



Moreton Lane, Northmoor, Oxfordshire

Archaeological Excavation Report

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Moreton Lane, Northmoor, Oxfordshire

Archaeological Excavation Report

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Contents

Summary	vii
Acknowledgements	viii
1 INTRODUCTION.....	1
1.1 Scope of work.....	1
1.2 Location, topography and geology.....	1
1.3 Archaeological and historical background.....	1
2 AIMS AND METHODOLOGY.....	3
2.1 Aims	3
2.2 Methodology.....	3
3 RESULTS	5
4 DISCUSSION	7
APPENDIX A FINDS REPORTS.....	9
A.1 Pottery	9
A.2 Coins	16
A.3 Iron finds.....	16
A.4 Ceramic building material and fired clay.....	16
APPENDIX B ENVIRONMENTAL REPORTS.....	20
B.1 Environmental samples	20
B.2 Animal bone	23
APPENDIX C BIBLIOGRAPHY.....	27
APPENDIX D SITE SUMMARY DETAILS.....	30

List of Figures

- Fig. 1 Site location
Fig. 2 Site location in relation to the scheduled monument and cropmarks
Fig. 3 Plan of archaeological features
Fig. 4 Sections of selected features
Fig. 5 Section through the hollow/pit complex at the western edge of the site
Fig. 6 Plan of the excavation and previous watching briefs

List of Plates

- Plate 1 Recording a section through ditch 146
Plate 2 Section through ditch 146
Plate 3 The western terminus of ditch 146
Plate 4 Section through ditch 148
Plate 5 Pit 12
Plate 6 The hollow/pit complex at the western edge of the site
Plate 7 Graffito consisting of the capital letters 'CA' on a sherd from a fabric R30 jar from ditch 146

Summary

Oxford Archaeology was commissioned by PCA Architects to undertake a strip, map and sample excavation at the site of a proposed dwelling at Moreton Lane, Northmoor, Oxfordshire. The site lay within a Scheduled Monument comprising an extensive area of cropmarks thought to be principally of Iron Age and Roman date. Watching briefs had previously been undertaken at the site in 1995 and 2007 in advance of construction of agricultural buildings. The excavation uncovered ditches of mid to late Roman date that defined the boundaries of rectilinear enclosures that abutted a trackway to the west, part of which had been uncovered by the 2007 watching brief. There was no definite evidence regarding the function of the enclosures, but it is evident from the artefactual assemblage that domestic occupation lay somewhere nearby, although no structural remains were uncovered.

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The project was managed for Oxford Archaeology by John Boothroyd. The fieldwork was directed by Diana Chard and Ashley Strutt, who were supported by George Gurney, Michael McLean, Meirion Prysor and Andrew Smith. Survey and digitizing was carried out by Ben Brown. Thanks are also extended to the teams of OA staff that cleaned and packaged the finds under the management of Leigh Allen, processed the environmental remains under the management of Rebecca Nicholson and prepared the archive under the management of Nicola Scott.

1 INTRODUCTION

1.1 Scope of work

- 1.1.1 Oxford Archaeology (OA) was commissioned by PCA Architects to undertake a strip, map and sample excavation at the site of a proposed dwelling at Moreton Lane, Northmoor, Oxfordshire (Fig. 1).
- 1.1.2 The site lies within a Scheduled Monument (List Entry No. 1006343) comprising an extensive area of cropmarks thought to be principally of Iron Age and Roman date (Fig. 2). The area has the potential to preserve similar multi-phase boundary drainage ditches as well as other peripheral settlement activity. The Secretary of State granted Scheduled Monument Consent for the development (ref: S00164999) in accordance with Section 2, control of works, of the Ancient Monuments and Archaeological Areas Act 1979 (as amended).
- 1.1.3 The work was undertaken to address condition 4 of the Planning Permission (planning ref: 15/03000/OUT). Advice was provided by Historic England detailing the requirements for work necessary to inform the planning condition.

1.2 Location, topography and geology

- 1.2.1 The site was located approximately 0.4km south-west of the village of Northmoor on the western side of Moreton Lane (Fig. 1). It lay at 63m above Ordnance Datum. The excavation encompassed an area of 0.085ha, which was formerly open grassland.
- 1.2.2 The underlying geology comprised first terrace gravels (Geological survey of Great Britain, sheet no 236).

1.3 Archaeological and historical background

- 1.3.1 The site lay within a Scheduled Ancient Monument (List Entry No. 1006343), an extensive area of cropmarks thought to be principally of Iron Age and Roman date. Dating evidence from watching briefs prior to the construction of farm buildings to the immediate south-west of the current development area had confirmed this (OA 1988; 1995; 2008).
- 1.3.2 The archaeological background for the site has been detailed within the reports on these previous works and is only briefly summarised below.
- 1.3.3 Watching briefs undertaken immediately to the south of the site in 1995 and 2007 in advance of construction of agricultural buildings identified significant Roman activity, comprising a N-S trackway adjoined by rectilinear enclosures (OA 1995; 2008). A small group of four probable stack rings was also revealed (OA 2008). A possible medieval phase was also tentatively documented. While many features were observed, the lack of evidence for domestic rubbish encountered suggests that this area was potentially on the margins of a nearby settlement.
- 1.3.4 An English Heritage evaluation to the east of the site found prehistoric and Roman features (Anon. 1998) and a watching brief undertaken by OA on a pipeline at Yew Tree Cottage, to the north-east, found Roman features (OA 2003).

- 1.3.5 An archaeological evaluation at Stonehenge Farm (OA 1988) investigated a major block of cropmarks mainly of Iron Age and Roman date to the south of the current site. The main area of settlement extends further west than indicated by the cropmarks and a previously unknown separate area of Roman and possibly Iron Age settlement was discovered. Between these areas are extensive but fairly sparse remains of ditches associated with a field system, including four double-ditched trackways.

2 AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The primary objective of the investigation was to mitigate the effects of the development on any surviving buried archaeological remains. This was to be achieved through archaeological investigations and recording, analysis of the excavated data, publication of the results and deposition of an ordered project archive with Oxfordshire County Museum Service.

Specific aims and objectives

2.1.2 The aims and objectives of the strip, map and sample excavation were:

- To determine the location, extent, date, character, condition, significance and quality of any archaeological remains within the site;
- To determine or confirm the approximate date or date range of any remains, by means of artefactual or other evidence;
- To consider the results from the different elements of the archaeological works within the context of previous archaeological discoveries within the locality;
- To address, where applicable, relevant research aims as presented in the regional research framework;
- To excavate and record all archaeological features and deposits prior to their removal by construction.

Specific research aims of the work were:

- To investigate a 'blank' area within the mapped crop marks to test whether the Iron Age and Roman activity extents into this area;
- To potentially help further characterize any Iron Age or Roman activity within the area;
- To investigate the spatial distribution of field systems and settlement evidence in the context of the previous investigations and crop marks.

2.2 Methodology

2.2.1 Site-specific methodologies as defined by Historic England were as follows:

- The area of impact was stripped using a toothless ditching bucket under constant archaeological supervision;
- Machining continued in spits down to the top of the undisturbed natural geology or the first archaeological horizon depending upon which was encountered first. Once archaeological deposits had been exposed, further excavation proceeded by hand and the appropriate use of machine;
- The area was cleaned in plan and section with the mapping and excavation of any features exposed;
- Features were excavated to their full depths;

- An allowance was made for areas to be widened beyond the impact area if, having started to investigate, it was felt necessary to widen the area to make sense of the feature but in the event this was not used.
- 2.2.2 All features and deposits were issued with unique context numbers, and context recording was in accordance with established best practice and the OA Field Manual (Wilkinson 1992). Small finds and samples were allocated unique numbers. Bulk finds were collected by context.
- 2.2.3 Digital photos were taken of any archaeological features, deposits, and the excavation work in general.
- 2.2.4 Section drawings of features were drawn at a scale of 1:20 and 1m wide sample sections of stratigraphy were drawn at a scale of 1:10. All section drawings were located digitally. The absolute height (m OD) of all principal strata and features, and the section datum lines, were calculated and indicated on the drawings.
- 2.2.5 Bulk samples were taken for macroscopic plant remains.

3 RESULTS

- 3.1.1 The natural substrate comprised a layer of yellow gravel, sandy in some areas, with patches of soft clay. Into this were cut a series of ditches aligned N-S and E-W, as well as a number of discrete features, all of late Roman date (Fig. 3). A number of shallow, irregularly-shaped features were recorded in the southern and eastern parts of the site that had paler fills than the Roman features and were interpreted as tree-throw holes. Scraps of pottery in three of these features were most likely intrusive.
- 3.1.2 The ditches defined part of a complex of rectilinear enclosures situated within the interstice of the junction of a pair of trackways that have been identified from cropmark evidence, located respectively 20m west of the excavation area and 25m to the north. The ditches were generally extremely shallow, ditch 146 (Fig. 4 sections 17 and 18; Plates 1-3) being the only one that was reasonably substantial. This boundary extended across the northern part of the excavation area on an E-W alignment and terminated a short distance from the western edge of the site. It was 0.37m deep at the eastern edge of the site and increased in depth westward to a maximum depth of 0.68m. It was quite steep-sided, particularly at its deepest point. The south side of the terminus was adjoined by a hollow (57), perhaps formed by erosion of the ditch edge. A little under one third of the site assemblage of pottery came from this ditch, mostly from the two interventions at the western end. The pottery from this ditch indicated a date in the early 4th century and included a jar sherd bearing a graffito of the capital letters CA and three sherds probably from a single Dragendorff type 30 bowl, the latter representing a curated vessel.
- 3.1.3 Ditches 147 and 149 defined boundaries at right-angles to ditch 146. Both ditches were very shallow and measured no more than 0.10-0.20m deep. Ditch 149 (Fig. 4 section 12) was the only feature north of ditch 146 and was exposed for a distance of only 4.5m, although the ditch continued beyond the northern edge of the excavation area. The ditch did not intersect with ditch 146 but terminated within a few centimetres of the edge of the larger ditch.
- 3.1.4 Ditch 147 branched off ditch 146 and extended southward across the entire length of the excavation area (Fig. 4 sections 15 and 10). The upper fill (65) yielded a coin of Allectus (AD 293-6). The area east of this ditch was further subdivided by ditch 148 (Fig. 4 section 1; Plate 4), which was slightly more substantial and measured up to 0.48m deep. This arrangement of boundaries defined two rectilinear enclosures in the eastern part of the excavation area. The northern enclosure was empty, apart from tree-throw holes, but the southern enclosure contained four pits (10, 12, 93 and 141) and a fifth pit (36) was dug into the fill of ditch 148. Pit 10 (Fig. 4 section 4) was a sub-circular, bowl-shaped feature 1.15m in diameter and 0.40m deep. Pit 93 was also circular, with a diameter of 0.63m, and its steep-sided profile suggested that it may have been a posthole, although there was no definite evidence for a post and it did not form part of an identifiable structure. Pits 12 and 141 were both oval in plan, pit 12 (Fig. 4 section 5; Plate 5) measuring 1.70 x 0.80m and 0.35m deep and pit 141 measuring 1.56 x 0.70m and 0.20m deep. Pit 36 was the most substantial of these features, measuring 1.9m in diameter and 0.60m deep.

