A Roman double-ditched enclosure at Leicester Road, Melton Mowbray

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A Roman double-ditched enclosure at Leicester Road, Melton Mowbray

Archaeological Excavation Report

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The fieldwork was managed by Carl Champness and directed on site by Lee Sparks. The field team included John Carne, Adam Fellingham, Christof Heistermann, Thomas Oliver, David Pinches, Muhummed Quadir and Jason Stewart, and the site was surveyed by Diana Chard.

The post-excavation was managed by Martyn Allen. The finds were processed by teams supervised by Leigh Allen. The environmental remains were managed by Rebecca Nicholson and the initial assessment of the environmental samples was undertaken by Sharon Cook. The archive was prepared under the guidance of Nicky Scott.

Summary

Excavation by Oxford Archaeology in 2018 on the site of a proposed housing development at Leicester Road, to the west of Melton Mowbray, revealed the remains of a Romano-British double-ditched rectilinear enclosure. The enclosure was identified during previous geophysical survey and evaluation trenching of the site, which also detected the remains of a larger, possibly nucleated Iron Age settlement that lay within the development boundary about 300m to the north. Investigation of the Iron Age settlement has been undertaken independently of the excavation of the Romano-British enclosure.

Pottery from the enclosure dates the period of occupation at the site to the 2nd and 3rd centuries AD, and it was likely abandoned around the turn of the 4th century. Initially, the distinctive plan of the enclosure gave the impression that it was unusual in a settlement context and, thus, possibly had a ritual/religious function. However, features within the enclosure were fairly limited and there was no evidence that the enclosure was a shrine. Artefacts were comparatively lacking and there was no sign of structured deposits or votive finds that might suggest a ritual site. Instead, charred plant remains indicated that cereal-processing was a primary concern of the inhabitants, while the more-limited animal bone assemblage supported the interpretation of a small, if slightly enigmatic farmstead. There was evidence that local arable cultivation was expanding onto the less-fertile heavy clays nearby and there were also signs that hay meadows may have been managed for livestock husbandry.

Overall, the site is significant in a regional context. Its plan is fairly unique if not unknown, but it importantly contributes to understanding of settlement types around Melton Mowbray and potentially within the wider hinterland surrounding the civitas capital at Leicester (*Ratae Corieltavorum*) during the middle Roman period.

INTRODUCTION

In 2018 Oxford Archaeology (OA) was commissioned by RPS Group Ltd on behalf of Barratt/David Wilson Homes to undertake an archaeological excavation on the site of a proposed housing development at Leicester Road, to the west of Melton Mowbray (planning reference: 15/00910/OUT).

Two trenches—Areas 2 and 3—were excavated within the southern part of the development site to explore the results of a geophysical survey and a trial-trench evaluation that identified prehistoric and Roman remains. This was undertaken as part of a larger scheme of works that extended to the north and incorporated four additional mitigation areas (Areas 1 and 4–6), parts of which have been excavated by Allen Archaeology Ltd (see below). The results of this work are yet to be completed, though preliminary analyses have confirmed the presence of an Iron Age settlement.

The larger of the two excavated areas (Area 2) exposed a large part of a double-ditched enclosure that was occupied in the 2nd and 3rd centuries AD (possibly into the early 4th). The enclosure was notable for its very regular, rectilinear plan and the close alignment of its boundary ditches, which were almost certainly contemporary. Activity within the enclosure did not appear to have been intensive. Internal features included several pit groups and gullies, perhaps most notably an irregular ditched feature with an internal gravelled surface. Several linear features and postholes to the south of the main enclosure could not be dated. A medieval field boundary extended NW–SE across the full width of the trench, cutting across the Roman enclosure.

The smaller trench (Area 3) was excavated *c* 22m west of the main trench to further investigate the previous discovery of a pit of probable prehistoric date and a nearby Mesolithic leaf-shaped flint microlith (see below). However, no additional remains were found in this trench and it was subsequently signed off for development with no further work taking place.

Location

The site is located at NGR 474071 317641 about 1.9km south-west of the centre of Melton Mowbray and is situated just beyond the current outskirts of the town (Fig. 1). Prior to development, the site was under arable cultivation along with neighbouring fields to its north. Leicester Road Industrial Estate lies immediately to the west and a recreation field, Kirby Fields Park, bounds the site to the east, beyond which lies an extensive residential area. The small village of Eye Kettleby is located *c* 1.1km to the south-west.

The site is situated on sedimentary mudstone bedrock of Blue Lias Formation, which is overlain by superficial deposits of Oadby Member diamicton till (BGS nd). It is located on an area of high ground between two channels that flow north to the River Eye, which flows westward into the River Soar north of Leicester. The overlying soils consist of very fertile, lime-rich loam and clay with some impeded drainage (CU 2019).

Archaeological background

Earlier prehistory

The Leicestershire and Rutland Historic Environment Record includes several early prehistoric sites in the vicinity of the site. A Mesolithic knapping site is known about 450m to the north-east during excavations between Leicester Road and Dalby Road (MLE16139). Further scatters of prehistoric flints ranging in date from the Mesolithic to the Bronze Age have also been discovered *c* 450m to the east (MLE7079), *c* 400m to the west near Eye Kettleby (MLE7077), and *c* 60m south-west (MLE17011).

Excavations to the west of Eye Kettleby in 1996/97 revealed an Early–Middle Bronze Age funerary site with a fairly large cremation cemetery dating to the later part of that period (MLE8895). Fieldwork undertaken in the 1990s in the same area revealed a late Bronze Age farming settlement consisting of a roundhouse, two rectilinear post-built structures, a possible stock enclosure, a droveway, and a nearby funerary area (MLE24358). A late Bronze Age pit alignment was also found to extend east–west through this area—the pit alignment was later redefined by a ditch (MLE8897).

Iron Age and Romano-British

Later prehistoric and Roman archaeology is reasonably common in the immediate environs. An enclosed settlement dating to the later Iron Age (*c* 3rd–1st century BC) was discovered at St Bartholomew's Way, Melton Mowbray, about 3.4km north of the present site (OA 2019). The settlement included a single roundhouse and was linked to an adjacent trackway by a short passage, suggesting that both were dug at the same time.

Excavation in 1994 about 140m south-east of Leicester Road revealed a series of ditches, pits and postholes containing Iron Age pottery (MLE3983). Trial-trenching further to the south-east in 2017 recorded several gullies and ditches that appear to have formed two phases of field system, possibly dating to the Iron Age and/or the Roman period (MLE23808). An extensive area of mid–late Iron Age and Roman settlement was discovered from isolated finds and later geophysical survey and trial-trench excavations about 950m east of the site to the west of Sandy Lane (MLE3928). Features covered an area of about 7ha and included numerous ditches, enclosures, an area of possible industrial activity, and a putative roundhouse.

A Roman site was discovered to the west of Eye Kettleby during the 1990s when excavation produced numerous pottery sherds, a few coins, a brooch and some Roman tile (MLE3980). A possible Roman Road is thought to extend east–west to the south of the site along the current route of Kirby Lane, though this has not been proven by excavation (MLE8839).

In 1989, archaeological deposits were discovered during a watching brief on a flood-alleviation scheme site at Scalford Brook about 4–5km to the north of Melton Mowbray. Subsequent excavation by Leicestershire Archaeological Unit the following year revealed the remains of multi-phased Romano-British farmstead dating between the 2nd and the 4th centuries AD (LAU 1990).

Medieval

Saxon and Saxo-Norman finds have been discovered to the north at Sysonby (MLE3977 and MLE3978). Excavations to the west of Eye Kettleby in the 1990s discovered the remains of Saxon settlement, including 18 post-built structures, 23 sunken-featured buildings, over 2500 sherds of pottery, loom-weights and bone combs (MLE3981). A trial-trench evaluation to the west of Scalford Lane, north of Melton Mowbray, revealed two medieval ditches dating to *c* AD 1050–1250 in an area with well-defined ridge-and-furrow cultivation shown by LiDAR (OA 2018).

The most-significant later medieval site is the scheduled monument of Eye Kettleby deserted medieval village (monument number 1018834; MLE3950). In the area adjacent to the current site, numerous earthworks and buried features are known consisting of a house platform, a trackway, gardens and paddocks, all set within a larger enclosure. To the north of Leicester Road, further features include a hollow way that formed the main route into and through the village, with up to three enclosures/paddocks abutting it. To the south-east of the hollow way, a series of house platforms and associated garden or agricultural enclosures overlooked a stream. Immediately east of the stream are a complex series of water-control features, including two fishponds (MLE3953). There is documentary evidence of a chapel (MLE3952) and a watermill (MLE3957) within the village. The evidence of the hay subsidy of 1524 suggests that the village had been largely deserted by the early 16th century.

Previous work at Leicester Road

A geophysical survey and trial-trench evaluation of the site was undertaken in 2016 (TigerGeo 2016; ULAS 2016). This work identified a double-ditched rectangular enclosure that was preliminarily dated by pottery to the middle/late Roman period (Fig. 2). A trial trench (trench 6) located about 60m west of the Roman enclosure revealed a small pit containing a Mesolithic leaf-shaped flint microlith, and a small number of Bronze Age features were discovered just over 500m to the north (ibid.).

About 200–300m to the north, the remains of an extensive Iron Age site were revealed by the geophysical survey. Features extended over an area of *c* 7.5ha, consisting of numerous roundhouse structures and a series of long field boundaries that appear to have enclosed the settlement. The layout of the features suggests the presence of a nucleated settlement potentially similar to other sites in the East Midlands (cf. Willis 2006, 101). Finds recovered from subsequent trial trenching dated this settlement to the middle–late Iron Age. This site has since been subjected to open-area excavation, though the final results are being analysed at the time of writing (AA 2017).

Methodology

Areas 2 and 3 were subject to strip, map and sample excavation using, in the first instance, a mechanical digger. These were positioned to investigate the Roman double-ditched enclosure (Area 2) and the possible Mesolithic pit (Area 3). The combined area of these trenches measured 0.94ha, of which Area 2 comprised 0.9ha. Mechanical excavation ceased upon discovery of archaeological features, which were subsequently sample excavated by hand.

Upcast and spoil from mechanical excavation was scanned by eye and by metal detector to aid the recovery of artefacts.

Ten per cent of fills of all linear features not associated with structural features were excavated, including all terminals and intersections. Linear features associated with structures or possible structures were 50% excavated. At least 50% of all pits were excavated, as was the gravelled surface found within enclosure ditch 308. No layer or deposits clearly relating to domestic or industrial activity, such as hearths, kilns or floors, were found.

Excavated areas were recorded at an appropriate scale with all features being surveyed by GPS and located on the Ordnance Survey National Grid. All features and deposits were fully recorded and described, and all sections of excavated archaeological features were recorded by measured drawing at an appropriate scale (mostly 1:10). Spot heights of individual features were recorded relative to Ordnance Datum. A photographic record using high-resolution digital data capture was maintained throughout the course of the fieldwork.

All artefactual and environmental remains were bagged and labelled by individual deposit for later cleaning and analysis. Sealed contexts were routinely sampled for the retrieval and assessment of environmental remains. Specific methodologies for the analysis and recording of each artefact type and for environmental remains are presented in the relevant specialist reports below.

Research framework

The site has the potential to contribute to several research aims following the agenda set out in the East Midlands Regional Research Framework (Cooper 2006) and its updated counterpart (Knight *et al*. 2012). In consultation with these documents, the following research criteria informed the post-excavation strategy of the project. These relate specifically to the Romano-British enclosure, as no further prehistoric features or material were discovered.

Chronology

To what extent can the pottery assemblage and other artefactual remains refine the chronology of the site and how does this relate to other settlements in the wider region?

Rural settlement patterns and landscapes

Can the morphology and layout of the site be understood within its regional/national context, and to what extent is the site typical or atypical in this regard?

The agricultural economy

Is there evidence of agricultural regimes and processes that might shed light on the character of the economy of the site?

Landscape and environment

Can the finds and organic remains help us to understand the relationship between the site and others in the region and in terms of its interaction with the surrounding environment and landscape?

Social identity

What evidence is there for understanding aspects of local diet? Is there evidence that the inhabitants were engaging in the wider market economy? Can either of these aspects shed light on the status and/or identity of the inhabitants?

Ritual and religion

Is there any evidence, whether structural, artefactual or environmental, for religious practice at the site?

The site archives

The documentary and finds archives will be deposited with Leicestershire Museums under the accession code X.A6.2019. The digital archive is to be deposited with the Archaeology Data Service (ADS), University of York.

STRATIGRAPHIC NARRATIVE

The excavation of Area 2 exposed a large part of the double-ditched enclosure identified during the evaluation (Fig. 3). Three phases of activity were identified, two Roman (phases 1 and 2) and one medieval (Fig. 4; Table 1). Phases 1 and 2 formed a continued period of activity from around the beginning of the 2nd century AD (but possibly from the late 1st century) to the end of the 3rd century or the beginning of the 4th. Phase 1 comprises the digging of the two parallel enclosure ditches and several internal features that suggest some fairly non-intensive activity. These features were dated by pottery. Phase 2 features were also dated by ceramic evidence, though pottery of 3rd–early 4th-century date was less common in comparison with the 2nd-century group. Phase 2 features were also often found to cut earlier features.

Phase	Date
1	2nd century AD
2	3rd–early 4th century AD
3	Medieval

Table 1: Site phasing

Phase 3 was represented by a single ditch (306) that was clearly aligned with the medieval ridge-and-furrow seen in the geophysics results (Fig. 2). Several undated features were discovered to the south of and external to the double-ditched enclosure.

As mentioned above, no archaeology was discovered in Area 3 where the Mesolithic pit discovered during the evaluation was found.

Phase 1: 2nd century AD

Phase 1 was characterised by the establishment of the double-ditched enclosure. The full extent of the enclosure was not exposed as the eastern end continued beyond the excavated area and lay outside the development area. Given the dimensions of the enclosure, however, it is not expected to have continued far beyond this point. Internal activity was represented by a small number of pits, postholes and gullies, though very few stratigraphic relationships

could be discerned. All the pottery recovered from phase 1 features was closely dated to the 2nd century AD. A very small number of later 1st-century grog-tempered sherds were recovered, though these were all residual in 2nd- or 3rd-century features.

Gullies 195, 314 and 315

Gullies 195 and 314 were found to be stratigraphically earlier than ditch 305 of the main enclosure. These were found in the south-eastern part of the excavation area. Both were roughly orientated north–south and positioned just over 6m from each other. Gully 314 was the longer of the two, measuring about 10m, while 195 was about 1.5m in length. The gullies were cut by east–west ditch 305 along the southern side of the enclosure, and 314 was cut by phase 2 ditch 307. No dating evidence was recovered from the gullies and neither continued to the south of ditch 305. Thus, they were probably associated with the early use of the enclosure.

Gully 314 may have been related to gully 315, which extended along the same alignment *c* 4.7m to the north. This feature measured 4.4m long, north–south, and 0.45m wide but was only 0.08m deep. Gully 315 contained about 40 fragments of animal bone, *c* 200g of burnt stone, iron fragments, and over 1kg of pottery. These were mainly of wares dating to the 2nd century, including Lezoux samian and sherds in local sandy fabrics, though fragments of Nene Valley colour-coated beakers suggest that this feature was filling during the second half of the 2nd century AD.

Enclosure ditches 304 and 305

Enclosure ditches 304 and 305 formed the main boundary of the rectangular enclosure (Fig. 5). The only stratigraphic relationship between these ditches and other features was where 305 cut gullies 195 and 314 (see above), apart from medieval field boundary 306, which cut across the middle of the Roman enclosure. The enclosure was orientated WNW–ESE with ditch 305 forming the inner boundary and ditch 304 the outer. The outer boundary measured *c* 80m along the south side, *c* 52m along the western side, and *c* 67.5m along the northern side. Ditch 305 appeared to terminate a few metres from the edge of the excavation along the northern boundary, though it may have simply suffered here from truncation.

The width of outer ditch 304 ranged from 0.34m to 1.25m across, while inner ditch 305 was marginally narrower at 0.19–1.01m across (Fig. 6, section 20). Both ditches were V-shaped and relatively shallow and neither reached below 0.5m deep at any point. A gap of no more than 1.2m was maintained between the ditches all the way around the circuit, though this is likely to have originally been narrower depending on the degree of truncation that has affected the upper levels of the ditches (in one area the gap was found to be less than 0.4m wide). No sign of a bank was noted, though the relatively shallow depth of the ditches is unlikely to have produced much in the way of upcast material, and the positions of gullies 195 and 314 suggest that a bank may never have existed, at least not on the interior of the southern side.

Spot-dating of various interventions of the outer ditch 304 was consistently around the early to middle 2nd-century (AD 70/100–150), with a small amount of pottery possibly dating slightly later to the second half of that century. Similar spot-dating evidence was recovered from inner ditch 305, though with slightly more material that may date to the second half of

the 2nd century AD. A 2nd-century coin of Antoninus Pius (AD 138–161) (the only coin from the site) was recovered from the single fill of outer ditch 304 towards the eastern end of the southern boundary. The clearly parallel and consistent alignment of both ditches strongly indicate that they were contemporary with each other.

