

**The Excavation of a Bronze Age Barrow and Surrounding Environs
At Platts Lane, Cossington, Leicestershire (SK 613 102)**

Post-excavation Assessment Report

And

Updated Project Design

(2nd Draft)

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Abstract

Archaeological work at Cossington, Leicestershire has included the excavation of three Bronze Age round barrows (two excavated in 1976 and the third in 1999) that are part of a dispersed barrow cemetery, located at the confluence of the rivers Soar and Wreake.

The two 1976 barrows included (Site 1) a single re-cut ring ditch with central feature and a middle Bronze Age urn cemetery and (Site 2) a double ring ditch with a central crouched inhumation burial of a young male child and grave goods, and a cremation urn in a stone cist. Specialist reports and a draft site report have been completed for these excavations and it is intended that they will be updated and included in the final publication of the 1999 excavations.

The 1999 barrow (Area A) had a single re-cut ring ditch, no central feature but the burial of an exquisite jet, amber and faience bead necklace on the southern edge of the mound. The beads were surrounded by stones, which may indicate the remains of a stone cist. The Bronze Age beads are a unique group in the East Midlands and the only faience necklace from a known context anywhere in the country. Analysis is likely, therefore, to contribute exceptional information to the study of Bronze Age material culture as well as information regarding importation of goods, location of production and techniques of manufacture.

The location of an Iron Age roundhouse adjacent to the mound suggests that the barrow ceased to be a funerary monument for a period of time before it was re-used by the Anglo Saxons. At least four 'warrior burials' (graves containing spears and knives) were inserted into the mound; a phenomenon also found elsewhere, but this is the first confirmed example in Leicestershire.

A moderately large lithics assemblage indicates that the site was used from the Neolithic to the late Bronze Age. A single Late Upper Palaeolithic flint was also found.

Finally, in the locality of the excavations, a former watercourse containing well-preserved organic material was also discovered. The surviving pollen, plant remains and insects will also provide a sample of the Soar Valley landscape from the Neolithic onwards. Important complimentary environmental evidence was also provided by numerous animal bones, including examples of Aurochs and Red Deer, that were located in the silted channel, some with slight evidence of butchery.

*The Updated Project Design fulfils the criteria for Aggregates Levy Sustainability funding by meeting many of the aims for archaeological projects set out in **Exploring our Past** (EH98). In particular the analysis and publication of the three barrow sites from Cossington will help advance understanding of England's archaeology, enable a significant backlog archive to be published and contribute to regional and national research frameworks. A complementary programme of Outreach events will help promote the archaeology of the site to the general public and by doing so, further understanding of the historic environment and promote the work of English Heritage.*

The archaeological work was funded by Wanlip Gravel Company, English Heritage and ULAS. The site archive will be deposited with LMARS (X.A35.1999).

1. Background to the project

1.1 Summary of excavations.

The purpose of this document is to assess the potential for further analysis resulting from an archaeological excavation and watching brief undertaken at Platts Lane, Cossington, Leicestershire (SK 601 133, Fig.1). The work was carried out in advance of gravel extraction by Wanlip Gravel Company (Planning Application 95/1868/2).

Cropmark evidence had suggested the possibility of a ring ditch and two intersecting pit alignments (SMR 61SW FF and AV). A geophysical survey (GSB, 1995) proved inconclusive but trial trenching (Beamish 1996) identified two areas of archaeological potential. A mitigation strategy was agreed between Wanlip Gravels Limited and the Senior Planning Archaeologist as advisor to the planning authority. This comprised a watching brief for the entire extraction area and archaeological control of topsoil stripping in two 60m x 60m areas identified as having the highest potential, with contingency provision.

The watching brief commenced in Phase 1 (Fig.1), but no archaeological remains were observed (Gossip 1998). The Phase 2 watching brief began in March 1999 and the first area for topsoil stripping under archaeological supervision (Fig.2, Area A) began in April 1999. This located the presence of a denuded round barrow burial mound located on a slight rise in the ground around the 46m contour. Following consideration of the option of preservation *in situ*, a programme of archaeological recording in Area A was agreed and a controlled topsoil strip to complete the 60m x 60m area restarted on May 1999.

In the light of the results from the controlled strip the aerial photograph in the SMR was re-examined and a rectified plot prepared. This has now established that the mound was in the location of the possible ring ditch and that the original sketch plot was not accurately located (CPM 1995; Fig 2). A possible second ring ditch was interpreted from the aerial photograph to the northeast of the mound (Pickering and Hartley 1985 p.38.2) but both geophysical survey and trial trenching failed to identify it.

The excavation located a series of pre-mound pits and gullies which were seen to be cut by the barrow ring ditch (Fig. 3 and 4). Overlying the ditch and earlier features was a low earthen mound of c.60 m diameter. Apparently, later erosion had caused the mound to spread beyond the c.30m diameter of the monument ring ditch. Similar monuments are known from the Cossington area c.500m to the southeast (SMR 61SW AX; O'Brien 1976; Liddle 1982). To the southwest of the mound a ring gully and postholes delineated the plan of a circular Iron Age building (Fig.5). This was similar to a structure of Iron Age date excavated at Wanlip 2km to the southwest (Beamish 1998). The mound continued to be used during the Iron Age and Roman periods (Fig. 6) when both whole and large fragments of pots were deposited in, or near to the mound. During the 5th-6th century the mound was again re-used as a Saxon cemetery (Fig. 7).

In the light of these discoveries Wanlip Gravel Company agreed that the area immediately to the north and west of Area A would not be quarried and the topsoil cover would be retained. In the event, the area was quarried in 2000 when RMC took over the running of the quarry. The south eastern extent of the excavation was demarcated by a pipeline which had already disturbed part of the mound.

Examination of the stripped area to the east of the barrow (Areas B and C, Fig 8) revealed a low lying area filled with organic material containing flints (possibly representing a former pond or marsh), a number of ditches and a linear row of posts/pits. A small enclosure (undated but pre-medieval) was also identified and numerous inter-cutting ditches of probable medieval or later date.

A palaeochannel containing waterlogged deposits including auroch bones, red deer and pig was also located, recorded and sampled in an area of the original quarry, outside the provisions of P.A. 95/1868/2, c.600m to the northwest (Fig 1, Area D). As a pre-PPG 16 application recording was at ULAS's own expense.

In the light of the results a watching brief and salvage recording in Phase 5 was undertaken funded by RMC (Eastern) Ltd. This work was located approximately 100m north of the Area A barrow and revealed flint tools and earthfast remains of Iron Age and Anglo- Saxon date (Higgins 2002).

1.2 Research Agenda

In this report the 'statement of potential' of each material category has been made with regard to the research aims for the site, as stated in the Updated Project Design (Clay 1999). The original research aims were as follows:-

RA 1 The study of local variation in Neolithic - Bronze Age funerary practices and associated ritual activity both nationally and in the East Midlands

RA 2 The study of locational change in prehistoric land use and settlement in the East Midlands

RA3 Processes of change (EH 1997, PC) from ceremonial use during the Early Bronze Age to possible settlement during the Iron Age with re-use as a burial area in the Anglo-Saxon period.

RA4 The transition from Bronze Age to Iron Age landscapes (EH 1991 p 37; EH 1997, PC3; P7) may include evidence of special deposition adjacent to the burial mound.

RA5 The re-use of monuments (Bradley and Williams 1999).

RA6 Settlement and land use during the Neolithic and early Bronze Age (EH 1997 PC2; P6).

2. Assessment for further analysis

2.1 Introduction

The full assessment reports are detailed in the **Appendices** at the back of the report. In this section the content of the various stratigraphic and material categories are presented in summary accompanied by statements of their potential for further analysis.

2.2 Stratigraphic and Structural Data

Susan Ripper

2.2.1 The 1999 Excavations

Summary (for the full Assessment please refer to Appendix 1)

In Area A all deposits below topsoil were recorded. These included pre-barrow pits, a Bronze Age barrow and ring ditch, an Iron Age roundhouse, Iron Age features cutting into the mound and Saxon 'burials' also cut into the mound. In the watching brief Areas B and C all features were recorded in plan, with only a sample being partly excavated to establish dates, function and selected stratigraphic relationships. These included an area of marshy ground of prehistoric date, an alignment of pits, ditches, an undated enclosure and numerous medieval field boundary ditches. In Area D sections were drawn of palaeochannel profiles and soil samples, and a collection of animal bones taken from the waterlogged deposits for environmental reconstruction.

Statement of potential

The Cossington barrow is part of a dispersed barrow cemetery on the floodplain at the confluence of the rivers Soar and Wreake. The cemetery consists of a total of five barrows: two to the south of the Wreake, identified as cropmarks and two, c.400m south of the site, excavated in 1976 under the direction of Colm O'Brien (Appendix 2). These consisted of: Site I- a single re-cut ring ditch with central feature and later urn cemetery, and Site II – a double ring ditch surrounding a group of central features including a primary burial with ceramic, flint and stone grave goods, a cremation in an urn and a stone cist.

Collectively the three excavated barrows display a wide range of funerary practices. Single and double ditches, central primary burials and their absence. The bead necklace found at Cossington is a rare example of the burial of 'exotic' material. It is also the first example of a barrow re-used as a Saxon burial ground in the county.

Late Neolithic - early Bronze Age

At the site specific level the primary potential of the stratigraphic and structural data will be in establishing a chronological framework for the early occupation and land use of the site (**RA2 & 6**). The intensity of recent agricultural activity, the acidity of the soils and poor definition of cut features in Area A at Cossington has limited the potential for stratigraphic interpretation although it may be possible to establish coherent phasing following the integration of data generated by the analysis of all the various material categories with the stratigraphic record.

The flint assemblage is a moderately sized broadly Neolithic – Bronze Age collection. The pollen column taken from Area D is likely to cover a similar period (depending upon the establishment of a C14 date), showing evidence of woodland clearance. The pre-barrow features may also be evidence of clearance activity (**RA2 & 6**).

Aerial photography has identified numerous barrows in Leicestershire (Pickering and Hartley, 1985) but only a limited number have been fully excavated (the Sproxtton and Eaton group, Tixover, Willow Farm, Castle Donington, Lockington and two at Cossington). Analysis of the excavations at Cossington has the potential for establishing a chronology for the development of the mound based on the location of burials/groups of stones and the re-cutting of the ring ditch (**RA1 & 3**). Analysis of the beads may establish trade links beyond the region. The re-cutting of the ring ditch suggests maintenance of the monument time (**RA1 & 3**).

Iron Age/Roman

Consideration of the pit alignment, particularly in its relationship with the area of marshy ground may help to elucidate their function. These features will contribute to ongoing research into the chronology, form and use of pit alignments in the Midland region (Thomas 2003).

Analysis of the Iron Age roundhouse and other contemporary features exposed as part of a watching brief to the north of the barrow may help to elucidate the nature of the settlement and establish its relationship, if any, with the barrow monument (**RA 4 & 5**).

The deliberate deposition of a complete Roman vessel and other more fragmentary vessels suggests re-use of the monument in the Iron Age/Romano-British period (**RA 5**).

Anglo-Saxon

The Cossington excavations represent the first investigation of an Anglo-Saxon ‘warrior cemetery’ in a Bronze Age barrow in Leicestershire and will contribute to studies of burial practices of this period (**RA 5**).

At a site specific level the paucity of cut features will limit the recognition of phases. However, the location and quantity of the metalwork, flint and animal bone (horses teeth) will help to suggest the size of the cemetery and how the barrow was used. No identifiable human remains were found.

The date range for the Anglo-Saxon occupation of the site is currently unclear. Analysis of the various material categories should serve to establish whether the cemetery was used in a single period or over time. Analysis of the metalwork may also indicate the wealth and status of the individuals buried, and suggest patterns of trade links.

A small pre-medieval enclosure seen in Area B may be the remains of a different form of Anglo-Saxon grave.

Medieval and post-medieval

The Area B ditches were probably drainage works within the medieval/post-medieval field systems. Analysis of material recovered from the limited excavated sample may help to produce a chronological framework for their construction although physical relationships were poorly defined.

2.2.1 The 1976 Excavations

Patrick Clay

Summary (for the full Assessment please refer to Appendix 2)

The two 1976 barrows included a single re-cut ring ditch with central feature and a middle Bronze Age urn cemetery (Site 1) and a double ring ditch with a central crouched inhumation burial of a young male child and grave goods, and a cremation urn in a stone cist (Site 2). Radiocarbon determinations from secondary phase features at both the 1976 barrow excavations were obtained. From a charcoal patch or 'hearth' feature within the partially silted ring ditch at Site 1, a date of 3464 +/- 60 b.p. (c.1466 b.c.) was indicated (Ref.HAR 4897). A secondary cremation from the barrow at Site 2 gave a date of 1396 +/- uncal.90 B.C. (No reference number available). Unfortunately the human bone submitted for dating from the primary burial of this barrow proved unsuitable.

Statement of Potential

The potential of the data can be assessed against the aims detailed in the project design for the 1999 fieldwork detailed in the UPD. The archive has an enhanced potential in view of the fieldwork on Bronze Age sites in the East Midlands since 1976 now providing a wider context for the original work (Clay 1999). However this is partly negated by gaps in the archive including some of the finds.

RA 1 The understanding of Bronze Age funerary practices and associated ritual activity both nationally and in the East Midlands (Clay 1981; 1989; Finn 1998; Hughes 1996).

The potential here is good for both Sites 1 and 2. Although primary burial information was limited in view of the acidity of the soil for Site 1, the later cremation cemetery is of importance in showing changes from the earlier to later Bronze Age. This potential is enhanced by its comparison with the large cremation cemetery from Eye Kettleby excavated in 1996, also in the Wreake valley, 10 km to the northeast (Finn 1998). The burial assemblage in Site 2 is an important group in the context of the East Midlands. The age of the burial (c. eight years) and the size of the monument has implications for the understanding of status during the Early Bronze Age.

RA2 The study of land use and settlement in the Soar valley (Beamish 1998; Ripper 1996; 1998; Monckton 1995).

The potential here is limited. No buried soils or waterlogged deposits were identified during the fieldwork and the sampling strategy to recover plant remains was limited.

RA3 It will enable processes of change to be examined (EH 1997, PC) from ceremonial use during the Early Bronze Age to possible settlement during the Iron Age with re-use as a burial area in the Anglo-Saxon period.

The potential here is limited. No later use of the monuments was identified other than the Later Bronze Age cemetery discussed above.

RA4 The transition from Bronze Age to Iron Age landscapes (EH 1991 p 37; EH 1997, PC3; P7) may include evidence of special deposition adjacent to the burial mound.

The potential here is limited. No evidence of later special deposition was identified.

RA5 The re-use of monuments (Bradley and Williams 1999). The discovery of secondary insertions of Iron Age, Roman and Anglo-Saxon date has greatly increased the research potential of the excavation of the monument. A very unusual combination of artefacts from the mound has the potential to contribute to our understanding of monument re-use over c.2500 years (eg Williams 1998; Semple 1998).

The potential here is limited. No later use of the monuments was identified other than the Later Bronze Age cemetery discussed above.

RA6 The presence of features cutting the buried soil beneath the mound may provide information on pre-barrow settlement and land use during the Neolithic and early Bronze Age (EH 1997 PC2; P6).

The potential here is limited. No mound material or buried soil was identified during the fieldwork

2.3 The Environmental Remains

Summary (for the full Assessment reports please refer to Appendix 3)

During the course of the excavations soil samples were taken to retrieve information on the contemporary environmental context of the site. These included sampling for charred plant remains (Areas A and C); pollen and plant macrofossils (Areas C and D) and insect remains (also Areas C and D).

2.3.1 Charred Plant Remains

Angela Monkton

Introduction

During the excavations a programme of soil sampling was implemented for the recovery of charred plant remains. The features sampled included an Iron Age round house, a Bronze Age round barrow ditch and mound which had later features of Roman and Anglo-Saxon dates cut into it (Area A), and an area of prehistoric and later features, (Area C).

Statement of Potential

There were too few charred plant remains for analysis or interpretation. As the remains are at a constant low level over the prehistoric to the Saxon period it is impossible to say if they originate from any particular phase or if they are residual from previous phases. There was considerable soil disturbance apparent in the barrow so contamination from later phases is also a possibility. The remains found are consistent with those found from the Bronze Age to the Roman period on other sites in the county, and may well date from the Iron Age occupation of the site as a low density scatter of domestic waste (**RA2**). This is with the possible exceptions of the remains in the Roman pot (**RA5**) and the pre barrow contexts (**RA2**). The very small number of charred remains found included glume wheat, hulled barley and hazel nutshell, occasional seed fragments and tubers were also present. The small amount of remains may perhaps be explained by the low-lying situation of the site and the ritual use of the site during most of the phases.

2.3.2 Pollen and Plant Macrofossils

James Greig

Summary

Samples were taken from deposits in Area C and Area D for the retrieval of pollen and plant macrofossils. A pollen profile from Trench 1 in Area C provided 4 bulk samples 25cm deep monolith, from which 3 sub-samples were taken. A 1.25m deep profile (COS99), 15 bulk samples and a monolith were taken from palaeochannel deposits in Area D. 3 sub-samples were taken from the monolith.

Potential for Analysis

The material has well-preserved and abundant pollen from Areas C and D and seeds from Area D which show very good potential to find out about an occupied prehistoric landscape. This will add to the discussion on the settlement of river valleys in the prehistoric period, in accordance with some of the Research Aims of the project, for example the settlement and land use of the Soar valley, and more generally settlement and land use during the Neolithic and Bronze Age (**RA2**).

2.3.3 Insect remains

Mark Robinson

Summary

Sequences of bulk organic samples were taken from the 'marshy' deposits of Area C and palaeochannel layers in Area D for the analysis of biological remains including insects. All of the samples assessed from Area D contained identifiable insect remains albeit in small numbers. There was an absence of insect remains from the Area C samples and the preservation of organic remains was poor.

Potential for Further Analysis

The assessment has shown that the insects from the bottom three samples from the Area D channel section have the potential to give useful information on the environment of the site (**RA 2 & 6**). Five more samples from this part of the sequence were not assessed. The archaeological significance of the results, however, is entirely dependant on the dating of the sediments. On faunal grounds alone, they could belong from any period from Neolithic to post-medieval. The samples from Area D are small, but it would be possible to obtain large enough insect assemblages for detailed analysis by combining adjacent samples from the same context.

The low concentration of insect remains in the upper two samples from the Area D channel and the absence of insect remains from the Area C peat mean that these samples have no potential for further work.

2.4 The Lithic Material

Lynden Cooper

Summary (for the full Assessment please refer to Appendix 4)

Approximately 1,230 pieces of flint were recovered from the excavation, principally from the barrow area. The majority of the assemblage represents unmodified debitage although 41 pieces (3.4%) were modified. The group shows a wide chronological range including a backed blade, tentatively identified as Late Upper Palaeolithic, a small Mesolithic component indicated by several microliths, bladelets and associated cores, and Neolithic blades and blade-like flakes associated with the marshy deposits of Area C. The majority of pieces were assigned a unique small finds code and recorded 3-dimensionally. These pieces are listed on the excavation small finds register with cross reference to context numbers. Grid co-ordinates are mostly recorded on the EDM files. A small proportion of material has only been recorded/located to context. Small finds extensions have been added to these pieces during assessment. All of the material was scanned to identify any diagnostic pieces and all obviously modified pieces were recorded by type. The debitage products from a 20 % sample were recorded to basic type with additional notes for potentially chronological features (eg true blade production, patination, microburins). This sample was randomly selected and should include material from each stratigraphic group. The data was recorded on pro-forma sheets.

Potential for Analysis

Further analysis of the lithic material has the potential to contribute to the following research themes:

Technological and typological definition of the lithic assemblage.

This will provide a firm basis for further lithic analysis and allow the assemblage to be compared with other sites in the region. It will allow a consideration of raw material procurement strategies, identify core reduction methods and identify the structure of the assemblage. It is suggested that the lack of large stratified groups precludes full metrical analysis.

Contribute to the establishment of a firm chronological framework (RA1, RA2, RA6).

The flint may contribute to the dating of the structural and stratigraphic record complementing the results from pottery study and radiocarbon assay.

Identify the structure and any patterning of the assemblage (RA1, RA2, RA6).

The structure of the assemblage will allow consideration of the activities undertaken at the site such as flint debitage, tool use, discard and formal deposition. Spatial patterning will provide a behavioural consideration.

Relate structure and patterning to chronological and functional differences (RA1, RA2, RA6).

Identify the different raw materials used and investigate possible sources (RA2).

Most of the worked flint is of a local source – the derived pebble and small nodule forms found in Glacial tills in this region. However, there are a few examples of possibly exotic material. These include the triangular arrowhead and scale flaked knife. Also, four blades were of an opaque, chert-like material.

Identify site formation processes (EH 1997, MTD5).

2.5. The Ceramic material

Patrick Marsden

2.5.1 Prehistoric

Summary (for the full Assessment please refer to Appendix 5)

A total of 506 sherds of prehistoric pottery, weighing 7662g was recovered from the excavation. The material is typically Iron Age in date and is likely to be all of the East Midlands Scored Ware tradition, which has a mid to late Iron Age association (as early as the 5th century BC to the 1st century AD although dating of this type of pottery is problematic – see Elsdon 1992b). Pottery was recovered in varying quantities from 29 contexts although larger groups (over 1000g) were recovered from three contexts: 1 – a pit; 7 – the roundhouse gully and 34 – a possible oven. Although relatively small in comparison, the assemblage is comparable to excavated groups from other nearby mid-late Iron Age sites at Wanlip (31kg, Marsden 1998), Enderby I and II (35kg, Elsdon 1992a and 13kg, Marsden, 2004), the late Iron Age settlement at Elms Farm, Humberstone, Leicester (>67kg Marsden, 2000) and the settlement at Manor Farm, Humberstone, Leicester (>75kg Marsden, 2003).

Statement of Potential

This is an important assemblage for the region. Assessment of the pottery shows it to be related to Research Aims 3, 4 and 5 of the Project Design.

Suggested further analysis for this material category:-

Provenance and trade

Further fabric analysis, utilising a limited thin-section programme, should be undertaken given the site's proximity to the granodiorite outcrops at Mountsorrel. These igneous inclusions have been found in pottery at sites such as Wanlip, Leicestershire (Marsden 1998) and Gamston, Nottinghamshire (Knight 1992). This will improve knowledge of the provenance of the local pottery and understanding trading networks.

Detailed recording of form and decoration should be undertaken. This will enable the identification of any chronological changes and rare forms/decoration and/or those characteristic of the site.

Dating (RA 3)

The manipulation of the finds and site data will be undertaken to establish/confirm site phasing. In general this may help towards a greater understanding of the dating of East Midlands Scored Ware.

Nature of Key Groups and Possibility of Structured Deposition (RA 4 & 5)

Analysis of targeted ceramic groups is proposed to address the possibility of 'structured deposition'. Examination of these deposits should take full account of any other material such as the significant deposits of metalwork or animal bone. The implications to our understanding of the site, and its areas of different activity can then be assessed. Closer analysis, including fabric, form, and decoration, of the three groups identified will increase understanding of the social significance and provenance of the pottery.

Local and Regional Comparisons (RA 3)

Comparisons, including those of fabric, form, and decoration, will be made with material from the excavations of the late Iron Age sites of Normanton le Heath (Elsdon 1994), Empingham (N. Cooper forthcoming), Tixover (*ibid.*), Kirby Muxloe (Cooper 1994), Weekley, Northamptonshire (Jackson and Dix 1987), St Nicholas Circle, Leicester (Pollard 1994) and Blackfriars and Bath Lane, Leicester (Clamp 1985). Other assemblages include the mid-late Iron Age sites Enderby Enclosure 1 (Elsdon 1992a) and Enderby Enclosure 2 (Marsden 2004), the middle Iron Age site at Wanlip (Marsden 1998) and Elms Farm and Manor Farm, Humberstone, Leicester (Marsden 2000, 2003).

Site Function and Status (RA 4)

The pottery recovered may help improve knowledge of the function and status of the roundhouse and activity when compared to the material from other comparable sites, such as Enderby Enclosure 1 (Clay 1992) and Enclosure 2 (Meek *et al* 2004), Elms Farm, Leicester (Marsden 2000), Kirby Muxloe (Cooper 1994) and Weekley (Jackson and Dix 1987).

2.5.2 Roman

Summary (for the full Assessment please refer to Appendix 5)

172 sherds (2239g) of Roman pottery were recovered from three of the excavated contexts. Approximately 85% by weight of the assemblage was from a single vessel in sandy ware fabric (Context 83). Several sherds of similar date were identified amongst the small finds.

Potential for Analysis

Analysis of the Roman pottery has the potential to contribute to all of the above research aims. In particular the assessment has highlighted that deposition of the complete Roman pot would appear to be deliberate and structured. It therefore amplifies the study of monument re-use (**RA 3 – 5**). Further work will concentrate on analysis of this sandy ware jar. This will include fabric, form and parallels from other Leicestershire sites.

