Northamptonshire Archaeology

An assessment of the archaeological excavation of Areas 5, 6 and 7, Passenham Quarry, Calverton Milton Keynes, Buckinghamshire

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Report 11/136

June 2011

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QUALITY CONTROL

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OASIS REPORT FORM

PROJECT DETAILS		
Project name	An assessment for archaeological excavations at Areas 5, 6 & 7, Passenham Quarry, Calverton, Milton Keynes, Buckinghamshire	
Short description (250 words maximum)	Northamptonshire Archaeology was commissioned by Cotswold Archaeology, on behalf of Cemex UK Ltd, to carry out an archaeological excavation prior to the extension to Passenham Quarry, Calverton, Buckinghamshire. This phase comprised more of the pit alignment excavated in previous years, an Iron Age enclosure and a small Roman mausoleum.	
Project type	Excavation	
Site status	None	
Previous work	Geophysical survey (NA) and trial trench evaluation (NA)	
Current Land use	Pasture	
Future work	None	
Monument type/ period	Iron Age enclosure and pit alignment, Roman mausoleum	
Significant finds	Iron Age pottery	
PROJECT LOCATION		
County	Buckinghamshire	
Site address	Passenham	
Study area (sq.m or ha)	3.2ha	
OS Easting & Northing	SP 7786 3896	
Height OD	66m aOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology	
Project brief originator	Archaeological Officer, Milton Keynes Council	
Project Design originator	Cotswold Archaeology	
Director/Supervisor	Anne Foard-Colby, Adrian Burrow and Steve Morris	
Project Manager	Tony Walsh (NA), Robert Sutton (Cotswold Archaeology)	
Sponsor or funding body	Cemex UK	
PROJECT DATE		
Start date	May 2006	
End date	July 2007	
ARCHIVES	Location	Content (eg pottery, animal bone etc)
Physical	Northamptonshire Archaeology (2006.145)	Worked flint, pottery, ceramic building material, other finds, animal bone, charred seed, charcoal
Paper	Northamptonshire Archaeology (2006.145)	Site record (context sheets, drawings, photographs etc)
Digital	Northamptonshire Archaeology (2006.145)	Photographs, digital reports
BIBLIOGRAPHY		
Title	An assessment of the archaeological excavation of Areas 5,6 and 7, Passenham Quarry, Calverton, Milton Keynes, Buckinghamshire	
Serial title & volume	11/136	
Author(s)	Charlotte Walker	
Page numbers	53	
Date	July 2011	

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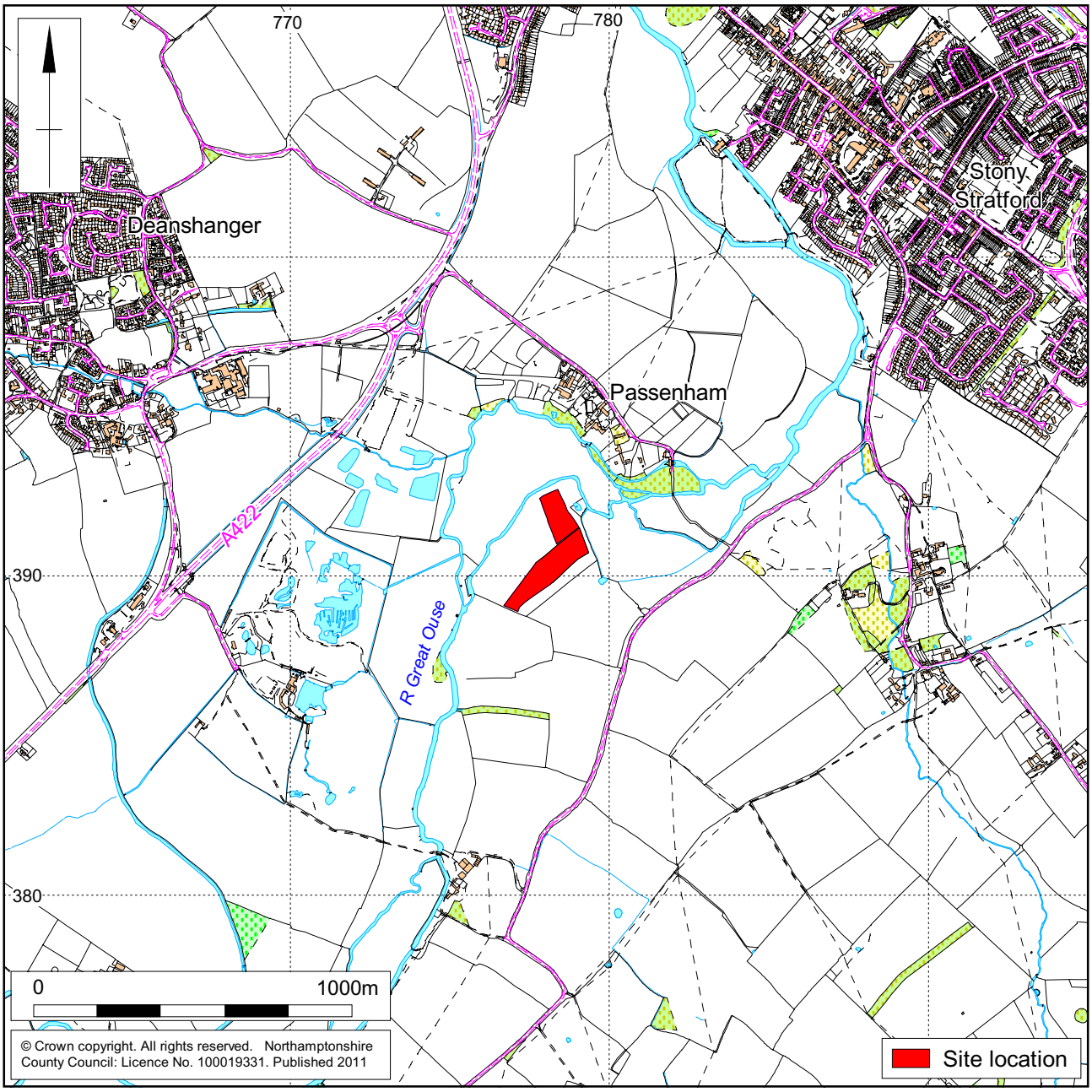


Scale 1:20,000 (A4)

Site Location Fig 1

AN ASSESSMENT OF THE ARCHAEOLOGICAL EXCAVATION OF AREAS 5, 6 AND 7, PASSENHAM QUARRY CALVERTON, MILTON KEYNES, BUCKINGHAMSHIRE

Abstract

Northamptonshire Archaeology was commissioned by Cotswold Archaeology, acting on behalf of Cemex UK Ltd, to carry out an archaeological excavation prior to the extension to Passenham Quarry, Calverton, Buckinghamshire.

The excavation followed previous phases of work where four Bronze Age round barrows, a late Bronze Age/early Iron Age pit alignment and a group of undated postholes were excavated. This phase of work comprised the excavation of a further length of the pit alignment, with a further 45 pits revealed, again producing early Iron Age pottery.

An irregular Iron Age enclosure was probably created during the late middle Iron Age. It was redefined and maintained into the late Iron Age, and there were small quantities of Roman pottery in subsidence hollows of the silted up ditches. East of the enclosure were two six-post structures, commonly interpreted as grain stores.

There was also part of an enclosure comprising short lengths of gully. The lack of Roman pottery in the fill may indicate that it pre-dated the adjacent Roman monument.

A circular stone structure, 4.7m in diameter, surrounded a large central pottery vessel, containing a cremation burial mixed with animal bone and a large quantity of iron nails, both new and used. At the bottom of the pot there was a worn coin dating to the mid 2nd century AD. Further nails came from the soil fill that covered the urn, along with further cremated human and animal bone. The structure is typologically similar to other early Roman grave monuments in Britain and Europe.

Overall, there is potential for further work on various aspects of the records and finds for this part of the site leading to the preparation of a final report. The excavation evidence will be further analysed and refined. Comparative studies will be made with other sites, both locally and regionally.

1 INTRODUCTION

An archaeological excavation of 3.2ha was carried out by Northamptonshire Archaeology in two phases between 2008 and 2009 at Calverton, Milton Keynes, Buckinghamshire near Passenham, Northamptonshire (Fig 1, NGR SP 7786 3896).

The work was undertaken in order to fulfil conditions relating to the planning application (PS/537/2/A/C758) for the extension of an existing gravel quarry at Passenham, by Cemex UK Ltd. The excavation was designed to meet the requirements of the brief issued by the Milton Keynes Archaeological Officer (MKAO). The work was undertaken in accordance with the procedures and guidelines of the Institute for Archaeologists (IfA 1985, revised 2008 and IfA 1995, revised 2008).

2 TOPOGRAPHY AND GEOLOGY

The site lies on the west side of Calverton parish, adjacent to the River Great Ouse and *c*200m south-west of the village of Passenham. The entire site was under pasture prior to the start of quarrying.

A borehole survey carried out by RMC Geological Services (RMC 2000), shows that the underlying geology of the site is clay, between 2.7m to 4.3m deep, with the depth increasing nearer the river. Above this is a deposit of gravel up to 3m thick (Borehole 14). The overburden recorded in the survey had a combined depth of 0.8-1.2m, comprising topsoil (0.2-0.3m deep) and clay subsoil.

During archaeological evaluation of the site (NA 2003), a distinct difference was observed between those trenches adjacent to the river and others across the rest of the site. Those close to and parallel with the river were dramatically dryer with less alluvial build-up than those away from the river. This would seem to indicate the presence of a gravel bank or island running alongside the river, with the rest of the land potentially liable to periodic flooding.

3 ARCHAEOLOGICAL BACKGROUND

The current excavations follow on from a desk-based assessment (Guildhouse Consultancy 2001), geophysical, topographic and metal detecting surveys (NA 2002) and trial trenching (NA 2003 and Morris 2006). The desk-based assessment highlighted a number of archaeological features within the application site. Excavation during 2006 and 2007 on Areas 3 and 4 revealed the remains of four Bronze Age ring ditches, although they were heavily truncated and there were no internal features or burial deposits. At the south of Area 3 were 47 pits of a pit alignment. Pottery from the secondary fills of the pits dated to the early Iron Age. An isolated group of postholes produced little dating evidence but contained large quantities of charred grain.

The principal feature revealed by the geophysical survey in Areas 5, 6 and 7 was a small enclosure. To the south of the enclosure was a broad linear ditch aligned perpendicular to the ridge and furrow and thought to be a boundary between two blocks and therefore medieval in date. The subsequent trial excavation found that the enclosure had had at least two phases. The ditch to the south was not found.

A reference to a find of potsherds was located in Area 6, although no further information was obtained. It is not known whether it refers to relatively recent finds within the parish or whether it was connected to documentary evidence from the 14th century, when significant pottery deposits are known to have been found in this area.

Remnant ridge and furrow earthworks of the medieval open-field system were visible in the southern parts of the site, particularly in Area 7, where north-south aligned earthworks were visible, though heavily truncated by later ploughing. To the north was an area of more irregular earthworks, possibly ridge and furrow and other features. A shallow bank/ditch appeared to follow the course of the river through Areas 3, 4 and 5. The bank/ditch earthwork post-dated the ridge and furrow, and therefore was post-medieval or later in date.

4 AIMS AND OBJECTIVES

The general aim of the archaeological fieldwork was to meet the remit of PPG16 and preserve by record the archaeological evidence contained within the site through a programme of works with a framework of defined objectives.

The broad objectives of the archaeological excavations at Passenham Quarry are as follows:

To investigate the origin and development of domestic occupation by:

- analyzing the distribution of material culture
- investigating the form and function of structural features
- comparing the assemblages of rubbish disposal deposits by period

To investigate palaeo-economy and industry through time by:

- examination and comparison of faunal remains
- analysis and comparison of soil samples from industrial contexts
- to identify possible crop regimes and staple food stuffs from environmental sampling

To consider the wider changes within the landscape and what these may infer regarding past effects on political and social structures by:

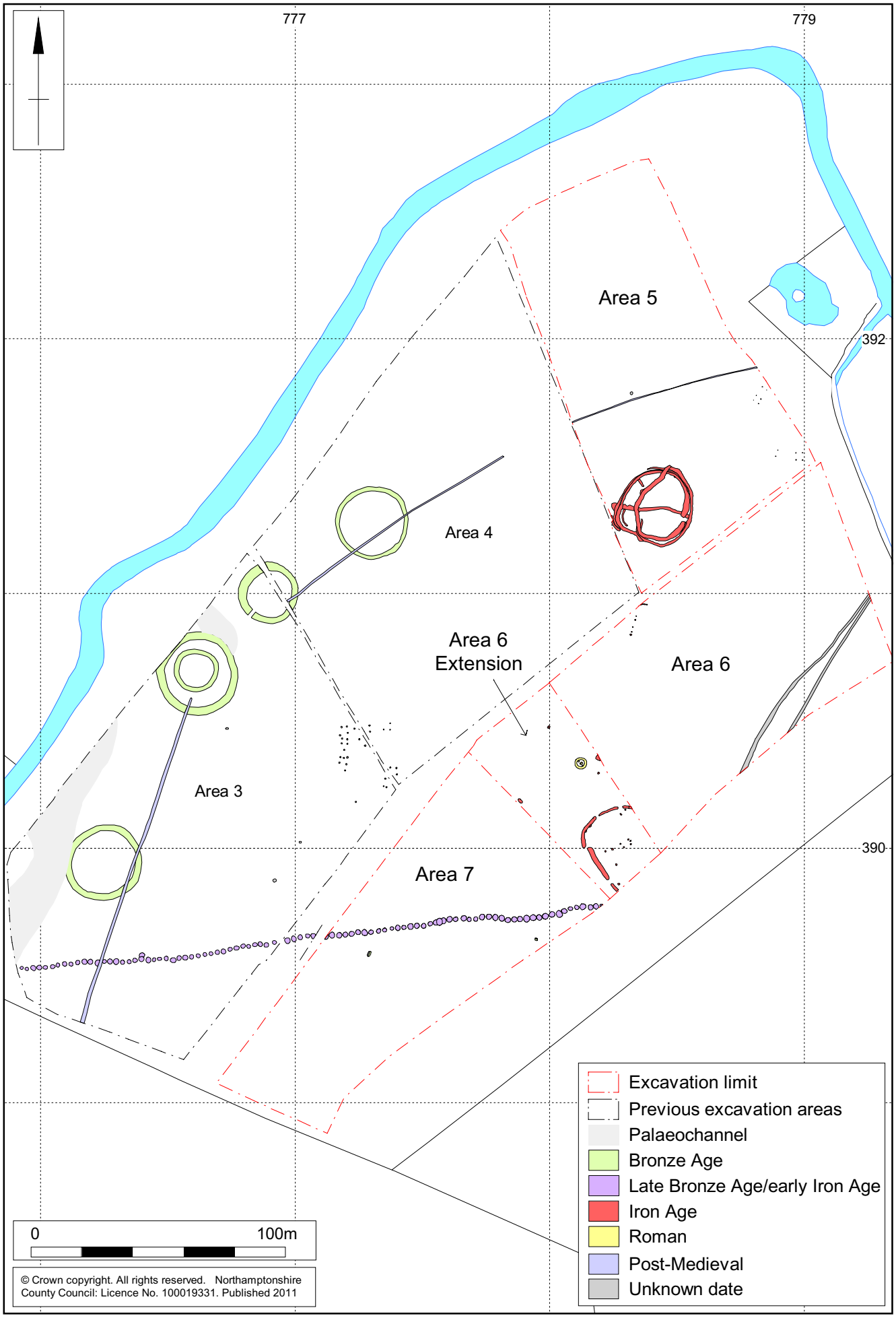
- considering the change from a funerary/ritual to an agrarian landscape
- the relationship between native and Romano-British settlement patterns.

Given that this excavation forms part of a long term project this report is limited to the assessment of the finds and features so far investigated. When all phases of the excavation have been completed the Archaeological Consultant will, on behalf of CEMEX UK, co-ordinate the selection of a single archaeological contractor who will review each season's assessment and produce an Updated Project Design leading to full analysis and reporting. The written record and artefactual evidence will be held at Northamptonshire Archaeology until such a time.