Gully 309, feature 311 and pit 254

Gully 309 initially consisted of an irregular, slightly curving cut approximately 5.2m in length and 0.23m deep. The gully contained a single fill containing pottery dating AD 100–150. This feature was recut on its southern side by a longer gully that extended from the western terminus of the earlier cut to the eastern edge of the excavated area and beyond. The exposed part of the recut gully measured just over 10m along its length, which notably curved towards the north-east. Pottery from the recut was similar to that found in the initial cut.

At its western end, gully 309 came close to abutting feature 311. This feature was fairly irregular in plan, measuring approximately 1.7m wide by 5.3m long. It respected the western terminus of gully 309 and it was positioned close to the possible entrance of the phase 2 enclosure defined by ditch 308. Pottery from two interventions date the feature 311 to the 2nd century. The feature may have been associated with the 3rd-century use of the later-phased enclosure, perhaps blocking the entrance. Thus, although the relationship between the two was not clear, the early phasing of 311 is dubious.

Pit 254 may have been associated with gully 309 owing to its proximity. The pit was oblong in plan, measuring 1.4m long. It reached a shallow depth of 0.18m but contained two fills. The first was a dark, charcoal-rich clay, representing a dump of burnt material, containing a small amount of 2nd-century AD pottery (Fig. 7). Two large stones were set on the base in the north-eastern side of the pit and these were overlain by a deposit of brown clay containing a small lump of burnt clay.

Pits and other internal features

Several pits, including two intercutting groups of pits, were discovered within the double-ditched enclosure. Pottery recovered from many of these features suggest that they were in use during the 2nd century AD. Pit group 316 was located close to the northern side of the enclosure, where it was cut by medieval field boundary 306. This group consisted of at least five pits (Fig. 6, sections 35 and 36; Fig. 8). The earliest, pit 122, was also the deepest and its upper part was almost completely cut away by the later pits, surviving only on the south-eastern side. Pit 122 reached 0.68m deep and contained a basal silt overlain by a thick layer of dark silty clay with a few large stones and pottery dating to AD 70–200. The pit was in turn cut by pit 125, a much shallower (*c* 0.25m) and probably wider feature measuring at least 1.8m across. Pit 125 was then cut by three pits, 128, 132 and 146. There was no stratigraphic relationship between these three pits and the sequence in which they were dug is not known. Each was circular or sub-circular in plan. The smallest (132) measured 0.68m across and 0.24m deep, while the largest (146) extended over 1.5m, reaching 0.42m deep. All three pits contained multiple fills, suggesting that they had silted up rather than been deliberately backfilled. Of the three, only pit 146 contained pottery, this dating to AD 100–150. Pits 122, 125 and 146 were all cut on their eastern sides by the medieval ditch (cut 135), itself truncated by a modern field drain.

Feature 317 was located in the south-eastern quarter of the enclosure. It consisted of a thin spread (157) of soft brown silty clay containing several small stones, which was cut through by two possible postholes (155 and 158). Layer 157 was sub-oval in plan, measuring 1.4m long. It was only 0.08m thick but was clearly differentiated from the surrounding natural. The two possible postholes were dug into the north-eastern and north-western edges of layer 157, their positions suggesting that the three were related (Fig. 6, section 40). Postholes 155 and 158 measured 0.83m and 0.52m across, respectively, and both were approximately 0.2m deep. Posthole 155 was fairly shallow with gently sloping sides, while the profile of 158 had slightly steeper sides and a flat base. Both postholes produced a small amount of pottery dating to the 2nd century AD and sizable quantities of cereal grain and chaff, while posthole 155 also contained 21 hobnails.

Another thin, but more extensive spread of material (243), a dark grey silty clay, was discovered about 13m south of feature 317. Spread 243 measured just over 5m long, but it was cut on its southern side by phase 2 ditch 307 and on its western side by phase 2 pit 248. The spread was only 0.08m thick and its function is uncertain. No finds were recovered from the feature. Two pits, 279 and 281, were identified immediately to the north of spread 243. Pit 281, the larger of the two, measured over 1m across, but much of it was cut by medieval field boundary 306 on its north-eastern side. The pit was fairly shallow at 0.22m deep, and had steep sides with a wide, flat base. It contained a single fill with pottery dating AD 100–150. Pit 279 was small, sub-circular pit, to the south-west of 281. It had a concave profile, measuring 0.74m across and 0.28m deep. The single silt fill of pit 279 produced a small amount of 2nd-century AD pottery.

Four more isolated features were located in the southern half of the enclosure. These include pits 56, 252 and 277 and posthole 58. Pits 252 and 277 were originally thought to be two tree-throw holes, owing to their irregular plans and profile. They also contained blackened debris, interpreted on site as the remains of burnt stumps. However, analysis of the environmental samples from both pits shows that they were associated with the final stages of cereal-processing and are thus likely to have been deliberately dug for this purpose. Pit 252 measured 0.4m wide and 0.05m deep, while pit 277 had similar dimensions being 0.5m across and 0.06m deep. Their shallow depths indicate that both pits were heavily truncated. Both also contained small amounts of pottery spot-dated to AD 70–200. Pit 56 was 0.8m wide and 0.24m deep with a gently sloping southern side and a steeper northern side. Posthole 58 was found close to phase 1 gully 315. It was circular in plan, measuring 0.46m across, and it had steep sides and a flat base, 0.1m deep. Posthole 58 may have formed a pair with a similar, though unexcavated feature, 1.6m to its north.

Phase 2: 3rd–early 4th century AD

Activity continued into the 3rd century AD within the double-ditched enclosure, albeit at a reduced level, given the smaller quantities of pottery found of this date. The main feature dating to this phase included a trapezoidal ditch (308) that appears to have enclosed a cobbled surface and may have had some structural elements. Modification to the layout of the double-ditched enclosure includes the addition of two more internal ditches extending along the northern and southern sides.

Ditch 308 and associated features

Ditch 308 was positioned in the north-east quarter of the double-ditched enclosure. It had a trapezoidal layout, being longer along its western side (Fig. 9). The ditch did not complete a full circuit as the eastern side terminated abut 4m from the southern side, which also terminated just before reaching cobbled surface 222 (see below). The ditch enclosed an area approximately 13m long, north–south, and 9m wide, east–west. The width of ditch 308 varied along its length from 0.42m to 2.3m across (Fig. 10). It is clear that the feature had suffered from later truncation, particularly on the northern and eastern sides. Most interventions into the ditch showed that it contained one or two fills in most parts, through three fills were detected along the more substantial western side. An initial basal fill (176) found along the length of the western side of the enclosure showed that it had silted from the internal area (Fig. 9, section 47). Above the basal layer was a second fill (177) of compacted, charcoal-rich black silt. This represents a spread of burnt material that was deposited along almost the full length of the western side of the enclosure.

The uppermost fill (178) consisted of frequent cobbles, some fairly large, and pottery sherds. It became clear that this was part of, or had dispersed from, a deliberately laid cobbled surface that survived to its greatest extent in the south-western corner of the enclosure, where it was found to overlay ditch 308 (Fig. 9, section 56). Here, this surface (numbered 210) was found to extend *c* 8.5m north–south and as far as 4.7m east–west. The thickness of the surface was fairly uniform throughout, reaching a maximum of 0.15m. It consisted of numerous cobbles and some 2nd-century pottery within a brownish-yellow clay matrix. It seems likely, given the extent of layer 210 and the signs of truncation around the northern and eastern sides of ditch 308, that the cobbled surface originally covered the entire internal area within the enclosure.

Cobbled surface 222 was located adjacent to the eastern terminus of ditch 308 along the southern side of the enclosure (Fig. 9, section 60). This surface covered a sub-rectangular area of 1.2m by 2.5m. It is uncertain whether this surface was part of cobbled spread 210, or was a separate feature associated with the entrance to the enclosure.

Two postholes were found within the enclosure. Posthole 239 (phase 1) was adjacent to ditch 308 along the eastern side of the enclosure. It was 0.82m wide and 0.09m deep with a broad, flat base. Posthole 211, in contrast, was more centrally positioned and was found to cut cobbled surface 210 (Fig. 9, section 56). The posthole was 0.44m wide with a steep profile that reached 0.26m deep. It contained several large cobbles, presumably for post-packing, though no dating evidence was recovered. The presence of these features suggests the presence of posts within the enclosure, though there is no clear evidence for a structure.

Dating of the enclosure is evidenced by pottery from the fills of ditch 308. A sizable number of sherds, mostly of the 2nd century AD, was recovered from several interventions. However, the crucial piece of evidence derives from a basal fill (180) of the ditch along the western side of the enclosure (this fill is the same as 176; see Fig. 9, section 47). Sherds from a dark grey, BB1-type, plain-rimmed dish dating to AD 180–350 indicate that the enclosure ditch could not have started to silt up much before the end of the 2nd century, and it is perhaps more likely to have been in use in the 3rd century.

Ditches 18 and 307

Ditches 18 and 307 extended parallel and internally to the northern and southern sides of the double-ditched enclosure. Both ditches were found to lie 2.5–3.0m from ditch 305, and both terminated 22–24m from the western side of the enclosure. Ditch 307 extended over 50m from its terminus to the eastern edge of the excavated area, cutting phase 1 features 277, 314 and 243 along the way, as well as being truncated by medieval boundary ditch 306. Ditch 18 did not extend as far; its line was traced for just over 23m before being lost to the north of enclosure ditch 308. It is uncertain whether ditch 18 terminated here or was lost due to truncation. Ditch 18 was generally narrower and shallower than 307, which suggests that it had been truncated to a greater degree. Dating evidence was more abundant from ditch 307, much of which was 2nd century, though three intervention also produced pottery that was clearly of 3rd-century origin. The positions and layout of both ditches strongly suggests that they were dug at the same time, modifying and reducing the internal area of the enclosure.

Other internal features

Two pit groups, 310 and 318, were discovered close to the eastern edge of the excavated area. Pit group 310 consisted of four intercutting pits. The earliest in the sequence were pits 296 and 300. The former was cut by pit 298, while the latter was cut by pits 298 and 302. Pits 300 and 302 were both fairly small, concave features, no more than 0.6m across and 0.18–0.28m deep. Pits 296 and 298, in contrast, were fairly wide with flat bases, measuring 1.08m and 1.58m respectively, but being no deeper than their smaller counterparts. Three of the pits produced ceramic dating evidence, perhaps most notably pit 296 which produced sherds of a plain-rimmed dish dating *c* AD 180–400. Pit 300 contained an iron punch or graver.

Pit group 318 lay immediately west of 310 and was formed of three pits (290, 292 and 294). The relationships between these pits were not clear, though they each had very similar shallow profiles, no more than 0.9m deep. Pottery was not as abundant as that recovered from pit group 310, though some sherds were spot-dated to AD 70–200+. The proximity of these pit groups to each other suggests that they may have been broadly contemporary and possibly related.

Pit 248 was found adjacent to ditch 307 along the southern side of the double-ditched enclosure, where it cut phase 1 spread 243. The pit was circular in plan, measuring 0.78m across. It had a sloping, concave profile reaching 0.2m deep and its single fill contained a base sherd from a Lower Nene Valley colour-coated vessel spot-dated to AD 170–350.

Phase 3: Medieval

Phase 3 was represented by medieval field boundary 306 (Fig. 4). This feature extended NW–SE across the full width of the trench cutting across the Roman enclosure. The alignment of this feature was revealed by geophysical survey bounding a series of parallel ridge-and-furrows to its south-west and another group to the north-east that were that were orientated roughly perpendicular to the boundary (Fig. 2). The medieval ditch contained only residual early Roman pottery, notably where it cut Roman pit 281. None of the ridge-and-furrows were observed during excavation and these must have been extant within the topsoil and subsoils overlying the site.

Unphased features

Probable Roman features

Six features present within the double-ditch enclosure could not be phased but are likely to be Roman. These include gullies 83, 153, and 189, pits 84 and 313, and tree-throw hole 241. Gullies 83, 153, and 189 were all short features located amongst the concentration of Roman features in the south-eastern quarter of the enclosure. These were similar in size and profile to gullies 195, 314 and 315, and may have been associated with them or had similar functions.

Pits 84 and 313 were both located in the north-eastern corner of the enclosure. Pit 313 was recut twice more, suggesting that it was reused for a certain purpose. However, both features were sterile and could not be dated. Tree-throw hole 241 was also sterile.

External features

Four ditch or gully sections, two pits and a posthole were exposed to the south of the double-ditched enclosure. The fills of all these features were sterile and thus could not be dated. It is possible that some were contemporary with the Roman enclosure, representing limited activity outside its boundary. However, the presence of medieval ridge-and-furrow in this area should not rule out the possibility that these features were in fact post-Roman.

ROMAN POTTERY

by Rob Perrin

Introduction

Some 828 sherds, weighing 11,780g with a rim EVE of 10.19 were recovered from 70 contexts in 60 features. Around 93 separate vessels were identified in total. The condition of the pottery is mixed with a mean sherd weight of 14g suggesting a fragmented assemblage, although there are six vessels represented by numerous sherds. Many sherds are abraded with surfaces, especially on the samian and colour-coated wares, being worn away. The pottery appears to date mainly from the mid-1st to later 2nd century with some later 3rd and possibly 4th century material.

Methodology

The assemblage was sorted into fabrics within context groups with sherds quantified by sherd count, weight (in grammes) and estimated vessel equivalence (EVE), based on rims. Vessel types were identified primarily from rims. An attempt was made to relate the fabrics and vessel codes to OA's recording guidelines for late Iron Age and Roman pottery (Booth nd). Imported continental pottery and regionally traded wares were coded according to the National Roman Fabric Reference Collection (Tomber and Dore 1998). All pottery tables are presented in Appendix A.

Features, phases and groups

There are three main feature categories, together with a spread and a tree-throw. Table 2 shows the feature category quantification, with much of the pottery coming from ditches. The features are divided into 14 groups in three phases. The phase 3 ditch is associated with medieval ridge-and-furrow and the Roman pottery in it is therefore residual. The other two phases contain similar amounts of pottery (Table 3). Table 4 shows the feature group quantification. Phase 1, group 304 and phase 2, group 308 contained the most pottery by weight, with phase 1, group 305 and phase 2, group 315 also produced over 1kg of pottery.

Fabrics

OA's Roman pottery codes are detailed, and largely region-specific, so general categories are used for this pottery from this site. Table 5 shows the fabric range and quantities.

Composition of the assemblage

Reduced grey wares account for nearly two-thirds of the assemblage by sherd count and almost half by weight. Shell-gritted wares comprise another quarter by sherd count and around 40% by weight, although over half the latter figure is represented by numerous sherds from one large storage jar. Of the 93 possible vessels, 16 were in shell-gritted wares, 53 in various reduced wares, eight (possibly 10) from the Lower Nene valley and nine in samian ware. The vessels include 60 jars of various types, 16 bowls or dishes, two cups, five possible flagons, a possible lid, a possible amphora and a cheese-press.

Amphora

Some large coarse buff ware sherds from two fills of phase 2 ditch 308 (cuts 179 and 220) may be part of an amphora. A later 1st to 2nd century date seems likely for these. One of the sherds has a lead rivet

Shell-tempered wares

The large shell-gritted storage jar is reddish-brown in colour with a grey core and the fabric contains occasional limestone lumps. Most of the vessel occurs in phase 1 ditch 304 (fills 43 and 49, cut 48) but there are two sherds probably from the same vessel in phase 2 ditch 308 (fill 74, cut 72). The vessel is probably of mid–late 1st-century date and may have been used as a cremation urn. The most noticeable shell-gritted ware is a distinctive black-coloured fabric that is almost certainly Bourne-Greetham shelly ware (BOG SH). It accounts for over 20% of the pottery by sherd count and 15% by weight and occurs in both phase 1 and 2 features. The forms are mainly of jars, though there are numerous sherds from a straight-sided dish with a triangular rim (fill 147, pit 146 of phase 1 group 316). Similar vessels occurred in the Greetham, Rutland kiln (Bolton 1967–8, 1–2, 7–10, fig. 1) which is located some 15km to the south-east. Dating evidence for this fabric is limited, but it may be mainly of 2nd-century date (Perrin 1996, 136).

Grog-tempered wares

The few grog-tempered sherds are fairly evenly distributed between phase 1 and phase 2 contexts. The only vessel is a jar from pit 298 (fill 299 of phase 2 group 310). The ware is mainly mid-1st century in date and is therefore residual in phase 2 contexts.

Fine wares

The assemblage contains two sherds (6g) of a buff colour-coated ware with a dark grey-brown fabric and one sherd (9g) of a reddish-yellow colour-coated ware with a red colour-coat. The source of these is uncertain, although the latter, from a beaker, may be an Oxfordshire product (OXF RS) and the former from the Lower Nene Valley or Lincolnshire. Neither date earlier than the mid–late 2nd century and phase 2 ditch 307 and phase 1 gully 315, respectively.