2.6. The Small Finds

Susan Ripper

Summary (for the full assessment see Appendix 6)

Bronze Age

During the excavation of the barrow in Area A, small finds were recovered from both Bronze Age and Anglo-Saxon contexts. 13 Bronze Age beads forming an arc were located to the southeast of the mound centre, indicating a discrete burial, most likely of a necklace. No discernible bone fragments or grave cut were apparent although possible stone edging may have demarked the original grave.

Anglo-Saxon

Four groups of iron spears and knives, two in association with rivets/nails were located within the barrow mound and most likely represent the remains of Anglo-Saxon 'warrior' burials. In Cut 85 a rectangular formation of rivets/nails (represented by iron stains) may have indicated the remains of a buried box. A further dispersed

group included a shield boss, horse teeth a bead and nails and may represent the remains of a fifth grave. Scattered items including rivets and horseshoe fragments were also noted.

Potential for Analysis

Bronze Age

The Bronze Age beads are a unique group in an East Midlands and form part of the only faience necklace from a known context anywhere in the country (A. Sheridan pers. com.). The sequence of the *in situ* beads was: jet (212), faience (213), cannel coal (214), amber (215), amber (216) with a further eight amber beads recovered from spoil. The amber beads varied in size (c.3 – 6mm) which suggest a pattern. They will form a unique contribution to the study of Bronze Age necklaces (and faience in particular), and may yield important information regarding importation of goods, location of manufacture and techniques of manufacture. They will also contribute to the study of burial practices in the Bronze Age (**RA 1**).

Anglo-Saxon

It is clear that the Saxon burials have suffered some disturbance resulting in a degree of fragmentation and dispersal of the grave contents. It is also clear that the acidic sandy soils on the site have removed all evidence of human remains. In some areas of the mound however (Cuts 85 and 345) areas of apparent burial appear to have retained their integrity, with relatively coherent finds groups represented. The Saxon ironwork has the potential to address the question of monument re-use and the type of grave goods located with Saxon burials (**RA 3 & 5**).

2.7. The Animal Bone

Jennifer Browning

Summary (for the full Assessment please refer to Appendix 7)

A small assemblage of animal bone, comprising 78 fragments, was recovered during excavations and watching brief at Cossington (X.A35 1999). The bone was all hand-recovered: although a programme of sieving was implemented, this yielded no further skeletal remains.

Area D

A quarryman recovered a mammoth tusk during the watching brief conducted during phase 1.

A number of bones (22 fragments) were recovered from the base of a silted channel or lake deposit in Area D (context 163). A further 16 unstratified bone fragments were also recovered nearby. Appendix 7 contains a listing of these bones. These groups comprised bones of aurochs (*bos primigenius*), domestic cattle (*bos taurus*), red deer (*cervus elaphus*) and pig (*sus scrofa*). Various bone elements were represented, however it is clear that these bones do not represent whole carcasses. A red deer metatarsal showed signs of disease. The antlers had been chopped from the skull of a red deer. A bird bone (cf. *Anas platyrhynchos*- mallard) was also recovered from this deposit.

Area A- phase J

Twelve horse teeth, comprising complete left and right sets of upper cheek teeth, were recovered from the mound, along with a few fragments of maxillary bone (SF1270). These were found, apparently *in situ*, with the occlusal surfaces facing upwards. These most likely indicate a decayed horse cranium (*equus caballus*) but it is possible that they represent the remains of a horse burial. There has been some difficulty in establishing the date of finds buried in the mound material, however it is thought that these may be associated with Saxon artefacts also recovered.

Area A- phase K

Pig bones, representing several young animals, were recovered from a square-edged pit dug into the mound (context-80, cut 81). This is thought to be modern - an assertion supported by the good preservation of the bone, compared with other deposits on the site.

Area C

A small group of bones, including horse and domestic cattle, were recovered from a layer overlying marshy ground. Unfortunately, this deposit is not securely dated and the bones do not derive from a discrete deposit. However, the marshy ground is thought to be Neolithic in date.

Statement of Potential

The bones represent an interesting but disparate group of material. The mammoth tusk provides additional evidence for Pleistocene terraces in the Soar Valley, although the lack of precise provenance makes it of limited research potential in the context of the projects aims and objectives.

Bones were recovered from the base of a silted palaeochannel deposit (context 163). Unfortunately, no other artefacts were found in association with this deposit. Nevertheless, these bones provide useful information about the environment in the Neolithic and Early Bronze Age (RA6). The bones clearly do not represent the deposition of whole carcasses, which suggests that they may be the result of successive episodes of fluvial deposition. It is not possible to ascertain where the animals might have entered the water; however, fluvial processes are likely to scatter even whole carcasses. The rate at which the connective tissue weakens varies for different anatomical parts (heads are often lost first) and additionally different bone elements are likely to travel through the water at different rates (Behrensmeyer and Hill 1980, 170-81).

There was little bone associated with the barrow. Acid sand and gravel soils often yield little or no bone, however tooth enamel is often the last element to survive in these conditions. A group of horse teeth (SF1270) may represent the remains of a horse burial, perhaps associated with the postulated warrior burials (RA3).

3. Updated project design

3.1 Summary Statement of Potential

The fieldwork at Platts Lane, Cossington has the potential to address, to varying degrees, the research aims identified in the UPD (see below). The study of local variation in funerary practices is an ongoing research theme for Leicestershire and the East Midlands (e.g. Clay 1981; 1998). The monument complex at Cossington includes the current excavation and evidence from two related barrows excavated in 1976 (O'Brien 1976). A variety of different funerary practices was evident between the three monuments including inhumations with and without grave goods and urned and unurned cremations of Early and Later Bronze Age date. The 1999 excavations have also revealed further variations including possible inhumations with beads of Bronze Age date and possible pebble cists.

The evidence from the 1999 excavation is unusual in the variety of different periods represented in the barrows reuse. In addition to the Bronze Age material, the barrow had material insertions of Iron Age, Roman and Anglo-Saxon date. This has implications for the way in which the site was used by successive communities and implies a continuation of reverence for the area as an 'ancestral zone'. Potentially this also includes the specific relationship of the Iron Age structure juxtaposed with the Bronze Age barrow. The discovery of secondary insertions from the Iron Age, Roman, and Anglo-Saxon periods has the potential to contribute to our understanding of monument re-use over c.2500 years. Recent discussion has focussed on the re-use of barrows as a focus for later prehistoric activities, perhaps as a reference to ancestral rights of land ownership (Hingley 1999). The information from Cossington will also add to a growing body of evidence for Anglo-Saxon re-use of barrow monuments for burial, and emphasises the distinctive place of these monuments in Anglo-Saxon society and ideology (Williams 1998, 2003; Semple 1998).

Although evidence for pre-barrow activity from the excavation of Area A is unclear, supporting archaeological and palaeoenvironmental evidence from Areas C and D may enable a reconstruction of how the area was used before, during and after the construction of the barrow cemetery. This will contribute towards an understanding of valley exploitation during the Neolithic and Early Bronze Age and complement similar, ongoing research in the Thames and Trent Valleys at Yarnton (Hey 1996) and Willington (M. Beamish pers. comm.).

3.1.1 Research Themes

The remains from Cossington have the potential to contribute to various regional and national research aims:-

(Research Aims 1 – 6 are taken from the Updated Project Design (Clay 1999), Research Aims 7 – 9 are new. Objectives are in italics)

RA 1 The study of local variation in Neolithic - Bronze Age funerary practices and associated ritual activity both nationally and in the East Midlands

As part of a dispersed barrow cemetery the three excavated barrows at Cossington indicate a variety of form and show evidence of multi-phase use. The burial practices include:

- 1976 excavation, Site 1; a single re-cut ring ditch with central feature and a middle Bronze Age urn cemetery
- 1976 excavation, Site 2; a double ring ditch with a central crouched inhumation burial of a young male child and grave goods, and a cremation urn in a stone cist.
- 1999 excavation, Area A; a single re-cut ring ditch, no central feature but the burial of a jet, amber and faience bead necklace on the southern edge of the mound.

The study of local variation in funerary practices is an ongoing research theme for the East Midlands (Clay 1981; 1998, forthcoming). The bead necklace will contribute unique information regarding both the manufacture of 'special' items and how they were buried.

Analyse structural, stratigraphic and dating evidence from the three sites. Interpret spatial groupings and burial practices from analysis of beads, lithics, ceramics, human remains and cremated bone.

RA 2 The study of locational change in prehistoric land use and settlement in the East Midlands

Study of prehistoric settlement and land use in the East Midlands has identified the importance of major river valleys as locational *foci* for settlement (Clay 1996). Located at the confluence of the rivers Soar and Wreake, the Cossington barrow cemetery may further suggest that confluences provided a focus for monumental activity.

At a site-specific level, the barrows show a change in land use from inhumation burial grounds to an urn cemetery. During the Iron Age the roundhouse (Area A) suggests a domestic use of the site.

Scan Sites and Monuments Records for location of other barrows in the East Midlands. Attempt to interpret the chronology, contemporary land use and economy of settlement from analysis of structural evidence together with dated environmental remains.

RA3 Processes of change from ceremonial use during the Early Bronze Age to possible settlement during the Iron Age with re-use as a burial area in the Anglo-Saxon period.

Processes of change are ongoing national research themes (EH 1997:PC 3: *Communal Monuments into Settlement and Field Landscapes c2000-300BC*). The evidence from fieldwork at Cossington is unusual in the variety of different periods represented. The transition of the landscape from monumental (barrows) to domestic (round house) is evident. The burial of an exquisite bead necklace made from imported raw materials suggests the barrow was a high status monument.

Evidence from the 1976 excavations indicates changes in ceremonial use during the Bronze Age from an inhumation to a cremation cemetery. In addition to the Bronze Age material the 1999 barrow has had insertions of Romano-British and Anglo-Saxon date, suggesting continued reverence for the area as an 'ancestral zone'.

Attempt to interpret function and chronology of ceremonial evidence from analysis of structural and stratigraphic evidence together with lithics, ceramics and the beads.

RA4 The transition from Bronze Age to Iron Age landscapes (EH 1991 p 37; EH 1997, PC3; P7) may include evidence of special deposition adjacent to the burial mound.

The Bronze Age landscape includes the transition from ring ditch round barrows to an urn cemetery. The burial of a complete Sandy Ware vessel suggests continued ritual activity into the Roman period. Further fragments of Iron Age pot found near and in the mound may be remnants of plough damaged 'special' deposits.

The relationship of the Iron Age structure juxtaposed with the Bronze Age barrow may be clarified during analysis. Interpretation of the material from the structure and its environs may enable the function of the building to be assessed with the key question of whether it formed part of a settlement or whether a single building was deliberately located next to the mound and formed a shrine or similar.

Attempt to interpret chronology, spatial groupings and function from analysis of ceramics, lithics, small finds and structural and stratigraphic evidence.

RA5 The re-use of monuments.

Stratigraphic evidence from all three Cossington barrows would suggest they were all multi-phase monuments. The bead necklace was found at the edge of the barrow and may note a primary deposit. The Site 2 barrow was reused as a middle Bronze Age urn cemetery.

The discovery of secondary insertions of Iron Age, Romano-British and Anglo-Saxon date has also increased the research potential of the 1999 Area A barrow. Collectively, the Cossington data will contribute to the growing evidence of re-use of monuments and emphasises the distinctive place of the barrow in Anglo-Saxon society and ideology (Williams 1997, Williams 1998, Semple 1998).

Attempt to interpret chronology and function from analysis of ceramics, lithics, small finds, horses teeth, human bone analysis and structural and stratigraphic evidence.

RA6 Settlement and land use during the Neolithic and early Bronze Age (EH 1997 PC2; P6).

The fieldwork at Cossington has provided a sample of the Soar Valley landscape from the Neolithic onwards. The two waterlogged deposits in Areas C and D are one of a very few in the East Midlands which have the potential for pollen sequences and are of regional importance (Clay forthcoming). Together with recent work at Narborough bog, Kirby Muxloe, Hemington and Croft this will contribute to ongoing research into the prehistoric palaeo-environment of central England (Monckton 1995) and national research into transitions to farming (EH 1991, p.36; EH 1997, p.44) and from communal monuments into settlements and field landscapes (EH 1997, p.44). The location of numerous animal bones in the silted river channel, with some slight evidence of butchery, may also provide some scope for dating although their origins are unclear.

Attempt to establish the contemporary land use from further analysis of pollen columns, insect analysis, animal bones and structural and stratigraphic evidence.

RA7 The sequence and dating of alluvial deposits.

Alluviation in the Soar and Trent basins is an ongoing research project by ULAS and Dr Tony Brown of Exeter University. This project has the potential to offer comparative information to that from Raunds, Kirby Muxloe, Cossington and Hemington (Brown et al 1994, Brown forthcoming a-c).

Date the pollen diagram from the Easterly palaeochannel, Area D.

RA8 Access to resources and trade connections.

The movement of both raw materials and finished artefacts is evident during the early Bronze Age, for example the import of continental metalwork (the Breton rapier from Lockington: Needham 2000). Trade patterns within the Bronze Age are a research aim for the East Midlands (Clay 2001). The bead necklace establishes trading contacts with the east of England and it is probable that the raw amber was imported from Scandinavia. It is

likely that the faience bead was produced locally (A. Sheridan *pers. com*). The jet is of a type mostly seen in the north of England and Scotland while the amber is reminiscent of Wessex culture amber beads.

Attempt to interpret trade links through scientific analysis of pottery and beads.

RA9 Manufacture of special finds.

Analysis of both the Bronze Age beads and the Anglo-Saxon metalwork will help to establish how they were made (carved, made on a pole lathe, forged etc.) and perhaps indicate where they were made (imported as raw materials or as completed objects).

Attempt to interpret manufacturing processes and trade links through scientific analysis of pottery, metalwork and beads.

3.2 Aims and Objectives of the Analysis

The aims and objectives of the project are related to the primary goals set out in *Exploring Our Past* (English Heritage 1998). Full analysis of the project results, based on the UPD, and subsequent publication will contribute to advancing understanding of England's archaeology and will also contribute important information to the ongoing development of regional and national research frameworks. By integrating the results of the two 1976 excavations the final report will contribute to the dissemination of information from backlog projects. The publication will furthermore increase external awareness of English Heritage and its involvement in projects such as this.

There is high potential for the results of the analysis to be promoted to the general public. To realise this potential a programme of Outreach events, based on the results of the analysis has been included in the UPD. Presentations, exhibitions and popular, web-based reports of the archaeology at Cossington will help promote archaeology to the public and widen understanding of the historic environment in accordance with the aims set out in *Power of Place: the Future of the Historic Environment* (English Heritage 2000) and *The Historic Environment: a Force for our Future* (DCMS 2001).

The research aims will address the following questions:

A/O 1 What are the origins of the site and how did it develop over time?

A refined and well-dated stratigraphic sequence will be crucial to understanding the detail of the sites origins and evolution through time. Analysis of the stratigraphic information from the three barrows as a group will enhance such understanding and inform on the origins and development of the small cemetery.

- *A/O 1.1 What are the origins of activity on the site?*
- *A/O 1.2 What is the evidence for changing settlement and land-use between the late Neolithic and early Bronze Ages?*
- *A/O 1.3 What is the relative dating evidence from the stone tool typology?*
- *A/O 1.4 What are the origins of the barrow cemetery?*
- *A/O 1.5 What is the evidence for contemporary funerary activity in the Bronze Age?*
- *A/O 1.6 What is the evidence for changing use of the site from the Bronze Age into the Iron Age?*
- *A/O 1.7 What is the evidence for re-use of the barrow mound in the Iron Age (1999 excavation)?*
- *A/O 1.8 How does the barrow relate to apparently 'domestic' Iron Age activity nearby (1999 excavation)?*
- *A/O 1.9 What is the evidence for Roman re-use of the barrow mound (1999 excavation)?*

- *A/O 1.10 What is the evidence for Anglo-Saxon re-use of the barrow mound (1999 excavation)?*

A/O 2 What was the contemporary environment of the site?

Analysis of the environmental information will be needed to understand the contemporary environment of the site and how it changed during the development of the various site phases.

- *A/O 2.1 What date are the environmental remains and how do they relate to the archaeology (Areas C and D)?*
- *A/O 2.2 What date are the animal bones from Area D and what is their taphonomy?*
- *A/O 2.3 What can the pollen remains tell us about the contemporary environment (Areas C and D)?*
- *A/O 2.4 What can the insect remains tell us about the contemporary environment (Area D)?*
- *A/O 2.5 How does the environmental evidence from Areas C and D compare? What do they tell us about environmental change over time?*
- *A/O 2.6 How does the evidence from the site complement previous/ongoing research into settlement of river valleys in the region?*

A/O 3 What was the place of the site within contemporary local and regional religious, economic and settlement systems during its development?

Artefactual analysis will help to understand the role of the site within wider contemporary scenes. Analysis of artefacts that suggest the importance of external resources and producers, together with a study of published archaeological records relating to the local and regional area will help to understand the site its local and regional context.

- *A/O 3.1 Why is the site where it is?*
- *A/O 3.2 How does the site compare with other similar barrow cemeteries in the East Midlands?*
- *A/O 3.3 What is the evidence for contemporary Bronze Age settlement with the cemetery, locally and regionally?*
- *A/O 3.4 What can the Bronze Age beads tell us about contemporary manufacturing techniques and trade links?*
- *A/O 3.5 What is the evidence for contemporary Iron Age settlement, locally and regionally?*
- *A/O 3.6 What can the Iron Age and Roman pottery tell us about contemporary manufacturing techniques and trade links?*
- *A/O 3.7 What is the evidence for contemporary Anglo-Saxon settlement/burial, locally and regionally?*
- *A/O 3.8 What can the Anglo-Saxon metalwork tell us about contemporary manufacturing techniques and trade links?*

3.3 Publication and Presentation

3.3.1 Interim reports

An Interim Report has been produced (Clay and Ripper 1999), a synopsis published in the local journal (Ripper 1999) and an abstract prepared for the ULAS web page (<http://www.le.ac.uk/ulas/>).

The faience bead has been included in a *Corpus* of faience being compiled by Dr. A. Sheridan (National Museum of Scotland, *forthcoming*).

3.3.2 Academic Publication

It is envisaged that the final report will be published in monograph format as part of the British Archaeological Reports, British Series. The editors at Archaeopress have been approached with the publication proposal and have responded positively. A spin off article based on the evidence for monument reuse could also be prepared for inclusion in an appropriate journal such as the *Transactions of the Leicestershire Archaeological and Historical Society* or, depending on the results of the analysis, *Proceedings of the Prehistoric Society*.

The monograph report structure will depend on the results obtained from the proposed analysis, however a suggested outline is as follows:

1. **Introduction.** Background to the project, site location, topography, geology and circumstances of discovery. Illustrations.
2. **The excavation.** Methods, structural and stratigraphic descriptions integrated with dating information and finds analysis, with appropriate illustrations.
3. **Flint report** Methods and analysis with appropriate illustrations.
4. **Pottery report.** Methods and analysis with appropriate illustrations.
5. **Small finds report** Methods and analysis with appropriate illustrations.
6. **Environmental analysis.** Methods and results of pollen, insect and plant macro analysis.
7. **Animal bone analysis:** Methods and analysis with appropriate illustrations.
8. **Discussion.**

3.3.3 Outreach

To complement the academic publication of the project results a programme of Outreach tasks has been scheduled into the post excavation budget. These include:

- Compilation and installation of a permanent display board in the Charnwood museum detailing the archaeology of Cossington quarry.
- Installation of display board on the site of Cossington quarry (presently being turned into a wildlife/nature reserve)
- An open day to be held at Jewry Wall/Charnwood Museum.
- Production of a pamphlet based on the display boards, to be made freely available in local museums.
- Preparation of publicity/press release following completion of the analysis.
- Inclusion of summary report on the ULAS website (<http://www.le.ac.uk/ulas/>)

3.3.4 Archive Deposition

Upon completion of the analysis the site archive will be deposited with Leicestershire Museums Service under the Accession Number A50.1999.

3.4 Methods statement

3.4.1 Structural and stratigraphic data

Analysis of the structural and stratigraphic data will assist in meeting the project aims and objectives that are related to temporal and spatial aspects of the site (Aim A/O 1 and Objectives A/O 1.1 – 1.10)

Provisional context grouping has already been undertaken as part of the assessment phase of the project. Given the general lack of stratigraphic sequencing the first stage in the analysis will be the presentation of the evidence for the context groups, in detailed text sections and illustration, as appropriate. Computerisation of context records and photograph indices will be undertaken primarily to assist in the interrogation of the finds data and as

a means of indexing context, group, phase and finds information. Context records will be entered onto a customised database (Access) in a very basic form. Where stratigraphic sequences do survive these will be analysed at this stage. Relevant stratigraphic and spatial distribution data will be disseminated to the various material category specialists. Information received back from the specialists will be assessed and integrated with the stratigraphic and structural data. The site sequence will then be presented. The final report will synthesise the findings of all the various data classes. Illustrations will include a combination of the context group plans, primary survey data, photographs and digitised hand drawn plans and sections in digital format.

Tasks

1999 Excavations

- S1** Describe and illustrate pre-barrow features: (JT 3 days)
- S2** Describe and illustrate Bronze Age features. (JT 7 days)
- S3** Describe and illustrate Iron Age / Romano-British features: (JT 4 days)
- S4** Describe and illustrate Anglo-Saxon features: (JT 4 days)
- S5** Describe and illustrate medieval and post-medieval features: (JT 3 days)
- S6** Computerise context records: (JT 5 days)
- S7** Incorporate specialist data: (JT 5 days)
- S8** Phase sites: (JT 3 days)
- S9** Document analysis/library research: (JT 3 days)
- S10** Produce site plans: (JT 13 days)
- S11** Illustrate selected sections: (JT 8 days)
- S12** Illustrate selected features: (JT 4 days)
- S13** Write report: (JT 15 days)
- S14** Dissemination of results (JT 4 days)
- S15** Edit final report including all specialist reports: (JT 4 days)
- S16** Consultation during analysis and report writing (SR 5 days)

Total 90 days

1976 Excavations

- S16** Update discussion (Gossip 1994) in the light of recent research: (PC 15 days)
- S17** Scan and modify illustrations: (JT 10 days)
- S18** Integrate data into 1999 report: (JT 5 days)

Total 30 days

3.4.2 Charred plant remains

No further work is recommended.

A summary of the samples taken and remains found should be included in the site report as it is important to have information for the comparison of sites in the region. Identification of charcoal may provide some environmental information and show the species exploited as fuel. Sufficient charcoal is available for radiocarbon dating (see Section **3.4.11 Scientific Dating**).

Tasks

Charred Plant Remains

- E1** Write report: (AM 1 day)
- E2** Co-ordinate samples and information for external specialists: (AM 3 days)

General Environmental

- E3** Final report: Summary of environmental information: 3 days (AM)

Total : Angela Monckton (7 days)

3.4.4 Pollen and plant macrofossils

Analysis of the environmental remains will contribute to Aim A/O 2 and the specific objectives related to this aim (A/O 2.1, 2.3-2.6). They also have the potential to contribute towards an understanding of the sites origins and development as a result of the dating programme (Aim A/O 1, Objectives A/O 1.1, 1.2, 1.6).

Pollen samples: Obtain more detail of level of human activity, especially clearance of woodland and signs of crops and grassland which have already been indicated by the outline pollen diagram. Increase existing pollen counts up to proper amount of 200-250 grains in the pollen sum, which may exclude *Alnus* and *Corylus* (11 samples), count intermediate levels (10 samples). Extract and identify enough terrestrial plant material from at least 3 horizons for AMS dating.

PPM1 Area D finish initial 3 counts, prepare and count samples every 2.5 cm (6 in all). (JG 6 days)

PPM2 Macrofossil samples: Area C extract and study plant macrofossils from remaining 5 bulk samples. Finalise identifications and record extra taxa from first 6 samples. (JG 9days)

PPM3 Prepare report integrating botanical data with evidence from other environmental studies such as beetles and molluscs, with archaeological data and with the chronology. (JG 4days)

Total: James Greig (19 days)

3.4.5 Insect remains

Analysis of the environmental remains will contribute to Aim A/O 2 and the specific objectives related to this aim (A/O 2.1, 2.3-2.6). They also have the potential to contribute towards an understanding of the sites origins and development as a result of the dating programme (Aim A/O 1, Objectives A/O 1.1, 1.2, 1.6).

Aims

Any decision on further analysis should await the dating of the lower part of the Area D channel. Should it prove to date from a period archaeologically relevant to the site, sufficiently large samples should be analysed from this part of the column to be able to characterise the environment in the vicinity of the channel.

Method Statement

Further sub-samples from the lower part of the Area D sequence should be washed over onto a 0.2mm mesh and subjected to paraffin flotation. The insect remains so recovered, along with the insect remains recovered for the assessment from these samples, should be identified fully with the aid of reference specimens. The results should be used to prepare a publication report including an insect diagram.

