

# Archaeological excavation at D of E Prince Albert School, Perry Barr Birmingham

Worcestershire Archaeology  
*for RPS Group obo MACE*

March 2020



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# PRINCE ALBERT SCHOOL PERRY BARR BIRMINGHAM

Archaeological excavation report

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## SITE INFORMATION

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Site name: Prince Albert School, Perry Barr, Birmingham  
Local planning authority: Birmingham City Council  
Planning reference: 2019/03020/PA  
Central NGR: SP 07276 91479  
Commissioning client: RPS Group  
Client project reference: JAC25247  
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# CONTENTS

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<b>SUMMARY</b> .....	<b>1</b>
<b>REPORT</b> .....	<b>2</b>
<b>1 INTRODUCTION</b> .....	<b>2</b>
1.1 Background to the project .....	2
1.2 Site location, topography and geology.....	2
<b>2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND</b> .....	<b>2</b>
2.1 Introduction .....	2
2.2 Archaeological Summary of the Area .....	2
2.3 Previous archaeological work on the site .....	3
<b>3 PROJECT AIMS</b> .....	<b>4</b>
<b>4 PROJECT METHODOLOGY</b> .....	<b>4</b>
<b>5 ARCHAEOLOGICAL RESULTS</b> .....	<b>5</b>
5.1 Introduction .....	5
5.2 Phasing .....	5
5.2.1 Natural deposits across the site.....	5
5.2.2 Phase 1: Prehistoric.....	5
5.2.3 Phase 2: Modern.....	6
5.2.4 Undated .....	6
<b>6 ARTEFACTUAL EVIDENCE</b> .....	<b>7</b>
6.1 Artefact methodology .....	7
6.2 Recovery policy.....	7
6.3 Method of analysis .....	7
6.4 Discard policy.....	7
6.5 Artefactual analysis .....	7
6.6 Pottery .....	8
6.6.1 Bronze Age .....	8
6.6.2 Late post-medieval and modern .....	9
6.7 Other finds .....	9
6.7.1 Quern.....	9
6.7.2 Vessel glass .....	9
6.7.3 Clay pipe .....	9
6.8 Site dating .....	9
6.9 Synthesis .....	9
6.10 Recommendations .....	9
6.10.1 Further analysis and reporting .....	9
6.10.2 Discard and retention .....	10
<b>7 ENVIRONMENTAL EVIDENCE</b> .....	<b>10</b>
7.1 Project methodology .....	10
7.1.1 Sampling policy.....	10
7.1.2 Processing and analysis .....	10
7.1.3 Discard policy.....	10
7.2 .....	11

7.2.1	7.3.1 Charred plant macrofossils and charcoal .....	11
	Phase 1 Prehistoric.....	11
7.3	Radiocarbon dating .....	13
7.3.1	Calibration.....	13
<b>8</b>	<b>DISCUSSION .....</b>	<b>14</b>
<b>9</b>	<b>CONCLUSIONS .....</b>	<b>16</b>
<b>10</b>	<b>PROJECT PERSONNEL .....</b>	<b>16</b>
<b>11</b>	<b>ACKNOWLEDGEMENTS .....</b>	<b>17</b>
<b>12</b>	<b>BIBLIOGRAPHY .....</b>	<b>17</b>

**FIGURES**

**PLATES**

**APPENDIX 1: SUMMARY OF PROJECT ARCHIVE**

**APPENDIX 2: CARBON 14 DATING REPORT**

# Archaeological Excavation at Prince Albert School, Perry Barr, Birmingham

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## Summary

An archaeological excavation was undertaken at Prince Albert School, Perry Barr, Birmingham (NGR SP 07276 91479). It was commissioned by RPS Group on behalf of MACE. Birmingham City Council have granted permission (ref. 2019/03020/PA) for residential dwellings and a new secondary school with sixth form, with all matters reserved at land to the east of Wellhead Lane, Perry Barr, Birmingham. Permission was granted subject to conditions including a programme of archaeological works.

An archaeological desk-based assessment was prepared which highlighted that the site lies on the line of the Roman road known as Ryknild Street. A subsequent geophysical survey of the site identified two linear anomalies aligned roughly north-south which were thought to derive from ditches flanking the road. Subsequently an archaeological evaluation of the site was carried out in which the truncated remains of the ditches were identified, although no dateable material was recovered. Fire cracked stone was recovered in one section. No road surface was present.

Two further east-west aligned ditches were also present, one of which contained post-Medieval material. These are consistent with field boundaries depicted on historic maps.

Archaeological excavation focussed on a length of the possible road to the north-west of the site in the footprint of the proposed school. The features revealed during this phase of works included the two ditches, the western of which crossed the excavation area but the eastern of which was present only for a length of 27m with termini at each end. South of the southern terminus were three pits in the same alignment. Bronze Age pottery was recovered from one of these pits and one part of a quernstone. These formed the focus of a small cluster of activity which is thought to be contemporary. Crossing this line was a line of small post or stake holes, one of which contained another fragment of quern thought to be a part of the same item. Hammerscale was recovered from these, suggesting that they dated to the Iron Age or Roman periods. Bronze Age pottery was recovered from another pit or posthole, one of four also present in the vicinity.

The two ditches crossing the site from NNE to SSW are not clearly dated and interpretation of their function is not clear. Whilst they are parallel and a distance apart which is similar to other sections of Ryknild Street, no evidence of a road surface survives. An alternative view is that they have no relation to Ryknild Street and that the eastern ditch represents the remains of a section of a Bronze Age pit alignment. If this were the case the western ditch on exactly the same alignment is likely to have been contemporary, perhaps forming part of an enclosure or driveway.

Pit alignments were features created at a wider landscape level, as is known to have been the case here. The meaning and function of these features remains obscure, though they clearly remained relevant for a significant amount of time, as shown by the presence of a single pit of Iron Age date on the site.

# Report

## 1 Introduction

### 1.1 Background to the project

An archaeological excavation was undertaken by Worcestershire Archaeology (WA) from 30th September to 15th October 2019 at Prince Albert School, Perry Barr, Birmingham (NGR SP 07276 91479). This comprised a 3100m<sup>2</sup> excavation area in the north-east corner of the field. The project was commissioned by RPS Group on behalf of MACE. Birmingham City Council granted permission (ref. 2019/03020/PA) subject to conditions for the outline application for residential dwellings and a new secondary school with sixth form, with all matters reserved at Land to the east of Wellhead Lane, Perry Barr, Birmingham, B42 2SY. The excavation site comprises the school element of this consented application

The archaeological advisor to the local planning authority considered that the proposed development had the potential to impact upon specific heritage assets. Geophysical survey undertaken on the site identified two linear anomalies aligned broadly north-south that were thought likely to derive from the buried remains of Ryknild Street Roman road. Subsequent trial trenching confirmed the presence of these features in the form of two undated and highly truncated parallel north-south aligned ditches which were considered to have flanked the road.

No brief was provided but a WSI was prepared by RPS Consulting (2019) and approved by Chris Patrick of Birmingham City Council.

The excavation conforms to the industry guidelines and standards set out by the Chartered Institute for Archaeologists in Standard and guidance: for archaeological excavation (CIfA 2014).

### 1.2 Site location, topography and geology

The site is located approximately 4.5 km to the north of Birmingham city centre, within Perry Barr, broadly between Aldridge Road and Holford Drive. The site is located within a loop of the River Tame which runs south to north 350m to the west of the site, turning to run west to east 500m north of the site and the north-west to south-east 750m east of the site. It is clear the river has had its course altered at various point, particularly to the east.

The site, which is approximately 1.85 hectares, comprises an open green area bounded by Holford Drive to the north, industrial development to the immediate west, and the West Midlands Police Custody Suite to the east. To the south, the site is open onto the Doug Ellis Sports Centre.

The site is broadly flat at a height of 97 m above Ordnance Datum (AOD), with bedrock geology recorded as Chester Formation sandstone and conglomerate, overlain by sand and gravel river terrace deposits (BGS 2019). The Site is covered in unused grassland.

## 2 Archaeological and historical background

### 2.1 Introduction

An archaeological desk-based assessment (DBA) of the site was undertaken by CgMs Consulting Ltd (2018). The following section draws upon this study.

### 2.2 Archaeological Summary of the Area

No prehistoric archaeology has been found in the immediate vicinity of the site, though evidence of Bronze Age tree clearance was suggested from environmental data on recovered next to the Tame circa 600m to the north of the site (Tetlow, Geary, Halsted, and Howard 2008). A broadly Bronze Age date has been noted for various burnt mound deposits across Birmingham more widely. These have been particularly noted in southern Birmingham though there is a concentration circa 4.5km to the



west of the site (Hodder 2017). No clear Bronze Age settlement has yet been identified in the wider Birmingham area (Hodder 2004).

Roman occupation of the area was initially in the form of a fort at Metchley in Edgbaston to the south, from which a network of roads developed. The most significant of these was Ryknild Street, the projected line of which ran through the site. An archaeological evaluation at Wellhead lane to the south of site identified a ditch which on the eastern side of the projected line which was considered to be roadside drainage for Ryknild Street. Further south at during an archaeological evaluation at Stoneleigh Road, a further ditch on the same line was encountered, for which the same interpretation was given. No dateable material was recovered from either of these. Contemporary activity is known within the area, most notably a pottery kiln c300m to the west of the site and a putative encampment next to the River Tame, which is c430m north of the site.

No Saxon activity in the area is known, though Perry Barr is known to have been settled by the time of Domesday in 1086. The moated site of Perry Hall was located 1.2km to the north-west of the site with Holford Mill which was first referenced in 1358 to the east of the site.

In the post-medieval era, a road continued in use to the west of the site, presumably broadly retaining the alignment of Ryknild Street. This was seen from a listed bridge of 1711 crossing the Tame to the north of the site, which is known to have replaced an earlier structure. The area became steadily industrialised with four water and wind mills within a kilometre of the site, a situation which was accelerated with canals and railways coming into the area in the 18th and 19th centuries.