The Lower Nene Valley colour-coated ware (LNV CC) vessels comprised two beakers, a beaker or flagon and a wide-mouthed flat-rimmed dish. One of the beakers is a small, globular vessel with a square rim and is decorated with barbotine dots and scrolls and neck grooves. The other beaker has a cornice rim, and both vessels are likely to be of mid–late 2nd-century date. The beaker or flagon is represented by a complete base. The wide-mouthed, flat-rimmed dish is unusual and of uncertain date, though it is unlikely to be earlier than the late 2nd century. The possible LNV CC is an omphalos base sherd with a grey colour-coat. It may be from a vessel imitating a samian-ware dish form. A late 2nd- to early 3rd-century date is probable with most of the LNV CC coming from phase 2 contexts and groups.

Samian wares

The 23 samian-ware sherds are from south (LGF SA) and central (LEZ SA 2) Gaul, though the source of two sherds is not completely certain. The vessel forms in LGF SA are a Dr. 18/31 dish and, possibly, a Dr. 33 cup. Those in LEZ SA 2 are two Dr. 18/31 dishes, three Dr. 31 dishes and two cups, one a Dr. 27 and the other a Dr. 33. The date range of the samian is later 1st to mid-2nd century but most come from phase 2 contexts.

White and other oxidised wares

The white wares comprised two sherds of Lower Nene Valley white ware (LNV WH) and two possible LNV WH sherds. The other oxidised wares include two in buff ware, two of a coarse buff ware, three in a reddish-yellow ware, and three in a coarse reddish-brown ware. The LNV WH and possible LNV WH sherds are probably all from flagons and some may be from the same vessel. Two of the reddish-yellow ware sherds are from a long, thin, tubular handle from a flagon or a vase and two of those in the reddish-brown ware form a complete jar base; the other sherds are of uncertain forms. All the LNV WH and oxidised wares are probably of 2nd-century date. They occur in both phase 1 and 2 groups, though most of the LNV WH are in phase 2 and the other oxidised in phase 1.

Reduced wares

The reduced wares are various grey, dark grey and black wares. The fabrics vary in coarseness and, within the main grey category, in colour, with some sherds being more brown, greyish-brown or brownish-grey. Fabric cores also vary with some sherds having reddish-brown or

pale grey cores. Jars account for 42 of the 53 vessels. These have various rim types, including curved and everted, and neck lengths. Some vessels have neck or shoulder grooves and one dark grey jar has a girth band of notches between grooves. Other forms are a fine grey ware jar or beaker, a possible lid, a bowl which might be a carinated form, a bowl or dish, a bead-rimmed bowl and a wide-mouthed bowl with an undercut rim. There are also sherds from a cheese-press including one from the vessel wall with a cut square hole and three plain-rimmed dishes, one in brown and two in dark grey fabrics; one of the dishes is reminiscent of Dorset black-burnished ware (DOR BB 1) vessels. Grey wares were produced and used throughout the Roman period and occur in both phase 1 and phase 2 groups. Of those in this assemblage, the plain-rimmed dishes, all from phase 2 groups, are later 2nd- to 4th-century types.

Chronology and context

Phase 1

The first and main phase includes the rectangular double-ditched enclosure and some internal activity. Table 6 shows the phase 1 fabrics. The date range of this material is mainly later 1st to 2nd century AD, though the C10L is more likely to be mid-1st century. Table 7 shows the amounts of pottery from the phase 1 groups.

Ditch 304

Several interventions into the outer enclosure ditch produced pottery, including cuts 21, 31, 44 and 48 in the northern arm and 137 and 269 in the southern arm (Table 8). Those in the northern arm contained 24 sherds (250g) of various grey wares (R20, R20/29; R30; R30/37), a grog-tempered sherd (E90, 14g), BOG SH (32 sherds, 255g) and all the other shell-gritted ware (C10L), including the large storage jar which may have been used as a cremation urn. The other vessels are all jars.

Ditch 305

Inner enclosure ditch 305 produced pottery from cut 28 in the northern arm, cut 26 at the corner of the northern and western arm, cut 92 in the western arm and cuts 118, 140, 266 and 288 in the southern arm. Cut 28 contained a sherd (27g) of LNV WH, possibly from a flagon, cut 26 just three grey ware (R20/29) sherds (17g) and cut 92 two grey ware (R20) sherds (5g). Cuts 118, 140, 266 and 288 in the southern arm collectively contained 122 grey ware (R20; R30) sherds (958g) and one sherd each of BOG SH (8g), LEZ SA 2 (31g) and LNV CC (6g). The last is from a beaker, the samian ware is a Dr. 31 dish and the other vessels are all jars.

Gully 309

This small curving feature produced pottery from four interventions (cuts 197, 199, 201 and 217). Cut 197 contained one BOG SH sherd (21g) and cut 199 one sherd each of grey ware (R30) and BOG SH (4g and 2g, respectively) and two sherds (13g) from a LEZ SA 2 dish. Cut 201 just has a coarse dark grey ware (R20) sherd (13g) and a BOG SH sherd (7g) while cut 217 had the most pottery, comprising four grey ware (R30) sherds (109g) from two jars, the two reddish-yellow ware (O10) sherds (46g) from a long, thin, tubular handle from a flagon or a vase, a grog-tempered ware (E90?) sherd (31g) and a shell-gritted ware (C10) sherd (97g).

Feature 311

This possible pit located in the 'entrance' to the small central phase 2 enclosure produced pottery from cuts 223, 225 and 235. Of these, cut 225 contained a sherd (38g) of LEZ SA 2 from a Dr. 31 dish. Cut 223 contained four various grey ware (R20/29; R30) sherds (46g), including two jars, one reddish-brown (O20?) sherd (5g), three BOG SH sherds (9g) and two LEZ SA 2 sherds (7g). Cut 235 produced 18 sherds (212g) of grey ware (R20; R20/29; R30/37) including a jar, and four sherds (43g) of BOG SH.

Pit group 316

Pit 122 contained three grey ware (R30) sherds (9g), 125 contained three grey ware (R20) sherds (22g) and 140 contained one dark grey ware (R20) sherd (2g) and 25 sherds (392g) from the BOG SH triangular-rimmed dish.

Pit group 317

Pit 155 only had one sherd (5g) of grey ware (R20) while pit 158 contained one coarse dark grey ware (R20) sherd (1g), two grey ware (R30) sherds (2g) plus three BOG SH sherds (43g) from a bead-rim jar.

Other features

Table 10 shows the fabrics present in several other phase 1 features. Six pits or postholes—56, 58, 252, 254, 277 and 281—only contained pottery of one fabric. That in pit 56 was a grog-tempered (E90) sherd (2g), while four sherds (4g) of BOG SH were in posthole 58. Pit 254 contained a sherd (11g) from a grey ware (R20) jar with neck grooves. Pit 277 contained one grog-tempered (E90) sherd (2g) and pit 281 contained one sherd (14g) of BOG SH. Pit 252 had one sherd (7g) from a dark grey ware with a pale core (R30/37). Pit 239 contained 13 sherds weighing 47g, comprising six sherds (16g) of grey ware (R30), one (2g) of coarse dark grey ware (R20), one (4g) in buff ware (O10) and five LGF SA sherds (25g) from a Dr. 18/31 dish. Pit 279 had five sherds weighing 26g. Three sherds (18g), including some from a jar, are in a coarse grey ware (R20) and the other two sherds are in a dark grey ware (R30/37) with a pale core (7g) and Lez SA 2 (1g).

Phase 2

Phase 2 features contained much pottery of later 1st- to 2nd-century date, but the increased amount of LNV CC, together with some of the vessel types in other fabrics, suggests that these deposits were of a later date in the 3rd or possibly early 4th century (Tables 11 and 12).

Ditch 18

One intervention into this ditch (cut 12) contained pottery, comprising three sherds (84g) of a globular grey ware (R30) jar.

Ditch 307

The corresponding ditch near the south side of the double-ditched enclosure produced pottery from five interventions (cuts 100, 102, 245, 271 and 275) (Table 13). These included a BOG SH bead-rim jar, two, possibly three, grey ware (R30) jars, the complete base of a jar in coarse reddish-brown ware (O20?), a complete possible flagon base in LNV WH?, a

complete LNV CC flagon or beaker base and jars in coarse grey ware (R20) and a dark grey ware with a pale core (R30/37).

Surface 210

A total of 11 sherds were recovered from the cobbled surface within enclosure (ditch) 308. These comprised two (28g) of a pale fabric LEZ SA 2 from a Dr. 18/31 dish and a Dr. 27 cup, four (57g) from a grey ware (R30) jar, three (57g) from another jar in a dark grey ware with a pale core (R30/37), one sherd (2g) from a grey ware with a pale core (R30/37) and a complete BOG SH jar base (198g).

Ditch 308

Pottery was recovered from 13 interventions across ditch 308 (Table 14). Cut 160 contained seven sherds (23g) of a fine grey ware (R10), possibly from a jar, and three sherds (75g) from a bowl or dish in a dark grey ware with a pale core (R30/37). Cut 72 had 32 sherds weighing 568g (Table 15). The vessels comprised a shell-gritted (C10) storage jar base, sherds apparently from the same large shell-gritted (C10L) storage jar (seen elsewhere in phase 1 ditch 304), an omphalos base probably from a dish or bowl in possible LNV CC, a jar and a plain-rimmed dish in a dark grey ware (R30), and a possible lid in a brown-coloured ware (R30).

Cut 166 produced 15 sherds weighing 285g of which four (5g) were of BOG SH, one (55g) from a LNV WH flagon, seven (211g) from a jar, including a complete base, in a dark grey with a reddish-brown core (R20/29), two (4g) in a coarse grey ware (R20) and one (10g) in a grey ware with a pale core (R30/37). The four cuts along the western arm together contained 66 sherds weighing 1541g (Table 16).

The two possible amphora sherds included one with a lead rivet. The other forms were two BOG SH jars, a LNV CC wide-mouthed, flat-topped dish, a possible LNV WH flagon, two grey ware (R30) jars, of which one had numerous sherds, a coarse dark grey ware (R20) DOR BB1-type plain-rimmed dish, a bead-rimmed bowl in a dark grey ware with a pale core (R30/37) and a wide-mouthed bowl with an undercut rim in a grey ware with a pale core (R30/37). The three cuts along the eastern arm together contained 38 sherds weighing 372g (Table 17).

The BOG SH vessel was a jar. The LNV WH vessel is a possible flagon. The others are a grey ware (R30) jar, a fine grey ware (R10) jar or beaker and a jar in a grey-brown ware with a reddish-brown core (R20/29). The three cuts along the southern arm only contain 27 sherds (241g) of which 20 (173g) are in a coarse buff ware (O20), possibly from an amphora. The other seven sherds are one (4g) from a BOG SH jar, three (36g) from a coarse grey ware (R20) jar, two (17g) from a grey ware (R30) jar and one in a grey ware with a pale core (R20/29).

Pit group 310

The 11 sherds (119g) in this pit group comprised three grey ware (R30) sherds (14g), including some from a jar, one (4g) from a grog-tempered ware (E90) jar, four (85g) from a plain-rimmed dish in a in a coarse brown ware (R20), one (6g) in BOG SH and two (10g) in a coarse black ware (R20/27).

Gully 315

This assemblage comprised 106 sherds weighing 1039g (Table 18). The vessels present were a near-complete colour-coated ware (F60) beaker base, a LNV CC cornice-rim beaker, a jar and a possibly carinated bowl in grey ware (R30), a jar in a dark grey ware with a pale core (R30/37) and three jars in coarse grey and dark grey ware (R20); one of these has a girth band of notches between grooves.

Isolated pits

Pit 292 (Group 318) produced one sherd (8g) of grey ware (R30). Pit 248 contained 62 sherds weighing 372g, of which 45 (217g) were from a short-necked jar, including the complete base, in a coarse grey-brown ware with reddish-brown core edges (R20/29). Another nine (118g) were in a coarse grey ware (R20), two (14g) in LNV CC, two each of BOG SH (4g) and probable BOG SH (15g). The other two were of a pink-buff ware (O10) and a grog-tempered ware (E90).

Phase 3

Medieval ditch 306 contained 11 sherds weighing 70g of residual Roman pottery from one intervention (where the ditch cut pit 281). This comprised two sherds (17g) of BOG SH, some from a bead-rim jar, a sherd (6g) of coarse buff ware (A30) which might be from an amphora, a sherd (6g) of possible LGF SA from a Dr. 33 cup, a sherd (9g) of LEZ SA 2 and six sherds (32g) of coarse grey and dark grey ware (R20).

Discussion

The relatively low mean sherd weight and abraded nature of some of the pottery suggests a fragmented assemblage where the material had been disturbed before deposition. The fact that fine wares accounted for only around 5% of the total assemblage, and that two-thirds of the vessels were jars of various types, suggests that much activity at the site was of a fairly basic utilitarian nature. The occurrence of bowls or dishes, cups, possible flagons, a possible amphora and a cheese-press, however, hints at more domestic aspects. There were more fine wares and 'domestic' vessels in phase 2 features than in phase 1, perhaps indicating that this element increased in the later period. Six vessels were reasonably intact or represented by numerous sherds. These comprised two jars and a triangular-rimmed dish in BOG SH, two grey ware (R30) jars and the shell-gritted (C10L) storage jar. There were also 12 complete or near-complete bases which were perhaps deliberately selected for deposition rather than simply thrown away after breakage.

No Roman pottery kilns are known in the vicinity of Melton Mowbray. Kilns have been found in Leicester, around 25km to the south-west and others are known at Burley, Market Overton and Greetham in Rutland, all less than 20km from the site (Swan 1984, 141, 146–7). A Roman road between Six Hills, Leicestershire and Grantham, Lincolnshire, runs less than 10km to the north (Margary 1967, 222, 58a), and at Six Hills this joins the Foss Way between Leicester and Lincoln (ibid. 219, 5f). The road is joined by another running to the east of the site, north of the Greetham area (ibid. 223, 580). A grey ware jar (R20/29) with a slightly warped rim occurs in fill 45 of ditch 304. While this alone is not sufficient evidence for pottery manufacture on site, it does suggest that there may have been production in the area.

Illustrated pottery (Fig. 11)

1. Jar. Grey. R30. Context 218, phase 1, Group 309, Ditch cut 217.

2. Bead-rimmed bowl. R30/37. Dark grey, pale core, coarse. Context 176, phase 2, Group 308, Ditch cut 175.

3. Plain-rimmed dish. R30. Dark grey. Context 74, phase 2, Group 308, Ditch cut 72.

4. Cheese-press. R20/29. Grey, reddish-brown core. Context 71, phase 1, Beamslot/Gully 70.

5. Bead-rim jar. Shell, black - BOG SH. Context 174, phase 2, Group 308, Ditch cut 171.

6. Dish, triangular rim. Shell, black - BOG SH. Context 147, phase 1, Group 316, Pit 140.

7. Dish, wide-mouthed, flat-topped. LNV CC. Context 178, phase 2, Group 308, Ditch cut 175.

8. Flagon/Vase. Reddish-yellow. O10. Context 218, phase 1, Group 309, Ditch cut 217.

FIRED CLAY

by Cynthia Poole

A single fragment (47g) of fired clay was recovered from fill 218 of curvilinear gully 309. The piece is made in a reddish-orange sandy clay containing quartz, a little mica sand, grits of iron-oxide up to 3mm, coarse chalk/limestone and burnt flint up to 8mm in size. It has two joining, roughly moulded surfaces forming the corner angle of an object, perhaps part of a triangular perforated brick though, there are no diagnostic features that can confirm this. There are no complete dimensions, but the fragment measures 35mm thick, 40mm wide and 58mm long.

The item was found in a fill that was spot-dated to the first half of the 2nd century AD. Triangular perforated bricks originated in the Iron Age and continue in use into the early and middle Roman periods, though it is less common to find them on Roman sites without native antecedents. These are often referred to as loom-weights though they are commonly found associated with burnt debris and are more likely to be some form of oven or hearth furniture. Five indeterminate scraps (15g) of fired clay were also recovered from sieved samples from two middle Roman pits 277 and 248.

COINAGE

by Paul Booth

The sole coin from the site is a sestertius of Antoninus Pius (AD 138–161), which derives from the single fill (287) of the outer enclosure ditch 304. The coin is worn, and the surfaces are almost entirely eroded (Fig. 12a). The reverse, which is more heavily worn, has a standing figure. The legends are almost entirely lost, except for a single letter (V) just to the right of the top of the emperor's head. The position of this letter indicates that the legend is broken at this point, which is consistent with (for example) a legend such as ANTONINVSAVGPI VSPPTRPCOSIII, widely found on sestertii of Antoninus, of which RIC 742 (with the well-known Britannia reverse) is but one example. This legend break does not seem to have been used before the COS III issues, in which case a date of AD 140 or later can be assigned (the break is

also found in some COS IIII issues (AD 145 onwards), which potentially extend its use to the end of the reign in AD 161.

METALWORK

by Ian R Scott

Introduction

The metal finds comprised 38 objects including 29 hobnails. The finds have been fully recorded with description and measurements, where appropriate, according to context and phasing. The full dataset is held in archive.

Phase 1

Finds from phase 1 features comprise 21 hobnails and single nail from pit 155 and one nail from pit 158 (Table 19).

Phase 2

Finds from phase 2 features include a possible iron punch or graver from pit 300 (group 310) comprising a bar tapering to small cutting edge. There are seven hobnails and single nail from ditch 308 (cut 175), and a single nail from beam slot 315 (cut 229). A single hobnail and a fragment of iron rod or bar were recovered from layer 210 within enclosure 308. A fragment of a bent bar or nail was recovered from ditch 307 (cut 102).