Task List

- I1** Processing and sorting additional sub-samples: (technician 12 days)
- I2** Identification of insect remains: (specialist 8 days)
- I3** Preparation of publication report: (specialist 5 days)

Total 25 days

3.4.6 Lithics

Analysis of the lithics will contribute to a number of the project aims and objectives. In particular the lithics analysis can inform those aspects of the analysis relating to chronology and site use (Aim A/O 1, Objectives A/O 1.1; 1.2; 1.3 and possibly 1.4 and 1.5). Inclusion of the assemblage from the 1976 excavations will increase the value of the assemblage from the cemetery as a whole to enable comparison with similar sites in the region (A/O 3.2).

1999 Excavations

L1 Technological and typological analysis of all pieces with results put onto Access database and production of archive catalogue (LC 10 days).

- L2** Collate spatial and contextual data on Access database (LC 1 day).
 - L3** Prepare research archive report with appropriate tables and graphics. The report will be structured by stratigraphic group with a chronological overview (LC 2 days).
 - L4** Spatial analysis to identify structure and pattern of flint discard. Produce appropriate illustration of flint distribution (LC 2 days).
 - L5** Choose material for illustration, liaise with illustrator and check results (LC 1 day).
 - L6** Illustrate material (DWH 3 days)
 - L7** Prepare publication report (LC 3 days).
- Total (Lynden Cooper): 19 days**
(DWH-Illustrator): 3 days

1976 Excavations

- L8** Update lithics report in the light of recent research (LC 10 days).

Total (Lynden Cooper (10 days)

3.4.7 Prehistoric pottery

Analysis of the Iron Age pottery has the potential to inform on Aim A/O 1, Objectives A/O1.7 and A/O 1.8. It may also contribute to an understanding of the manufacture of ceramics in the area and inform on potential trade links with other areas (Aim A/O 3 and objective A/O 3.6). Further analysis of the Bronze Age pottery from the earlier excavations will inform the aims and objectives relating to the sites development over time (Aim A/O 1, Objectives A/O 1.4, A/O 1.5) and those relating to the place of the site within its wider contemporary scene (Aim A/O 3, Objective A/O 3.2).

Methods for Further Prehistoric Pottery Analysis

These follow those stated in the Prehistoric Ceramics Research Group Guidelines (PCRG 1997) and include the following : -

1. Fabric Analysis. Using a binocular microscope (x 20 magnification) and fabric record sheets to enhance the existing fabric series based on the range of inclusions, clay matrix, colour, hardness, texture, and firing (completed). Thin-section programme to add clarity to fabric analysis.
2. Form Analysis. Vessel, rim and base forms to be identified using D. Knight's 'Guidelines for the Recording of Later Prehistoric Pottery from the East Midlands' (1998).
3. Type of decoration will be recorded, with particular reference to scoring techniques.
4. Quantification. This includes sherd number, weight (already completed for assessment), and for targeted groups any rim and base diameters to produce EVEs.
5. In addition, analysis of firing, surface treatment, manufacturing techniques, any residues, perforations, abrasion, re-use, and cross-context sherd joins.

1999 Excavations

- PP1** Form recording: (PM 0.5 days)
- PP2** Decoration, surface treatment and sooting: (PM 0.5 day)
- PP3** Context groups and spatial distribution (3): (PM 0.5 day)
- PP4** Fabrics: (PM 1 day)
- PP5** Thin-sections (3 samples, Dr D. Williams): -
- PP6** Selection of material for illustration, captions and checking of drawings: (PM 0.5 days)
- PP7** Report sections: (PM 2 days)
- PP8** Discussion: (PM 1 day)
- PP9** Bibliography: (PM 1 day)
- PP10** Revision and checking of edited report: (PM 1 day)
- PP11** Illustrations (to be arranged, 2 days)

Total (P. Marsden): 8 days

Total (Illustrator) c. 3 illustrations: 2 days

1976 Excavations

PP12 Update pottery archive in the light of recent research (PM/ Consultants Anne Woodward 10 days)

3.4.8 Roman pottery

Analysis of the Roman pottery has the potential to inform on Aim A/O 1 and Objective A/O1.9. It may also contribute to an understanding of the manufacture of ceramics in the area and inform on potential trade links with other areas (Aim A/O 3 and objective A/O 3.6).

RP1 Complete jar: (PM 0.5 day)

RP2 Report: (PM 1 day)

RP3 Revision and checking of edited report: (PM 0.5 days)

RP4 Illustrate material (TBA, 1.5days)

Total (P. Marsden): 2 days

Total (Illustrator) c. 1 illustration: 1.5 day

3.4.9 Small finds

The Small Finds analysis will contribute to many of the research aims and objectives, in particular those relating to the original use of the 1999 barrow (Aim A/O 1, Objective A/O 1.4, 1.5) and to its later reuse in subsequent periods (Aim A/O 1, Objective A/O 1.10). The Small Finds may also be able to contribute towards an understanding of contemporary manufacturing techniques in the Bronze Age and Anglo-Saxon periods (Aim A/O 3, Objectives A/O 3.4 and 3.8) and the position of the site within wider settlement networks of the different periods (Aim A/O 3, Objectives A/O 3.3, A/O 3.4, A/O 3.7 and A/O 3.8).

SF1 Analyse beads, write report: (Alison Sheridan, National Museum of Scotland no charge)

SF2 Illustrate beads and photograph: (Marion O'Neil, British Museum 5 days)

SF3 Analyse metalwork, write report: (Richard Knox, Leicestershire County Council 3 days)

SF4 Illustrate metalwork (c. 18 items): (Illustrator 3 days)

SF5 Photograph metalwork (c. 7 items) (TBA 0.5 days)

SF6 Conserve remainder of metalwork (14 pieces) (G.Morgan 1 day)

Total Graham Morgan (1 day), Richard Knox (3 days), Illustrator/photographer (3.5 days)

3.4.10 Animal bone

No further recording is recommended for the pig bones (context 80), which are believed to be modern. Similarly, a basic record should suffice for the poorly dated bones from Area C (context 210).

It is proposed to produce a fuller record of the bone from the palaeochannel (context 163) and to carefully examine it for the presence of butchery marks, gnawing and other human modifications. A radiocarbon date may help to link the bone evidence with human activity around the site.

Spatial analysis of the SF1270 deposit in relation to finds of metalwork and other finds may help suggest a date. However, it may be beneficial to attempt radiocarbon dating of the horse teeth, which may serve to help establish or disprove the suggestion that they may be part of a Saxon warrior burial. If a more conclusive date is

established it is proposed to attempt to use the crown height measurements to help suggest the age of the animal (Levine 1982).

AB1 Completion of the analysis (Jennifer Browning – JB 0.5 day)

AB2 Research and report production (JB 1.5 days)

Total (Jennifer Browning): 2 days

3.4.11 Scientific Dating

A successful dating programme will contribute towards a better understanding of the sites origins and development (Aim A/O 1). This could potentially include a more detailed understanding of the barrow cemeteries development (by considering the earlier dates from the 1976 excavations) and the dating of specific episodes (such as the Iron Age roundhouse and associated features). It will also help to understand the relationship of the preserved environmental sequences in Areas C and D to the archaeological remains (A/O 2.1).

Dating of Waterlogged deposits:

Channel in Area D.

Analysis of pollen, plant macrofossils and insect remains as specified in the assessments by James Greig and Mark Robinson depends upon dating of the deposits. It is suggested that for Area D plant macrofossils of land plants are extracted and identified for submission for radiocarbon dating by the AMS method. Top, middle and bottom of the column should be dated to compare with dating evidence from the archaeological features.

Additional time will be needed for extraction and submission of material for dating (James Greig or Angela Monckton).

NB Mark Robinson is unable to carry out the analysis of the insect remains so David Smith will be asked to do the work instead.

Area D Faunal Remains (Layer 163)

Representative samples of each major species should be dated from the palaeochannel group to ascertain if they are a discrete deposit or if a wide range of dates is represented.

Peat layer in Area C

Analysis of pollen and plant macrofossils are suggested from this area, possibly Saxon in date. (Insect remains were not preserved).

It is suggested that for Area C plant macrofossils of land plants are extracted and identified for submission for radiocarbon dating by the AMS method. Top, and bottom of the layer should be dated to compare with dating evidence from the features. Additional time is needed for this (James Greig or Angela Monckton).

Charcoal from the site

Charcoal has been recovered from bulk samples wet-sieved for charred plant remains. Charcoal from features which require radiocarbon dating should be identified and short lived material should be selected for radiocarbon dating by an appropriate method. Advice should be sought regarding material and methods.

Additional time is required for identification of charcoal (Graham Morgan) and submission for radiocarbon analysis (AM/JT).

Suggested contexts for radiocarbon dating

The following contexts contain discrete, well-sealed deposits of charcoal which, pending species identification, may be suitable for radiocarbon dating:

Barrow ditch

Context 489 (Sample 72), Context 637 (Sample 77)

Iron Age Features

Context 28 (Sample 8 – Roundhouse gully terminal), Context 30 (Sample 18 – Pit), Context 34 (Sample 19 - ?Oven)

Further information about these samples can be found in **Appendix 4**, Table 3.

Time required for radiocarbon submissions and co-ordination of environmental archaeology:

SD 1: Selection of plant macrofossils from additional samples (top, middle and base of column) plus submission forms: 4 days (James Greig)

SD 2: Charcoal identification: 1 day (Graham Morgan)

SD 3: Bone identification and selection for submission (Layer 163): 1 day (JCB)

SD 4: Charcoal and bone submission forms: 3 days (AM)

SD 5: Radiocarbon meetings: 2 days (AM) and 3 days (JT)

Total: James Greig (4 days); Graham Morgan (1 day); Jennifer Browning (1 day); Angela Monckton (3.5 days); John Thomas (4.5 days)

3.4.12 Outreach

Display Board/Pamphlet

DB 1: Plan format: 1 day (John Thomas)

DB 2: Choose and prepare images: 1 day (JT)

DB 3: Write text and compile board: 2 days (JT)

DB 4: Editing/alterations: 1 day (JT)

DB 5: Produce A1-sized copies and encapsulate: 1 day (University of Leicester Audio Visual Services)

DB 6: Transfer display board contents to pamphlet format: 3 days (JT)

DB 7: Produce pamphlets for distribution 1 day: (Uni. of Leics. Audio Visual Services)

Press Release/Web Information

PR 1: Compile summary report for press release: 1 day (John Thomas)

PR 2: Upload summary report and images onto ULAS web pages: 1 day (tba)

Total: John Thomas (9 days)

3.4.13 Archive Deposition

AD 1: Archive digital data and produce catalogue: 2 days (John Thomas)

AD 2: Archive material and paper record and produce catalogue: 2 days (JT)

AD 3: Deposit archive with receiving body: 1 day (JT)

Total: John Thomas (5 days)

3.5 Resources and Programming

3.5.1 Project team

ULAS staff (in alphabetical order)

Jennifer Browning (JB) Field Officer, Responsible for the initial processing, recording, assessment and analysis of the animal bone.

Dr. Patrick Clay (PC) Co-director of ULAS. Responsible for management of the project.

Lynden Cooper (LC) Project officer. Responsible for the assessment and analysis of the lithics.

Patrick Marsden (PM) Finds Officer. Responsible for the assessment and analysis of the prehistoric and Roman pottery.

Angela Monkton (AM) Environmental Officer. Responsible for the assessment and analysis of the charred plant remains.

Susan Ripper (SR) Project Officer. Co-director of the excavations. Responsible for assembling and co-editing the assessment report. Will also act in a consulting role during the analysis of the structural and stratigraphic data and the writing of the final report..

John Thomas (JT) Project Officer. Responsible for co-editing assessment report and UPD. Also responsible for stratigraphic and structural analysis, assembling, writing and editing the final report.

External specialists

James Greig (JG) (English Heritage). Responsible for the assessment and analysis of the pollen and plant macrofossils.

Richard Knox (RK) (Leicestershire County Council (Archaeology)). Responsible for the assessment and analysis of the Anglo Saxon metalwork and bead.

Marion O'Neil (Illustrator, National Museum of Scotland). Responsible for illustrating the beads.

David Smith (University of Birmingham). Responsible for the assessment and analysis of the insects.

Dr. Alison Sheridan (Assistant Keeper of Archaeology, National Museum of Scotland). Responsible for the analysis of the Bronze Age beads.

David Williams (Ceramic petrologist, Southampton University). Responsible for thin sections of the ceramics.

3.5.2 Timetable

It is proposed that the analysis will be completed within the financial year 2006 – 7, with a start date to be agreed following comments from English Heritage. At this stage a cascade chart with appropriate monitoring points will be submitted.

3.5.3 Budget

Capped developer funding of £18,750.00 was provided by RMC Group (Eastern) plc. Ltd. (formerly Wanlip Gravel Company). This covered costs for a proportion of both the fieldwork and the compilation of this Assessment Report.

The following post-excavation analysis will include publication of the two barrows excavated in 1976 (draft specialist reports and a draft site report have been prepared but need updating prior to integrating into a single publication) as well as all areas excavated in 1999 (Areas A – D). Tasks relating solely to the 1976 excavations have been costed separately (estimated cost of £7119.5.00) within the table below.

<i>Task</i>	<i>Staff</i>	<i>Per day</i>	<i>Days/no.</i>	<i>Cost £</i>
	<i>(internal staff)</i>			
<i>1999 excavations</i>				
Project management	Patrick Clay	195.00	8	1560.00
S1-15	John Thomas	170.77	85	14,515.45
S16	Susan Ripper	186.70	5	933.50
E1-3	Angela Monkton	184.26	7	1289.82
L1-5, 7	Lynden Cooper	186.70	19	3,547.30
PP1-4, 6-10	Patrick Marsden	165.60	8	1324.80
PP11	Illustrator tba	123.85	2	247.70
RP1-3	Patrick Marsden	165.60	2	331.20
RP4	Illustrator tba	123.85	1.5	185.78
AB1-4	Jennifer Browning	142.80	2	285.60
SF5	Photographer tba	100.00	.5	50.00
SF6	Dr.G Morgan	100.00	1	100.00
SD 2	Dr. G Morgan	100.00	1	100.00
SD 3	Jennifer Browning	142.80	1	142.80
SD 4	Angela Monckton	184.26	3	552.78
SD 5	John Thomas	170.77	3	512.31
SD 5	Angela Monckton	184.26	2	368.52
DB 1-4 and 6	John Thomas	170.77	8	1366.16
DB 5	Uni of L, AVS	-	1	100.00
DB 7	Uni of L, AVS	-	1	236.70
PR 1	John Thomas	170.77	1	170.77
PR 2	John Thomas	170.77	1	170.77
AD 1-3	John Thomas	170.77	5	853.85
<i>1976 excavation</i>				
S16	Patrick Clay	195.00	15	2925.00
S17-18	John Thomas	170.77	15	2651.55
L8	Lynden Cooper	186.70	10	1867.00
PP12	Patrick Marsden	165.60	10	1656.00
Computer consumables				110.00
Graphics materials				50.00
Sub total				(£38,205.36)
	<i>(external staff)</i>			
PPM 1-3	James Greig	-	19	(EH)
I1	David Smith	75.00	12	900.00
I2-3	David Smith	165.00	13	2145.00
L6	Illustrator tba	123.85	3	371.55
PP5	David Williams	-	-	100.00
SF1	Alison Sheridan	-	-	No charge
SF2	Marion O'Neil	80.00	5	400.00
SF3-4	Richard Knox	224.00	6	1344.00
SD 1	James Greig	-	4	(EH)
Sub total				(£5, 620.55)
Unit overheads @ 25%				£9,551.34
External overheads @ 10%				£526.25
Gross total				£53,543.50

3.6 Acknowledgements

We would like to thank, Anne Graf, Peter Liddle and Richard Knox of LMARS, James Greig and Mark Robinson of English Heritage, Dr. Alison Sheridan of the National Museum of Scotland, Graham Morgan of the School of Archaeological Studies, University of Leicester and RMC Group (Eastern) plc. Ltd. (formerly Wanlip Gravel Company) for their help and co-operation with this project.

3.7 Bibliography

- Andrew, R., 1984 *A practical pollen guide to the British flora*. Quaternary Research Association, Technical Guide 1, Cambridge
- Beamish, M, 1996 An Evaluation of Cropmarks and Geophysical Survey at Cossington, Leicestershire. ULAS Report Number 96/006 (unpublished)
- Beamish, M., 1998. 'A Middle Iron Age site at Wanlip, Leicestershire' *Transactions of the Leicestershire Archaeological and Historical Society* **72**, 1-91.
- Beamish, M., forthcoming Transect of a Landscape Excavations of Prehistoric and Medieval Sites at Tixover, Rutland, Leicestershire 1991
- Bennett, K.D., 1994 Annotated catalogue of pollen and pteridophyte spore types of the British Isles. unpublished report.
- Bradley, R. & Williams, H., (eds) 1998 'The past in the past: the re-use of ancient monuments' *World Archaeology* **30** (1)
- Brown, A.G., Keough M.K. and Rice R.J., 1994 Floodplain evolution in the East Midlands, United Kingdom: the Late Glacial and Flandrian alluvial record from the Soar and Nene valleys. *Phil. Trans. Royal Soc. London A*
- Brown in Cooper L. and Ripper S., forthcoming *The Hemington Bridges: the excavation of three medieval Trent Bridges at Hemington Quarry, Castle Donington, Leicestershire (provisional title)*
- Chapman, A., 1999 *The Neolithic and Bronze Age in Northamptonshire*. East Midlands Archaeological Research Frameworks Resource Assessment.
- Clamp, H., 1985 'The Late Iron Age and Romano-British Pottery' in Clay, P., and Mellor, J.E., *Excavations in Bath Lane, Leicester* : Leics Museums, Art Galleries and Records Service Archaeological Report 10, 41-62.
- Clarke D.V. et al 1985 'Symbols of Power at the time of Stonehenge' National Museum of Antiquities of Scotland, Edinburgh. Her Majesty's Stationery Office
- Clay, P., 1981 *The excavation of two multi-phase barrows at Sproxton and Eaton, Leicestershire* Leicestershire Museums Art Galleries and Records Service Archaeological Report No.2.
- Clay, 1999 'The Neolithic and Bronze Age of Leicestershire and Rutland' *Trans. Leics. Archaeol. Hist. Soc.* **73**
- Clay, 1999 Design Specification for an archaeological watching brief at Platts Lane, Cossington, Leicestershire (ULAS 4.8.1997)
- Clay P., 2000 An Archaeological Resource Assessment and Research Agenda of the Neolithic and Early-Middle Bronze Age of the East Midlands
- Clay, P. and Ripper, S., 2000 Platts lane, Cossington, Leicestershire - Interim report. ULAS Report 2000/23.
- Cooper, L.P., 1994 'Kirby Muxloe, A46 Leicester Western Bypass (SK 530 050)' in *Trans. Leics. Archaeol. Hist. Soc.* **68**, 162-165
- Cooper, N., forthcoming 'The Iron Age Pottery' in Cooper, N., *The Archaeology of Rutland Water*
- CPM., 1995 An archaeological assessment of land at Platts Lane, Cossington, Leicestershire Countryside Planning and Management CPM 1224H.2 09/95/dwp
- DCMS 2001 *The Historic Environment: A Force for our Future*
- EH 1991 *Exploring our past; strategies for the archaeology of England* (English Heritage)
- EH 1997 *Draft Research Agenda* (English Heritage)
- EH 1998 *Implementation Plan for Exploring our Past*
- EH 2000 *Power of Place: The Future of the Historic Environment*
- Elsdon, S.M., 1992a 'The Iron Age Pottery' in Clay, P.N., 'An Iron Age Farmstead at Grove Farm, Enderby, Leicestershire' *Trans. Leics. Archaeol. Hist. Soc.* **66**, 1-82.
- Elsdon, S.,M., 1992b 'East Midlands Scored Ware' *Trans. Leics. Archaeol. Hist. Soc.* **66**, 83-91.
- Elsdon, S., 1994 'The Iron Age Pottery' in Thorpe, R., and Sharman, J., 'An Iron Age and Romano-British Enclosure System at Normanton le Heath, Leicestershire' *Trans. Leics. Archaeol. Hist. Soc.* **68**, 35-45
- Fægri K. and Iversen J., 1989 *Textbook of pollen analysis* (4th edn.), by K. Fægri, P.E. Kaland and K. Krzywinski, Wiley, Chichester.

- Finn, N., 1999 Eye Kettleby, Leicestershire. Revised Assessment and Updated Project Design. ULAS Report 99/35
- Gossip, 1998 An Archaeological Watching Brief During Topsoil Stripping North of Platts Lane, Cossington, Leicestershire. ULAS Report 98/145 (unpublished)
- Green, F., 1999 Assessment for further analysis: pollen and diatoms in Ripper 'Willow Farm Business Park, Castle Donnington, Leicestershire: Assessment for further analysis'. ULAS Report 99/92
- Green, H.S., 1980. *The Flint Arrowheads of the British Isles*, British Archaeological Reports, British series 75. Oxford: British Archaeological Reports.
- Grieg, J., 1998 Assessment of environmental Samples in Ripper 'The excavation of a burnt mound at Watermead Country Park, Birstall, Leicestershire; Assessment Report and Updated Project Design.' ULAS Report 97/13
- Grieg, J., 2000 Assessment of Environmental Data in Beamish 'Willington Quarry Extension, Willington, South Derbyshire: Post-excavation Assessment. ULAS Report 2000/54
- GSB, 1995 Report on Geophysical Survey, Cossington, Leicestershire. Geophysical Surveys of Bradford Report 95/113 (unpublished)
- Halpin, C., 1987 'Irthlingborough Bronze Age Barrow Excavation' in B.Dix(ed) 'The Raunds Area Project: Second Interim Report'. *Northamptonshire Archaeology* 21; 3-29
- Higgins, T. 2002 'Cossington, Cossington Quarry, Platts Lane (SK601 135).' In *Archaeology of Leicestershire and Rutland 2001, TLAHS* 76, 105-6.
- Hingley, R. 1999 'The Creation of Later Prehistoric Landscapes and the Context of the Reuse of Neolithic and Earlier Bronze Age Monuments in Britain and Ireland.' In B. Bevan (ed) *Northern Exposure: Interpretive Devolution and the Iron Ages in Britain*. Leicester Archaeology Monographs 4.
- Hughes, G., 1996 'Lockington'. *Current Archaeology* 46;44-49
- Jackson, D., 1976. The Excavation of Neolithic and Bronze Age Sites at Aldwinckle, Northants., 1967-71. *Northamptonshire Archaeology* 11, pp.12-70.
- Jackson, D.A. & Dix, B., 1986-87 'Late Iron Age and Roman Settlement at Weekley, Northants.' *Northamptonshire Archaeol*, 21, 41-94.
- Jensen, H.J., 1994 *Flint tools and plant working : hidden traces of Stone Age technology : a use wear study of some Danish Mesolithic and TRB implements*. Aarhus : Aarhus University Press
- Kent D.H., 1992 *List of vascular plants of the British Isles*. Botanical Society of the British Isles, London.
- Knight, D., 1984 *Late Bronze Age and Iron Age settlement in the Nene and Great Ouse Basins* (BAR Brit Ser 130: 1) Oxford
- Knight, D., 1992 'The Iron Age pottery' in Knight, D., 'Excavations of an Iron Age settlement at Gamston, Nottinghamshire,' *Transactions of the Thoroton Society of Nottinghamshire*, 96, pp.16-90 (pp. 39-64).
- Kloet, G.S. and Hincks, W.D. 1977 *A check list of British insects, 2nd edition (revised): Coleoptera and Strepsiptera*, Royal Entomological Society of London; Handbook for the Identification of British Insects 11, pt 3. London.
- Liddle, P., 1979-80 'An Anglo-Saxon Cemetery at Wanlip, Leicestershire.' In *TLAHS* Vol. LV.
- Liddle, P., 1982 *Leicestershire Archaeology. The present state of knowledge. Part 1 to the end of the Roman Period* Leicester: Leicestershire Museums Art Galleries and Records Service Archaeological Report No.4.
- Liddle, P. and Middleton, S., 1994 'An Anglo-Saxon Cemetery at Wigston Magna, Leicestershire.' In *TLAHS* Vol. LXVIII
- Marsden, P.L., 2000 'The prehistoric pottery' in Charles, B.M., Parkinson, A., and Foreman, S., 'A Bronze Age Ditch and Iron Age Settlement at Elms Farm, Humberstone, Leicester', *TLAHS*, 74
- Marsden, P.L. , 2003 'The Late Bronze Age and Iron Age pottery.' In J. Thomas *Manor Farm, Humberstone, Leicester: Post Excavation Assessment Report and Updated Project Design*. Unpublished ULAS Report No. 2003-200
- Marsden , P.L., 2004 'The Iron Age and Roman Pottery' in J. Meek, M. Shore and P. Clay, 'Iron Age Enclosures at Enderby and Huncote, Leicestershire'. *Transactions of The Leicestershire Archaeological and Historical Society* 78.
- Monkton, A., 1995 'Environmental Archaeology in Leicestershire' *Trans. Leics. Archaeol. Hist. Soc.* 69, 32-41
- Needham S., 2000 'The gold and copper metalwork' in Hughes 2000, 23-47
- Needham, S.P. *et al* 1991 Excavation and salvage at Runnymede Bridge 1978; the late Bronze Age waterfront site. London, British Museum/English Heritage.
- O'Brian, C.F., 1976 'Excavation at Cossington – an interim note' in A. D. McWhirr, 'Archaeology in Leicestershire and Rutland'. *Transactions of the Leicestershire Archaeological and Historical Society* 69,321-41.
- Ozanne, A., 1962-3 'The Peak Dwellers'. *Medieval Archaeology* 6-7, 15-52
- Pickering, J. and Hartley, R., 1985 Past Worlds in a Landscape. Leicestershire Museums, Art Galleries and Records Service, Archaeological Report Series No.11.