- 3.1.5 The most striking feature in the western part of the excavation area was a large irregular hollow that measured 7.05 x 5.50m and extended beyond the western baulk (Fig. 5; Plate 6). It varied in depth from 0.25-0.45m and may have been a single feature or a complex of shallow, intercutting pits. The upper part of the hollow was filled by a layer of dark greyish brown silty clay. Excavation of two opposing quadrants of this deposit yielded an assemblage of more than 3kg of pottery, equating to slightly over one third of the overall site assemblage. The pottery suggested a date of 240-350 for this deposit. A group of shallow, intercutting pits (79, 82, 96, 90) to the south may have represented a similar hollow. They were 0.22-0.36m deep and had very similar fills. Similarly, intersecting pits 117 and 120 may also have been a single large hollow, as their fills were indistinguishable.
- 3.1.6 Pits 69 and 102 were certainly discrete features. Both were bowl-shaped pits measuring 1.35-1.45m in diameter, pit 69 being 0.46m deep and pit 102 being 0.66m deep. The upper fill (105) of pit 102 contained a coin of probable 3rd-4th century date.
- 3.1.7 Three very shallow features (98, 100, 135) were each located 5.0-5.5m from ditch 147 and may have been the postholes of a fenceline parallel to the ditch. Posthole 98 barely survived, measuring only 0.06m deep, and postholes 100 and 0.35 were 0.13m and 0.26m deep respectively.

4 DISCUSSION

- 4.1.1 The results from the excavation complemented those from the watching briefs undertaken in 1995 and 2007 and provided a detailed insight into a small area of the extensive Roman landscape that had previously recorded from cropmark evidence (Fig. 6). The landscape is divided up by a network of ditched trackways, as exemplified by the N-S aligned trackway that was recorded during the 2007 watching brief. The excavation, as well as the 1995 watching brief, uncovered part of a complex of rectilinear enclosures that abutted the eastern side of the trackway, within a broadly rectangular block of land that was defined to the north, east and south by further trackways. A group of enclosures of varied size and shape adjoining the trackway on the eastern side of this block have the appearance of domestic occupation, and the features at Moreton Lane may represent a similar development, although until the investigation the cropmark evidence did not suggest that such remains existed here. The excavation and watching briefs, however, have uncovered a significantly greater density of features than the cropmarks indicated and it is apparent that the archaeological remains are in fact more complex than is indicated by the cropmark plots. This is most likely because the generally shallow character of the features does not promote the formation of cropmarks, the only features in the excavation area that corresponded with cropmark features being ditches 146 and 147.
- 4.1.2 The features within the excavation area comprised the rear part of a large enclosure that presumably fronted onto the adjacent trackway and parts of a pair of smaller enclosures to the rear of this. The features recorded in the 1995 watching brief comprised boundary ditches on N-S and E-W alignments that are likely to be the boundaries of further enclosures. There was no definite evidence regarding the function of the enclosures, but it is evident from the artefactual assemblage that domestic occupation lay somewhere nearby, although no structural remains were uncovered. The fired clay discs are likely to have been used in an oven or hearth, which suggests that cooking activities took place here, and the animal bone assemblage, although small, provides evidence for the consumption of cattle, sheep and pig. The small size of the tile assemblage suggests that this material also probably derived from ovens or similar structures, since the quantity was insufficient to indicate use in roofing. In addition to their contribution to the inhabitants' diet, two cattle and one horse also exhibited pathologies consistent with use as draft animals, whether for pulling carts or drawing a plough. Charred plant remains were not well preserved, but preserved chaff fragments indicated that crops grown included emmer or spelt wheat, with spelt the more likely candidate as the more common cultivar during the late Roman period.
- 4.1.3 In contrast to the areas investigated by the earlier watching briefs, the features in the excavated area appear to date from the later part of the Roman period. Four pits (10, 12, 117, 120) and a possible posthole (98) may date from as early as the 2nd century, since they lacked late Roman pottery and only produced sherds with a broad date range that encompassed the 2nd-4th centuries, but the pottery groups in question were very small, comprising only a single sherd in the case of pits 10 and 12, and it is possible that the pits were in fact later in date, and contemporary with the other features. The almost complete absence of samian ware from the pottery assemblage

from this area and the low representation of products of the 'West Oxfordshire' industry, both of which are types characteristic of assemblages of the 2nd and early 3rd centuries, suggest that activity here may not have begun much before the middle of the 3rd century. The pottery from the 2007 watching brief, on the other hand, suggested that the trackway was initially established during the middle part of the 2nd century and its flanking ditches recut periodically throughout the 3rd and 4th centuries. The establishment of the enclosures may therefore represent a secondary phase of development that took place some time after the network of trackways was established. This is consistent with the generally late emphasis of the remains recorded by evaluation of a large area to the west and south-west at Stonehenge Farm (OA 1988). The end of occupation is difficult to date precisely, although the large assemblage from ditch 146 certainly extended into the 4th century and interestingly produced evidence for the continued use of a Dragendorff type 30 bowl, which by this time must have been considered an antique. Also of note among the pottery assemblage was a sherd from a reduced ware jar bearing a graffito of the capital letters 'CA' (Fig. 7). Material that certainly dated from the second half of the 4th century, however, was very sparse.

APPENDIX A FINDS REPORTS

A.1 Pottery

By Paul Booth

Introduction

- A.1.1 Some 660 sherds (9106g; 11.09 REs) of pottery were recovered during the excavation; all were of mid to late Roman date. The total includes 42 sherds (223g, 0.09 REs) from the larger fraction of a number of sieved soil samples. This material was recorded, but further tiny fragments from the smaller fraction of sieved soil samples were not quantified. The recorded assemblage also includes a small quantity of unstratified sherds.
- A.1.2 The pottery (apart from the smaller sieved sherds) was recorded by context group using the system employed for all Roman pottery from OA projects (Booth 2014). Details of fabrics, vessel forms and decoration etc were recorded using standardised codes which allow ready comparison between assemblages. Quantification was by sherd count, weight and rim equivalents (REs). The methodology is in line with recently-published standards (PCRG *et al.* 2016).
- A.1.3 The pottery was in variable condition, with a moderate mean sherd weight of 13.8g. Some sherds were fairly abraded and evidence for surface treatment (such as burnishing or colour-coating) tended not to survive. This caused problems with the identification of some fabrics, particularly Oxfordshire colour-coated ware (see below).

Fabrics

- A.1.4 Identification of fabrics was at a fairly generalised level, usually at an intermediate stage of the fabric/ware definition hierarchy used in the recording system. The major ware groups represented in the assemblage were: S - samian ware, F - fine wares, M - mortarium fabrics, W - white wares, O - oxidised 'coarse' wares, R - reduced 'coarse' wares, B - black-burnished ware and C - calcareous (usually shell-tempered) fabrics. Most sherds were assigned to subgroups of these categories (eg R30, a general grouping for moderately fine sandy reduced wares), though some were identified at the level of specific fabric (eg M22, Oxfordshire white ware mortaria).
- 4.1.4 Brief descriptions of the fabrics present in the group, or familiar names of well-known wares, are given with quantification in Table 1 below. Fuller descriptions can be found in the documentation of the recording system contained in the project archive. Fabric codes from the national Roman pottery fabric reference collection (Tomber and Dore 1998) are given in the table in bold.

Table 1: Quantification of pottery fabrics

Ware	Summary description	No. sherds	% sherds	Wt (g)	% wt	REs	% REs
S	Samian ware, source uncertain	1	0.2	1	+		
S30	Central Gaulish samian ware (incl LEZ SA 2)	3	0.5	23	0.3		
<i>S subtotal</i>		4	0.6	24	0.3		
F51	Oxford colour-coated ware (OXF RS)	28	4.2	369	4.1	0.68	6.1
FO	?Oxford colour-coated ware (surfaces eroded, OXF RS?)	16	2.4	140	1.5	0.47	4.2
F52	Nene Valley colour-coated ware (LNV CC)	5	0.8	40	0.4	0.15	1.4
<i>F subtotal</i>		49	7.4	549	6.0	1.30	11.7
M22	Oxford white mortarium fabric (OXF WH)	6	0.9	124	1.4	0.04	0.4
M41	Oxford red colour-coated mortarium fabric (OXF RS)	20	3.0	293	3.2	0.22	2.0
<i>M subtotal</i>		26	3.9	417	4.6	0.26	2.3
W10	Fine white fabrics, ?Oxford (OXF WH?)	9	1.4	53	0.6		
W11	Oxford parchment ware (OXF PA)	5	0.8	146	1.6	0.08	0.7
W20	Sandy white fabrics, ?Oxford	6	0.9	64	0.7	0.10	0.9
<i>W subtotal</i>		20	3.0	263	2.9	0.18	1.6
O10	Fine oxidised coarse ware fabrics	45	6.8	216	2.4	0.92	8.3
O20	Sandy oxidised coarse ware fabrics	19	2.9	226	2.5	0.14	1.3
O30	Medium sandy oxidised coarse ware fabrics	2	0.3	3	+		
O80	Coarse (mainly grog-tempered) oxidised fabrics	4	0.6	85	0.9		
O81	'Pink grogged ware' (PNK GT)	8	1.2	238	2.6		
<i>O subtotal</i>		78	11.8	768	8.4	1.06	9.6
R10	Fine reduced coarse ware fabrics	67	10.2	1113	12.2	1.67	15.1
R20	Sandy reduced coarse ware fabrics	5	0.8	36	0.4		
R201	Very coarse sandy reduced ware fabrics	26	3.9	736	8.1	0.21	1.9
R21	Oxford sandy reduced ware (Young 1977, 202, fabric 2)	1	0.2	4	+	0.04	0.4
R29	Reduced ware with distinct large quartz grains	6	0.9	45	0.5	0.06	0.5
R30	Medium sandy reduced coarse ware fabrics	261	39.5	4023	44.2	4.86	43.8
R37	Medium sandy reduced coarse ware	1	0.2	16	0.2		
R37F	Fine variant of R37	1	0.2	13	0.1		
R38	As R37 with clay pellet inclusions	1	0.2	7	0.1		
R50	Medium sandy reduced with black surfaces	2	0.3	16	0.2		
R90	Coarse (mainly grog-tempered) reduced fabrics	12	1.8	199	2.2		
R96	Local grog-tempered reduced coarse ware	3	0.5	16	0.2		
<i>R subtotal</i>		386	58.5	6224	68.4	6.84	61.7
B11	Dorset black-burnished ware (BB1, DOR BB 1)	54	8.2	528	5.8	1.03	9.3
B30	Black-burnished ware copies	6	0.9	146	1.6	0.26	2.3
<i>B subtotal</i>		60	9.1	674	7.4	1.29	11.6
C10	Shell tempered ware unspecified	27	4.1	143	1.6	0.06	0.5
C11	Late Roman shell-tempered ware (HAR SH)	1	0.2	5	0.1		
C12	Shell-tempered ware local	9	1.4	39	0.4	0.10	0.9
<i>C subtotal</i>		37	5.6	187	2.1	0.16	1.4
TOTAL		660		9106		11.09	