5 EXCAVATION METHODOLOGY

A total area of 3.2ha was stripped under intensive archaeological supervision using a 360° excavator fitted with a 2.2m toothless ditching bucket. Area 5 and part of Area 6 were the initial areas of excavation, undertaken during July 2008; the rest of Area 6 and Area 7 were undertaken from June to August 2009 (Figs 2 and 3). The topsoil and subsoil deposits were removed to reveal the first significant archaeological layer or, where absent, the natural substrate. Removed soil was handled by articulated dump trucks and stacked at a safe distance from the excavation areas.

A site grid was established at 20m intervals and related to the Ordnance Survey National Grid using a Leica System 1200 GPS. Where necessary the archaeological surface was cleaned by hand and planned at a scale of 1:50. All sectioned features were drawn at a scale of 1:10 or 1:20 and recorded on proforma sheets. A unique context number was allocated to each distinct deposit and feature.



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Phased plan showing all features Fig 2

Soil samples of up to 40 litres (where possible) were taken for flotation from suitable contexts with a potential for the recovery of charcoal and carbonised plant remains. Fills from the pit alignment pits were comprehensively sampled.

The site and the spoil heaps were scanned with a metal detector to maximize artefact retrieval.

A full photographic record comprising both 35mm monochrome negatives, with associated prints, and colour transparencies was maintained, together with digital photography.

All works were conducted in accordance with the Institute for Archaeologists *Standard and Guidance for Archaeological Excavation* (IFA 1995, revised 2008) and the *Code of Conduct of the Institute of Field Archaeologists* (IFA 1985, revised 2008).

6 SUMMARY OF EXCAVATION RESULTS

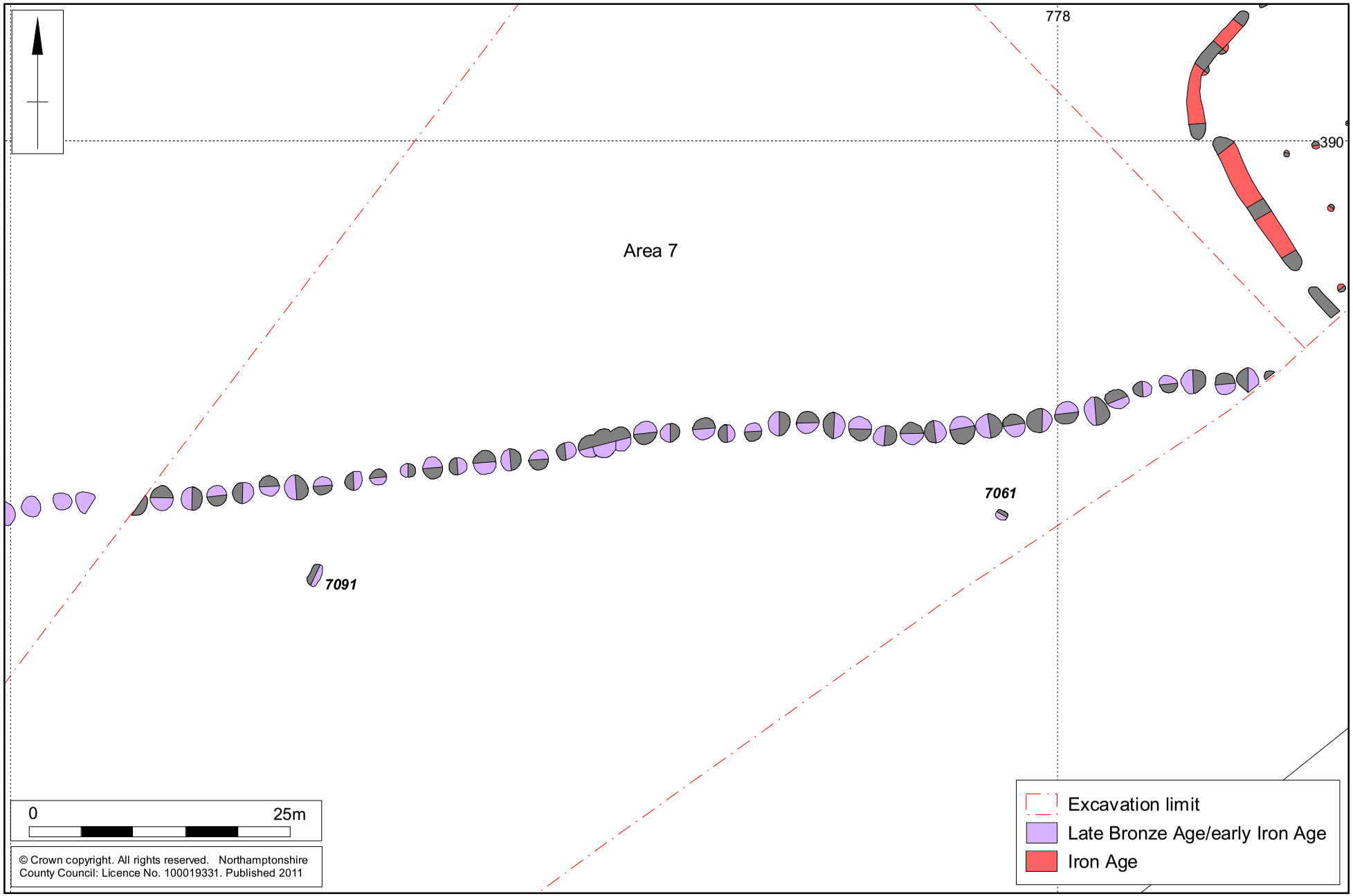
The phasing in this report has maintained the phasing used in the previous assessment report for Areas 3 and 4 (Walker 2009). Phase 1 was used for the early Bronze Age round barrows; there are no contemporary features in Areas 5, 6 and 7 (Fig 2).

6.1 Phase 2: Late Bronze Age to mid Iron Age pit alignment

A total of 45 pits lay within Area 7 on an east to west alignment (Figs 2 and 3). The line of pits formed a direct easterly continuation of the 47 pits excavated in 2006 (Fig 2). Although the line of the pits was generally straight, there were small, but distinct, changes in alignment and slight offsets visible along the excavated length of the monument (Figs 3 and 4). These adjustments in alignment and distinct groups of pits have been observed elsewhere and have been attributed to the possibility that discrete family groups were responsible for the excavation of a certain number of pits. However, the excavation of the pits would appear to have been broadly contemporary.

Much of the pit alignment was a simple, single-phase system comprising fairly regular circular pits between 1.45-2.54m in diameter and 0.50-1.11m deep and spaced on average 2.5m apart from centre-to-centre. However, two pits had been re-cut; both at the eastern end of this part of the alignment. Overlying two pits was a layer of metalled pebbles and cobbles, perhaps to provide access across the alignment when the pits had largely filled up.

The pits exhibited a wide range of profiles; there were a mixture of wide U-shaped and more narrow V-shaped profiles, most had stepped or irregular edges. This may indicate that, once excavated, the pits were left open to slowly silt up. The relatively soft geology of the area meant that the sides were heavily weathered in the intervening period, causing the irregular profiles. The fills varied considerably from exhibiting homogeneous fills to a number of discrete fills. The primary fills were generally reddish-brown silty sand or clay, while the upper fills were often darker with a greater clay component. Darker upper fills appeared to be concentrated at the eastern end of the alignment, perhaps indicating that settlement was located nearby. Some of the fills appeared mottled suggesting that they were waterlogged at some point.

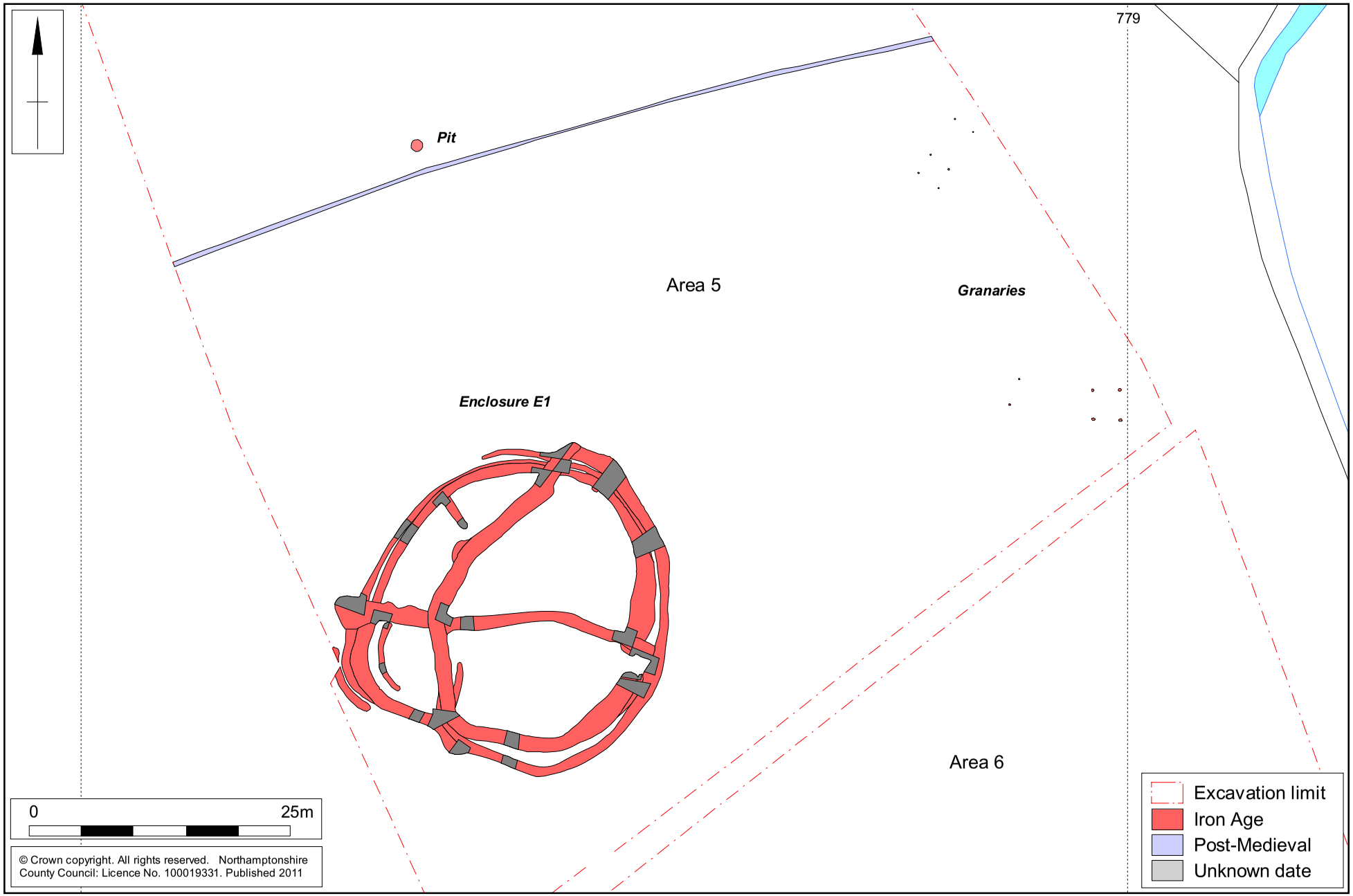


Area 7, pit alignment Fig 3

A relatively large amount of early Iron Age pottery was found in the upper fills with pottery only rarely from secondary fills. The pottery is of a similar date to that found in earlier years, but was concentrated at the eastern end of the excavated pits. The upper fills also contained bone, flint, including two arrowheads, and charcoal, along with the remains of a spindlewhorl, a loomweight and a glass bead. The primary fills appeared to be entirely sterile. Since the pottery was deposited after the pits had already mostly silted up, it is difficult to assess how long after their excavation this occurred. The presence of such large amounts of pottery is somewhat unusual given that the pits appear to be situated at some distance from any contemporary settlement. This may indicate that it was placed in the pits deliberately.

The pit alignment, looking west Fig 4

There were two pits to the south of the pit alignment. Pit [7061], to the east, was 1.00m long, 0.85m wide and 0.56m deep. The lower fill was composed of green-blue silty clay, indicating deliberate deposition from elsewhere since it was not similar to the surrounding natural clays. There were burnt stones, bone, charcoal and pot in the fill. The upper fill was dark black-brown silty clay with charcoal lumps, pottery, burnt cobbles and a flint arrowhead. Pit [7091], to the west, was 2.00m long, 1.30m wide and 0.48m deep. The shallow primary fill appeared to have resulted from natural weathering processes, while the upper fill was mid orange-brown silty clay with manganese mottling. Pottery from the pits appeared to date from the same period as the pottery found in the upper fill of the pit alignment pits.



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Area 5, Iron Age enclosure and postholes Fig 5

6.2 Phase 3: Iron Age enclosure

Area 5

There was a multi-phase, roughly circular enclosure in the south-west part of Area 5 (Figs 5, 6 and 7). The earliest phase was about 27m in diameter, an area of just under 600m^2, with an easterly facing entrance no more than 10m wide (E1; Fig 6). The ditch was generally rather narrow, at 0.30-0.45m wide and up to 0.34m deep with steep sides and a rounded base. There were no surviving contemporary internal features.

The enclosure was subsequently redefined (E2), with the new ditch overlapping the earlier inner edge of ditch E1 around much of its circuit (Fig 6). However, the location of the entranceway was changed and an entrance, 18m wide, was created to the south-east. The western ditch terminal was slightly out-turned. The ditch was 1.00-1.50m wide and up to 0.45m deep around much of the circuit, increasing to 2.00m wide and 0.75m deep at the south-eastern terminal. The primary fills of the ditch comprised mid brown-grey sandy silts with mixed gravels, overlain by darker grey-brown sandy silts.

An internal division of the enclosure (D1; Fig 6), comprised a ditch aligned east-west and 1.00-2.00m wide by up to 0.53m deep. The eastern terminal was cut almost directly over the eastern ditch terminal of E2. The southern sub-division was largely open, as it incorporated the wide entrance of enclosure E2. Further short lengths of ditch may have also been added during this period, which, perhaps with fences or hedges, may have further divided the enclosure into different functional areas.

In its later use the basic plan shape was modified, becoming smaller and D-shaped. Ditch E3 formed a semi-circular circuit around the southern part of the original enclosure. It blocked the former E2 entrance at the south and terminated to the north-east. The ditch was between 0.90-1.5m wide and 0.50-0.65m deep. The fills were more mottled than earlier phases, perhaps suggesting a wetter environment during this period. The north-western side of the area may have remained open or been enclosed by a hedge or fence.

A later recutting, ditch E4, defined an internal area *c*25m long and 15m wide with an entrance to the north-east, where an area of limestone pebbles on the outer side of the entrance lay over the filled in ditches of earlier phases. The entrance was later blocked by the excavation of a shallow ditch across the causeway; this may have been the final activity at the enclosure.

Some 30m to the east of the enclosure were two groups of six postholes (Fig 5). The group to the south were between 0.13-0.30m in diameter and 0.05-0.10m deep, with shallow, dish-like profiles and dark grey-brown sandy silt fills. Four of the postholes formed a square with sides of 2.5-2.9m long; the other two postholes were 7m further to the north-west. Several sherds of Iron Age pottery were found in the fills. The northern group were similarly arranged with the two offset postholes located just over 4m to the north-east. No pottery was found from this group. The postholes formed at least two four-post structures, which are commonly interpreted as granaries.

Some 25m to the south-west of the enclosure there was a north-east to south-west alignment of five postholes, each 0.80-0.30m in diameter and 0.10-0.30m deep (Fig 2). They were spaced 1.5-3.5m apart and the alignment was 13m long in total. Situated at the northern end of the alignment, but on a perpendicular axis, was a shallow gully, at least 3.00m long and 0.40m wide. Several sherds of pottery were found in the postholes and gully; all dated to the late Iron Age. They may have formed a fenceline.

