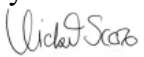
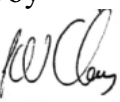


**Archaeological Investigations
at Redhill,
Ratcliffe-On-Soar,
Nottinghamshire**

NGR: SK 495 294

Leon Hunt

For: RPS Planning on behalf of Network Rail

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Archaeological Investigations at Redhill, Ratcliffe-On-Soar, Nottinghamshire (SK 495 294)

Leon Hunt

Summary

A series of archaeological investigations were undertaken by University of Leicester Archaeological Services (ULAS) for RPS Planning on behalf of Network Rail in advance of the construction of a new railway station at Redhill, Ratcliffe-on-Soar, Nottinghamshire (SK 495 294). The development sites lies south of a Scheduled Monument which contains evidence for Iron Age and Roman settlement and possible ritual activity. Local fieldwork has also produced Iron Age and Roman material from the surrounding fields.

The archaeological work included a field evaluation (Phase 3) along the route of the new Access Road on the eastern side of the railway line, the excavation of an area (Phase 4) along a separate section of the Access Road, to the west of the railway line, and a series of subsequent watching briefs during earthworks for the station car park and associated drainage runs .

The Phase 3 evaluation revealed no evidence of archaeological remains. No evidence was seen of archaeological features within the area of the car park covered by the watching brief, however a linear feature was uncovered during the watching brief on a drainage trench.

The Phase 4 recording focussed on the south-east corner of a field lying to the south-east of the station where excavations had indicated archaeological potential. These excavations revealed a series of ditches dating to the Roman period, along with several pits likely to represent quarrying, also dating to the Roman period. Artefacts of Roman date included the in-situ remains of a Spanish amphora. The archaeological work also revealed evidence of a medieval well, and other less interpretable medieval features. A number of later post-medieval-modern features were also recorded including a brick well, a hearth and a series of pits containing a large amount of animal bone, likely to be associated with two farmhouses that occupied the site during the early to mid-19th century.

An archive of the site containing field data, drawings, photographs and finds will be compiled and deposited with a local museum.

Introduction

Archaeological investigation including evaluation, controlled strip, plan and record exercise, excavation and a watching brief was undertaken on the site of the proposed East Midlands Parkway Railway Station at land to the south-east of Redhill Farm, Ratcliffe-on-Soar, Nottinghamshire and south-west of Ratcliffe Junction on the London-Sheffield main railway line (NGR SK 495 294). The site lies to the south of the Redhill Scheduled Monument (SM Notts141), which contains the remains of Iron Age and Roman settlement and ritual activity. Previous evaluation work including trial trenching and geophysical survey had identified areas where archaeological deposits were present (Cutler 2003; Sabin & Donaldson 2006, Hunt & Score 2007). Therefore, in accordance with DOE Planning Policy Guidance note 16 (PPG16, Archaeology and Planning, paragraph 30) a staged archaeological approach was devised to preserve remains in situ where possible, and to mitigate the loss of archaeological deposits through development where necessary.

The archaeological work was part of this staged archaeological strategy to further evaluate and mitigate the impact of the development of the new East Midlands Parkway railway station on buried archaeological remains. The archaeological work was carried out by University of Leicester Archaeological Services (ULAS) for RPS Planning and Development on behalf of Network Rail.

The archaeological work covered by this report corresponds to Phases 3 and 4 of the work set out in the Method Statement prepared by ULAS in June 2007 (EMP_P2_MS001) addressing the requirements detailed in Written Schemes of Investigation (WSI's) prepared by RPS Planning and Development. Phases 1 and 2 covered the previous evaluations on the site by Birmingham Archaeology (BA; Cutler 2003) and ULAS (Hunt & Score 2007).

Section 1 of this report outlines Phase 3 comprising field evaluation by trial trenching on an area leading to the site from the nearby A453, which was covered in trees at the time of the previous Phase 1-2 evaluations (Figure 2, Field 4).

Section 2 outlines the Phase 4 excavation covering the area of the Access Roads onto the site, in an area of known archaeology, and a watching brief carried out on less archaeologically vulnerable areas close to the new station buildings and on more sensitive areas during ground-works for service trenches (Figure 2, Field 2)

Section 3 provides a phased interpretation and discussion of the results of the archaeological work.

Geology and Topography

The main part of the site is located directly west of Ratcliffe-On-Soar power station and the mainline railway, around 6km south-west of Nottingham (Figure 1). A further section of the site lies directly to the south of the power station, on the eastern side of the railway line. The site consists of six individual fields (Figure 2).

The Phase 3 evaluations took place within Field 4 and the area excavation within Field 2. Fields 1, 3 and 5 were covered by the watching brief.

Field 1 is roughly flat at its western and eastern edges but rises in the centre to form a knoll. The site lies at *c.*30m OD at its western edge rising to *c.*38m at the top of the knoll. The total area of this field is *c.*12.1ha. At the time of the evaluation the field was covered with grasses, weeds and self seeded crops.

Field 2 is largely flat and is separated from Field 1 by a drainage dyke. The south-east corner of this field is very uneven and contains dumped material. The field contained weeds and grasses and was very overgrown in areas. The field lies at a height of around 31m OD and is *c.*3.5ha in area.

Field 3 lies to the west of Field 1 and covers 0.9 ha. It is mostly flat at a height of 30m OD and was under pasture prior to the archaeological work.

Field 4 covers 4ha and lies on the eastern side of the railway line. The field was covered in young trees, most of which were removed prior to the evaluation.

Field 5 is a small field of 0.5ha that lies at the southern edge of the site close to the bridge of the A453. This was covered in rough grass prior to the work and lies at a height of between 35m and 38m OD.

Field 6 is a pasture field between Fields 4 and 5 lying at a height of *c.* 35 m OD. It had been examined during the Phase 2 evaluation and was found to contain no archaeological remains. It contained evidence suggesting that it had been used for the dumping of material possibly associated with the construction of the power station. This field was used to contain the portable cabins and car parking during the construction of the station buildings.

The solid geology of the site according to the British Geological Survey map (sheet 141 is Cropwell Bishop Mudstone formation, with deposits of Woolstonian Birstall sands and gravels at the peak of the knoll. The western side of the site contains Syston river terrace sands and gravels and there are areas of alluvium close to the brook that runs between Fields 1 and 2.

The previous evaluations revealed that the substratum of the area is largely mudstone with bands of sand and gravel. The main exception to this is the south-west corner of Field 2, which has an underlying substratum of sand.