Within the site itself, the mid-19th century mapping onwards demonstrates an agricultural use only. A broadly east to west aligned field boundary is illustrated as crossing the site in on the Tithe map of the mid-19th century. By the time of the 1st edition Ordnance Survey mapping of the 1880s, this has moved slightly to the south, though on the same alignment. This latter boundary is illustrated as a track by 1904, and completely removed by the time of the 1938-45 mapping. From the 1952 mapping onwards, hachures are shown along the eastern boundary of the site, extending slightly around its north-eastern corner. This possibly indicates that the site was partially raised between 1945 and 1952.

### 2.3 Previous archaeological work on the site

Geophysical survey was undertaken on the site (SUMO 2019). This identified two linear anomalies aligned broadly north-south that were thought likely to derive from the survival of the buried remains of Ryknild Street Roman road. A further linear response of uncertain provenance was present running broadly east-west at the north-west corner of the site. The data across the south and east of the site was dominated by strong magnetic disturbance typical of made ground.

A trial trench evaluation was undertaken in May 2019. It seemed to suggest the continuation of Ryknild Street within the site, evidenced by two highly truncated parallel north-south aligned ditches. These ditches were undated and contained fire cracked stone in one section but were determined to be the Roman roadside ditches; Although no road surface was present, the distance between the ditches was 18 m which is a comparable distance between ditches as excavated to the north-east on Ryknild Street, at the junction with Watling Street. The ditches there were typically between 17.5 and 21 m apart (McKinley 2008). A well-preserved stretch of the Ryknild Street in Sutton Park, only about 5.5km north-east of the site. There it survives as an upstanding feature and the extant ditches are 18m apart. Beyond the ditches were a number of pits from which gravel was dug between trees or as needed in order to construct the road (Hodder 2004).

Two further east-west aligned ditches were present, one of which contained post-Medieval material. These were consistent with field boundaries illustrated on the historic mapping. Within the twentieth century, the site appears to have had its topsoil removed, partially quarried and then imported material dumped on the site, slightly raised its eastern half. This was confirmed by map evidence.

### 3 Project aims

In general, the aims of the evaluation are:

- To record the nature of the main stratigraphic units encountered in terms of their physical composition (stone, sand, gravel, organic materials, etc.) and their archaeological formation (primary deposits, secondary deposits, etc.);
- To assess the overall presence and survival of structural remains relating to the main periods of occupation revealed and the potential for the recovery of additional structural information given the nature of the deposits encountered (e.g. extent of later disturbance, etc.);
- To assess the overall presence and survival of the main kinds of artefactual evidence (including pottery, brick, tile, stone, glass, metal, bone, small finds, industrial residues, etc.), its condition, given the nature of the deposits encountered; and
- To assess the overall presence and survival of the main kinds of ecofactual and environmental evidence (including animal bone, human bone, plant remains, pollen, charcoal, molluscs, soils, etc.), its condition and potential, given the nature of the deposits encountered.
- The specific aim of the project is the preservation by record of the surviving area of truncated Roman road, ahead of development.

### 4 Project methodology

A Written Scheme of Investigation (WSI) was prepared by RPS Group (JAC25247). Fieldwork was undertaken between 30th September and 15th October 2019

A single area, 3150m<sup>2</sup> in area, was excavated over the 1.85ha site, targeting the northern edge of the evaluation area where the two parallel ditches that were considered to have represented the Ryknild Roman Road were most clearly identified. This area was extended southwards until it encountered a large modern truncation that had been previously identified in Trench 2 of the evaluation, at which point the ditches were entirely removed and then became less visible further south.

Deposits considered not to be significant were removed under constant archaeological supervision using a 360° tracked excavator, employing a toothless bucket. Subsequent excavation was undertaken by hand. Clean surfaces were inspected and selected deposits were excavated to retrieve artefactual material and environmental samples, as well as to determine their nature. Deposits were recorded according to standard Worcestershire Archaeology practice (WA 2012) and trench and feature locations were surveyed using a differential GPS with an accuracy limit set at <0.04m. On completion of excavation, trenches were reinstated by replacing the excavated material.

All fieldwork records were checked and cross-referenced. Analysis was undertaken through a combination of structural, artefactual and environmental evidence, allied to the information derived from other sources.

The project archive is currently held at the offices of Worcestershire Archaeology. Subject to the agreement of the landowner it is anticipated that it will be deposited at Birmingham Museum and Art Gallery.

## 5 Archaeological results

### 5.1 Introduction

### 5.2 Phasing

#### 5.2.1 Natural deposits across the site

The natural substrate (101) was a light orangey yellow sand and gravel layer with darker orange patches consistent with the recorded geology of the area (Plate 1 and Plate 2).

#### 5.2.2 Phase 1: Bronze Age

Small features [138, 130, 132 and 134] were in a group together, the earliest of which was irregular elongated possible pit [138] which was 0.90m long, 0.70m wide and 0.21m deep. It was filled by a mid orangey brown friable sand with some charcoal flecking (137). The interpretation of this feature is unclear though its irregular nature would suggest some bioturbation. It was cut by roughly circular features [132, 130 and 134] which were between 0.36 to 0.52m in diameter and 0.17 and 0.26m deep.

Feature [134] (filled by (133) was of particular note in that it contained the majority of a single pot, with a piece of saddle quern on top (Plate 12). Given the presence of this pot and the close proximity of these features, it seems unlikely that they were a posthole group, with an interpretation of small pits being more likely. 1.4m to the south east of this group was feature [140] (Plate 12) which was again slightly irregular in plan and was 0.60m in both length and width and 0.24m deep, filled by a soft orangey brown silty sand with some charcoal flecking (139). This is likely to have been a further small pit. In the bases of most of these small features there was some indication that the natural substrate had been heat affected.

#### 5.2.3 Phase 2 Iron Age to Roman

In the south-eastern quadrant of the excavation area a cluster of features was present, comprising postholes, a pit alignment and a ditch.

Ditch [108] consisted of a 27m segment of with termini at each end. Its terminus [108] (Figure 4) at the north end was 1.92m wide and 0.29m deep with a rounded end. Its base potentially consisted of two cuts, though no difference was clear within its sterile light reddish brown silty sand fill (106). Up to three cuts were also visible within the southern terminus (Figure 4, Plate 4) with [120] being the latest of these at 1.52m wide and 0.40m deep with an oval end. It was filled by (119) a sterile mid reddish brown silty sand. These were preceded by [123] which was 1.96m wide and 0.46m deep with a sub-circular end and filled by (122) a light red brown sandy silt. At the base of these cuts was a suggestion of a heavily truncated third cut. Its southern terminus [121] was up to 0.09m deep, 0.60m wide and with a rounded end. Also present within the terminus was a round cut feature, potentially a posthole, 0.54m in diameter and 0.21m deep [124] with a fill which was indistinguishable from (122).

The three larger pits of this cluster lay to the south of ditch [108] and continued its alignment. The northern of these was oval pit [128] (Fig 5 Plate 5) which was 3.40m long, 2.10m wide and 0.45m deep. Its soft mid greyish brown sandy silt fill (127) contained a rim sherd of likely middle Bronze Age date. Given the presence of hammer scale within this feature, it is likely that this pottery was residual. On its eastern side was a sub oval feature [126] 1m long, 0.73m wide and 0.25m deep. It is possible that this was a posthole paired with [124] which was 3.80m to its north.

Approximately 1.5m to the south of [128] was pit [206] (Fig 5 Plate 6) which was again oval in plan 2.50m long, 1.65m wide and 0.33m deep and filled by a soft mid reddish brown silty sand (205). A further 0.95m to the south was pit [210] (Fig 6) which was 4.60m long, 3.3m wide and 0.55m deep and appeared broadly oval in plan though was truncated at its southern end. The profile of its base hinted at a second cut though this was far from clear. Pit [210] was cut by a north-south orientated

small section of gully [208] 0.92m wide and 0.14m and filled by a mid-brown silty sand (207). This gully extended to the southern end of pit [206], though their relationship was far from clear.

A separate alignment of 31 post holes crossed the segmented ditch and pit alignment without extending as far as the continuous ditch to the west. No posthole was present cutting into the top pit [206] so the post holes were either predating or contemporary with the pit. A contemporary date seems unlikely given the high charcoal content of the posthole fills and the sterile nature of the pit. A number of these postholes contained hammerstone, suggesting an Iron Age or later date. The postholes were fairly irregular in plan but ranged from diameters of between 0.53 and 0.75 in, with a depth range of between 0.14 and 0.35m (Fig 7 Plate 9 and Plate 10). The fills of the post-holes were typically of a fairly high charcoal content. A single piece of saddle quern was recovered from posthole [169], suggesting some domestic activity in the vicinity.

Pit [118] (Fig 5 Plate 11) lay some 20m north east of the main cluster of activity. It was circular in plan with a diameter of 0.97m and a depth of 0.50m. Its fill (117) consisted predominantly of fire cracked stones with a moderately compact mid greyish brown silty sand matrix and with a relatively high charcoal content, particularly towards its base. Dating of the charcoal suggested a span ranging from 760 to 370 cal BC, spanning the boundary between the early to middle Iron Age.

### **5.2.4 Phase 2: Modern**

The modern deposits observed across the excavation are comprised a friable dark greyish brown sandy silt topsoil (100) ranging from a depth of 0.1m to 0.7m. This contained enough modern detritus to indicate a levelling layer of modern made ground. At the north eastern corner of the site this was also supplemented by red and dark sand layers. As this layer extended to the natural substrate across the site, they demonstrated that topsoil and subsoil had been removed in the 20th century.

Likewise an area of localised quarrying was present at, and defined, the southern limit of the excavation site, and had been backfilled with modern materials such as tarmac and concrete.