There was a single pit to the north of the enclosure (Fig 5). It was 1.14m in diameter and 0.16m deep with a wide U-shaped profile. The upper fill contained frequent charcoal, perhaps hearth debris, and two sherds of Iron Age pottery.

Panorama of the Iron Age enclosure after excavation, looking north Fig 7

Area 6

An undated enclosure, composed of short lengths of ditch, was at least 27m long and 21m wide (Enclosure 2; Fig 8). The individual ditches were between 8-15m long, 0.78-1.58m wide and 0.10-0.50m deep with broad, dish-like profiles. The ditch fills varied between homogeneous fills to a number of discrete fills, though all were fairly similar with small quantities of gravel, occasional charcoal flecks and no finds, perhaps suggesting an alluvial origin. This suggests that the enclosure was not close to settlement activity. There was no evidence of re-cutting within any of the ditch sections, suggesting that the feature was excavated and then left to silt up gradually. Within the enclosure were a series of shallow postholes; four of the central postholes may have formed a simple structure but otherwise there seemed to be little form in their arrangement. Small quantities of pottery were found in the fills of two of the postholes and dated to the late Iron Age.

There were two shallow ditches at the east of Area 6 (Fig 8). They were broadly parallel at the east of the site, spaced 0.60m apart, while the south-west the gap between them widened to *c* 7.5m. They were between 0.52-0.70m wide and 0.17-0.24m deep. The ditches were undated but may form another element to the Iron Age landscape, perhaps representing a form of ‘race’ for sorting cattle or sheep. Further scattered pits in Area 6 may also date to the Iron Age.

Scale 1:200 (A4) Plan of the Iron Age enclosure showing phasing Fig 6

6.3 Phase 4: Roman mausoleum

A Roman mausoleum in Area 6 is dated to the mid 2nd century, and was probably associated the Roman settlement remains found 300m to the south-west in the evaluation (Morris 2006), but there was no other Roman activity close-by. A circular stone wall up to 4.7m in diameter surrounded a low earthen mound that overlay a large urn containing cremated human and animal bone, some pyre debris and large quantities of iron nails (Figs 8 and 9).

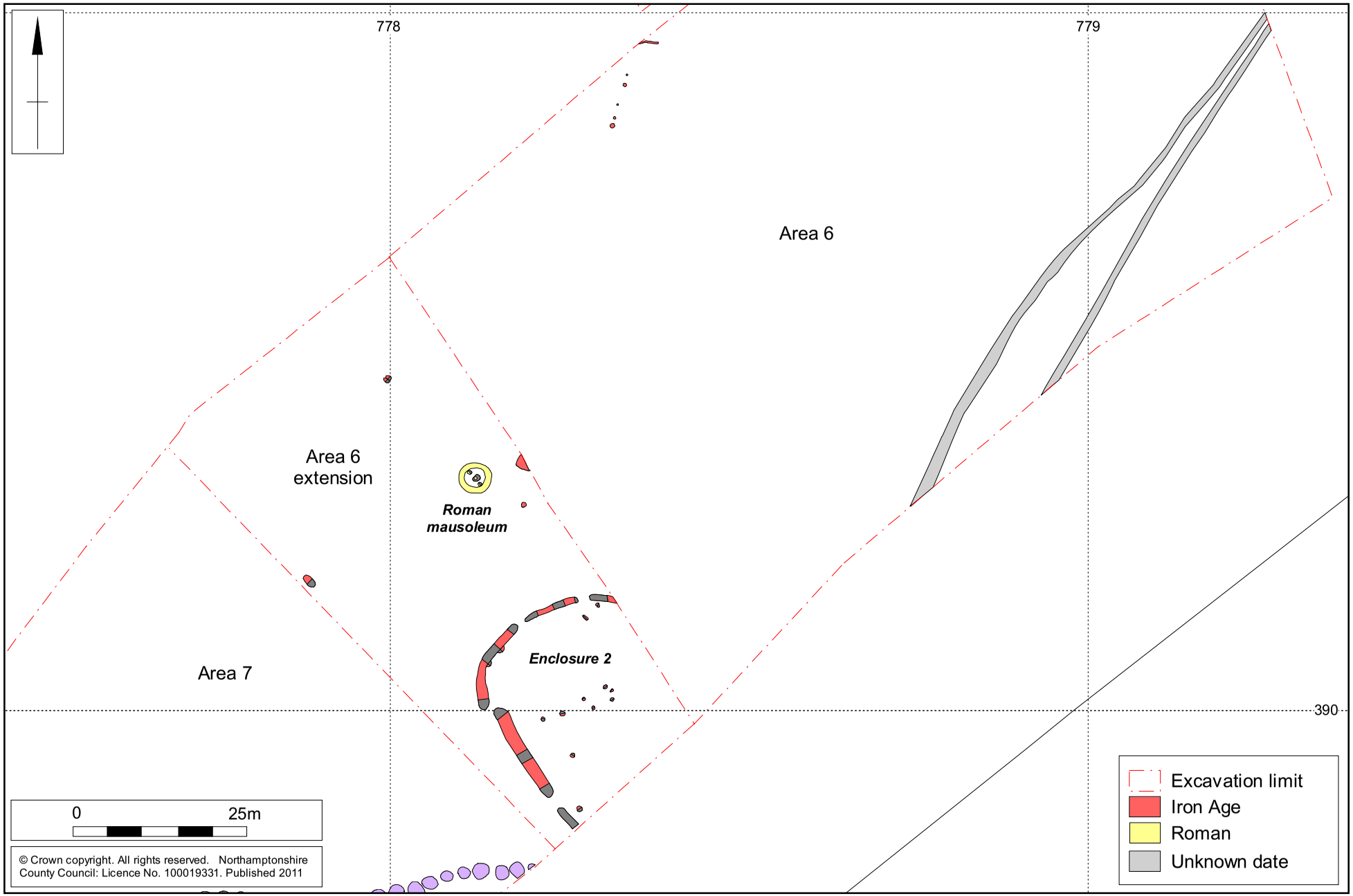
The circular foundation trench for the wall was 4.4-4.7m in diameter, 0.74-0.90m wide and 0.16-0.37m deep (Fig 9). The outer edge of the trench was steep or vertical sided, while the inner edge was slightly inclined and the base was flat. Within the building, a basal surface was formed by the reduction of the ground level down to the natural gravels.

The foundations comprised pitched limestone rubble laid in a rough herringbone pattern with clay bonding. At intervals around the circuit of the wall were lines of stone laid from the outer to inner edges, presumably used to tie in the foundations. The inner edge of the wall was inclined inwards slightly to rest against the internal soil mound. Deposits of small stones lying at the junction of the wall and the mound may represent the initial weathering of the mound material.

Within the stone matrix were three deposits of cremated bone, mostly animal bone although some human bone, including a tooth, has been identified in Cremation 2 (Fig 9). Very little charcoal was present within these deposits. Cremation 2 had been deposited near the base of the foundation trench and consisted of burnt bone and nails. Cremation 3 consisted of a small quantity of burnt bones and charcoal apparently placed within the first two courses of the wall and, similarly, cremation 4 was also found within the wall. They may have been foundation deposits similar to those found under the walls of Roman buildings.

A large oval pit in the centre of the interior was 1.20m long by 0.80m wide and 0.36m deep, with steep, slightly concave edges and a flat base (Fig 9). A large pottery storage jar, thought to originate from the kilns near Harrold, Bedfordshire, had been placed on the base of the pit (Fig 9, Section 323). The jar was much larger than other known examples of this type and it was perhaps made to order. A coin of Antoninus Pius in the base of the urn dates the deposit to the mid 2nd century. The urn contained a soil matrix of mid grey-brown silty clay, which probably included burnt soils from beneath the pyre. Scattered through this soil was 1.1kg of cremated bone, both human and animal, including bird bones and small mammal bones, along with a quantity of charcoal, 0.33kg, presumably also collected from the pyre. The quantities involved indicate that only a proportion of the bone and other pyre debris were selected for deposition. The urn also contained 659 iron nails.

The urn appears to have been fully filled by these materials, and there was no indication of any covering over the top of the pot. Many of the nails were in near perfect condition, probably due to the preservative effect of heat on iron, suggesting that they were part of the funeral pyre.



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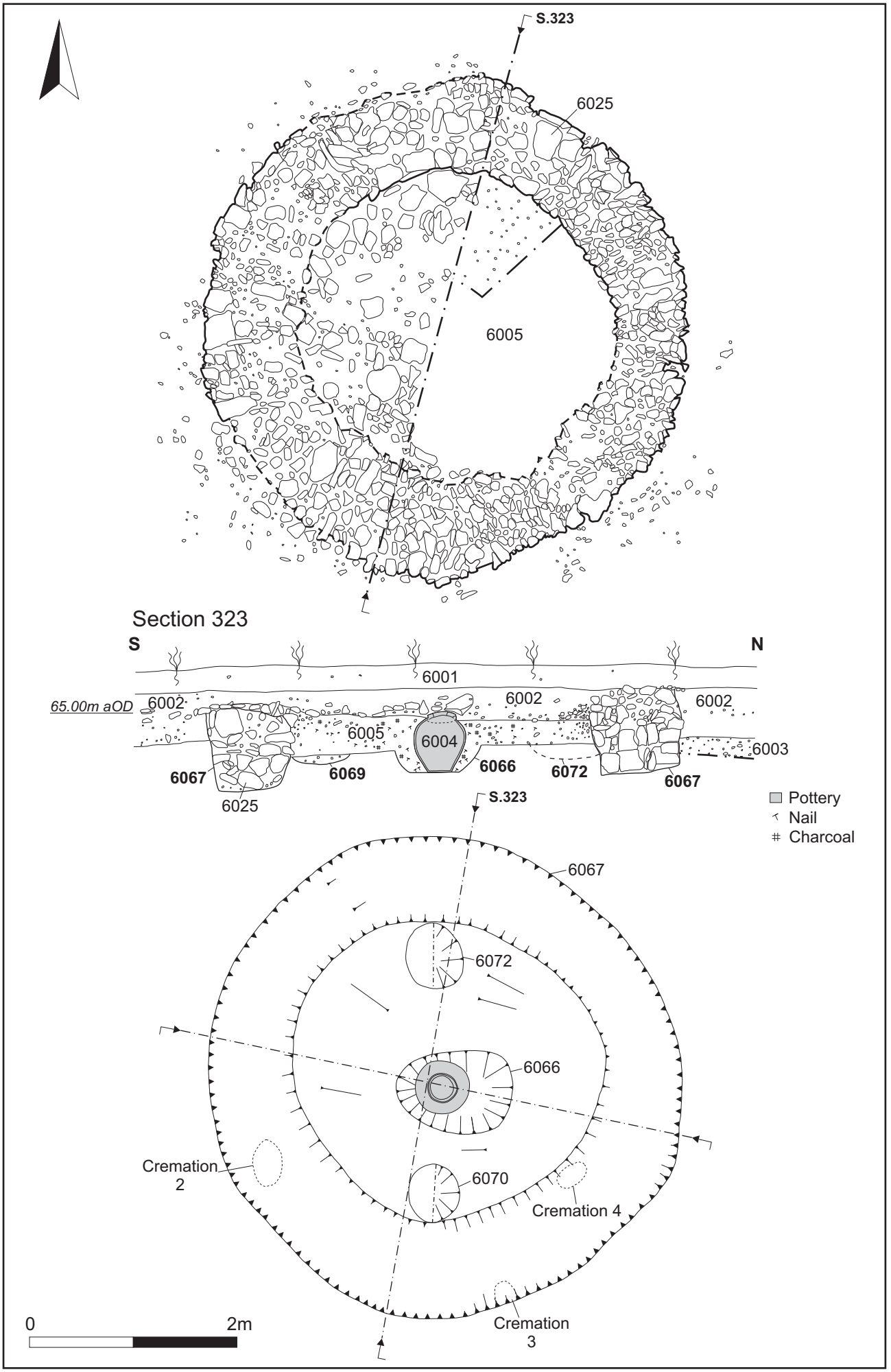
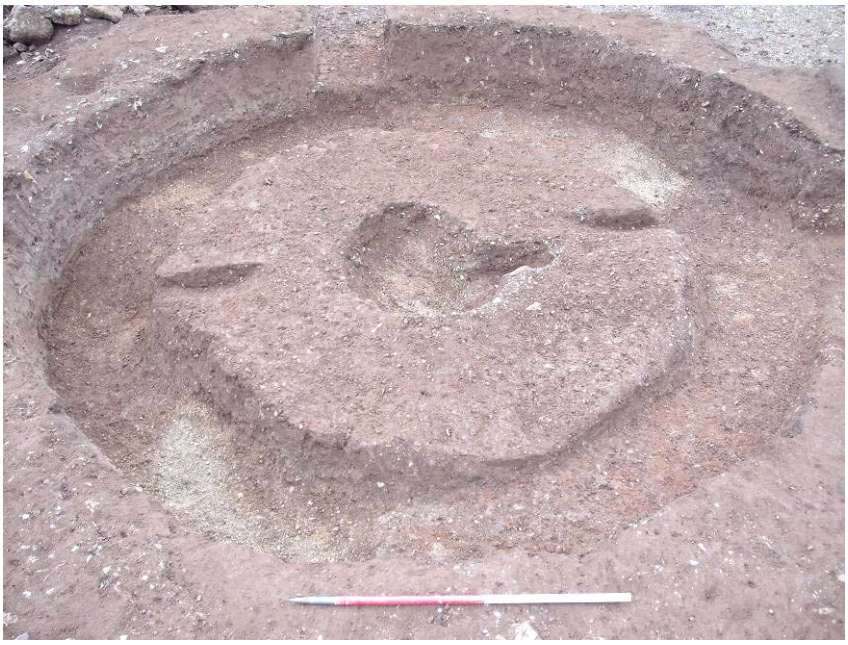
Area 6, Iron Age enclosure and Roman mausoleum Fig 8



Scale 1:50 (A4) Mausoleum with remaining stonework, and fully excavated Fig 9



The foundation trench for the mausoleum Fig 10

The mausoleum walls and excavated interior Fig 11

There were also two shallow pits or postholes to the north and south of the central pit. The features were 0.60-0.65m in diameter and 0.11-0.13m deep. The fills of both were almost sterile with occasional charcoal flecks. There was no indication of post-pipes or post-packing, but it is possible that they originally supported posts or perhaps were libation pits.

The urn prior to excavation Fig 12

After the urn had been placed in the pit, the interior of the mausoleum was filled with earth, [6005], probably forming a low mound. The filling of the area within the wall, including the central pit, appears to have been undertaken as a single act, and consisted of mid grey-brown silty clay. A further 726 nails were found within the mound material, as well as a smaller quantity cremated bone and charcoal. No tip-lines or variations within the fill were noted, although the bone, charcoal and nails were more concentrated towards the centre, close to the urn.

In all, *c*1385 nails were found and it has been suggested that the deposit was derived from the bier structure and other goods and offering placed upon it. The cremated bone assemblage appeared to contain, among other things, wood pigeon, woodcock and sheep/goat bones suggesting that offerings of food may have also been thrown onto the pyre.

There were otherwise very few material finds associated with the cremation; the small amount of pottery was abraded indicating it had been lying around for a considerable period of time prior to incorporation into the mound. An early Neolithic leaf-shaped arrowhead was found in the mound material, but it was likely to have been an accidental inclusion.

The mound had been levelled by later ploughing and some of the stone wall had been dragged across into the centre of the mausoleum (Fig 9).

6.4 Phase 4: probable post-medieval track

A ditch aligned east-north-east to west-south-west was 0.45m wide and 0.18-0.22m deep with shallow sides and flat base (Figs 2 and 5). It was filled with homogeneous mottled dark grey-brown clay silt, which was probably alluvial in origin. The probable continuation of the ditch in Areas 3 and 4 had truncated the Bronze Age barrows.

In the field to the south of Area 3 a raised track on the same line as the ditch cut across, and therefore post-dated, the ridge and furrow (NA 2002). The track, and by inference the ditch, were therefore probably post-medieval.