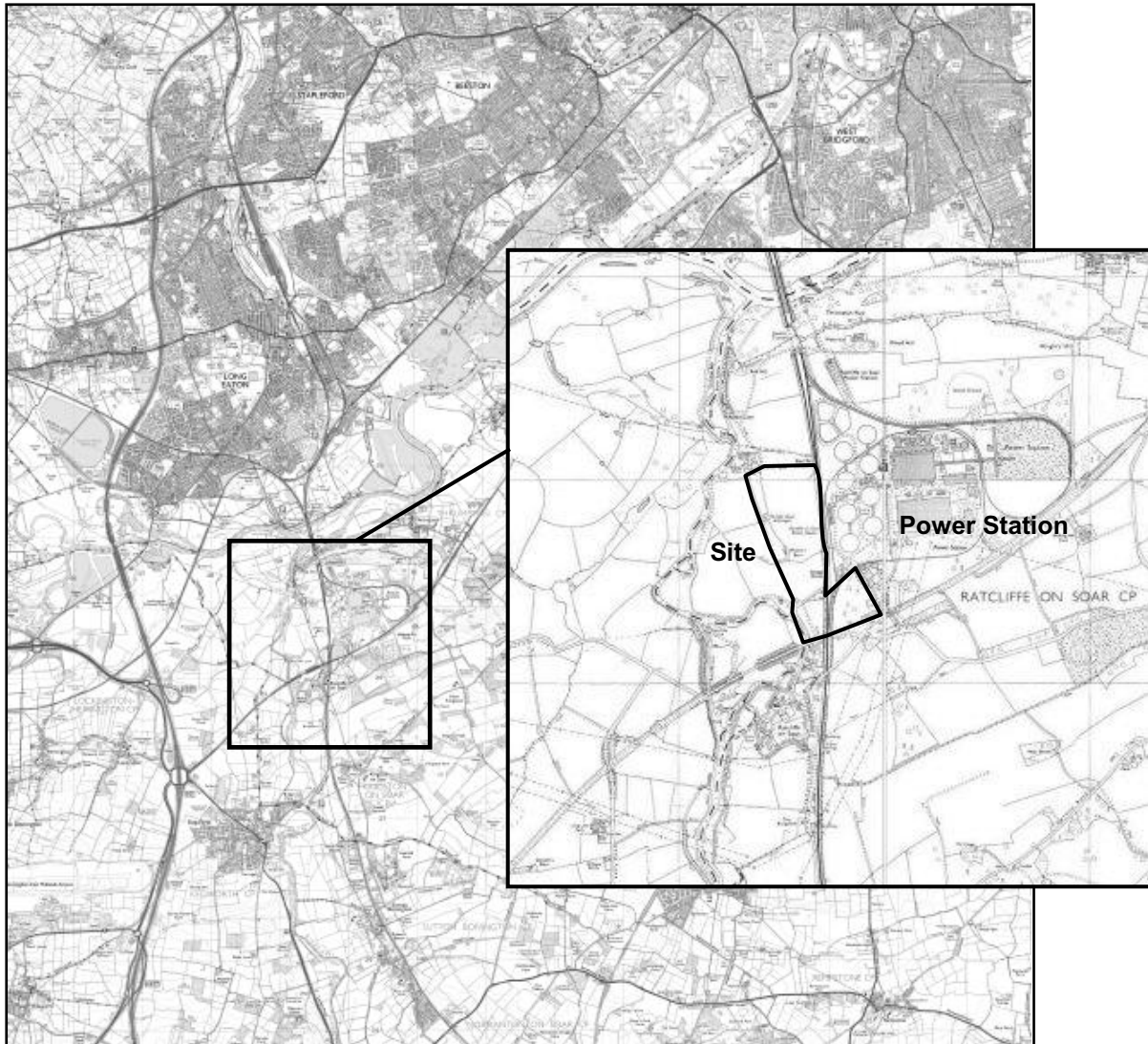


Figure 1: Site Location. Scale 1: 25 000. Inset 1: 10 000
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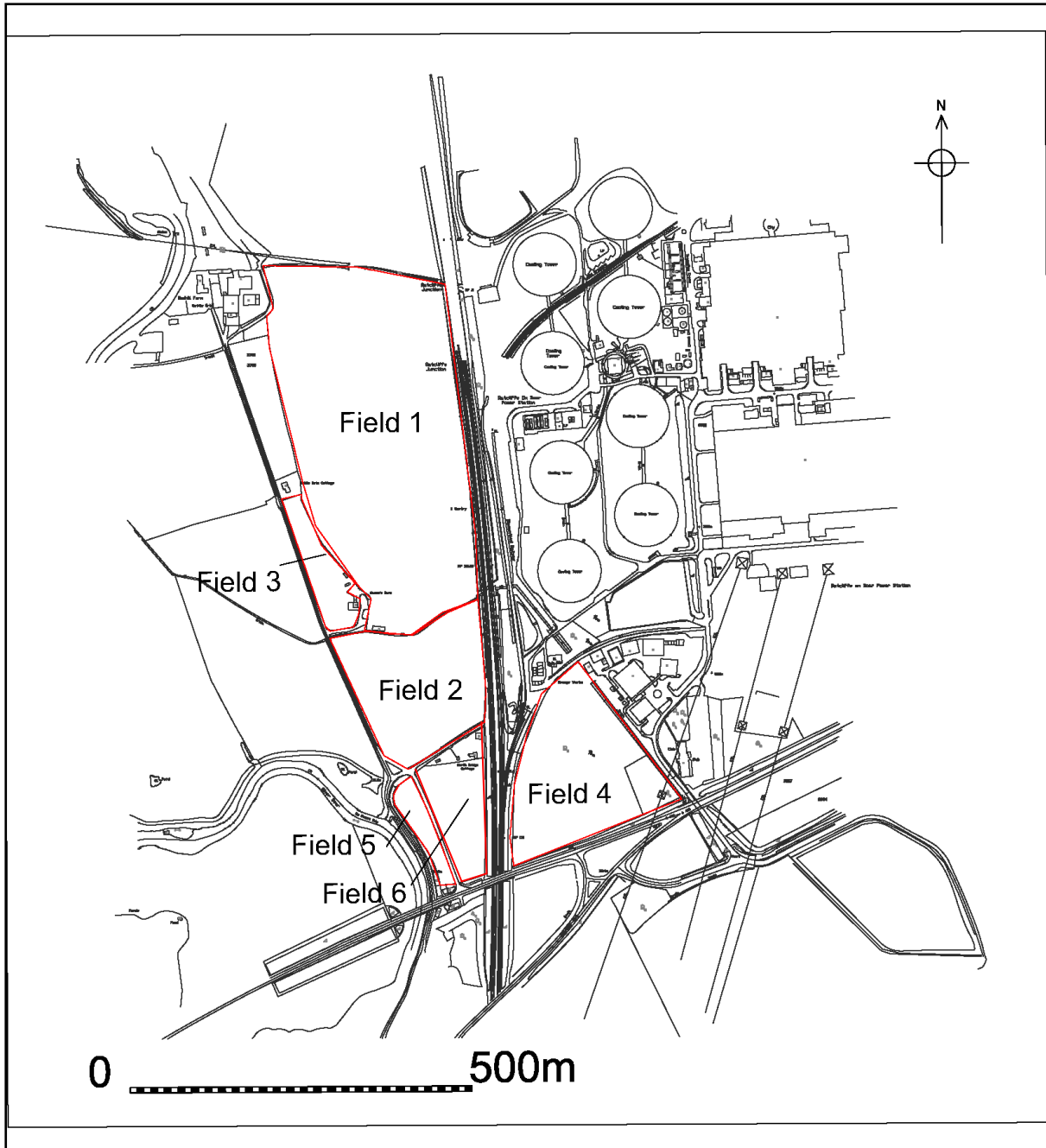


Figure 2: Reference plan for field Locations

Archaeological Background

The Scheduled Monument of Redhill (SM Notts141; SMR 500) lies *c.* 20m to the north of the site. It is marked on early maps, inconsistently, as a temple or villa. The site lies on high ground to the south-east of the confluence of the River Trent and the River Soar, which may have been the natural boundary between the Iron Age tribes of the Corieltavi and the Cornovii. The site may have been chosen as a sacred place due to its proximity to the confluence (Palfreyman and Ebbins 2003).