Unphased

A well-preserved Polden Hill brooch was recovered from the subsoil.

Catalogue of selected finds

No. 1 Polden Hill brooch (Fig. 12b). Small example which probably originally had a hook to hold the chord of the spring in place. The spring and pin now are missing. Cu alloy. L: 35mm; W: 22mm. Context 2, subsoil. Later 1st–early 2nd century AD.

No. 2 Possible punch, comprising bar that tapers to a probable cutting edge. Fe. L: 88m; W max: 11mm x 13mm. Fill 301, pit 300, group 310. Phase 2.

SLAG

by Leigh Allen

A single fragment of undiagnostic slag weighing 3g was recovered from the single fill (249) of phase 2 pit 248. This feature was spot-dated to AD 170–350. The small fractured piece has no diagnostic surface morphology and although indicative of ironworking it cannot be used to distinguish between smithing or smelting.

WORKED STONE

by Ruth Shaffrey

A total of seven fragments of stone were retained and submitted for analysis, though only two of these are likely to be from artefacts. A fragment of sandstone with slightly curved worn faces was found in ditch 308 (cut 179). Its worn faces suggest that it was used as a palette or a whetstone. A second piece of worked sandstone with incised parallel lines around the circumference, was recovered from pit 248. It is too incomplete for function to be determined, but the decoration suggests it was intended to be seen and it could be a fragment of a decorative weight.

Catalogue

Unknown item (Fig. 12c). Sandstone. Curved piece of stone with four parallel scored lines around the curved edge. Function unknown. Fragment measures >54mm x >35mm x >22mm. Weighs 62g. Context 249. Fill of pit 248. Phase 2, 3rd–early 4th century.

Possible hone or palette. Sandstone. Almost flat stone with slightly curved parallel faces, both worn, suggesting some use. Measures >78mm x >80mm x 10–17mm thick. Weighs 186g. Context 182. Fill of ditch 308 (cut 179). Phase 2, 3rd–early 4th century.

WORKED FLINT

by Mike Donnelly

The excavation yielded five worked flints and three pieces of burnt unworked flint weighing 8g. The assemblage was in a varied condition. No context produced more than a single worked flint. However, two of these contexts—a fill of ditch 305 (cut 77) and the fill of posthole 158—also contained burnt unworked material. Two pieces were flakes typical of later prehistoric knapping assemblages with hard-hammer bulbs, thermal platforms and squat forms. Another tool was also typical of this industry and had been fashioned on a domed pot-lid thermal fracture, which had been modified around one third of its circumference into a crude end scraper. One flint was undiagnostic, but the final one consisted of a quite fine, naturally backed knife on a preparation flake with well-executed and occasionally parallel invasive retouch down its left edge. While it not inconceivable that this knife could be later prehistoric in date, a Neolithic or early Bronze Age date is much more likely.

Overall, this small assemblage indicates very limited flint use in the area during later prehistory, including the expedient use of naturally broken flint to produce very basic tool forms. The casual loss of the earlier prehistoric knife indicates very limited activity probably during the Neolithic or early Bronze Age.

ANIMAL BONES

by Martyn Allen

Introduction

A small assemblage of 130 animal bones were recovered from the site, including both hand-collected and sieved samples. The assemblage contained mostly cattle bones, though sheep/goat, pig and horse bones were also present, as was the canine tooth of a puppy or a small mustelid.

The assemblage was generally well preserved and there was minimal evidence of extensive butchery practices, though modern breakages were fairly common. No articulated remains were encountered, and the small number of animal bones suggest that domestic activity in the form of livestock processing and meat consumption was limited.

Methods

The animal bones were recorded at OA South using the in-house reference collection to identify taxa and elements. Refitted animal bones fragments (those with modern breaks) were counted as single specimens. Body side was recorded where possible and specimens were zoned according to the part of the bone present following the method of Serjeantson (1996). Evidence of epiphyseal fusion or non-fusion was recorded, and estimated ages used the data presented by Sisson and Grossman (Getty 1975). Dental wear was recorded using Grant's (1982) criteria and absolute ages were estimated according to Jones (2006) for sheep and Jones and Sadler (2012) for cattle. Bones were measured where possible following the specifications of von den Driesch (1976). Evidence for butchery, burning, gnawing and pathology were recorded at a basic level. All associated data are held in the archive.

All the animal bones were recovered from Roman features though no attempt has been made to separate material into phases 1 and 2 given the small assemblage size and narrow chronology of the archaeology. One bone was recovered from the medieval furrow, though this is not considered any further in this report.

Results

Taxa representation

Cattle remains were the most common, represented by 25 specimens, followed by 13 specimens of sheep/goat, five each of pig and horse, and one puppy or small mustelid tooth (Table 20). Non-identifiable specimens, either large- and medium-sized mammals, included long-bone shaft fragments, vertebrae, ribs and a few skull fragments. It is expected that all these derived from the main domestic livestock otherwise identified. Very little can be said about the relative proportions of the taxa present, and the assemblage is no doubt affected to some degree by fragmentation, preservation and recovery biases.

Provenance

The assemblage was primarily recovered from ditch fills, which produced 96 specimens compared with 32 from pit fills and two from spread 210 (the internal surface of phase 2 enclosure 308) (Table 21). No single feature produced animal bones in large quantities, the highest number (19) deriving from the outer enclosure ditch 304. None of the ditches produced concentrations of material.

Body parts

Cattle remains comprised a range of elements, including head (horncore, mandible and teeth) and trunk bones (ie neck vertebra), long bones (humerus, radius, femur and tibia) and foot bones (metapodials and phalanges). There was no evidence for any preference for specific body parts. Sheep/goats were represented by teeth, skull and foot bones, plus tibia and radius specimens. Pigs were represented by mandible and teeth specimens and a tibia. Horse bones included a radius, a tibia, a metatarsal and a first phalanx.

Ageing

Evidence of epiphyseal fusion/non-fusion was limited, though all the skeletal material was found to be fused where it was observed. However, a cattle tibia from phase 2 ditch 307 and a cattle metatarsal from phase 2 ditch 308 were both thought to derive from juvenile/infant animals owing to the size and condition of the bones.

Dental ageing was equally limited. A lower third molar of a cow from ditch 308 was found to be fairly worn and was likely to derive from an animal over eight years of age, while loose second and third molars from pit 311 were probably from a slightly younger animal 30–36 months old. Loose sheep/goat first, second and third molars from ditch 304, all probably from the same animal, were quite worn and were probably from an animal aged over 7–8 years. A single pig mandible included an erupting but unworn third molar, almost certainly from an animal less than two years old.

Livestock size

Very few animal bones could be measured. The greatest length of a cattle metatarsal measured 218mm, falling mid-way within the range for cattle from late Roman rural sites in England (Allen 2017, 103, fig. 3.26).

Butchery

No butchery marks were found on any of the animal bones apart from chops observed on the base of a cattle horncore from ditch 308. Carcass processing is thought likely to have been undertaken with knives incurring very little heavy chopping.

Burning

Three bones were found to have been burnt to a black colour, including a cattle naviculo-cuboid (ditch 307) and two medium-sized mammal long-bone fragments (ditch 308 and pit 158).

Gnawing

Only two bones exhibited gnaw marks, both probably made by dogs. These included a sheep/goat tibia (pit 311) and a pig tibia (ditch 308).

Pathology

Signs of pathology were limited to a cattle metatarsal which exhibited extra bony growth around the proximal end. This appears to have formed due to pressure around the ankle joint

over a prolonged period of time, though it does not necessarily indicate heavy loading such a cart or plough pulling.

Summary

The limited animal bone assemblage provides a small window into livestock husbandry practices at the site. A lack of deep or otherwise extensive features means that very little faunal material in the form of carcass waste appears to have been deposited at the site, despite preservation conditions being fairly good. It is possible that the majority of carcass processing and disposal occurred elsewhere, though given the good evidence for cereal-processing (see below), it is perhaps more likely that animal husbandry was undertaken on a fairly small scale as part of a mixed agricultural regime. Meat consumption may have been relatively limited, perhaps only being eaten on special occasions, while secondary products such as dairy and wool could have been more important.

CHARRED PLANT REMAINS

by John Giorgi

Introduction

A total of 20 bulk soil samples were taken, all from Area 2, including nine from ditch fills, six from pit fills, three from posthole fills, one from a beam-slot/gully and one from a cobbled surface. Almost all the samples were from Romano-British features, 11 deriving from phase 1 (2nd century AD) features and eight from phase 2 (3rd–early 4th century AD) features. One sample was from an undated feature but was included in the analysis. Of the recovered samples, 18 were either fully analysed, partially analysed/partially scanned or just scanned for charred plant remains. The results have provided information on cereal husbandry and crop-processing activities at the site during the Romano-British period.

Methods

Sample sizes ranged from 5l to 36l with just over half of the samples being 30l or more. The samples were processed using a modified Siraf-type flotation machine with meshes of 0.25mm and 0.5mm for the recovery of the flots and residues respectively. The flots were then dried along with the residues which were sorted for biological and artefactual remains.

On the basis of a preliminary assessment of the environmental samples, 12 samples that were rich in charred plant remains were considered for fuller analysis (Cook 2019). The charred plant remains were sorted, identified and counted using a binocular microscope (with a magnification of up to x40) together with modern and charred reference material and reference manuals (Cappers *et al*. 2006; Jacomet 2006). Flots from four of the samples, which contained exceptionally rich assemblages, were sub-sampled, with as little as 1.56% from pit 277 to between 25% and 50% of the flots from the other three samples being sorted. In all four cases, the remaining flot fractions were scanned and species recorded along with their estimated item frequencies. Six other samples containing fairly good-sized charred plant assemblages were also scanned, and the presence and estimated frequency of individual species recorded. The following scale was used for estimated frequencies: + = 1–10; ++ = 11–

50; +++ = 51–100; ++++ = 101–250; +++++ = >250 items. Taxonomic order for the wild plants follows Stace (2005), which was also used for ecological data together with Hanf (1983) and Wilson *et al*. (2003).

Results

The charred plant remains from the 12 sorted samples are shown in Table 22 for phase 1 features and Table 23 for phase 2 features, while those for the six scanned flots are shown in Table 24. Large amounts and high densities of charred plant remains were present in all 12 analysed samples with over 5000 charred items being quantified in total. Cereal remains dominated the assemblages, mainly chaff fragments (73% of the quantified material) with fewer grains (24%). Other plant remains, mainly wild plants/weed seeds, made up just 3% of the total. These proportions, however, do not take account of variable amounts of very small unquantifiable grain fragments (<2mm) in all 12 samples and chaff fragments (<0.5mm) in six. There was relatively little charcoal in the flots.

Cereals

Cereal grains were recovered from all the samples, but preservation was generally poor with a high degree of fragmentation; 76% of the grains were not identifiable. Almost all the identifiable cereal grains were wheat (*Triticum*), which as present in all the samples. The small numbers of better-preserved wheat grains were mainly from hulled emmer and/or spelt wheat (*Triticum dicoccum/spelta*), recorded in 11 of the 12 samples. The cereal chaff, virtually all from hulled wheat, suggests that the majority, if not almost all the grains, probably belong to spelt wheat (*Triticum spelta*), with large amounts of spelt chaff in all 12 samples and only a little emmer (*Triticum dicoccum*) chaff in one sample. Over three-quarters of the hulled-wheat chaff fragments, however, could not be identified to species.

There were also occasional grains of free-threshing wheat (*Triticum aestivum/turgidum*-type), some being tentative identifications, in seven samples. This cereal was also identified on the basis of a single free-threshing rachis fragment. Other grains included traces of barley (*Hordeum vulgare*) in one sample and oat (*Avena*) in six. Oat was also represented by small amounts of awn fragments in eight samples. It was not possible, however, to establish whether the oat grains were from wild and/or cultivated species because of the absence of diagnostic floret bases. The charred remains in the scanned flots of six other samples also suggest that spelt wheat was the main cereal with only traces of free-threshing wheat and oat.

Current archaeobotanical evidence from other British sites also shows that spelt wheat (along with hulled barley) were the main cereal crops during the Romano-British period (van der Veen 2016; Greig 1991, 309), with spelt wheat being the dominant cereal in this part of the country (Lodwick 2017, 26). Sites in Leicestershire often show hulled barley to be of secondary importance along with occasional finds of emmer and free-threshing wheat (Monckton 2004, 59). The poorly represented cereals in the samples may have played at best only a minor role in the agricultural economy of the site or perhaps none at all given the paucity of remains. These grains were possibly incidentally harvested as relics from past crops grown in the same fields as the spelt wheat. The few oat grains may be weeds.

Spelt wheat has excellent baking and milling properties (Jones 1981, 107) and contains the proteins necessary for making a well-risen loaf (Cool 2006, 70). This cereal was also used for a very common gruel known as puls or pulmentus, not unlike modern Italian polenta (Renfrew 1985, 22). Spelt was also used for the production of malt for brewing which is usually indicated by the presence of sprouted grains and loose cereal coleoptiles both of which were present in several samples but only in very low amounts, probably a result of accidental germination from the storage of cereals in damp conditions rather than being indicative of malting activities.

Potential wild foodstuffs

There was very little evidence for other foodstuffs in the samples with the exception of traces of charred hazelnut (*Corylus avellana*) shell in one of the scanned samples and a possible charred fruit stone of sloe/bullace (cf. *Prunus spinosa*) in another, both of which may represent the residues of wild foods collected from shrubby/hedgerow/woodland habitats close-by.

Crop husbandry

There were only occasional or very small numbers of wild plant/weed seeds in the samples, many of which are probably from arable weeds given their presence in large cereal assemblages. Potential arable weeds included *Anthemis cotula* (stinking chamomile), identified in three samples, which is often found on calcareous heavy clay and clay loam soils (Stace 2005). The increased presence of this species on Romano-British sites more widely, including from Leicestershire, suggests an expansion onto clay soils during this period (Lodwick 2017, 37) perhaps facilitated by better ploughing equipment (Monckton 2004, 59).

The presence of small-seeded legumes including *Vicia/Lathyrus* (vetch/tare) and *Medicago/Trifolium* (medick/trefoil), both with low nitrogen values, may also indicate the cultivation of poorer soils, possibly the less-fertile loams found nearer the River Eye to the north-west of the site. Spelt is a fairly hardy crop and may be grown in a range of soils including drier and lighter soils as well as damp and heavier ones (Jones 1981, 106). However, the presence of *Rhinanthus minor* (yellow rattle) may point to the exploitation of hay meadows (Fig. 13d); this species is particularly sensitive to environmental conditions and is a plant distinctive of managed meadowland. Vetches and medicks/clovers are also common components of meadows.

Other charred wild plant remains included a few *Arrheneratheum elatius* var *bulbosum* (onion couch) tubers which along with root/rhizome fragments may be evidence of some harvesting by uprooting of cereals. These remains, however, could also result from the gathering of wild grassland vegetation or turves for use as fuel on site.

Discussion

Crop-processing

Table 25 shows the frequency and proportions of grains, chaff fragments and weed seeds in the 12 analysed samples highlighting the dominance of cereal debris in virtually all the samples. Chaff fragments made up between 43% and 90% of the quantified remains in the

samples, most of which were at the higher end of the scale (eight with >70%), while grains accounted for between 4% and 51% but mostly less than 30%. Grains outnumbered chaff fragments in one sample. The proportion of wild plant/weed seeds ranged from less than 1% to 7%, with one sample containing no charred weed seeds.

The charred cereal remains represent debris from the final stages of crop-processing, particularly from the de-husking of hulled wheats and perhaps grain drying. The chaff may have been either accidentally burnt during the parching of spelt spikelets to facilitate the separation of the grains from the glumes, and/or through its use as fuel following the separation of the chaff from the grains by fine-sieving after the parching and pounding of the spelt spikelets. The grains may have also been accidentally burnt along with the chaff during this de-husking process and/or while being dried before storage or milling.

The abundance of chaff compared to grains and the higher ratio of chaff to grains in virtually all the samples suggest that much of the chaff was burnt probably from use as fuel following its separation from the grains rather than from accidents during parching of spikelets. The generally poor preservation of grains and better preservation of chaff in the samples may also suggest separate origins for the two components, given that grains always survive charring as well as or better than glumes (Boardman and Jones 1990).

Large amounts of spelt chaff have been found at several Romano-British rural sites in this region. For example, over 1000 burnt spelt glume bases with a high item density of *c* 250 per litre of processed soil, making up 78% of the sample together with grains and weed seeds, was found in a gully associated with a small Romano-British farmstead *c* 1.5km north of the centre of Melton Mowbray (Monckton 1995, 35; 2004, 59, 65). Large quantities and high concentrations of spelt wheat chaff were also recovered from a 2nd-century ditch at Empingham, *c* 25km to the south-east (Monckton 2004, 59, 65). Large quantities of chaff often represent spent fuel from corndryers on Romano-British rural sites (van der Veen 1989, 305). However, there is no evidence of corndryers at Leicester Road.