### **5.2.5 Undated**

Two parallel linear features aligned broadly north to south were identified within the excavation area and corresponded closely with the ditches identified within the earlier evaluation as roadside ditches.

Some 18m west of and parallel with the segmented ditch and pit alignment was a continuous ditch. At its northern end, ditch section [104] (Fig 3 Plate 7) was recorded as 3.10m wide although the western edge was obscured by bioturbation and it may have been considerably narrower. It was 0.75m deep and was filled by (105), a moderately compact light greyish sand, overlain by (106), a firm mid reddish brown silty sand. At its centre, section [112] was 2.10m wide and 0.44m deep and filled by (111) which was a soft mid-reddish brown silty sand. At its southern end, section [194] (Plate 8) was 1.98m wide, 0.64m deep and filled by a soft mid reddish brown silty sand (193). No dateable material was recovered from any section of this ditch.

Crossing the site in a broadly north-west to south-east alignment was a further small ditch. At its west end, section [102] (Fig 3) was 0.91m wide and 0.43m deep and formed of a broadly V shaped profile. Its fill (103) consisted of a mid-reddish brown silty sand similar to the two Phase 1 linear features. At its centre, section [110] was 1.45m wide and 0.43m deep with a less V shaped profile, consisting of a rounded concave base. Its fill (109) again consisted of a mid-reddish brown silty sand. The feature at its eastern end was heavily truncated. No dateable material was recovered from the feature, although it was later than both ditches 112 and 108.

## 6 Artefactual evidence

### 6.1 Artefact methodology

The finds work reported here conforms with the following guidance: for finds work by ClfA (2014), for pottery analysis by PCRG/SGRP/MPRG (2016), for archive creation by AAF (2011), and for museum deposition by SMA (1993).

### 6.2 Recovery policy

The artefact recovery policy conformed to standard Worcestershire Archaeology practice (WA 2012; appendix 2).

### 6.3 Method of analysis

All hand-retrieved finds were examined. They were identified, quantified and dated to period. A *terminus post quem* date was produced for each stratified context. The date was used for determining the broad date of phases defined for the site. All information was recorded on a Microsoft Access database.

The pottery was examined under x20 magnification and the post-medieval and modern sherds referenced as appropriate by fabric type and form according to the fabric reference series maintained by Warwickshire County Council (Soden and Ratkai 1998).

### 6.4 Discard policy

Artefacts from topsoil and subsoil and unstratified contexts will normally be noted but not retained, unless they are of intrinsic interest (eg worked flint or flint debitage, featured pottery sherds, and other potential 'registered artefacts'). All artefacts will be collected from stratified excavated contexts, except for large assemblages of post-medieval or modern material, unless there is some special reason to retain such as local production. Such material may be noted and not retained, or, if appropriate, a representative sample may be collected and retained. Discard of finds from post-medieval and earlier deposits will only be instituted with reference to museum collection policy and/or with agreement of the local museum.

See the environmental section for other discard where appropriate.

### 6.5 Artefactual analysis

The assemblage totalled 138 finds weighing 7266g (see Table 1) and could be divided into two main groups, with that from topsoil being of late post-medieval and modern date and all stratified material of prehistoric date.

Using pottery as an index of artefact condition, this was good, even for sherds from the topsoil, with low levels of surface abrasion in evidence and a notably high average sherd weight of 20.8g.

period	material	material subtype	object type	count	weight (g)
prehistoric	stone		quern	2	4398
prehistoric	ceramic		pot	107	1975
post-medieval	ceramic		pipe	3	8
post-medieval	ceramic		pot	3	51
modern	ceramic		pot	20	684
modern	glass		vessel	2	46
undated	metal	iron	fixing	1	104

Table 1: Quantification of the assemblage

## 6.6 Pottery

All sherds have been grouped and quantified according to fabric type (Table 2). Diagnostic form sherds were dated accordingly; the remaining sherds were datable by fabric type to their general period or production span.

broad period	fabric code	fabric common name	count	weight (g)
Early-Middle Bronze Age		grog and sand	1	110
Bronze Age		angular quartz and ironstone	106	1865
late post-medieval	MB02	Midlands blackware	3	51
modern	MGW	modern glazed ware (porcelain)	3	24
	MO	mocha ware	1	3
	MGW	modern glazed ware	7	98
	STE	English stoneware	9	559

Table 2: Quantification of the pottery by period and fabric-type

### 6.6.1 Bronze Age

Pottery of this period consisted of sherds from two vessels, both from stratified features (ditch terminus fill 127 and pit fill 133).

The first was represented by a single inturned rim sherd, with an internal bevel from a fairly substantial jar (context 127). The vessel was made of a fine sand and grog-tempered fabric and had a black core and internal surface and oxidised exterior. Similar vessels, including one of almost identical form, were identified within the cremation cemetery assemblage from Whitemoor Haye, Staffordshire and dated to the earlier Middle Bronze Age by radiocarbon dating (Griffin 2017, 59 and fig.70, no.6). Although this is a form commonly associated with cremation urns (Allen et al 1987, 190), there was no sign of any burnt bone or other remains typical of a cremation context.

The other vessel survived as the base and lower portion of another sizeable jar and was on laid on its side in a small in a pit (context 133/134), with a fragment of quern stone apparently deliberately placed on top of it. It was made of a distinctive fabric containing frequent angular white quartz and occasional red or black ironstone. Fabric containing angular quartz were common in this region throughout the later Neolithic and Bronze Age periods, with notable assemblages recorded from sites across the west Midlands region such as Whitemoor Haye, Staffordshire (Griffin 2017), Wellington Quarry, Herefordshire (pers obs) and Ashlawn Lawn Road, Rugby (pers obs). In some cases, there is evidence of continuation into the first half of the Iron Age. However, size, form and firing of this particular vessel indicates it most likely contemporary with or of similar date to the other jar described above.

Although fragmentary (107 sherds), the sherds were still well-preserved with only light abrasion to the surfaces, as evidenced by the survival of a crushed quartz layer on the underside of the base. The presence of such layers is thought to be connected to production techniques and is gradually lost through use (D Hurst pers comm). Therefore, it would appear this vessel was either discarded relatively soon after production or was made for a specific purpose which didn't involve daily use. This is consistent with the assertion by Woodward (2000) that much, if not all, pottery earlier than Iron Age in date, was produced for 'special non-domestic purposes' such as feasting. The presence of the

quern fragment and placement of the vessel would also suggest a very specific method of discard e.g. structured deposition. Furthermore, it also indicates that the vessel broke in antiquity.

## 6.6.2 Late post-medieval and modern

Remaining pottery all came from the topsoil (context 100) and consisted of a range of commonly identified domestic fabric and form types dating from the later 18th century onwards (see table 2). Although fragmentary, these sherds are well-preserved, indicating little disturbance following deposition. Location would suggest deliberate dumping as ground make-up or levelling layers.

## 6.7 Other finds

### 6.7.1 Quern

Two quern fragments were identified (pit fill 133 and posthole fill 170). Both appear to be from saddle querns and made from a distinctive black and white crystalline rock type, possibly diorite.

### 6.7.2 Vessel glass

The base of a green hexagonal bottle and what appears to be a piece of laboratory equipment in the form of a tube, were retrieved from the topsoil. Both were of modern date.

### 6.7.3 Clay pipe

Three clay pipe stems of post-medieval date were retrieved from the topsoil.

## 6.8 Site dating

context	material class	material subtype	object specific type	count	weight (g)	start date	end date	finds TPQ
100	ceramic		pipe	3	8			19-20C
100	ceramic		pot	3	51	18C	19C	
100	ceramic		pot	7	98	19C	20C	
100	ceramic		pot	3	24	L18C	20C	
100	ceramic		pot	1	3	L18C	19C	
100	ceramic		pot	9	559	L18C	20C	
100	glass		vessel	2	46		20C	
100	metal	iron	fixing	1	104			
127	ceramic		pot	1	110	EBA	MBA	Early-Middle Bronze Age
133	ceramic		pot	106	1865			Bronze Age
133	stone		quern	1	3000			
170	stone		quern	1	1398			?Bronze Age

## 6.9 Synthesis

The presence of stratified Bronze Age pottery makes this assemblage of high importance due to the relative scarcity of prehistoric ceramic material from Birmingham. The remaining pottery and other finds of late post-medieval and modern date is comparable to that retrieved from previous archaeological investigations in the vicinity (Cornah 2019; Burrows 2008).

## 6.10 Recommendations

### 6.10.1 Further analysis and reporting

No further work on the artefacts is required.

## 6.10.2 Discard and retention

The Bronze Age pottery is of local importance and it is recommended that it should be retained at the Birmingham Museums Trust. The remainder of the assemblage is unstratified and adds little to the understanding of the site and retention is therefore not recommended.

## 7 Environmental evidence

The environmental project conforms to guidance by ClfA (2014) on archaeological excavation and further guidance by English Heritage (2011).

### 7.1 Project methodology

#### 7.1.1 Sampling policy

Samples were taken according to standard Worcestershire Archaeology practice (WA 2012). A total of ten samples (each of up to 40 litres) were taken from the site (Table 4).

#### 7.1.2 Processing and analysis

The samples were processed by flotation using a Siraf tank. The flots were collected on a 300µm sieve and the residue retained on a 1mm mesh. This allows for the recovery of items such as small animal bones, molluscs and seeds.

An initial assessment was undertaken, following which, in order to complete a report within resource constraints, no further analysis was thought to be necessary as even though abundance was high, species diversity was low.

For initial assessment, the residues were scanned by eye and the abundance of each category of environmental remains estimated. A magnet was also used to test for the presence of hammer scale. The flots were scanned using a low power MEIJI stereo light microscope and plant remains identified using modern reference collections maintained by Worcestershire Archaeology, and a seed identification manual (Cappers *et al* 2012). Nomenclature for the plant remains follows Stace (2010).

