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Ashby-de-la-Zouch
Leicestershire

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Archaeological Excavation Report

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Summary

An excavation carried out by Oxford Archaeology during October 2020 at Money Hill, Ashby-de-la-Zouch, Leicestershire uncovered a localized buried soil layer that contained a small quantity of worked flint, including a fragment from a Neolithic axe that had been reworked as a flake core, and part of two pit alignments (one a double alignment) that had previously been identified from cropmark evidence. Both alignments were proved to extend further than had been indicated by the cropmarks, although the full extent was not established. Pit alignments are notoriously difficult to date and the recovery of a small quantity of Iron Age pottery from the pits is therefore particularly significant. A sample of charcoal from pit 1043 that returned a radiocarbon date range of 1505–1320 cal BC is considered to be residual. The alignments descended the hillside from a notable promontory that projects from the main NW–SE ridge between Burton and Coalville, overlooking the Gilwiskaw Brook, a tributary of the River Mease. The promontory may have been a significant feature in the contemporary landscape and thus became an important focus when landscape divisions were constructed. It is possible that the alignments were associated with a settlement 400m to the north, where similar pottery was found.

Acknowledgements

Oxford Archaeology would like to thank Simon Mortimer, of RPS Group for commissioning the project on behalf of Money Hill Consortium. Thanks are also extended to Chloe Cronogue-Freeman, who monitored the work on behalf of Leicestershire County Council.

The project was managed for Oxford Archaeology by Carl Champness and the post-excavation work was managed by Andrew Simmonds. The fieldwork was supervised by Ban McAndrew and Ines Matos Glover, who were assisted by Robert Backhouse, James McCallum and Tomasz Neyman. Survey and digitising was carried out by Marjaana Kohtamaki and Matt Bradley. Thanks are also extended to the teams of OA staff that cleaned and packaged the finds under the supervision of Leigh Allen, processed the environmental remains under the supervision of Rebecca Nicholson, and prepared the archive under the supervision of Nicola Scott.

1 INTRODUCTION

1.1 Background

1.1.1 Between 5 and 30 October 2020, Oxford Archaeology (OA) conducted an archaeological excavation at Money Hill, Ashby-de-la-Zouch, Leicestershire (NGR SK 3621 1745; Fig. 1) on behalf of RPS Group. The work was undertaken as a condition of planning permission for the development of 605 homes with a health centre, primary school, employment provision, and areas of public open space and community uses (Planning Ref. 15/00512/OUTM).

1.1.2 A geophysical survey and two phases of evaluation trenching confirmed that the only archaeological features within the 42ha development site were a pair of pit alignments that had been identified from cropmark evidence, which crossed a proposed access road into the development from the A511 trunk road. Two small excavation areas were excavated where the alignments crossed the road.

1.1.3 The excavation was carried out in accordance with a written scheme of investigation (WSI) prepared by Simon Mortimer of RPS Group and agreed with Chloe Cronogue-Freeman, Senior Planning Archaeologist for Leicestershire County Council (RPS 2020).

1.2 Location, topography and geology

1.2.1 The development area was located north-east of the town, encompassing a large area of agricultural land between Woodcote Primary School to the west and warehouses at the junction of the A511 and the B587 Nottingham Road to the east (Fig. 1). A proposed new access road will provide access to the development from the A511 on Money Hill to the north-east, and it was here that the pit alignments were identified. The excavation areas were situated 110 apart in adjacent arable fields, *c* 140m west of the A511.

1.2.2 The excavation areas lay within gently undulating farmland on the upper part of a west-facing ridge that slopes gently down for *c* 700m to the Gilwiskaw Brook, a tributary of the River Mease (Figs 2 and 3). The slope peaks locally at *c* 165m above Ordnance datum (aOD) east of the A511, forming part of a ridge that runs from north-west to south-east between Burton and Coalville, and reaches a lowest height of c 135m aOD near the brook. Area A lay at 153-4m aOD and Area B at 154-6m aOD.

1.2.3 The solid geology of the study site area is mapped by the British Geological Survey as sandstone and mudstone of the Helsby Sandstone Formation (BGS n.d.).

1.3 Archaeological and historical background

1.3.1 The archaeological potential of the development site was considered through an archaeological desk-based assessment (CgMs 2015), a geophysical survey (GSB 2013) and two phases of trial-trenching evaluation (ULAS 2013; OA 2020).

1.3.2 Two findspots of prehistoric flints were recorded along the eastern boundary of the development area during fieldwalking for Ashby Bypass, and further such finds were also recorded to the west and north-west. A middle Iron Age settlement was excavated in advance of construction of the A511 Ashby Bypass *c* 400m north of the site, near

south of Old Parks House, uncovering two large curvilinear enclosures and associated occupation including at least two probable roundhouse gullies (Jones and Dingwall 2002).

1.3.3 The south-western part of the development area is crossed by the projected alignment of Leicester Way/Long Lane Roman road, but no evidence of the road has been recorded within the vicinity of the site and very little evidence has been found for Roman settlement in the area, although the excavation south of Old Parks House recorded shallow, linear gullies, a few pits, a possible working hollow and a stone surface that probably represent the periphery of a settlement. A hoard comprising two urns filled with 3rd century coins was ploughed up at Money Hill in 1818, but the precise location of the find is not known.

1.3.4 The geophysical survey identified little of archaeological interest, finding evidence of former agricultural regimes, predominantly ridge-and-furrow cultivation, as well as modern services, footpaths and an old field boundary. An area of former quarrying was also identified at the north-western extent of the development area. The survey found no evidence for the continuation of two pit alignments that had been observed in the adjacent field to the north of the site on Google Earth images taken in 2006 (ULAS 2013, 4).

1.3.5 The first phase of evaluation trenching, undertaken in 2013, comprised seven trenches targeting anomalies identified by the geophysical survey and the projected line of the possible pit alignments. The trenching confirmed that both pit alignments continued across the line of the proposed access road into the development but yielded no dating evidence. The other anomalies investigated were found to be areas of modern disturbance, most likely linked to coal extraction.

1.3.6 In 2020 a second phase of evaluation trenching was undertaken, comprising 128 trenches across the entire development area, and confirmed that the only significant archaeological features were the pit alignments and a shallow hollow adjacent to the eastern alignment that produced several worked flints including an axe fragment, a scraper and a flake. A single small sherd weighing only 3g was recovered from one of the pits of the eastern alignment and was dated to the late Iron Age/early Roman period (*c* 50 BC–AD 50).