2nd century AD

Ten samples from phase 1 contexts produced charred plant remains from features located within the enclosure and from the boundary ditches. Modest amounts of chaff, small numbers of grains and traces of weed seeds were found in two fills of the northern side of ditch 304, while occasional chaff fragments and wild plant remains (including a little hazelnut shell) were recovered from a fill along the western boundary of ditch 305. These modest amounts probably represent burnt debris incidentally incorporated into the features from crop-processing/food preparation taking place within the enclosure.

Six of seven samples from features within the enclosure produced good charred plant assemblages, mostly across the eastern half of the excavated area. The charred remains in all these samples were dominated by hulled (spelt) wheat chaff fragments with smaller numbers of poorly preserved grains and very few weed seeds. The ratio of quantified chaff to grains in these samples ranged from 2:1 to 23:1.

Pit 254 in the north-eastern quadrant of the excavated enclosure had a chaff to grain ratio of *c* 4:1 and an item density of *c* 24 but contained a large amount of very small, unquantifiable chaff fragments (<0.5mm) which suggests a greater density and greater dominance of chaff

than calculated on the basis of the quantified remains. This sample also contained a good number of small oat awn fragments and may represent spent fuel very similar to the charred plant remains recorded from a Romano-British corndryer at Farmoor, Oxfordshire, which had a ratio of spelt glume bases to grain of *c* 5:1 with some oat awn fragments and very few weed seeds (Jones 1979).

Two postholes 155 and 158, both part of feature 317 in the south-eastern quarter of the enclosure, produced fairly similar assemblages with chaff to grain ratios of *c* 3:1 and *c* 2:1 (item densities of *c* 43 and *c* 24) which may tentatively suggest that the remains derive from similar activities. Posthole 58, to the south-west of 317, contained a smaller and less dense assemblage (item density of *c* 10) dominated by chaff fragments with a chaff to grain ratio of *c* 23:1, representing debris largely from de-husking activities.

The two richest and highest concentrations of charred plant remains from Phase 1 were from pits 252 and 277 located near the southern boundary of the enclosure ditch, which may indicate that large-scale activities associated with the final stages of cereal cleaning (including de-husking) were taking place close-by. The very rich assemblage from pit 277 (Fig. 13a–c), which had an exceptionally high item density of 5936 per litre, was dominated by chaff, representing mainly spent fuel from de-husking, with a ratio of chaff to grain of *c* 6:1. There were traces of sprouted grains and a small number of loose cereal coleoptiles in the quantified fraction of this sample accounting for only *c* 3% of the remains. A larger number of loose coleoptiles were present in the scanned fraction, but this still only made up a small proportion of all the charred remains. The coleoptiles here were probably the result of accidental germination that was dried to prevent further spoilage, rather than being indicative of malting activities. Pit 252 had an item density of *c* 159 with a chaff to grain ratio of *c* 3:1, although there were large amounts of both unquantifiable grains and chaff in this sample, thus making it difficult to accurately calculate the proportions of both. No weed seeds were found in this sample.

3rd to early 4th century AD

Eight samples from this phase produced charred plant remains, including six good assemblages that were quantified and two modest-sized assemblages that were scanned. As in phase 1, most of the charred plant assemblages contained mainly chaff fragments but with generally lower item densities, suggesting lower levels of activity associated with crop-processing. This is similar to the smaller amounts of phase 2 pottery recovered, which also suggested reduced levels of activity during this period.

Four samples from interventions 60, 162, 175, 215 on each side of ditch 308 produced charred plant assemblages with item densities of between *c* 10 and *c* 19 per litre of processed soil. There were much greater quantities of chaff than grains from 162 and 215 on the northern and eastern sides which produced chaff to grain ratios of *c* 11:1 and *c* 5:1; more equal amounts of grain and chaff were found in the other two fills on the southern and western sides. A sample from cobbled surface 210 within the area enclosed by ditch 308 contained more chaff than grain with a ratio of *c* 4:1.

Pit 248 was adjacent to ditch 307 and cutting spread 243 along the southern side of the double-ditched enclosure. This pit produced the richest and densest concentration (estimated item density of *c* 68) of charred plant remains from a phase 2 feature with twice

as much chaff as grain (a ratio of 2:1), although there were a fairly large number of unquantified grains in this sample. This feature was close to pits 252 and 277, both of phase 1, which produced the richest assemblages from the earlier phase, suggesting that more-intensive, final-stage crop-processing activity continued to take place in this area or close-by.

Summary

The charred plant remains show that spelt wheat was the main cereal being processed and used at the site with tentative evidence to suggest cultivation of the clay loams around the site and perhaps on the less fertile, damp soils towards the River Eye. The very limited evidence for other cereals in the samples suggests that emmer wheat, free-threshing wheat and barley may have played only a minor role in the agricultural economy of the site, while the few oat grains are probably crop weeds. There was a little evidence for the gathering of wild foods, hazelnuts and sloe/blackthorn fruits, but perhaps more interesting is the potential evidence of hay meadows, primarily through the identification of yellow rattle (*Rhinanthus minor*).

The charred plant remains consisted mainly of hulled spelt wheat chaff with smaller amounts of grains and very few weed seeds, debris from the final stages of crop-processing. The chaff represents debris from the de-husking of spelt wheat, much of which may have become charred through its use as fuel, perhaps during the de-husking process as well as for other grain-parching activities including pre-storage or pre-milling drying. These activities were often carried out in corndryers at Romano-British rural sites though no such structures were found at Leicester Road.

The distribution of the charred plant assemblages from both phases suggest that activities associated with the final stages of crop-cleaning (including de-husking) were taking place in the eastern half of Area 2 within the double-ditched enclosure. There were no significant differences, however, between individual charred plant groups; thus, chaff fragments from de-husking activities are the main component of virtually all the quantified assemblages, particularly those from pit 254, ditch 308 (cuts 162 and 215) and layer 210, all in the north-eastern part of the enclosure, plus posthole 58 and pit 277 in the southern half of the enclosure. There were high numbers of grains (although still in a minority except for one sample) in features within these general areas, and all samples consisted of rich chaff assemblages. The richest assemblages in this regard (in both phases) suggest a concentration of activities near the southern boundary ditch, while lower densities of charred plant material in phase 2 suggest a general reduction of crop-processing activity into the later period.

SITE DISCUSSION

The excavation at Leicester Road, Melton Mowbray, revealed the remains of a rectangular double-ditched enclosure dating to the 2nd and 3rd centuries AD. The enclosure produced very little in the way of artefactual remains, limited to a modest pottery assemblage, a small number of metal items (including a single 2nd-century AD coin), some worked stone artefacts and single fragments of fired clay and slag, all of which points to low-level domestic activity. The animal bone assemblage was also limited but suggests a mixed agricultural economy, while the charred plant remains mostly relate to the final stages of crop-processing.

Chronology of the Romano-British settlement

The chronology of the settlement is focussed on the 2nd and 3rd centuries AD. No finds of pre-conquest date were found at the site, despite the presence of the Iron Age nucleated settlement *c* 350m to the north (the results of the excavation of the Iron Age settlement are not available at the time of writing). The Leicester Road pottery assemblage produced a few vessels that may be mid-1st century AD in date (and potentially pre-conquest), though these were found with material more common to the 2nd century AD and thus could have been in use for some time before being deposited. Another relatively early-dating find was the Poldon Hill brooch, which was recovered from the upper subsoil and thus is unfortunately out of context. Polden Hill brooches were broadly part of the Colchester-derivative brooch group that proliferated from the Flavian period in Britain. Although their production potentially originated slightly earlier in the mid-1st century AD, most context-related finds date between AD 80 and AD 120 (Bayley and Butcher 2004, 159–60). The development of the type probably occurred around the Wroxeter area (eg Bushe-Fox 1914, 11), and a cursory look at the distribution of Polden Hill brooches recorded at the time of writing on the Portable Antiquities Scheme database (PAS nd) certainly confirms a West Midlands concentration. Melton Mowbray lies at the north-east periphery of this concentration, and there is a small, localised group to be found between the modern town and Leicester. Given the general dating of Polden Hill finds elsewhere and the location of the Leicester Road site, a date in the 2nd century for the use and deposition of this brooch is preferred.

Although site features have been divided into phase 1 (2nd century) and phase 2 (3rd–early 4th century) activity, it is very likely that much of the latter merely represented continued occupation of the double-ditched enclosure, which does not appear to have been greatly modified throughout the period. Longevity of pottery use is indicated by the presence of 2nd-century wares found in phase 2 features that also contained pottery of the 3rd and possibly early 4th century AD. Later wares are marked by the appearance of Lower Nene Valley colour-coated fine wares. It was noted that the reduced quantity of pottery from phase 2 ditches reflected a general reduction in activity during this period (see Perrin, above), though this may also be biased by the lower number of contexts that could be clearly identified as belonging to phase 2.

How far, if at all, occupation extended into the 4th century is a matter of conjecture. It is very notable that the only Roman coin from the site was a 2nd-century issue, which is unusual for a rural site where coins have been recovered (cf. Brindle 2017, 277–80). The complete lack of late Roman coinage is surely significant of the overall period of occupation at the site (notwithstanding other economic and social factors). None of the pottery is distinctively 4th century and the complete lack of 3rd- and 4th-century coinage is significant, given that upcast and spoil was metal-detected during the excavation. An abandonment of the enclosure around the turn of the 4th century is perhaps likely.

Site form and function

The form and design of the enclosure is very regular and distinctive. Its two straight-lined, rectilinear boundary ditches were almost certainly dug at the same time and meant to exist as a pair. A third, inner boundary ditch is implied from the positions of ditches 18 and 307, which extended parallel within the northern and southern sides of the enclosure respectively.

These did not extend to the western end of the enclosure, though it is uncertain whether this was due to truncation or a deliberate termination of the features. Ditch 307 extended all the way to and beyond the eastern end of the excavated area, though ditch 18 stopped someway short of this and it is possible that this ditch was truncated by activity in this area, most notably by feature 308. Both ditches 18 and 307 were probable later-phase additions to the enclosure, based on the pottery recovered, but also because ditch 307 appears to have cut a series of earlier features found in the south-eastern part of the excavated area. It is possible that these features lay within an internally divided area, potentially marked by the positions of phase 1 gullies 314 and 315 and unphased gully 83. This area is also shown by the archaeobotanical evidence to have been where the final stages of crop-processing was undertaken (see below). The eastern end of the enclosure was not exposed during the excavation, but it is unlikely to have been much further to the east given the relative dimensions of the enclosure. It was notable that no entrance to the enclosure was found as it was probably located at the eastern end and thus outside the development area.

Double- or multi-ditched enclosures of late Iron Age and/or Romano-British date have been discovered in several areas of England and Wales. However, they do not follow any particular pattern in terms of their geographic or topographic locations and there is no sense that they were more common to a particular period (Allen and Smith 2016, 27–8). Some, such as examples at Fison Way, Norfolk (Gregory 1991), Orsett Cock, Essex (Carter 1998) and Longford, Gloucestershire (Allen and Booth forthcoming,), appear in a late Iron Age or conquest-period context and were probably associated with high-status groups and/or had local ritual significance. The enclosures at these sites were generally bigger and the ditches often far more substantial than at Leicester Road. Some double-ditched enclosures bounded probable Romano-British shrines, as found at Gallows Hill, Cambridge (Malim 2006) and Ashill, Norfolk (Gregory 1977), though such sites often have other features that mark them out as having a religious component, such as evidence of structured deposition and/or votive finds. No such evidence has been found at Leicester Road.

At other Romano-British sites with multi-ditched enclosures, there is still a fair degree of variation in terms of morphology and layout (Fig. 14). The double-ditched enclosure at Appleford Sidings provides an interesting parallel as it matches fairly well with Leicester Road in terms of area, though this slightly trapezoidal enclosure had larger ditches (Booth and Simmonds 2009, 25–32). The Appleford Sidings ditches were dug concurrently, not only because they extended parallel to each other, but because they joined together to form the southern entrance and thus were effectively one long ditch. This enclosure was possibly dug around the end of the Iron Age, perhaps around the early/middle 1st century AD, and was used until the early 2nd century at a site with no sign of preceding activity or settlement remains. It was positioned within a rectilinear field system. Internal features were limited, but it was notable from cropmarks that other double-ditched enclosures were present within the immediate landscape (ibid., 3, fig. 2). The function of the excavated enclosure is not clear, though the presence of rich deposits of charred cereal waste presents a similarity to Leicester Road (ibid., 125–6).

The triple-ditched enclosure at Waylands Nursery appears to have been larger and more elaborate than the Leicester Road enclosure, though it was similarly lacking in finds. Several internal features were interpreted as four-post structures, which can be clearly seen in plan

and thus potentially relate to cereal storage (Pine 2003), though other interpretations are possible. Often a feature of Iron Age settlements, the presence of four-post structures here is interesting given the late Roman (3rd–4th century AD) date of the site. No four-post structures were found at Leicester Road, though feature 317 represented a probable twin-post structure, perhaps used for drying hides, butchering carcasses or hanging meat to dry, though the presence of cereal grain and chaff in the postholes suggest a crop-processing function.

Perhaps the closest parallel in terms of enclosure size, morphology and date of occupation appears to be the enclosure at Bowling Green Farm Quarry, Faringdon, Oxfordshire (Pine and Weale 2019). This site consisted of a main enclosure ditch of similar dimension to ditches 304 and 305 at Leicester Road, but which had a series of internal gullies extending parallel and perpendicular to the main ditch and another dug external to the main ditch and aligned parallel to the southern end. The whole system maintained the same orientation and spacing. The northern end of the enclosure was not exposed during the excavation, so its full extent is not known though the plan suggests that it was probably similar in dimension to Leicester Road. Use of the enclosure was dated by the pottery assemblage to the 2nd and 3rd centuries AD. A general lack of finds and internal features was suggested by the excavators to indicate that the enclosure was primarily used for livestock management and not as a settlement (ibid., 55–6). However, the soils at this site were fairly acidic and would have provided poor preservation conditions for metals, animal bones and other organic remains.

There are few contemporary sites more local to Leicester Road with which to compare the results presented here, though the settlement at Scalford Brook located about 4–5km to the north of Melton Mowbray provides one example. Excavation here revealed a rectilinear enclosure, measuring about 45–48m across in both dimensions, though it was not fully exposed (LAU 1990). The settlement was occupied between the 2nd and the 4th centuries AD and the pottery assemblage included an abundance of colour-coated wares, which perhaps suggests a slightly later emphasis compared with Leicester Road. A series of linear gullies and the remains of a possible building were noted within the enclosure, denoting a level of internal organisation. A number of cattle skulls were excavated from the site and it was postulated, if not fully accepted, that these may reflect ritualised behaviour (ibid., 19). An interpretation of a small-scale farmstead was preferred, however, and it was noted, as at Leicester Road, that the site's location on the local heavy clay soils indicated that these relatively low-fertility soils were being cultivated during the Roman period, suggesting that an expansion of arable land occurred in the region.

Economy and status

The design of the enclosure at Leicester Road is certainly enigmatic, if not completely unusual within a Romano-British context. Despite the very regular layout, there is no evidence that the site was a shrine, while the recovered artefactual and environmental remains point to the presence of a fairly low-status domestic settlement.

Perhaps the most distinctive element of the archaeology is the evidence for cereal-processing and possibly of storage given the nature of some of the deposits. This was focussed on features within the eastern half of the enclosure, including a series of pits in the south and feature 308 to the north. Feature 308 consisted of a sub-rectilinear enclosure ditch with signs

that the internal surface (210) may have been originally completely cobbled, though only parts of the surface remain and much of it could have been truncated by later ploughing. Charred plant remains from this surface and from two interventions into the surrounding ditch fills consist of grain and particularly of chaff, suggesting that one or more crop-processing stages were undertaken *in-situ*. Cobbled surfaces with significant cereal chaff excavated at Appleby Magna, Leicestershire, were thought to represent threshing floors (Clarke 2010). At Swinford Farm, Leicestershire, a circular stone platform was also interpreted as a possible threshing floor, this dating to the 2nd century AD (Morris 2012). This structure was bounded on its northern side by a kerbed ditch that may have been intended to keep the platform dry from water descending from up-slope. Whether feature 308 was a threshing floor or simply an area where other crop-processing activities were focussed is uncertain. It is possible that the ditch of feature 308 was for drainage and had gradually filled over time with charred plant waste. It is also difficult to know whether feature 308 was covered, though the survival of two postholes suggests that some sort of structure existed within the feature.

Later crop-processing stages may have been concentrated in the southern half of the excavated area. Pits 252 and 277 and posthole 58 contained dumps of material leftover after dehusking the grain. It should be noted that evidence for dehusking occurred in all contexts with charred plant remains and it is possible that the organisation of activities moved around the site over time. No evidence of corndryers or hearths that may have been used to dry the grain were identified, though it was clear from the presence of charred grain and of coleoptiles, which suggests that grain was being heated to halt the sprouting process, that grain drying was probably occurring somewhere on site. A fill of dark, charcoal-rich clay in pit 254 east of feature 308 may represent a dump of material from an oven (Fig. 7), and it is possible that hearths were present within the unexcavated part of the enclosure to the east.