The cell structure of a selection of charcoal fragments was undertaken, in order to identify the proportion of oak and non-oak charcoal. Subsequently, the non-oak charcoal assemblage was characterised by examining fragments in three planes under a MEIJI dark illumination microscope and identifications were carried out using reference texts (Schweingruber 1978 and Hather 2000) and reference slides housed at Worcestershire Archaeology.

#### 7.1.3 Discard policy

Remaining soil sample and residues (post scanning) will be discarded after a period of three months following submission of this report unless there is a specific request to retain them.

Context	Sample	Feature type	Fill of	Period	Phase	Context group	Sample volume (L)	Volume processed (L)	Residue assessed	Flot assessed
117	1	Pit	118	prehistoric	1		40	10	Yes	Yes
127	8	Pit	128	prehistoric	1		40	10	Yes	Yes
146	11	Posthole	145	prehistoric	1		5	5	Yes	Yes
150	6	Posthole	149	prehistoric	1		10	10	Yes	Yes



154	5	Posthole	153	prehistoric	1		10	10	Yes	Yes
158	4	Posthole	157	prehistoric	1		20	10	Yes	Yes
176	3	Posthole	175	prehistoric	1	211	20	10	Yes	Yes
180	2	Posthole	179	prehistoric	1	211	10	10	Yes	Yes
193	7	Ditch	194	prehistoric	1		40	10	Yes	Yes
207	9	Gully	208	prehistoric	1		20	10	Yes	Yes

## 7.2

### 7.2.17.3.1 Charred plant macrofossils and charcoal

The results are summarised in Tables 5 and 6.

#### Phase 1 Prehistoric

An assemblage of abundant medium to large sized fragments of alder (*Alnus glutinosa*) and possible hazel (*Corylus avellana*) was recovered from a fill (117) of pit [118], dated to the early to middle Iron Age by radiocarbon dating (Section 7.4). The charcoal was dominated by roundwood or branchwood fragments (probably coppiced), and had the appearance of charcoal produced in a clamp.

This was associated with abundant heat-cracked stone, iron slag and burnt bone, and hence is likely to have resulted from a specific firing activity, such as metal working.

In order to present information on a range of samples and make the best use of resources, further analysis was not carried out, although the material will be retained in archive.

The remaining assessed samples showed that although charcoal was moderately abundant, this was with unidentifiable or consisted of heartwood oak. In posthole contexts, this is likely to be the remains of burnt oak posts. No further analysis was recommended for this material.

Uncharred remains, consisting of mainly herbaceous root fragments are assumed to be modern and intrusive as they are unlikely to have consisted for long without waterlogged conditions.

context	sample	large mammal	charcoal	charred plant	unch*	Phosphate concretions	artefacts	artefacts	comments
117	1	occ*	abt	occ	occ-mod		occ coal, Fe slag, heat-cracked stone	*=burnt	large mammal, stone (worked/other)
127	8	occ*	mod		occ	occ	occ coal, Fe slag, heat-cracked stones, Fe slag/hammerscale	*=burnt	stone (worked/other)
146	11		abt		occ	occ	hammerscale		
150	6	occ*	mod		mod	occ	occ coal, Fe slag, chert, glass, hammerscale	*=burnt	glass (vessel), large mammal, stone (worked/other)
154	5		mod		abt	occ	occ heat-cracked		glass (vessel),

							stone, glass, hammerscale		stone (worked/other)
158	4		abt		abt		occ coal, Fe slag/hammerscale		
176	3		occ		occ	occ	occ heat-cracked stone, hammerscale		stone (worked/other)
180	2	occ	mod		occ	occ	occ coal, burnt residue, heat- cracked stone		large mammal, stone (worked/other)
193	7	occ	occ		occ		occ coal, heat- cracked stone		stone (worked/other)
207	9		occ		abt	occ	occ coal, Fe slag/hammerscale, heat-cracked stone		stone (worked/other)

Table 5: Summary of environmental samples; occ = occasional, mod = moderate, abt = abundant, \* = probably modern and intrusive

Context	sample	preservation type	species detail	category remains	quantity/diversity	comment
117	1	ch	<i>Alnus glutinosa</i> (wood), cf <i>Corylus avellana</i> , <i>Alnus/Corylus</i> sp wood	misc	+++/low	
127	8	ch	unidentified wood fragments	misc	+/low	
127	8	unch*	<i>Fumaria</i> sp, <i>Chenopodium album</i>	seed	+/+/low	
127	8	unch*	unidentified root fragments (herbaceous)	misc	+/low	
146	11	ch	<i>Quercus robur/petraea</i> wood	misc	++++/low	All heartwood
146	11	unch*	<i>Fumaria</i> sp	seed	+/low	
150	6	ch	<i>Quercus robur/petraea</i> wood	misc	++++/low	All heartwood
150	6	unch*	unidentified root fragments (herbaceous)	misc	+/low	
154	5	ch	<i>Quercus robur/petraea</i> wood	misc	++++/low	All heartwood
154	5	unch*	<i>Fumaria</i> sp, <i>Rubus idaeus</i> /sect <i>Glandulosus</i>	seed	+/low	
154	5	unch*	unidentified root fragments (herbaceous)	misc	+++/low	
158	4	unch*	<i>Fumaria</i> sp	seed	+/low	
158	4	ch	<i>Quercus robur/petraea</i> wood, unidentified wood fragments, non-oak wood	misc	+++/low	Mostly unidentifiable
176	3	unch*	<i>Fumaria</i> sp	seed	+/low	
176	3	ch	<i>Quercus robur/petraea</i> wood	misc	+++/low	Mostly oak
176	3	unch*	unidentified root fragments (herbaceous)	misc	+/low	
180	2	ch	<i>Quercus/Castanea</i> sp wood	misc	++++/low	Heartwood
180	2	unch*	<i>Fumaria</i> sp	seed	+/low	
193	7	unch*	<i>Fumaria</i> sp, <i>Sambucus nigra</i>	seed	+/low	

193	7	ch	unidentified wood fragments	misc	+/low	
207	9	unch*	<i>Fumaria sp</i>	seed	+/low	
207	9	ch	unidentified wood fragments	misc	+/low	
207	9	unch*	unidentified root fragments (herbaceous)	misc	+++/low	

Table 6: Plant remains from bulk samples

**Key:**

preservation	quantity
ch = charred	+ = 1 - 10
?wa = waterlogged or uncharred	++ = 11- 50
	+++ = 51 - 100
	++++ = 101+
	* = probably modern and intrusive

Table 7: Plant remains from bulk samples

### 7.3 Radiocarbon dating

Although charcoal was recovered from various contexts, only one contained material suitable for C14 dating. A total of two fragments of charcoal were submitted to Beta Analytical, Florida, USA. Two radiocarbon determinations have been achieved by AMS from a single fill (117) from pit [118].

#### 7.3.1 Calibration

The results are conventional radiocarbon ages (Stuiver and Polach 1977) and are listed in Table 8. The calibrated date ranges for the samples have been calculated using the maximum intercept method (Stuiver and Reimer 1986) and are quoted with end points rounded outwards to ten years. The probability distributions of the calibrated dates, calculated using the probability method (Stuiver and Reimer 1993) are shown in Graphs P5634/117/1 and P5634/117/1B in Appendix 2. They have been calculated using OxCal v4.2 (Bronk Ramsey 2009) and the current internationally-agreed atmospheric calibration dataset for the northern hemisphere, IntCal13 (Reimer et al 2013).

The radiocarbon measurement (BP) for the first sample (Beta – 544605) intercepted a flat point on the calibration curve, hence the calibrated date covered a wide range. However, the second sample (Beta – 544606) returned a calibrated date covering a narrower range, for which there is an overlap with the first between 400 to 410 cal BC. There is a greater likelihood that the date of the charcoal deposit falls within this range, than a span ranging from 760 to 370 cal BC. The date is, therefore, most likely to span the boundary between the early to middle Iron Age.

Laboratory code	Context number	Material	$\delta^{13}\text{C}$ (‰)	Conventional Age	OxCal calibrated age (95.4% probability or 2 sigma)
Beta - 544605	117	Charcoal <i>Alnus glutinosa</i>	-30.1 ‰	2430 +/- 30 BP	760 – 400 cal BC
Beta - 544606	117	Charcoal <i>Alnus/Corylus sp</i>	-19.5 ‰	2330 +/- 30 BP	410 – 370 cal BC

*Table 8 Radiocarbon dating results*

## 8 Discussion

Initial interest in the site was focused upon the suggested course of a Roman road known as Ryknild Street which had previously been identified through archaeological evaluation at Wellhead Lane to the south in the form of a ditch which was on the eastern side of the projected line. Further south during an archaeological evaluation at Stoneleigh Road, a further ditch on the same line was encountered, for which the same interpretation was given. No dateable material was recovered from either of these. Within the site itself, geophysical survey identified two north-south aligned linear features, which during the subsequent evaluation of the site gave the appearance of two parallel ditches 18m apart, a measurement which would be typical between Roman roadside ditches. No road surface was present, and no dateable material was recovered from the features during the evaluation stage.

Within the excavated area, the western of these ditches [112] extended across the full length whilst the eastern of these [108] terminated at either end of a 27m stretch. Three pits ([128], [206] and [210]) appeared to continue on the southward alignment of [108]. The profiles of their sections were similar to that of undated ditch 108. One of these pits contained a residual Bronze Age rim sherd, as well as hammerscale suggesting an Iron age or later date.

There are several interpretations offered here for the date and function of these ditches. Firstly as initially suggested by the evaluation report, the roadside ditches of a Roman road. The ditches are on roughly the correct alignment for Ryknild Street, one ditch of which is thought to have been recorded at Wellhead Lane to the south. The ditches are perfectly parallel suggesting they are a part of the same feature and the distance between them is 18m which is very comparable to the distance between a section excavated at the junction with Watling Street.