A.1.5 The assemblage was dominated by local or regional products. Imported fabrics consisted exclusively of a few fragments of samian ware, probably all from Central Gaul, and the only extra-regional imports were black-burnished ware (BB1, OA fabric B11) from south-east Dorset, Nene Valley colour-coated ware (fabric F52) and a single

possible sherd of late Roman shell-tempered ware (fabric C11) which may have derived from the industry at Harrold, Bedfordshire (Brown 1994), although a more local origin is possible.

- A.1.6 The three Central Gaulish samian ware sherds, from two different contexts, are almost certainly from the same decorated bowl, of Dragendorff form 30. This is a most unusual occurrence and suggests the survival of a specially-curated vessel into the late Roman period. With the exception of samian ware and the Nene Valley colour-coated sherds, all the 'fine and specialist' wares (fine wares, mortaria and white wares) were certainly (or probably, in the case of some of the white wares) from the Oxford kilns, as would be expected. Sherds probably of Oxford colour-coated ware, but with no surviving trace of the characteristic surface treatment, were recorded under a separate heading (FO) from certain Oxford products (F51). Together fabrics F51 and FO totalled 6.7% of sherds and 10.4% of REs. Many of the mortarium sherds assigned to fabric M41 also lacked the slipped surfaces but were identifiable on other criteria – none were sufficiently thick-walled that they could have been from white-slipped Oxford mortaria, which are otherwise identical in fabric.
- A.1.7 It is also assumed that the majority of the oxidised and reduced coarse wares derived from the Oxford industry, but this is less easily demonstrated since other products, potentially even more local in origin, are not necessarily easily distinguished either in terms of fabric or typological range. Fabrics R37, R38 and R96, however, are assigned to a non-Oxford source. This is currently unlocated but thought to lie in the area between Witney and Akeman Street to the north, perhaps in the vicinity of the Akeman Street settlement of Wilcote (these fabrics are particularly common there, and also at Asthall on Akeman Street and at Gill Mill, closer to the present site) and is currently described as the 'West Oxfordshire' industry. These fabrics only comprised a very small part of the assemblage, however. The dominant reduced ware groups, R10 and R30, which together account for almost exactly half of the assemblage by sherd count, represent a continuum of fabrics with differing amounts of quartz sand inclusions of varying size (a fabric with relatively sparse unusually large rounded quartz grain is defined separately as R29) and the dividing line between them in terms of frequency of sand is not always clearly defined. This characteristic supports the view that most R10 and R30 sherds derive from a common source, almost certainly the Oxford industry, though in real terms the reduced fabrics of that industry lack distinctive characteristics and it is possible that some R10 and R30 sherds were from other unrecognised local or regional sources working in a similar tradition with the same basic clays. The coarse sand-tempered fabrics of the R20 group might also have been Oxford products, but this is less certain. Fabric R201 is a distinctive variant used mostly for thick-walled vessels, probably storage jars. This seems to have been a development of the later Roman period, when this fabric may have at least partly superseded the use of coarse grog-tempered R90 fabrics for vessels of this type.
- A.1.8 The main oxidised ware groupings (O10 and O20) are broadly comparable in character to the equivalent reduced groups (R10 and R20). It is noticeable, however, that the mean sherd weight of fabric O10 was less than 5g. It is quite possible that a significant number of these sherds are in fact of eroded Oxford colour-coated ware, but, because of their size, lack characteristics that would have allowed them to be coded as fabric

FO (see above). This problem was also encountered in the much larger Gill Mill assemblage (Booth forthcoming). In any case, an origin in the Oxford industry is fairly certain.

A.1.9 Like the oxidised wares, black-burnished wares were less well-represented by weight than by sherd count (or REs) owing to the tendency of the principal fabric (Dorset BB1) to fragment quite readily, particularly when present as ‘cooking pot type’ jars, which account for almost half of the REs in this fabric (see below). B11 was supplemented by wheel-thrown vessels in fabric B30, an unsourced mostly late Roman product that occurs regularly in the region. Shell-tempered (C) wares are another regular component of regional assemblages but are much less common, perhaps reflecting the chronological emphasis of the assemblage, since these fabrics are particularly characteristic of the middle Roman period (Booth forthcoming).

A.1.10 Chronological (and perhaps also other) factors account for the total absence of pottery in three major ware groups: A (amphorae), Q (white slipped wares) and E (late Iron Age/early Roman ‘Belgic type’ wares).

Vessel types, use and reuse

A.1.11 Quantification of vessel types by ware group is given in Table 2. The group is fairly small and therefore susceptible to imbalances based on a few well-represented vessels, which is why the breakdown of vessel classes is presented in terms of overall ware groups rather than individual fabrics. Nevertheless, the general pattern is comparable with other assemblages in the regional with a late Roman bias.

Table 2: Quantification (by REs) of vessel types by ware group

Type	Description	Ware group								TOTAL	%
		S	F	M	W	O	R	B	C		
CC	Narrow mouthed jar						0.52			0.52	4.7
CD	Medium mouthed jar					0.22	1.62			1.84	16.6
CK	‘Cooking pot type’ jar							0.57	0.10	0.67	6.0
CM	Wide mouthed jar						0.43			0.43	3.9
C	Jar, total, including unspecified subtypes				0.04	0.54	5.51	0.57	0.16	6.82	61.5
D	Jar/bowl				0.06	0.05	0.19			0.30	2.7
E	Beaker		0.74			0.25	0.14			1.13	10.2
HA	Carinated bowl				0.08					0.11	1.0
HB	Straight sided bowl						0.06	0.29		0.35	3.2
HC	Curving sided bowl		0.09				0.26			0.35	3.2
H	Bowl, total, including unspecified subtypes		0.12		0.08		0.32	0.29		0.84	7.6
I/IA	Bowl/dish					0.16	0.04			0.20	1.8
JA	Straight sided dish					0.04	0.11	0.43		0.58	5.2

		Ware group									
JB	Curving sided dish		0.44			0.02				0.46	4.1
J	<i>Dish, total, including unspecified subtypes</i>		0.44			0.06	0.11	0.43		1.04	9.4
K	<i>Mortarium</i>			0.26						0.26	2.3
L	<i>Lid</i>						0.53			0.53	4.8
	TOTAL		1.30	0.26	0.18	1.06	6.84	1.29	0.16	11.09	
	%		11.7	2.3	1.6	9.6	61.7	11.6	1.4		

A.1.12 The overall assemblage is dominated by jars (61.5% of REs), four-fifths of which are in reduced coarse wares. These broad proportions are typical of some later Roman assemblages, but are not universal considering the chronology of the site (see further below). Many jars were insufficiently well preserved to be assigned to sub-groups within the vessel class, since the principal examples of these are defined on the basis of the relationship of rim and girth diameters. Both medium- and wide-mouthed jars tended to have a similar range of rim forms, so the latter could only rarely be used to indicate specific jar types. The CK sub-type was particularly characteristic of black-burnished and shell-tempered ware groups. It is also common in reduced fabrics such as R37, but these were not present here.

A.1.13 Open forms (bowls and dishes combined) total 18.8%. Straight sided forms tend to be in black-burnished wares or reduced ware equivalents of the same types, while curving-sided bowls and dishes are most common in Oxford colour-coated ware. Carinated bowls are examples of Young (1977) type P24 in Oxford parchment ware; several base sherds from such vessels are present in addition to the few rims. Beakers are well-represented at 10.2%, and substantial portions of beakers without surviving rim sherds were present in context 62, for example. Lids are relatively well-represented (4.8%) and while the absence of cups is unremarkable given the late Roman emphasis of the assemblage the total absence of flagons/jugs is more noteworthy. The mortaria included examples of Young types M18, M22 and C97, all later Roman types. In terms of individual vessels the assemblage contains no surprises.

A.1.14 The slightly eroded condition of some of the sherds meant that evidence for use, for example in the form of wear, was not well preserved. A few sherds were noted as heavily worn, but the significance of this is uncertain. Evidence of sooting appeared to be absent, and only occasional instances of more general burning were noted, though these absences could be a result of the relatively poor surface condition of some sherds. A shoulder sherd from a large jar in fabric R201 from context 116 had a large drilled hole, most likely for a riveted or stapled repair. Most notable in terms of modification was the occurrence on the girth of a jar in fabric R30 from context 61 of a complete literate graffito consisting of the capital letters CA (the latter, of course, without the crossbar). Only body sherds of this vessel were present, so the precise form is unknown, but it is likely to have been a typical medium mouthed (type CD) vessel. This appeared to be the only example of any kind of marking of a vessel in this assemblage.