There is some evidence that the inhabitants were exploiting grassland for hay, perhaps even managing local meadows. The presence of yellow rattle, in particular, alongside other grassland species is a good indicator of hay meadows (Lodwick 2017, 80). Exploitation of hay would suggest a concern with livestock husbandry and could have been used as bedding material and for fodder, maintaining animals over winter months when grazing was less available. The small animal bone assemblage hints that meat was not being consumed on a large scale. In many traditional societies, livestock are the main form of status and wealth being used for barter and exchange, and thus people are less inclined to slaughter and eat their animals except for when special occasions called for meat (Russell 2012, 297–357; Allen 2018, 118). Cattle and sheep are likely to have been more valuable for secondary products, particularly milk and wool. Although the animal-bone evidence is relatively poor, one sign that milk production and processing was occurring at the site is highlighted by the presence of a grey ware cheese-press recovered from a short length of gully (70) cut by feature 308. This vessel is likely to have been used for domestic consumption, given that it was the only example found and because of the short life of dairy products. Cool (2006, 96) argues that cheese-presses (or moulds) were introduced by the military. Their spread to rural communities in Britain certainly occurred, though they are usually only found in small numbers on farmsteads (Allen 2017, 117).

The charred plant material provides good evidence of food production and processing, supported somewhat by aspects of the pottery and animal bone assemblages. Although most

of the ceramic forms are of utilitarian wares, the presence of cups, bowls, dishes, flagons and a possible amphora shine some light on patterns of food consumption at the site. Once more, this supports the interpretation of the enclosure being home to a small agricultural settlement, rather than a specialised rural site or religious site. While the inhabitants were probably essentially of relatively low status, there are hints that they had some access to markets, given the presence of imported samian ware, the Polden Hill brooch, and the 2nd-century sestertius, and such items may well have been exchanged for processed arable or livestock.

CONCLUSIONS

The excavation has revealed the remains of a distinctive double-ditched enclosure that was probably home to a small community focussed on small-scale mixed agriculture. Although no large-scale production of arable or pastoral produce was identified, it seems likely that much of the wealth and the identity of the inhabitants centred around arable farming and their livestock. The community appear to have extended arable cultivation from the surrounding loamy soils onto heavier clays in the vicinity, presumably to increase harvest yields, and there is possible evidence for the management of hay meadows, again suggesting the importance of cattle and sheep. This enabled some interaction with the wider market economy and there is some evidence that the inhabitants had access to marketed goods, though only on a limited scale.

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APPENDIX A: SPECIALIST TABLES

Feature Type	NoSh	Wgt (g)	Rim EVE	Vessels
Beamslot/Gully	112	1228	1.07	10
Ditch	549	8923	7.37	69
Pit	155	1280	1.41	9
Spread	11	342	0.34	5
Tree Throw	1	7	-	-
Total	828	11,780	10.19	93

Table 2: Feature category quantification

Phase	NoSh	Wgt (g)	Rim EVE	Vessels
1	386	6100	6.12	36
2	431	5610	3.95	55
3	11	70	0.12	2
Total	828	11,780	10.19	93

Table 3: Phase quantification

Group	Phase	NoSh	Wgt (g)	Rim EVE	Vessels
18	2	3	84	0.14	1
210	2	11	342	0.34	5
304	1	129	3498	2.08	9
305	1	137	1141	1.77	12
306	3	11	70	0.12	2
307	2	49	541	0.44	9
308	2	188	3105	1.91	28
309	1	16	343	0.37	4
310	2	11	119	0.39	3
311	1	33	340	0.49	4
315	2	106	1039	0.61	8
316	1	32	425	0.53	1
317	1	6	51	0.30	1
318	2	1	8	-	1
Ungrouped	-	95	674	0.7	6
Total	-	828	11,780	10.19	94

Table 4: Feature group quantification

Fabric	Description	NoSh	%	Wgt (g)	%	Rim EVE	%	Vessels
A30?	Buff, coarse, amphora?	22	2.66	569	4.83			1
C10	Shell, reddish-yellow, grey core	4	0.48	347	2.95			1
C10L	Shell, reddish-brown, grey core, bits limestone	34	4.11	2713	23.1	0.32	3.14	1
BOG SH	Bourne-Greetham shell	159	19.2	1717	14.58	2.68	26.3	13
BOG SH?	Bourne-Greetham shell?	11	1.33	227	1.93			1
E90	Grog	10	1.21	50	0.42	0.05	0.5	1
E90?	Grog?	1	0.12	31	0.26			
F60	Colour-coated	3	0.36	15	0.13			1
LNV CC	Lower Nene Valley colour-coat	9	1.1	170	1.44	0.23	2.26	4
LNV CC?	Lower Nene Valley colour-coat?	1	0.12	16	0.14			1
LGF SA	La Graufesenque samian	5	0.6	25	0.21	0.05	0.5	1
LGF SA?	La Graufesenque samian?	1	0.12	6	0.05	0.05	0.5	1
LEZ SA 2	Lezoux samian	16	1.93	242	2.05	0.62	6.08	7
LEZ SA 2?	Lezoux samian?	1	0.12	4	0.03			
LNV WH	Lower Nene Valley white	6	0.72	112	0.95			4
LNV WH?	Lower Nene Valley white?	2	0.24	58	0.49			1
O10	Buff	2	0.24	7	0.06			
O20	Buff, coarse	2	0.24	7	0.06			
O10	Reddish-yellow	3	0.36	61	0.52			1
O20?	Reddish-brown, coarse	3	0.36	63	0.53			1
R30	Grey, dark grey	170	20.53	1991	16.9	1.83	17.96	22
R10	Grey, fine	10	1.21	120	1.02			2
R20/29	Grey, dark grey, coarse, reddish-brown core	93	11.23	980	8.32	1.21	11.87	7
R30/37	Grey, dark grey pale core	61	7.37	628	5.33	1.22	11.97	7
R20	Grey, dark grey, coarse	197	23.8	1611	13.68	1.93	18.94	15
R20/27	Black, coarse	2	0.24	10	0.08			
Total		828		11,780		10.19		93

Table 5: Fabric quantification

Fabric	NoSh	Wgt (g)	Rim EVE	Vessels
C10	1	97	-	-
C10L	32	2647	0.24	1
BOG SH	108	1040	2.11	6
BOG SH?	6	113	-	1
E90	3	18	-	-
E90?	1	31	-	-
LNV CC	1	6	0.08	1
LGF SA	5	25	0.05	1
LEZ SA 2	8	134	0.36	4
LNV WH	1	27	-	1
O10	4	65	-	1
O20?	1	5	-	-
R30	59	723	0.65	7
R20/29	24	380	0.91	4
R30/37	20	183	0.55	1
R20	112	606	1.17	8
Total	386	6100	6.12	36

Table 6: Phase 1 fabric quantifications

Group	NoSh	Wgt (g)	Rim EVE	Vessels
304	129	3498	2.08	9
305	137	1141	1.77	12
309	16	343	0.37	4
311	33	340	0.49	4
316	32	425	0.53	1
317	6	51	0.30	1
Ungrouped	33	302	0.58	5
Total	386	6100	6.12	36

Table 7: Phase 1 quantification by feature group

Fabric	NoSh	Wgt (g)	Rim EVE	Vessels
BOG SH	57	418	0.68	3
BOG SH?	6	113		1
C10L	32	2647	0.24	1
E90	1	14		
O10	1	15		
R20	6	31		
R20/29	9	108	0.49	2
R30	7	33	0.12	1
R30/37	10	119	0.55	1
Total	129	3498	2.08	9

Table 8: Phase 1 fabric quantification from ditch 304

Fabric	NoSh	Wgt (g)	Rim EVE	Vessels
LEZ SA 2	1	31	0.13	1
LNV CC	1	6	0.08	1
LNV WH	1	27		1
BOG SH	7	97	0.46	1
R20	93	492	1.1	6
R20/29	3	17		
R30	31	471		2
Total	137	1141	1.77	12

Table 9: Phase 1 fabric quantification from ditch 305

Fabric	NoSh	Wgt (g)	Rim EVE	Vessels
BOG SH	5	18		
E90	2	4		
LGF SA	5	25	0.05	1
LEZ SA 2	2	45	0.15	1
O10	1	4		
R30	9	66		
R20	5	31	0.07	2
R20/29	2	95	0.31	1
R30/37	2	14		
Total	33	302	0.58	5

Table 10: Phase 1 fabric quantification from pits

Fabric	NoSh	Wgt (g)	Rim EVE	Vessels
A30	2	396	-	1
C10	3	250	-	1
C10L	2	66	0.08	-
BOG SH	49	660	0.5	5
BOG SH?	5	114	-	-
E90	7	32	0.05	1
F60	3	15	-	1
LNV CC	8	164	0.15	3
LNV CC?	1	16	0	1
LEZ SA 2	7	99	0.26	3
LEZ SA 2?	1	4	-	-
LNV WH	5	85	-	3
LNV WH?	2	58	-	1
O10	1	3	-	-
O20	21	174	-	1
O20?	2	58	-	1
R10	10	120	-	2
R30	111	1268	1.18	15
R20/29	69	600	0.3	3
R30/37	41	445	0.67	6
R20	79	973	0.76	7
R20/27	2	10		
Total	431	5610	3.95	55

Table 11: Phase 2 fabric quantifications

Group	NoSh	Wgt (g)	Rim EVE	Vessels
18	3	84	0.14	1
210	11	342	0.34	5
307	49	541	0.44	9
308	188	3105	1.91	28
310	11	119	0.39	3
315	106	1039	0.61	8
318	1	8		1
Ungrouped	62	372	0.12	1
Total	431	5610	3.95	56

Table 12: Phase 2 feature group quantifications

Fabric	NoSh	Wgt (g)	Rim EVE	Vessels
BOG SH	8	79	0.11	1
BOG SH?	1	64	-	-
F60	2	6	-	-
LEZ SA 2?	1	4	-	-
LNV CC	1	62	-	1
LNV WH?	2	58	-	1
O20	1	1	-	-
O20?	2	58	-	1
R20	5	40	0.15	1
R30	25	166	0.09	3
R30/37	1	3	0.09	1
Total	49	541	0.44	9

Table 13: Phase 2 fabric quantifications from ditch 307

Fabric	NoSh	Wgt (g)	Rim EVE	Vessels
A30	2	396	-	1
C10	3	250	-	1
C10L	2	66	0.08	-
BOG SH	34	364	0.39	4
BOG SH?	2	35	-	-
E90	5	27	-	-
LNV CC	4	87	0.06	1
LNV CC?	1	16	-	1
LEZ SA 2	4	30	0.2	1
LNV WH	4	83	-	3
O20	20	173	-	-
R30	49	756	0.56	7
R10	10	120	-	2
R20/29	24	383	0.18	2
R30/37	9	222	0.29	3
R20	15	97	0.15	2
Total	188	3105	1.91	28

Table 14: Phase 2 fabric quantification from ditch 308

Fabric	NoSh	Wgt (g)	Rim EVE	Vessels
C10	3	250	-	1
C10L	2	66	0.08	1
BOG SH	8	68	-	-
LNV CC?	1	16	-	1
R30	16	151	0.24	3
R20/29	2	17	-	-
Total	32	568	0.32	6

Table 15: Phase 2 ditch 308 cut 72 fabric quantifications

Fabric	NoSh	Wgt (g)	Rim EVE	Vessels
A30	2	396	-	1
BOG SH	19	246	0.34	2
BOG SH?	1	32	-	-
E90	4	26	-	-
LNV CC	3	84	0.06	1
LEZ SA 2	1	1	-	-
LNV WH	1	13	-	1
R30	24	557	0.05	2
R20/29	2	21	-	-
R30/37	4	126	0.29	2
R20	5	39	0.06	1
Total	66	1541	0.8	-

Table 16: Phase 2 ditch 308 enclosure western arm fabric quantifications

Fabric	NoSh	Wgt (g)	Rim EVE	Vessels
BOG SH	3	34		1
E90	1	1		
LNV CC	1	3		
LEZ SA 2	3	29	0.2	1
LNV WH	2	15		1
R30	7	31	0.2	1
R10	3	97		1
R20/29	13	134	0.18	1
R20	5	18		
Total	**38**	**372**	**0.58**	

Table 17: Phase 2 ditch 308 enclosure eastern arm fabric quantifications

Fabric	NoSh	Wgt (g)	Rim EVE	Vessels
BOG SH	3	9		
F60	1	9		1
LNV CC	1	1	0.09	1
LEZ SA 2	1	41		
LNV WH	1	2		
R30	26	183	0.2	2
R30/37	27	161	0.11	1
R20	46	633	0.21	3
Total	**106**	**1039**	**0.61**	**8**

Table 18: Phase 2 gully 315 fabric quantifications

Phase	Context type	Feature	Fill	Coin	Tool	Personal	Footwear	Nails	Misc.	Total
1	ditch	286	287	1						1
	pit	155	156				21	1		22
		158	170					1		1
			sub-total	*1*			*21*	*2*		*24*
2	beam slot	229	230					1		1
	ditch	102	103						1	1
		175	177				7			7
			178					1		1
	pit	248	249					1		1
		300	301		1					1
	spread	—	210				1		1	2
			sub-total		*1*		*8*	*3*	*2*	*14*
Unphased	subsoil		2			1				1
			Total	1	1	1	29	5	2	39

Table 19: Summary of metal finds by context

Taxa	Hand-collected	Sieved	Total
cattle	22	3	25
sheep/goat	8	5	13
pig	3	2	5
horse	4	1	5
canid/mustelid	0	1	1
large mammal	26	6	32
medium mammal	5	13	18
unidentified	10	21	31
total	78	52	130

Table 20: Animal bone NISP counts of the hand-collected and sieved assemblages

Taxa	Ditch fills	Pits fills	Spread	Total
cattle	18	6	1	25
sheep/goat	11	2	0	13
pig	2	3	0	5
horse	5	0	0	5
canid/mustelid	1	0	0	1
large mammal	26	6	0	32
medium mammal	14	4	0	18
unidentified	19	11	1	31
total	96	32	2	130

Table 21: Animal bone NISP counts by context type

Feature type		**Pit 254**	**Posthole 155**		**Posthole 158**	**Posthole 58**	**Pit 252**		**Pit 277**	
Context number		**255**	**156**		**170**	**59**	**253**		**278**	
Sample number		**22**	**2**		**3**	**19**	**7**		**9**	
vol sample (l)		**30**	**10**		**9**	**18**	**8**		**8**	
vol flot (ml)		**30**	**12**		**12**	**8**	**30**		**75**	
% flot sorted		**100%**	**50%**		**100%**	**100%**	**25%**		**1.56%**	
% flot scanned				**50%**				**75%**		**98.44%**
Cereal grains										
Triticum dicoccum/spelta	emmer/spelt wheat	2		+				+		++
T. dicoccum/spelta	emmer/spelt wheat (sprouted)	1							1	
T. cf. *dicoccum/spelta*	?emmer/spelt wheat	5			1	1				
T. aestivum/turgidum type	free-threshing wheat									+
T. cf. *aestivum/turgidum* type	?free-threshing wheat	3								
Triticum sp(p).	wheat	9	1	+	1	1	5	++	2	+++
Triticum sp(p).	wheat (sprouted)									
cf. *Triticum* sp(p).	?wheat	9	3		3	1	7		8	
Hordeum vulgare L.	barley, indet									
cf *H. vulgare*	?barley									
Avena sp(p).	oat				1					++
cf. *Avena* sp(p).	?oat				1		1			
Cerealia	indet. cereal	116	48	++	55	4	75	++++	87	+++++
Cerealia	indet cereal fragments <2mm	++	++		++	++	+++	+	+	
Cerealia	loose coleoptiles			+					22	++++
Cereal chaff										
Triticum dicoccum Schubl.	emmer wheat glume base								3	++
T. spelta L.	spelt glume bases	74	20	++	18	7	3	++	191	+++++
T. spelta L.	spelt spikelet forks/bases	18		+		1			6	+++
T. spelta L.	spelt rachis	11	6	+	2	5	2	+	20	+++
Triticum spp.	wheat glume bases	208	79	++++	38	77	160	++++ +	186	+++++

Feature type		**Pit 254**	**Posthole 155**		**Posthole 158**	**Posthole 58**	**Pit 252**		**Pit 277**	
Context number		**255**	**156**		**170**	**59**	**253**		**278**	
Sample number		**22**	**2**		**3**	**19**	**7**		**9**	
vol sample (l)		**30**	**10**		**9**	**18**	**8**		**8**	
vol flot (ml)		**30**	**12**		**12**	**8**	**30**		**75**	
% flot sorted		**100%**	**50%**		**100%**	**100%**	**25%**		**1.56%**	
% flot scanned				**50%**				**75%**		**98.44%**
Triticum spp.	wheat spikelet forks/bases	161	31	++	55	24	9	+++	55	+++++
Triticum spp.	wheat rachis	78	25	+++	25	44	41	++++	158	+++++
Triticum spp.	hulled wheat chaff (<0.5mm)	+++++					++		+++	
T. aestivum/turgidum type	free-threshing wheat rachis									
Avena sp(p).	oat awn fragments	9	1	+	2		14	++		++
Avena spp.	oat awn fragments (<0.5mm)	+++								
Other plant/weed seeds										
Stellaria media (L.) Vill.	common chickweed								1	+
Rumex spp.	dock			+						
Polygonaceae indet										
Prunus spinosa L.	blackthorn									
Vicia/Lathyrus sp(p).	vetch/tare/vetchling (<2mm)									
Vicia/Lathyrus/Pisum sp(p).	vetch/tare/vetchling/pea (<2mm)			+	2	1				
Medicago/Trifolium sp(p).	medicks/clovers			+		1				+
Fabaceae indet	small rounded legumes									
Plantago lanceolata L.	ribwort plantain									
Euphrasia/Odontites sp(p).	eyebrights/bartsias									
Rhinanthus minor L.	yellow rattle					3				
cf. *R. minor*	?yellow rattle	1								
Anthemis cotula L.	stinking chamomile									+
Asteraceae indet										