1.4 Aims and objectives

1.4.1 The overall aim of the programme of archaeological works was to preserve by record the archaeological remains within the site impacted upon by the development.

1.4.2 The fieldwork comprised the excavation of two areas in the north-western part of the site. The excavated data were to be assessed and analysed, and information on the investigation's findings disseminated.

1.4.3 The objectives of the archaeological works were as follows:

- To ascertain the nature and extent of the archaeology identified by cropmark data and confirmed by the trial trenching.
- To determine the date, character, function and significance of any features encountered.

- To undertake a programme of post-excavation analysis assessing the potential of the remains to contribute to wider research agendas and the scope for dissemination of the project results to a wider audience.
- To produce a site archive for deposition with an appropriate museum and to provide information for accession to the Leicestershire HER.

1.5 Research framework

1.5.1 The programme of archaeological investigation was conducted within the general research parameters and objectives defined by *East Midlands heritage: a research agenda and strategy for the historic environment* (Knight *et al*. 2012) and the earlier *archaeological resource assessment and research agenda for the East Midlands*, The archaeology of the East Midlands (Cooper 2006).

1.5.2 A number of project-specific research aims were formulated for the trenching; those that remained relevant to the mitigation are repeated below:

- What were the economic, social or political roles of the pit alignments and linear ditch systems that characterised many areas of the East Midlands?
- The region has considerable cross-period evidence for the ways in which the land has been divided up over time. Long-distance land boundaries and associated enclosures and field systems are evident from the Bronze Age onwards, and the region boasts some of the best examples of medieval and post-medieval open field systems in the world. How these relate to changes over time in territoriality, land rights and social and political structure are potential lines of research.

1.6 Fieldwork methodology

1.6.1 Area A measured 0.11ha and Area B measured 0.15ha.

1.6.2 Stripping of the excavation areas was undertaken using a 360° tracked excavator with a toothless ditching bucket, supervised by a suitably qualified and experienced archaeologist. Mechanical excavation ceased at either undisturbed natural deposits or when archaeological features were identified. Upcast and spoil from mechanical excavation were scanned by eye and by metal detector to aid the recovery of artefacts. The excavation areas were cleaned with hand tools as necessary to assist the identification and interpretation of exposed archaeological features and the nature of identified features assessed by hand excavation. It was anticipated that in the region of 40 pits would be exposed within the mitigation areas; a sampling strategy was agreed with the Planning Archaeologist which allowed for the half-sectioning of every other pit, with an allowance for up to five of these to be fully excavated – in the event, two pits (1043 and 1061) were fully excavated.

1.6.3 Finds were bagged by context and the features were recorded following standard OA practice (Wilkinson 1992). Nine bulk soil samples, each of 40 litres, were taken from five pits for the recovery of animal bone and charred plant macrofossils, in accordance with English Heritage guidelines (EH 2011).

1.6.4 The excavation was undertaken in accordance with the Chartered Institute for Archaeologists' (2014) *Standard and guidance for archaeological excavation*, local and national planning policies, and the WSI.

2 STRATIGRAPHY

2.1.1 The archaeological features were cut into a geological substrate of mottled greyish red sandy clay and greenish yellow clayey sand in Area A and mixed orange-yellow and brownish red clayey sand in Area B. They were overlain by a subsoil 0.35-0.50m thick and a topsoil up to 0.36m thick.

2.2 Area A (Fig. 4)

Pit alignment 1069 (Fig. 5)

2.2.1 A total of nine features of the pit alignment were exposed within the excavation area, extending across the trench on a slightly ragged NW-SE orientation. The pits were typically 1.4–1.6m apart, with only occasional larger gaps up to 2.1m. An unusually large interval of 4.6m between pit 1045 and the adjacent unexcavated pit to the south-east was comfortably large enough to accommodate an additional pit but none was present. Any feature within this gap with a depth comparable to the surviving pits would certainly not have been completely truncated away by ploughing, so it is likely that there was never a pit at this location.

2.2.2 The pits in this alignment were generally smaller and less rectangular than those in Area B, with a range of sub-circular and sub-square shapes. The smallest was pit 1042, with a diameter of 1.2m, and the largest (pit 1045) measured 1.6 x 1.3m. Depths ranged from 0.34m (pit 1043) to 0.52m (pit 1061). The fills consistently comprised homogeneous deposits of light brown clay silt with only occasional gravel-sized stones and the odd fleck of charcoal, most likely derived from natural silting processes. Pits 1045 and 1046 were each notable for the inclusion of a single larger stone *c* 0.2m across, and an unusual deposit was represented by the basal fill of pinkish brown clay (1053) in pit 1043. The latter was the only pit in Area A that produced pottery, comprising four sherds (7g) in a grog-tempered fabric from the upper fill (1052), and a sample of willow/poplar charcoal from the same fill returned a radiocarbon date range of 1505–1320 cal BC (Table 5).

Posthole 1044

2.2.3 The only feature in this area that was not part of the pit alignment was a vertical-sided posthole 0.4m deep (1044) which contained stones that may have been displaced packing stones. No finds were recovered.

2.3 Area B (Fig. 6)

2.3.1 The excavation exposed a buried soil and a double pit alignment comprising two rows of pits (1070 and 1071) 4.4–5.8m apart that extended across the trench from north-west to south-east.

Buried soil 1057 and flint scatter

2.3.2 An assemblage of worked flint was recovered from a buried soil (1057) that extended across an amorphous area of *c* 9 x 8m in the north-western part of the trench. The layer was 0.06m thick and lay on the surface of the geological substrate. Worked flint

comprising a flake, a blade, and four pieces of irregular waste was recovered from its surface and from hand excavation of a 1m-wide intervention across the layer.

Pit alignment 1070 (Fig. 7)

2.3.3 Eight pits of the western alignment (1070) were exposed, extending across the excavation area on a slightly irregular line. One pit (130017) had been excavated in Trench 130 of the 2002 evaluation and three (1003, 1028 and 1035) were excavated during the excavation. They varied in shape from sub-rectangular to almost circular and were generally 1.5–2.0m across. The intervals between pits were similar in length to the pits themselves, ranging from 0.87–1.67m.