Contexts

A.1.15 Almost all the pottery came from three types of contexts: layers, ditches and pits (in that order of importance by sherd count – 41.8%, 34.6% and 17.9% respectively). The first group consisted almost entirely of sherds from layer 116, which overlay a group of pits at the west side of the site. Of the pits, only feature 102, just to the south of layer 116, contained a significant group of pottery (70 sherds), the 14 other pits with pottery producing only 48 sherds between them. It is notable that the proportion of the assemblage from pits by weight was lower than that for sherd count. In other words, the pottery from the pits (and also from layer 116) was more fragmented than the site mean, while the pottery from ditches was better preserved, amounting to 40.4% of the assemblage by weight. This contrasts with the more usual pattern in which pottery from ditches, which tends to be susceptible to breakage from redeposition consequent on recutting, usually has a lower mean sherd weight than that from many other feature types, including pits. In the present instance the majority of the pottery from ditches (71% of this material by sherd count and 77.6% by weight) came from a single feature, ditch 146, principally from cuts 59 and 55 at its western end, and the overall mean sherd weight of the pottery from this ditch was 17.6g. This therefore represents the best preserved material from the site and is likely to have undergone little disturbance after being deposited in the ditch. Neither the group from cut 55 nor that from 59 was very closely dated, but both were assigned to the 4th century rather than a broader late Roman date range, and it is possible that these were some of the latest pottery-containing deposits from the site.

Discussion

A.1.16 The small size of the assemblage precludes detailed analysis, but can be understood in the light of the recently recorded very substantial assemblage (just over 60,000 sherds) from Gill Mill, a site centred 6km north-east of Moreton Lane (Booth forthcoming). There are also complementary data from the two adjacent areas to the south and south-west excavated in 1995 and 2007, although both of those assemblages were smaller than the present one (the pottery from the three sites together amounts to 1238 sherds, 18,737g and 23.28 REs, so the present assemblage comprises about half of these totals). While the three Northmoor groups are broadly similar in character it is unsurprising that there are some slight differences between them. Together the material indicates settlement activity through the Roman period from the 2nd century onwards. At the 2007 watching brief it was thought unlikely that occupation began much before the middle of the century, while only one context group in the smaller assemblage from the 1995 watching brief was certainly of mid-late 2nd century date and the remaining material might all have been later.

A.1.17 The present assemblage is consistent with this sort of pattern, and it is possible that it indicates an even later date for the commencement of activity within this excavation area. This is suggested by two factors. First is the very poor representation of products of the 'West Oxfordshire' industry mentioned above. Evidence from Gill Mill shows that this industry was a major regional supplier through the 2nd and 3rd centuries, perhaps ceasing production early in the 4th century, while from about the middle of the 3rd century onwards Oxford reduced wares (fabrics R10 and particularly R30)

became the dominant coarse wares. This is precisely the pattern that is seen in the present assemblage – even more so than in those from the two adjacent areas. The second very striking chronological factor concerns the use of samian ware. At both the 1995 and 2007 watching briefs, Central Gaulish samian ware was present in moderate quantities in the form of typical Antonine plain vessel types such as the cup Drag 33, the bowl Drag 38 and the dish Drag 31. Such vessels continued to be used into the 3rd century and occasionally even later. In the present site they are notable by their complete absence. Instead the only (three) samian ware sherds (except one tiny eroded fragment) are from a single decorated vessel. Late 2nd-century occupation here would surely have generated at least a few sherds of the plain forms seen in the adjacent areas, and their absence suggests an absence of such occupation here. Many of the context groups are of course too small to be used to support such a conclusion conclusively, but it is quite possible that activity in this small area of the Northmoor complex did not begin much before the middle of the 3rd century. In this scenario the decorated samian ware bowl can be seen as a special curated piece.

A.1.18 The date of the latest Roman occupation is also debatable. At the 2007 watching brief, the assemblage clearly extended into the 4th century, but may be lacking material of the second half of the century. Relatively few Oxford colour-coated ware sherds were present there, suggesting a reduction in the level of 4th century activity. Other Oxford vessels such as the white ware mortarium type M22 are quite broadly dated, but all would be consistent with a late 3rd-early 4th century emphasis for the later activity, while not in themselves precluding the possibility of a later date. In this respect the present assemblage is closely comparable. While the representation of Oxford colour-coated ware, for example, is rather higher here, there are few forms that necessarily date after the middle of the 4th century. Amongst the identifiable vessels only Young (1977) type C71 is solely of 4th-century date, while the commonest dish form, C45, with at least six examples in fabrics F51 and FO, is a type thought (pace Young 1977, 158) to have been particularly common in the mid-late 3rd century (Booth *et al.* 1993, 161-3). The clearest indication of a late date may come from sherds of fabric C11, the occurrence of which in the region is generally considered to date after *c* AD 350, the date suggested for its earliest certain appearance at Cirencester (Cooper 1998, 341; Holbrook 2013, 33) and at sites further afield such as Alcester, Warwickshire (eg Evans 1994, 146-7). None of the identifications (one sherd at the present site and two or three at the 2007 watching brief) is certain, however, and these sherds certainly do not in themselves indicate activity up to the end of the 4th century.

A.1.19 Indications of site character based on aspects of the associated pottery assemblages have been considered recently (eg Booth 2004; forthcoming). Assessment of the representation of 'fine and specialist' wares (here comprising ware groups S, F, M and W), a potential measure of site status, suggests that in this region the late Roman period values of such wares (based on percentage of sherd count) range from about 7% to just over 35%. The figure from the present site is exactly 15%, which groups the assemblage with a variety of rural settlements, including villa and villa-related groups at Chilton and Roughground Farm and other farmstead sites, as well as the roadside settlement at Asthall and a possible minor nucleated settlement at Birdlip (Booth forthcoming). The comparable figure for the much larger nucleated settlement at Gill

Mill is 19%. The comparative data therefore suggest that the assemblage does not lie at the bottom of the range of values for rural settlements in the region, but in a range occupied by sites of interestingly diverse character. It is notable that while the representation of fine and specialist wares at the 1995 watching brief is closely comparable to that in the present site the figure for the 2007 watching brief was rather lower, at just over 10% of the total sherds. Rather than indicating local variation in site character, however, (though this is possible) the lower figure may reflect the presence of a larger component of pottery dating to the middle Roman period, when fine and specialist ware levels were lower across the board than they were in the late Roman period. It must be emphasised, however, that in view of their small sizes assessments of site character based on the Northmoor assemblages should be treated with caution.

A.2 Coins

By Paul Booth

A.2.1 Two coins were recovered.

Context 65 (SF 1):

Radiate (21-22mm), worn

Obv: ...ALLJECTVSPFAVG, radiate head r

Rev: LAETITIA AVG, Latitia I; S/A//ML

RIC 22, AD 293-296.

Context 105 (no SF number):

AE3? (20-21mm), encrusted and corroded

Currently completely illegible, though conservation might perhaps reveal some detail.

The general character suggests another late 3rd century radiate, but this is speculative.

A.3 Iron finds

By Ian Scott

A.3.1 There are two small finds other than coins. These comprise an unstratified iron object which is probably 19th-century or later in date and a small fragment of a glass bead (context 105) which is almost certainly Roman in date.

Segmented bead, small fragment with part of one end segment in blue glass. L extant: 3.3mm; W extant: 4mm. Ctx 105.

Bar, cast iron, slightly curved and tapered with part of a loop at the broader end. L: 90mm. Unstratified.

A.4 Ceramic building material and fired clay

By Cynthia Poole

A.4.1 A small assemblage comprising 17 fragments (236g) of fired clay and six fragments of ceramic building material (657g) was recovered from pit (72, 105) and ditch fills (41, 44, 62) and layer 116. The fired clay can be dated broadly as Roman and is associated with 3rd-4th century Roman pottery. Similarly, the stratified tile is all of Roman type,

but the single unstratified fragment is late medieval-early post-medieval roof tile. The assemblage has been recorded on an Excel file which forms part of the archive.

A.4.2 The fired clay was made in a smooth silty clay (fabric A), containing sparse quartz sand and fired red or buff, with a grey core in one piece. Some pieces had cream laminations and contained small red ferruginous and cream marly clay pellets. Apart from a couple of indeterminate amorphous fragments, the fired clay consists entirely of fragments of small circular discs. These have a smooth even surfaces and were probably made in a mould. The edges are rounded and sometimes slightly bulbous creating the effect of a shallow lip. Nearly all are unusually thin with most measuring 13-15mm, though a couple were greater at 17-20mm and an uncertain fragment with a single, well-finished smooth flat moulded surface measured over 24mm thick. The fragments with an edge surviving produced diameters of 180mm, 200mm, 300mm and 330mm diameter. Another may have been as much as 600mm in diameter or perhaps was oval or polygonal with an irregular straight edge rather than curved. The thickness of this piece is incomplete, so the large size is not inconceivable if it had a more typical thickness of about 25mm. Circular discs, and less commonly rectangular or polygonal plates, form a regular component of the artefacts found on Roman sites in Oxfordshire, the Thames Valley and other counties of the East Midlands. Examples of circular discs have been previously found at Alchester (Booth 2001) from early Roman contexts, Watkins Farm (Allen 1990, 53), Farmoor (Lambrick and Robinson 1979, 53-4), Old Shifford (Barclay *et al.* 1995, 138), and Oxford (Biddulph 2005), all associated with Roman deposits. More recently, as-yet unpublished excavations at Gill Mill (Poole forthcoming), Didcot Great Western Park (Poole forthcoming b), Sutton Courtenay (Poole 2017) and the south-eastern extramural settlement at Alchester (Poole forthcoming c) have also produced examples. Thicker discs measuring between 20-30mm are more common than the rather more delicate examples found at Northmoor, though the range of diameter sizes is fairly typical. The function of the discs is uncertain, though some certainly have burning or heat discolouration on one side and differences in colour are present on the Northmoor examples with a much paler, usually buff-cream, surface on the base. It is probable that they served as some form of oven and hearth furniture, probably in a domestic setting relating to baking and cooking.

A.4.3 The ceramic building material consists of two pieces of Roman tile, comprising a tegula and a further small fragment of flat tile, possibly a brick, and a fragment of post-medieval flat roof tile. The Roman flat tile was over 30mm thick with part of a flat even surface and was made in a red sandy clay fabric (Fabric E) containing common large brown clay pellets up to 15mm in size. The tegula was made in an orange fabric (Fabric C) containing a high density of quartz sand and a scatter of red ferruginous grits up to 10mm and rare small cream marl pellets. The tegula measured 23mm thick and had even, smooth surfaces and a rectangular flange measuring 31mm wide and 44mm high. The upper cutaway in the standard form of a rectangular recess at the end of the flange partly survived in a damaged condition and measured 28mm long. The short cutaway is more typical of mid-late Roman roofing. The post-medieval roof tile was made in an orange-red fine laminated clay, containing a low density of medium-coarse quartz and bright reddish orange rounded clay pellets 1-2mm that equates with Oxford

fabric group IV. It measures 13mm thick and is probably a fragment of peg tile of 15th-16th century date.

