish brown sandy silts with a moderate amount of small gravel which was well distributed. Segment 6 on the southern side of the enclosure displayed considerable differences in the stratigraphy and the sections may be the key to the understanding of the monument. The evidence supports the view that there was a large entrance on the south-western side of the monument in the first phase and that a subsequent recut eradicated it. This can clearly be see in sections 5 and 6 (figure 3). In these sections, cuts 81 and 87 represent the first phase ring ditch. Cuts 78 and 84 belong to the second phase recut, which continues as the narrower south-western arc of the ring ditch shown on the plan in figure 3.

In segment 5 there was a group of postholes which belonged to the second phase refurbishment of the monument. Posthole 90 was 0.24m wide and 0.25m deep and contained one fill, 91, a sandy silt with a moderate amount of small rounded pebbles. The other five postholes contained identical fills and had similar dimensions. No artefacts were recovered from any of the postholes within this group.
Ring Ditch Interior Features

A small number of heavily truncated features including a cremation were observed within the area surrounded by the ring ditch. The cremation 33 was 0.34m wide and 0.05m deep and contained fill 32. This was a reddish brown sandy silt and contained a large quantity of burnt bone. There was no evidence of an urn or a wooden container and analysis of the human remains suggested that one individual was present. The body parts represented included portions of skull, vertebrae, ribs and pelvis. Teeth were also recovered which suggested an age for the cremated individual from older childhood to young adulthood. There were no diagnostic fragments to indicate the sex. There were no grave goods associated with this cremation.

In the absence of dateable finds the C14 dating of the cremation was contemplated. Consultations with a dating specialist however suggested that the cremated bone was unsuitable for dating by radiocarbon methods (Bayliss pers. comm.). A separate report on the cremation by a human bone specialist appears below in appendix A.

Cut 30, a possible post hole, was 0.60m wide and 0.19m deep and contained Fill 19. This was a brownish grey sandy silt. This feature was truncated by 28 which was also a possible post hole. These are difficult features to interpret since there is no direct stratigraphical link between them and the ring ditch. It is highly likely that these internal features belong to one or other of the phases of the ring ditch.

Other Features

A linear 22 was identified to the east of the ring ditch which ran on a north-west south-east alignment. It was 0.85m wide and 0.20m deep and contained one fill, a brown sandy silt which contained modern bricks. It is highly likely that this is the same feature as linear 16 in trench 1.

Trench 3

Trench 3 was 28m long and 2.5m wide and located on an east-west alignment in the south western part of the development. No archaeological features were observed in this trench.

Environmental Sampling

A number of environmental of samples were taken from the ring ditch, processed using a standard flotation machine. Heavy residues and floated fractions were sorted and examined. Discussions with Dr Peter Murphy of the University of East Anglia, however, suggested that samples did not contain any material likely to yield significant environmental information. (Murphy, pers. comm.).
At the outset it should be noted that the interpretation and understanding of the site is hindered by the degree of truncation that the site has been subjected to and the paucity of artefactual material recovered. It is believed that the truncation of the site was due to topsoil stripping in the 1980s when the area was being developed into an Industrial Estate.

The ring ditch at Third Drove displays many characteristics of a Bronze Age barrow. Within this model the first phase penannular V shaped ditch represents the quarrying for mound material and initial construction of the barrow. The U shaped recut represents the remodelling or revetment of the barrow. This argument is further supported by the nature of the fills from the V shaped ditch which show evidence of slippage from an internal mound or bank. (see figure 3 section 6). Furthermore, the post holes observed in segment 5 may relate to some kind or revetment for the barrow. Lastly, the central cremation is very characteristic of a barrow.

There are, however, several aspects of the field evidence which raise doubts concerning the barrow interpretation. The absence of an upstanding barrow or any mound material may make barrow interpretation less plausible. The diameter of the ring ditch is only 9m and barrows under 10m in diameter are relatively uncommon in East Anglia (Lawson et al 1981). The barrow identified at the Fentage Depot site (Evans 1992) was 18m in diameter, almost twice the size of the Third Drove ring ditch. However to counter this point, C. French excavated a barrow at Deeping site DEN 28 (French 1994) which was 9m in diameter with a central cremation (see fig.6). There is a problem with linking the cremation with the ring ditch because there is no direct stratigraphical relationship between them. Nevertheless, the cremation probably relates to the second phase of the monument.