2.3.4 Pits 1003 and 1028 were similar features, 1.5–1.6m across with conical profiles with a suggestion of a socket at the base. There was no indication that the latter element held the base of a post, however, since no evidence was observed for postpipes and the fills were clearly continuous across the width of both pits. Pit 1003 was the deeper at 0.82m, and pit 1028 was 0.60m deep. Most of the fills were again light brown clay silts, albeit with a little more stone than was present in alignment 1069, and pit 1028 had a notably stoney middle fill (1031). The only artefactual material from these pits was a small quantity of pottery from pit 1003, including a sherd from the bottom fill (1008) and small scraps from the upper fills (1004, 1005).

2.3.5 Pits 1035 and 130017 had wider, squatter profiles with broad, slightly concave bases and were slightly smaller than the other two pits. Pit 1035 measureding 1.5 x 1.0m and only 0.42m deep and pit 130017 measuring 1.7m across and 0.60m deep. In addition to a number of smaller stones, the uppermost fill (1039) of pit 1035 contained a single large piece, squarish in shape but unworked.

Pit alignment 1071 (Fig. 8)

2.3.6 Seven pits of the eastern alignment (1071) lay wholly within the excavated area and part of an eighth was exposed at the south-eastern baulk. One pit (130004) had been excavated during the evaluation and three (1009, 1015 and 1023) were investigated during the excavation. The alignment, or at least the part within the excavation area, was rather straighter than alignment 1070, but their orientations were parallel. Unlike the other rows, the intervals between pits were smaller than the widths of the pits, ranging from 1.1–1.6m.

2.3.7 The pits were significantly more substantial than those in the other rows, measuring 2.4 x 2.1m to 2.6 x 2.6m. Pit 1009 was the deepest at 1.1m and had a similar conical profile to pits 1003 and 1028 in row 1070, as did pit 130004, which was 1.0m deep. Pits 1015 and 1023, with depths of 0.7m and 0.47m respectively, had wider, more open profiles. The fills were again indicative of gradual silting, and the only artefactual material comprised a single sherd (3g) of pottery from middle fill 130007 of pit 130004 and a single piece of (presumably residual) worked flint from each of pits 1009, 1023 and 1028.

3 ARTEFACTS

3.1 Prehistoric pottery *by Alex Davies*

3.1.1 A small assemblage of nine sherds (25g) was found across three pits, one from each of the three pit alignments. All were undecorated formless body sherds. Despite the small size of the assemblage, it is of significance due to the often poor dating of pit alignments, the presence of a sherd in a basal fill, and that most of the material is in a probable non-local fabric (QtIg2).

3.1.2 Two fabrics were identified:

QtIg2: abundant grey quartz; common grey ?igneous rock; common grey to pink feldspar; rare red-brown glistening plates of mica (biotite?).

Gr2: common, medium grog

3.1.3 Most of the pottery was in fabric QtIg2, including sherds from alignments 1070 and 1071 (Table 1). The sherd from fill 1008 was found in the earliest of a series of five fills in pit 1003 (alignment 1070), suggesting it had been deposited very soon after the pit had been dug.

3.1.4 The basic identification of fabric QtIg2 corresponds to the description of fabric Q1A at Gamston, Nottinghamshire (Knight 1992, 40, 42; 2002, 140), and fabric GNMV at South of Old Parks House, *c* 400m north of Money Hill (Hancock 2002; Hancock and Williams 2002). These both belong to a group of granodiorite fabrics found across the east Midlands, and it is likely that the sherds at Money Hill are also of this broad group (also Carney *et al.* 2018, 142). This has been identified as belonging to the Mountsorrel Complex, and sourced to the Charnwood Forest, *c* 24km south-east of the site (Hancock and Williams 2002, 40; Knight 2002, 140). However, a recent petrographic study into pottery containing granitoid inclusions from the east Midlands has shown a more complicated picture of the provenance of this group of fabrics, and highlighted difficulties in identification (Carney *et al*. 2018; David Knight pers. comm.; also Knight *et al*. 2003). In the absence of petrological analysis to confirm the identification of the inclusions at Money Hill it is not possible to suggest a source for the material with confidence.

3.1.5 At South of Old Parks House, the most common fabric group is granodiorite (46% of Phase 1 by weight), followed by grog (21%). This is similar to the Money Hill assemblage. The South of Old Parks House pottery belongs to the Scored Ware tradition, with 29% of the sherds displaying the decorative trait. This percentage of material with scoring is typical (Davies forthcoming) and the absence of scored decoration on the limited assemblage of small sherds from Money Hill does not preclude it from being Scored Ware. Scored Ware is essentially a middle Iron Age tradition although it has been dated by some to continue into the late Iron Age (Elsdon 1992a; Knight 2002, 134).

3.1.6 The granodiorite fabric is found among some Scored Ware assemblages (eg Old Parks House: Hancock 2002; Gamston: Knight 1992; possibly Enderby: Elsdon 1992b), although the Iron Age exchange networks which are represented by the fabric are present before the introduction of Scored Ware, suggested by the sherds with early

Iron Age characteristics in a similar fabric at Swarkestone Lowes, Derbyshire (Knight 1999, 131, fig. 17.9–10). Granodiorite fabric is found in pottery in the east Midlands from the early Neolithic to late Iron Age, and its presence cannot be used on its own to date an assemblage (Carney *et al*. 2018; Knight *et al*. 2003).

3.1.7 The assemblage at Money Hill is very small and can only be dated to the Iron Age. The assemblage does share similarities with that from nearby South of Old Parks House, which is of middle Iron Age date, but the Money Hill assemblage is too small and lacking in diagnostic features to refine the date any further than the Iron Age.

Table 1: Summary of the prehistoric pottery

Fill	Pit	Alignment	Fill position	Sherds/ Weight	Fabric	Comment
1004	1003	1070	Upper	1/2g	QtIg2	Moderately abraded
1005	1003	1070	Upper	2/6g	QtIg2	Fresh breaks
1008	1003	1070	Basal	1/7g	QtIg2	Moderately abraded
1052	1043	1069	Upper	4/7g	Gr2	Fresh breaks
130007	130004	1071	Middle	1/3g	QtIg2	Found in evaluation

3.2 Flint *by Elizabeth Kennard*

3.2.1 Nine pieces of struck flint were recovered from Area B, found within buried soil 1057 and pit fills 1025, 1031, and 1068 (Table 2).

3.2.2 The flint from 1057 consisted of a flake, a blade, and four pieces of irregular waste. All pieces were of poor quality with the majority showing moderate post depositional damage and cortication. Both the flake and the blade appear to have been struck from thermal cores. These are in addition to three pieces of flint which were recovered from the same deposit during the evaluation which included a flake, end scraper and a polished axe fragment.