Table 3: Summary of fired clay and ceramic building material

Ctx	Nos	Wt	Material	Form	Fabric	Dimensions	Description	Context info
0	1	22g	FC	Disc	A	13mm th, 200mm dia	Circular disc with rounded edge and smooth neatly finished surfaces and slightly dished.	U/S
44	1	10g	FC	Indet	A:	>24mm th	Single well finished smooth flat surface.	Ditch 42 C3-C4
72	1	43g	FC	Disc	A	20mm th, 180mm dia.	Circular disc neatly finished with smooth convex base and flat top encircled by shallow rounded lip 11mm w x 1.5mm high at edge.	Pit 69 AD240+?
72	1	3g	FC	Indet	D	22mm	Soft fine sandy clay fabric. Amorphous.	Pit 69 AD240+?
105	1	16g	FC	Disc	A	15mm th; 300mm dia	Circular disc gently dished with slight lip to bevelled edge. The lower surface is whitened.	Pit 102 AD240+
105 <5>	4	53g	FC	Disc	A	>13mm th	Fragments of well finished discs. The largest piece has part of a bulbous edge forming a lip with flat bevelled edge sloping outwards. It may be rectangular/polygonal, or the edges are very gently curved suggesting a diameter c 600mm.	Pit 102 AD240+
116 NW	5	53g	FC	Disc	A	14, 13, 17mm th; 180, c 200, 330mm dia	Smooth neat finish possibly with dished surface. One had a finger or thumb depression in upper surface.	Layer; C3-C4
116 SE	1	11g	FC	Disc	A/E	15mm th	fairly even flat moulded surfaces	Layer; C3-C4
116	1	11g	FC	Disc	A	14mm th	Rough or damaged flat upper surface. Angular acute bevelled edge curving to flat smooth base.	Layer; C3-C4
116	1	14g	FC	Indet	A	>17mm th	Amorphous	Layer; C3-C4
0	1	35g	CBM	Roof: flat	Oxford fabric IV	13mm th	Probably peg tile	C15-C16
41	1	15g	CBM	Flat or ?brick	E:	>30mm th	Smooth flat upper surface.	Ditch 40
62	4	607g	CBM	Tegula	C:	23mm th; >105mm w; >200mm L	Smooth even surfaces. Rectangular flange, type A, 31mm w x 44m Hx, angular internal base angle. Upper inner angle partly smoothed to a bevel by hand. Upper cutaway 28mm L. Upper LH corner. All joining fragments.	Ditch 59 LC3-C4
Total	21	860g						

APPENDIX B ENVIRONMENTAL REPORTS

B.1 Environmental samples

By Sharon Cook

Introduction

B.1.1 Twenty-six samples were processed. Samples <1> to <7> were bulk soil samples taken for the retrieval of charred plant remains and artefacts, while samples <8> to <26> were series of 2L samples taken incrementally through the fills of ditch 146 (cut 59) and pit 69 for the retrieval of snails with the aim of providing some information about the landscape immediately surrounding these features.

Method

B.1.2 The bulk samples were processed at Oxford Archaeology using a modified Siraf-type water flotation machine. The flots were collected in a 250µm mesh and heavy residues in a 500µm mesh and dried. The residue fractions were sorted by eye while the flot material was sorted using a low power (x10) binocular microscope to extract cereal grains and chaff, smaller seeds and other quantifiable remains. Identifications were carried out using standard morphological criteria for the cereals (Jacomet 2006), identification of wild plant remains is with reference to the Digital Seed Atlas of the Netherlands (Cappers *et al.* 2006) and by comparison with modern reference material. Classification and nomenclature of plant material follows Stace (2010).

B.1.3 The snail samples were also processed at Oxford Archaeology using hand flotation. The flots and residues were collected in 500µm meshes, air dried and scanned as above.

Results

B.1.4 Table 4 lists the taxa identified from each sample.

Table 4: Charred plant remains

Sample no.		1	2	3	4	5	6	7
Context no.		37	11	7	116	105	134	116
Feature		36	10	6	N/A	102	132	N/A
Group		N/A	N/A	146	N/A	N/A	148	N/A
Description		Pit fill	Pit Fill	Ditch fill	Layer (SW Quad)	Pit fill	Ditch Fill	Layer (NE Quad)
Volume (L)		35	35	35	35	35	35	35
Flot Volume (ml)		0	10	3	50	30	3	30
Flot scanned		N/A	100%	100%	100%	100%	100%	100%
Charcoal								
>4mm								
2-4mm			+		++		+	++
Cereal grain								

Sample no.		1	2	3	4	5	6	7
Context no.		37	11	7	116	105	134	116
Feature		36	10	6	N/A	102	132	N/A
Group		N/A	N/A	146	N/A	N/A	148	N/A
Description		Pit fill	Pit Fill	Ditch fill	Layer (SW Quad)	Pit fill	Ditch Fill	Layer (NE Quad)
<i>cf Triticum sp.</i>	<i>cf wheat</i>				7*	8*		
Cerealia	indet cereal				55*	37*		4*
Chaff								
<i>Triticum dicoccum/spelta</i>	emmer/spelt glume base					3*		
<i>Avena sp.</i>	Oat awns							1*
Wild Species								
<i>Veronica hederifolia</i>	ivy-leaved speedwell					1#		1#
Cyperaceae	sedge family				2	2		
<i>Carex sp.</i>	sedges				3			
Poaceae	grass seed (small)							1
Other								
Indet.	seed/fruit				1*			2*

*indicates fragmentation. #indicates possibly modern. + 1-5, ++5-25, +++25-50, ++++50-100, +++++100+

B.1.5 The flots from these samples contain only small quantities of charred material with the majority of the flot volume comprising fine modern roots. Sample <1> produced no flot material at all and contained no artefacts, while sample <3> produced no charred material or artefacts. Occasional anthracite fragments were observed within all flots.

B.1.6 Samples <2> and <6> both contain a small quantity of charcoal which is mostly less than 2mm in size and therefore unsuitable for wood species identification. Neither sample contains any other charred remains.

B.1.7 Samples <4> and <7> were taken from opposing quadrants of soil spread 116. Of the two, sample <4>, from the south-western quadrant of the spread, contains the larger quantity of material, although preservation was the same for both samples. The cereal grains have a clinkered appearance which may be the result of mineral precipitate, as do those from sample <5>, which is the closest feature to the spread. The charcoal is on the whole less affected with the majority of fragments being well preserved and larger than that noted within the other samples, although still less than 4mm in diameter. A single small fragment of oat awn is not distinguishable as either wild (*Avena fatua*) or cultivated (*A. sativa*) oat and may be wind-blown as there is no other indication of oats in the samples.

B.1.8 The majority of charred seeds lack exterior details; this is especially true of the grain so these cannot be further identified since the majority of the morphological characteristics used for identification are not present. The more complete grains give the general appearance of wheat and the presence of glume wheat chaff fragments in sample <5> indicates that these are likely to be emmer or spelt wheat (*Triticum*

dicoccum/spelta), with spelt wheat the more likely candidate as the more common cultivar during the late Roman period.

- B.1.9 The majority of wild plant seeds observed are from the Cyperaceae family which largely consists of sedges and club rushes. Those designated as Cyperaceae only are missing external characteristics but have an appearance similar to *Scirpoides/Schoenoplectus*, which are both club rushes. Their presence may indicate the burning of turves derived from damp ground or the accidental inclusion of these seeds during grain drying. It is unclear if the two ivy-leaved speedwell seeds are charred.
- B.1.10 Although sampling for snails had been advised in the previous watching brief (OA 2008) the recovered assemblages proved to be disappointing and unsuitable for landscape interpretation. *Cecilioides acicula*, which is a burrowing snail, is present in the flots from samples <2>, <4> and <7>; samples <4> and <5> also contain occasional other small terrestrial snails but in both cases fewer than ten individuals. The incremental samples taken specifically for snail recovery included only occasional examples of *Cecilioides* and even fewer other molluscs.

Discussion

- B.1.11 The material extracted from the bulk sample flots is typical of material commonly found in southern Britain from samples dating to the late Iron Age and Roman period, as spelt wheat was a staple crop (Van der Veen 2016).
- B.1.12 Earlier work on this site (OA 2008) produced a limited assemblage of charred plant remains that included glume wheat grain and chaff fragments, occasional wild plant seeds and a small number of flax (*Linum usitatissimum*) seeds. The current investigation has produced an even more limited assemblage and no evidence of flax. Although the charred plant remains from this site are limited both in abundance and diversity, it is unclear if this is a result of poor preservation or merely a lack of remains within the excavated areas. The majority of surviving charred plant material from the current investigation come from contexts centred around spread 116 which is the closest part of the current site to the settlement activity noted within the previous phases of work and may indicate that crop processing and other related domestic activities likely to produce charred plant remains are most likely to lie to the west of the current excavation.

Recommendations for retention/discard

- B.1.13 The samples have produced only small quantities of charred plant remains and molluscs of limited interpretable value and unsuitable for further analysis. Consequently, the flots do not warrant retention.

B.2 Animal bone

By Lee G. Broderick

Introduction

B.2.1 A total of 229 animal bones were recovered from the site, almost all associated with the Late Roman period, (Table 5). Given the small sample size in each phase, NISP figures are used throughout as providing the most likely reflection of living animal proportions on the site. The assemblage is in poor condition. Most of the material was recovered by hand but environmental samples were taken from selected contexts, which were sieved at 10mm, 4mm and 2mm fractions. This accounted for 22.7% of the assemblage.