- Pollard, R., 1994 'The Iron Age and Roman Pottery' in Clay, P., and Pollard, R., *Iron Age and Roman occupation in the West Bridge Area, Leicester Excavations 1962-1971*. Leics Museums Arts and Records Service
- Posnansky, N., 1955 'The excavation of a Bronze Age round barrow at Lockington, Leicestershire', *Transactions of the Leicestershire Archaeological and Historical Society* **69**; 32-41.
- Prehistoric Ceramics Research Group 1997
Ripper S., 1999 *The Study of Later Prehistoric Pottery: General Policies and Guidelines for Analysis and Publication Occasional Papers nos 1 and 2*, revised 1997
Cossington, Platts Lane. *Transactions of the Leicestershire Archaeological and Historical Society* **74** p.237
- Robinson, M., 2001 Assessment of insect remains from a peat deposit and a palaeochannel at Cossington, Leicestershire. Unpublished assessment report.
- Semple, S., 1998 The Past in the Past: The reuse of ancient monuments. *World Archaeology* vol30 p.109-126
- Thomas, J., 2003 'Prehistoric Pit Alignments and their Significance in the Archaeological Landscape.' In J. Humphrey (ed) *Re-searching the Iron Age*. Leicester Archaeology Monographs **11**
- Williams, H., & Bradley, R., 1998 The Past in the Past: The reuse of ancient monuments. *World Archaeology* vol30 p.90-108
- Williams, H (ed), 2003 *Archaeologies of Remembrance: Death and Memory in Past Societies*. London: Kluwer Academic/Plenum publishers
- Windell, D., 1989 'A late Neolithic 'Ritual Focus' at West Cotton, Northamptonshire', in A.Gibson (ed.) *Midlands Prehistory*. Oxford: British Archaeological Report (British Series) **204**, p.85-94.
- Young R. *et al* 1992 Fieldwork and excavation at the Crawley Edge Cairnfield, Stanhope, Co. Durham. *Durham Archaeological Journal*. Vol 8, p.39-40
- Young, R. and Bevan, L., 2000 'The flint' in G. Hughes, *The Lockington Gold Hoard*, Oxbow, pp.62-75.

Appendix 1**Assessment for further analysis: Stratigraphic and Structural data**

Susan Ripper

Factual Data**Quantity of records**

The site archive comprises:

- 726 context records
- 97 pencil drawn plans on 17 A2 permagraph sheets
- 225 pencil drawn sections on 24 A2 permagraph sheets
- indices (for plans, sections, small finds, timbers, environmental samples, photographs)
- 94 survey files (in .log, .obs and .acd format)
- all surveys have been tied to NGR grid references
- 513 colour slides
- 538 monochrome negatives with contact prints
- 1 box of animal bones
- 2 boxes of pottery
- 2 boxes of flint (1,230 pieces)
- 1319 small finds (including flint and some pottery 3-dimensionally recorded)
- 97 environmental samples
- 55 phosphate samples

Provenance**Table 1: Phases of fieldwork**

Phase of Project	Nature of Investigation	Report no.
Oct. 1995	Geophysical Survey	BGSB 95/113
Jan. 1996	Stage I evaluation of geophysical anomalies and cropmarks	ULAS 96/006
May 1997	Stage II evaluation of 'blank' areas	ULAS 97/55
Aug. 1998	Watching brief and topsoil stripping	ULAS 98/145
May 1999	Excavation of barrow area and watching brief	ULAS 2000/23

Table 2: Contexts

Area	Phase	Groups	Description	Approx. no. of contexts
A	A	1 – 6	Pre-barrow activity seen after the removal of the mound. A series of well-defined circular pits but definition of many features was poor (sandy sub-soils). Some features, especially a group of narrow, erratic gullies, were thought to derive from animal activity.	198

A	B	7	Excavation of ring ditch and construction of mound, early Bronze Age. Poor preservation of the mound will provide only a limited insight into the constructional sequence of the monument. Modern cut at centre of barrow. Central burial may have been robbed by metal detectors.	2
A	C	8	Insertion of early Bronze Age 'Bead' burial and poss. cist	6
A	D	9	Disuse of ring ditch, later Bronze Age /early Iron Age	87
A	E	10	Slightly anomalous stone clusters in poorly defined cuts. These may just be part of the construction of the mound (Phase B), may be marking primary deposits (i.e. Phase C) or may be marking later deposits.	10
A	F	11	Linear features cut by roundhouse gully, ?pre-Iron Age	6
A	G	12	Construction of roundhouse, Iron Age	1
A	H	13 – 15	Construction features of the roundhouse and surrounding features, Iron Age	38
A	I	16-20	Iron Age/Roman re-use of barrow as a monument	42
A	J	21	Saxon re-use of the barrow as a monument	4
A	K	22	Modern features	16
C	-	23	Post-hole/pit alignment (?Iron Age)	26
B&C	-	24	Area of marshy ground (prehistoric). Organic remains surviving.	8
C	-	25	Ditches aligned east/west (prehistoric)	10
B	-	26	Ditch aligned northwest/southeast (prehistoric)	2
B&C	-	27	Ditch aligned n-northeast/s-southwest (prehistoric)	4
B	-	28	Small sub-oval enclosure & associated pits. Could be Saxon burial mound with kerb.	12
B	-	29	Anomalous undated pits / post-holes	24
B	-	30	Curving shallow ditches (medieval)	66
D	-	-	Easterly palaeochannel river silts(inc. auroch bones, pig and butchered red deer). Organic remains surviving.	9
D	-	-	Westerly palaeochannel river silts. No organic remains.	8
-	-	-	Unassigned contexts	147

Range and Variety

Deposits investigated consisted of positive layers (e.g. mound deposits) and the negative cuts and fills of features of Bronze Age to medieval date. Group numbers have been used to associate features (e.g. *Group 13: all post holes within the roundhouse gully*) and each group has then been placed into phases of activity (e.g. *Phase A: all features thought to pre-date the ring ditch*). Both group and phase classifications are likely to change in the light of further information. For brevity, individual features are referred to by cut numbers only.

AREA A

Phase A (Fig. 3) – Pre-barrow activity seen after the removal of the mound. Definition of cuts was poor in the sandy sub-soils and many features, especially a group of narrow, erratic gullies, were thought to derive from animal activity.

Group 1: Large circular pits below subsoil. (Cuts 642, 658, 663, 674, 681, 692, 699)

A group of 7 circular pits lying beneath the subsoil and therefore pre-dating the mound. All were between 1.5 – 2.10m diameter, by c. 0.40m deep and contained loose sandy fills. Cut 692 contained four worked flints, cereal grains and a number of burnt pebbles. 692 and 699 were both sampled for phosphate analysis.

Group 2: A ?four-post structure. (Cuts 519, 521, 523)

Three post holes, with the fourth apparently obliterated by the excavation of the ring ditch. They would seem to form a structure with dimensions of 3 x 2.15m, with its long axis aligned north-east / south-west.

N.B. Given the form of the apparent '4-post structure' it is a possibility that the feature is of Iron Age date and therefore broadly contemporary with the roundhouse (Phase G). This was considered at the time of excavation and the 'missing' post hole was looked for extensively in the ditch fill. Unfortunately no evidence was recovered to confirm or contradict either explanation.

Group 3: Gullies cut by the ring ditch. (Cuts 399, 464, 547, 551, 570, 584)

Six narrow, shallow gullies that were cut by the ring ditch.

Group 4: Gullies lying below the mound (Cuts 179, 389, 391, 393, 395, 402, 406, 421, 430, 432, 434, 439, 442, 466, 470, 472, 474, 525, 536, 541, 545, 549, 562, 564, 566, 568, 576, 578, 582, 586, 588, 590, 598, 605, 683, 689, 696, 697, 701, 703, 705, 717, 723)

Numerous narrow gullies apparently lying below the mound. The cuts for many of these features were poorly defined and appeared to form erratic shapes. It is possible that many of these features were animal burrows.

Group 5: Pits / post-holes lying within the mound. (Cuts 359, 423, 425, 428, 437, 444, 446, 454, 468, 478, 486, 488, 527, 534, 543, 580, 592, 685, 687, 707, 711, 712, 714, 718, 719)

Numerous shallow roughly circular features lying below the mound material. As with Group 4, these features were all poorly defined and may also be naturally derived. Cut 711 was found to contain cereal grains.

Group 6: Pits / post-holes lying outside the mound (Cuts 365, 639, 640, 643, 645, 647, ?660, ?662, 666, 667, 670, 672, 677, 679, 708)

Similar features to those described in Group 5, but lying outside the ring ditch. These features decrease in density with distance from the mound. If they do all pre-date the mound activity it would suggest that either this particular locality was already a focal point for activity or that they were naturally derived and the ?burrowing animals were attracted by the depth of soil provided by the mound.

Phase B (Fig. 4) – Excavation of ring ditch and construction of mound, early Bronze Age. Poor preservation of the mound will provide only a limited insight into the constructional sequence of the monument.

Group 7: Ring ditch (Cut 368) and mound (374)

The ring ditch had a radius of c.25m (inner ditch) / c.30m (outer ditch) by c.0.85m deep and the mound survived to a height of c.0.50m. Fills from the ring ditch were removed in fourteen separate segments around the circuit, each segment being 1.50m wide (i.e. approximately 25% was excavated). The primary cut of the ditch was steep sided with a curving base. Following silting of the ditch, it was re-cut with a more gently sloping and slightly wider, irregular profile. The outer edge of the re-cut ditch was slightly steeper.

The mound survived to a maximum height of c.0.50m and consisted of a mid-brown slightly silty sand. No cuts were visible within the deposit. Over c.1000 flints were recorded within the mound.

Phase C (Fig. 4) – ?Primary burial, early Bronze Age

Group 8: Bead burial (58, 357, 358)

Along the inner edge of the southern area of the ring ditch a group of thirteen beads were found, five laid out in the form of a necklace, the remainder recovered from spoil. The group included ten amber, two jet and a single faience bead. These have been identified by Dr. Alison Sheridan (National Museum of Scotland) as being

Bronze Age in date. Cereal grains were present in the fill of cut 58 and abundant charcoal was noted in adjacent cut 357. Three fragments of cremated bone were recovered from the adjacent ring ditch fill but the pieces were too small to identify as human (S. Chapman, *pers. com.*). No cut was visible in the sandy soils but a group of stones, some laid on-edge, appeared to partially demarcate the extent of the burial. It is possible that the stones were the remains of a much denuded cyst but also possible that the burial was cut into the mound at a later date, with the stones being placed to mark the grave.

Phase D (Fig. 4) – Disuse of ring ditch, later Bronze Age/ early Iron Age

Group 9: Ring ditch fills (Fills 369, 370, 371, 372, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 400, 407, 408, 409, 410, 411, 412, 414, 415, 416, 417, 418, 435, 447, 448, 449, 450, 451, 455, 456, 457, 458, 459, 460, 461, 479, 480, 481, 482, 483, 489, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 530, 531, 532, 537, 538, 539, 555, 556, 557, 558, 559, 560, 593, 594, 595, 596)

Between three and eleven fills were identified in each of the excavated segments of the ditch. The primary fills were often recorded as being almost clean sand with whirling lenses of manganese stains, suggesting wind blown sands. Following the re-cutting of the ditch, the fills became consistently siltier. In one of the upper fills of a northern ditch segment (fill 370) twenty-five sherds of Iron Age pot were identified, perhaps indicating the period from which the ditch was no longer maintained. The uppermost fill of the ditch (c.1m wide by 0.40m deep) appeared as a distinct ring of darker grey-brown silty sand and may have formed following a period of 'settling' of the earlier fills. Mound deposits were seen overlying the ditch fills perhaps suggesting that, for a period, the mound was maintained after the ditch had gone out of use. Cereal grains and charcoal in small quantities have been identified from five samples of the ditch fills.

Phase E (Fig. 4) – Slightly anomalous stone clusters in poorly defined cuts. These may just be part of the construction of the mound (Phase B), may be marking primary deposits (i.e. Phase C) or may be marking later deposits.

Group 10: Stone clusters (?grave markers) (Cuts 69, 179, 180, 118, 329)

Five clusters of sandstone and/or cobbles were identified within the barrow; two towards the centre of the mound and the remainder cut into the northern part of the ring ditch. Three had poorly defined circular cuts (cuts 69, 179 and 329) but all were notable in contrast to the otherwise stone-free mound material. No cultural material or bone was recorded with these groups of stones but it is possible that they were originally placed to mark the location of perishable deposits.

Phase F (Fig. 5) – Linear features cut by roundhouse gully, ?pre-Iron Age

Group 11: Linear features cut by the roundhouse gully. (Cut 77, 101, 116)

Three narrow ditches appeared to pre-date the roundhouse ring gully. No datable finds were recovered from the fills but it is possible that they were associated with the Bronze Age barrow activity.

Phase G (Fig. 5) – Construction of roundhouse, Iron Age

Group 12: Roundhouse ring gully (Cut 8)

The roundhouse ring gully had a diameter of 11.5m. It was c.0.35m wide by 0.20m deep, roughly circular in plan with an entrance to the east-southeast. The shallowness of the cut suggests that the cut was truncated by ploughing. Abundant Iron Age pottery and cereal grains were recovered from the fills.

Phase H (Fig. 5) – Construction features of the roundhouse and surrounding features, Iron Age

Group 13: Pits / post-holes within the roundhouse (10, 11, 13, 15, 18, 20, 48, 87, 89, 91, 93, 95, 97, 99, 103, 608, 632)

Seventeen small circular features were identified within the roundhouse ring gully which may represent the remnants of a post-built circular structure. These were mostly scattered around the entrance way with a few extending northwards arcing around the circumference of the ring gully. Almost all of the cuts were shallow and poorly defined excepting cut 20 which was 0.45m deep and filled with large cobble post-packing stones.

Group 14: Pits / post-holes immediately outside the roundhouse (Cuts 22, 24, 26, 111, 113, 610, 612, 614, 616, 618, (623, 625 & 627 could be natural).

Numerous circular and sub-circular features were identified in the vicinity, but outside, the roundhouse ring gully. A group of features around the entrance with similar fills (Cuts 48, 614 and 612) may have been post-holes supporting a fence or wind-break leading to the entrance. Majority of the remaining features had fills with a greenish hue. Micromorphological analysis on a sample of these fills (*pers. comm.* Matthew Canti, English Heritage) suggested that they were likely to have formed through natural processes.

Group 15: Linear features immediately outside the roundhouse (Cuts 40, 601, 603, 634)

A small group of ditches/ gullies which may have been drainage features associated with the roundhouse.

Phase I (Fig. 6) - Iron Age/Roman re-use of the barrow as a monument

Group 16: Pits cut into the barrow containing pottery (Cuts 2, 4, 6, 71, 82, 344, 355, 635, 636)

One pit (cut 2) to the west of the barrow contained a near complete Iron Age pot and a further five pots were buried within the mound (cuts 4, 6, 35, 635 and 636). Two Roman pots (cuts 82 and 344) were also placed within the mound, one of which (cut 82) also contained a quantity of cereal grains. No human remains were identified but it is conceivable that these were either cremations pits or ritual offerings

Group 17: Pits/ post holes post-dating mound (Cuts 348, 350, 352, 362)

A group of four small pits were cut into the uppermost fill of the ring ditch. One pit (352) contained abundant charcoal and heat affected stones.

Group 18: Rectangular burnt stone filled features (Cuts 31 and 35)

Two rectangular cuts, both c.2 x 1m by 0.30m deep, filled with charcoal and heat affected cobble stones. Cut 35 also contained abundant Iron Age pottery. Both were probably cooking pits.

Group 19: Pit cutting the ring ditch fills, containing cremated bone (Cut 724)

An organic rich deposit containing burnt bone. Although stratigraphically disparate the deposit was located next to the location of the 'Bead Burial' (Phase C, Group 8) and may be evidence of disturbance of the burial.

Group 20: Gullies cutting the ring ditch (Cut 402, 404, 386 and 572)

Two groups of shallow gullies could be seen to cut through the upper fill of the ring ditch. Both groups were poorly defined and apparently only extended over short distances. Like the gullies identified in Phase A, Group 4, these may also be naturally derived.

Phase J (Fig. 7) - Saxon re-use of the barrow as a monument

Group 21: Possible Saxon burials (Cuts 85 and 345)

Fifty-one fragments of metalwork were recovered from the site with a metal detector (see Appendix I). These included two spears, one possible sword (two with fragments of textile attached), five small knives (one with textile attached), a fragmented shield boss and numerous rivets, two fragments of bucket bindings, horse teeth, a brooch fragment, eight nails, two horseshoes and the remainder as yet unidentified. The spears/sword were all paired with knives. Spear SF290 could be seen to lie in a shallow oval cut (cut 85) which also included a number of iron studs or nails in a rectangular form (a box). The cut was located on the edge of the ring ditch cut with the long axis of the cut on a roughly north-south alignment. A similar cut (cut 345) on a similar alignment was also seen along the north-eastern edge of the ring ditch cut. This contained nails/studs, a copper alloy hoop and a knife (but no spear). It is probable that these all represent burials and may have been part of a small cemetery.

Phase K (not illustrated) - Modern features

Group 22 Modern pits and ditches (Cuts 42, 52, 54, 78, 81, 373, 444, 491)

This group includes a length of ditch (42), gullies (52 and 54), pits (78, 81), topsoil (373), a borehole (444) and a rectangular cut in the centre of the mound (491), initially thought to be a central burial but on excavation found to contain modern pottery. It is conceivable that this was a pit cut by metal detectors.

AREA B and C (Fig. 8)

Areas B and C, to the east of Area A, were monitored as part of a watching brief. The area was machine stripped using a JCB with ditching bucket and observed archaeological features were planned using an Electronic

Distance Measurer. A sample of features were hand excavated to determine stratigraphic relationships and dating.

Group 23: Post-hole / pit alignment (Cuts 189, 190, 191, 195, 198, 199, 201, 202, 204, 205, 207, 212, 213)

Thirteen post-holes/pits on a northwest-southeast alignment were exposed over a length of some 30m. Each of the pits were c.0.40m in diameter and roughly 1.4m apart. Depths varied from 0.1 – 0.5m. Pit 207 contained two worked flints and some animal bone fragments. Most of the pits were filled with a dark grey/black peaty clay. The pits were thought to either pre-date or be contemporary with the ‘marshy ground’ (group 24), but the relationship was not clearly defined due to the similarity between the pit fills and the peaty layers.

Group 24: Area of marshy ground (Layer 174, 175, 176, 208, 209, 269, 270 and 271)

The north-east quarter of the watching brief area was covered by a rich organic deposit, c.0.35m deep. This was first seen in Trench 1, and was sampled for environmental evidence (column 2), but was subsequently only seen intermittently during the machine stripping. Flint artefacts were recovered from the deposit suggesting it was prehistoric.

Group 25: Ditches aligned roughly east / west (Cuts 181, 184, 185, 186, 259)

Two intersecting ditches (relationship unknown) were observed in Area C, but were not excavated. Cut 181/185 was on an east /west alignment and was observed over some 46m. Cut 184/185 was on an east-northeast / west-southwest alignment and was observed for some 32m. No datable material was recovered from the ditches but cut 184 was truncated at its’ western end by a ?medieval ditch cut 228.

Group 26: Northwest / southeast ditch (early) (Cut 274)

A single ditch on a northwest-southeast alignment, 0.70m wide by 0.26m deep, truncated at both its northern and southern extents. The ditch had a roughly ‘V-shaped’ profile and contained at least 7 flints, suggesting it was prehistoric.

Group 27: North-northeast/ south-southwest ditch (Cut 197 and 252)

A single ditch on a north-northeast/ south-southwest alignment, 1.10m wide by 0.95m deep, with a rounded profile. Interpreted as a ‘pit alignment’ from an air photograph (SMR Ref. 61SW AV) but found to be continuous. It post-dated the ‘marshy ground’ (Group 24) but was cut by the ?medieval ditches (Group 30).

Group 28: An enclosure and associated pits / post-holes (Cut 275, 295, 297, 305, 315, 323)

Towards the northwest extent of Area B a small oval gully enclosing an area of some seven square metres was noted (Cut 275). It was roughly 3.6m long by 2.6m wide and consisted of a narrow continuous gully c.0.50m wide and varying in depth, 0.35 – 0.50m. Within the enclosure three ?post-holes were noted towards the southern end, cut 295 (0.40m diam. by 0.13m deep), cut 323 (0.35m diam. by 0.07m deep) and cut 315 (0.90m diam. by 0.35m deep). All were shallow but may be the remains of an internal structure. A further two post-holes (cut 297 and 305) were also noted immediately outside the enclosure. No finds were recovered but the enclosure gully was cut by the ?medieval ditches (Group 30). It is conceivable that this was an Anglo/Saxon grave with kerb.

Group 29: Anomalous undated pits and post-holes (Cuts 192, 193, 194, 220, 250, 264, 304, 309, 313, 318, 322, 337)

Numerous pits / post-holes and ?gully features were also identified in the watching brief area, although only a limited sample were excavated. No finds were recovered.

Group 30: Curving ditches on a north-west / south-east alignment (Cuts 126,128, 132, 134, 138, 154, 228, 230, 232, 234, 236, 238, 240, 242, 246, 254, 267, 280, 281, 282, 284, 299, 301, 326, 331, 333, 335)

A group of numerous inter-cutting ditches were identified on a north-west / south-east alignment. When compared to the medieval ridge and furrow (Hartley, 1989), the ditches coincide with a possible headland and it is likely that these ditches are also medieval in date. No finds were recovered.

AREA D (Fig. 1)

During stripping of alluvial clays in gravel extraction Area D two large palaeochannels were observed. Both were seen primarily in section and partly in plan and appeared to be on a roughly north/south alignment. They are likely to be palaeochannels of the River Soar. The more westerly of the channels was seen in the western section of the quarried area. A sample of the section was drawn and eight layers of river silts identified. Following consultation with James Greig (Environmental Archaeologist, English Heritage) the paucity of visible organic material within the silts suggested it would not be useful to sample for environmental remains.

The more easterly palaeochannel was seen both in plan (over c.20m) and in section. Eight layers of river silts were identified in section, all containing a quantity of surviving organic material. Within the lowest layer (163) large animal bones were also seen (auroch, red deer and pig) and a sample collected. There were indications of butchery on one of the red deer antlers, but it was not clear why the other animals died in this location. Bulk samples for environmental analysis and a pollen column (column 1) were taken.

Two further barrows c.400m south of the excavations (the 1976 sites)

In 1976 two barrows were excavated under the direction of Colm O'Brien. The archive material has been assessed by Patrick Clay (ULAS) and has been included as Appendix 2.

Condition of records and methods of data collection

Single context *pro forma* sheets were used to record deposits on site. These have not, as yet, been inputted onto a digital database. All survey files are tied to NGR grid references and selected information has been extracted to produce composite site plans. All quantities have been derived from the unfinished paper and digital archive.

Qualitative assessment has involved the compilation of site plans, the checking of site records and the integration of information supplied by the finds and environmental specialists. Based on this information, categories of features (e.g. all Iron Age pits cut into the mound) have been placed into provisional groups for the purposes of this assessment and the groups placed into phases.

Primary Sources and Documentation

Evidence of Late Upper Palaeolithic, Mesolithic and Neolithic activity is attested in the flintwork from the site and has been assessed in Appendix IV.

The samples of pollen and plant macrofossils taken from the eastern palaeochannel from Area D are assessed in Appendix III. The pollen profile shows one major change which could represent clearance of some of the alder carr and its replacement by sedge swamp and at the same time a record of cereal pollens. This profile may be comparable to profiles taken from Birstall (Greig 1998), Willow Farm, Castle Donington (Green 1999) and Willington (Greig 2000).

Phase 1 of the Area A excavations encompasses a range of undated pre-barrow features / natural features. A single pit contained four flints and some cereal grains, but otherwise all the features were barren. These features may represent earlier domestic activity or episodes of clearance, similar to that seen at Sproxton, Leicestershire (Clay 1981).