![Figure 4 Phase plan of ring ditch](image-url)
An alternative model to explain the evidence at Third Drove is that we are dealing with a hengiform monument. It is possible to view the penannular V shaped ditch with a major entrance on the southern side as the first phase of a hengiform monument. This would then mean that the U shaped recut of the entire circuit would have destroyed the entrance with a formal establishment of the ring ditch enclosure. In terms of comparative sites, a hengiform ring ditch at Barleycroft (Evans & Pollard 1994) has similarities with regard to the development of the monument and types of features encountered such as postholes and cremations.

It may be the case that both of the above models are too simplistic and we have to consider the evidence on a local level. Within a comparative discussion the data collected from the sites at Storey's Road Bar Subsite (Pryor 1978) and the Depot site (Evans 1992) provides us with a means of calibrating the evidence and aids us in understanding Neolithic/Bronze Age monuments within the Fensgate area. The ring ditch encountered at the Depot site (Evans 1992) was a larger monument than at Third Drove with a diameter of 18m. The ditch was considerably wider at 3m wide and deeper at 1.10m although it is difficult to attach too much importance to these observations as the site at Third Drove was heavily truncated. Despite the differences there are aspects of the excavated evidence from the Depot site which are similar:

1. There is evidence of a recut of the ring ditch.
2. The nature of the sandy silt fills.

The ring ditch revealed at Storey's Bar Road Subsite (Pryor 1978) had more in common with with the one encountered on the Depot site. The width of the ring ditch at the Storey's Bar Road Subsite varied from 2.20m-2.50m, whilst the depth of the ditch varied from 0.80 -1.10m and it had a U shaped profile. A recut was present in some of the sections. The majority of the fills were composed of a sandy silt with occasional gravel.

The ring ditch was initially constructed in the Late Neolithic period and it probably surrounded a small shrine. This was re-dug in the Early Bronze Age to provide material for a barrow which would have housed a cremation. It was revealed that two young people were buried in the recut of the ditch. This observation is of particular interest since, the cremation at Third Drove was also a young person. This pattern is reinforced by the discovery of multiple burials at Cats Water where a young man, an infant and a young woman were revealed in a pit.

The archaeological evidence encountered in the northern part of the site in Trench 1 is most likely to represent field boundaries relating to the division and organisation of the landscape in the Bronze Age. It seems that within Trench 1 we have a continuation of the field systems revealed at Storey's Bar Road Subsite. Underpinning the results encountered at Third Drove are issues concerning the relationship of the monument to the field system and how these two components functioned through time. The interpretation of the field system revealed at Storey's Bar Road Subsite and in the northern part of the site can be framed within recent discussion of the archaeology of Fensgate. The most recent interpretation of the Fensgate Field system (Pryor 1996) is that the ditched droveways and the rectilinear field boundaries are concerned with pastoralism and large scale sheep farming. Within this model the linear discovered in the northern part of the site may be part of the stockyards and confined spaces where flocks were temporarily kept while
Figure 6  Comparative plans of barrows from Fengate and Lincolnshire
animals were sorted, inspected and exchanged. The rectilinear paddocks at Storey's Bar Road were all entered via corner entrances, a positioning that takes advantage of the funnelling effect of the field's two sides. All the corner entranceways show evidence for diversions or narrowing, which supports the arguments concerning their use in handling stock. The deliberate narrowing of entranceways indicates a move from cattle or mixed flocks to a system for sheep alone. Certainly the size and scale of the Storey's Bar Road handling system is inappropriate for cattle but would have been ideal for sheep.

The alternative theory to explain the field system at Storey's Bar Road Subsite and at Third Drove is that the drove ways were a matter of style and that the complicated field systems of Fengate were not an economic necessity but more related to land ownership and the movement of cattle across different holdings.