Results

- B.2.2 By far the most common species identified in the assemblage, by NISP, was domestic cattle (*Bos taurus taurus*), with caprine - definitely including sheep (*Ovis aries*) - horse (*Equus caballus*), cf. pig (*Sus scrofa domesticus*), European mole (*Talpa europea*) and small rodent also present.
- B.2.3 The cattle specimens represent at least three different individuals (based on left side femurs, zone 3 (Serjeantson 1996, 194-223). Although nine of the domestic cattle specimens had epiphyses, just one of these was unfused (a distal right femur). Along with the fact that just one mandible was present, this makes it very difficult to obtain any information about herd structure through ageing data. One mandible was also recovered, giving an age at death of over 12 years (Jones and Sadler 2012, 11-28).
- B.2.4 It was possible to take measurements from one cattle specimen, a left astragalus, which at 63.4mm (GLI) x 38.3mm (Bd) was close to the mean for the period (Albarella, Johnstone and Vickers 2008, 1828-1848). Two cattle specimens also had pathologies - a left cuboid had a deep lesion on the proximal surface and a first phalanx had an exostosis on the proximal articulation, which could be related to the animal's use for traction - e.g. ploughing (Isaakidou 2006, 95-112).
- B.2.5 One cattle metacarpal fragment had an oblique cutmark on the shaft, probably as a result of skinning, and eleven of the thirty-one specimens had been gnawed by canids. In all, 19 specimens in the assemblage had been gnawed by canids, including two of the three horse specimens and the three specimens identified as caprine, suggesting that dogs (*Canis familiaris*) were also present and that they played a significant role in the depositional pathways of the bones.
- B.2.6 One of these gnawed horse bones, a left side humerus which is fused at the distal end, has an exostosis on the lateral side of the distal articulation. The cause of this is uncertain but it may have been due to persistent percussive shock, similar to the condition known as 'penning elbow' in sheep.
- B.2.7 The mole (*Talpa europea*) specimen recovered from sample <5>, taken from context 105 in pit 102, had been burned.

Comparison

B.2.8 Previous excavations nearby recovered an assemblage more than twice as large as this one (Strid 2008). That assemblage was also in better condition, although it was very variable, and included more species, although domestic cattle and, to a lesser extent, caprines dominated, as here. Among the wild fauna, mole was recorded in that assemblage, as in this one. Although native to the UK, mole is a relatively unusual find on Roman sites and must usually be considered as potentially intrusive. As a burned specimen though, that scenario is far less likely here and so should be considered as a true Roman find.

Recommendations for retention

B.2.9 Although an assemblage of this size would not normally be considered a priority for retention, the mole specimen as well as the three specimens with pathology and the domestic cattle astragalus should be archived.

Conclusions

B.2.10 This is a very small assemblage, from which it is difficult to draw meaningful conclusions. That said, the domination of cattle specimens in the assemblage has allowed some insight into the potential importance of those animals on the site at that time - including their use in pulling ploughs or carts, which would be consistent with the old age of at least one individual. The pathology on a horse specimen may imply that that animal, too, was used for traction (a pole across the upper forelimb may explain a persistent percussive shock in that region).

B.2.11 Given the very poor condition of the assemblage, it may be assumed that many pre-depositional taphonomic markers may have been obscured and in that light the high number of specimens gnawed by canids is particularly noticeable. Another taphonomic factor, burning, is responsible for the most distinct feature of this assemblage, a mole dated to the Roman period.

Table 5: Total NISP (Number of Identified SPecimens) and NSP (Number of SPecimens) figures per period from the site for sieved and unsieved samples. Three most common species for each phase highlighted

	Late Roman	Undated		Late Roman (sieved)
domestic cattle	31	1		2
domestic cattle?	1			
caprine	3			6
sheep	4			
pig?	1			
horse	3			
small rodent				1
European mole				1
small mammal				1
medium mammal	10			9
large mammal	113			18
Total NISP	166	1		38

Total NSP	175	2	52
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Table 6: NSP with observed taphonomic indices

	Butchery marks	Pathologies	Gnawed	Burnt
domestic cattle	1	2	11	
caprine			3	1
horse		1	2	
European mole				1
large mammal			10	9
Total Mammal	1	3	26	11
indet.			1	1
Total	1	3	27	12

Table 7: NSP and total mass per context

Context	NSP	Mass (g)
0	2	27
7	1	17
11	1	0
33	6	91
35	4	25
41	3	55
43	2	49
44	47	910
46	1	14
49	5	18
51	2	48
56	3	9
60	1	11
61	4	48
62	33	311
64	2	47
72	2	22
85	14	42
89	1	8
105	26	113
116	61	473
119	2	4
122	1	1
134	1	1
135	4	23

APPENDIX C BIBLIOGRAPHY

Albarella, U, Johnstone, CJ, and Vickers, K, 2008 The development of animal husbandry from the late Iron Age to the end of the Roman period: a case study from south-east Britain, *Journal of Archaeological Science* **35**, 1828–1848, doi:10.1016/j.jas.2007.11.016.

Allen, T G, 1990 *An Iron Age and Romano-British enclosed settlement at Watkins Farm, Northmoor, Oxon*, Thames Valley Landscapes: the Windrush Valley, Vol **1**, Oxford Univ. Committee for Archaeology, Oxford

Anon., 1998 Northmoor, in S M Wallis and K J Walford, *British and Irish Archaeological Bibliography supplement 3: gazetteer of archaeological investigations in England 1992*, 271

Barclay, A, Glass, H, and Hey, G, 1995 Fired clay, in G Hey, Iron Age and Roman settlement at Old Shifford Farm, Standlake, *Oxoniensia* **66**, 105-62

Biddulph, E, 2005 Fired clay, in P Bradley, B Charles, A Hardy and D Poore, Prehistoric and Roman activity and a Civil War ditch: excavations at the Chemistry Research Laboratory, 2-4 South Parks Road, Oxford, *Oxoniensia* **70**, 167-9

Booth, P, 2001 Fired clay, in P Booth, J Evans, and J Hillier, *Excavations in the extramural settlement of Roman Alchester, Oxfordshire 1991*, Oxford Archaeology Monograph **1**, Oxford, 260-1

Booth, P, 2004 Quantifying status: some pottery data from the Upper Thames Valley, *J Roman Pottery Stud* **11**, 39-52

Booth, P, 2014 Oxford Archaeology Roman pottery recording system: an introduction, unpublished OA internal document 1992, regularly revised

Booth, P, forthcoming The pottery, in P Booth and A Simmonds, *Later prehistoric landscape and a Roman minor nucleated settlement in the lower Windrush Valley at Gill Mill, near Witney, Oxfordshire*, Oxford Archaeology Thames Valley Landscapes Monograph

Booth, P, Boyle, A and Keevill, G D, 1993 A Romano-British kiln site at Lower Farm, Nuneham Courtenay, and other sites on the Didcot to Oxford and Wootton to Abingdon water mains, Oxfordshire, *Oxoniensia* **58**, 87-217

Brown, A, 1994 A Romano-British shell-gritted pottery and tile manufacturing site at Harrold, Beds, *Bedfordshire Archaeol* **21**, 19-107

Cappers, RTJ, Bekker, RM, and Jans, JEA, 2006 *Digital seed atlas of the Netherlands*, Groningen Archaeological Studies **4**, Barkhuis Publishing, Eelde, The Netherlands. www.seedatlas.nl

Cooper, N J, 1998 The supply of pottery to Roman Cirencester, in N Holbrook (ed.), *Cirencester: the Roman town defences, public buildings and shops*, Cirencester Excavations **V**, Cirencester, 324-50

Evans, J, 1994 Discussion of the pottery in the context of Roman Alcester, in *Roman Alcester: Southern extramural area 1964-1966 excavations, Part 2* (eds S Cracknell and C Mahany), CBA Res Rep **97**, 144-9

Holbrook, N, 2013 Interpreting the archaeology of late Roman and early post-Roman Cirencester, in H Eckardt and S Rippon (eds), *Living and working in the Roman world Essays in honour of Michael Fulford on his 65th birthday*, JRA Supplementary Series No. **95**, Portsmouth, Rhode Island, 31-46

Isaakidou, V, 2006 Ploughing with cows: Knossos and the 'secondary products revolution', in D. Serjeantson and D. Field (eds), *Animals in the Neolithic of Britain and Europe*, Oxbow Books, Oxford, 95-112

Jacomet, S, 2006 *Identification of cereal remains from archaeological sites*, 2nd edn, Archaeobotany Lab, IPAS, Basel University

Jones, GG, and Sadler, P 2012 Age at death in cattle: methods, older cattle and known-age reference material, *Environmental Archaeology* **17 (1)**, 11-28, doi:10.1179/1461410312Z.0000000002 (Accessed 22nd August 2014)

Lambrick, G, and Robinson, M, 1979 *Iron Age and Roman riverside settlements at Farmoor, Oxfordshire*, Oxford Archaeological Unit Report **2** and CBA Res. Rep. **32**

Lyman, RL, 1994 *Vertebrate taphonomy*, Cambridge University Press, Cambridge

OA, 1988 Stonehenge Farm, Northmoor, Oxon: archaeological assessment, Oxford Archaeology unpublished client report

OA, 1995 Moreton Lane, Northmoor, Oxfordshire: archaeological watching brief, Oxford Archaeology unpublished client report

OA, 2003 Yew Tree Cottage: archaeological watching brief report, Oxford Archaeology unpublished client report

OA, 2008 New Barns, Rectory Farm, Moreton Lane, Northmoor, Oxfordshire: archaeological watching brief, Oxford Archaeology unpublished client report

PCRG, SGRP and MPRG, 2016 *A standard for pottery studies in archaeology*, Prehistoric Ceramics Research Group, Study Group for Roman Pottery and Medieval Pottery Research Group for Historic England

Poole, C, 2017 Ceramic building material and fired clay, in Bridge Farm, Sutton Courtenay, Oxfordshire: post-excavation assessment, Oxford Archaeology unpublished client report

Poole, C, forthcoming a Fired clay, in P Booth and A Simmonds, *Later prehistoric landscape and a Roman nucleated settlement in the lower Windrush Valley at Gill Mill, near Witney, Oxfordshire*, Oxford Archaeology Thames Valley Landscape Monograph

Poole, C, forthcoming b Late Iron Age and Roman fired clay, in C Hayden, A Simmonds, S Lawrence, K Wheaton and R Masefield, *Prehistoric and Roman settlement at Great Western Park, Didcot*, Thames Valley Landscapes Monograph

Poole, C, forthcoming c Fired clay, in A Simmonds and S Lawrence, *Excavations in the south-eastern extramural settlement of Roman Alchester and rural occupation in its hinterland: the archaeology of East-West Rail Phase 1 Bicester to Oxford Improvements*, Oxford Archaeology Monograph

Serjeantson, D, 1996 Animal bone, in S. Needham and T. Spence (eds), *Runnymede Bridge Research Excavations, vol 2: refuse and disposal at Area 16 East, Runnymede*, British Museum Press, London, 194-223