The Cossington barrow is part of a group of dispersed barrow monuments; five identified with further barrows possible beneath alluvial cover. As a 'barrow cemetery' it is directly comparable to the cemetery identified and partially excavated at Lockington (Posnansky 1955, Hughes 2000). Both display a variety of burial practices (cremations and inhumations with and without grave goods, primary and secondary burials, single ditches, double ditches, multi-phase use *etc*) and both cemeteries lie on the floodplain at the confluence of major rivers.

The burial of the amber, jet, cannel coal and faience necklace at Cossington has no parallels in the region but are known in Wessex (*for example* Stone 1934, 219, 222-4 *in* Clarke 1985). The jet fusiform beads are known in the north of England and Scotland (*for example* The Crawley Edge Cairnfield, Co. Durham. Young 1992), as well as from Wessex. During excavation the beads were thought to represent a buried necklace and, although slightly disturbed during discovery, a small *in situ* group appeared to retain such a form. Recent assessment of beads from barrow monuments however has highlighted the fact that very few *intact* necklaces may have been buried (Woodward 2002, 116). Evidence from other barrow sites where beads were buried suggests that small groups of beads may have had other symbolic uses as indicators of status rather than just being items of personal adornment (Woodward 2002, 119).

During the Iron Age/early Roman period a roundhouse ring ditch was built adjacent to the barrow. Debris in and around the house suggests a domestic function, although the deliberate deposition of a whole Roman pot just to the south of the mound (perhaps originally a cremation urn) suggests the area was still respected as a burial ground. Iron Age pottery in the uppermost fill of the barrow ditch suggests that by this time the monument was no longer maintained. The ring gully has parallels with the roundhouse observed at Wanlip (Beamish 1998), some 2km to the south.

Aerial photography has located numerous pit alignments in Leicestershire (Pickering & Hartley, 1985) with a notable example at Eye Kettleby, further up the Wreake Valley (Finn 1999).

During the Saxon period clusters of metalwork (including three pairs of spears/knives, a shield boss, bucket fragments, a brooch, rivets, nails etc) as well as a group of horses teeth and a flint spear were deposited in the barrow mound. These undoubtedly represent the graves of 'spearmen' or warrior burials. No parallels can be found in the immediate vicinity but upland examples can be found in the Derbyshire Peak district (Ozanne 1962-3) as well as further afield (e.g. Saltwood, Essex or Burghfield Farm, Oxfordshire). In Area B a small enclosure ditch with post holes (group 28) may be another type of Anglo-Saxon burial; the gully being a kerb to the mortuary area.

Methods of Data Collection

All quantities have been taken from the unfinished site archive.

Qualitative assessment has been made following provisional context grouping and consultation with staff involved in the finds and environmental assessment.

Appendix 2

Archive Assessment: Cossington Excavations, Leicestershire 1976 (A982.1975)

1 Introduction

1.1 This document is an assessment of the archive relating to two excavations undertaken in 4.1976 and 9.1976 by Leicestershire Museums Archaeological Field Unit directed by Colm O'Brien (CFO) for the former Leicestershire Archaeological Committee. It addresses task 18 of the *Updated project design for archaeological recording at Platts Lane, Cossington, Leicestershire (SK 601 133)* - ULAS 12.7.1999; hereinafter UPD. The excavations were of two ring ditches previously located by aerial photography in advance of gravel extraction (SK 606 128; O'Brien 1976; 1978; Liddle 1982). Situated within the parish of Cossington at c. 50m O.D, the excavations were located c.300 m north of the River Wreake and c. 1km east of the Wreake's confluence with the River Soar. The sites are identified as Site 1, a single recut ring ditch with central feature and urn cemetery, and Site 2 a double ring ditch surrounding a group of central features including a primary burial with ceramic, flint and stone grave group, a cremation in an urn and a stone cist.

1.2 Of note was the identification of a Middle-Later Bronze Age cremation cemetery, including eleven inverted urned burials, cutting the silted ring ditch in the southeast area of Site 1, the large size of the monument in Site 2 suggested by the diameter of the double ring ditch and the assemblage of grave goods associated with a central crouched inhumation burial of a young male child also in Site 2.

1.3 The assessment will include consideration of the potential for publication of the work in the light of excavations undertaken in 1999 of a similar monument and associated features c. 400m to the north.

1.4 The archive is deposited with Leicestershire Museums Arts and Records under Accession No. A982.1975. When examined (23.11.1999) it was located at the Jewry Wall Museum (Leicester City Museums) but is currently being disaggregated to Leicestershire Museums Arts and Records Service. The condition of the paper archive and artefacts located was stable. The paper archive is in card and plastic folders in a planning chest. The artefacts located were on display.

2 Quantity

2.1 The archive consists of 1) primary data - site notes, photographs and plans, 2) secondary data - interim reports and reports on the material - flint, pottery, plant remains, and, 3) a draft report prepared as a dissertation for the degree of M.A in Post-excavation Studies at Leicester University. The material is deposited with Leicestershire Museums, Arts and Records Service under Accession No. A982.1975.

2.2 The primary archive comprises:

Print of aerial photograph of Site 2 (APC25 74/236 SK 606 128 - J Pickering 1974).

1:10000 OS map with sketch plot of cropmarks.

25" to the mile OS map of area (c. 1884?).

25" to the mile OS map of area (c. 1884?) with points drawn to locate cropmarks.

Letter from Leicestershire County Planning Officer (D L Sabey) to J Mellor (Leicestershire Museums) dated 28.8.1975.

Forty-one original plans comprising 21 plans on graph paper (1:20 + one 1:50) and twenty section drawings on permatrace (1:10).

Section drawings - pencil on tracing paper (6) - unsigned - undated (P Clay c.1977?).

Typed list of feature numbers.

Typed list of context letter codes

Hand written list of feature dimensions. Unsigned-undated (PC c. 1977?).

Two flint knives, one stone lamp and two Bronze Age pottery vessels from Site 2 on display in the Jewry Wall Museum, Leicester

2.3 The secondary archive comprises:

Typed interim report by CFO 6.1976.

Typed Draft of report - CFO - undated (appears to predate early 1980's draft)

Six index cards with hand written listing of flint by groups (for illustration? - site no. not recorded. CFO (?) - undated).

Catalogue of cremations outside barrow 1.

Xeroxes of inked plan reductions and section drawings.1

Description of Artefacts – (pottery) typed draft . CFO with hand written margin notes by SME. Undated but before July 1980.

Hand written list of illustrated flint from each site. Note that originals are with D Taylor and CFO (A Graf - undated). Letter from D Taylor (Illustrator) to Alan Briggs 6.10.1988 listing flint to be drawn.

Catalogue of flint and stone finds C F O'Brien (undated)

Discussion of the Pottery – typed draft report with hand written margin notes. S M Elsdon July 1980.

Xerox of pottery illustrations with and written pencil notes by SME. Undated.

The Human bone – Anne Stirland, typed report. November 1980

B and W Prints of: 1) aerial photograph of quarry area pre-extraction. 2) aerial photograph of Site 2. 3) pre-excavation view of ring ditch site 1; 4) cist cremation burial Site 2; 5) Collared Urn F14 Site 2 in situ 6) Cremation Site 2 F25; 7) Central burial F15 Site 2. 8) Food vessel from Site 2 primary burial. (Number 6 hand written on reverse) 9) Grave group from F15, Site 2.

Correspondence from C.F.O'Brien to Sheila Elsdon (SME 7.12.1983) with attached note on C14 dates. (Hand written note shows that some C14 dates were still awaited in 1985).

Hand written notes on analysis of flint - CFO (undated).

Hand written notes listing features on each site - CFO - (undated).

Hand written Errata for site catalogue (signed A.B - undated. NB Alan Briggs (AB) sorted the archive as part of a work experience placement with Leicestershire Museums c. 1988-9 P.Liddle pers. comm.).

Distribution map of Early Bronze Age pottery from the East Midlands (undated SME ?). Key to above.

Early hand annotated draft of above with key to site names listed.

Typed plant remains report by Daryl Garton dated 6.1980 plus hand written note by DG dated 1988 noting that this was based on less than half the material. Hand written list of 'material not available to DG 6.1980'. Presumably this is a sediment sample list.

SMR Printout dated May 1994 (for J Gossip M.A Dissertation).

Hand-written list of missing items -unsigned and undated. (AB c. 1988?).

Hand written list of charcoal for C14 dating. Unsigned - undated (CFO).

Hand written list of features and contexts from Site 1. Unsigned and undated (CFO - this appears to be a list of the cremations as ring ditch and central feature are missing).

Hand written list of bone for analysis (?). Unsigned - undated (CFO).

Correspondence re C14 dates from 1) English Heritage 29.3.1985 D Haddon Rees (with hand written addition to note that no date for the primary burial in Site 2 submitted for C14 dating had been received in 6.1994). 2) CFO to SME 7.12.83. 3) To A J Clark at AML from CFO(?) 1.3.82 4) To Hazel Wheeler from CFO 1.3.82 5) From AJC (AML) to HW 13.1.82. Copy of C14 submission - undated - includes comparative dates.

Concordance of Early Bronze Age pottery from the East Midlands. Food vessels. Unsigned and undated (SME?).

Draft report from early 1980's CFO (with hand written annotation confirming approximate date).

SMR printout for site 12.12.87.

Interim note in *East Midlands Archaeological Bulletin* **12** (1978) with illustrations of pottery.

Typed draft of discussion of the pottery. Unsigned and undated (SME).

Section drawings - inked on permatrace - not labelled. unsigned - undated (PC c. 1977).

Inked plans of Sites 1 and 2 on permatrace (Unsigned and undated - PC c. 1977).

Photocopy (dieline) of plan with hand annotated labelling of Site 2 (2) (PC c. 1977).

Correspondence (invoice) concerning flint illustrations from D Taylor dated 29.11.1988.

Original flint drawings inked onto permatrace (DT)

Photocopies of flint drawings.

PMT reduction of inked and labelled pottery and flint drawings (Site 2 Central grave groups - used in *East Midlands Bulletin* **12** 1978)

List of East Midlands Bronze Age sites with material and references. Unsigned and undated (CFO ?).

Press cutting *Leicester Mercury* 4.6.1976.

Catalogue of artefacts with parallels (SME - undated).

Copies of pottery drawings (DT - originals at Nottingham University Museum).

2.4 Draft report by J Gossip submitted as a dissertation for an M.A. in Post-excavation studies at the University of Leicester 10.1994. Annotated by the examiner.

Inked section drawings (6) (JG 1994)

Inked plan of Site 1 (JG 1994)

Location plan (JG 1994)

2.5 Missing from the archive (23.11.1999) are the non-display ceramic and flint finds and soil samples. This may be due to temporary relocation due to disaggregation.

3 Range and variety

3.1 The data show a moderately wide range of information - stratigraphic, lithic, ceramic, human bone, radiocarbon dates and plant remains - which will contribute to the understanding of the Bronze Age of the East Midlands.

4. Bibliography

Beamish. M., 1998. 'A Middle Iron Age site at Wanlip, Leicestershire' *Transactions of the Leicestershire Archaeological and Historical Society* **72**, 1-91.

Bradley, R., and Williams, H. (eds), 1998 'The past in the past: the re-use of ancient monuments' *World Archaeology* **30** (1).

Clay, P., 1981 *The excavation of two multi-phase barrows at Sproxton and Eaton, Leicestershire* Leicestershire Museums Art Galleries and Records Service Archaeological Report No.2.

Clay, P., 1989 'Out of the Unknown. Approaches to Prehistoric Archaeology in Leicestershire'. In A.M. Gibson (ed.) *Midlands Prehistory*: 111-121 Oxford: British Archaeological Report (British Series) 201.

Clay, P., 1999. 'The Neolithic and Bronze Age of Leicestershire and Rutland' *Transactions of the Leicestershire Archaeological and Historical Society* **73**, 1-19.

EH 1991, *Exploring our past; strategies for the archaeology of England* (English Heritage).

EH 1997 *Draft research agenda* (English Heritage).

Finn, N., 1998 'Melton Mowbray, Eye Kettleby, Leicester Road (SK 731 180)'. *Transactions of the Leicestershire Archaeological and Historical Society* **72** 178.

Gossip., 1994. Excavations at Cossington, Leicestershire 1976. Unpublished M.A Dissertation. University of Leicester

Hughes, G., 1996 'Lockington'. *Current Archaeology* **46**: 44-49.

Liddle, P., 1982 *Leicestershire Archaeology. The present state of knowledge. Part 1 to the end of the Roman Period* Leicester: Leicestershire Museums Art Galleries and Records Service Archaeological Report No.4.

Monckton, A., 1995 'Environmental Archaeology in Leicestershire'. *Transactions of the Leicestershire Archaeological and Historical Society* **69**: 32-41.

O'Brien, C.F., 1976 'Excavation at Cossington - an interim note' in A.D.McWhirr, 'Archaeology in Leicestershire and Rutland'. *Transactions of the Leicestershire Archaeological and Historical Society* **51** (1975-6): 56 (56-63).

O'Brien, C.F., 1978 'Cossington (SK 606 128)'. *East Midlands Archaeological Bulletin* **12**, 7.

Ripper, S., 1997 'Birstall (SK 605 101)' *Transactions of the Leicestershire Archaeological and Historical Society* **70**: 87-88.

Ripper, S., 1998 *An archaeological evaluation (Phase II) of land at Wanlip Sewage Treatment Works, Wanlip, Leicestershire (NGR SK 515 114)*. (ULAS Rep No. 98/126 - unpublished).

Williams, H., 1998 'Monuments and the past in early Anglo-Saxon England' *World Archaeology* **30** (1) 90-108.

Semple, S., 1998 'A fear of the past: the place of the prehistoric burial mound in the ideology of middle and later Anglo-Saxon England' *World Archaeology* **30** (1) 109-126.

Patrick Clay
Assistant Director
23.11.1999

Appendix 3. Assessment of Environmental Data

3.1 Charred Plant Remains

Angela Monkton

3.1.1 Introduction

Excavations were carried out by ULAS directed by Joanna Sturgess and samples were taken for the recovery of charred plant remains. These can provide evidence of diet and agriculture in the past. The features sampled

included an Iron Age round house, a Bronze Age round barrow ditch and mound which had later features of Roman and Anglo-Saxon dates cut into it, and an area of prehistoric and later features, Area C.

3.1.2 Methods

Features were sampled if they were datable and had the potential to contain charred plant remains. Samples were processed from 55 contexts of 1 to 23 litres in size amounting to 681 litres of soil (table E1, Appendix III).

Processing: Samples were wet sieved in a York tank using a 0.5mm mesh with flotation into a 0.5mm mesh sieve. The residues were air-dried and the fraction over 4mm sorted for all finds which are included in the relevant sections of this report. The fraction below 4mm was reserved for sorting later if required. The flotation fraction (flot) was air dried and packed carefully in self-seal polythene bags and submitted for this assessment.

Assessment: The flots were all examined with a x10 stereo microscope, the plant remains were removed to glass specimen tubes stored with the flot. The plant remains were identified and the quantity tabulated below (table E1, Appendix III). All of the fine fraction residues were inspected by eye and little charred material was apparent, six of those with cereal remains found in the flot were also examined at x10 magnification to determine if the plant remains had been recovered by flotation.

3.1.3 Results

Very few charred plant remains were recovered from the flots and sorting some of the fine fraction residues showed that, with the exception of a few indeterminate charred fragments and small charcoal fragments, little was retained in the residues. Hence recovery of remains by flotation was not the problem as the sandy soils were dry when sampled. The plant remains recovered were mostly abraded and broken indicating that they were redeposited material. Of the 55 contexts sampled 15 produced charred plant remains other than charcoal.

Pre-barrow contexts: Two samples from cuts 692 and 711 produced single grains of wheat (*Triticum* sp) in the former and indeterminate cereal in the latter.

Bronze Age: The barrow ditch cut 368 produced a total of eight charred items from five samples each containing one or two grains including wheat, a grain of hulled barley (*Hordeum* sp.) of twisted form, indeterminate cereal grains, a smaller grain of cereal or grass (Cereal/Poaceae) and a tuber.

Iron Age: Of the 20 contexts sampled from the round house only three produced remains: the gully terminal cut 29 contained a rachis fragment of emmer or spelt (*Triticum dicoccum/spelta*) and a seed of fat-hen type (*Chenopodium album*), post hole cut 8 contained a cereal grain and a grain of cereal or grass with abundant amorphous charred material fragments which could not be identified further, and gully cut 50 contained a damaged seed and a few fragments. Other Iron Age contexts with few a few remains were a pot from pit cut 71 which contained a wheat grain, a cereal grain and a seed fragment, and post hole cut 352 in the barrow mound contained a grain of emmer or spelt. An oven cut 35 and pit cut 31 produced abundant charcoal but no other remains.

Roman: A sample from the fill of a Roman pot from pit cut 82 contained a cereal grain, a tuber and two fragments of hazel nutshell (*Corylus avellana*).

Saxon: Two burials cut into the barrow mound also contained very few remains. Cut 85 produced a grain of emmer or spelt, a wheat grain a cereal grain and charcoal, cut 345 produced only one wheat grain. Enclosure cut 295 also contained a wheat grain in the sample.

3.1.4 Statement of Potential

There were too few charred plant remains for analysis or interpretation. As the remains are at a constant low level over the prehistoric to the Saxon period it is impossible to say if they originate from any particular phase or if they are residual from previous phases. There was considerable soil disturbance apparent in the barrow so

contamination from later phases is also a possibility. The remains found are consistent with those found from the Bronze Age to the Roman period on other sites in the county, and may well date from the Iron Age occupation of the site as a low density scatter of domestic waste (**RA2**). This is with the possible exceptions of the remains in the Roman pot (**RA5**) and the pre barrow contexts (**RA2**). The very small number of charred remains found included glume wheat, hulled barley and hazel nutshell, occasional seed fragments and tubers were also present. The small amount of remains may perhaps be explained by the low-lying situation of the site and the ritual use of the site during most of the phases.

3.2 Pollen and Plant Macrofossils

James Greig

3.2.1 Summary

The material has well-preserved and abundant pollen from Areas C and D and seeds from Area D which show very good potential to find out about an occupied prehistoric landscape. This will add to the discussion on the settlement of river valleys in the prehistoric period, in accordance with some of the Research Aims of the project, for example the settlement and land use of the Soar valley, and more generally settlement and land use during the Neolithic and Bronze Age (**RA2**).

3.2.2 Factual data

The study area is in the Soar valley over gravel, which is currently being quarried. The excavations included material from the Neolithic to the Saxon period. Pollen was collected from two locations within the excavation, as follows:-

3.2.2.1 Samples

Pollen Column 1; (Area D, Fig. 01)

A palaeochannel containing organic sediments was sampled for environmental studies and dating.

	bulk sample
0 cm clay, some sand	0-14 cm
clay, sand with irregular organic bands merging into more organic material	14-20 cm
	20-25 cm
hazel nut	25-31 cm
	*25-31 cm
snails present; quite sandy	*31-40 cm
string @ 42 cm	
woody and rooty going very organic	40-45 cm
organic, with leaves; sandy with snails at bottom	*45-50 cm
	*50-55 cm
molluscs, <i>Unio</i> , large wood, roots	55-63 cm
sandier, more pebbly	63-70 cm
sandy, with snails	70-80 cm
	*80-90
sandy, gravelly, snails	*90-95 cm
siltier	*95-104 cm
correction: tape measurements on tins	
25 tin = 26 cm tape	
50 tin = 52 cm tape	
75 tin = 78 cm tape	
100 tin = 104 cm tape	

Pollen Column 2, (Area C, Fig. 08, Trench 1)

0 clay	bulk samples
brown clay	2-10 cm
3 cm string	

black layer	10-14 cm
	14-22 cm
sandy yellowish sand (not sampled)	22-26 cm

There are samples from a 1.25 m deep profile COS99, 15 bulk samples and a monolith, which has initially been sampled at an interval of 10 cm, giving a total of 13 pollen samples.

The second profile from Trench 1 provided 4 bulk samples and a 25 cm deep monolith, from which 3 sub-samples have been taken.

3.2.2.2. Laboratory work

Pollen samples were processed using the standard method; about 1 cm³ sub-samples were dispersed in dilute NaOH and filtered through a 70µm mesh to remove coarser material. The organic part of the sample was concentrated by swirl separating on a shallow dish. Fine material was removed by filtration on a 10µm mesh. The material was acetolysed to remove cellulose, stained with safranin and mounted on microscope slides in glycerol jelly. Counting was done with a Leitz Dialux microscope. Identification was using the writer's pollen reference collection, seen with a Leitz Lablux microscope. Standard reference works were used, notably Fægri and Iversen (1989) and Andrew (1984).

3.2.3 Results

The plant macrofossils are listed in Table 1, Appendix IV. The pollen results are presented in two pollen diagrams, one from the palaeochannel in Area D (Fig. 09), the other from the organic deposit in Area C (Clay and Ripper 2000) (Fig.10), which have been drawn using the TILIA software programme. The nomenclature and order of the taxa follow Bennett (1994) and Kent (1992) respectively.

The pollen was fairly well preserved, and assessment level counts of around 100 pollen grains per sample were made. Seeds were abundant to very abundant and well preserved, and are listed in order (Kent 1992).

Palaeochannel Area D, Fig 9

Trees and shrubs

The most abundant trees and shrubs are *Alnus* (alder) at 200-600% pollen sum and *Corylus* (hazel) with around 50-100% pollen sum, and because they are so hyper-abundant, *Alnus* and *Corylus* have been left out of the pollen sum, along with aquatic and wetland records.

Other tree and shrub pollen is fairly high at around 60-70% throughout the sequence, and the main taxa are *Quercus* (oak) at around 40-50% and *Tilia* (lime) at around 10-20% are also fairly abundant, and there are some less abundant taxa such as *Fraxinus* (ash) and *Hedera* (ivy).

The macrofossils all contain *Alnus* (alder) remains in the form of abundant seeds, catkins and buds, showing that an alder carr woodland grew on or very close to the spot. *Sambucus nigra* (elder) was also present throughout the sequence, but its pollen was only found in one sample. *Crataegus* (hawthorn) was also found.

A possible find of *Tilia* shows that lime woods were probably not far away on dry land, and the palaeochannel may have been an isolated wet part of a landscape which was otherwise covered by mixed with lime and oak woodland together with some other trees such as *Betula* (birch), of which a seed and pollen was found. Other probable woodland plants include *Solanum dulcamara* (bittersweet) and *Rubus* species (wild raspberry, bramble).

Various rather shade tolerant herbs were found, which may well have grown as a herb layer in the woodland, such as *Urtica dioica* (nettle), *Persicaria hydropiper* (water-pepper), *Ajuga reptans* (bugle) and *Scirpus sylvaticus* (wood club-rush).

Dry land plants, weeds etc

The 20-30% herb pollen shown in the pollen diagram includes some taxa with clearly-defined habitat requirements which help show what local environments were present. There are several pollen records

suggesting disturbed or arable land, and there are several such plants identified more exactly from macrofossils such as *Chenopodium album* (fat hen), *Stellaria media* (chickweed) *Brassica cf. nigra* (possible black mustard), *Aphanes* sp. (parsley piert), and *Valerianella locusta* which show the presence of rather light disturbed soils on dry land. This disturbed ground would normally be associated with human activity, and the presence of charcoal in all the samples but the two lowermost, and a record of cereal pollen in one sample, provide further evidence of local human activity. Possible trampled ground is indicated by the presence of *Polygonum aviculare* (knotgrass).

Grassland is probably shown by the record of around 10% *Plantago lanceolata* (ribwort plantain) throughout the pollen sequence, together with the presence of the seeds of grassland plants such as *Cerastium fontanum* (mouse-ear chickweed), *Potentilla erecta* (tormentil), *Prunella vulgaris* (self-heal), *Plantago major* (plantain) and *Leontodon* sp. (hawkbit). This shows that there was a significant area of open dry land near the site, probably kept like this by grazing animals, and therefore a sign of an occupied landscape. Wet grassland seems to be shown by abundant *Lychnis flos-cuculi* (ragged-robin).

Swamp plants, aquatics

As this is a waterlogged deposit, there is no shortage of plants that grow in or beside water, or on swamps. *Montia fontana* (blinks) grows on bare wet ground; other wet and waterside habitats are shown by the presence of plants such as *Persicaria lapathifolia* (pale persicaria), *P. hydropiper* (water-pepper), *Barbarea* sp. (yellow-cress), *Mentha* sp. (?water mint), *Senecio aquaticus* (marsh ragwort), *Eriophorum* sp. (cotton-grass), *Eleocharis* sp. (spike rush), *Schoenoplectus lacustris* (common club-rush) and probably *Carex* species (sedges).