7 FINDS ASSESSMENT

7.1 The worked flint by Y Wolframm-Murray

In total 52 pieces of worked flint were recovered as residual finds from the late Bronze Age/early Iron Age pit alignment, a Roman mausoleum, topsoil and subsoil contexts (Appendix 1). The flint comprised one core, three pieces of shatter, 36 flakes, seven blades, three arrowheads, two scrapers, and 14.6g of debitage was recovered from the environmental samples (summarised below in Table 1).

Table 1: Quantification of worked flint

Description	Whole	Fragment	Burnt	Total
Core	1	-	-	1
Shatter	-	3	-	3
Flake	27	8	1	36
Blade	5	2	-	7
Arrowhead, barbed-and tanged	1	-	-	1
Arrowhead, tanged	1	-	-	1
Arrowhead, leafshaped	1	-	-	1
Scraper, end	1	1	-	2
Total	**10**	**3**	**2**	**52**

The condition of the assemblage was good. The flints showed varied post-depositional edge damage, ranging from occasional to frequent edge nicks. Patination was present on a small proportion of the assemblage ranging from a mottled white to a complete white colour. Accidental burning of the flint was evident on one flake in the form of thermal fracturing.

The raw material is a vitreous flint of light to dark coloured greys and browns. There is also a small component of a more opaque grey and grey-brown flint. Cortex is present on the dorsal surface on the majority of the assemblage and typically off-white or light to dark brown in colour with a generally smooth, rolled and weathered surface. The raw material was likely to have been derived from local gravel deposits.

A multi-platform flake core was recovered from the subsoil as were the three pieces of shatter. The majority of flints recovered consisted of waste flakes and blades. These comprise 36 flakes, of which nine were broken, and seven blades, of which two were broken. It was not uncommon for the flakes to have cortical striking platforms and several squat flakes were also present in the assemblage.

The retouched tool forms comprised three arrowheads and two scrapers. The arrowheads included one leaf-shaped arrowhead, bifacially invasively worked. There was a barbed-and-tanged arrowhead, bifacially and invasively worked. The barbs were intact but the tang was partially missing. Also a tanged arrowhead with a square tang was recovered. The arrowhead was semi-abruptly retouched around the edges on both surfaces, however, the retouch does not cover the entire surface.

Two end scrapers were recovered, of which one was broken. Both end scrapers had abrupt and semi-abrupt retouch on the concave distal ends. The complete end scraper is patinated, but has extensive edge damage.

The tanged-and-barbed and tanged arrowheads, the inclusion of squat flakes and flakes with cortical striking platform suggest a Late Neolithic/Early Bronze Age date for most of the assemblage. Early Neolithic flint is present in the form of the leaf-shaped arrowhead, the three patinated soft-hammer struck blades, and the patinated end scraper.

7.2 The pottery

The prehistoric pottery from the pit alignment by Andy Chapman

The excavation of the eastern half of the pit alignment in 2009 produced a total of 1502 sherds of pottery, weighing 5.1kg. There is an average sherd weight of only 3.8g, but this figure has been reduced by the presence of large quantities of small sherds. Larger well-preserved sherds are common and provide ample diagnostic material to enable the assemblage to be characterised and dated. The majority of the pottery comes from the upper secondary and final fills of the pits and is fragmented but fresh and unabraded. This suggests that it is not a product of secondary deposition, such as deposition by erosion from an existing ground surface.

For assessment, the assemblage had been rapidly scanned to provide an indication of form and therefore chronology. There are general comments on the fabrics, but no quantitative analysis has been undertaken.

The assemblage being considered adds to the 1250 sherds, weighing 8.5kg, recovered from the western end of the pit alignment in excavations in 2006-7, which was dated to the early Iron Age (Chapman 2009). The total assemblage recovered from the pit alignment now comprises 2750 sherds, weighing 14.2kg.

The pottery

The fabrics have not been examined in detail but there are examples of sandy fabrics, containing fine quartz grains, fabrics containing dense small pellets of grog, and some sherds containing voids from leached shell. The colours tend to be dark; dark-grey to grey-brown surfaces, but orange-brown, oxidised, sherds also present.

The groups are dominated by well made, thin-walled vessels, often with smoothed to burnished surfaces. Rims are typically simple and upright, and rounded or flat-topped, although there are individual examples of thickened rims, one on which is L-shaped. The vessels have long necks and are either shouldered or carinated. There are no thick-walled large storage jars. There are several examples of perforated lugs of various sizes.

Decoration is rare, but there is a flat-topped rim with shallow finger-tip impressions. There is also a single small, thin-walled carinated bowl with the neck profusely decorated with vertical lines of crudely executed zig-zag decoration (Fig 13). This is similar to some vessels recovered from the western end of the pit alignment (Chapman 2009, fig 12).

Early Iron Age pottery from the fill (7082) of pit 7085 in the pit alignment, decorated with incised zig-zag pattern on the neck and carination Fig 13

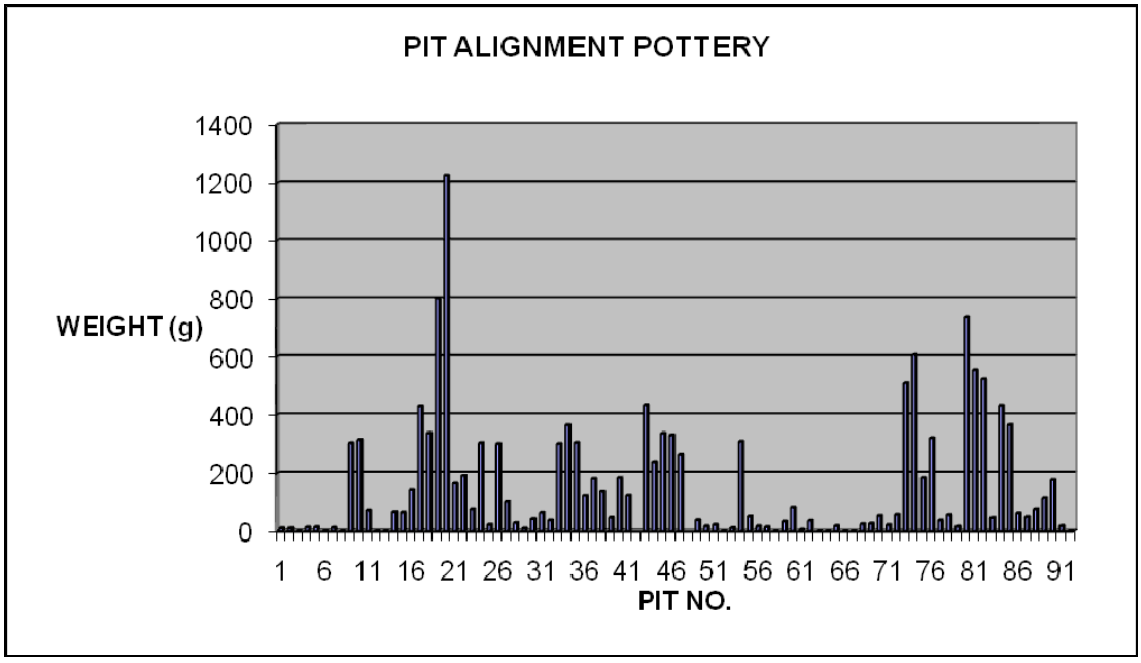
Chronology

The characteristics of the assemblage indicate that it dates to the Early Iron Age, although a few aspects also overlap with assemblages of middle Iron Age date. This might suggest a date of early Iron Age to early/middle Iron Age, perhaps the 6th and 5th centuries BC. However, it would be desirable to test this using radiocarbon dating.

Pottery distribution

The distribution plot for the weight of pottery recovered for the entire excavated length of the pit alignment shows that there were distinct concentrations of pottery (Fig 14). To the west, there was a sharp peak, reaching 1.2kg in one pit (pits 16-22), but there were also considerable quantities of pottery in many of the pits to the east of this (pits 22-47). To the east, the pits excavated in 2009 and the subject of the present assessment, there was a length of pit alignment containing little pottery (pits 56-71), while further east there is a further group often containing around 0.5kg per pit (pits 73-85). (Note: the pits numbers shown on Fig 14 are arbitrary numbers used to create the plot, and are not the recorded feature numbers.)

While the distribution shows potential peaks, the nature of the pottery and its date appears to be consistent along the entire length examined. It may also be noted that despite the quantities of pot recovered along this extended length of pit alignment there are few other cut features nearby that might relate to any contemporary settlement.



The distribution of pottery along the pit alignment, west to east Fig 14

The pottery from the Iron Age enclosure

The Iron Age pottery by Andy Chapman

A total of the 536 sherds of pottery, weighing 4494g, was recovered from the ditches of the Iron Age enclosure. The majority of this material comprises hand-built vessels dating to the middle to late Iron Age, but there is also a small quantity of wheel-finished or wheel-thrown pottery of the late Pre-Roman Iron Age and early Roman periods. This comprises some 20 sherds from the final fills of the latest phases of recutting, which had probably accumulated in the subsidence hollow above the largely silted ditches following abandonment.

The Iron Age pottery is typically hard and well fired, with the surfaces intact, but it has been highly fragmented. Few vessel profiles can be reconstructed, and the average sherd weight is 8.4g. The assemblage comes from 55 separate contexts, but only 14 contexts produced more than 100g of pottery. Only three of these contexts produced more than 200g of pottery, with a maximum of 500g, and these three also include the largest deposit of early Roman pottery. The typical Iron Age group therefore comprises a small number of body sherds with little interpretative potential.

For the purposes of assessment the entire assemblage has been scanned, but a full analysis of the fabrics has not been provided.

Fabrics
Four Iron Age fabric types were noted:

Fine sandy: containing fine sand with only small quartz minerals visible.

Coarse shell: containing dense coarse shell, with pieces up to 7mm diameter.

Fine shell: containing sparse, finely-crushed shell, pieces up- 1-2mm diameter.

Grog: containing small pellets of rounded grog

The sandy and shelly fabrics all occur in about equal proportions, while there are only a handful of grog-tempered sherds from hand-built vessels, and these are also associated with the final fills of the latest phase of ditch cutting and the occurrence of wheel-finished vessels of the 1st century AD.

The hand-built vessels are typically hard and well-fired. Sherds are typically 8-11mm thick, occasionally either a little less or more. The colour of the sherds is predominantly dark. The cores are typically grey-black and the surfaces are also often grey to grey-black, although instances of light brown or orange-brown external surfaces are not uncommon. The surfaces are typically smooth and some vessels, particularly smaller vessels with grey-black external surfaces, have been burnished.

Forms and decoration
The vast majority of the assemblage comprises plain body sherds. There are only seven Iron Age rim sherds, all of which are of simple form, with five rounded and two flattened. None are decorated. They are all from smaller vessels. There are parts of five bases, all flat, and one measures 110mm in diameter. There are only two scored ware sherds.

Only two Iron Age vessels contain sufficient features to define their forms. From the fill (5106) of ditch [5109] there is part of a small plain shouldered jar, grey-black with a smoothed/burnished surface. It would have stood *c*100mm high, but the rim is missing. In size and fabric it is similar to a bowl from the fill (5134) of ditch [5136], D1. This comprises a quarter of a small bowl, grey-black with a burnished surface (Fig 15). It stands 70mm high, with a base diameter of 80mm and a rim diameter of 120mm. The rim is turned inwards and is rounded. There are two surviving vertical lines of impressed decoration, each comprising a row of small irregular impressions, indicating that there had been four lines set at 90 degrees. Other plain black sherds with burnished surfaces suggest the presence of other similar bowls within the assemblage.

While no profiles can be reconstructed, it is likely that the thicker plain sherds come from the large storage jars, up to 500mm high, which are typical of middle to late Iron Age assemblages.

The only other vessel with a recognisable form comes from the surface of ditch E3. This vessel, SF 2693, is a rounded, perhaps globular bowl with a rim diameter of 155mm, possibly wheel-turned or at least wheel-finished (Fig 16). It has a rounded and

thickened rim, with a groove or channel in the flattened upper surface. It can be dated to the early to middle decades of the 1st century AD.

In addition, two rim sherds from the fill (5070) of ditch [5073], E4, are from hand-built vessels, with a rounded and a bead rim, which probably date to the early 1st century AD, as the forms and fabrics, containing fine black grit, are quite distinct from the rest of the assemblage.

Small burnished bowl with vertical lines of impressed decoration (Scale 50mm) Fig 15

Rounded/globular bowl with a thickened channel-rim (Scale 50mm) Fig 16

Fired clay

There are 56g of fragments of fired clay from the fill (5125) of ditch [5126], E4, which probably come from a triangular loomweight.

The late Iron Age and Roman pottery by Tora Hylton

Sixteen sherds (weighing 142g) of late Iron Age/early Roman pottery was recovered from the upper fills of ditches [5065] and [5073], both phase E4. This small group comprises locally produced grog-tempered wares, the fabrics vary slightly but they may be likened to Milton Keynes Fabric Type 46 (Marney 1989, 190). The fabric contains abundant pieces of crushed pottery, the core is grey and the exterior surfaces are fired to a buff/orange colour; such orange-surfaced grog-tempered vessels are common in the Milton Keynes area (Ibid 190).

The majority of sherds are undiagnostic, but the identifiable forms include a Thompson Type B1-2 jar with a tall plain everted rim and offset neck (Thompson 1982), and a fragment of a rippled shoulder, possibly from a Thompson Type B2-1 jar. The range of forms and the fabric suggest a mid 1st to 2nd century AD date.

Chronology

While the assemblage can be broadly dated to the middle Iron Age, there are only a few indicators of a more specific date range. The absence of finger decoration on the rims and bodies, the prevalence of darker surface colours and the presence of a number of small vessels with black and burnished surfaces all tend to suggest a late date, perhaps largely the 1st century BC.

This late date is also supported by the presence of small quantities of wheel-finished and/or wheel-thrown pottery of the late Pre-Roman Iron Age and early Roman periods. A channel-rim bowl in an Iron Age-type fabric, recovered from the surface of a ditch, probably dates to the early to mid-1st century AD, while a group of local grog wares from the final fills of the latest recuts are dated to the mid-1st to 2nd centuries AD, as material accumulating in the subsidence hollow above the silted ditches following abandonment of the enclosure, and derived from the nearby Roman settlement.

The pottery from the Roman mausoleum

Iron Age pottery by Andy Chapman

Small quantities of residual hand-built Iron Age pottery were recovered in association with the Roman mausoleum.

From the soils (6004) within the urn, there are 14 sherds and some crumbs, weighing 70g, from no more than two vessels. The material comprises small and abraded plain body sherds in a sandy fabric, containing quartz grains, with a dark grey core and grey or brown surfaces. A further similar sherd and come crumbs, weighing 4g, came the soils (6005) around the urn.

A number of small pits in the same area of the site also produced small quantities of Iron Age pottery. From the fill (6010) of pit [6011] there is one sherd weighing 9g; from the fill (6012) of posthole [6013] there are 29 sherds weighing 61g; and from the fill (6016) of posthole [6017] there are 22 sherds weighing 21g. The presence of a sherd containing grog from fill (6016) would be consistent with a late Iron Age date.

This material is all broadly comparable to the material from the nearby late Iron Age enclosure.

Roman pottery by Tora Hylton

In total 74 sherds with a combined weight of 16,275kg were recovered from five individual deposits. With the exception of a single undiagnostic sherd recovered from a silty spread (6028) and eight sherds from subsoil (6002), the entire assemblage was recovered from deposits relating to a small circular structure sited to the east of Area 6. At the centre of the structure, a complete ceramic storage jar had been deposited and

this contained and was surrounded by burnt human remains and pyre debris (6004/6005). In addition pottery was recovered from the structure itself (6025). The analysis included sherd count and weight by fabric type and where possible the fabrics have been catalogued according to the Milton Keynes Roman fabric type series (Marney 1989). Much of the assemblage is represented by locally produced wares, in shell-gritted (MK Fabric 1a) and grog-tempered fabrics (MK Fabrics 2 and 46). In addition there are a small number of undiagnostic body sherds in greyware and sand-tempered wares. Imported wares are represented by undiagnostic sherds of Samian and? Amphora.