3.2.3 The pit fills contained a small, squat preparation flake (1025), a piece of irregular waste (1031) and a possible flake core (1068), all of which displayed light cortication and edge damage. The core was a multi-platform flake core on a thermal pebble, with several poorly utilised platforms, displayed no curation or platform preparation and dated to the later prehistoric period. It is possible that these flints derive from the buried soil as the level of cortication and edge damage is comparable.

3.2.4 All pieces appear expedient in nature and are indicative of limited prehistoric activity in the area.

3.2.5 The assemblage is residual with clear signs of post depositional movement and is dated to the later prehistoric period.

Table 2: Worked flint

Context	No.	Notes	Date
1025	1	Preparation flake struck from thermal core. Hard hammer technology with plain platform. Light edge damage and cortication.	Later Prehistoric
1031	1	Irregular waste. A small piece with thermal fractures and two possible small flake removals, though these are likely damage.	
1068	1	Possible small multi-platform flake core. Several platforms with one or two removals. No preparation.	Later Prehistoric
1057	6	1 x inner flake (though possible thermal piece) with light edge damage and moderate cortication. 1 x blade, distal fragment. From thermal core. 4 x irregular waste.	Later Prehistoric

Discussion

3.2.6 These flints are in addition to a flake from pit 130007 and three pieces of flint which were recovered from the same buried soil layer during the evaluation. The latter included a flake, an end scraper and a polished axe fragment that exhibited later removals representing either an aborted/failed attempt to rework the axe after a breakage or, more likely, due to the number of heavy flake scars, a flake core.

3.3 Lead object *by Anni Byard*

3.3.1 A discoidal lead alloy object with a raised rim on one side, weighing 2.7g, was recovered from the topsoil by metal-detecting. A small projection, probably a casting spur, is retained on one edge. The underside is flat, possibly with two small circular equidistant 'stubs' (level with the reverse of the object), which may be the remains of an attachment loop.

3.3.2 The angled lip suggests a type of clasping rim for an internal element, such as glass. This feature, along with the two possible stubs on the reverse, could indicate that this is a button or cufflink of the period *c* 1650–1800. The Portable Antiquities Scheme database features both circular and oval examples with raised lip. However, this is far from certain. Small cup weights share similarities but are usually much cruder, while lead tokens usually feature letters or motifs. Although the identification of this object is uncertain, it is of post-medieval or early modern date.

4 ENVIRONMENTAL EVIDENCE AND RADIOCARBON DATING

4.1 Charred plant remains and charcoal *by Denise Druce*

Introduction

4.1.1 A total of nine samples were taken from targeted pits to assess their potential for containing archaeobotanical remains, including those suitable for radiocarbon dating. Samples were taken from alignments 1069 and 1070. To comply with accepted professional guidelines (EH 2011) 40 litre samples, or 100% of a fill if less than this, were taken.

Methodology

4.1.2 Sample processing followed standard procedures whereby the flots were caught in a 250 µm aperture sieve and air dried. The residues of the floated samples were washed through 4mm, 2mm, and 500 µm aperture meshes and also air dried. Dried flots and residues were scanned using a stereo microscope and any plant material, including fruits, seeds, charcoal and wood fragments, was recorded. Other remains, such as bone, insects, small artefacts, ceramic building material (cbm), industrial/metal waste, and coal/heat-affected vesicular material (havm) were also noted. The presence of modern roots, earthworm eggs and modern seeds was also noted to ascertain the likelihood of any contamination. The assessment results were recorded on a *pro forma*, which will be kept with the site archive.

4.1.3 Wood and charcoal fragments over 2mm in size were provisionally quantified and scanned to assess preservation and wood diversity. Any charcoal considered suitable for further analysis and/or radiocarbon dating was identified. Fragments were initially sorted into groups based on the features visible in transverse section using a Leica MZ6 binocular microscope at up to x40 magnification. Representative fragments of each group were then fractured to reveal both radial and tangential sections, which were examined under a Meiji incident-light microscope at up to x400 magnification. Identification and classification were made with reference to Hather (2000) and modern reference material.

Results

4.1.4 The results of the archaeobotanical assessment are presented in Table 3. Preservation was through charring, much of the uncharred organic material represented modern roots, seeds, and insect fragments. Other material, consistently recorded in all nine samples, included comminuted coal/havm and fired silt/clay fragments.

Table 3: Archaeobotanical assessment results

Sample	Context	Pit	Alignment	Sample size (l)	Flot size (ml)	Charred plant remains	Charcoal	Other remains
1000	1005	1003	1070	20	5	Hazelnut shell fragment (1)	<2mm (3), >2mm (2) Alder/hazel and oak round wood (see Table 4)	Comminuted coal/havm (1), fired silt/clay (2)
1001	1008	1003	1070	20	10	-	<2mm (4), >2mm (3) Alder/hazel and oak (see Table 4)	Comminuted coal/havm (2), fired silt/clay (2)
1002	1032	1028	1070	20	10	-	<2mm (3), >2mm (1) Alder/hazel and oak	Comminuted coal/havm (3), fired silt/clay (3)
1003	1031	1028	1070	20	5	-	<2mm (2), >2mm (1) Alder/hazel and oak	Comminuted coal/havm (3), fired silt/clay (3), cbm (1)
1004	1063	1061	1069	20	10	-	<2mm (3), >2mm (2) Alder/hazel and oak	Comminuted coal/havm (3), fired silt/clay (2)
1005	1052	1043	1069	40	30	-	<2mm (3), >2mm (3) Alder/hazel and oak (see Table 4)	Comminuted coal/havm (3), fired silt/clay (2)
1006	1013	1009	1071	20	5	-	<2mm (2), >2mm (1) Indeterminate	Comminuted coal/havm (3), fired silt/clay (3)
1007	1011	1009	1071	20	8	-	<2mm (1), >2mm (1) Alder/hazel and oak	Comminuted coal/havm (3), fired silt/clay (4)
1000	1005	1003	1071	20	2	-	<2mm (2), >2mm (1) Alder/hazel and oak	Comminuted coal/havm (2), fired silt/clay (4)

Remains are quantified on a scale of 1–4 where 1 is rare (one to five items), 2 is frequent (6 to 50 items), 3 is common (51 to 100 items), and 4 is abundant (greater than 100 items). Havm = heat affected vesicular material, cbm = ceramic building material.