There have been some prehistoric finds from the proximity of Redhill including Mesolithic, Neolithic and Bronze Age flint artefacts.

Roman and Iron Age artefacts and remains have been recorded from the site since the early 18th century. Human remains (although not recorded or firmly dated) were discovered during mining and during the construction of the railway. There has been local amateur interest in the area since the 1920s and field-walking, small excavations and metal-detecting of the vicinity have produced a wealth of material from the Iron Age and Romano-British periods, including pottery, glassware, brooches, coins and various building material. This material has largely been discovered to the west of the scheduled area, suggesting that the shrine may have encouraged the growth of a small Roman town. This is borne out by the proximity of two Roman roads; one running from the Trent near Sawley towards Little Chester in Derby, the other along the bank of the Soar to Shepshed and must have passed close to the site, although the exact locations of both roads have not been fully identified.

Excavations in the 1950s and in 1963 on the Redhill site (Houldsworth 1963; Palfreyman and Ebbins 2003) uncovered a Roman building, associated with 2nd-4th century pottery, a lead tablet and a burial dated to the 1st century AD. Fieldwalking has produced finds of floor tiles, hypocaust tiles and other Roman building materials (Elsdon 1982).

More recent archaeological work in the area included work at the edge of the cliff at Redhill (Reeves 1992), which uncovered further Romano-British deposits and a watching brief during cable laying (Dawson 2001), which showed two phases of agricultural field systems dated to the 1st-2nd and 3rd-4th centuries. Medieval ridge and furrow field systems have been identified across the site during aerial photographic surveys (Cutler 2003, Stephenson 1999). A possible ring ditch has also been identified from aerial photographs lying on the southern part of the site in the field to the east of Field 3 (TPAT 1992), although no evidence was found for this during the later evaluation (Hunt & Score 2007).

Previous Archaeological Work

The development of East Midlands Parkway has lead to a sequence of intrusive and non-intrusive archaeological work on the site, latterly managed by RPS Planning and Development. A desk-based assessment has been produced by CPM Environmental Planning (Stephenson 1999) although this was not made available to RPS Planning and Development or ULAS.

The table below shows the different stages of archaeological work.

| Phase | Description of Work | Field Nos (Figure 2) |
|--------------|---|-----------------------------|
| 1 | Evaluation (BA): 19 trial trenches 2001 | 1, 2, 3, 6 |
| 1 | Geophysical survey (Archaeological Surveys) 2002 | 1, 2, 3, 6 |
| | Watching Brief (ULAS) 2002 | 1 |
| 2 | Evaluation (ULAS): trial trenches 2007 | 1, 2, 6 |
| 2 | Building Recording of Mason’s Barn (ULAS) 2007 | - |
| 3 | Evaluation (ULAS): 2 trial trenches 2008 | 4 |
| 4 | Area excavation of Haul Road and Access Road 2008 | 2 |
| 4 | Watching brief 2008 | 1, 3, 5 |

Phase 1 evaluation

An archaeological evaluation (Phase 1) of the site was carried out by Birmingham Archaeology (BA) in 2001 (Cutler 2003). This work comprised the excavation of 19 trenches over four fields. Archaeological features were discovered in many of the trenches,

including ditches relating to field systems containing Romano-British material and one ditch that contained pottery dated to the Bronze Age. Further features included pits and post-holes containing Roman material. The evaluation also recovered several more finds from the spoil and the surrounding area. These included worked flint, copper alloy objects, iron objects, slag, lead and a several Roman coins, mainly from the period AD 270-340. The archaeological material was mainly concentrated on the western side of the site, between the knoll and the road and on the northern part of the site, just south of the Scheduled Monument.

Geophysical survey

A geophysical survey was carried out on the site by Archaeological Surveys (Sabin & Donaldson 2006). This survey showed medieval / post-medieval field systems (ploughed out ridge and furrow) aligned north-west to south-east and north-east to south-west throughout the site plus a few anomalies that suggested archaeological potential in the south-west and northern parts of the site, reflecting the results of the Phase 1 evaluation.

Watching brief

A watching brief was carried out by ULAS in 2006 (Patrick & Clay 2006) during the excavation of six geotechnical test pits. Two linear features were recorded, although no dating evidence was found.

Phase 2 evaluations

After initial design of the proposed development, RPS Planning and Development devised a strategy of further trial trenching in the areas of proposed impact by the development.

The Phase 2 evaluation was carried out by ULAS in 2007 (Hunt & Score 2007) comprising trial trenching of Fields 1, 2 and 6 (Figure 2). The evaluations revealed that the archaeological remains appeared to be concentrated on the lower lying lands to the west and south of the knoll in Field 1, largely confirming the evidence from the previous BA evaluation. There was also a concentration of features in the trenches in the south-west corner of Field 2, upon the freer draining sands.

The only prehistoric deposit comprised a linear feature, containing Neolithic-Bronze Age pottery, towards the north-east corner of Field 1 (Hunt and Score 2007, 9, Trench 19), which confirmed evidence located during the BA evaluation (Cutler 2003, Trench 02). Generally the dating evidence suggested several phases of occupation during the Romano-British period with the main phase being during the 2nd century, although occupation would appear to have continued into the 3rd and 4th centuries (Hunt & Score 2007). A building survey of Mason's Barn, which lies between Fields 1 and 3 was also carried out during the evaluation work (Hurford 2007).

The Phase 2 evaluations led to the finalisation of the proposed development (Fig 3), designed to preserve the most significant archaeological remains, on the northern and western sides of the site, in situ.