The storage jar is made from fossiliferous clay which has been fired to pale orange/buff colour with a light grey core. The jar is huge, measuring *c* 520mm in diameter and weighing in excess of 15kg. The exterior surface is decorated with carefully executed near vertical combing which terminates just before the base of the vessel. Typologically and decoratively this storage jar displays similarities to the shell-gritted wares (MK Fabric 1a) which are most certainly sourced locally from a group of kilns sited 2km to the south-west of the village of Harrold, Bedfordshire (Brown 1994). The form of the vessel corresponds to one of Brown's Phase 2 types, a large storage jar with fine vertical combing (1994, fig 22, 9). Brown has suggested that such vessels may be assigned to the late 1st /2nd centuries (ibid 1994, 57), a date which accords with the date of the coin recovered from the fill of the vessel (Antoninus Pius 138-61). The dimensions of this particular storage jar fall outside the dimensions of those recovered by Brown, which range in size from 320-400mm in diameter; perhaps suggesting that it was made to order.

All the remaining sherds display signs of extensive abrasion, suggesting that they had been lying around for sometime prior to deposition. The overall average sherd weight is 7.5g which is relatively low. Diagnostic sherds in grog-tempered ware (MK Fabric 46) include, a rim sherd from a plain, shallow wide mouthed bowl (Thompson 1982, Type G2-2,1) and a plain lid-seated jar (cf Thompson C5-1), both date from the mid 1st to early/mid 2nd centuries.

Later wares are represented by sherds Soft Pink Grog ware (MK Fabric 2), which generally date from the 2nd to 4th centuries. Most of the sherds are undiagnostic, but forms represented include a necked jar and a wide mouth bowl (Marney 1989, fig 27, 12).

Summary

This small group of pottery comprises mainly locally manufactured coarsewares and most of it was recovered from deposits relating to the circular structure. Chronologically the earliest wares represented are grog-tempered wares dating from the mid 1st century to mid 2nd century and therefore possibly earlier in date than the urn, which is late 1st /2nd century in date. With the exception of a few sherds of soft-pink-grog ware no other 3rd/4th century wares are represented. Imported wares are represented, but only in very small quantities.

7.3 Building material by Pat Chapman

The pit alignment

The 51 small fragments of fired clay, weighing 258g, come from five contexts (Appendix 2). The 34 fragments from contexts (7017), pit [7019] and (7027), pit [7032], are typically 12-15mm thick, made from quite hard fine silty clay with some sub-rounded and irregular gravel inclusions. Each fragment has one very smooth yellow-brown surface and an irregular or smooth orange-red opposing surface. As one surface has been deliberately smoothed these fragments could be debris from a structure such as an oven, kiln or building.

The remaining fragments, from contexts (7041, 7055 and 7175), pits [7044, 7058 and 7178], are hard, irregularly-shaped and fired to black, purple-black, red, and brown to light brown. These have been subjected to high temperatures.

Ceramic object

An object very similar to a pot lug, except that the curvature indicates that it would have been inside the pot not outside if that were the case, came from context (7086), pit [7088] (Fig 17). The 'base' has been roughly trimmed to make an oval, 70mm long and 50mm wide, indicating that it must have come from a larger sherd. The 'lug' is *c* 40mm high, with a central oval perforation 23mm wide and *c* 10mm high. The fabric is friable light brown silty clay with very occasional tiny calcareous inclusions. The surfaces are smooth.

Ceramic object SF3435 from (7086), pit [7088], scale 20mm Fig 17

The Iron Age enclosure

The fired clay comprises 11 small fragments, weighing 46g, from five contexts (5057, 5071, 5072, 5079, 5127), within the Iron Age enclosure ditches. The largest are typically sub-square to sub-rectangular, 11-15mm thick with opposing flat but uneven surfaces. Ten fragments are composed of slightly friable orange and white clay with tiny to small calcareous inclusions, one is hard with a smooth surface and made with pinkish-brown clay.

7.4 Stone roof tile from the mausoleum

There are five flat limestone pieces, three measuring *c* 200x180mm and two *c* 90x90mm and 5-20mm thick, all from context (6005), the soil deposit within the mausoleum. One of the larger pieces, 12mm thick, has a perforation, 6mm in diameter, indicating that it had been used as a roof tile. The surviving chamfered edge, in relation to the perforation, suggests that it could originally have been a diamond shape designed to hang on the narrow vertical axis. The use of a roof tile in the wall of the 'mausoleum/shrine' would suggest a building with a stone-tiled roof in the vicinity.

7.5 Querns and rubbing stones by Andy Chapman

There are four small fragments of sandstone that may come from querns or rubbing stones of Iron Age or Roman date.

Iron Age pit alignment

There is an irregular fragment of ironstone from the fill (7070) of pit [7073] (SF3421), which has parallel convex and concave surfaces worn smooth. This may have been some form of sharpening or rubbing stone.

An irregular fragment of Millstone grit, 42mm thick, from the fill (7179) of pit [7182] has a worn concave surface, indicating that it is probably from a quern or rubbing stone.

Iron Age

From the fill (6046) of the interrupted enclosure ditch [6048], there is a worn and irregular fragment of pink granite, measuring 80mm by 50mm. This is most likely to be from the Charnwood forest, but there is no surviving evidence of previous shaping or use.

Roman

From the fill (6005) around the urn at the centre of the circular early Roman mausoleum, there is a fragment, 47mm thick, from the circumference of an upper stone from a rotary quern. The distinctive sandstone containing dense large quartz pebbles can be identified as an Old Red Sandstone from the Forest of Dean (Shaffrey 2006).

7.6 The other finds by Tora Hylton

The pit alignment

Three finds were recovered the pit alignment: a spindlewhorl (SF 3442), a loomweight (SF 3448) and a bead (SF 4449).

The presence of a spindlewhorl for hand spinning and part of a ceramic loomweight, presumably for weaving, attest to the manufacture of textiles. Part of a bi-conical spindle whorl was recovered from pit [7095]. Only a small fragment survives (*c* 1/5th), together with a vestige of the central perforation. It is hand made from a grog/quartz- tempered fabric which is identical to some of the pottery recovered from the same context (pers com A Chapman).

A corner fragment from a ceramic loomweight was recovered from pit [7114]. It has been manufactured from a coarse fabric with white flint and quartz inclusions. The external surface has been fired to a pale orange/buff colour and the core is pale grey/black in colour.

An exceedingly fragile annular glass bead was recovered from pit [7165]. It is yellow in colour, very porous and opaque with a vestige of weathering crust on the surface.

Roman

With the exception of a single nail, all the small finds from Area 6 were recovered from deposits associated with the circular mausoleum. The assemblage is dominated by nails, all of which presumably originate from pyre goods. A single copper alloy coin, which appeared undamaged by heat, was recovered from the base of the ceramic urn. It presumably had been placed inside the urn, together with the cremated human remains and pyre debris, as a payment for the boat ride to the underworld, the 'Charon's fee' (Cool 2011, 309).

Nails

The excavations produced 1472 individual nails. The majority, *c*1385, were recovered from a single cremation deposit sited within a small circular structure/mausoleum, of that number 659 were recovered from inside the urn (6004) and 726 from soil deposits outside the urn (6005). In addition a further 40 nails were recovered from three separate

deposits; two pockets of redeposited material located within the base of the foundation of the wall (6074, 6080) and the cleaning layer over the mausoleum wall (6025). It is impossible to be sure what such a huge group of nails would have been used for, but it may be postulated that they originated from some form of structure/bier on which the body would have been placed together with a range of offerings or pyre goods.

As part of the assessment, 504 nails (36% of the assemblage) were individually examined to provide a statistically significant representation of the entire assemblage. Samples of nails from both inside (272 nails) and outside (232 nails) the pot were analysed to determine the range of types and the sizes represented, together with evidence for organic remains, use and burning.

Five different nail types were identified (Fig 18). Types 1-4 are similar and may be paralleled by Mannings Type 1b (1985, 134). They have flat, mostly sub-circular/sub-rectangular heads with square-sectioned shanks. A range of sizes is represented; therefore they have been sub-divided by length and characteristic proportions, to determine any spatial differences between the types represented. A continuous range of nails is present; from relatively large examples with broad shanks measuring up to 90mm in length (Type 1) to small 'tack' like nails which measure just 14mm in length (Type 4). Type 5 has a flat L-shaped head.

Of the total number of nails analysed, 56 are of indeterminate form. Organic remains were not observed on any of the nails analysed, but this may change if further analysis takes place. Presumably any combustible material/organic remains present were burnt off, resulting in a dearth of carbonised or mineral-replaced wood.

The five nail types are as follows:

1 Flat sub-circular/sub-rectangular head measuring *c* 10mm in diameter or more. Square-sectioned shank measuring 4-5mm x 4-5mm. Complete examples measure from 53-90mm in length and within the assemblage cluster between 70-90mm (31 examples)

2 Similar to Type 1 but noticeably smaller. Flat sub-circular/sub-rectangular head measuring *c* 10 mm in diameter. Square-sectioned shank measuring < 4mm x 4mm. Complete examples measure from 40-70mm in length and within the assemblage cluster between 40-60mm (256 examples)

3 Similar to Types 1 and 2 but smaller. Flat sub-circular/sub-rectangular head measuring *c* 5-8mm in diameter; square-sectioned shank. Complete examples measure from 25-41mm in length and clustering between 30-35mm in length. (74 examples)

4 Small tack like nail with flat circular head measuring just 5-7mm in diameter and square-sectioned shank. Complete examples range from 14-25mm in length, with the majority clustering between 15-17mm in length. (83 examples)

5 L-shaped head with square-sectioned shank. Complete examples measure from 30-52mm in length. (3 examples)

The majority of the nails are in a good condition and their preservation exceptional. This is probably due to the preservative action that high temperatures have on iron. It is assumed that most of the nails had been burnt, but not all exhibit reddened surfaces, perhaps an indication of where they had been positioned within the pyre. In total, 95 of the analysed nails display signs of having been burnt; the nail has a brick red compact surface, to which few if any corrosion deposits have adhered. The red surface (haematite) is a protective layer which prevents corrosion and its presence indicates that the pyre reached a temperature in excess of 200 degrees centigrade (Cronyn 1992, 180). Such temperatures presumably limit the chances of any organic remains surviving. It was noted that 92 of the heat damaged nails, which were predominantly Types 2 and

4, were located inside the ceramic jar, suggesting the careful collection of pyre debris to ensure that as much of the calcined bone as possible was deposited within the jar. The human remains would have been positioned at the centre of the pyre and hence the place where the temperature would have been at its highest. It is interesting to note that the majority of the nails displaying heat damage are Type 4, the smallest of the types represented and perhaps indicating that finer more elaborate possessions (items constructed with smaller more delicate nails) had been placed closer to the body.

Of the total number of nails analysed, 282 (56%) displayed signs of having been used and examples of these were recovered from inside and outside the cremation urn. Some nails were bent at right angles, but the majority had gently curving profiles; in some cases pairs of nails were connected at right angles to each other by corrosion deposits, perhaps reflecting their position in relation to each other prior to cremation. Type 4 nails were predominantly undamaged, perhaps a further indication that they may have been used for finer well-made pyre goods, such as the manufacture of caskets or for securing textiles or upholstery.

In addition, there are a small number of undiagnostic fragments which can positively be identified as not being nails. These were also recovered from the pyre deposits and include a possible rove and a rod fragment with D-shaped cross-section.

Table 2: Quantification of nail types

Nail type	6004 (inside vessel) No of nails (nails with haematite)	6005 (outside vessel) No of nails (nails with haematite)	Total
1	14	17	31
2	147(29)	109 (1)	256
3	19 (6)	55 (2)	74
4	78 (57)	5	83
5	0	3	3
Unidentified	14	43	57
Total	**272**	**232**	**504**

A selection of nail types, clenched and unclenched (Scale 20mm) Fig 18

Coins

A single Roman coin (SF2908) dating to *c* AD138-61 was recovered from the fill (6004) of the large storage jar which contained the remains of a cremation. The identification of the coin is provided below by Ian Meadows

AE As of Antoninus Pius (138-61). Unfortunately although the obverse bust is clear, a bearded laureate head, the legend is only partially legible. The letters –INVSAVG

PIVS PP – can be read but unfortunately the end of the legend which would have enabled closer dating are worn and corroded. The reverse of the coin is completely corroded and illegible and it is unclear whether any of the original surface design survives under the corrosion deposits.

8 FAUNAL AND ENVIRONMENTAL EVIDENCE

8.1 The animal bone by Karen Deighton

Animal bone was assessed for its potential to fulfil the following project aims:

- To investigate palaeoeconomy through time by the examination and comparison of faunal remains
- To contribute to the understanding of the origin and development of domestic occupation by revealing function of structural features and comparing the assemblages of rubbish disposal deposits by period.

A total of 3.5kg of animal bone were hand recovered from the excavation of Area 5, 0.053kg from Area 6 and 0.488kg from Area 7. This material was scanned to determine the species present, state of preservation and to assess the potential for future work. Identifiable bones were noted (after Halstead 1985 after Watson 1979). Ageable and measurable bones (after Von Den Driesch 1976) were also noted. Ageable elements included mandibular cheek tooth rows (Halstead 1985 for cattle and Levine 1982 for horse), bones where the state of fusion is apparent (Silver 1969) and neonatal bones (Amorosi 1982).

Notes were also made on preservation and any modifications (Binford 1981) The flotation residues were scanned for animal bone; sample sizes varied with context but were typically between 20 and 80 litres. Sieve sizes were 500microns, 1mm and 3.5mm. Hand collected bones had previously been washed.

Results

Fragmentation was moderate to heavy depending on context and was largely the result of old breaks. Surface condition was poor, with much evidence of weathering, which would possibly have obscured evidence of canid gnawing and butchery, as well as contributing to fragmentation. Canid gnawing was noted on twenty bone fragments; this could suggest the presence of dogs/foxes on site. Evidence of butchery was noted on a single bone.

The species present are restricted to the common domesticates. Although canids are represented by one bone fragment only their presence is indicated by gnawed bones.

Little can be said of the animal economy of the site with such a small assemblage.

8.2 The cremated bone by Karen Deighton

Sample 234 context 6004 (contents of pot)
There was 1.1kg of cremated bone within the pot. A total of 26 fragments of human teeth and five fragments of possible human phalange were recovered, along with nine other bone fragments which could be human. Fifteen bird bones (one possibly wood pigeon, two possible woodcock) and four small mammal bones (possibly field mouse) were also noted.

Sample 235 context 6005 (material surrounding pot)
There was 0.526kg of cremated bone in the soil matrix around the pot. Two human teeth were recovered along with a sheep/goat acetabulum, a small ungulate rib and vertebra. Twenty-three bird bones (including two duck and one galliform) and a partial bank vole skeleton were also present, this latter could be intrusive.

Cremation 2 (Sample 240, context 6074, wall matrix of mausoleum)
There was 0.052kg of cremated bone. A single human tooth, a fragment of possible human phalange and a fragment of possible human mandible were recovered. An

unfused sheep/goat proximal humerus epiphysis and a distal femur epiphysis were also noted.

Cremation 3 (Sample 241, context 6079, wall matrix of mausoleum)
There was only 0.002kg of cremated bone from sample 241. Unfortunately only small indeterminate bone fragments were observed.

Cremation 4 (Sample 243, context 6080, wall matrix of mausoleum)
There was 0.021kg of cremated bone from sample 243. A sheep/goat acetabulum fragment and small ungulate rib fragment were observed.

8.3 The charred plant remains by Val Fryer

Seventy-nine bulk soil samples, 2,120 litres, were taken from postholes, pits, ditches and the mausoleum structure at Passenham Quarry in order to identify macroscopic plant remains. All samples were taken following English Heritage guidance (EH 2002) and were fully processed.