4.1.5 Only one of the pit fills, 1005 (pit 1003) contained the remains of a charred seed/fruit, comprising a single charred hazelnut shell fragment roughly 2mm in size. All nine samples contained varying quantities of charcoal fragments, and the assessment showed that the assemblages were very similar, consisting primarily of alder/hazel and oak. Well-preserved identifiable fragments were limited to pit fills 1005, 1008 and 1052, which were therefore selected for full charcoal analysis to confirm identifications and to check for other taxa. The results of the charcoal analyses are presented in Table 4.

4.1.6 The taxonomic level of identification varied according to fragment size, state of preservation, and/or observed genera/family. Anatomically similar alder (*Alnus glutinosa*) and hazel (*Corylus avellana*) are not generally separated during assessment and are difficult to separate if key diagnostic features are not observed or obscured. Similarly, willow (*Salix* sp.) and poplar (*Populus* sp.) cannot be separated anatomically. Characteristics such as possession of tyloses in hard wood taxa such as oak (*Quercus* sp.) and ash (*Fraxinus excelsior*) were noted as an aid to establishing wood maturity.

4.1.7 The analysis confirmed the presence of both alder and hazel, including small roundwood fragments. Oak fragments from mature trees (probably at least 50 years in age) were also recorded in all three samples. Mature ash and willow/poplar were also recorded in fill 1052 of pit 1043.

Table 4: Charcoal identification results of selected samples

	Sample no.	1000	1001	1005
	Context no.	1005	1008	1052
	Pit	1003	1003	1043
	Alignment	1070	1070	1069
	Flot size (ml)	5	10	30
	% of >2mm flot analysed	100	100	100
Alnus glutinosa/Corylus avellana	Alder/hazel	5	13r	4
Alnus glutinosa	Alder		5r	25
Corylus avellana	Hazel	4	3	
Fraxinus excelsior	Ash			12h
Quercus sp	oak	1s	3	21h
Salix/Populus sp	Willow/poplar			2
	No of fragments identified	10	24	64

Numbers given are actual counts. s = sap wood present, r = round wood present, h = heart wood present.

Discussion

4.1.8 The relatively small amount of charcoal recovered from the pits suggests it is likely to represent casually dispersed surface debris, which incidentally ended up in the features whilst they were being dug or during their infilling. Indeed, this is supported by a lack of evidence for any postholes (so an absence of structural wood) and the fact that the fills from all nine of the pits produced remarkably similar material. Although It is not clear whether the charred material is related to the pit alignments, the extent of the deposit may be significant and indicate the burning of local oak, ash and hazel wood, perhaps as part of woodland clearance or as fuel. The burning/utilisation of different woodland types is indicated by the presence of alder and willow/poplar charcoal, which would have been growing in wetter areas.

4.2 Radiocarbon dating *by Andrew Simmonds*

4.2.1 A sample of willow/poplar charcoal from fill 1052 of pit 1043 was submitted to the Chrono Centre, Queen's University Belfast, and returned a radiocarbon date range that placed it in the middle Bronze Age.

4.2.2 Table 5: Radiocarbon dating

Lab ref.	Context	Feature	Material	F14C	Radiocarbon age (BP)	Calibrated date (95% confidence)
UBA-44541	1052	1043	Salix/populus sp. charcoal	0.6744	3165 ± 35	1505–1320 cal BC

5 DISCUSSION

5.1.1 The programme of investigation concluded that the only archaeological remains within the 42ha development site were the pair of Iron Age pit alignments that had been identified from cropmark evidence and an adjacent localised buried soil layer containing worked flints which had first been identified during the 2020 trial-trench evaluation. This most notable piece recovered from the latter deposit was a fragment from a Neolithic axe that had been reworked as a flake core at some unknown later date. A small quantity of worked flint recovered from the Iron Age pits is likely to be residual, derived from the buried soil layer, as may be a single fragment from a charred hazelnut shell, since these are a common find in Neolithic deposits where they no doubt represent a significant seasonal food source.

5.1.2 Pit alignments like those at Money Hill comprise a rather enigmatic type of feature that is characteristic of the East Midlands and Yorkshire Wolds as well as eastern Scotland and the Welsh Marches but is largely absent from much of the UK (Rylatt and Bevan 2006, 220; Thomas 2003, 79). As a class of monument they have attracted considerable discussion, largely due to the apparent incongruity between their linearity, which suggests a function as a boundary, and their discontinuous form, which would not provide a functioning barrier to movement of people or livestock. Attempts to resolve this contradiction have tended to argue either that the pits represent the surviving element of an originally more effective barrier, perhaps reinforced by an accompanying fence or bank, or that they had a more symbolic or ritual role; however, as at Money Hill the evidence from the pits typically indicates that they were open features rather than postholes (Barber 1985, 151; Rylatt and Bevan 2007, 220), and evidence for a bank is rare, an example at Gardom's Edge, Derbyshire, comprising only a discrete mound 0.15m high beside each pit (Mellor 2007, 22), and the postulated ritual function is typically left undefined (but see Rylatt and Bevan 2007 for an exception). Of course, in practice a boundary does not necessarily have to present an insuperable barrier to movement in order to be respected, and indeed it is not difficult to envisage boundaries that were intended to be traversed, for example between parts of the landscape that were in different use or that were subject to different rights of access.

5.1.3 The investigation has proved that both alignments extend further than was indicated by the cropmarks, which were only visible in the field adjacent to the north of the development area and extended for *c* 110m. The western alignment 1069 can now be demonstrated to extend for at least 230m, taken from the north-west end of the cropmark to the excavation area, and alignment 1070/7071 for at least 180m, although both evidently continue to the south-east beyond the excavation area. It is not unusual for pit alignments or parts thereof to be invisible to aerial photography, since the pits were typically allowed to silt up naturally and consequently the fills are similar to the surrounding substrate and do not form distinct cropmarks. It is probably for the same reason that they were not detected by the geophysical survey. These lengths are comparable to the alignment at Eye Kettleby, Melton Mowbray, which was at least 200m long (Finn 1997, 91), but are dwarfed by the arrangement at Wollaston in the Nene Valley, Northamptonshire, where a co-axial system of pit alignments covered an area of *c* 2.5 km (Meadows 1995; 1996). The single western pit alignment

1069 appears from the cropmark evidence to be reasonably straight whereas the eastern double alignment 1070/1071 is a little more sinuous in nature, but there is no reason why they should not have been in contemporary use, as demonstrated by the example of Wollaston. The alignments diverged as they extended down the slope and were *c* 150m apart at the point where they were crossed by the excavation areas. There was no evidence to determine whether double alignment 1070/1071 was constructed in this double form from the outset or whether it represents successive iterations of a single alignment, although the cropmark evidence indicates that both follow the same curved alignment, suggesting that if they were not strictly contemporary the earlier alignment must have still been visible when the later one was laid out. A similar double alignment excavated at Oakham Bypass likewise comprised a row of larger pits and a row of smaller ones (Mellor 2007, 22).