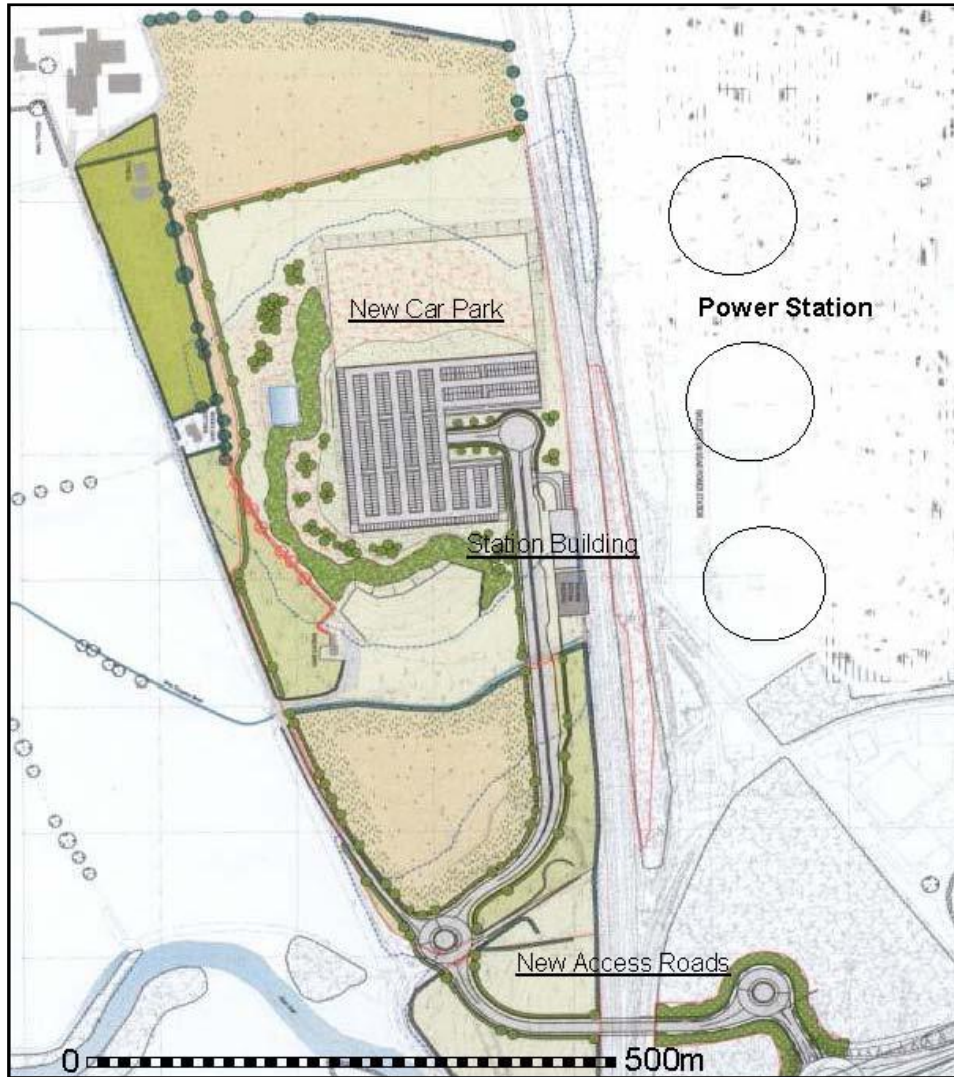


Figure 3: Plan of proposed development of East Midlands Parkway. Derived from plan provided by RPS Planning

Section 1: Phase 3 Evaluations

The final stage of evaluation (Phase 3) was undertaken to the east of the railway on the line of a proposed new Access Road and roundabout in Field 4 leading from the western side of the A453 to the new bridge to be built over the mainline railway, which lies to the west of Ratcliffe power station (Figure 4). The Phase 3 evaluation was undertaken later than the Phase 2 evaluation due to the presence of trees.

Aims and Methods

The aim of the Phase 3 evaluation was to establish the presence or absence of archaeological deposits. If archaeological deposits were present, the aim was to determine their extent, character, date, function and quality of preservation and to link these results to the existing research framework (Cooper 2006).

Specific research aims were:

- Was there any evidence for the survival of prehistoric features/deposits on site?
- What is the extent of the Romano-British deposits across the site, and how do they relate to the Scheduled Monument to the north?
- What is the extent of the ground disturbance on the southern edge of the site, caused by the construction of the Power Station?

All work followed the Institute for Archaeologists (IfA) *Code of Conduct* (2006) and *Standard and Guidance for Archaeological Field Evaluations* (2001) and adhered to the Standing Conference of Archaeological Unit Manager's (SCAUM) Health and Safety Manual and ULAS's Health and Safety Guidelines (2001) and Health and Safety Policy (2007). The recording followed the ULAS Field Recording Manual.

Within Phase 3 it was proposed to evaluate a 2% sample of the impacted land to the east of the railway (Field 4). This equated to two trenches, one measuring 20m x 1.6m and one measuring 40m x 1.6m.

The area had recently been covered by trees and there were therefore numerous roots within the soils, which hindered the excavation of the trenches in some areas; some very large roots were left in situ and worked around.

All trenches were positioned prior to excavation using a Topcon Differential Global Positioning System (DGPS) and were scanned for services before excavation using a CAT scanner. The trenches were excavated using a small tracked excavator fitted with a toothless ditching bucket down to the natural substratum or archaeological layers, whichever was reached first

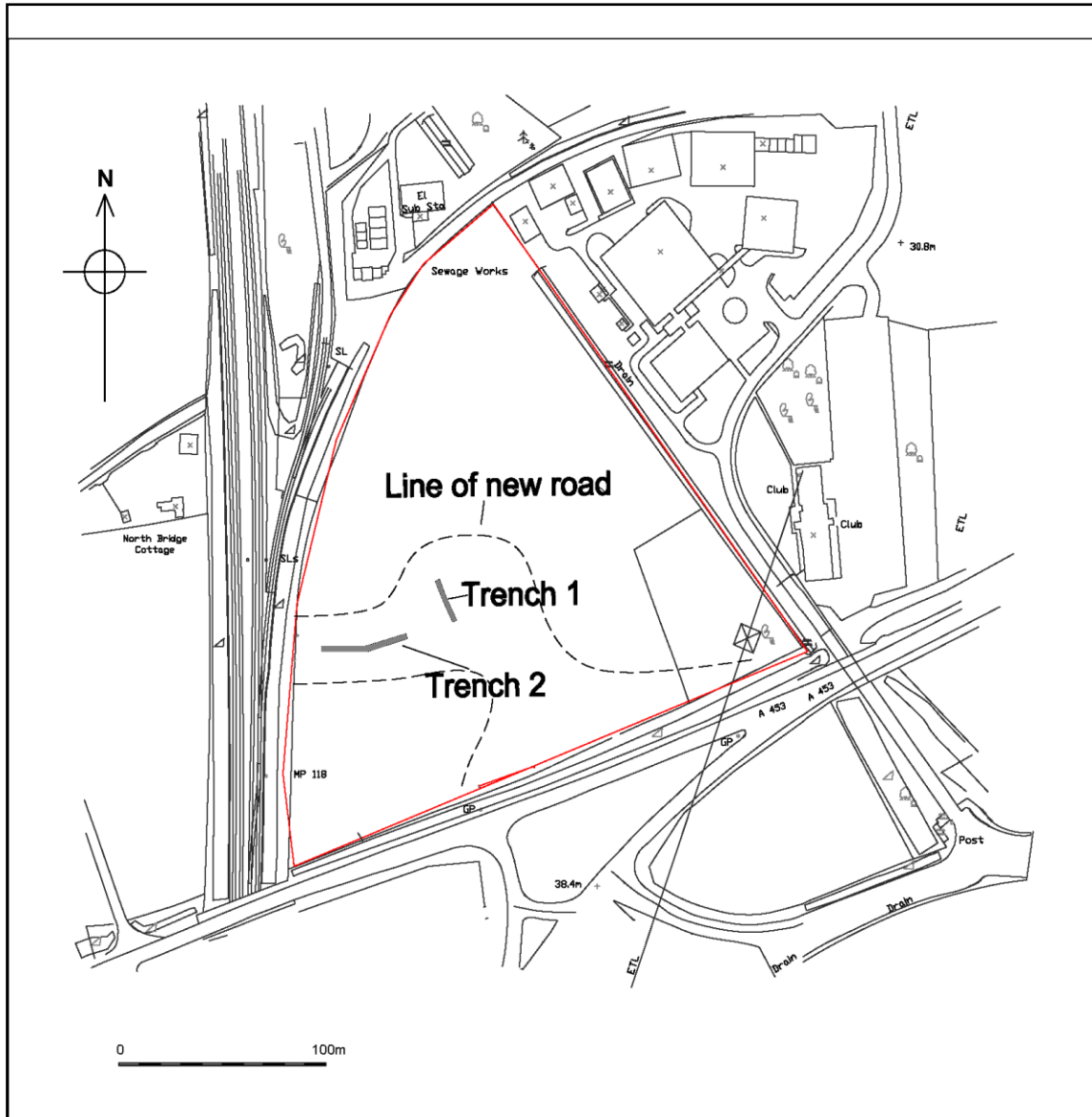


Figure 4: Location plan for Phase 3 evaluation trenches

Results

Trench 1 (Plate 1)