The profile of the ditches is comparable with roadside ditches excavated at another stretch of Ryknild Street at Sutton Park and their lack of material culture would suggest that they are not associated with settlement activity. The example from the same road at Sutton park is pertinent, as the width beyond the ditches was 18m. Also noted there were pits beyond the ditches which were interpreted as gravel quarry pits from which the road surface would have been created. It is possible a similar interpretation could be assigned to the pits in alignment here, with the secondary ditch potentially beyond the limit of excavation 23m to the west.

It may be that the alignment of pits itself formed the truncated east ditch of the road, though containing residual Bronze Age material, and that the southern terminus of ditch [108] was unrelated to the earlier activity but simply represents a gap in the roadside ditch, perhaps for access to land to the east. The roadside ditch at Sutton Park was noted as being intermittent and as interpreted not being for drainage but as lines marked out by surveyors to plot the course of the road. It is thought that the landscape was wooded and the feature was excavated between trees or heavy vegetation (Hodder 2004).

Alternatively, the alignment of the pits with ditch [108] and their similar profiles might equally suggest that they form part of the same boundary and are contemporary. Such a boundary, formed in part by a discrete section of ditch and a line of pits might be interpreted as a pit alignment.

Pit alignments are commonly thought to date to the later Bronze Age or Iron Age though dating is often difficult due to the paucity of finds within the pit fills. Presumably this is because most are sited away from the environs of contemporary settlement (Rylatt and Bevan 2007). The function of these features remains the subject of ongoing debate though most commentators agree that they formed linear boundaries that operated at landscape level. They have been noted nationwide, though with concentrations in the Yorkshire Wolds, East Anglia, central-eastern Scotland and the English Midlands (Wigley 2007).

They have been characterised as a series of circular, oval or sub-rectangular pits in an extended linear arrangement, often with gaps of 1-2m, in this case with gaps of between 1.8 and 0.60m, in between each pit. This would have made them ineffectual for stock enclosure. Even allowing for a degree of truncation by ploughing, it is likely that access between the pits recorded here was possible. It has been suggested that some had parallel banks and that the pits were dug in order to create spoil for the bank. However the evidence for such banks is scant and the excavation of individual pits is likely to have been inefficient in comparison to the excavation of a single linear feature or ditch (Ryllat and Bevan 2007). It has been shown that they were occasionally recut as a single linear feature creating a ditch (Wigley 2007), as potentially is the case here with the ditch section, and also perhaps the parallel ditch to the west. An example of a pit alignment with a flanking parallel gully has been recently excavated at Codsall in Staffordshire (Cornah forthcoming), though in that case much closer to the pit alignment.

The analysis of these features often relates to their position within their topographical setting such as their position crossing or along escarpments (Wigley 2007) or areas of geological change (Wainwright 2010). A number have been identified parallel to watercourses (Ryllat and Bevan 2007, 222), though this was clearly not the case for all (Wigley 2007, 124). It has long been suggested that Iron Age and earlier communities had a particular interest in water, and the possibility that these features formed a visual boundary as water filled pits has been suggested. An example from the Peak District had clay lined pits as would have been required in that case to hold water (Ryllat and Bevan 2007, 222). No such lining was present within these and the free draining sand geology would prevent the features holding water.

The possible pit alignment here and its parallel ditch must therefore be considered within a wider landscape as if the undated ditch previously thought to be part of Ryknild Street seen at Stoneleigh Road to the south is the same feature identified feature, it would give a minimum length of 760m. This would bisect a loop in the River Tame though the function for such a feature is unknown.

A third explanation for the parallel ditches might be a prehistoric road or trackway, though of earlier date than expected. This would be more consistent with the elements of suggested domestic use of the site as suggested by the pits and post hole alignment.

The posthole alignment was slightly off from 90 degrees to the pit alignment, potentially suggesting that the features were not contemporary. The postholes also respected the position of one of the pits of the alignment by having a gap at that point, indicating that the postholes were either earlier than or contemporary with the pit. A number of the post holes contained hammerscale, suggesting an Iron Age or later date. Two pits of the possible alignment also contained hammerscale.

No clear indication of the function of the posthole alignment can be suggested, though if the feature was contemporary with the possible pit alignment, the location of post holes [124 and 126] within the pit alignment may be indicative. It is possible that these marked a way between the pits, with the posthole alignment performing the same function.

Small pit [134] contained most of a single pot, apparently broken in situ by a piece of saddle quern placed on top, in what is likely to have been a structured deposit. The feature had other small depressions around it with indication of heating of the substrate. Analysis of the pottery indicated it had been barely used, possibly suggesting it was made in order to be placed in the ground. It is possible that the piece of quern was part of a "closing" deposit after the feature had gone out of use. Houses of the Bronze Age have been noted to have had similar "closing" deposits after the structures had gone out of use, or even specifically demolished (Webley 2007). It is possible that the charcoal content of the later post hole alignment represents such an act of burning oak posts within their setting with subsequent ritual closing of the feature. One of these also had a piece of saddle quern within it.

It is probable that the Bronze Age activity is indicative of agricultural or settlement activity. The survival of a quern stone would suggest a grinding activity probably milling. It is thought unlikely that a heavy item such as this would have been deposited very far from where it was last used.

An outlying feature in terms of date was pit [118] which was of a noticeably more regular and deep cut than features to this point, as well as containing a high proportion of charcoal and fire cracked stone indicative of some domestic activity in the vicinity. The charcoal returned an Iron Age date, significantly later than the other features in this area, indicating that the pit alignment and parallel ditch played a continuing role in the landscape. The charcoal also gave some indication of wider woodland and landscape management in the form of likely coppice wood and charcoal produced in a clamp. It is possible that the small ditch crossing the site at its northern end related to this phase.

## 9 Conclusions

The archaeological background to the site and its area strongly suggested the presence of the former Roman road known as Ryknild Street. Features suggested to be roadside ditches were present within the earlier works on this and two further sites, though no dating was recovered from any of these.

The paucity of both dating material and stratigraphic relationships makes the archaeological conclusions of this project problematic, with multiple interpretations remaining valid. It is clear the small pit with structured deposits of pot and quern along with the alignment of postholes represent activity of Bronze Age date. If this were part of a Bronze Age settlement, it would to date be unique in the wider Birmingham area. The activity continued into the Iron Age, as demonstrated by a carbon dated pit.

One interpretation of the pits was that of a pit alignment, which are Bronze Age to Iron Age in date, with the ditch running parallel on its western side possibly contemporary. Pit alignments were features created at a wider landscape level, as would be the case here. An initial Bronze Age date for the pit alignment was suggested by a single piece of pottery within one of the fills, though this is likely to have been residual, as suggested by the presence of hammerscale within the same feature. If the feature were a pit alignment, it would be unique within the wider Birmingham conurbation.

. The possibility also remains that the alignment of pits and parallel ditch are actually remnants of Ryknild Street from the Roman period. This interpretation is supported by the similarity of features to those recorded where the road ran through Sutton Park to the north. It is certainly the case that within the wider context of Birmingham, the site offers a unique and rare set of deposits, notably for its potentially containing Bronze Age, Iron Age and Roman features on a single site.

The methods adopted allow a high degree of confidence that the aims of the project have been achieved. Conditions were suitable in all of the trenches to identify the presence or absence of archaeological features. It is considered that the nature, density and distribution of archaeological features provides an accurate characterisation of the development site as a whole.

## 10 Project personnel

The fieldwork was led by Tim Cornah (ACIfA), assisted by Hazel Whitefoot and Jesse Wheeler (ACIfA).

The project was managed by Tom Rogers (MCIfA). The report was produced and collated by Tim Cornah and Jesse Wheeler. Specialist contributions and individual sections of the report are attributed to the relevant authors throughout the text.