They were bulk floated by NA and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x 16 and the plant macrofossils and other remains noted are listed in Tables 1 and 2 (Appendix 4). Nomenclature within the tables follows Stace (1997). All plant remains were charred. A number of assemblages contained nothing other than charcoal and/or other remains and these are listed separately within Appendix 4. Modern fibrous roots, seeds and arthropod remains were present throughout, being a major component within many of the assemblages from site PQ09.

Results

Cereals and seeds of common weeds were present, generally at a very low density, within twenty-two of the assemblages studied. Preservation was mostly poor, with many of the grains being puffed and distorted, probably as a result of combustion at high temperatures. A high proportion of the macrofossils were also very fragmentary and, in addition, it was noted that many were heavily coated with mineral concretions of fine silts and grits. The latter almost certainly prevented full retrieval of the plant remains, as the macrofossils were too heavy to float, although some remains were hand-picked from the non-floating residues. In some instances the concretions also prevented close identification of the plant remains.

Barley (*Hordeum* sp.) and wheat (*Triticum* sp.) grains were recorded, with wheat occurring most frequently. Of the wheat grains, most were of an elongated 'drop' form typical of emmer (*T. dicoccum*) or spelt (*T. spelta*) although a small number of more rounded, hexaploid type forms were also noted. Chaff was exceedingly scarce, occurring within only two of the assemblages studied. Weed seeds were also scarce, with most occurring as single specimens within an assemblage. Segetal weeds including brome (*Bromus* sp.) and grasses were noted from site PQ08, while the seeds from PQ09 were mostly of grassland herbs including onion-couch (*Arrhenatherum* sp.), fumitory (*Fumaria officinalis*), dock (*Rumex* sp.), sheep's sorrel (*R. acetosella*) and ivy-leaved speedwell (*Veronica hederifolia*). A single seed of blinks (*Montia fontana*), a plant more commonly found in damp grassland areas, was noted within the assemblage from Cremation 3 (sample 241) from the Roman mausoleum (site PQ09). Charcoal/charred wood fragments, some of which were large (>10mm), were present throughout, with the highest densities occurring with the pits at the eastern end of the pit alignment (site PQ09) and within pit [5006] (sample 214, site PQ 08). Other plant macrofossils occurred infrequently, although pieces of charred root/stem were recorded.

Other remains were very scarce. The pieces of black porous and tarry material, including those within the cremation deposits (samples 240, 241 and 243) were probable residues of the combustion of organic remains (including the bodies of the deceased) at very high temperatures. Bone fragments, including some burnt pieces, were present, but scarce. Other remains included fragments of pottery and small pieces of coal although, at the time of writing, it was unclear whether the latter were contemporary with the features or later inclusions.

Discussion

Site PQ 08 (Area 5) (Appendix 1, Table 1)
Of the fifteen samples taken (all from features within a complex enclosure of Iron Age date), only nine contain plant macrofossils other than charcoal/charred wood fragments. Cereal grains are present in all nine, and are especially abundant within the sample from posthole [5014] (sample 202), which contains a very high density of wheat. The taphonomy of this assemblage is currently unknown, although grain dominant posthole assemblages are often recorded where the posthole formed part of a granary or grain store. Cereals occur far less frequently within the other assemblages from Passenham, and as most are from ditch fills, it would appear most likely that they are partly or wholly derived from scattered detritus, much of which was accidentally incorporated within the feature fills. Although small (<0.1 litres in volume), the assemblage from pit [5006] contains a very high density of charcoal/charred wood fragments, possibly indicating that the feature was used for the deposition of small quantities of hearth waste.

The Mausoleum (Appendix 1, Table 2)
Three samples (240, 241 and 243) are from individual deposits of cremated material recorded within/at the base of the wall of a stone built mausoleum of Roman date. All three are of interest as they contain seeds and tuber fragments of relatively low growing grassland plants, which were almost certainly burnt *in situ* at the base of a cremation pyre. Although present, charcoal/charred wood fragments are relatively scarce, and are totally absent from sample 241, which is quite uncommon for a cremation deposit. In part, this may be a result of poor macrofossil retrieval due to the mineral impregnation of the material, but it is also possible that cremations 2, 3 and 4 do not represent individual interments, but are instead derived from material from the base of the pyre from the urned cremation at the centre of the mausoleum. Such material was often sifted or graded prior to burial.

The Pit Alignment - Area 7 (appendix 1, Table 2 and 3)
Of the thirty-four samples taken from a Late Bronze Age to early Iron Age pit alignment within Area 7, only ten contain plant macrofossils other than charcoal/charred wood fragments, and even within these assemblages, it is generally only a single fragmentary grain or seed which is recorded. These remains, along with a number of charcoal rich assemblages, are largely from pits at the eastern end of the alignment although three are from pits [7182], [7186] and [7161] at the western end. It would, therefore, appear most likely that the remains within the pit fills are derived from activities which occurred within or adjacent to the ditched enclosure at the eastern end of the alignment. These activities probably involved the combustion of materials at relatively high temperatures, and the abraded nature of some of the charcoal fragments may indicate that the resulting remains were exposed to the elements for some time prior to burial. However, the exact nature of these activities is currently unknown.

Conclusions

In summary, the assemblages are nearly all very small (<0.1 litres in volume), with most containing little other than charcoal/charred wood fragments. This may partly be

an accident of preservation, ie the high degree of mineral impregnation and encrustation preventing full retrieval during flotation, but it would also appear that certain of the features, for example the central and western pits within the pit alignment, were peripheral to any main focus of activity. Although this does make accurate interpretation of the features very difficult, the following broad statements can be made:

- The presence of cereals within the assemblages from Area 5 may indicate that the Iron Age enclosure acted as a focus for domestic and/or agricultural activities. The abundance of grain within posthole [5014] may suggest that this feature formed part of a granary or similar storage structure.
- The assemblages from the Roman Mausoleum are almost certainly derived from materials burnt *in situ* beneath a cremation pyre. Whether this was the pyre for the main urned cremation, or whether subsidiary cremation deposits were also inserted within the monument is currently unknown, although the former is, perhaps, most likely.
- As is common with later prehistoric pit alignments, the assemblages from Area 7 are extremely sparse. However, it would appear that some of the recorded remains were being generated within the enclosed area at the eastern end of the Passenham pit alignment.

8.4 The charcoal by Imogen van Bergen-Poole

Forty six bags of charcoalified wood samples were sent for assessment to give an indication of the range of taxa present, type of wood. Of the 46 samples submitted for assessment, five originated from Roman mausoleum and the remainder from a Bronze Age/early Iron Age pit alignment.

Material and Methods

The charcoal ranged from dust and small diameter fragments <2mm in radial diameter to much larger pieces, sometimes >10mm diameter. Preservation was variable between samples: Some exhibited well preserved anatomy and good reflectivity whilst others showed evidence of distorted anatomy (e.g. “exploded” rays) and homogenised cell walls usually coupled with high reflectivity. Some specimens were poorly charcoalified and reflectivity was poor which hindered identification to a degree.

From each sample bag, unless the number of fragments dictated otherwise, a random selection of between 10 and 20 fragments were studied to gauge the preservation of each sample and the potential for finding material suitable for radiocarbon dating. Charcoalified fragments were prepared using standard methods (Gale and Cutler 2000). Anatomical structures were examined using reflected light on an Olympus BX41 compound microscope with magnifications up to x400.

Material was identified using relevant literature (e.g. Schweingruber 1990; Gale and Cutler 2000) whenever necessary. It must be noted that wood anatomy alone is often not enough to secure identification to individual species and thus the samples have been identified to generic level only (especially when more than one native species exists in the British flora) unless only one native species exists in the British flora. With respect to *Salix* and *Populus* it is often difficult to distinguish between these two genera unless the ray characters are clear. If there is any doubt then these two genera have been lumped together where rays characters were clear a definitive identification has been given. When possible the maturity of the wood (ie whether the specimen is of heartwood or roundwood) was assessed.

Fragments from each sample were grouped according to taxon and assigned a number to facilitate future reference if necessary. If there was some degree of doubt regarding taxonomic identity (due to, for example, fragment size, preservation etc) the

number is preceded by a question mark. All fragments were handled using tweezers to minimise carbon contamination and like-fragments were placed in separate aluminium foil envelopes labelled with an arbitrary number.

Results and discussion

A summary of the taxonomic finds from both ages are provided (Table 3).

Table 3: Summary of the taxonomic identity of the charcoal

Family	**Subfamily/ *Genus***	**Common name**	**Roman mausoleum**	**Bronze Age/early Iron Age pit alignment**
Fagaceae	*Castanea*	chestnut	√	√
	Fagus	beech		√
	Quercus sp.	oak	√	√
Oleaceae	*Fraxinus excelsior*	ash	√	√
Ranunculaceae	*Clematis*	clematis		√
Rosaceae	Maloideae			√
	Prunoideae			
	Prunus sp.	plum		√
Salicaceae	*Populus*/*Salix*	willow/poplar		√

The majority of the wood is considered to be mature, probably originating from a relatively large diameter axis such as a trunk or branch material. If the fragments provided evidence of being heartwood (Hw) or round wood (Rw) this has been recorded in Table 1 (Appendix 5).

9 SUMMARY OF POTENTIAL AND PROPOSALS FOR ANALYSIS

9.1 Original Objectives

It is anticipated that an Updated Project Design will be produced on completion of all phases of archaeological intervention on the site and more specific research themes will be identified at that point. The broad objectives of the archaeological excavation are set out below.

To investigate the origin and development of domestic occupation by:

- analysing the distribution of material culture

The relatively large quantity of early Iron Age pottery in the upper, disuse fills in pits in the pit alignment is unusual in that there is no known focus of occupation in the vicinity.

During the later Iron Age there appears to have been both arable and pastoral activity on site, with the presence of the possible granaries and the stock enclosure. It is likely that domestic settlement was located somewhere nearby, although there is as yet no definitive evidence of this. The presence of a possible loomweight may suggest craft activities were being carried out in the vicinity.

- investigating the form and function of structural features

Pit alignments, which are widespread within the East Midlands, are generally thought to have functioned as some form of territorial boundary within the late Bronze Age to middle Iron Age. In common with other examples such as Gayhurst (Chapman 2007) and Warth Park, Raunds (McAree and Chapman 2007) the pits seem to have been dug in small groups, indicated by slight changes in alignment and morphology, possibly by individual teams of people. Unlike the pit alignments investigated at Gayhurst, which were re-excavated several times in distinctly different ways, no further digging activity took place after the initial excavation. The pits appear to have been left to silt up naturally, with some deposition of pottery, charcoal and bone in the upper, disuse fills. The reasons behind this are unclear since the material would have had to be brought to the pits from some distance away.

The absence of domestic buildings and material culture within the Iron Age enclosure suggests it may have functioned as a stock enclosure; however, the relative lack of animal bone suggests that animals were not slaughtered here. Six-post structures, similar to those found to the east of the stock enclosure, are commonly interpreted as granaries. A substantial grain assemblage deriving from one of the postholes appears to substantiate this theory.

The circular Roman monument appears to have been a mausoleum containing the cremated remains of at least one person. The form of the monument is unusual and at present no directly comparable examples have been found, although the burial of cremated individuals within urns during this period is well documented.

- comparing the assemblages of rubbish disposal by period

The large quantities of early Iron Age pottery and other artefacts within the upper secondary and final fills of the pit alignment pits indicates deliberate deposition.

There are no settlement remains directly associated with the later Iron Age features, although it may be that they were part of a larger Iron Age ‘open’ settlement.

To investigate the palaeo-economy of the site through time by:

- examination and comparison of faunal remains

A small bone assemblage from the site was composed of common domesticates and provided very little information.

- analysis and comparison of soil samples from industrial contexts

No industrial contexts were identified during this phase of the project.

- to identify possible crop regimes and staple food stuffs from environmental sampling

Barley and wheat were both recorded, although generally at a very low density. Abundant cereal grains were found in a sample from a single posthole, possibly part of a granary. The paucity of evidence limits any meaningful interpretation.

To consider wider changes within the landscape and what these may infer regarding past effects on political and social structures by:

- considering the change from a funerary /ritual to an agrarian landscape

The group of ring ditches appears to be part of the Bronze Age funerary/ritual tradition, but the purpose of pit alignments is less clear. They appear to have divided up tracts of land, possibly functioning as tribal boundaries, but may have also had strong ritual connotations.

The nature of the middle to late Iron Age activity on site is difficult to interpret, but probably represents part of an open settlement with strong pastoral and arable elements and little evidence of funerary/ritual activity.

The liminal nature of the area adjacent to the river seems to persist into the Roman period, with the Roman mausoleum. It is possible that the form of the mausoleum mirrors the earlier barrows, which are likely to have still been visible at that period.

- relationship between native and Romano-British settlement patterns

This objective cannot be answered at this stage of the project.

9.2 Statement of potential

The information from this phase of the site will add to the wider corpus of knowledge regarding Bronze Age and Iron Age settlement around Milton Keynes and analysis of the subsequent phases of excavation at the quarry will enable a more comprehensive study of the prehistoric and Roman landscapes. Milton Keynes remains one of the most intensively studied areas for later prehistory within south-eastern England and therefore the results from this site can be assessed against an already detailed dataset. This will enable detailed comparison and analysis to take place.

Pit alignments are a monument form that is relatively rare within the south-east region, although at least eight are known from the Milton Keynes area, including three alignments at the aforementioned site at Gayhurst, as well as at Olney and Stoke Hammond (Kidd 2007). However, many more are known in Northamptonshire to the north (excavated examples include those at Cottisford Turn, Silverstone (Mudd 2007) and Upton, Northampton (Walker and Maull 2010) and it may be that the pit alignment at Passenham is part of this tradition. Although a significant quantity of pottery was recovered from the uppermost, disuse fills of the pits, there was little dating evidence from the primary fills that may have indicated when these pits may have been excavated. Any significant charcoal deposits from the primary fills of any of the pits should be considered for radiocarbon dating in order to obtain a date for their excavation.

The Iron Age enclosure appears not to have been utilised as a focus for settlement, nor are there any settlement remains in the near vicinity. It was perhaps used as a

stock enclosure or corral. It has been noted that there appears to have been a strong pastoral element to the economy of the region during this period (Kidd 2007). Further stock enclosures have been noted around the Milton Keynes area, at Wavendon Gate, Pennylands and the Stoke Hammond Bypass. The enclosures at Wavendon Gate were associated with the remains of several unenclosed roundhouses and were thought to be the remains of a small unenclosed 'open' type of settlement that originated in the 1st century BC (Williams *et al* 1995). Similarly at Pennylands the enclosures were associated with extra-enclosure features; the enclosures thought to represent cattle corrals, probably surrounded by an outer bank, fence or thorn hedge (Williams 1993). Although there was some evidence of contemporary extra-enclosure activity at Passenham, there were no house sites, although it is possible that they were situated beyond the excavated area.

Six-post structures are comparatively common Iron Age features usually interpreted as raised granaries. Similar examples have been found at Tattenhoe Park, Milton Keynes. The interrupted enclosure has been dated on the basis of Iron Age pottery found in the postholes within the enclosure. No comparative examples have yet been found.

The presence of the Roman mausoleum was an unexpected discovery and therefore was not included within the original project objectives. Initial comparative research has shown that while monuments of this type are known in Britain, they are rare and there are few examples that are directly comparable.

The mausoleum appears to be of a type known as barrow tumuli (Toynbee 1996), which are characterised by the presence of a low masonry drum containing a cone of earth. Many of the examples known in the England are substantially larger than the Passenham structure, although an example at Keston in Kent measured just less than 9m in diameter. A circular building, 6.8m in diameter, constructed of unmortared pitched stone was found at Bancroft (Williams and Zeepvat 1994). It was located 30m to the north-west of a substantial mausoleum and was interpreted as a shrine. A shallow central pit contained a pig burial and 4th-century coins.

The flint

No further work is required.

The pottery

The pit alignment
The recommendation made for the western end of the pit alignment still apply (Chapman 2009), and are repeated below.