Stace, C, 2010 *New flora of the British Isles*, 3rd edn, Cambridge University Press, Cambridge

Strid, L, 2008 Animal bone, in OA 2008

Tomber, R and Dore, J, 1998 *The national Roman fabric reference collection: a handbook*, Museum of London Archaeol Services Mono No 2

Van der Veen, M, 2016 Arable farming, horticulture and food: expansion, innovation and diversity in Roman Britain, in M Millett, L Revell and A Moore (eds) *Oxford handbook of Roman Britain*, Oxford University Press, Oxford, 807-33

Wilkinson, D (ed.), 1992 Oxford Archaeological Unit field manual, unpublished MS

Young, C J, 1977 *The Roman pottery industry of the Oxford region*, Brit Archaeol Rep (Brit Ser) 43, Oxford

APPENDIX D SITE SUMMARY DETAILS

Site name:	Moreton Lane, Northmoor, Oxfordshire
Site code:	NOMO17
Grid Reference	SP 41728 02493
Type:	Strip, map and sample excavation
Date and duration:	23/10/2017-3/11/2017
Area of Site	0.085ha
Location of archive:	The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with Oxfordshire County Museum Service in due course, under the following accession number: OXCMS 2017.158
Summary of Results:	The excavation uncovered ditches of mid-late Roman date that defined the boundaries of rectilinear enclosures that abutted a trackway to the west, part of which had been uncovered by a previous watching brief and which formed part of an extensive cropmark complex that is a Scheduled Monument. There was no definite evidence regarding the function of the enclosures, but it is evident from the artefactual assemblage that domestic occupation lay somewhere nearby, although no structural remains were uncovered.