5.1.4 The arrangements of many pit alignments have been observed to relate to the natural topography, for example running parallel or perpendicular to a watercourse (Pollard 1996) or relating to a watershed (Wigley 2007, 123–4), and it may therefore be significant that the alignments at Money Hill ran parallel to the Gilwiskaw Brook, 700m to the west and that they descend the hillside from a notable promontory that projects from the main ridge that runs from north-west to south-east between Burton and Coalville (Fig. 1). The cropmark of western alignment 1069 ends at the spur of the promontory and that of alignment 1070/1071 ends at the top of the promontory *c* 100m further east, and the alignments extend at right angles from it. It is possible that the promontory was a significant feature in the contemporary landscape and thus became an important focus when landscape divisions were constructed. The paucity of contemporary artefactual and environmental material indicates that there was no domestic occupation close to the pits, although they may be contemporary with the settlement excavated *c* 400m to the north near Old Parks House, which produced similar pottery (Jones and Dingwall 2002). The small quantity of charcoal from the pit fills was probably incorporated incidentally from wind-blown material and the surrounding ground surface but provides some evidence for the local availability of oak, ash and hazel wood, with alder and willow/poplar probably derived from the wetter areas at the foot of the hill.

5.1.5 Pit alignments are notoriously difficult to date since their function did not typically entail the deposition of datable artefacts and they were usually located away from areas of domestic settlement and hence did not accumulate any associated refuse. Consequently, artefactual material within the pit fills may include earlier material that was incorporated incidentally, as exemplified by the alignment at Oakham Bypass, where the single unabraded sherd of early Iron Age pottery that provided a *terminus post quem* for the features was outnumbered by sherds of Beaker and Collared Urn recovered from other pits (Mellor 2007, 21–2). The possibility that some of the pits in Area B at Money Hill included earlier material derived from the Neolithic buried soil has been discussed above, and the incompatibility of the radiocarbon date from pit 1043 with the dating evidence provided by the pottery may best be explained by the dated material similarly being a residual inclusion. Given the difficulty in dating such alignments, the sherds from pits 1003 and 1043, and from pit 130007 of the 2020 evaluation, provide significant evidence for the date of the alignments at Money Hill

and for features of this type in the wider region. The sherds were scrappy and did not include any decorated examples that might help refine the date range, but their Iron Age date is consistent with the broad late Bronze Age to middle Iron Age date that is ascribed to such features (Hingley 1989). The Iron Age sherd from the alignment at Oakham Bypass, discussed above, indicates that it may be of similar date. The alignment at Eye Kettleby has been dated to the late Bronze Age/early Iron Age (Finn 1997; 1999), and an alignment at Ibstock was earlier than a cremation burial radiocarbon dated to cal AD 0–130 that was interred in the top of one of the pits (Clarke 2013). In the surrounding counties an extensive arrangement of pit alignments at Wollaston, Northamptonshire, produced only a single sherd, dated to the early Iron Age (Meadows 1995, 44), an alignment at Sandy Lane, Northampton, produced middle Iron Age pottery from the upper fills and was cut by a trackway of middle to late Iron Age date (Garland *et al.* 2019), and two successive pit alignments at St Ives, Cambridgeshire, were dated by radiocarbon to the early to mid-first millennium BC (Pollard 1996).

5.1.6 The longevity of the alignments is difficult to ascertain, other than that none of the pits exhibited evidence for recutting and they had evidently been left to silt up gradually. Pit alignments sometimes represent the first stage of late prehistoric land division, as at Eye Kettleby, where the alignment was subsequently recut as a ditched boundary (Finn 1997, 91), and at Kilverton, Nottinghamshire, where it established a boundary that was respected by later sub-rectangular field (Rylatt and Bevan 2007, 227), but at Money Hill there was no evidence for any features that succeeded the alignment once the pits had silted up.

5.1.7 One final noteworthy aspect of the pits is the stones that were observed in the upper fills of pits. Most of these probably derived from the edges of the pits, but the larger examples in pits 1035, 1045 and 1046, and one from the 2013 evaluation (ULAS 2013, 22) were certainly at the upper limit of stones in the surrounding geology and may have been introduced deliberately and seem out of place in tertiary fills that would be expected to have derived largely from wind-blown material. It is possible they had formerly served as markers associated with the pits.

6 PUBLICATION AND ARCHIVING

6.1 Publication

6.1.1 It is proposed that an edited version of this report will be submitted for publication in the county archaeological journal, *Transactions of Leicestershire Archaeological and Historical Society*.

6.2 Archiving, retention and disposal

6.2.1 The site archive will be deposited with Leicestershire Museums under accession number X.A86.2020.

6.2.2 The finds should be retained so that they will be available for future research.

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APPENDIX A SITE SUMMARY DETAILS

Site name:	Money Hill, Ashby-de-la-Zouch, Leicestershire
Site code:	X.A86.2020
Grid Reference	SK 3621 1745
Type:	Excavation
Date and duration:	5th–30th October 2020
Area of Site	Two excavation areas measuring 0.15ha and 0.11ha
Location of archive:	The archive is currently held at OA, Janus House, Oxford OX2 0ES, and will be deposited with Leicestershire Museums in due course, under the following accession number: X.A86.2020.
Summary of Results:	The excavations uncovered a localized buried soil layer that contained a small quantity of worked flint, including a fragment from a Neolithic axe that had been reworked as a flake core, and part of two pit alignments (one a double alignment) that had been identified from cropmark evidence. Both alignments were proved to extend further than had been indicated by the cropmarks, although the full extent was not established. Pit alignments are notoriously difficult to date and the recovery of a small quantity of Iron Age pottery from the pits is therefore particularly significant. The alignments descended the hillside from a notable promontory that projects from the main ridge that runs from north-west to south-east between Burton and Coalville, overlooking the Gilwiskaw Brook, a tributary of the River Mease. The promontory may have been a significant feature in the contemporary landscape and thus became an important focus when landscape divisions were constructed. It is possible that the alignments were associated with a settlement 400m to the north, where similar pottery was found.