Fully aquatic habitats probably within the palaeochannel are shown by plants such as *Nuphar lutea* (yellow water-lily), *Ranunculus* subg *Batrachium* (water crowfoot), *Myriophyllum spicatum* (water milfoil), *Alisma* sp. (water-plantain), *Potamogeton* sp. (pondweed) and *Glyceria* sp. (sweet-grass). These and the large fauna of aquatic molluscs, and aquatic beetles (Robinson 2000), show that the channel was filled with water.

Change with time

The pollen and seeds are fairly consistent over the 100 cm of the profile, but there is one major change marked by a decrease in *Alnus* and *Corylus*, and a corresponding increase in Cyperaceae, which could represent clearance of some of the alder carr and its replacement by sedge swamp. At the same time, *Tilia* pollen increases which seems unusual, unless clearance of alder carr had the effect of filtering out less of the *Tilia* from the pollen rain on the palaeochannel, therefore increasing its representation. Human activity at this point is further suggested by a record of cereal pollen. Among the macrofossils, only the lowermost 2 samples 90-95 cm and 95-104 cm contained no charcoal, and there were somewhat fewer weed records such as *Chenopodium*, *Atriplex*, *Brassica* in the bottom 3 samples (89-90 cm, 90-95 cm, 95-104 cm). This is further evidence that the amount of human activity or its closeness to the site, increased later in the profile.

The sediment also changes, from sandy at a depth of 100-50 cm to peaty 50-0 cm, which may be associated with soil erosion as a result of farming activity.

Other evidence

The beetle remains (Robinson 2000) include a significant element of grassland and dung beetles which supports the evidence of grassland plants, showing that there was an occupied farming landscape. There is also abundant evidence of aquatic and swamp insects.

Area C Trench (Fig 10)

These results are different from those of Area D discussed above. Tree pollen is generally lower at 25% (excluding *Alnus* and *Corylus*) and it goes down to about 6% at the top. This suggests that Area C was more occupied than Area D. The trees and shrubs represented are much the same, with very abundant *Alnus* and *Corylus*, followed by a range of other trees such as *Pinus* (pine), *Quercus* (oak) and *Tilia* (lime). There is some evidence from Ericales that heathland may have developed on the sandy soils, perhaps in response to grazing. The main feature is the decrease in tree pollen, and the corresponding increase in pollen from herbs associated

with open, occupied land such as *Plantago lanceolata* (ribwort plantain) and other taxa probably representing weeds of cultivated land (Chenopodiaceae, Caryophyllaceae) and grassland plants (*Centaurea nigra*, Lactuceae).

3.2.4 Correlation with other sites

Another gravel quarry site with palaeochannels, Willington in Derbyshire (Greig 2000) gave a very similar seed flora from one profile, with 30 taxa also found at Cossington area D, and only 8 not found there. The Cossington area D outline pollen diagram (Fig 9) is comparable with those from Runnymede (Needham et al 1991), showing prehistoric occupation on river gravel sites probably making use of the light soils there, while a substantial amount of wildwood still remained in the surroundings, although this decreased from the Neolithic to the Bronze Age. River valleys, with their shallow braided streams, may have been the most favourable areas for settlement in the prehistoric period, with light easily tilled soils and a range of useful resources, compared with relatively impenetrable wildwood covering the rest of the land. After extensive woodland clearance somewhat later in the prehistoric period when the Bronze Age was well under way, alluvium started to fill valleys, which changed their nature with rivers cut into deep sediments which has buried traces of earlier settlement, and wetter less hospitable valleys. Sites such as Cossington help show how stages of this transition of our landscape took place (RA 6).

3.3 Insect remains

Mark Robinson

3.3.1 Factual Data

3.3.1.1 Provenance

Sequences of bulk organic samples were taken from Areas C ('marshy' area) and D (easterly palaeochannel) for the analysis of biological remains, including insects.

3.3.1.2 Quantification of Material

17 bulk samples, of the order of 3-4kg, are available for insect analysis.

The following samples were assessed:

Area C	Sample 14-23 cm depth (peat area)
Area D	Sample 95-104 cm depth (palaeochannel)
	Sample 80-70 cm
	Sample 50-55 cm
	Sample 31-40 cm
	Sample 25-31 cm

3.3.1.3 Methods

Sub-samples of 1 kg were broken down in water, washed onto a 0.2mm sieve and subjected to paraffin flotation. The flots were washed in detergent and scanned under a binocular microscope. The abundance of the taxa observed in each sample was recorded in Appendix IV, Table 2 for Coleoptera and Table 3 for other insects. Nomenclature for Coleoptera follows Kloet and Hincks (1977).

3.3.2 Results

Area C

Insects are absent from the sample from the peat deposit in Area C. The general preservation of organic remains in this sample is poor, with the majority of the material being roots.

Area D

All the samples assessed from the Area D palaeochannel contain identifiable insect remains, although the concentration of remains in the upper samples is low. Aquatic insects predominate, particularly the beetle *Oulimnius* sp., which is characteristic of clean, well oxygenated flowing water. Two other elmid beetle which likewise require clean water conditions, *Esolus parallelepipedus* and the now very rare *Macronychus quadrituberculatus*, are also present. Areas of still or slowly moving vegetation towards the channel margin are suggested by the small water beetles *Helophorus* cf. *brevipalpis* and *Ochthebius* cf. *minimus*. The aquatic larvae of Trichoptera (caddis fly) and Chironomidae (midges) are also well-represented.

Beetles associated with emergent vegetation, particularly *Donacia* sp., are well represented in three lower samples. These samples also contain sufficient beetles of drier habitats to characterise the terrestrial landscape. Woodland is suggested by *Melasis buprestoides*, which occurs in rotten trees, in Sample 80-90 cm. However, insects of grassland habitats are rather better represented, including *Phyllopertha horticola* and *Agriotes* sp., whose larvae feed on the roots of grassland herbs and *Apion* sp. and *Sitona* sp., which feed on vetches and clover. The assemblages from the upper two samples are not inconsistent with terrestrial environmental conditions remaining the same, but the concentrations of remains are too low for any detailed interpretation.

Although there is a single example of *Anobium punctatum* (woodworm beetle), the samples do not give any certain evidence of nearby human habitation.

Table 3: Assessment of flots for charred plant remains from Cossington, Leics. (XA35.99)

Samp No.	Cont No.	Cut No.	Feat type Area	Samp Vol. litres	Flot Vol. mls	Gr ch	Cf ch	Se ch	Se un	Frag ch	Nut ch	Char	Comments
2	11	12	PH RH1	8	7	-	-	-	-	-	-	fl CF+	-
3	13	14	PH RH1	6.5	15	-	-	-	-	2	-	fl CF+	Slag?
6	19	20	PH RH1	4	5	-	-	-	+	-	-	- CF+	-
7	27	20	PH RH1	9	5	-	-	-	-	-	-	fl CF+	-
8	28	29	Term RH1	18	30	-	1	1	+	-	-	fl CF++	A glume wheat rachis frag, a fat hen seed.
9	32	33	Gully RH1	4.5	4	-	-	-	-	-	-	fl	-
10	36	38	Term RH1	12	9.5	-	-	+	-	-	-	fl CF+	A seed fragment
11	37	38	Term RH1	10	8	-	-	-	-	2	-	fl CF+	-
12	43	44	Gully RH1	19	25	-	-	-	+	-	-	fl CF+	-
13	45	46	Gully RH1	15	35	-	-	+	-	1	-	fl CF++	?tuber frag, seed frags.
14	47	48	PH RH1	1	2	-	-	-	-	-	-	fl	-
15	49	50	Gully RH1	18	22	-	-	1	-	-	-	fl CF++	Seed Knotweed/Sedge, damaged.
16	55	56	Gully RH1	7	12	-	-	-	-	-	-	fl CF+	-
18	30	31	Pit/A ?IA	8.5	150	-	-	-	+	-	-	+++ CF+	25 mls charcoal > 4mm.
19	34	35	Oven ?IA	14	1600	-	-	-	-	-	-	+++ CF+++	900 mls charcoal >4mm.
21	60	61	Gully RH	17	9	-	-	-	-	-	-	fl CF+	-

22	62	63	Gully RH	16	15	-	-	-	-	-	-	fl CF+	-
23	64	65	Gully RH1	5.5	6	-	-	-	-	-	-	-	-
24	66	67	Gully RH1	6	20	-	-	-	-	-	-	-	-
25	72	73	Gully RH1	13	25	-	-	-	+	1	-	- CF+	-
26	74	75	Gully RH1	21	17	-	-	-	+	-	-	- CF+	-
32	7	8	PH RH1	17	35	2	-	-	-	++	-	+	A cereal grain, a cereal/grass grain. Amorphous charred frags
27	70	71	Pit/A IA pot	9	25	2	-	1?	+	-	-	+	A wheat grain, a cereal grain, a seed frag.
29	57	58	Pit/A BA pit	7	7	1	-	-	-	-	-	fl CF+	A cereal grain.
31	84	85	Grave A Saxon	18	105	3	-	-	-	-	-	++ CF+	15 mls charcoal > 4mm. A grain of emmer/spelt, a wheat grain, a cereal grain
Samp No.	Cont No.	Cut No.	Feat type	Samp Vol. litres	Flot Vol. mls	Gr ch	Cf ch	Se ch	Se un	Frag ch	Nut ch	Char	Comments
74	597	598	Gully A	7	5	-	-	-	-	-	-	-	-
40	249	250	PH C	11	20	-	-	-	-	-	-	+	-
41	260	261	Ditch C?	3	7	-	-	-	-	-	-	- CF++	-
43	263	264	Gully C?	9	15	-	-	-	-	-	-	- CF+	Roots and ?organic frags
44	268	264	Gully C?	9	15	-	-	-	-	-	-	- CF+	Bark/fungus frags Woody frags in CF
46	258	259	Ditch C?	10	7	-	-	-	-	-	-	-	-
48	273	274	Ditch C?	10	20	-	-	-	-	1	-	fl	-
50	296	295	PH/C Saxon?	8	7	1	-	-	-	-	-	-	A wheat grain
53	286	280	Gully? C?	5	None	-	-	-	-	-	-	-	- Woody frags in CF.
63	346	345	Mound Grave Saxon	23	47	1	-	-	-	3	-	-	A wheat grain, a few cereal frags
65	347	348	Mound Pit A	9	70	-	-	-	-	-	-	++ CF+	10 mls charcoal >4mm
68	353	352	Mound PH/A IA	6.5	35	1	-	-	+	1	-	++ CF+	7 mls charcoal >4mm a emmer/spelt grain, round charred item.
69	356	357	Mound Feat.	15	150	-	-	1tu	-	-	-	+++ CF++	50 mls charcoal >4mm a tuber.
70	359	360	PH	4.5	20	-	-	1?	-	-	-	fl	?seed frag.
73	487	488	Mound Pit	20	27	-	-	1	+	-	-	fl	Seed frag vetch type.
72	489	368	Mound Ditch	20	22	2	-	-	-	1	-	fl CF+++	Two cereal grains, ?tuber frag.

75	606	368	Mound Crem.	14	25	1	1?	-	+	-	-	+	A cereal grain, a seed frag, uncharred elder and hawthorn.
77	637	368	Mound Ditch	2	60	-	-	-	-	-	-	+++ CF+++	35mls charcoal >4mm
78	500	368	Mound Ditch	22	20	2	1?	-	1	1	-	fl	A cereal grain, a cereal or grass grain, uncharred hawthorn, bubbly charred frag
79	493	368	Mound Ditch	23	13	-	-	-	-	-	-	fl	-
80	502-5	368	Mound Ditch	22	9	1	-	-	-	1	-	fl	A wheat grain
81	495	368	Mound Ditch	20	7	-	-	-	-	-	-	fl	-
83	371-2 400	368	Ditch A/NE	23	4	-	-	-	-	-	-	fl	-
84	435 447	368	Mound Ditch	22	22	1	-	-	+	-	-	fl	A barley grain of hulled twisted type.
90	448- 450	368	Mound Ditch	20	4	1	-	-	-	-	-	fl	A cereal grain
92	379- 380	368	Mound Ditch	20	4	-	-	-	+	-	-	-	-
Samp No.	Cont No.	Cut No.	Feat type	Samp Vol. litres	Flot Vol. mls	Gr ch	Cf ch	Se ch	Se un	Frag ch	Nut ch	Char	Comments
85	675	676	Mound Ditch	8.5	15	-	-	-	-	-	-	+ CF++	-
89	691	692	Mound Pit	17	22	1	-	-	-	2	-	fl	A wheat grain
95	710	711	Mound Pit	8	10	1	-	-	+	+	-	+ CF+	A cereal grain
97	83	82	Mound Pot	5.5	25	2	-	1tu	-	-	2	+ CF+	Two cereal grains, a tuber. Hazel nutshell in CF.

Key: Gr = cereal grain, Cf = chaff, Se = seed, ch = charred, un = uncharred, Leg = legume, Nut = nutshell, Char = charcoal, Oth = other charred item, fl = flecks, fr = fragments, + = present, ++ = moderate amount, +++ = abundant, CF = coarse fraction of residue. # = further work required.

Table4: Plant list, names and order according to Stace (1991).

sample:	25-31	31-40	45-50	50-55	80-90	90-95	95-104	
<i>Nuphar lutea</i> (L.) Smith	1	-	1	1	1	1	2	yellow water-lily
<i>Ranunculus sect.</i> <i>Ranunculus</i>	1	1	3	11	1	3	1	buttercup
<i>Ranunculus</i> subg. <i>Batrachium</i> (DC) A. Gray	-	-	3	3	-	1	-	water crowfoot
<i>Chelidonium majus</i> L.	-	-	-	1	-	-	-	celandine
<i>Urtica dioica</i> L.	5	11	9	16	3	2	-	nettle
<i>Betula</i> sp.	1	-	-	-	-	-	-	birch
<i>Alnus glutinosa</i> (L.) Gaertner	29	22	16	44	10	7	10	alder seeds
" catkin	8	5	-	3	1	1	-	catkins
" catkin scale	-	-	-	-	1	-	-	catkin scales

" bud	-	3	1	1	-	-	-	buds
<i>Chenopodium</i>								
<i>album</i> L.	-	1	1	-	-	-	-	fat hen
<i>Atriplex</i> sp.	3	2	4	3	3	-	-	orache
<i>Montia fontana</i>								
ssp. <i>minor</i> Hayw.	-	-	-	1	-	-	-	blinks
<i>Stellaria media</i>								
(L.) Vill.	3	-	-	2	3	3	3	chickweed
<i>Stellaria graminea</i>								
/ <i>palustris</i>	1	1	-	1	-	-	-	
<i>Lychnis</i>								
<i>flos-cuculi</i> L.	2	4	8	89	1	1	1	ragged-robin
<i>Cerastium</i> cf.								
<i>fontanum</i> Baumg.	-	-	1	-	-	-	-	mouse-ear
<i>Cerastium</i> sp.	-	1	-	-	-	-	-	mouse-ear
Caryophyllaceae nfi	-	-	1	-	-	-	-	
<i>Persicaria</i>								
<i>lapathifolia</i> (L.) Gray	1-	-	-	1	-	-	-	pale persicaria
<i>Persicaria hydropiper</i>								
(L.) Spach	7	7	5	13	1	-	-	water-pepper
<i>P. cf. laxiflora</i>								
(Weihe) Opiz	-	-	3	-	-	-	-	
<i>Polygonum</i>								
<i>aviculare</i> L.	2	-	-	-	1	-	1	knotgrass
<i>Rumex conglomeratus</i>								
Murray	-	-	-	5	4	-	1	clustered dock
<i>Rumex</i> sp. .	1	5	6	-	9	4	4	dock
<i>Hypericum</i> sp.	1	-	-	-	-	-	-	St John's wort
cf. <i>Tilia</i>	-	1	-	-	-	-	-	linden tree
<i>Viola</i> sp.	1	-	-	1	-	-	-	violet, pansy
cf. <i>Barbarea</i> sp.	-	1	-	1	-	-	-	yellow-cress
<i>Brassica</i> cf. <i>nigra</i>	1	1	17	5	-	2	1	? black mustard
<i>Rubus</i> cf. <i>idaeus</i> L.	-	1	-	-	-	-	-	wild raspberry
<i>R. sect. Glandulosus</i>								
Wimmer & Grab.	-	2	-	1	-	-	-	bramble
<i>Rubus</i> sp.	1	-	1	-	-	2	-	? bramble
<i>Potentilla erecta</i>								
(L.) Räsch.	-	-	-	-	-	-	1	tormentil
<i>Aphanes</i> sp.	-	-	-	-	-	1	-	parsley piert
<i>Crataegus</i> sp.	-	-	-	1	-	1	-	hawthorn
<i>Myriophyllum</i>								
<i>spicatum</i> L.	-	-	1	1	-	-	-	milfoil
Apiaceae	-	-	-	1	-	-	-	umbellifers
<i>Solanum</i>								
<i>dulcamara</i> L.	1	-	-	-	-	-	-	bittersweet
<i>Galeopsis</i> sp.	-	-	1	-	-	-	-	hemp-nettle
<i>Ajuga reptans</i> L.	-	-	1	-	-	-	-	bugle
<i>Prunella vulgaris</i> L.	-	2	-	-	-	1	-	self-heal
<i>Lycopus</i>								
<i>europaeus</i> L.	-	-	-	1	-	-	-	gypsywort
<i>Mentha</i> sp.	-	-	-	1	-	-	-	mint
<i>Plantago major</i> L.	-	-	-	1	1	-	-	ribwort plantain
<i>Galium</i> sp.	-	-	1	2	-	-	-	bedstraw
<i>Sambucus nigra</i> L.	9	12	6	17	1	1	-	elder
<i>Valerianella locusta</i>								
(L.) Laterr.	-	-	-	1	-	-	-	cornsalad
<i>Carduus</i> sp.	1	1	-	1	-	-	-	thistle
<i>Cirsium</i> sp.	-	1	-	1	-	-	-	thistle
<i>Lapsana</i>								
<i>communis</i> L.	1	-	-	-	-	-	-	nipplewort

<i>Leontodon</i> sp.	-	-	-	-	-	1	-	hawkbit
<i>Sonchus asper</i> (L.) Hill	1	1	-	2	1	-	1	sow-thistle
<i>Senecio</i> <i>aquaticus</i> Hill	2	1	-	3	-	-	-	marsh ragwort
<i>Alisma</i> sp.	-	-	3	3	-	-	-	water-plantain
<i>Potamogeton</i> sp.	-	-	-	1	-	-	-	pondweed
<i>Juncus</i> sp.	1	4	-	-	-	-	-	rush
<i>Eriophorum</i> sp.	1	-	-	-	-	-	-	cotton-grass
<i>Eleocharis uniglumis</i> <i>/palustris</i>	1	4	5	8	-	-	-	spike-rush
<i>Scirpus sylvaticus</i> L.	+	6	1	5	-	2	1	club-rush
<i>Schoenoplectus lacustris</i> (L.) Palla	3	10	5	16	-	4	-	common club-rush
<i>Carex</i> subg. <i>Vignea</i>	-	3	-	1	-	-	-	sedges
<i>Carex</i> subg. <i>Carex</i>	-	4	6	3	-	2	-	sedges
<i>Carex</i> sp.	1	-	-	-	-	-	-	sedges
<i>Glyceria</i> sp.	-	-	-	1	-	-	-	flote-grass
Poaceae nfi	-	-	2	2	-	-	-	grasses
<i>Sparganium</i> sp.	1	1	-	-	-	-	-	bur-reed
other remains								
charcoal fragments	+	+	+	+	+	-	-	
tree bud scales	+	+	-	+	-	-	-	
mosses	-	+	+	+	-	-	-	
<i>Chara oogonia</i>	+	-	+	-	-	+	+	brittlewort
molluscs	-	-	+	+	++	++	++	
Trichoptera	-	+	-	-	-	-	+	mayfly
fish scale	-	-	-	+	-	-	-	

Table 5 Coleoptera

	Presence					Species Group	
	Column Sample	D 95-104	D 80-90	D 50-55	D 31-40		D 25-31
	No of Individuals / kg	20	30	15	5		15
<i>Clivina collaris</i> (Hbst.) or <i>fossor</i> (L.)		-	+	-	-	-	
<i>Bembidion guttula</i> (F.)		-	-	-	+	-	
<i>Bembidion</i> sp.		-	-	-	-	+	
<i>Pterostichus</i> sp.		-	-	+	-	-	
<i>Acupalpus</i> sp.		+	-	-	-	-	
<i>Helophorus grandis</i> Ill.		-	-	-	-	+	1
<i>Helophorus</i> spp. (<i>brevipalpis</i> size)		++	++	++	+	++	1
<i>Megasternum obscurum</i> (Marsh.)		-	-	+	-	-	7
<i>Cryptopleurum minutum</i> (F.)		+	-	-	-	-	7
<i>Ochthebius</i> cf. <i>bicolor</i> Germ.		-	-	-	-	+	1
<i>O. minimus</i> (F.)		-	-	-	-	+	1
<i>O. cf. minimus</i> (F.)		++	+	-	-	-	1
<i>Hydraena testacea</i> Curt.		+	-	-	-	-	1
<i>Hydraena</i> sp.		+	+	-	-	-	1
<i>Limnebius papposus</i> Muls.		-	+	-	-	-	1
<i>Philonthus</i> spp.		-	+	-	-	-	
<i>Staphylinus</i> sp.		-	-	+	-	-	
<i>Aphodius</i> cf. <i>sphacelatus</i> (Pz.)		+	-	-	-	-	2
<i>Aphodius</i> spp.		-	+	-	-	+	2
<i>Onthophagus</i> sp.		-	-	+	-	-	2
<i>Phyllopertha horticola</i> (L.)		+	+	-	-	-	11

Column Sample	Presence					Species Group
	D 95-104	D 80-90	D 50-55	D 31-40	D 25-31	
No of Individuals / kg	20	30	15	5	15	
<i>cf. Cyphon</i> sp.	-	-	-	-	++	
<i>Heterocerus</i> sp.	-	-	-	-	+	
<i>Helichus substriatus</i> (Müll.)	-	-	+	-	-	1
<i>Esolus parallelepipedus</i> (Müll.)	-	-	-	-	+	1
<i>Macronychus quadrituberculatus</i> Müll.	+	-	-	-	-	1
<i>Oulimnius</i> sp.	+	++	+++	+	+	1
<i>Athous</i> sp.	-	+	-	-	-	11
<i>Agriotes</i> sp.	+	-	-	-	-	11
<i>Melasis buprestoides</i> (L.)	-	+	-	-	-	4
<i>Anobium punctatum</i> (Deg.)	-	+	-	-	-	10
<i>Rhizophagus</i> sp.	-	+	-	-	-	
<i>Atomaria</i> sp.	-	-	+	-	-	
<i>Orthoperus</i> sp.	-	-	+	-	-	
<i>Donacia</i> sp.	-	+++	+	-	-	5
<i>Donacia</i> or <i>Plateumaris</i> sp.	+	-	+	-	+	5
<i>Longitarsus</i> spp.	+	+	+	-	-	
<i>Chaetocnema concinna</i> (Marsh.)	-	+	+	-	-	
<i>Chaetocnema</i> sp. (not <i>concinna</i>)	-	-	+	-	-	
<i>Apion</i> sp.	-	+	-	-	-	3
<i>Sitona</i> sp.	-	++	-	-	-	3
<i>Bagous</i> sp.	-	+	+	-	-	5

Table 6: Other Insects

Column Sample	Presence				
	D 95-104	D 80-90	D 50-55	D 31-40	D 25-31
<i>Agrion</i> sp.	-	+	-	-	-
<i>Orthotrichia</i> sp. - larval case	-	-	-	-	+
Trichoptera indet. - larva	+++	+++	+++	-	+
Hymenoptera indet.	-	+	-	-	-
Chironomidae indet. - larva	+++	+++	+++	-	-
Diptera indet. - puparium	-	-	-	-	+
Diptera indet. - adult	+	-	-	-	-

Appendix 4

Assessment of the Lithics

Lynden Cooper

4.1 Data collection for assessment

All of the material was scanned to identify any diagnostic pieces and all obviously modified pieces were recorded by type. The debitage products from a 20 % sample were recorded to basic type with additional notes for potentially chronological features (eg true blade production, patination, microburins). This sample was randomly selected and should include material from each stratigraphic group. The data was recorded on pro-forma sheets.

4.2 Quantity of material and records

Some 1,230 pieces of flint were recovered from the excavation, principally from the barrow area. The majority of pieces were assigned a unique small finds code and recorded 3-dimensionally. These pieces are listed on the excavation small finds register with cross reference to context numbers. Grid co-ordinates are mostly recorded on the EDM files. A small proportion of material has only been recorded/located to context. Small finds extensions have been added to these pieces during assessment.

4.3 Provenience, range and variety of material

4.3.1 At present it has not been possible to provide a breakdown of the assemblage by stratigraphic group. However, the prehistoric groups have been targeted during the assessment to provide feedback to the site director.