Aligned south-east to north-west (all measurements are from the ground surface at the top of the trench).

| Interval (m) | 0 (SE) | 5 | 10 | 15 | 20 (NW) |
|----------------------------------|--------|-------|-------|-------|---------|
| Topsoil Depth | 0.17m | 0.10m | 0.18m | 0.15m | 0.30m |
| Subsoil Depth | - | - | - | 0.50m | 0.80m |
| Top of Natural substratum | 0.17m | 0.10m | 0.10m | 0.65m | 1.10m |
| Base of trench | 0.17m | 0.20m | 0.36m | 0.80m | 1.10m |



Plate 1: Post-excavation view of Trench 1. Looking north-west

Trench 2

Trench aligned east to west (All measurements are from the ground surface at the top of the trench)

| Interval (m) | 0 (W) | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 (E) |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Topsoil Depth | 0.20m | 0.25m | 0.18m | 0.20m | 0.20m | 0.14m | 0.13m | 0.20m | 0.37m |
| Top of Natural substratum | 0.20m | 0.25m | 0.18m | 0.20m | 0.20m | 0.14m | 0.13m | 0.20m | 0.37m |
| Base of trench | 0.28m | 0.35m | 0.18m | 0.30m | 0.36m | 0.24m | 0.23m | 0.20m | 0.47m |

In both trenches the topsoil varied in depth from between 0.10m and 0.37m and consisted of dark grey silty clay with few medium sized rounded stones and chunks of gypsum. Trench 2 contained no visible subsoil but at the north-west end of Trench 1 there was 0.50m thick layer of dark reddish grey silty clay subsoil with few medium rounded stones.

The substratum in both cases was red or brownish red mudstone, heavily disturbed by roots.

No archaeological features or finds associated with archaeological features were discovered within the evaluation trenches. This confirms the evidence from the Phase 1 evaluations carried out by Birmingham Archaeology in 2001 and the Phase 2 evaluations by ULAS in 2007, which show the archaeology to be largely concentrated in the northern and western parts of the fields to the west of the railway. It is also likely that this area was heavily truncated during the construction of the power station and subsequent planting of the forest. This is confirmed by the lack of subsoil across most of the area.

Section 2: Phase 4 Mitigation

Based on the results of the Phase 1 - 3 assessments and evaluations a mitigation strategy was formulated by RPS Planning and Development. The programme of archaeological work comprised a controlled strip, plan and record exercise, excavation and watching brief.

Aims and Methods

Excavation

The controlled strip, plan and record exercise took place within Field 2 along the line of the proposed Haul Road, leading from the south-west corner of the field to the north-east and along the Access Road leading from the south-west corner of the field along the western edge of the field (Figure 5).

The aim of the Phase 4 excavation and recording was to ascertain the nature of the Romano-British and other deposits identified from the evaluations and their relationship with the Redhill Roman settlement to the north. The work would contribute towards the research aims outlined in Taylor (2006) including the study of Roman small towns and their hinterland (ibid, 155). A further aim was to assess whether there were any prehistoric features or deposits on site.

The previous evaluation had revealed several features in this area within three trenches, with a greater concentration than located in other areas of the site. Due to access considerations the Haul Road area was fully recorded and partially backfilled before the Access Road area was exposed. However, the plan of the areas is represented as one continuous excavation (Figure 6).

The Haul Road excavation (Figure 5) consisted of a curved linear trench measuring approximately 105m x 9m, which followed the line of the proposed Haul Road (Plate 2). The trench was excavated from the south-west corner of the field to the north east by a large tracked excavator, which removed the upper strata of the soils down to archaeology or natural substratum. The depth and composition of the upper soil layers varied throughout the trench with the soils generally becoming deeper as the work progressed north east, and then become more shallow at the north east end. Due to health and safety considerations the trench was stepped slightly along the deepest sections.

The Access Road area (Figure 5) was excavated under similar conditions with the upper soils stripped down to the archaeological deposits or natural substratum. This trench incorporated the whole of Trench 30 of the Phase 2 evaluation.



Plate 2: Haul Road trench, after stripping, looking north-east



Plate 3: Work in progress on Access Road trench, looking north-west

Watching Brief

The watching brief was carried out during the stripping of Field 5 prior to its use as a storage area associated with the construction of the new station and Access Roads. Further archaeological attendance was carried out during the stripping of the area around the knoll in Field 1, the Haul Road in Field 2 and during the excavation of trenches for drainage across Fields 1 and 3. The ground-works in these areas were carried out using a large tracked excavator.

The purpose of the watching brief was to ascertain whether archaeological deposits were present. If so, the character, extent and date range of any deposits identified would be established, in order to assess their significance. Recording of these deposits was carried out as appropriate, and an archive and this report produced. The work followed the Institute for Archaeologists (IfA) *Standard and Guidance for Archaeological Watching Briefs (2001)*, and adhered to the University's and the contractor's (Birse Ltd) Health and Safety policy.