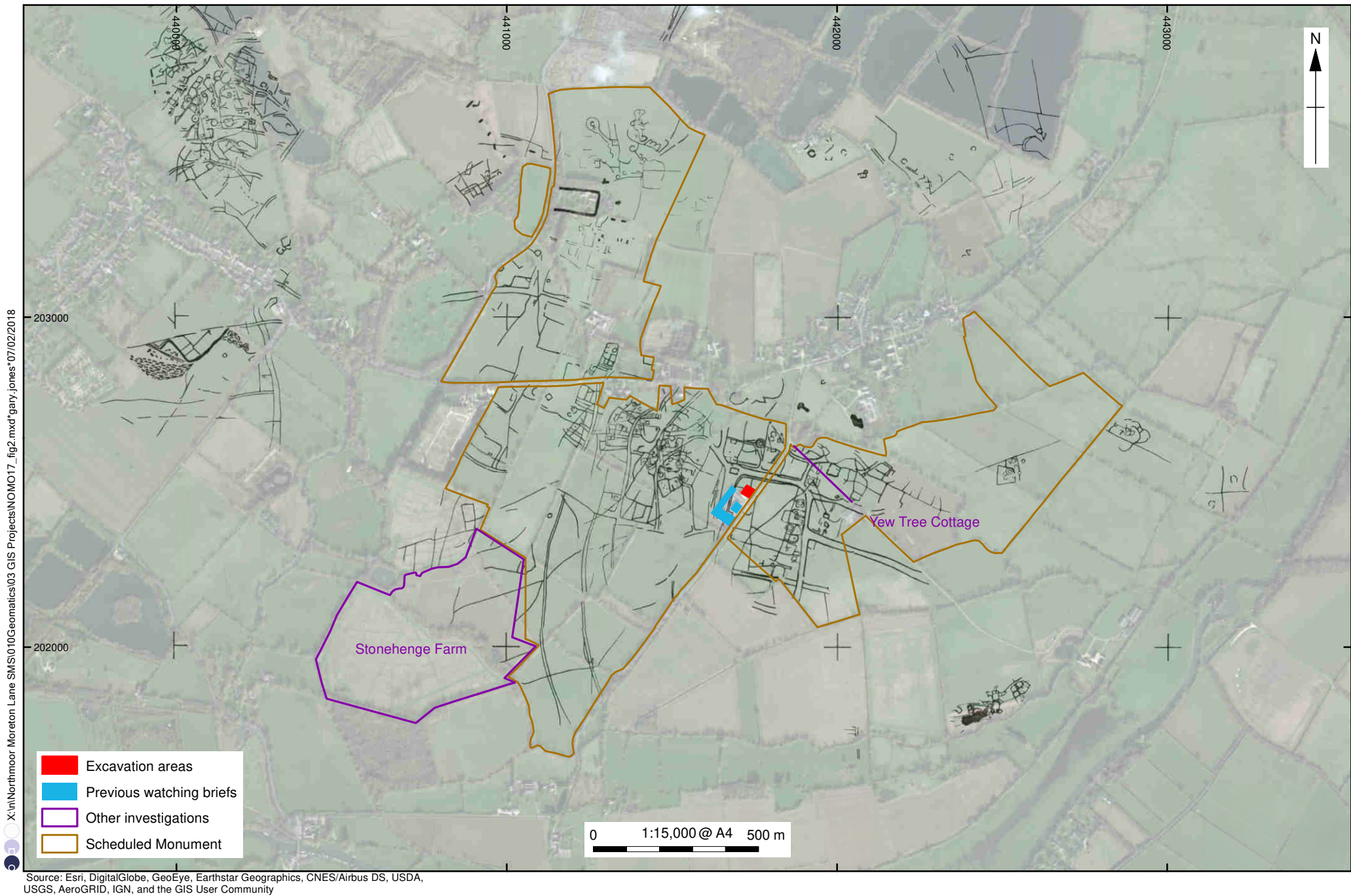


Fig. 2: Site location in relation to the Scheduled Monument and cropmarks

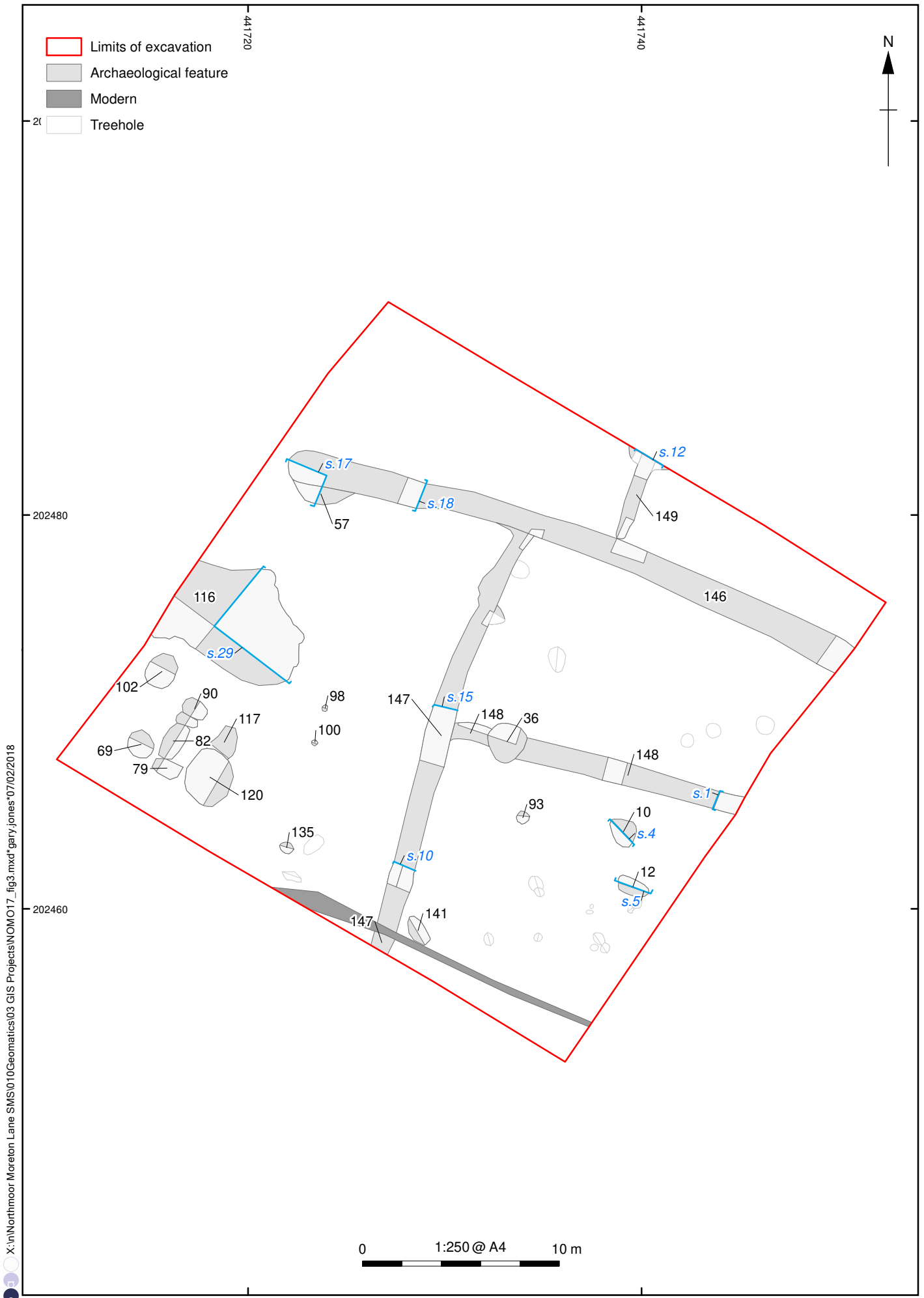


Fig. 3: Plan of archaeological features

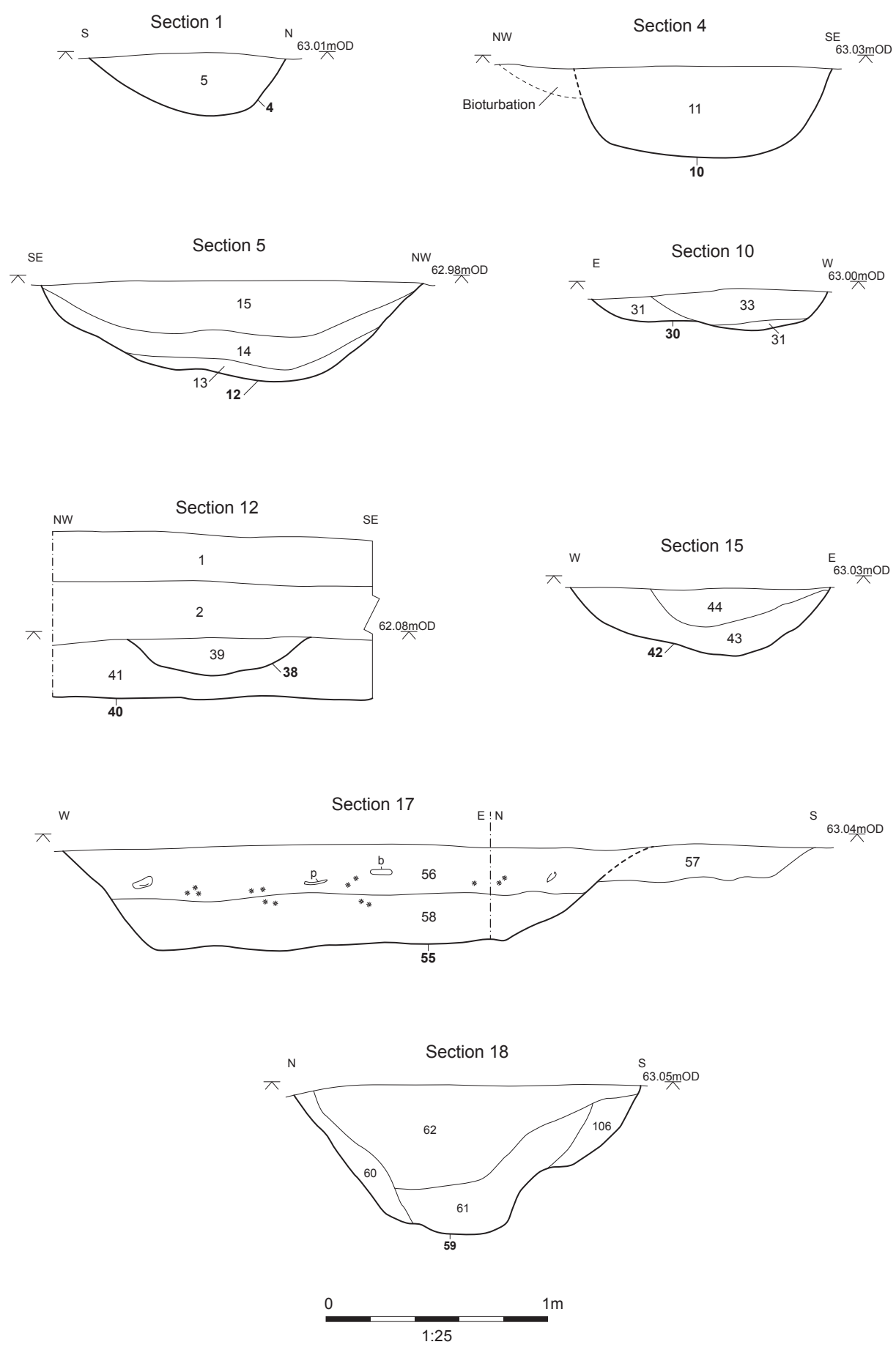


Figure 4: Sections of selected features

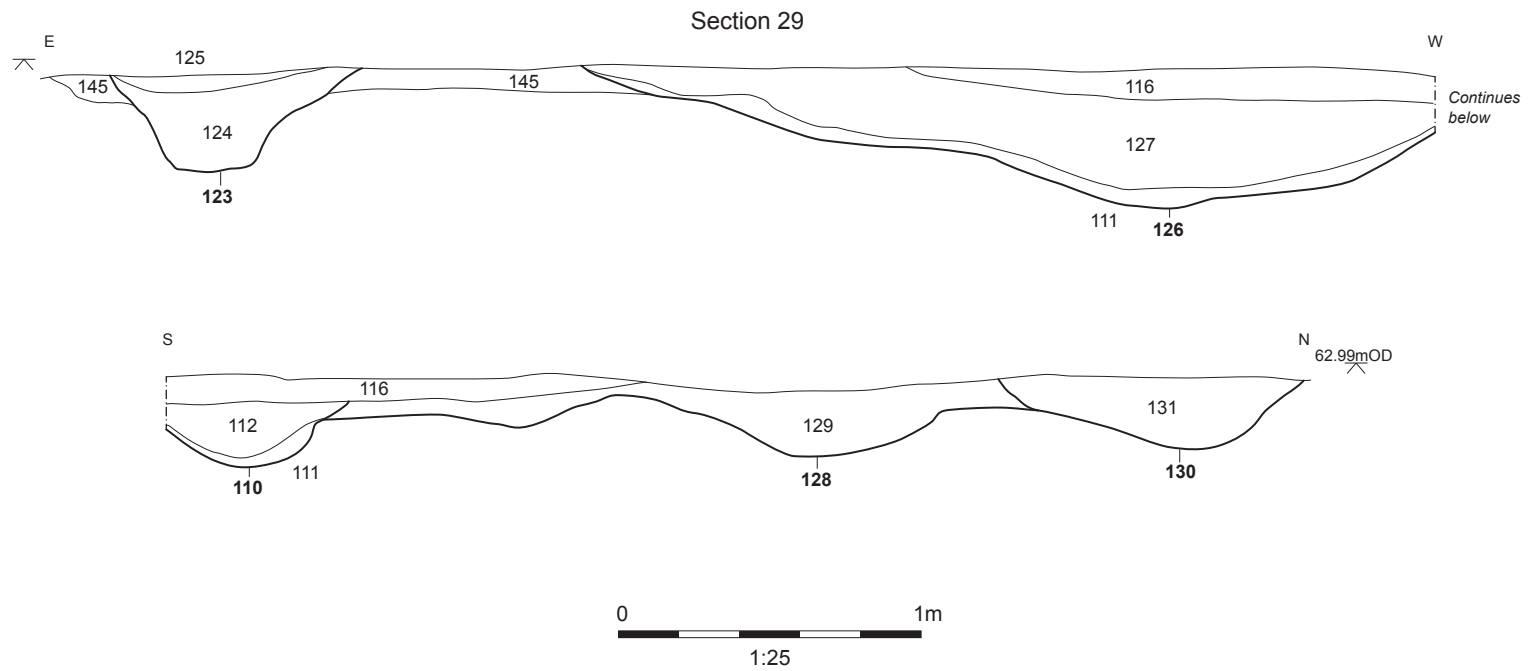


Figure 5: Section through the hollow/pit complex at the western edge of the site

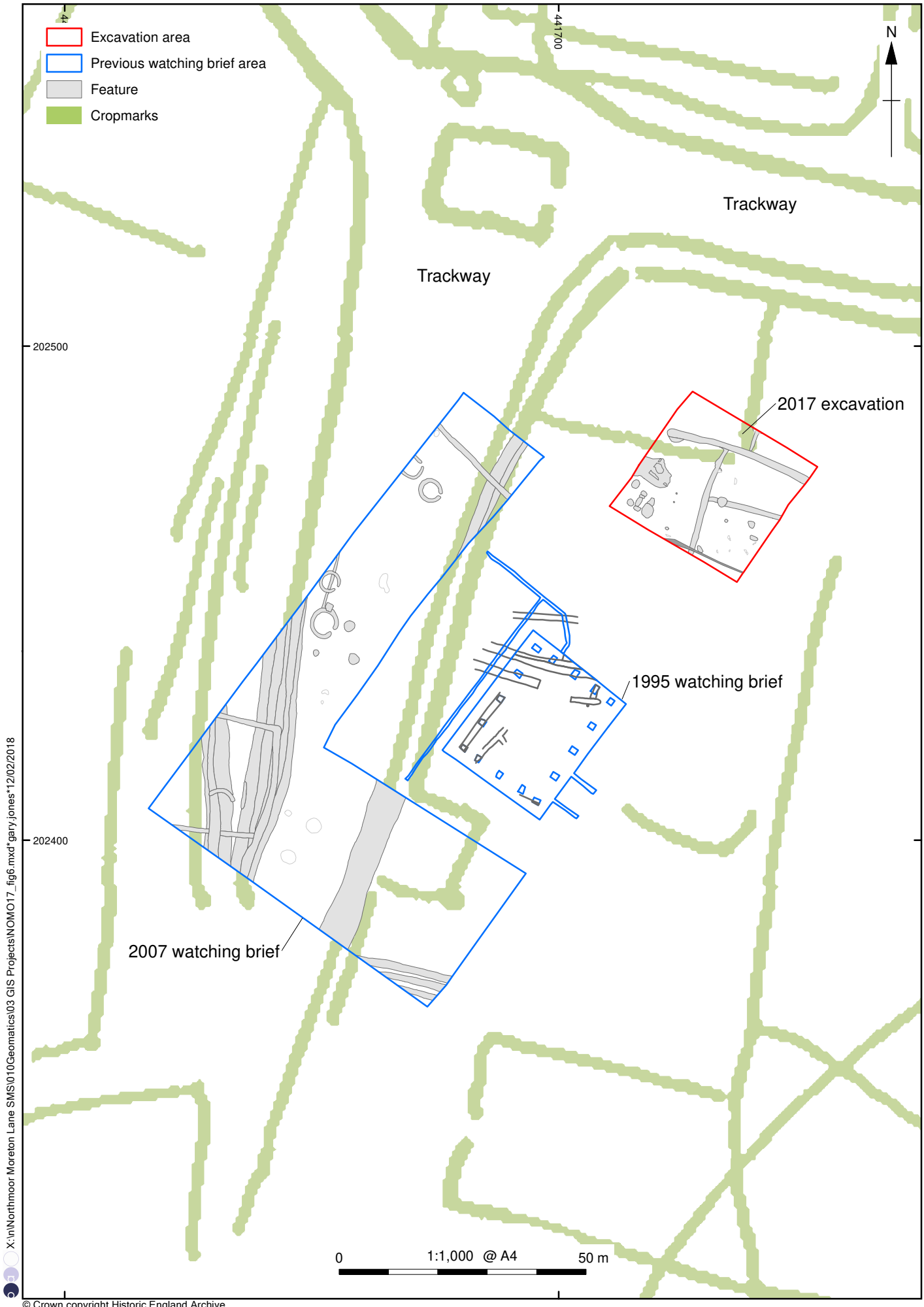


Fig. 6: Plan of the excavation and previous watching briefs



Plate 1: Recording a section through ditch 146



Plate 2: Section through ditch 146



Plate 3: The western terminus of ditch 146



Plate 4: Section through ditch 148



Plate 5: Pit 12



Plate 6: The hollow/pit complex at the western edge of the site



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