Feature type		**Pit 254**	**Posthole 155**		**Posthole 158**	**Posthole 58**	**Pit 252**		**Pit 277**	
Context number		**255**	**156**		**170**	**59**	**253**		**278**	
Sample number		**22**	**2**		**3**	**19**	**7**		**9**	
vol sample (l)		**30**	**10**		**9**	**18**	**8**		**8**	
vol flot (ml)		**30**	**12**		**12**	**8**	**30**		**75**	
% flot sorted		**100%**	**50%**		**100%**	**100%**	**25%**		**1.56%**	
% flot scanned				**50%**				**75%**		**98.44%**
Carex sp(p).	sedge									
Lolium/Festuca sp(p).	rye-grass/fescue			+	4					
Arrhenatherum elatius (L.) var *bulbosum*	onion couch grass tuber									
Bromus sp(p).	brome									
cf *Bromus* sp(p).	?brome					1				
Poaceae indet.	grasses (large seeds)									+
Poaceae indet.	grasses (small seeds)	2	3	+	4	1			2	+
Poaceae indet.	wild grass/cereal node/internode									
cf. *Sparganium erectum*	?branched bur-reed					1				
indeterminate	root/rhizome fragments					4				
other										
indeterminate	wood charcoal				+++++	++++			++	
Total number of quantified charred plant items		707	*217*		212	177	*317*		742	
item density of charred remains (per litre of processed soil)		*23.6*	*43.4e*		*23.6*	*9.8*	*158.5 e*		*5936e*	

Table 22: Summary of charred plant remains from phase 1 features

Feature type		**Ditch 162 (308)**	**Ditch 60 (308)**	**Ditch 175 (308)**	**Ditch 215 (308)**	**Layer 210**	**Pit 248**	
Context number		**163**	**61**	**177**	**216**	**210**		**249**
Sample number		**13**	**10**	**12**	**14**	**11**		**6**
vol sample (l)		**30**	**30**	**30**	**30**	**30**		**30**
vol flot (ml)		**10**	**18**	**30**	**20**	**30**		**50**
% flot sorted		**100%**	**100%**	**100%**	**100%**	**100%**	**25%**	
% flot scanned								**75%**
Cereal grains								
Triticum dicoccum/spelta	emmer/spelt wheat		2	4			3	
T. dicoccum/spelta	emmer/spelt wheat (sprouted)					2		+++
T. cf. *dicoccum/spelta*	?emmer/spelt wheat		7	4	2	4	12	
T. aestivum/turgidum type	free-threshing wheat		2			2		+
T. cf. *aestivum/turgidum* type	?free-threshing wheat		3	2	2		2	
Triticum sp(p).	wheat		39	12	3	9	17	
Triticum sp(p).	wheat (sprouted)		2					+++
cf. *Triticum* sp(p).	?wheat	2	17	29	9	10	29	
Hordeum vulgare L.	barley, indet							+
cf *H. vulgare*	?barley						1	
Avena sp(p).	oat							
cf. *Avena* sp(p).	?oat			1		1		
Cerealia	indet. cereal	23	162	123	59	73	99	
Cerealia	indet cereal fragments <2mm	+++	++	++	++	+++	+++	+++++
Cerealia	loose coleoptiles			6	1			
Cereal chaff								
Triticum dicoccum Schubl.	emmer wheat glume base							
T. spelta L.	spelt glume bases	7	18	147	106	38	24	++
T. spelta L.	spelt spikelet forks/bases		2	10	4	4		+
T. spelta L.	spelt rachis	4	5	22	14	11	3	++

Feature type		Ditch 162 (308)	Ditch 60 (308)	Ditch 175 (308)	Ditch 215 (308)	Layer 210	Pit 248	
Context number		**163**	**61**	**177**	**216**	**210**		**249**
Sample number		**13**	**10**	**12**	**14**	**11**		**6**
vol sample (l)		**30**	**30**	**30**	**30**	**30**		**30**
vol flot (ml)		**10**	**18**	**30**	**20**	**30**		**50**
% flot sorted		**100%**	**100%**	**100%**	**100%**	**100%**	**25%**	
% flot scanned								**75%**
Triticum spp.	wheat glume bases	143	85	87	131	178	144	+++++
Triticum spp.	wheat spikelet forks/bases	25	50	113	92	71	35	+++++
Triticum spp.	wheat rachis	86	40	4	38	79	111	++++
Triticum spp.	hulled wheat chaff (<0.5mm)	+++			++	++		
T. aestivum/turgidum type	free-threshing wheat rachis		1					
Avena sp(p).	oat awn fragments	1			5		4	++
Avena spp.	oat awn fragments (<0.5mm)							
Other plant/weed seeds								
Stellaria media (L.) Vill.	common chickweed							+
Rumex spp.	dock			2	2	3	2	+
Polygonaceae indet							1	+
Prunus spinosa L.	blackthorn							+
Vicia/Lathyrus sp(p).	vetch/tare/vetchling (<2mm)	1						+
Vicia/Lathyrus/Pisum sp(p).	vetch/tare/vetchling/pea (<2mm)			2		1	2	+
Medicago/Trifolium sp(p).	medicks/clovers				2	6		+
Fabaceae indet	small rounded legumes		1			1	1	
Plantago lanceolata L.	ribwort plantain					1		
Euphrasia/Odontites sp(p).	eyebrights/bartsias					1		+

Feature type		Ditch 162 (308)	Ditch 60 (308)	Ditch 175 (308)	Ditch 215 (308)	Layer 210	Pit 248	
Context number		**163**	**61**	**177**	**216**	**210**		**249**
Sample number		**13**	**10**	**12**	**14**	**11**		**6**
vol sample (l)		**30**	**30**	**30**	**30**	**30**		**30**
vol flot (ml)		**10**	**18**	**30**	**20**	**30**		**50**
% flot sorted		**100%**	**100%**	**100%**	**100%**	**100%**	**25%**	
% flot scanned								**75%**
Rhinanthus minor L.	yellow rattle							+
cf. *R. minor*	?yellow rattle						1	
Anthemis cotula L.	stinking chamomile					1	2	+
Asteraceae indet						1		
Carex sp(p).	sedge		1				1	+
Lolium/Festuca sp(p).	rye-grass/fescue		7	1	6	2	1	
Arrhenatherum elatius (L.) var *bulbosum*	onion couch grass tuber						1	+
Bromus sp(p).	brome						1	
cf *Bromus* sp(p).	?brome		2		1			+
Poaceae indet.	grasses (large seeds)		3			3	2	+
Poaceae indet.	grasses (small seeds)	2	14	9	8	11	4	+
Poaceae indet.	wild grass/cereal node/internode			1				
cf. *Sparganium erectum*	?branched bur-reed							
indeterminate	root/rhizome fragments						6	++
Other								
indeterminate	wood charcoal		++	+++		++	+++	
Total number of quantified charred plant items		***294***	**463**	**579**	**485**	**513**	**509**	
item density of charred remains (per litre of processed soil)		***9.8***	***15.4***	***19.3***	***16.2***	***17.1***	***67.9e***	

Table 23: Summary of charred plant remains from phase 2 features

Phase/Date		**Phase 1: 2nd c. AD**			**Phase 2: 3rd–early 4th c. AD**		
Feature type		**Ditch 31 (304)**	**Pot in ditch (SF3)**	**Ditch 77 (305)**	**Pit 56**	**Beam slot/gully 229 (315)**	**Ditch 275 (307)**
Context number		**34**	**43**	**78**	**57**	**230**	**276**
Sample number		**15**	**1**	**16**	**20**	**5**	**18**
vol sample (l)		**32**	**6**	**28**	**20**	**36**	**30**
vol flot (ml)		**26**	**5**	**6**	**6**	**18**	**50**
Cereal grains							
Triticum cf. *aestivum/turgidum* type	?free-threshing wheat					+	+
Triticum spp.	wheat	+			+	+	
cf. *Triticum* sp(p).	?wheat	+			+	+	+
Cerealia	indet. cereal	+	+		+	++	++
Cerealia	loose coleoptiles		+				+
Cereal chaff							
Triticum spelta L.	spelt glume bases	+	+			+	+
T. spelta L.	spelt rachis	+	+			+	
Triticum spp.	wheat glume bases	+	++			+	+
Triticum spp.	wheat spikelet forks/bases		+	+	+	+	+
Triticum spp.	wheat rachis		++	+	+		+
T. aestivum/turgidum type	free-threshing wheat rachis						+
Avena sp(p).	oat awn fragments	+	+		+		
Other plant/weed seeds							
Corylus avellana L.	hazel nut shell			+			
Rumex spp.	dock				+		
Vicia/Lathyrus/Pisum sp(p).	vetch/tare/vetchling/pea (<2mm)					+	
Medicago/Trifolium sp(p).	medicks/clovers		+	+			
Rhinanthus minor L.	yellow rattle				+		
cf. *R. minor*	?yellow rattle			+			+
Arrhenatherum elatius (L.) var *bulbosum*	onion couch grass tuber				+		
Poaceae indet.	grasses (small seeds)	+		+		+	
indeterminate	root/rhizome fragments	+			+		+

Table 24: Summary of scanned flots with charred plant remains

Phase	1						2					
Feature	Pit 254	Posthole 155	Posthole 158	Posthole 58	Pit 252	Pit 277	Ditch 162 (308)	Ditch 60 (308)	Ditch 175 (308)	Ditch 215 (308)	Layer 210	Pit 248
Context no.	255	156	170	59	253	278	163	61	177	216	210	249
Sample no.	22	2	3	19	7	9	13	10	12	14	11	6
No. grains (%)	145 (21%)	52 (24%)	62 (29%)	7 (4%)	88 (28%)	120 (16%)	25 (9%)	234 (51%)	181 (31%)	76 (16%)	101 (20%)	163 (32%)
No. chaff (%)	559 (79%)	162 (75%)	140 (66%)	158 (89%)	229 (72%)	616 (83%)	266 (90%)	201 (43%)	383 (66%)	390 (80%)	381 (74%)	321 (63%)
No. weed seeds (%)	3 (<1%)	3 (1%)	10 (5%)	12 (7%)	-	3 (1%)	3 (1%)	28 (6%)	15 (3%)	19 (4%)	31 (6%)	25 (5%)
Total no. items	707	217	212	177	317	742	294	463	579	485	513	509
Grain/chaff ratio	*1:3.8*	*1:3.1*	*1:2.3*	*1:22.6*	*1:2.5*	*1:6.3*	*1:10.6*	*1.17:1*	*1:2.2*	*1:5.1*	*1:3.81*	*1:2*
Item density (per soil litre)	*23.6*	*43.4e*	*23.6*	*9.8*	*158.5e*	*5396e*	*9.8*	*15.4*	*19.3*	*16.2*	*17.1*	*67.9e*

Table 25: Proportions of grains, chaff and weed seeds in samples with >100 quantified items

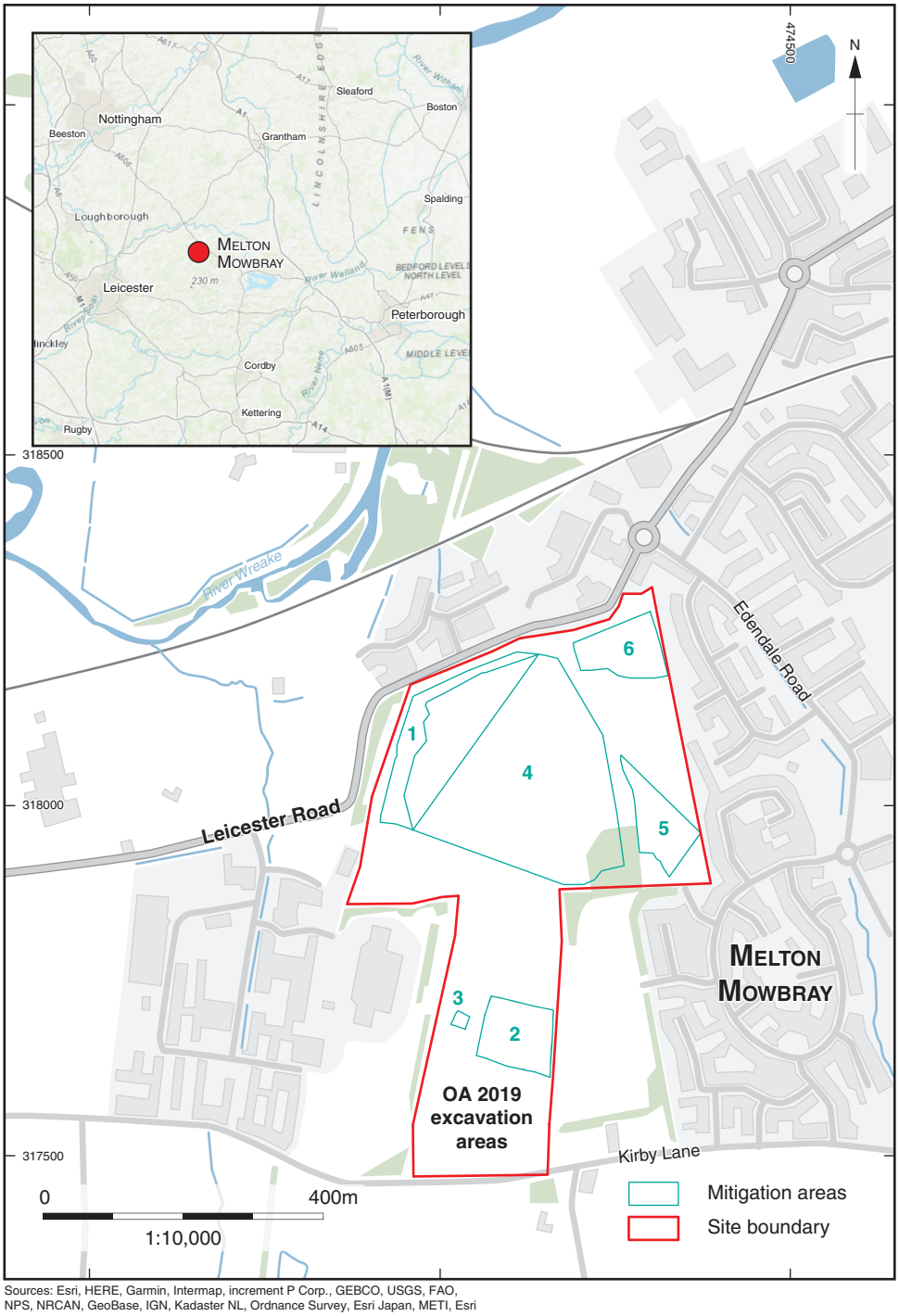

Figure 1: Site location showing mitigation areas 1–6

Figure 2: Plan of site showing location of trial trenches and geophysics results

Figure 3: Excavation of Area 2

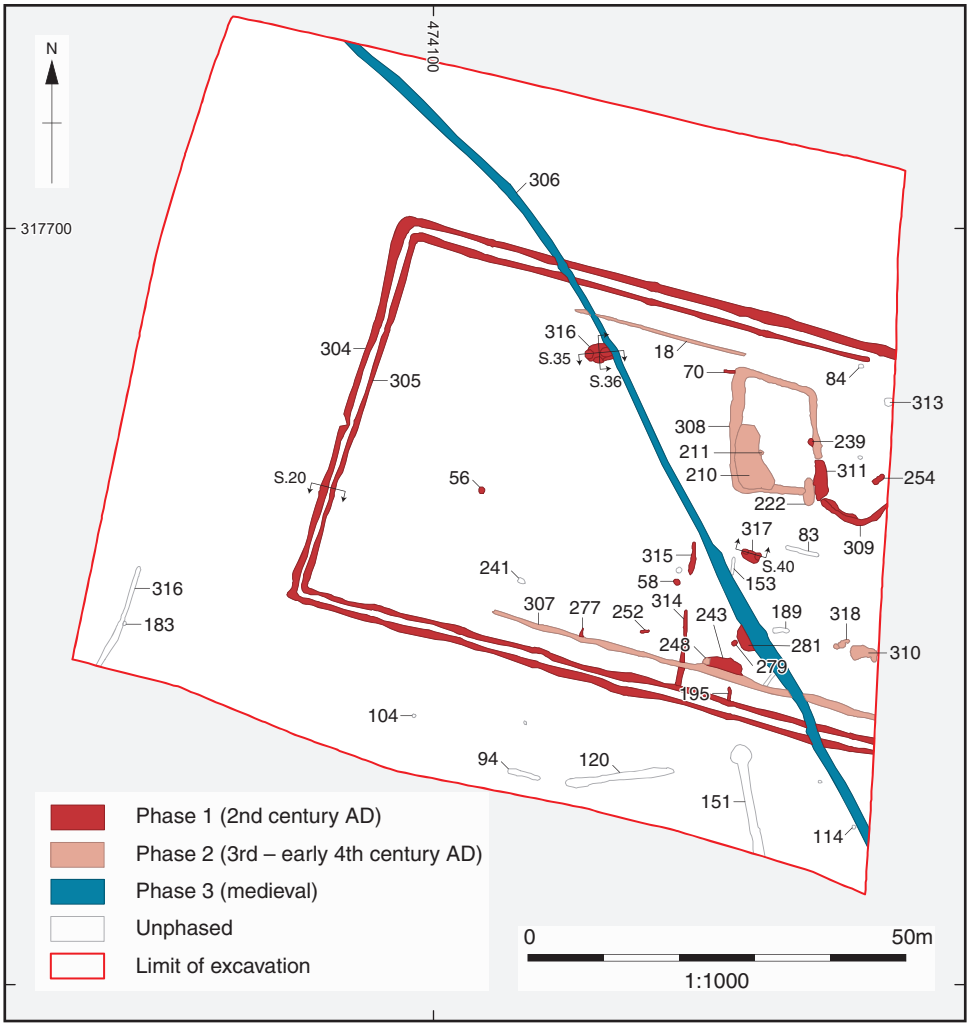

Figure 4: Phased plan

Figure 5: Excavation of ditches 304 and 305 (scale 2m)