The material from the pit alignment should be fully quantified to fabric and forms. There may be potential for finding further joining sherds within single pits, and an attempt should also be made to see if there any joins from separate pits, as this would provide significant information on the process of deposition. However, given the size of the group, together with the high degree of fragmentation and the resultant small sherd size, this will face practical difficulties, and may only be achievable for a limited number of distinctive vessels, such as the black carinated bowls and vessels with flat-topped rims.

A small group of vessels should be illustrated, but with the high degree of fragmentation and an apparently quite limited range of forms and rim types, this is likely to amount to only some 5-10 vessels, and even these will only be partially reconstructed.

The Iron Age enclosure
Although the assemblage is small, the distribution of the pottery should be assessed as a possible indicator of activity areas within the enclosure.

Three vessels with full or partial profiles should be drawn.

The fabrics should be quantified.

The fired clay

No further work is required.

The other finds

No further work is required on the five other finds.

The nails
This assemblage is of intrinsic interest, both in terms of the significant number of nails recovered and with regard to burial customs. Nails are ubiquitous objects on archaeological excavations, but recovering such a huge number from a single burial deposit is exceptional. For the assessment only one other comparable example was located, an amphora buried within a walled cemetery. Like the Passenham example, the amphora had been buried with the neck above ground level and it contained 52 nails (Mackinder 2000). The nails, identified as Manning Type 1 (1985, 134), were represented by a range of sizes and are thought to have been part of a casket which had been burnt. The amphora dates to *c* 150-250, slightly later than the Passenham urn which dates to the late 1st/2nd century.

The uniqueness of this find suggests that it warrants further study.

Further works suggested, include:

- identify the remaining nails to determine the presence or absence of any other types and complete the catalogue
- identify fragments of other objects within the pyre debris and try to identify them
- identify the presence of preserved carbonised wood of mineral-replaced wood and if required arrange for specialist identification.
- x-ray unidentifiable fragments known not to be parts of nails and a sample of each nail type to provide a permanent record
- examine the spatial distribution of the different nail types
- Look for further for comparable examples
- Illustrations of nail types

The animal bone

Most material could be identified to taxa and some ageing data were present. Measurement data were available, however, too little metrical data to provide any meaningful information on stature. Inter-area or inter-phase comparisons could not be attempted due to the thin spread of data across the phases. Further work on the assemblage would add to the corpus of existing work of the region and possibly provide basic comparendra in terms of taxa present for any future work.

A short report could be included in the final report briefly describing the assemblage.

The cremation deposits

Human bone from cremation deposits could give an indication of the age and number of individuals and should examined by a relevant specialist.

The environmental evidence

As none of the current assemblages contain a sufficient density of material for quantification, no further analysis is recommended. However, a written summary of this assessment should be included within any publication of data from the site.

The charcoal

From the Roman mausoleum samples were taken in the vicinity from within and around a pottery vessel containing burnt bone and nails (6004 and 6005). Seven of these sub-samples ('yes' in column 10 of Appendix 5, Table 1) are recommended for further analysis with regard to identification and the remainder ('no' in column 10 of Appendix 5, Table 1) are not recommended for further analysis due to the poor preservation and/or number of fragments in the sample. The majority of the material sampled was identified as ash with rarer small oak and sweet chestnut representation.

A total of 29 samples were studied of the Late Bronze Age/early Iron Age pit alignment. Of these two samples are recommended for further analysis ('yes' in column 10 of Appendix 5, Table 1) with regard to identification and the of remainder ('no' in column 10 of Table 1), ten are recommended if the sample is of major interest and/or funding permits ('?' in column 10 of Appendix 5, Table 1), and 19 are not recommended for further analyses ('no' in column 10 of Table 1) due to the poor preservation and/or number of fragments in the sample. A greater taxonomic diversity is represented in these pits relative to the neighbouring Roman mausoleum. Ash and oak and/or sweet chestnut formed the majority of the fragments identified from these pit fills with both heart wood and round wood represented.

None of the samples from these phases of excavation are suitable for radiocarbon dating.

10 SITE ARCHIVE

A microfilm copy of the site archive and the site narrative will be made to RCHME standards and submitted to the National Archaeological Record.

The site archive will be deposited with Buckinghamshire County Museum under the accession number 2006.145. The archive will comprise all written, drawn and photographic records, and all material finds and processed sample residues recovered from the excavation. All records and finds generated by the excavation will be compiled in a structured archive in accordance with the guidelines of Appendix 3 in the English Heritage procedural documents, *Management of Archaeological Projects* (EH 1991) and *MoRPHE* (EH 2006), and the Procedures for the Deposition of Archives set out by Buckinghamshire County Museum Services (v1.1.7, May 1998). The archive is currently stored at the offices of Northamptonshire Archaeology, Bolton House, Northampton, NN4 8BE.

10.1 Site Records

Table 4: Site records

Type	Quantity Area 5	Quantity Area 6	Quantity Area 6 & 7
Plans	2	1/	17
Sections	45	11	71
Contexts	163	20	80 + 197
Colour Slides	2.5 x 36 exp. films	0.5 x 36 exp. films	5.5 x 36 exp films
Monochrome negatives	2.5 x 36 exp. films	0.5 x 36 exp. films	5.5 x 36 exp films
Digital format	115	12	219

10.2 The finds

Table 5: Finds

Material	Quantity A5	Quantity A6	Quantity A7
Pottery	536 sherds	141 sherds	1502 sherds
Worked flint	4 items	19 items	53 items
Slag	-	-	-
Burnt clay	102g	-	258g
Tile	-	5 stone	-
Small finds	2 items (those not already listed above)	1473 items	3 items
Animal bone	3.5kg	0.053kg	0.488kg
Flots, charcoal	15 flots	3 flots; charcoal from 4 contexts	10 flots; charcoal from 33 contexts

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APPENDIX 1: Flint quantification by area

Context	SF	Sample	Flake/ Blade	Portion	Tool	Period	Comments
Area 5							
5004		214	Flake	Proximal			Snapped
5095		219	Flake	Whole			
5004		214	Flake	Whole			
	2698		Flake	Proximal			Cortical striking platform; post- positional edge damage
Area 6							
6001			Blade	Whole			
6001			Flake	Whole			Removals around circumference of flake
6002			Flake	Whole			Cortical striking platform
6002			Shatter				Shatter
6005			Flake	Whole			
6005			Flake		leaf-shaped arrowhead	Early Neolithic	Invasively bi-facially retouched; complete
6005	3213		Flake	Whole			Cortical striking platform
6025	3111		Flake	Whole			Squat flake
6025	3108		Blade	Distal			Post-depositional edged damage
6002	2945		Natural				
6002	2944		Core		Core	Neolithic	Single platform
6002	2943		Flake	Whole			Rolled cortex
6001	2942		Flake	Proximal			Post-depositional edge damage
6001	2941		Flake	Whole			Post-depositional edge damage
6001	2940		Flake	Whole	Scraper	Early to Late Neolithic	Possibly a Early Neolithic end scraper with remnants of patinated semi-abrupt retouch; later unpatinated retouch possibly Late Neolithic re-use, heavy patination
6001	2939		Flake	Whole			Post-depositional edge damage
6001	2938		Blade	Distal			Post-depositional edge damage
6005			Natural				
6002	2946		Natural				

Context	SF	Sample	Flake/ Blade	Portion	Tool	Period	Comments
Area 7							
7021		237	Debitage, Flake	Whole, 0.5g			Squat flake
7097		257	Debitage	0.5g			Thermal fracturing, medium patination, burnt flint
7017		236	Debitage	0.2g			
7155		264	Debitage	0.1g			Red, burnt
7135		263	Natural				
7171		268	Debitage, Flake	Whole, 0.5g			
7120		262	Debitage	0.1g			
7142		277	Debitage	0.1g			
7166		267	Debitage	0.4g			
7107		260	Flake	Whole, 3.8g			Squat flake
7166		267	Flake	Whole, 3.4g			
7155		264	Blade	Whole, 3g			
7166		267	Debitage	0.1g			
7162		266	Debitage	1.1g			Thermal fracturing
7179		270	Debitage	0.5g			
7179		270	Debitage	0.1g			
7089			Flake	Whole			Cortical striking platform
7119			Flake	Distal			Post-depositional edge damage
7121	3453		Flake	Whole			Cortical striking platform; small rolled pebble
7017	3249		Natural				
7017	3250		Flake	Whole			Cortical striking platform
7017	3251		Flake	Whole			Hinge termination
7017	3252		Flake	Whole			Broad striking platform
7059	3410		Flake		Tanged arrowhead	Late Neolithic/ Early Bronze Age	Square tang; edges bi-facially shaped; not invasively worked across entire surfaces
7004	3368		Flake	proximal			
7004	3369		Flake	Whole			
7051	3409		Flake	Whole			Broad striking platform
7066	3420		Flake	Whole			Squat flake; hinge termination
7063	3417		Flake	Proximal			Possible proximal end of, medium patination blade

Context	SF	Sample	Flake/ Blade	Portion	Tool	Period	Comments
7086	3434		Blade	Whole			Patinated edge damage, medium patination
7111	3450		Flake	Distal			
7115	3451		Flake	Distal	Scraper, end		Semi-abrupt retouch on distal end
7121	3454		Flake	Medial			
7121	3456		Flake	Whole			Broad striking platform
7125	3458		Flake	Whole			
7059	3429		Natural				
7162	3475		Natural				
7059	3424		Shatter				Shatter
7121	3455		Shatter				Shatter; rolled pebble flint
7125	3459		Flake	Whole			
7187	3484		Flake		Barbed-and-tanged arrowhead	Late Neolithic/ Early Bronze Age	Bi-facially invasively pressure flaked; tang broken off otherwise complete
7119	3461		Flake	Whole			Fresh
7135	3462		Flake	Whole			
7138	3464		Flake	Whole			Broad striking platform
7188	3486		Blade	Whole		Late Mesolithic/ Early Neolithic	Soft hammer struck blade, medium patination
7188	3487		Blade	Whole		Late Mesolithic/ Early Neolithic	Soft hammer struck blade, medium patination
7188	3485		Blade	Whole		Late Mesolithic/ Early Neolithic	Soft hammer struck blade; previous blade removals notable on dorsal surface, medium patination
7027	3489		Flake	Whole			
7162	3474		Flake	Distal			Overshot termination, medium patination
7138	3465		Flake	Whole			
7162	3476		Flake	Whole			
7163	3477		Flake	Distal			Post-depositional edge damage, thermal fracturing
7179	3481		Flake	Whole			Squat flake

APPENDIX 2: Fired clay quantification by area

Table 1: Fired clay 2008

Context/ feature	Number	Wt (g)
5057 / 5059	1	9
5071 / 5073	2	13
5072 / 5073	1	12
5079 / 5091	4	9
5127 / 5128	3	3
Totals	**11**	**46**

Table 2: Fired clay 2009

Context /feature	Number	Wt (g)
7017 / 7019	15	77
7027 / 7032	19	114
7041 / 7044	12	54
7055 / 7058	4	11
7175 / 7178	1	2
Totals	**51**	**258**

APPENDIX 3: Animal bone quantification and ageing and measurements

Table 1: Identifiable bones (Area 5)

Cut/fill	*Bos* Cow	*Ovicaprid* Sheep/goat	*Sus* Pig	*Equus* Horse	S.ungulate	L. ungulate	Total
5040	2	1	-	1	-	-	**3**
5043	-	-	1	-	-	-	**1**
5052	1	-	-	-	-	-	**1**
5057	1	1	-	-	-	-	**2**
5060	1	-	-	-	-	-	**1**
5063	1	-	1	-	-	-	**2**
5064	-	1	-	-	-	-	**1**
5067	1	-	-	-	-	-	**1**
5070	-	-	-	2	-	-	**2**
5072	1	2	-	-	-	1	**4**
5085	1	1	-	-	-	-	**2**
5088	1		-	-	-	-	**1**
5094/5093	-	2	-	-	-	-	**2**
5095	1	-	-	-	-	-	**1**
5099	4	1		-	-	1	**6**
5106	-	1	1	-	-	-	**2**
5107	-	-	-	-	-	1	**1**
5108	-	-	1	1	-	-	**2**
5112/5114	-	1	-	-	-	1	**2**
5113	-	1	-	-	-	1	**2**
5115/5117	1	2	-	-	-	-	**3**
5121	1	1	-	-	-	-	**2**
5124	2	1	-	-	-	-	**3**
5125	1	1	1	-	1	-	**4**
5127/5128	1	-	-	-	-	-	**1**
5139	-	1	-	-	-	-	**1**
5142	-	1	-	-	-	-	**1**
5146	1	2	-	-	-	-	**3**
5148	1	2	-	-	-	-	**3**
5149	2	1	-	-	-	-	**3**
5150	1	3	-	-	-	-	**4**
5154	-	1	-	-	-	-	**1**
5163	3	-	-	-	-	-	**3**
Total	**29**	**27**	**5**	**3**	**1**	**5**	**70**

Table 2: Identifiable bones (Area 6)

Cut/fill	*Bos* Cow	*Ovicaprid* Sheep/goat	*Canid* Dog	Small mammal	Avis ssp	Total
6005	2	2	1	3	1	**9**

Context 6025 produced indeterminate bone fragments only

Table 3: Area 7 Bone from pit alignment by context (early Iron Age)

Cut/fill	*Bos* Cow	*Ovicaprid* Sheep/goat	*Sus* Pig	Large ungulate	Total
7004	-	1	2	1	**4**
7038	-	-	1	-	**1**
7051	1	-	-	-	**1**
7059	-	1	-	-	**1**
7060	-	-	-	1	**1**
7070	1	-	-	-	**1**
7078	1	-	-	-	**1**
7174	1	-	-	-	**1**
7175	1	-	-	-	**1**
7179	1	-	-	-	**1**
7187	1	1	1	-	**3**
Total	**7**	**3**	**4**	**2**	**16**

Indeterminate bone fragments only were recovered from contexts 7017, 7055 and 7166

Table 4: Bone from sieved samples

Sample	Cut/fill	*Bos* Cow	*Ovicaprid* Sheep/goat	*Sus* Pig	Sm.mammal
212	5060	-	1	-	-
213	5064	-	2	1	-
215	5071	1	1	-	1
216		-	1	-	1
220	5097	-	1	-	-
221	5134	-	1	-	-
225	5155	-	-	1	-
227	5139	-	1	-	-
240	6074	-	2	-	-
271	7187	3	-	-	-
Totals		**4**	**10**	**2**	**2**

Table 5: Ageing and Measurements

Taxa	**Measurable bones**	**neonates**	**Ageing tooth eruption and wear**	**Ageing epiphyseal Fusion**
Horse	-	-	-	-
Cattle	1	1	1	8
Sheep/goat	-	1	4	2
Pig	-	-	2	-
Total	**1**	**2**	**7**	**10**

APPENDIX 4: Charred plant remains

Table 1: Samples from Area 5 features

Sample No.	**200**	**201**	**202**	**212**	**214**	**215**	**216**	**217**	**218**	**220**	**221**	**222**	**224**	**225**	**226**
Context No.	**5009**	**5011**	**5013**	**5060**	**5004**	**5071**	**5074**	**5079**	**5094**	**5097**	**5134**	**5142**	**5152**	**5155**	**5159**
Feature No.	**5010**	**5012**	**5014**	**5062**	**5006**	**5073**	**5075**	**5091**	**5093**	**5100**	**5136**	**5143**	**5153**	**5156**	**5160**
Feature type	**ph**	**ph**	**ph**	**Ditch**	**Pit**	**Ditch**	**Ditch**	**Ditch**	**Ditch**	**Ditch**	**Ditch**	**Ditch**	**Ditch**	**Ditch**	**Ditch**
Cereals															
Hordeum sp. (grains)			xcf		x		xcf	xcf							
Triticum sp. (grains)	x	x	xxx				xcf								
(glume bases)	x					x									
Cereal indet. (grains)		x	xxx				x	xfg			x	xfg			
Herbs															
Bromus sp.								xfg							
Large Poaceae indet.			x			xcf	xcf								
Other plant macrofossils															
Charcoal <2mm	xx	x	x	x	xxxx	xx	x	x	x	x	x	x	x	x	x
Charcoal >2mm	xx	x	xx	x	xxxx	xx	x	x	xx		xx	x	x	x	x
Charcoal >5mm			x	x	xx		x								
Charred root/stem			x				x						x		
Indet.seeds					x										
Other remains															
Black porous 'cokey' material	x	x	x					x			x				
Black tarry material					x										
Bone				x			x	x	xb						
Burnt/fired clay				x		x	x								
?Pottery													x		
Small mammal/amphibain bones							xpmc					xpmc			
Sample volume (litres)															
Volume of flot (litres)	**<0.1**	**<0.1**	**0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
% flot sorted	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 2: Samples from Area 6 and 7 features