Sources:
Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI

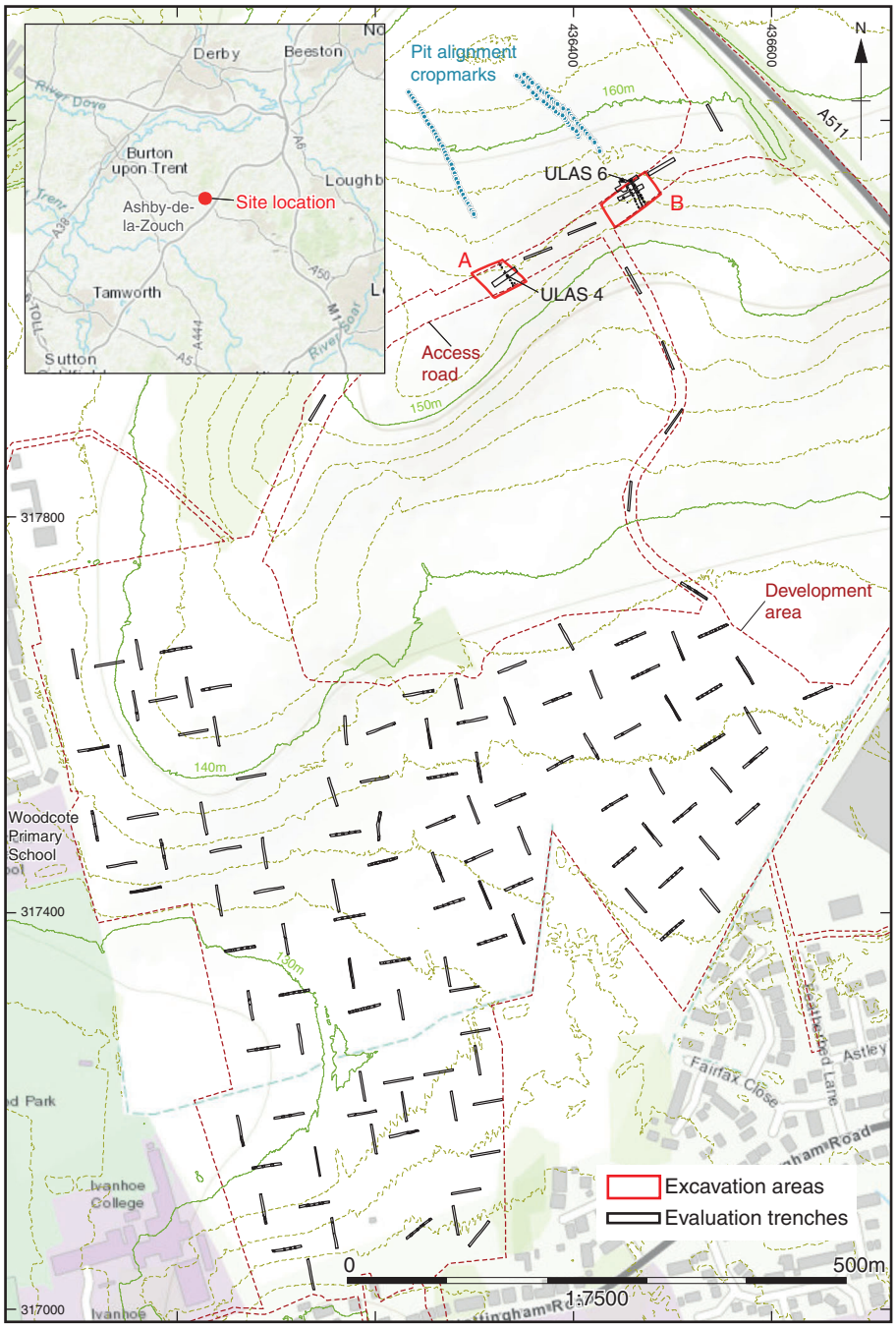
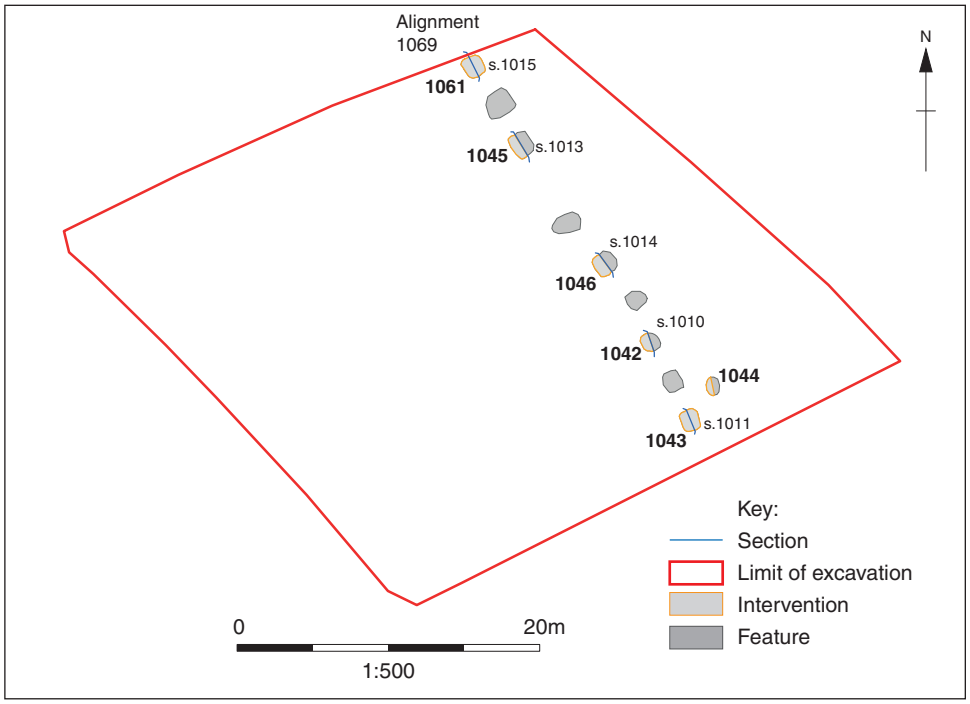


Figure 1: Site location

Figure 2: View across Area B toward Ashby-de-la-Zouch

Figure 3: Pit alignments 1070 and 1071 during excavation in Area B, view to south-east