The monuments which have been revealed at Third Drove, Storey's Bar Road and the Depot site may have marked territories before the creation of the field system. It may be the case that in the later Neolithic and earlier Bronze Age settlement involved considerable movement of people and stock, perhaps as part of a pastoral-based subsistence economy. Monuments such as those mentioned above could have served as fixed points within the landscape for guiding and managing such movements.

CONCLUSION

The degree of truncation that the site has been subjected to has limited the various models used to interpret the archaeology. Nevertheless the uncovering of a prehistoric burial monument at Third Drove, Peterborough has demonstrated the wealth of archaeological evidence that is still available to be recovered from the Fengate area, even from sites that appear to have already been affected by development. It is probable that the ring ditch formed part of a hengiform monument which was later transformed into a barrow. It may be the case that attempts to categorise these smaller monuments within the traditional classifications are unhelpful since the distinctions between the various monuments are increasingly blurred. Therefore it may be more useful to view the ring ditch at Third Drove in terms of a monument that was evolving using several of the constructional elements present in monuments in the Neolithic and Bronze Age.

The excavation has revealed a monument of a type that is under-represented within the Fengate landscape. There are only two other examples of barrows within the Fengate area, at Storey's Bar Road Subsite (Pryor 1978) and to the south of the subject site at the Fengate Depot site (Evans 1992). Nevertheless it appears that these barrows were an integral part of the Fengate landscape.
ACKNOWLEDGEMENTS

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APPENDIX A
THE CREMATION
Corinne Duhig MA MIFA

Methods used are those of Cho et al. (1996) and Ubelaker (1989) for general bone analysis and of McKinley (1989) for cremations. The single sample is of almost-entirely white fragments, with only a very few blue-grey fragments, indicating almost total loss of the organic components of the bone through an efficient pyre technology; starting temperatures would have had to be at least 500degC with maintenance of burning for approximately 7-8 hours. Most of the fragments are in a range close to a maximum dimension of 0.5 cm, although there are a few larger portions of skull and long bones - the largest femoral fragment is 5.5 x 0.8 cm. It is clear that deliberate crushing, also efficient, had taken place after recovery from the pyre.

Portions of skull, axial skeleton (vertebrae, ribs, pelvis) and limbs are all present. The skull is represented by fragments from vault, face, base, mandible (one mandibular condyle) and two tooth roots. Some of the vault portions are very thin, but they do not differ enough from other portions to indicate the presence of two individuals. Open sutures show that the individual was a child, adolescent or young adult and a maxillary molar tooth root appears to be that of a permanent molar, suggesting an age from older childhood to young adulthood; there are no loose epiphyses present, even in fragmentary form, although there are some articular surfaces, so it is tentatively suggested that the age is late adolescence or beyond. Even if the individual had been adult, there are no diagnostic fragments to indicate sex, nor are there any pathological changes visible.

Weights of the various fractions, and their percentages, are given below:

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<th></th>
<th>weight (g)</th>
<th>% of whole</th>
<th>% of identified bone</th>
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<td>25.9</td>
<td>7.1</td>
<td>15.1</td>
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<tr>
<td>axial skeleton</td>
<td>14.5</td>
<td>3.9</td>
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Modern cremation weights range between 1600 and 3600 grammes, but total weight range for archaeological cremations is 200-2000 grammes, showing that it was rare for the whole body to be deposited. This sample, of only 365.7 g, is at the low end of the scale and shows either that deposition was highly selective or that there has been truncation and/or disturbance of the deposit. McKinley lists the composition of an average modern cremation, by percentage of total weight, as: skull 18.2%, axial skeleton 23.1%, limbs 58.7%. The skull fragments in this case are only slightly below this "ideal", but the limbs and material from the axial skeleton are poorly represented. Depositional selection, which tends to favour the skull against the other body areas, is therefore likely to be the principal factor which has produced the low weight of this sample, although other taphonomic factors might also have contributed.

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