## 11 Acknowledgements

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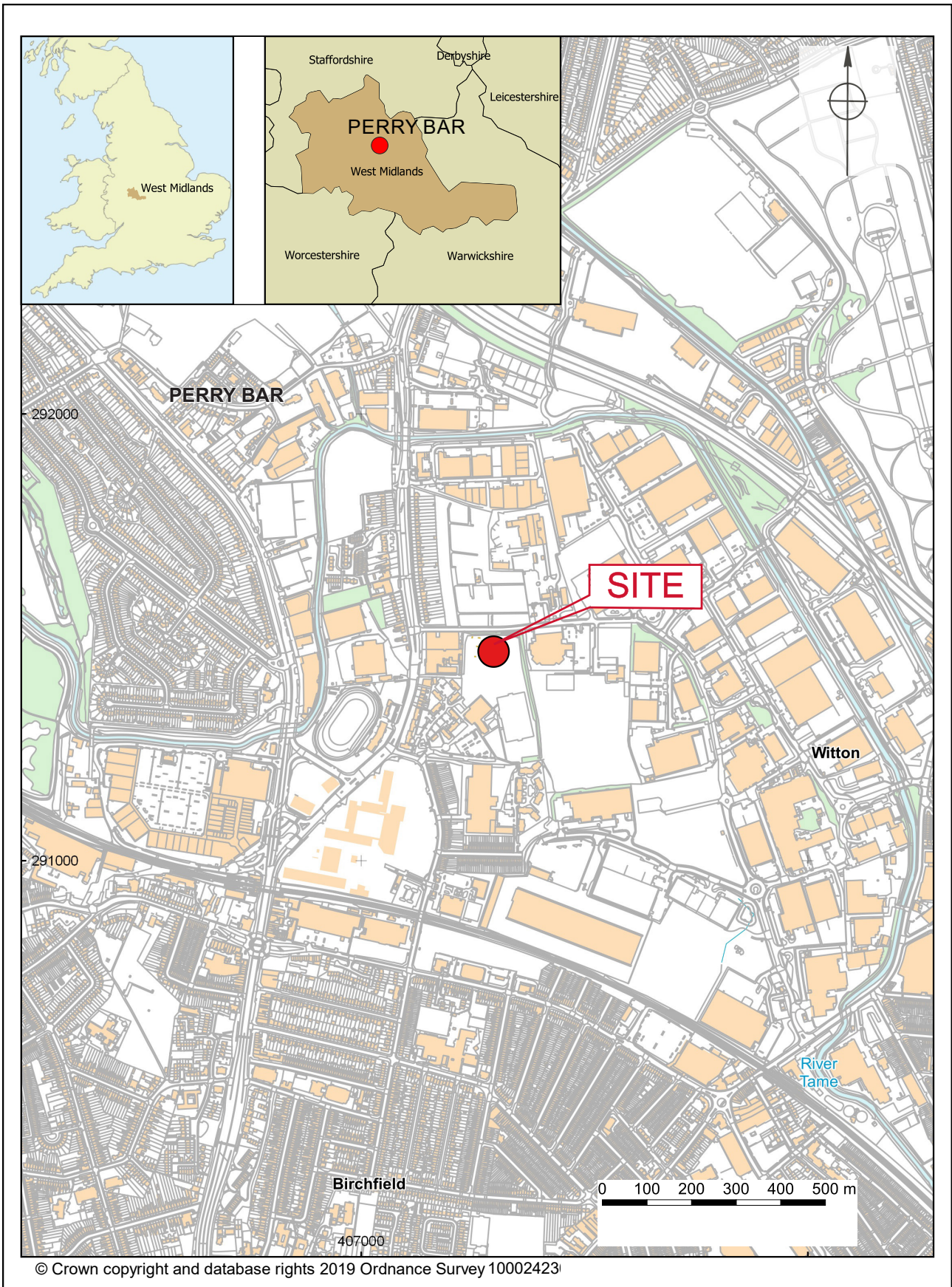
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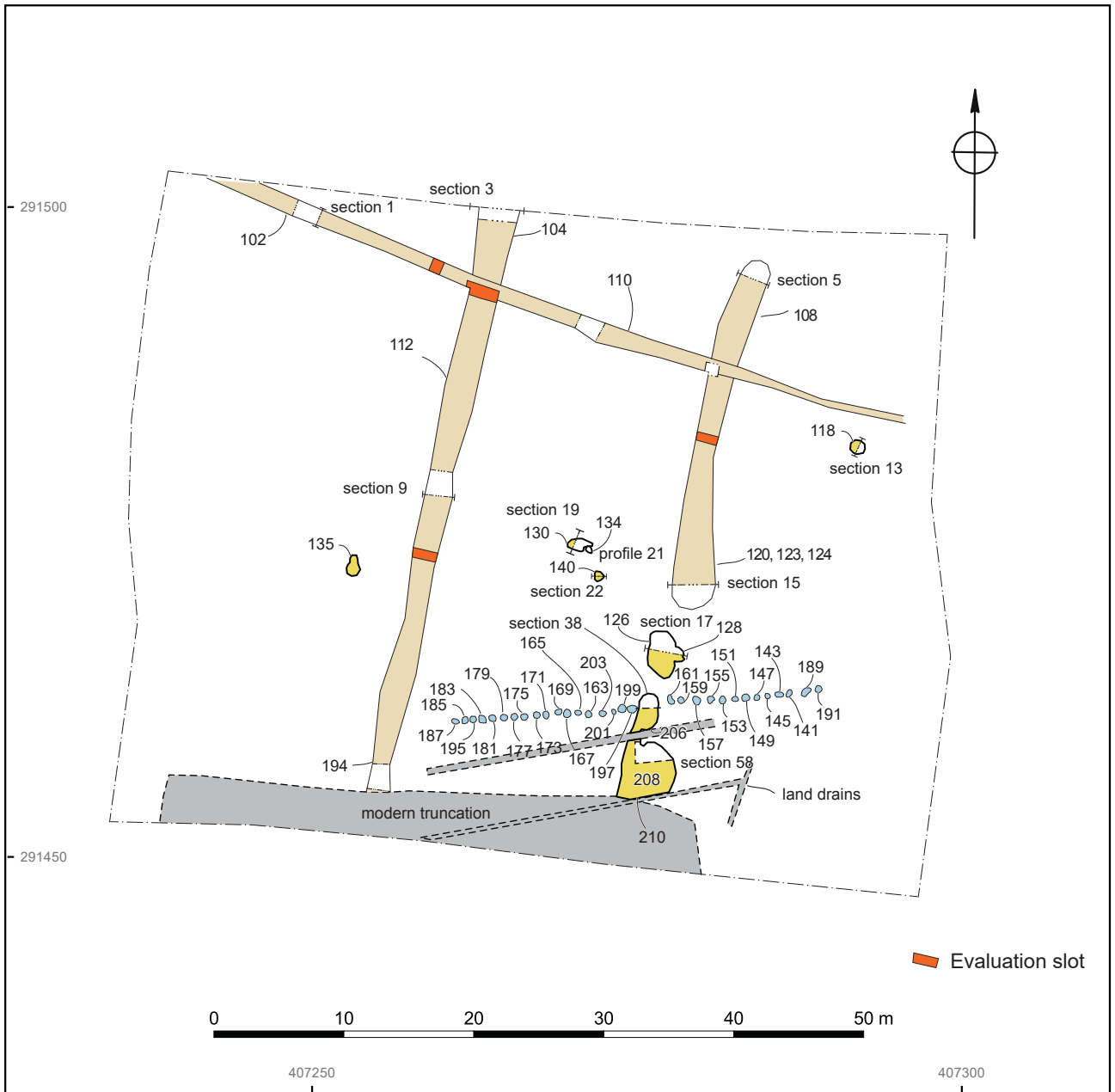


## Figures



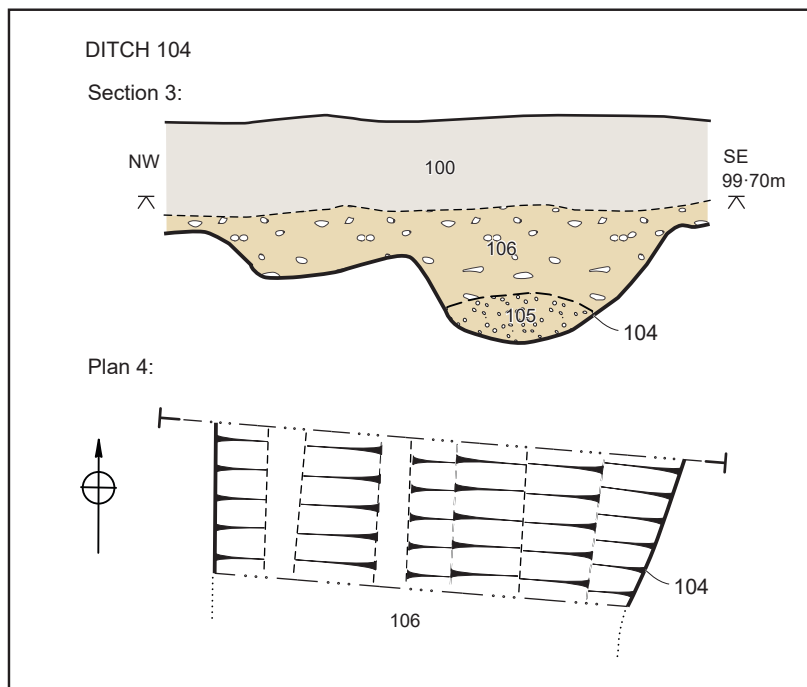
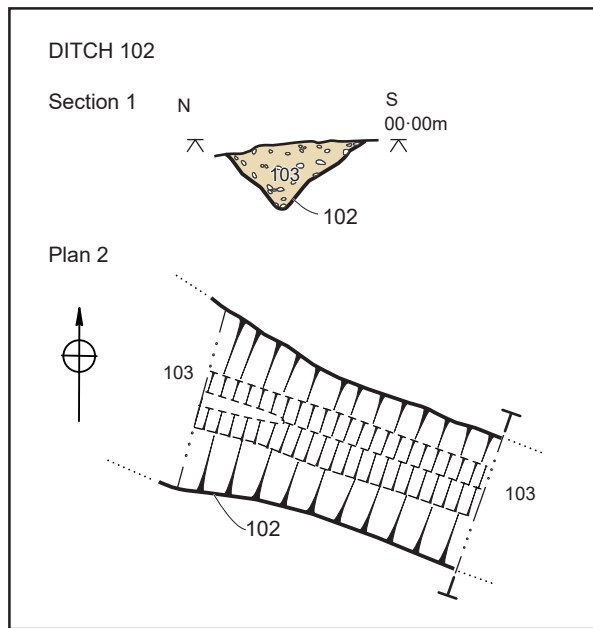
Location of the site