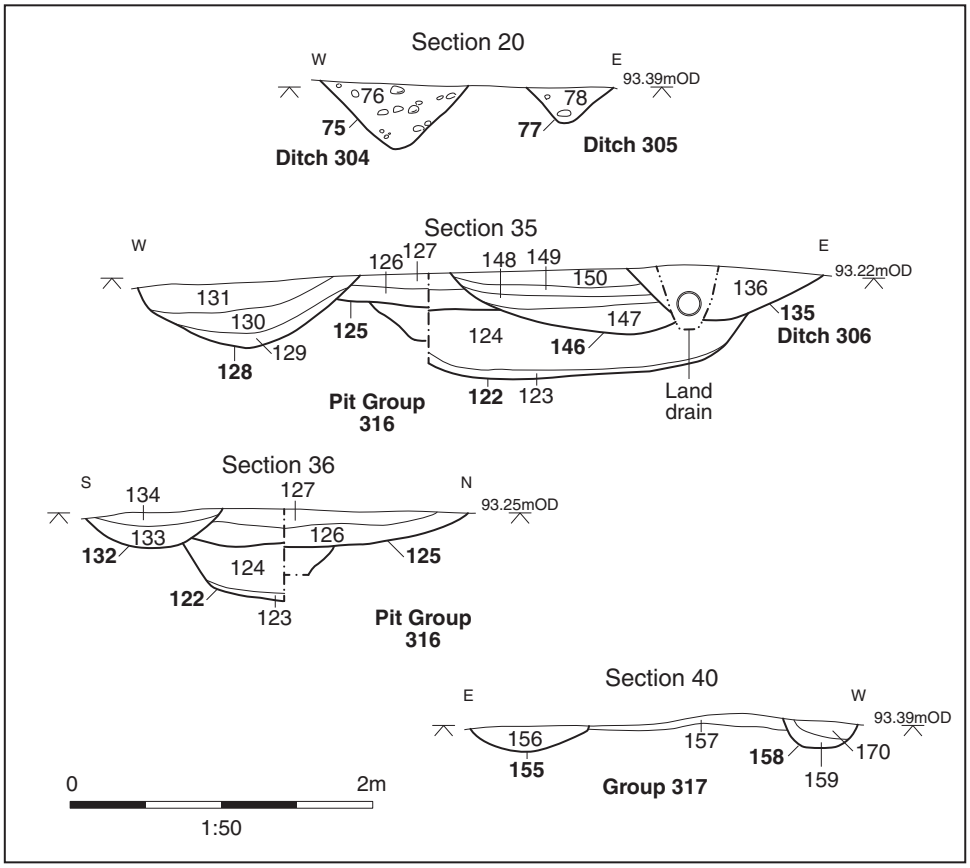

Figure 6: Sections of ditches 304 and 305, and feature groups 316 and 317

Figure 7: Excavation of pit 254 (scale 1m)

Figure 8: Excavation of pit group 316 (scale 1m)

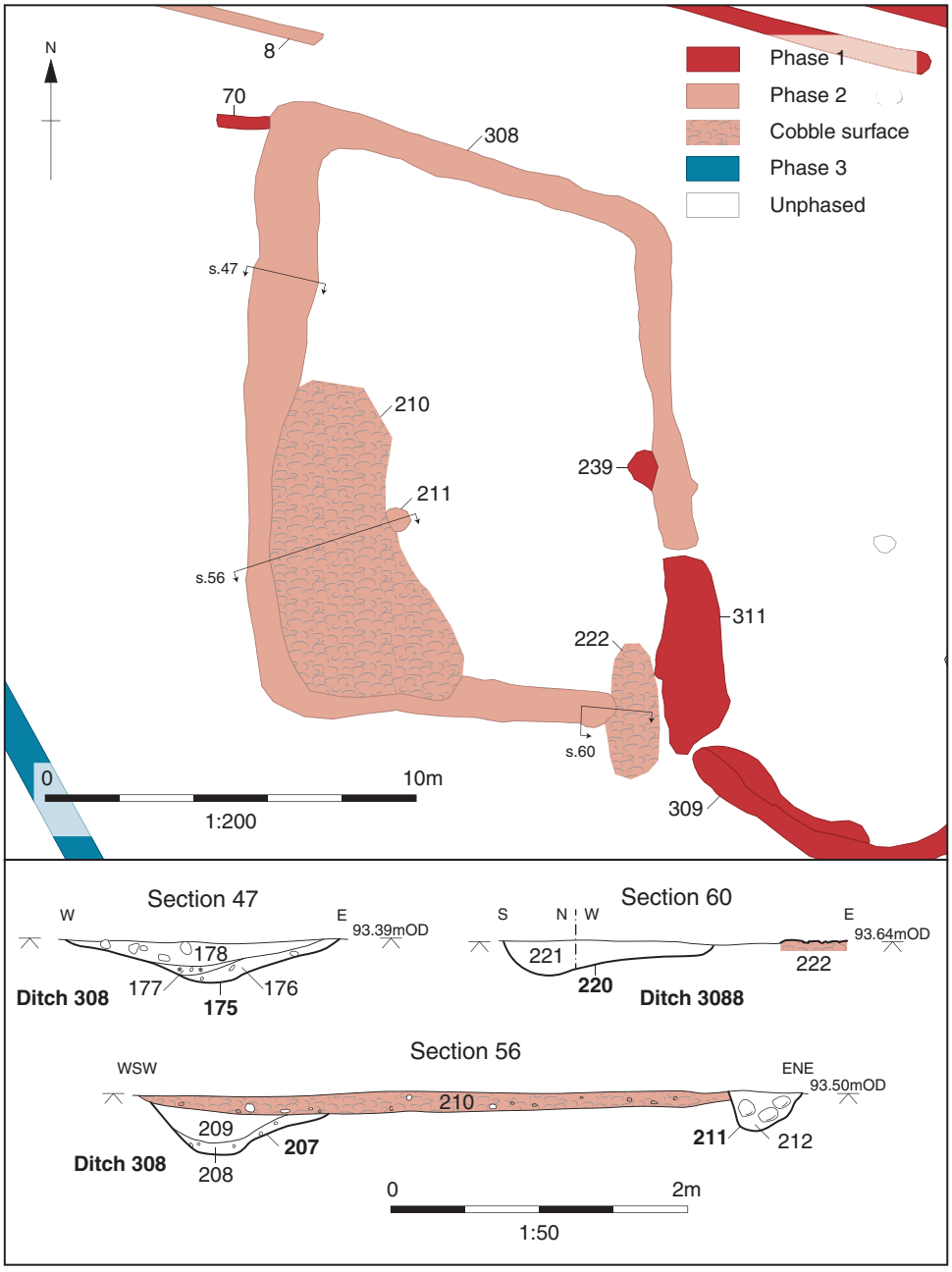

Figure 9: Detailed plan and sections of enclosure 308 and cobbled surface 210

Figure 10: Excavation of ditch 308 (scale 1m)

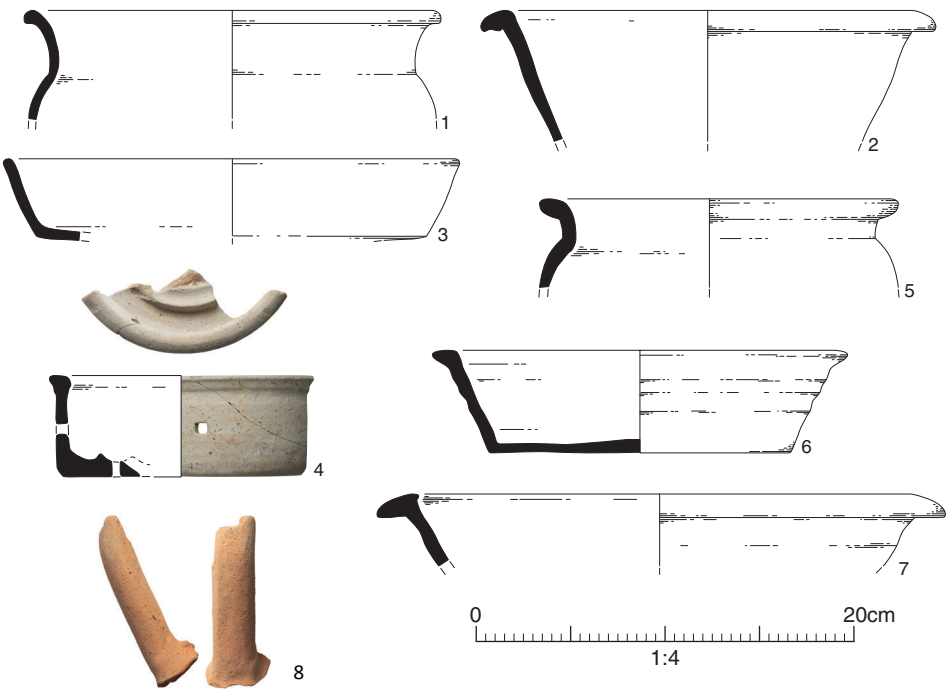

Figure 11: Selection of Roman pottery

Figure 12: a) Sestertius of Antoninus Pius (AD 138–161); b) Polden Hill brooch; c) decorated sandstone item

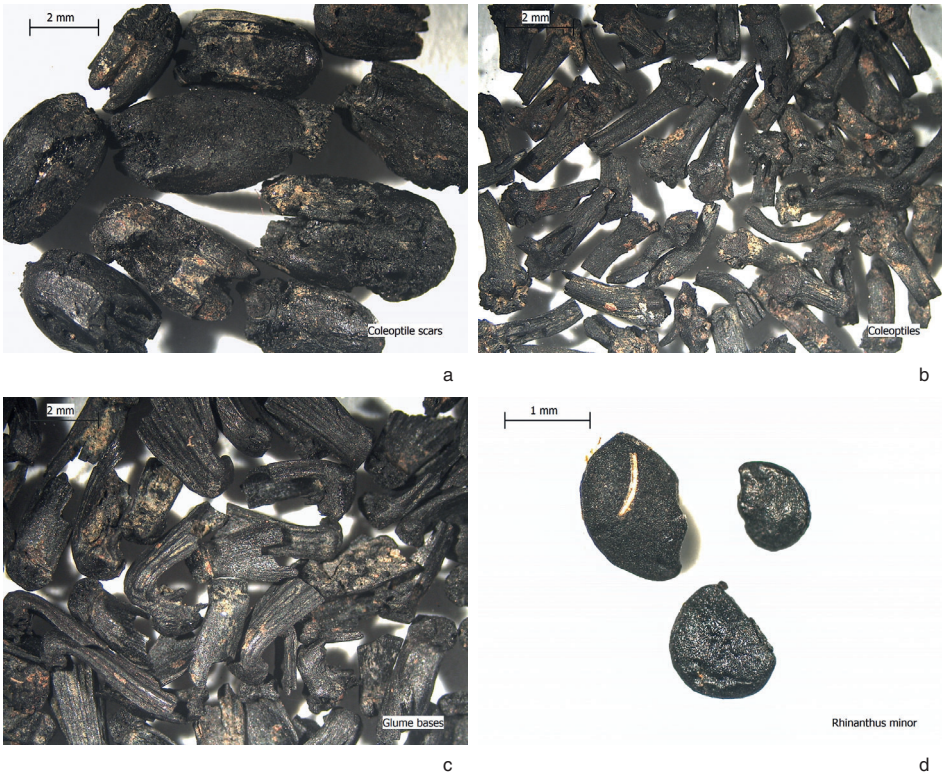

Figure 13: Charred plant remains:
a) sprouted wheat grains (sample 9, context 278);
b) loose coleoptiles (sample 9, context 278);
c) wheat glume bases (sample 9, context 278);
d) yellow rattle (Rhinanthus minor) seeds (sample 19, context 59)

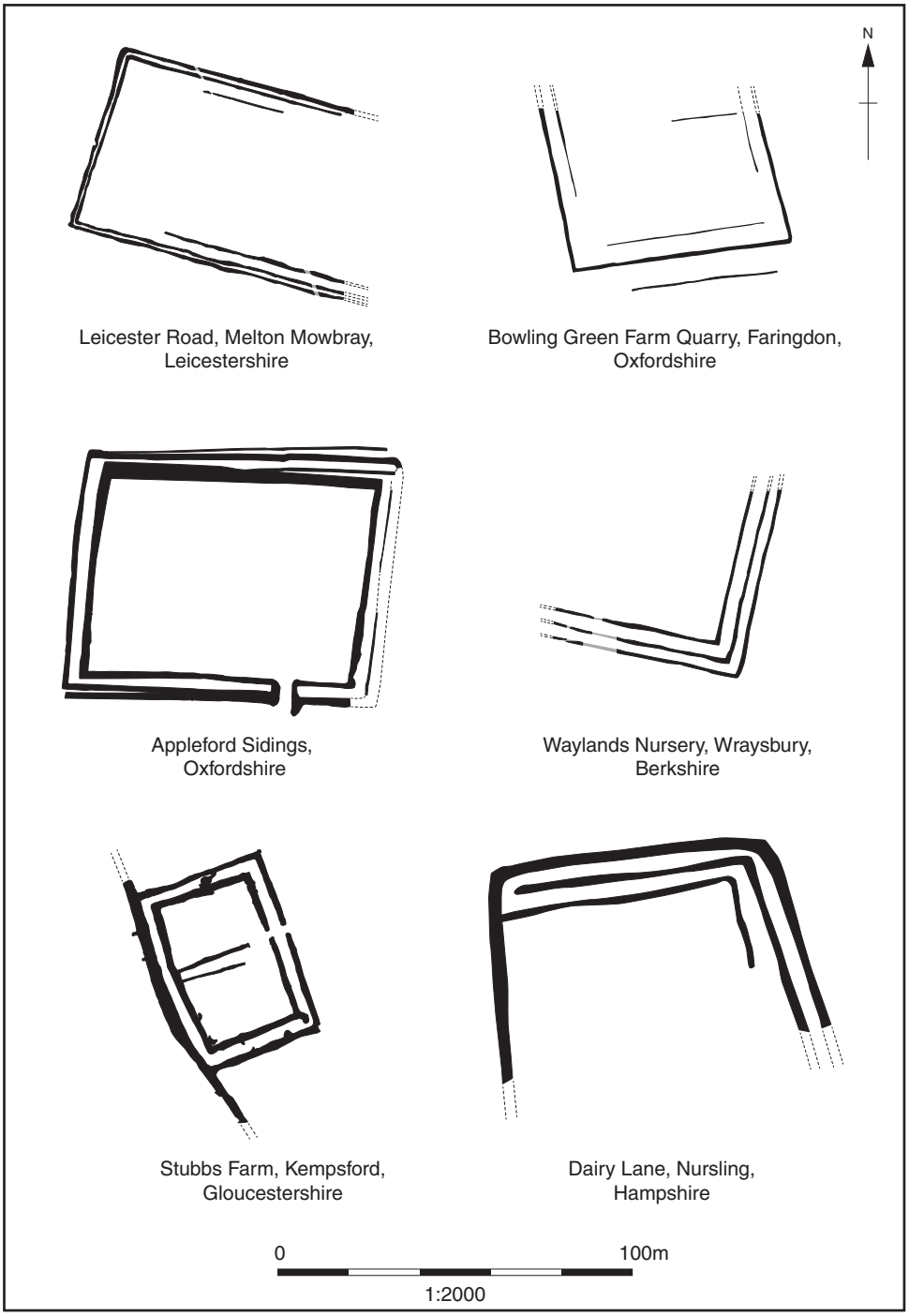

Figure 14: Comparative plans of Romano-British multi-ditched enclosures

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