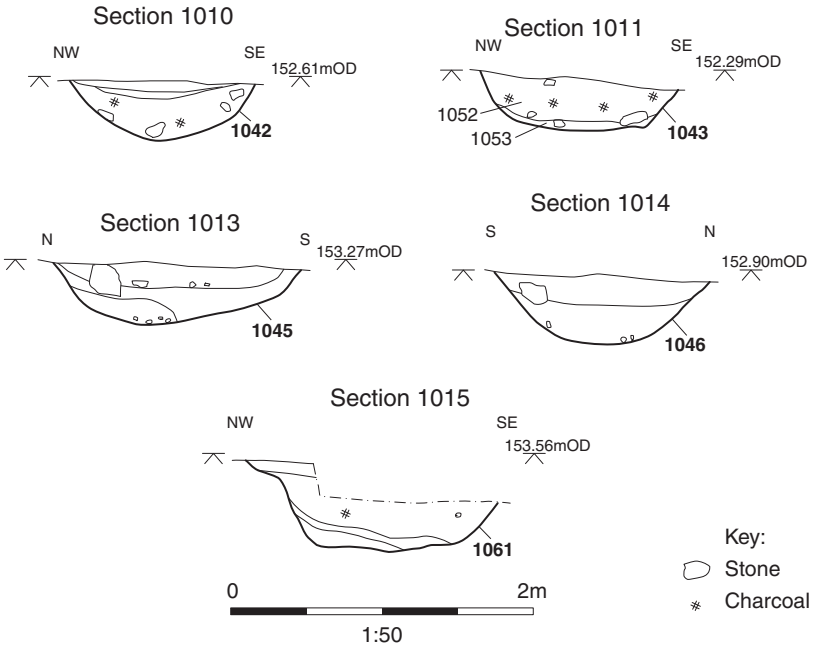


Figure 4: Excavation Area A, plan and sections

Figure 5: Pit alignment 1069.
a) pit 1042, view to west, scale 1m; b) pit 1043, view to north-east, scale 1m;
c) pit 1046, view to south-west, scale 1m; d) pit 1061, view to north-east, scale 1m

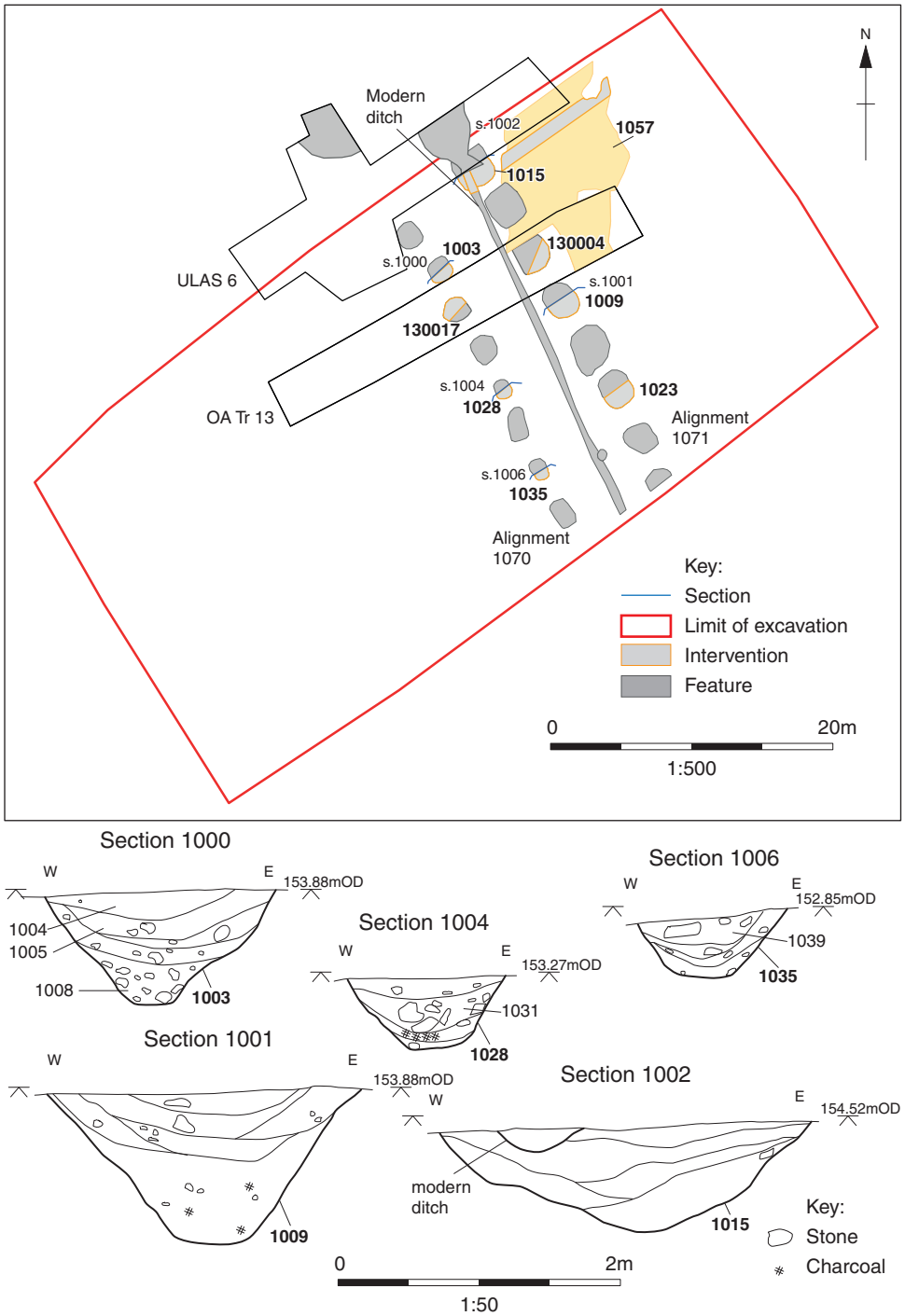


Figure 6: Excavation Area B, plan and sections

Figure 7: Pit alignment 1070. a) pit 1003, view to north-west, scale 1m; b) pit 1003 fully excavated, view to north-west, scale 1m; c) pit 1028, view to north-west, scale 1m; d) pit 1035, view to south-east, scale 1m

Figure 8: Pit alignment 1071. a) pit 1009, view to north-west, scale 2m; b) pit 1015, view to north-west, scale 2m; c) pit 1023, view to north-west, scale 2m

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