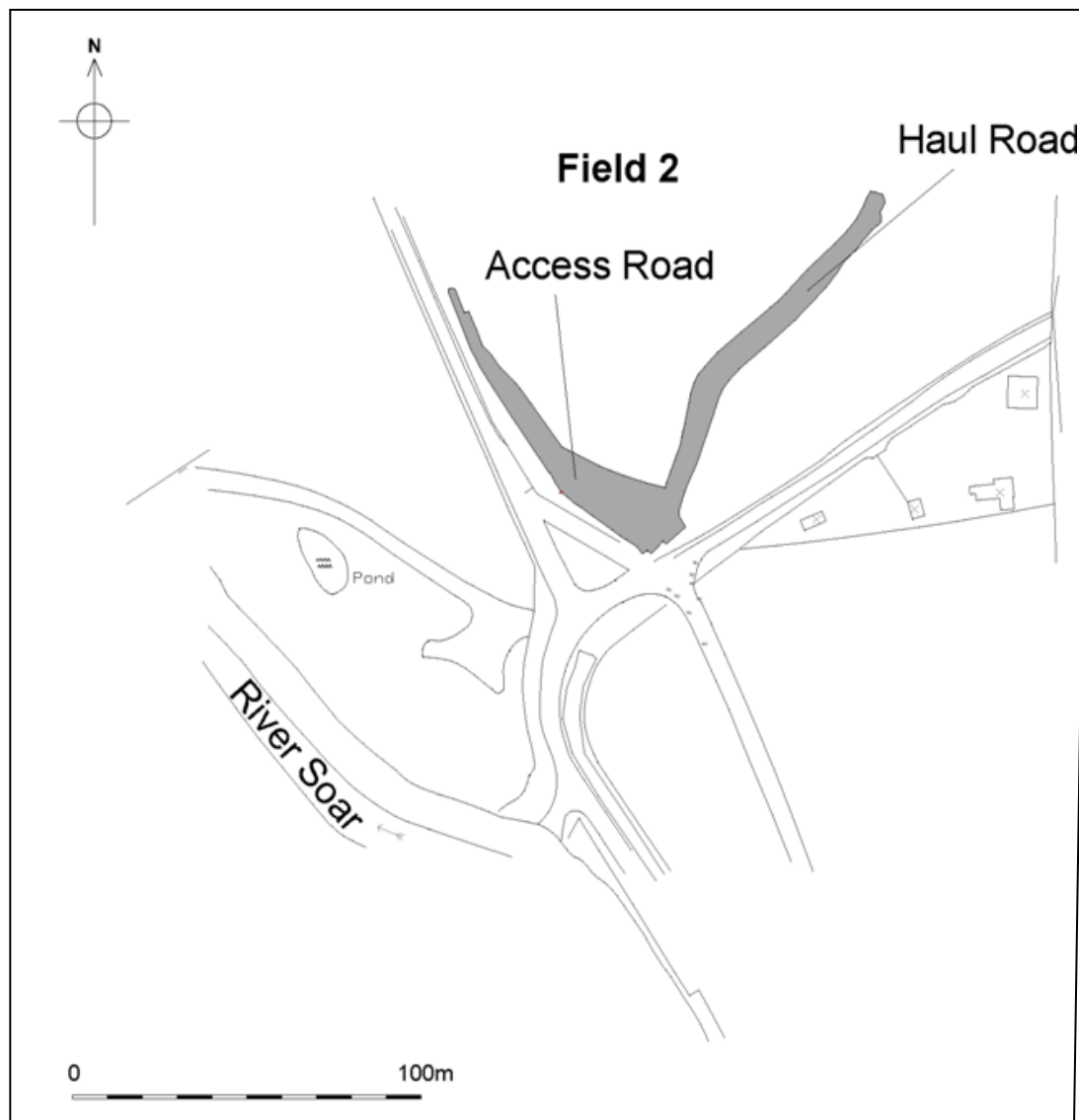


Figure 5: Plan of area of excavation (Phase 4)

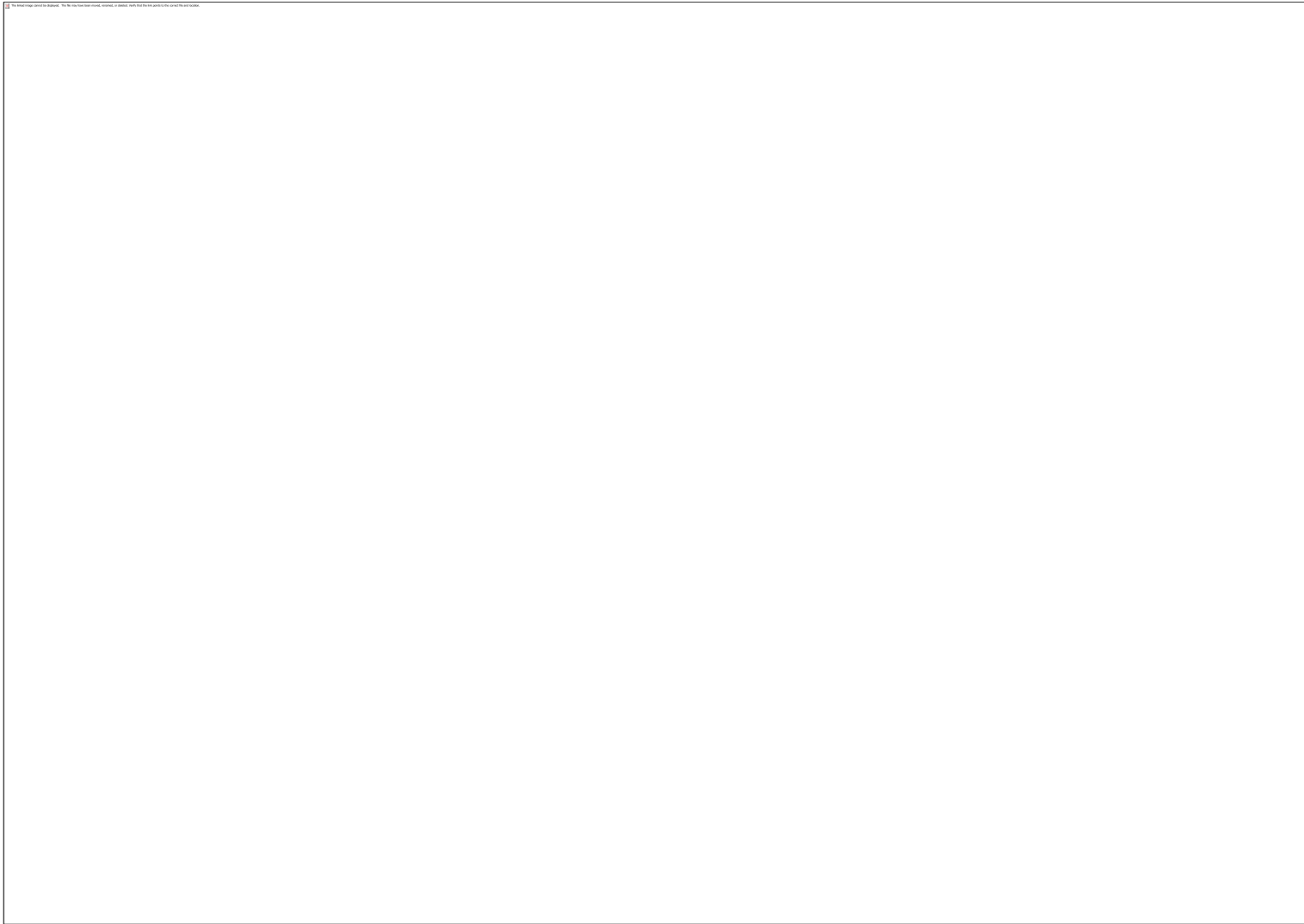


Figure 6: Post-excavation plan of site, showing features and sampled areas

Results: Phase 4 Area Excavation

Stratigraphy

The stratigraphy at the southwest end of the Haul Road comprised 0.30m of loose dark grey sandy silt topsoil (58)(Figure 7a) with up to 40% small stones and fragments of ceramic building material overlying 0.2m of greyish-brown sandy subsoil (59) (Figure 7a) with 10% sub-rounded and sub-angular stones at the south west end. Close to the middle of the area the soils deepened to 0.5m of topsoil over 0.3m of silty clay subsoil with larger pieces of building material including complete bricks and pieces of concrete. At the north-eastern end there was *c.* 0.27m of topsoil immediately above the substratum.

In a five metre section of the trench approximately 13m-19m from the south-western end was a layer of brownish pink silty clay under the subsoil (59). This layer would appear to be fill (76), fill of ditch [68], seen in section (Figure 7a). Under [68] was a dark yellowish brown sandy silt, which was likely to be fill (73). The trench varied in total depth from between 0.6m at its shallowest to 1m at its deepest.