Figure 1



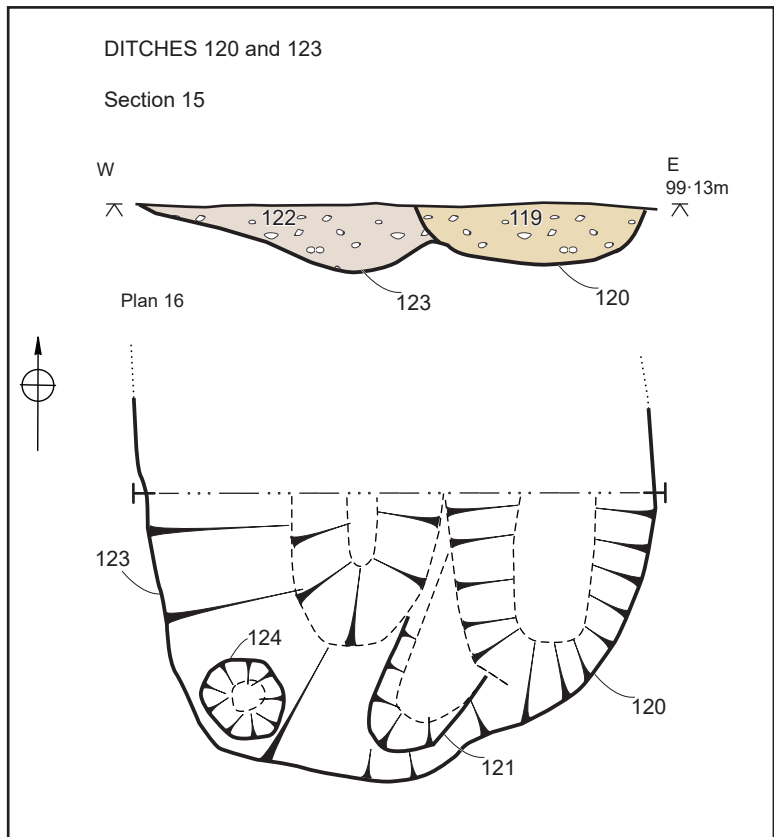
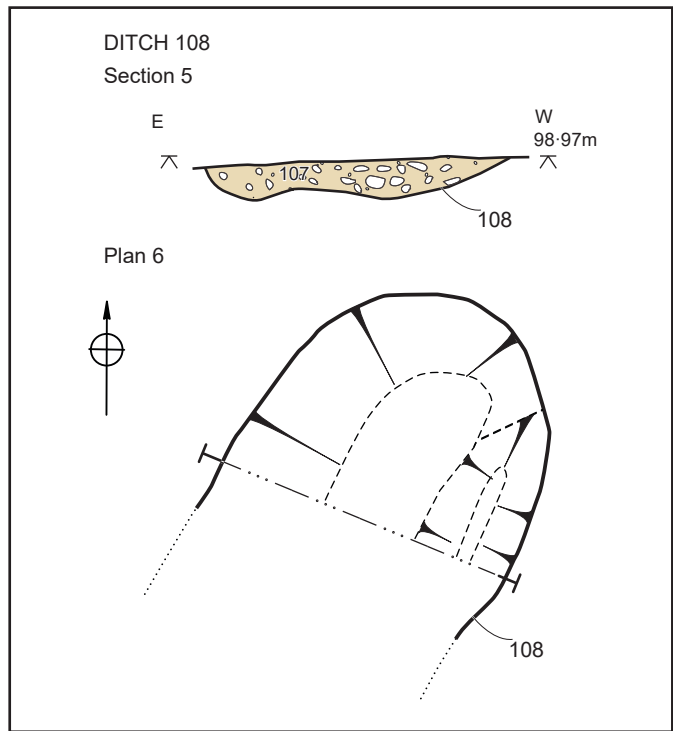
Plan of the archaeological features

Figure 2



Ditches 102 and 104 Plans and sections.

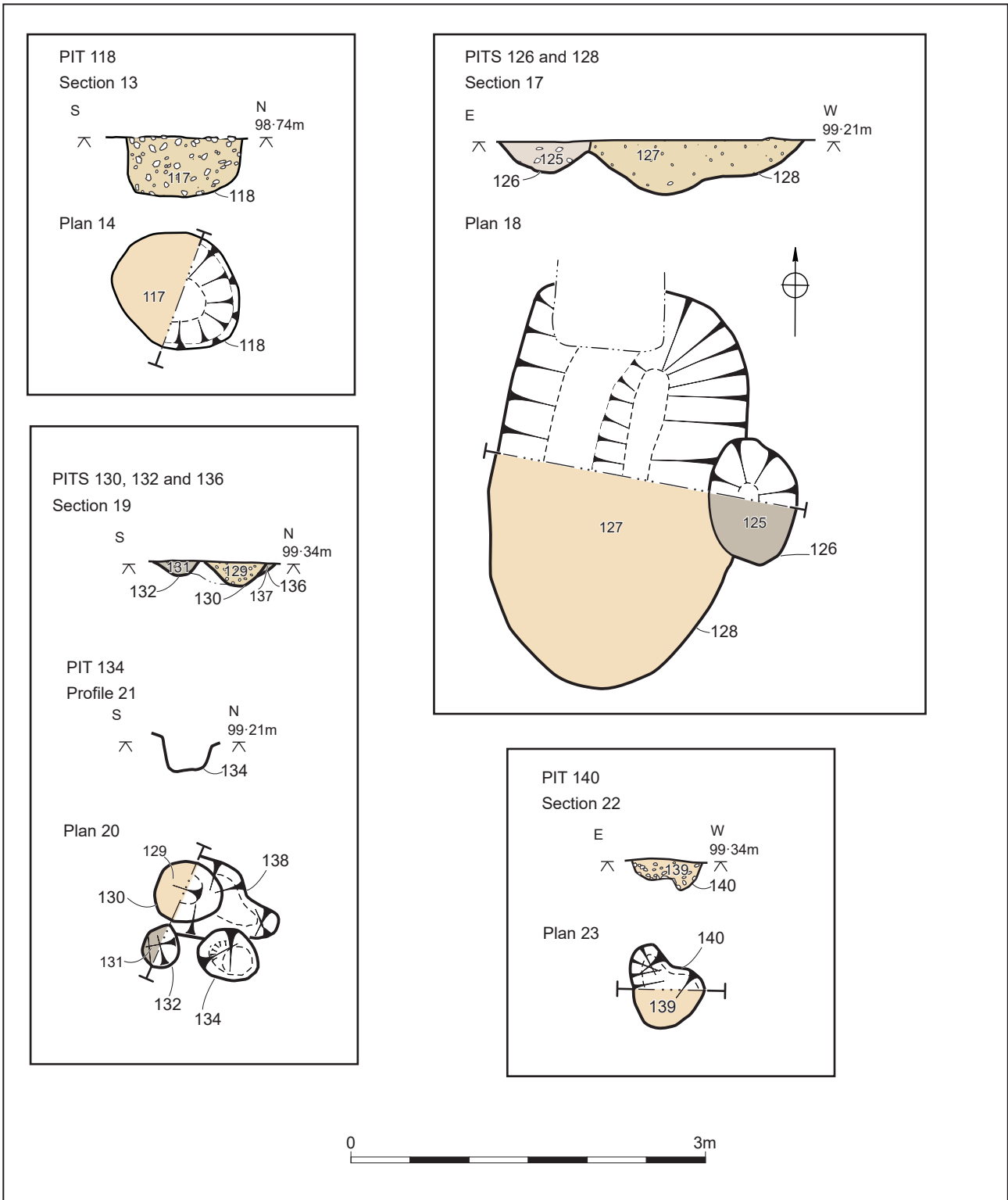
Figure 3



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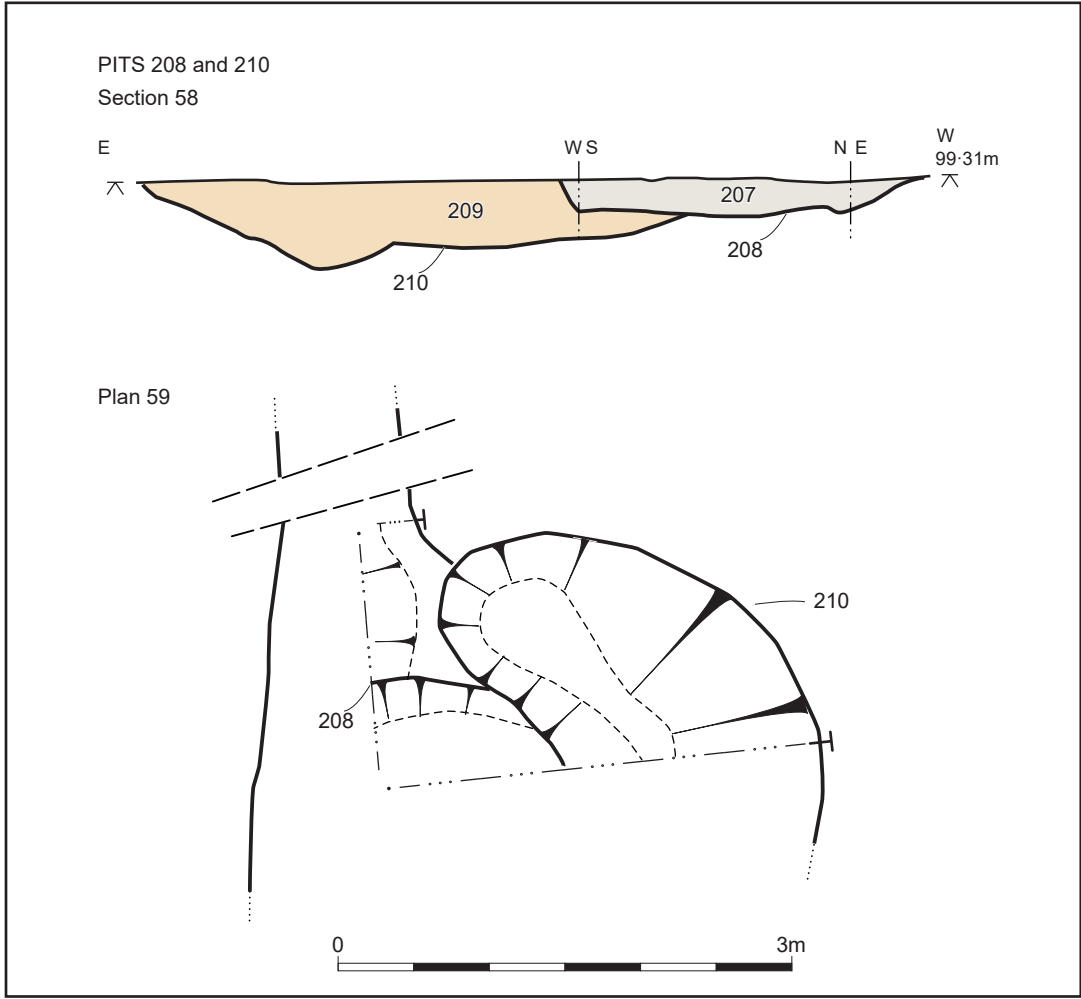
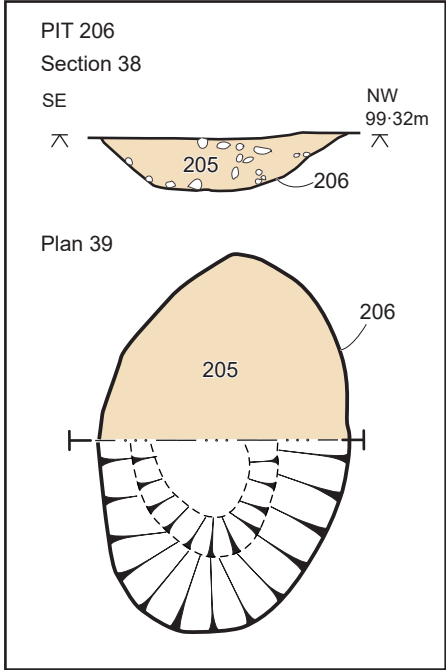
Ditches 108, 120 and 123: plans and sections.