Sample No.	**240**	**241**	**243**	**244**	**246**	**249**	**251**	**254**	**259**	**265**	**271**	**272**	**274**
Context No.	**6074**	**6079**	**6080**	**7041**	**7045**	**7059**	**7062**	**7082**	**7103**	**7162**	**7181**	**7183**	**7074**
Feature No.				**7044**	**7048**	**7061**	**7065**	**7085**	**7106**	**7161**	**7182**	**7186**	**7077**
Feature type	**Crem 2**	**Crem 3**	**Crem 4**	**Pit**	**Pit**	**Pit**	**Pit**	**Pit**	**Pit**	**Pit**	**Pit**	**Pit**	**Pit**
Cereals													
Triticum sp. (grains)								x		xcf			
Cereal indet. (grains)				xfg	xcffg	xcf	xcffg		xfg		x		xcffg
Herbs													
Arrhenatherum sp. (tuber frags.)	x										x		
Fumaria officinalis L.	xcffg	x											
Medicago/*Trifolium*/*Lotus* sp.		x											
Large Poaceae indet.	x												
Polygonum aviculare L.			x										
Rumex sp.	x											x	
R. acetosella L.	x	xcf	x										
Veronica hederifolia L.		x											
Wetland plants													
Montia fontana L.		x											
Other plant macrofossils													
Charcoal <2mm	xx		xxx	xxx	xxxx	xxxx	xx	xxxx	xxxx	x	x	xxxx	xxxx
Charcoal >2mm	x		x	xxx	xxxx	xx	x	xxx	xx		x	x	xx
Charcoal >5mm			x	x	x		x	x	x		x		x
Charcoal >10mm				x		x							x
Charred root/stem	x	x	x										
Indet.seeds	x	x										x	
Other remains													
Black porous 'cokey' material	x	x	x			x		x	x	x	x	x	x
Bone	xb												
?Pottery								x	x				
Small coal frags.						x		x	x	x	x		x
Small mammal/amphibian bones	xpmc		xpmc										
Sample volume (litres)													
Volume of flot (litres)	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**	**<0.1**
% flot sorted	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 3: Samples with no charred plant remains

Sample No.	Context No.	Feature No.	Contents	Comments
236	7017	7019	CH;BTM	
237	7021	7026	CH;CR/ST;BPC;BTM;POT	High density charcoal
238	7027	7032	CH;CR/ST;BPC	High density charcoal
239	7033	7037	CH;BTM	
242	7004	7005	CH	
245	6016		CH;BTM	
246	7045	7048	CH	
247	7051	7054	CH	High density charcoal
248	7055	7058	CH;BTM	High density charcoal
249	7059	7061	CH	
250	7066	7069	CH;BPC;BTM;SIL.GLOB	High density charcoal
251	7062	7065	CH	
252	7070	7073	CH	
253	7078	7081	CH	
254	7082	7085	CH	
255	7086	7088	CH	
256	7092	7095	CH	
257	7097	7099	CH	
258	7100	7102	CH	
259	7103	7106	CH	
260	7107	7110	CH;BPC;BTM	
261	7111	7114	CH;BTM	
262	7120	7124	CH	
266	7162	7165	CH;BTM	
267	7166	7169	CH;BPC	
268	7171	7173	CH	
270	7179	7182	CH	
271	7187	7190	CH	
274	7074	7077	CH	
275	7193	7194	CH;BPC	
276	7125	7128	CH;BTM	
277	7142	7144	CH	
278	7145	7147	CH	

Key to Tables

x = 1 – 10 specimens xx = 11 – 50 specimens xxx = 51 – 100 specimens xxxx = 100+ specimens

cf = compare fg = fragment b = burnt pmc = possible modern contaminant

ph = post-hole Crem = cremation

CH = charcoal BTM – black tarry material CR/ST = charred root/stem

BPC = black porous ‘cokey’ material SIL.GLOB = siliceous globule

APPENDIX 5: Charcoal identification

Context	Sample	Context type	Arbitrary number	Identification	Hw/ Rw	tally	Notes. PQ09	Further analysis- identification
6004	234	pot fill	1	Fraxinus	Hw	20	*Box 1. Charcoal from inside pot*. Large pieces >10mm in one dimension, >100 fragments layered in box with layers separated by sample bags; from external morphology all likely to be same taxon; some fragments with "exploded" rays but well preserved	yes
6004	234	pot fill	1	Fraxinus	Hw	20	*Box 2. Charcoal from inside pot*. Large pieces >10 mm in one dimension in 4 layers plus 3 separate bags; relatively well preserved and given external morphology all likely to be the same taxon	yes
6004	234	pot fill	1	Fraxinus	Hw	18	Bag 1. <100 fragments <10 mm diameter	yes
			2	?Fraxinus	Rw	1		
			3	unidentifiable twig	Rw	1		
6004	234	pot fill	1	Fraxinus	Hw	1	Bag 2. *Charcoal from worked wood.* One fragment >10 mm diameter	no
6005	235	soil around pot	1	Quercus	Hw	5	Bag 3. >100 fragments with range in size >10 mm to few mm in one dimension	no
			2	Fraxinus	Hw	9		
			3	Quercus twig	Rw	1		
			4	unidentifiable twig	Rw	2		
			5	Quercus no pith or bark	Rw	1		
			6	Non organic		1		
			7	Castanea	Hw	1		
6004	234	pot fill	1	Fraxinus	Hw	20	*Charcoal*. >100 fragments <5mm in one dimension. Soft but highly reflective and well preserved	yes
6025	--	fill of cut		Fraxinus	Hw	1	*NW Quarter charcoal*. One specimen poorly preserved, flakey with some homogenised cell walls	no
6016	245		1	?Poplus/Salix		6	*Charcoal*. <50 fragments, <5 mm diameter, poor preservation	no
			2	unidentifiable due to preservation		12		
6004	234	pot fill	1	Quercus		1	Bag 1. >100 fragments, good preservation and good size	yes
			2	Castanea	Rw	1		
			3	Fraxinus		17		
			4	Fraxinus stem wood	Rw	1		
6004	234	pot fill	1	Fraxinus		18	Bag 2. >50<100 fragments often >10 mm in one dimension; good reflectivity; tendency to be rounded, some homogenised cell walls	yes

Context	Sample	Context type	Arbitrary number	Identification	Hw/ Rw	tally	Notes. PQ09	Further analysis-identification
6005	235	soil around pot	1	Quercus/ Castanea	Hw	13	>50 fragments, few mm size, good preservation generally but some show evidence of exploded rays and homogenised cell walls	?
			2	Quercus		1		
			3	Fraxinus		6		
6005	235	soil around pot	1	Fraxinus		17	>100 fragments, range of sizes >5mm in diameter and <5 mm diameter, high reflectance, black, preservation good, some evidence of homogenised cell walls	Yes
			2	Quercus/ Castanea		3		
			3	?Fraxinus twig with 2 growth rings and pith	Rw	1		
			4	Unidentifiable (size and preservation)		2		
			5	Quercus/ Castanea twig with 3 growth rings	Rw	1		
			6	unidentifiable twig with 1 growth ring	Rw	1		
6005		soil around pot	1	Fraxinus		5	*NW quad charcoal*. <50 fragments all tending to be thin (<3 mm)	no
			2	unidentifiable (preservation)		3		
			3	Quercus/ Castanea		12		
6005		soil around pot	1	bone		1	*Charcoal*. <50 fragments with range of size from dust to >10 mm, high reflectivity with some evidence of homogenised cell walls. Possibly a few large pieces fragmented into smaller pieces because surfaces are fresh and angular in nature	?
			2	?Prunus stem	Rw	1		
			3	Quercus		1		
			4	Fraxinus		7		
			5	Quercus/ Castanea	Hw	8		
			6	unidentifiable (size)		2		
			7	unidentifiable twig wood with pith	Rw	1		
6005		soil around pot	1	unidentifiable (size)		1	*Charcoal*. Few large pieces and dust with lots of tiny fragments; high reflectivity and some homogenised cell walls and evidence of "exploded" rays	no
			2	?Clematis		1		
			3	Fraxinus twig (no pith)	Rw	2		
			4	unidentifiable (size and preservation)		12		
			5	?Fraxinus	Hw	4		
7004	242	pit fill	1	Maloideae		3	>100 fragments ranging in size from large >10mm and small <5mm, some homogenised cells walls evident, high reflectivity	no
			2	unidentifiable (preservation)		7		
7017	236	pit fill	1	Maloideae		8	>100 fragments ranging in size from large >10mm and small <3mm, no dust, high reflectivity	?

Context	Sample	Context type	Arbitrary number	Identification	Hw/ Rw	tally	Notes. PQ09	Further analysis-identification
7021	237	pit fill	1	unidentifiable (size and preservation)		7	>50 <100 fragments generally >3mm, relatively round and preservation relatively poor	no
			2	Maloideae		2		
			3	Quercus	Hw	2		
7027	238	pit fill	1	unidentifiable (preservation)		7	>50 fragments friable, highly reflective	no
			2	?Maloideae		5		
			3	?organic		3		
			4	unidentifiable (size)		5		
7033	239	pit fill	1	Maloideae		4	4 bags with <20 fragments per bag. *Charcoal*. Fragments <6mm in one dimension, highly reflective and distorted anatomy	no
			2	unidentifiable (preservation)		1		
			3	unidentifiable (size and preservation)		6		
7045	246	pit fill	1	unidentifiable (preservation)		2	Bag 1. *Charcoal*. <50 fragments, relatively small (<5 mm) slivers, high reflectance, distorted anatomy	no
			2	?Maloideae		3		
			3	?Quercus/ Castanea		2		
			1	Maloideae		7	Bag 2. *Charcoal*. >100 fragments with a size range >10mm to ~2mm, no dust	yes
			2	?Quercus/ Castanea		2		
			3	Fraxinus		1		
7051	247	pit fill	1	unidentifiable (preservation)		3	*Charcoal*. >100 fragments, ranging in size from <2mm to ~10mm in one dimension, poor reflectivity	no
			2	?Maloideae		4		
			3	?Quercus/ Castanea	Hw	3		
			4	?Fraxinus		1		
7055	248	pit fill	1	?Quercus/ Castanea	Hw	2	*Charcoal*. 2 bags containing >100 fragments ranging in size from >10mm to <5mm; highly reflective showing evidence of "exploded" rays but preservation good	yes
			2	Maloideae		5		
			3	unidentifiable (preservation)		7		
			4	Prunus		1		
7059	249	upper fill of cut of pit	1	unidentifiable (preservation)		11	*Charcoal*. 22 fragments, ranging in size from 3-5 mm, high reflectivity	no
7062	251	pit fill	1	unidentifiable (preservation)		7	Charcoal. >100 fragments, >5mm in one dimension, high reflectivity, distorted anatomy, poor preservation	no
			2	Quercus	Hw	1		
			3	Fraxinus		2		
7066	250	pit fill	1	?Maloideae		2	<50 fragments ranging in size from ~10mm to <2 mm, mainly slivers, poor reflectivity	no
			2	unidentifiable (preservation)		8		
7070	252	pit fill	1	unidentifiable (preservation)		4	>100 fragments, ranging in size from>10mm to <3mm, high reflectivity, some homogenised cell walls, relatively poor preservation	no
			2	organic (not wood)		1		
			3	?Quercus/ Castanea	Hw	4		
			4	?knappersteen		1		

Context	Sample	Context type	Arbitrary number	Identification	Hw/ Rw	tally	Notes. PQ09	Further analysis- identification
7074	274	pit fill	1	Quercus	Hw	7	*Charcoal*. ~100 fragments, high reflectivity, homogenous cell walls, poor preservation	?
			2	unidentifiable (preservation)		10		
			3	Poplus/Salix		3		
7078	253	fill of cut	1	?Maloideae		3	*Charcoal*. >100 fragments ranging in size from ~10mm to <2mm in one dimension, poor reflectivity	no
			2	unidentifiable (preservation)		2		
			3	Maloideae		2		
			4	?Quercus/ Castanea	Hw	5		
			5	Prunus		1		
7082	254	fill of cut	1	unidentifiable (preservation)		9	*Charcoal*. <50 fragments, ranging size from 2-4 mm, poor preservation	no
			2	?Maloideae		1		
7086	255	fill of cut of pit	1	unidentifiable (preservation)		4	*Charcoal*. >100 fragments, angular, flattened ranging in size from 2 - 5 mm, high reflectivity, some homogenised cell walls, poor preservation	?
			2	?Quercus/ Castanea		1		
			3	?Maloideae		4		
			4	Fraxinus		1		
7092	256	fill of cut	1	Maloideae		4	*Charcoal*. >50 <100 fragments the majority being >10mm in one dimension	?
			2	unidentifiable (preservation)		6		
7097	257	fill of cut of pit	1	Maloideae		4	*Charcoal*. Bag 1. >50 fragments with size >10 mm generally, preservation relatively poor	?
			2	unidentifiable (preservation and size)		5		
			3	Fagus		1		
	257	fill of cut of pit	1	?Maloideae		3	*Charcoal*. Bag 2. >100 fragments >5 mm but slivers, preservation relatively poor	no
			2	?Quercus/ Castanea	Hw	5		
			3	unidentifiable (preservation)		2		
7100	258	fill of cut of pit	1	Maloideae		5	*Charcoal*. ~100 fragments >3 mm but tending towards slivers rather than angular fragments	?
			2	unidentifiable (preservation and size)		5		
7103	259	fill of cut of pit	1	?Maloideae		2	*Charcoal.* >50 fragments ranging in size upwards of 3mm, preservation poor	no
			2	unidentifiable (preservation)		7		
			3	?Quercus/ Castanea		1		
7107	260	fill of cut of pit	1	?Maloideae		4	*Charcoal.* >100 fragments ranging in size from ~3mm to >10mm, poor reflectivity	?
			2	?Fraxinus		2		
			3	unidentifiable (preservation)		5		
			4	Prunus		1		
7111	261	fill of cut of pit	1	unidentifiable (preservation and size)		9	*Charcoal?* >100 fragments ranging in size upwards of 3 mm, poor reflectivity	no

Context	Sample	Context type	Arbitrary number	Identification	Hw/ Rw	tally	Notes. PQ09	Further analysis-identification
7120	262	fill of cut of pit	1	unidentifiable (preservation)		19	*Charcoal.* <50 fragments, ranging in size from 3 to ~10mm, poor preservation	no
			2	Poplus/Salix		1		
7125	276	fill of cut of pit	1	unidentifiable (preservation)		4	*Charcoal.* 4 pieces only	no
7142	277	fill of cut of pit	1	Quercus		2	*Charcoal.* 2 pieces	no
7171	268	fill of cut of pit	1	unidentifiable (preservation)		10	*Charcoal.* 11 pieces including one small pebble	no
7179	270	upper fill of pit	1	Poplus/Salix		5	*Charcoal*. <50 fragments, >3mm in one dimension but slivers	?
			2	unidentifiable (preservation)		3		
			3	?Quercus/ Castanea		2		
7187	271	fill of cut of pit	1	Maloideae		6	*Charcoal.* >100 fragments ranging in size ~5mm to 10mm in one dimension	?
			2	unidentifiable (preservation and size)		3		
7193	275	fill of cut of pit	1	Maloideae	Rw	1	*Charcoal.* <50 fragments >5mm but slivers	?
			2	?Quercus/ Castanea	Hw	5		
			3	unidentifiable (preservation)		4		

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