4.3.2 Taking the whole assemblage as a group it can be seen that the majority of pieces represent unmodified debitage products. Of course, a proportion of these could have been utilised. Modified pieces were limited to 41 examples (3.4%), a somewhat low proportion. These pieces show a wide chronological range. A backed blade has been tentatively identified as Late Upper Palaeolithic. A small Late Mesolithic component is evident from two microliths and several bladelets and bladelet cores. A group of blades and blade-like flakes, possibly early Neolithic in date, was recovered from near the marshy ground in area C.

4.3.3 The vast majority of flints, over 1,000 pieces, were recovered from the barrow mound excavation. This is a comparable figure to the Lockington site VI barrow where a similarly denuded barrow mound was fully excavated (Young and Bevan 2000, 62). As with Lockington it is possible that some of the material has a complex taphonomic history, representing deposition over a wide time range. The homogeneity of soils made differentiation of ploughed mound, intact mound and pre-mound deposits quite difficult. Thus, material from the mound may represent

- pre-mound activity
- earlier or contemporary pieces imported with the mound material from the environs
- represent contemporary deposition, either from barrow construction activities, opportunistic testing of freshly exposed nodules revealed by ditch digging
- formal depositional practices, either as selected pieces within pits and graves or as deliberate deposition of general debitage products
- represent post-barrow activities (ie introduced by unrecognised burrowing and/or ploughing).

4.3.4 Preliminary plotting of the flints show marked clustering over the northern half. The evidence for flint deposition following the barrow construction seems slight as very few pieces were recovered from the ditch fills. However, there was much flint overlying the ditches, presumably due to ploughing out of the mound. Further spatial analysis should provide more insight into these processes.

4.3.5 Notwithstanding the above doubts about the integrity of the mound assemblage the majority of flint would appear to be of a general Neolithic – Bronze Age date. A retouched blade with edge gloss was recovered from the Group 8 ?burial pit – its fine appearance would suggest that it might have been a grave good. A leaf-shaped arrowhead recovered from the mound can be attributed a broad Neolithic date. A ‘non-fancy’ thumbnail scraper recovered from the mound may be attributed to the Bronze Age. A scraper with a faceted butt, probably of late Neolithic date, was also found in the mound.

4.3.6 Other material of a similar date range includes a fine, triangular-shaped arrowhead and a scale-flaked knife, both of which are consistent with a late Neolithic – Early Bronze Age date (both are surface finds immediately to the east of the barrow). Indeed, the quality of these pieces would suggest that they can be regarded as ‘personal kit’, and might have been deposited formally. A triangular arrowhead was found associated with a barbed and tanged example in the site 2, barrow 1 inhumation at Aldwinckle, Northants. (Jackson 1976). Green (1980, pp.142-3) suggests such arrowheads may actually be blanks for ‘fancy’ barbed

and tanged arrowheads and that they were “coeval in date with the flourish of fancy arrowhead types, Green Low and Conygar, which were made from them” (ibid. p.143).

4.3.7 An unstratified flat discoidal scraper resembles examples from late Neolithic (Grooved Ware) contexts at Syston and Eye Kettleby. The piece is made from a dark, matt flint possibly exotic.

4.3.8 As there is demonstrable Iron Age activity the possibility of later prehistoric flint use might also be considered. However, very few pieces were recovered from Iron Age contexts.

4.4 Condition of the material

4.4.1 The lithic material is of variable condition with some post-depositional damage (plough and machine damage) recognised in the unstratified assemblage. In contrast some sealed groups appear in a remarkably fresh condition, for example the material from the intact mound core.

4.5 Statement of potential

The flint assemblage is a moderately sized collection representing a useful addition to the local and regional dataset. It has potential to provide data relevant to several of the research aims listed in the project design (Clay 1999).

RA1 The understanding of Bronze Age funerary practices and associated ritual activity both nationally and in the East Midlands.

Although there are some difficulties in determining the biographical taphonomy of the flint assemblage from the mound, it is plausible that much of the material was purposefully deposited. This might include the deliberate deposition of flint in pre-mound features, deposition on the original ground surface or within the mound, or later flint knapping on the top of the mound (Hughes 2000, p.100). Several modified pieces are of a significant quality. The blade from the group 8 burial provides some evidence for formal deposition. The triangular arrowhead and the knife were both unstratified but are pieces which may well have derived from a grave or other ceremonial/dedicatory deposit.

RA2 The study of land use and settlement in the Soar Valley.

Consideration of the flint assemblage provides a longer time sequence for land use study, extending back into the late Pleistocene.

The Late Upper Palaeolithic backed blade is a rare example from Leicestershire, representing only the third findspot for this period in the county¹. The find will be shown to Roger Jacobi (British Museum) for confirmation. The findspot highlights the potential of the Soar Valley for Pleistocene remains – previous quarrying in the area has revealed mammoth remains. Although there is no association of faunal and cultural material the presence of both at the quarry site is of note.

The small late Mesolithic element also provides rare evidence for its period. As with the LUP backed blade it probably points to transient exploitation in the area.

The (?early) Neolithic activity from areas B and C may represent exploitation of the plant resources of the floodplain environment. There are nine modified or utilised blades of which two are serrated and a further three show edge polish and/or gloss. Serrated blades have been interpreted as elements of composite sickles/knives or related to de-hairing of hides. Extensive use-wear analysis by Juel Jensen (1994) suggests that the pieces may be related to plant fibre processing (hackling), and that they represent a ‘Neolithic Novelty’ seen across western Europe during the Early Neolithic.

¹ A stratified flint scatter from Launde is thought to be terminal Late Upper Palaeolithic (c. 10,000 years bp (Cooper 1997). A single backed point was recovered from Lockington parish during survey of the Derby Southern Bypass.

RA6 The presence of features cutting the buried soil beneath the mound may provide information on pre-barrow settlement and land use during the Neolithic and early Bronze Age.

Further spatial analysis will define the flint group associated with this phase. At present this appears to be a small amount, but its character has not been assessed.

4.6 Storage and curation

4.6.1 The material is marked with site code, context and small find number (if assigned) and kept in individual bags. These are currently stored in two standard archive boxes.

Appendix 5 The Pottery

Patrick Marsden

5.1 The Prehistoric Pottery

5.1.1 Introduction

A total of 29 contexts produced prehistoric pottery of an Iron Age in date. Quantities of pottery were also identified amongst the small finds. The following quantities of pottery are present in the 29 Iron Age contexts : <50g 15 contexts, 50-250g 9 contexts, 250-500g 1 context, 500-1000g 1 context and >1000g 3 contexts (1, 7 and 34).

5.1.2 Methodology

The pottery was divided into fabrics using the guidelines of the Prehistoric Ceramics Research Group (PCRG 1997) and quantified by sherd number and weight per context. Decoration and surface treatment was also recorded, and any other notable features such re-use or sooting. This information was recorded on ULAS pottery record sheets and then inputted onto an Excel spreadsheet (also see below **Methods for Further Prehistoric Pottery Analysis**).

5.1.3 Quantity of Material

A total of 506 sherds weighing 7662g was recorded from the excavation. This is a relatively small amount compared to the quantities found at the middle-late Iron Age sites at Wanlip (31 kg, Marsden 1998), Enderby and Enderby II (35 kg, Elsdon 1992a and 13 kg, Marsden forthcoming) and the late Iron Age settlement at Elms Farm, Humberstone, Leicester (>67kg, Marsden 2000).

5.1.4 Dating and Provenance

The material is typically Iron Age in date and is likely to all be of the East Midlands scored ware tradition, which has a mid to late Iron Age date (as early 5th century BC to 1st century AD). Dating is problematic with this pottery tradition (see Elsdon 1992b). Fabric analysis at the assessment stage suggests a local source for most of the pottery with igneous inclusions being present in most of the pottery. These are likely to originate from the granodiorite outcrops nearby at Mountsorrel. Pottery with a sandy fabric (Q1) is also likely to be local in origin. The small quantities of shell-tempered Iron Age pottery may be from further afield, from limestone outcrops in northeast Leicestershire, south Lincolnshire, Rutland and north Northamptonshire. This trade may be late Iron Age in date, with the settlement at Elms Farm, Leicester having produced shell-tempered scored pottery (Marsden 2000).

5.1.5 Contexts and Spatial Distribution

Large quantities of pottery were recovered from three contexts (over 1000g) – 1 (pit), 7 (roundhouse gully) and 34 (possible oven). Smaller quantities of pottery came from the remainder of the contexts.

5.1.6 Range and Variety of Material

The material is generally characteristic of mid to late and late Iron Age assemblages, dominated by scored wares, from Leicestershire.

Table 7 The pottery fabric totals

Fabric	Sherd no.	Weight (g)
Q1	8	106
Q2	367	4768
R1	110	2646
R2	2	10
R3	5	50
S1	13	79
S2	1	3
TOTAL	506	7662

Fabrics

Q1 Quartz sand

Q2 Quartz sand with igneous rock inclusions

R1 Igneous rock

R2 Coarse igneous rock

R3 Igneous rock and quartz sand

S1 Shell-tempered

S2 Shell-tempered with quartz sand

Most of the fabrics are typical of those associated with scored ware pottery in the Soar Valley. The shell-tempered fabrics, however, which constitute 1.1 % by weight of the prehistoric pottery, may be from a non-local source, such as Rutland or Northamptonshire.

Approximately 55 % of the pottery by weight is scored. A relatively small number of vessels display evidence of surface treatment, the most common type, burnishing, being present on approximately thirty vessels. The forms include the typical jars and bowls of the scored ware tradition.

5.1.7 Condition of the Material

The condition of the pottery is reasonable with a low degree of abrasion. Three contexts produced large quantities of pottery.

5.1.8 Documentation

The existing information has been recorded on ULAS prehistoric pottery record sheets and inputted onto an Excel spreadsheet. The ULAS recording system will be used for further work.

5.1.9 Methods for Further Prehistoric Pottery Analysis

These follow those stated in the Prehistoric Ceramics Research Group Guidelines (PCRG 1997) and include the following : -

1. Fabric Analysis. Using a binocular microscope (x 20 magnification) and fabric record sheets to enhance the existing fabric series based on the range of inclusions, clay matrix, colour, hardness, texture, and firing (completed). Thin-section programme to add clarity to fabric analysis.
2. Form Analysis. Vessel, rim and base forms to be identified using D. Knight's 'Guidelines for the Recording of Later Prehistoric Pottery from the East Midlands' (1998).
3. Type of decoration will be recorded, with particular reference to scoring techniques.
4. Quantification. This includes sherd number, weight (already completed for assessment), and for targeted groups any rim and base diameters to produce EVEs.
5. In addition, analysis of firing, surface treatment, manufacturing techniques, any residues, perforations, abrasion, re-use, and cross-context sherd joins.

5.2 The Roman Pottery

5.2.1 Introduction

5.2.1.2 A total of three contexts produced prehistoric pottery of Roman date. Sherds of a Roman date were also identified amongst the small finds.

5.2.2 Methodology

5.2.2.1 The pottery was divided into fabrics and forms identified using the LMARS Roman pottery fabric and form series devised by Dr Richard Pollard and quantified by sherd number and weight per context. This information was recorded on ULAS pottery record sheets and then inputted onto an Excel spreadsheet.

5.2.3 Quantity of Material

5.2.3.1 A total of 172 sherds weighing 2239g was recorded from excavation (Appendix V). Approximately 85% of this by weight is from a single vessel in a sandy ware fabric (Context 83).

5.2.4 Dating and Provenance

5.2.4.1 The sandy ware vessel is of a 1st or 2nd century date and 3rd to 4th century pottery is also present.

5.2.5 Contexts and Spatial Distribution

5.2.5.1 As described above nearly all of the pottery was from the single vessel (context 83) cut into the burial mound. Small quantities of pottery came from the remainder of the contexts and the small finds.

5.2.6 Range and Variety of Material

5.2.6.1 The material is characteristic of Roman pottery assemblages from Leicestershire.

5.2.7 Condition of the Material

5.2.7.1 Apart from the complete vessel the pottery is fragmentary and generally undiagnostic.

5.2.8 Documentation

5.2.8.1 The existing information has been recorded on ULAS Roman pottery record sheets and inputted onto an Excel spreadsheet. The ULAS recording system will be used for further work.

5.2.9 Statement of Potential

5.2.9.1 Assessment has highlighted that deposition of the complete Roman pot would appear to be deliberate and structured. It therefore amplifies the study of monument re-use (**RA 3 – 5**). Further work will concentrate on analysis of this sandy ware jar. This will include fabric, form and parallels from other Leicestershire sites.

Table 8: Pottery totals by context

Context No.	IA SH	IA WT	ROMAN SH	ROMAN WT	MED SH	MED WT	P MED SH	P MED WT	PU SH	PU WT
1	105	2337								
3	34	314								
7	23	182								
7 SF324	19	199								
7SF325	3	12								
7SF326	35	749								
7SF327	2	28								
11	7	116								
13	5	8								
15	1	8								
19	4	55								
28	7	168								
34	22	1613								
36	9	154								
37	2	20								
39	1	10								
43	90	780								
45	5	52								
64	1	4								
66	1	18								
70	3	14								
72	11	90								
74	8	44								
80	1	5								
83			87	1902						
210	1	12								
249	8	80								
343			18	138						
354			58	150						
370	25	90								
405	3	16								
530	1	2								
557	1	10								
636	2	3								
1162	1	6								
U/S	1	44								
SF5					1	6				
SF8					1	12				

SF13					1	14				
SF15			1	5						
SF16			1	23						
SF20					1	8				
SF22					1	5				
SF34	1	43								
SF44					1	11				
SF112					1	8				
SF128					1	15				
SF139	1	10								
SF147					1	19				
SF207					1	7				
SF209	1	6								
SF261	1	3								
SF266					1	10				
SF273					1	16				
SF280	1	3								
SF294					1	9				
SF298					1	30				
SF308					1	5				
SF311	1	3								
SF316			1	3						
SF337					1	2				
SF365					1	11				
SF342	1	14								
SF371	1	3								
SF372	4	2								
SF376	1	7								
SF378			3	5						
SF402	1	8								
SF404	1	8								
SF434			2	10						
SF470	1	4								
SF474			1	3						
SF478	1	2								
SF485	1	4								
SF559	1	8								
SF560	1	5								
SF564					1	3				
SF594	1	17								
SF610	1	2								
SF612					2	2				
SF687	1	7								
SF708	1	4								
SF741	1	3								
SF755	1	4								
SF763	1	3								
SF764	1	2								
SF765	1	2								
SF775	1	14								
SF776	6	16								
SF777	1	4								
SF790	1	38								
SF792					1	6				

SF802	1	5								
SF835										
SF853	1	2								
SF863	1	7								
SF867	1	2								
SF880	1	20								
SF882	1	4								
SF889	1	3								
SF941					1	3				
SF953	1	8								
SF967	1	6								
SF969					1	4				
SF984	1	6								
SF986	1	5								
SF998	4	22								
SF105	1	5								
4										
SF106	1	48								
3										
SF107	1	4								
9										
SF108							1	5		
9										
SF110					1	4				
3										
SF120	1	6								
1										
SF122	1	4								
1										
SF125	1	6								
3										
SF125							2	24		
9										
SF126	2	5								
4										
SF127									1	11
5										
SF129	3	2								
2										
Totals	506	7662	172	2239	24	210	3	29	1	11

6. Assessment of the small finds

Susan Ripper

6.1 Quantity and condition

The small finds recovered from the Area A excavations are: *(see Appendix I)*

The bead necklace

13 beads were found; ten amber, one jet, one cannel coal and a single faience bead identified by Samantha Middleton (Leicester City Museums Services) as being Bronze Age. Scanned images of the beads have been sent to Dr. Alison Sheriden of the National Museum of Scotland who has confirmed their date. The faience bead looks to be an aberrant version of a globular form – a type of bead which has an exclusively middle-north middle England distribution, and may be made locally (Alison Sheriden *pers. com.*). The jet beads are fusiform and are likely to come from Whitby. There are parallels from the north of England and Scotland (Clarke 1985, p.211-212). The amber could have come from the east coast (from Norfolk or northwards), or more likely be imported as a raw material from Scandinavia and worked up in England. There are parallels from Wessex (Clarke 1985, p.120).

This is the first example of a bead necklace including faience to be found in its original disposition.

The Anglo-Saxon small finds

- 1 Anglo-Saxon bead
- 2 A/S iron spears and sockets (one with mineralised textile attached), 1 sword/spear. Identifiable wood in socket of one spear.
- 5 A/S iron knives (two with mineralised textile attached)
- 2 A/S bucket fragments, 2 hoops (?bridle fragments), a ?brooch fragment, 2 horseshoes, a buckle (with bone attached) and a shield boss
- 16 studs/nails/rivets
- 14 unidentified objects

All the items were badly corroded and are undergoing remedial conservation. Most of the metal items have been 'x' rayed.

6.2 Provenance

6.2.1 The 13 beads formed the outline of a necklace (jet, faience, jet, amber, amber *in situ*, 8 amber beads recovered from spoil) and were located within the south east quadrant of the barrow beneath the mound. They were found in association with a number of large stones, some on-edge. These may be the remains of a denuded cyst or grave marker stones. Burnt bone was recovered from the fill of the ditch which may be the remains of a cremation burial.

6.2.2 Four groups of spears and knives were noted, two in association with rivets/nails. These probably represent the remains of Anglo-Saxon warrior burials (Fig. 07). In cut 85 a group of five ?rivets (iron stains) appeared in a rectangular formation, possibly the remains of a box. A further dispersed group including a shield boss, horse teeth, a bead and some nails may be a fifth grave. Towards the north of the mound bucket fragments and a piece of a brooch were also noted.

6.3 Range

The bead group located within the south east quadrant of the barrow comprised examples of amber, jet, cannel coal and faience. A single glass bead (sf 381) from the barrow mound may be of Anglo-Saxon date. The ironwork includes Anglo-Saxon weaponry typical of items placed within male graves. Two pieces have mineralised herringbone textile attached. Six items can be identified as spearheads, four are knives two are bucket mounts, one is a bridle cheek piece, three are nails, one is a ?brooch fragment and one is a shield boss. Other items include two horseshoes and a number of rivets.

Table 9: Metal small finds from Cossington

(Figure 07)

<i>SF no.</i>	<i>Type</i>	<i>Needs further conservation?</i>	<i>Illustration?</i>
05	Poss. shield boss.	Y	Y

37	Spear with no socket found next to SF204 – socket with no spear. Anglo-Saxon. In association with knife 203.	Y	Y
203	Near complete Anglo-Saxon knife. Found in association with spear 37/204. traces of organic substance (?human bone) on blade	Y	Y/phot
204	Socket with no spear found next to SF 37 – spear with no socket. Anglo-Saxon. In association with knife 203. Identifiable wood in socket	Y	Y/phot
205	Near complete Anglo-Saxon ?sword or knife (tip missing – which is almost definitely SF247). Has steeled straight edge. Found in association with knife 248.	Y	Y/phot
206	Mod. Screw	-	-
230	Obj.	-	-
231	?Bucket binding. Possibly Anglo-Saxon	Y	Y
232	?Bucket handle suspension mount. Possibly Anglo-Saxon Now totally fragmented	-	Y
233	Bent obj.	-	-
234	Obj. ?nail	-	-
235	?Horseshoe nail or stud	-	-
236	Mod. Square nut. No location.	-	-
237	Very fragmented Anglo-Saxon knife. Found over NW ring ditch. ?moved by ridge and furrow.	Y	Y
238	Obj. No location. Very fragile.	Y	?Y
240	Obj. Possible hook fragment	-	-
247	Point end of sword 205 (fit together)	Y	See 205
248	Complete but broken small knife with bit of tang missing. Anglo-Saxon. Found next to spear 205. Textile surviving. Line on handle end	Y	Y/phot
290	Long, split socketed Anglo-Saxon spearhead. Herringbone textile on one side	Y	Y/phot
291	Nail (could be A/S) . No location.	-	-
292	Nail (could be A/S)	-	-
293	Nail (could be A/S)	-	-
307	Iron ring, c. 32mm dia. Either a bridle cheekpiece, annular brooch or buckle (most likely). Likely to be Anglo-Saxon, but could be med. See Longslade School, Wanlip for parallel.	Y	Y
321	?knife with rivetted handle	-	Y
322	Buckle with bone	-	Y/phot
323	?rivet	-	-
360	Obj. . No location.	-	-
391	Obj. ?nail	-	-
472	Horseshoe. No X-ray	Y	?Y
500	?rivet or nail head	-	-
541	Horseshoe. No X-ray	Y	?Y
587	Poss. clip or brooch fragment or harness fitting	-	Y
665	Obj. . No location.	-	-
704	Obj.	-	-
711	Obj.	-	-
758	Folded chunk of metal	-	-
793	Obj.	-	-
962	Obj.	-	-
1000	Cu. Fragment of penannular ring	-	-
1001	?nail	-	-

1003	?nail	-	-
1004	?nail	-	-
1005	?nail or rivet	-	-
1006	Obj.or rivet	-	-
1007	Complete, small Anglo-Saxon knife with mineralised herringbone textile	-	Y/photo
1051	Located in grave cut 85. Iron stain, not kept	-	-
1052	“	-	-
1053	“	-	-
1054	“	-	-
1055	“	-	-
1059	?nail	-	-

Table 10: Beads from Cossington

Small Find No.	material	Location	Description
212	Faience	Plan 2:09. BA necklace burial	Aberrant version of globular form. 6mm. Malformed bead. May be local manufacture. Needs XRF and SEM investigation
213	Jet	Plan 2:09. BA necklace burial	Lozenge fusiform. 16mm. Split in two.
214	Jet	Plan 2:09. BA necklace burial	Lozenge fusiform. Whole but chips missing. Needs cleaning.
215	Amber	Plan 2:09. BA necklace burial	Whole disc. 7mm dia.
216	Amber	Plan 2:09. BA necklace burial	Whole /chipped disc. 6mm dia.
217	Amber	U/S Spoil from necklace burial	Whole /chipped disc. 5mm dia.
218	Amber	U/S Spoil from necklace burial	Whole disc. 5mm dia.
219	Amber	U/S Spoil from necklace burial	Whole disc. 4mm dia.
220	Amber	U/S Spoil from necklace burial	4 fragments of disc
221	Amber	U/S Spoil from necklace burial	Whole disc. 10mm dia.
222	Amber	U/S Spoil from necklace burial	Whole /chipped. 10mm dia.
223	Amber	U/S Spoil from necklace burial	4 tiny fragments
224	Amber	U/S Spoil from necklace burial	Broken disc (2 frags.) 6mm dia.
381	Glass	SW of centre of mound. ?Anglo-Saxon	Whole

*it is proposed that all the beads will be illustrated with both line drawings and colour transparencies.

7 Assessment of the animal bones

Jennifer Browning

7.1 Quantity

A small assemblage of animal bone, comprising 78 fragments, was recovered during excavations and watching brief at Cossington (X.A35 1999). The bone was all hand-recovered: although a programme of sieving was implemented, this yielded no further skeletal remains.

7.2 Assessment Methodology

The bone was rapidly scanned to establish anatomy, species and completeness. The results were recorded on a *pro forma* spreadsheet (Table 11).

7.3 Range, variety and provenance

Area D

A quarryman recovered a mammoth tusk during the watching brief conducted during phase 1.

A number of bones (22 fragments) were recovered from the base of a silted channel or lake deposit in Area D (context 163). A further 16 unstratified bone fragments were also recovered nearby. Appendix 7 contains a listing of these bones. These groups comprised bones of aurochs (*bos primigenius*), domestic cattle (*bos taurus*), red deer (*cervus elaphus*) and pig (*sus scrofa*). Various bone elements were represented, however it is clear that these bones do not represent whole carcasses. A red deer metatarsal showed signs of disease. The antlers had been chopped from the skull of a red deer. A bird bone (cf. *Anas platyrhynchos*- mallard) was also recovered from this deposit.

Area A- phase J

Twelve horse teeth, comprising complete left and right sets of upper cheek teeth, were recovered from the mound, along with a few fragments of maxillary bone (SF1270). These were found, apparently *in situ*, with the occlusal surfaces facing upwards. These most likely indicate a decayed horse cranium (*equus caballus*) but it is possible that they represent the remains of a horse burial. There has been some difficulty in establishing the date of finds buried in the mound material, however it is thought that these may be associated with Saxon artefacts also recovered.

Area A- phase K

Pig bones, representing several young animals, were recovered from a square-edged pit dug into the mound (context-80, cut 81). This is thought to be modern - an assertion supported by the good preservation of the bone, compared with other deposits on the site.

Area C

A small group of bones, including horse and domestic cattle, were recovered from a layer overlying marshy ground. Unfortunately, this deposit is not securely dated and the bones do not derive from a discrete deposit. However, the marshy ground is thought to be Neolithic in date.

7.4 Statement of Potential

The bones represent an interesting but disparate group of material. The mammoth tusk provides additional evidence for Pleistocene terraces in the Soar Valley, although the lack of precise provenance makes it of limited research potential in the context of the projects aims and objectives.