Figure 4



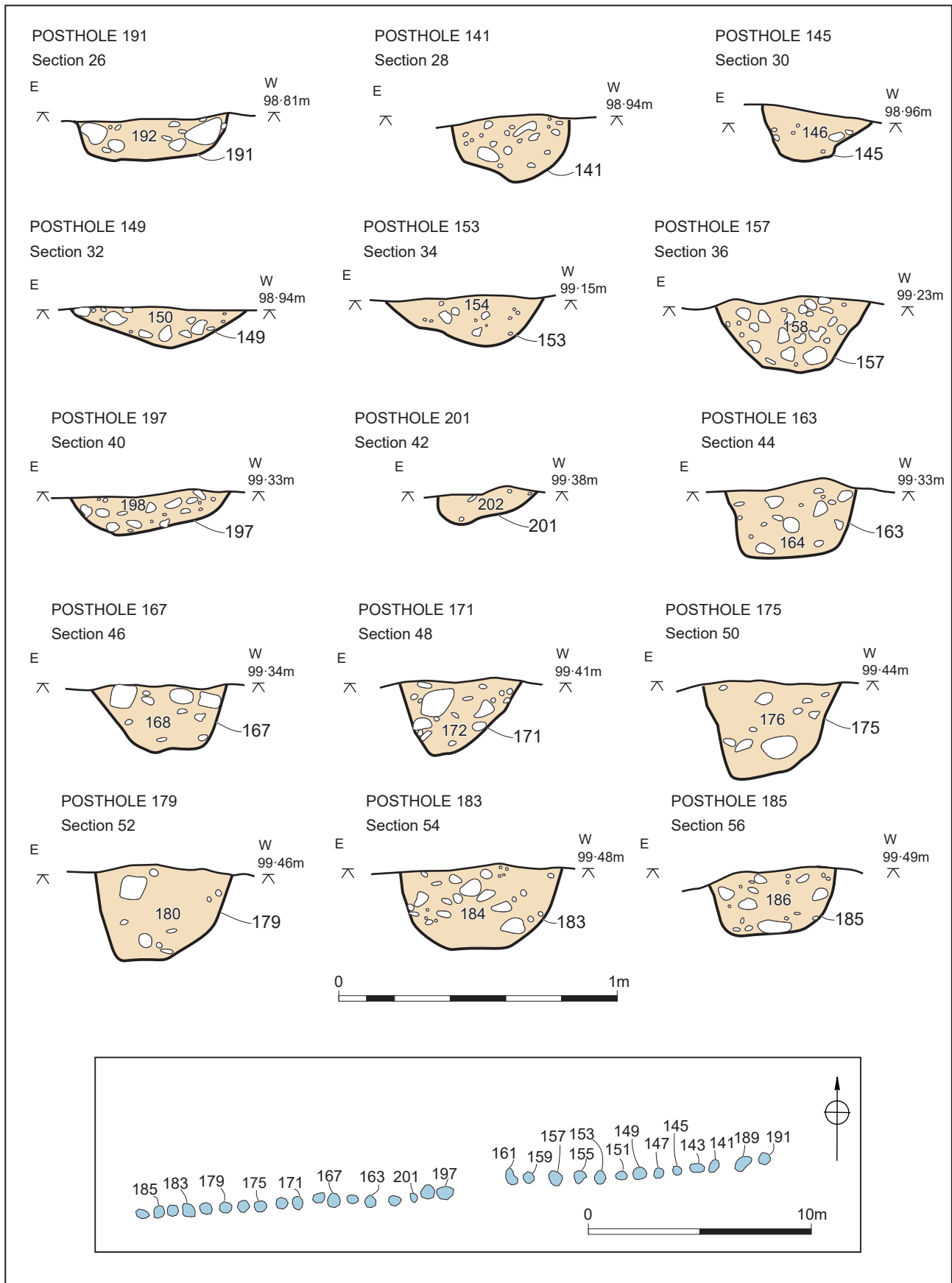
Pits 118, 126 and 128, 130, 132, 134 and 136, 140: plans and sections. Figure 5





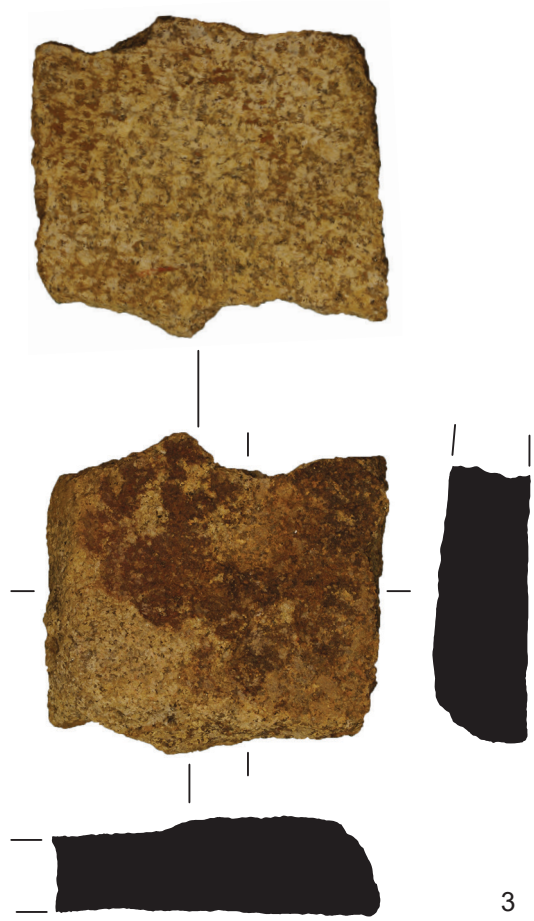
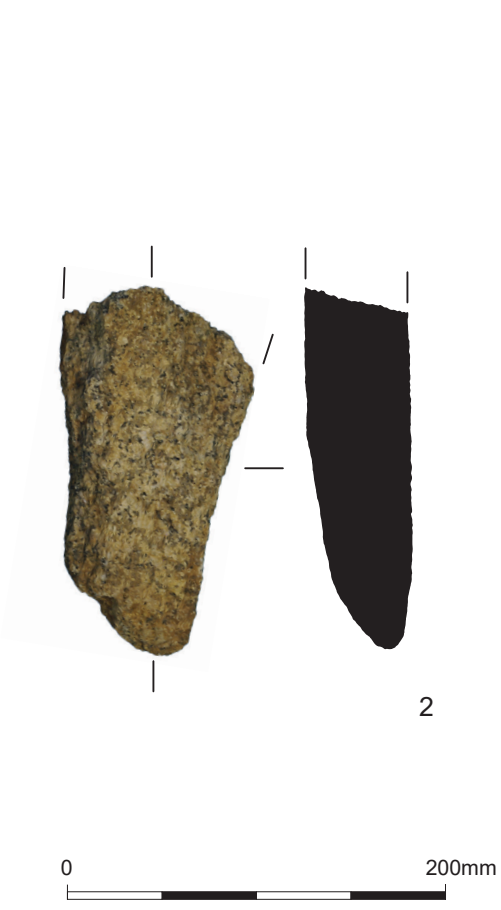
Pits 206, 208 and 210: plans and sections.

Figure 6



Postholes 191, 141, 145, 149, 153, 157, 197, 201, 163, 167, 171, 175, 179, 183, 185: sections.

Figure 7



*Quern fragments and pottery*

*Figure 8*

## Plates



*Plate 1 The site, looking north-east, no scales*



*Plate 2 The site, looking south, 2x1m scales*



*Plate 3 Pitch and possible segmented ditch alignment, looking north, 2x1m scales*



*Plate 2 The site, looking south, 2x1m scales*



*Plate 5 Pit [128] and posthole [126], scale 1m, looking south*



*Plate 6 Pit [210] in the foreground, with pit [210] behind, looking south, 2x1m scales*



*Plate 7 Ditch [104], looking north, scales 2x1m*



*Plate 8 Ditch [194], looking north, scale 1m*





*Plate 9 Post hole alignment (group no), looking east, 2x1m scales*



*Plate 10 Post hole alignment, looking east, 2x1m scales*



*Plate 11 Pit [118], scale 1m, looking west*



*Plate 12 Features [138, 130, 132 and 134], looking west, 0.5m scale*

## Appendix 1: Summary of project archive

TYPE	DETAILS*
Artefacts and Environmental	Ceramics, Environmental, Glass, Industrial, Leather, Metal, Worked stone/lithics
Paper	Context sheet, Correspondence, Diary (Field progress form), Drawing, Photograph, Plan, Report, Section, Survey
Digital	Database, GIS, Geophysics, Images raster/digital photography, Spreadsheets, Survey, Text

## Appendix 2: Carbon 14 dating report