The substratum at the south-western end was sand gradually becoming mixed with clay until it became completely mudstone at the north-eastern end. The archaeological features were largely concentrated on the sandier south-western end of the trench.

Trench 17 from the BA evaluation and Trench 32 from the ULAS evaluation were observed close to the north-east end of the area. Further modern intrusions could be seen close to the eastern baulk.

The second area to be excavated was a trench following the line of the new Access Road. The trench was *c.* 17m wide at the southern end, tapering to *c.* 2m at the north-western end. Generally the trench was of uniform depth approximately 0.85m deep. A 0.4m-0.5m layer of very loose dark greyish-brown loamy topsoil with 30% stones overlay around 0.2m mid-brown to dark brown silty sand subsoil, with far fewer stones than the topsoil (Figure 7b). Towards the north-western end of the trench was distinct layer of gravel between the topsoil and subsoil, which varied from *c.* 0.1m to 0.2m in thickness. Throughout the area the substratum consisted of brownish yellow sand with patches of gravel and patches of different colour sands ranging from pinkish-brown to yellowish-brown.

Haul Road

The most significant archaeological features within the Haul Road trench were a series of linear ditches, aligned north-south along the western side of the trench. These ran for *c.* 25m before disappearing into the baulk of the trench. They consisted of two groups of linear features, both running parallel to each other, with each group comprising two or more intercutting features (Figure 8).

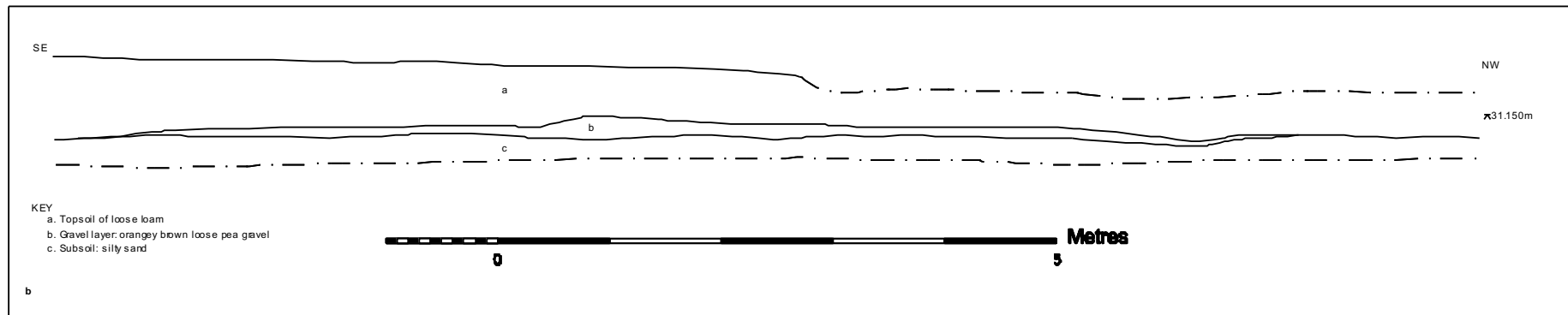
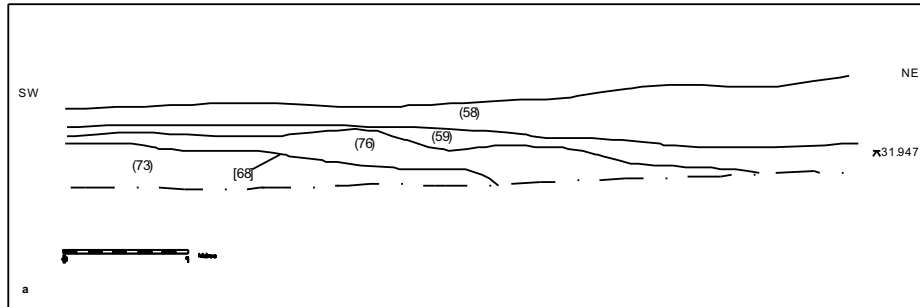


Figure 7a: South-east facing section of the Haul Road trench
Figure 7b: North-east facing section of northern end of Access Road trench

The first group comprised ditches [64], [66] and [68]. Feature [64] had gently sloping sides and a u-shaped base and had been cut by a later ditch [66], both running on a N-S alignment (Figure 8). Both ditches were *c.* 1.2-1.5m wide and *c.* 0.45m deep, although ditch [66] was only *c.* 0.25m deep at the southern end (Figure 9, a and b). It is likely that both features were truncated at their southern end (Plates 2 & 5).

The fills of [64] and [66] ((65) and (67) respectively) were of mid yellowish or reddish brown silty sand with small and medium stones, although (67) had more charcoal flecks within its mix and was consequently darker. Ditch [64] contained several sherds of Roman pottery including a complete neck and rim of a flagon, dated to the mid 2nd century. Ditch [66] contained 2nd-3rd century Roman pottery, including Black Burnished ware and pieces of Manchetter-Hartshill mortarium, plus a small piece of Samian ware dated to the 1st century. The fills of both ditches also contained animal bone.