Bones were recovered from the base of a silted palaeochannel deposit (context 163). Unfortunately, no other artefacts were found in association with this deposit. Nevertheless, these bones provide useful information about the environment in the Neolithic and Early Bronze Age (RA6). The bones clearly do not represent the deposition of whole carcasses, which suggests that they may be the result of successive episodes of fluvial deposition. It is not possible to ascertain where the animals might have entered the water; however, fluvial processes are likely to scatter even whole carcasses. The rate at which the connective tissue weakens varies for different anatomical parts (heads are often lost first) and additionally different bone elements are likely to travel through the water at different rates (Behrensmeyer and Hill 1980, 170-81).

There was little bone associated with the barrow. Acid sand and gravel soils often yield little or no bone, however tooth enamel is often the last element to survive in these conditions. A group of horse teeth (SF1270) may represent the remains of a horse burial, perhaps associated with the postulated warrior burials (RA3).

7.5 Proposed Methodology

No further recording is recommended for the pig bones (context 80), which are believed to be modern. Similarly, a basic record should suffice for the poorly dated bones from Area C (context 210).

It is proposed to produce a fuller record of the bone from the palaeochannel (context 163) and to carefully examine it for the presence of butchery marks, gnawing and other human modifications. A radiocarbon date may help to link the bone evidence with human activity around the site.

Spatial analysis of the SF1270 deposit in relation to finds of metalwork and other finds may help suggest a date. However, it may be beneficial to attempt radiocarbon dating of the horse teeth, which may serve to help establish or disprove the suggestion that they may be part of a Saxon warrior burial. If a more conclusive date is established it is proposed to attempt to use the crown height measurements to help suggest the age of the animal (Levine 1982).

7.6 References

Behrensmeyer, A., and Hill, A., 1980 *Fossils in the making: Vertebrate taphonomy and palaeoecology* The University of Chicago Press

Levine, M 1982 'The Use of Crown Height Measurements and Eruption-wear Sequences to Age Horse Teeth' in Bob Wilson, Caroline Grigson and Sebastian Payne, *Ageing and Sexing of Animal Bones from Archaeological Sites* BAR British Series 109.

7.7 Acknowledgements

Tony Gouldwell carried out initial identification of the paleochannel bones.

Table 11 Catalogue of animal bones

Context/Small Find No:	No:	Species	Bone	Side	%	Part	Fusion	Condition
C129	1	<i>bos taurus</i>	molar		40	enamel & part of occlusal surface		sandy encrustation mineralised
C163	1	<i>sus scrofa</i>	humerus				df	
C163	1	<i>cervus elaphus</i>	antler			tine		
C163	1	<i>cervus elaphus</i>	metacarpal		100		cf	
C163	1	<i>cervus elaphus</i>	radius & ulna		100		cf	
C163	1	<i>cervus elaphus</i>	antler			tine		
C163	1	<i>cervus elaphus</i>	metatarsal					pathology- swelling
C163	1	<i>bos taurus</i>	mandible			most of ascending ramus missing		
C163	1	<i>bos taurus</i>	metatarsal		100		cf	
C163	1	<i>bos taurus</i>	metacarpal		100		cf	
C163	1	<i>bos taurus</i>	humerus			shaft only		
C163	1	<i>bos taurus</i>	ulna			articulation & part of shaft		
C163	1	<i>bos primigenius</i>	humerus				df	
C163	1	<i>bos primigenius</i>	femur				pf	
C163	1	c-size	thoracic		100	complete unfused		
C163	1	<i>bos taurus/ bos primigenius</i>	radius			proximal & shaft	pf	
C163	1	<i>bos primigenius</i>	pelvis	r	75		f (acet)	
C163	1	<i>Anatidae</i> family	ulna			complete	ff	
C163	1	c-size	rib			fragment		
C163	1	sh-size	rib			fragment		
C163	2	unidentified				fragments		
C206, SF653	1	c-size	femur?		10	shaft fragment		peeling surface, br
C210	1	<i>equus</i>	tibia	r	50	distal & shaft	df	slightly porous, 'g shaft
C210	1	<i>equus</i>	tibia	l	80	distal & shaft	df	root damage, stain
C210	9	unidentified				shaft fragments		
C210	1	<i>equus</i>	tibia	r	10	frag of proximal shaft	-	slightly porous &
C210	1	<i>bos taurus</i>	scapula		5	glenoid fossa	df	porous & some da
C210	1	c-size	lumbar		25	Incl. neural spine.		good
C210	1	c-size	lumbar		5	fragment		good
C210	2	c-size	unidentified			shaft fragments		
C210	2	unidentified				fragments		brittle & porous
SF1270	1	<i>equus</i>	P2	L		root missing		enamel peeling sli
SF1270	1	<i>equus</i>	P3	L				
SF1270	1	<i>equus</i>	P4	L				
SF1270	1	<i>equus</i>	M1	L				
SF1270	1	<i>equus</i>	M2	L				
SF1270	1	<i>equus</i>	M3	L		only ½ occlusal surface present		
SF1270	1	<i>equus</i>	P2	R				
SF1270	1	<i>equus</i>	P3	R				

Context/Small Find No:	No:	Species	Bone	Side	%	Part	Fusion	Condition
SF1270	1	<i>equus</i>	P4	R				
SF1270	1	<i>equus</i>	M1	R				
SF1270	1	<i>equus</i>	M2	R				
SF1270	1	<i>equus</i>	M3	R		only ½ tooth present but occlusal surface complete.		
SF1270	3	<i>equus</i>	tooth enamel					
SF1270	3	<i>equus</i>	maxilla	R		fragments		
SF496	1	c-size	longbone			shaft fragment		surface peeling, so texture
SF751	1	<i>bos taurus</i>	molar		80	no root		grey & very brittle
u/s	1	<i>cervus elaphus</i>	tibia		60			
u/s	1	<i>cervus elaphus</i>	metatarsal		80	proximal end & shaft	pf	good
u/s	1	<i>cervus elaphus</i>	tibia		50	distal end & shaft	df	good
u/s	1	<i>bos taurus</i>	metacarpal		80		pu	grainy surface ver
u/s	1	<i>equus</i>	tibia	r	90		cf	flaking surface
u/s	2	c-size	mandible			frags		
u/s	1	c-size	shaft fragment					
u/s	1	<i>cervus elaphus</i>	antler					
u/s	1	<i>cervus elaphus</i>	cranium					butchered (antlers pedicle)
u/s	5		rib fragments					
u/s	1	<i>bos primigenius</i>	mandible					
	78							

Appendix 8

University of Leicester Archaeological Services

Health and Safety Policy

1. STATEMENT

1.1 It is the policy of University of Leicester Archaeological Services (ULAS) that a high standard of safety will be achieved and maintained within all its offices, sites and other places of work.. ULAS policy reflects the health and safety policy of the University of Leicester Safety Office. The legislative framework for University of Leicester health and safety policy is based upon:

- Acts of Parliament
- Regulations – these generally expand the General Duties in the HSWA 1974
- Approved Codes of Practice, guidance
- European directives and regulations
- Law and enforcement policy linked to public concern
- Similarly, University H&S activity reflects current priorities

1.2 The relevant regulations for archaeological fieldwork, laboratory work and office work are given in appendix 1. These shall be complied with as a minimum standard.

1.3 The Company will ensure, so far as is reasonably practicable, the health, safety and welfare at work of all employees by;

- i) providing and maintaining plant and systems of work that are, so far as is reasonably practicable, safe and without risks to health;
- ii) making arrangements for ensuring, so far as is reasonably practicable, safety and absence of risks to health in connection with the use, handling, storage and transport of articles and substances;
- iii) maintaining any place of work under the control of ULAS in a condition that is safe and without risks to health and to provide and maintain means of access to and egress from it that are safe and without such risks;
- iv) to provide such information, instruction, training and supervision as is considered necessary to ensure, so far as is reasonably practicable, the health and safety at work of employees.

1.4 All employees are expected to take reasonable care for the health and safety of himself, employees and the general public and to fully co-operate as far as is necessary with the employer to achieve health and safety standards.

1.5 All risks to the health and safety of all employees, members of the public and other persons affected by work processes and operations shall be assessed and safe systems of work devised. Appropriate arrangements for putting into effect the health and safety policy will be implemented and safe working procedures followed.

1.6 A copy of this statement will be issued to all employees along with any subsequent revisions or amendments.

2. COMMUNICATION

2.1 Properly appointed Safety Representatives shall be recognised and reasonable facilities will be provided for them to carry out their functions.

2.2 All employees shall be consulted about and kept informed of health and safety developments. Measures will be taken to ensure all employers at all levels of the organisation fully understand the implications of the Health and Safety Policy through a briefing system.

2.3 A copy of this document (Health & Safety Procedures Manual) will be available at all permanent work places showing the arrangements which apply for promoting health and safety at work within ULAS.

This document will contain;

- a) The Statement of Health & Safety Policy
- b) The responsibilities of managers, health & safety representatives, supervisors, and employees for applying the organisation's safety policy.
- c) General guidelines and principals for the prevention of accidents within the work place
- d) Relevant Acts of Parliament, Regulations Approved Codes of Practice and HSE Guidance and European directives and regulations.
- e) Any groups of employees within ULAS for whom special safety training, including induction training and specific training may be required.
- f) Details of what individual employees are expected or required to do under the law and practices applying to them.

3. RESPONSIBILITY

All levels of management, supervisor and employees have an active part to play in the attainment of health and safety standards.

3.1 Management (Directors)

Persons under whom the safety function is placed in ULAS and who are responsible to University of Leicester Archaeological Services and under the Act, for ensuring that the organisation's Health and Safety Policy is fully implemented:-

R J Buckley/P N Clay, Directors
University of Leicester
Archaeological Services
University road
Leicester LE1 7RH

Their responsibilities are to;

- i) Ensure that adequate resources are allocated to health and safety and that all levels of staff receive adequate training in health and safety matters.
- ii) Recognise properly appointed Safety Representatives and allocate them sufficient resources and time to carry out their duties.
- iii) Ensure that all supervisory staff completes as a matter of first priority a project risk assessment, and if appropriate a safe system of work for every project for which they are given responsibility. The risk assessment will identify the risks and hazards involved and the measures required to eliminate or reduce them.
- iv) Ensure that adequate numbers of first aiders are available for each work place. Ensure that the qualified first-aider has all the items of first-aid equipment required, and that proper care is taken of any casualties.
- v) Ensure that all contractors and subcontractors have the relevant certification and requirements necessary for them to carry out their work.

vi) Ensure that information about health and safety is disseminated to all levels of employees and subcontractors via briefings, inductions, posters, memos and letters.

vii) Liaise with the Fire Service and the Safety Officers of the University's fire prevention, fire drill and emergency evacuation of premises.

viii) Know the broad requirements of the relevant legislation, ensure that all registers, records and reports are in order and that accident reports are completed and returned. Ensure that all accidents are promptly investigated to discover their cause and to report them immediately to the relevant authorities. Monitor employees' absence from work to identify trends.

3.2 Health & Safety Representatives

3.2.1 Lynden Cooper is the ULAS H&S Officer (certificated University Departmental Safety Officer) and advises management and staff on all H&S issues, especially relating to fieldwork.

3.2.2 Vicki Priest and Jon Coward are appointed competent people who act as ULAS H&S representatives.

3.2.3 Ian Reeds is the Departmental Safety Officer and advises ULAS on work undertaken on campus i.e. office and laboratory work.

3.2.4 The main aims of the Health and Safety Representatives are to;

- i) Co-ordinate the implementation of the Company's Health and Safety Policy.
- ii) Pass on relevant information regarding new legislation or changes to the Company's Health and Safety Policy.
- iii) Assist in the Health and Safety training of Company employees.

3.3 Supervisory Staff (*Project Officers, Field Officers, Finds Officers, Environmental Officers, Senior Supervisors and Supervisors*)

3.3.1 All persons who have any responsibility for supervising, managing or controlling others also have a responsibility for their health and safety at the workplace.

Their responsibilities are to;

- i). Ensure that all legal obligations are met, the relevant safety legislation complied with and be familiar with the ULAS Health and Safety Policy and ensure that it is carried out and that all relevant registers and accident books are completed.
- ii) Display a full copy of the Health & Safety Policy at the workplace he is responsible for and keep a copy of the ULAS Health & Safety Procedures Manual within the working area and use it to provide and maintain appropriate health and safety standards. Ensure all persons under their supervision are adequately informed, and fully aware, of any hazards they are likely to encounter in the course of their work.
- iii) Assess and monitor risks at the work place and risks to health in relation to hazardous substances and noise. Complete a risk assessment before work commences on any project, and if necessary shall identify and adopt a safe method of work in areas of special concern.
- iv) Ensure a safe place of work and safe means of access and egress is provided and maintained.
- v) Inform all employees under their supervision who is the qualified first-aider, where that person can be found, and the whereabouts of first-aid facilities.

- vi) Ensure that plant, machinery, equipment and tools used at the workplace are adequate and suitable for the jobs in hand and are maintained, repaired or replaced when necessary, that they meet current legislation and are operated by competent persons.
- vii) Ensure that safety helmets and other necessary personal protective clothing or equipment is provided, fitted and worn correctly and replaced when necessary.
- viii) Ensure that adequate supervision is available at all times especially where new, young and inexperienced workers are concerned and only delegate responsibility to appropriate and suitably trained members of staff
- ix) Ensure that work involving visual display units (VDUs) follow existing policy with respect to the maximum working period without breaks (2 hours), minimum break time (10 minutes), the rotation of VDU tasks with other types of work and lighting conditions.
- x) Identify the safety training or special needs of persons under their control and bring these to the attention of the Directors.
- xi) Ensure that all employees under their supervision know what to do in the case of fire, and know the location of, and how to use, fire equipment and extinguishers
- xii) Investigate all accidents promptly to discover their cause and eliminate the possibility of a recurrence. Notify the main office of all accidents and dangerous occurrences at the workplace as soon as possible by telephone.
- xiii) Liaise with the Director and the staff safety representative on all matters relating to health and safety

3.4 Subcontractors

Subcontractors shall;

- i) Provide if requested a written statement of Safety Policy
- ii) Provide if requested Method Statements to indicate the procedures for carrying out particular operations safely and identify the numbers of men, plant and equipment together with situations where persons other than employees will be put at risk.
- iii) Work with a minimum of risk to their own employees and any other persons affected by their work.
- iv) Carry out instructions given by ULAS Supervisors relevant to health and safety matters
- v) Provide safety helmets and other necessary protective clothing and equipment for their employees and ensure that such items are worn and used where necessary.

3.5 Employees

The co-operation of all employees is necessary to maintain high standards of health and safety at the workplace. All employees will;

- i) Work in the proper manner following appropriate procedures and instruction, and use in a safe manner all tools and equipment.
- ii) Co-operate with their supervisors so as not to put themselves or others at risk.
- iii) Wear safety helmets on all construction sites. Wear and use other necessary protective clothing and equipment and request safety clothing or equipment where they feel it will improve safety standards.
- iv) Report to their supervisor any defects in tools, plant, equipment or protective clothing.
- v) Discuss all aspects of their work with their Supervisor where they feel unsure or think that their safety can be improved.

4. POLICY REVIEW

The Health and safety Policy shall be formally reviewed and re-issued annually or sooner if required.

Signed.....

R J Buckley

Signed.....

P N Clay,

Directors, University of Leicester Archaeological Services.

Dated.....

Appendix 1: Legislation of relevance to archaeological work

- THE HEALTH AND SAFETY AT WORK ETC. ACT 1974
- MANAGEMENT OF HEALTH AND SAFETY AT WORK REGULATIONS 1999
- MANUAL HANDLING OPERATIONS REGULATIONS 1992
- HEALTH AND SAFETY (DISPLAY SCREEN EQUIPMENT) REGULATIONS 1992
- THE CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS 2002 (COSHH)
- PROVISION AND USE OF WORK EQUIPMENT REGULATIONS 1998 (PUWER)
- LIFTING OPERATIONS AND LIFTING EQUIPMENT REGULATIONS 1998 (LOLER)
- PERSONAL PROTECTIVE EQUIPMENT AT WORK REGULATIONS 1992
- WORKPLACE (HEALTH, SAFETY AND WELFARE REGULATIONS) 1992
- CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS 1994 (CDM REGULATIONS)
- THE CONSTRUCTION (HEALTH, SAFETY AND WELFARE) REGULATIONS 1996
- THE CONFINED SPACES REGULATIONS 1997
- DANGEROUS SUBSTANCES AND EXPLOSIVE ATMOSPHERES REGULATIONS 2002 (DSEAR.)
- THE CONSTRUCTION (HEAD PROTECTION) REGULATIONS 1989
- HEALTH AND SAFETY (FIRST-AID) REGULATIONS 1981
- ELECTRICITY AT WORK REGULATIONS 1987
- NOISE AT WORK REGULATIONS 1989
- WORKPLACE (HEALTH, SAFETY AND WELFARE) REGULATIONS 1992
- REPORTING OF INJURIES, DISEASES AND DANGEROUS OCCURRENCES REGULATIONS 1995 (RIDDOR)
- HEALTH AND SAFETY (SAFETY SIGNS AND SIGNALS) REGULATIONS 1996

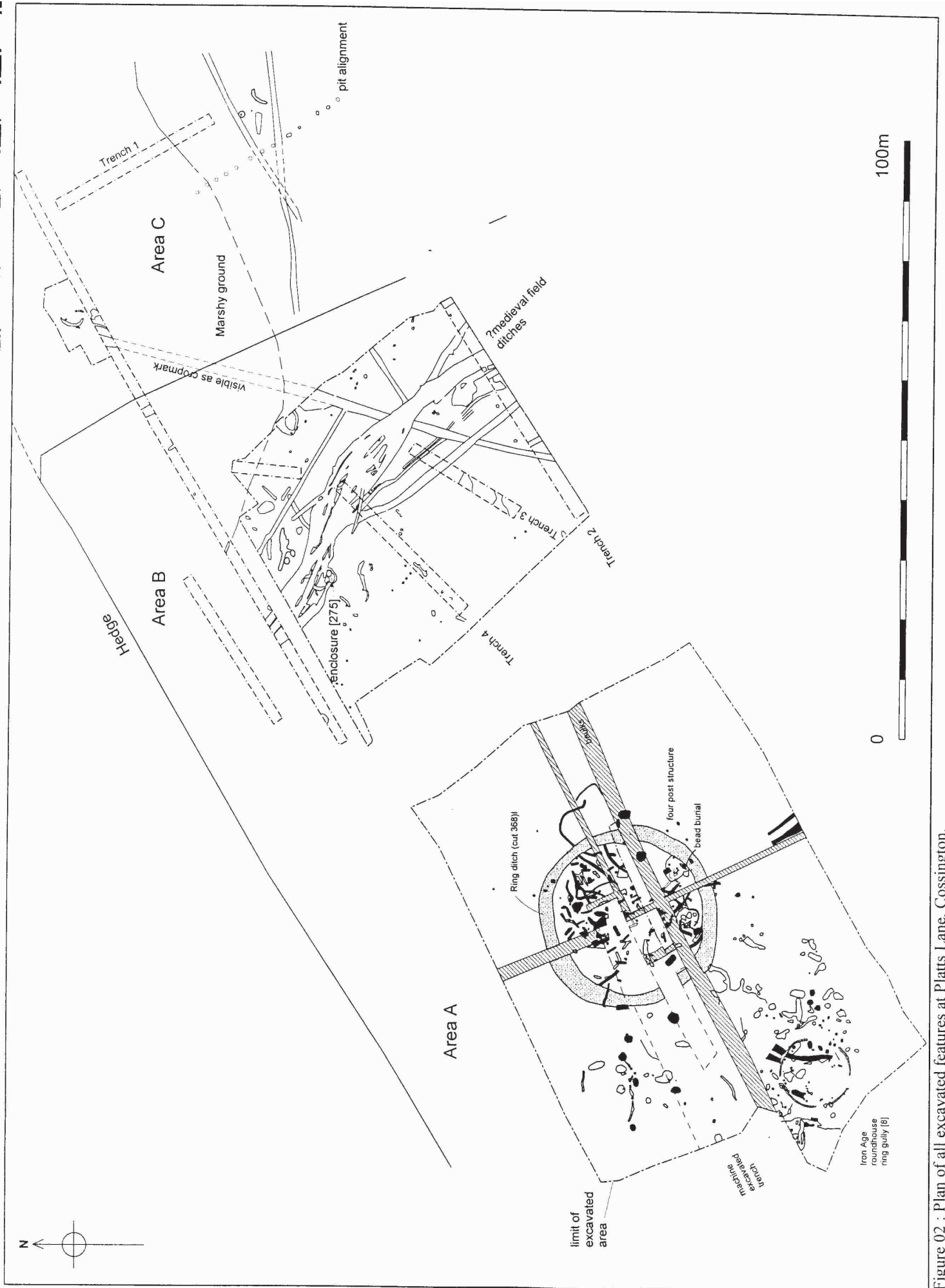


Figure 02 : Plan of all excavated features at Platts Lane, Cossington.

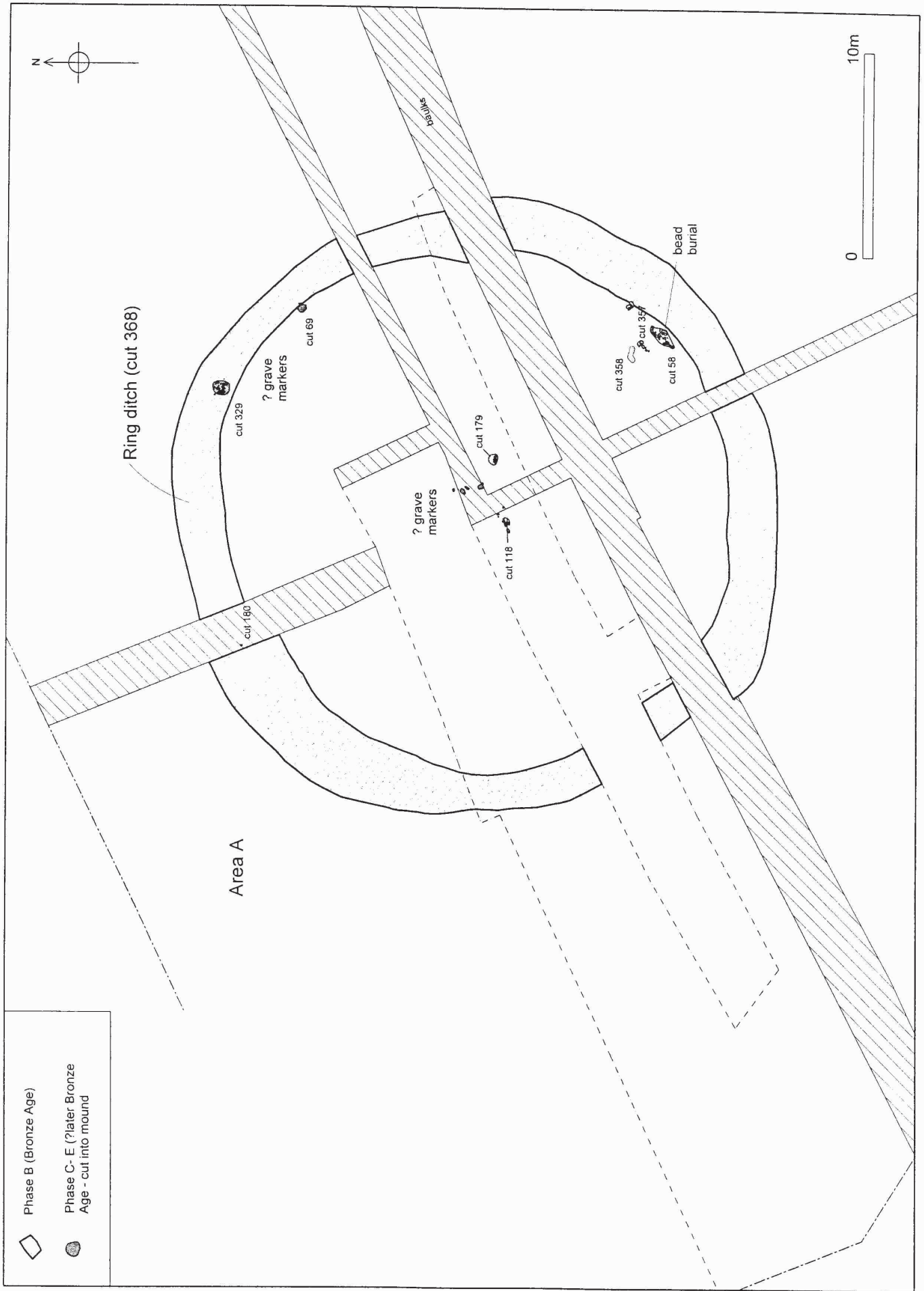


Figure 04 : Plan of all probable Bronze Age features - the ring ditch, bead burial and clusters of stones which may be grave markers.