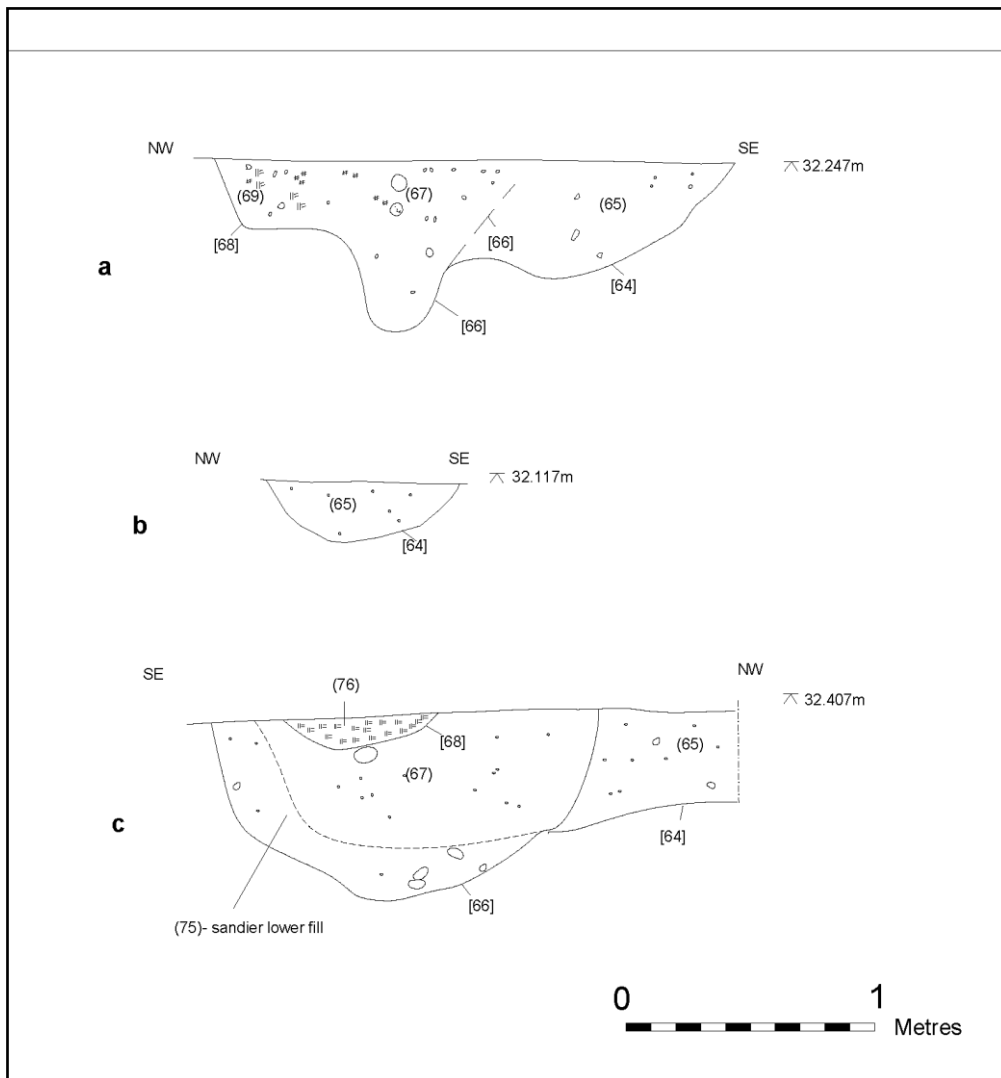


Figure 9: Ditch sections of features [64], [66] and [68] (See Figure 8)

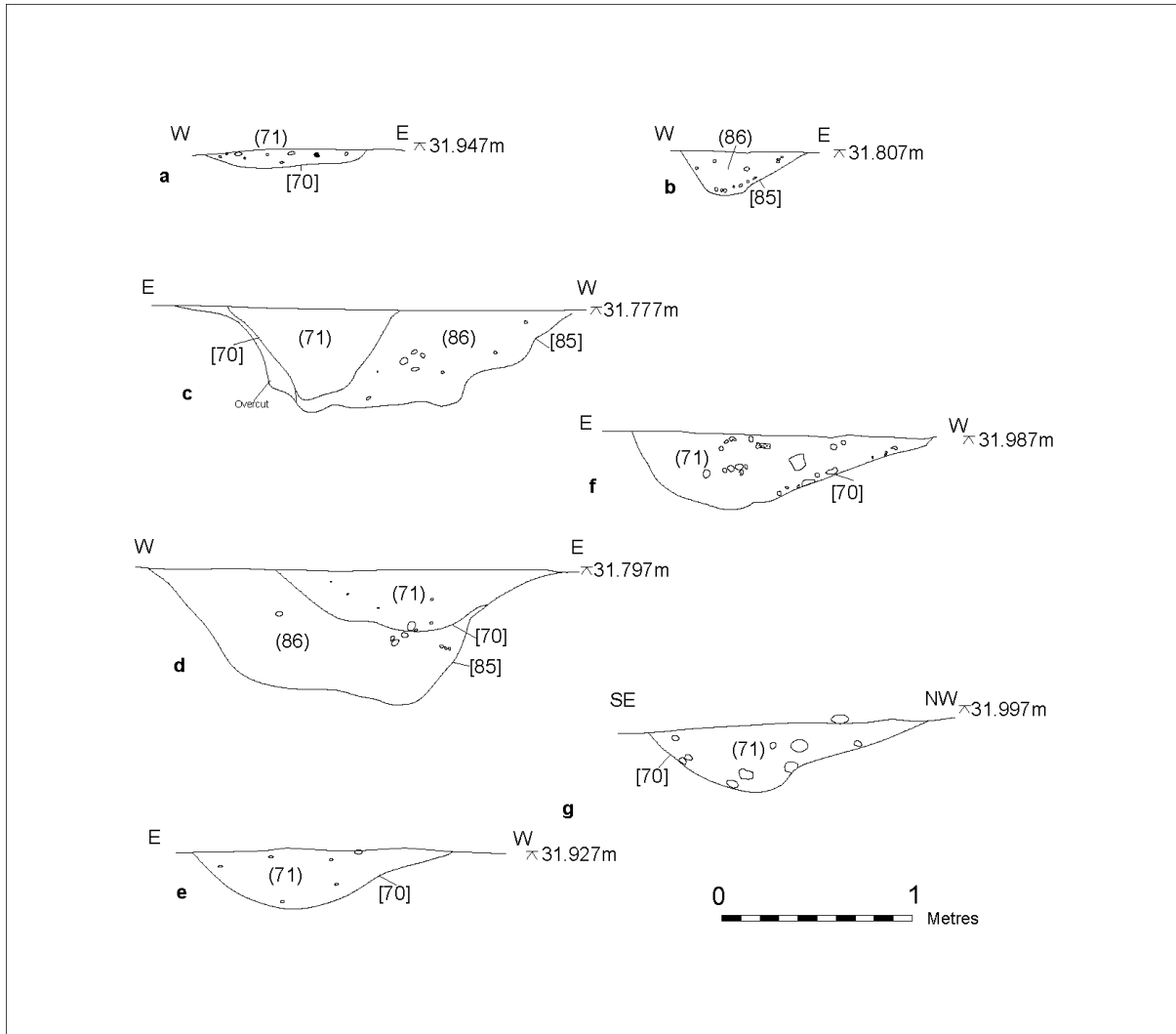


Figure 10: Ditch sections from features [70] and [85] (see Figure 8).

Ditch [66] was cut along its eastern edge by a later ditch [68]. The fill of this ditch (69) comprised yellowish-brown silty clay with clay inclusions and less than 10% stones. Further north the fill could be seen as a brownish pink clay or silty clay (possibly re-deposited mudstone) (Figure 8 (76) and Figure 9c). This fill is similarly to layer 'c' visible in the section to the north (see Figure 7a) and contained Black Burnished ware, dated to the early 2nd century.

The second group of ditches ([70] and [85]) were found to the north-east of the first group (Figure 8). Feature [70] varied between *c.* 0.7-1.5m wide and 0.1-0.5m deep with gently sloping sides (Figures 10a-g). Feature [70] cut feature [85] although the fills ((71) and (86)), were similar comprising greyish-brown sandy silt with occasional medium sized pebbles. Feature [85] varied between 1.5 - 1.9m in width and 0.6-0.7m in depth before continuing into the baulk of the trench, while feature [70] turned slightly eastwards before terminating. Ditch [85] contained Black Burnished ware, and several sherds of pottery, including a Roman

oxidised ware jar with roulette decoration and a piece of 13th century Green Glazed pottery were recovered from Ditch [70]. Both fills also contained bone.

Three isolated postholes lay close to the line of ditch [70] (Figure 8). Oval posthole [83] lay close to the southern terminus of ditch [70] and had a diameter of 0.45m x 0.25m and a depth of 0.1m (Figure 11a). The fill (84) consisted of a dark yellowish-brown sandy silt with very few angular stones, one larger pebble and Roman and medieval pottery. Feature [79], which lay further north, close to the interface of ditches [85] and [70], was very similar to [83], but with no finds (Figure 11b). A third post-hole feature [81] lay close to the end of feature [70]. This had a diameter of 0.35m and a depth of 0.13m. The fill (82) was mid-brown sandy silt with very few small pebbles; there were no finds (Figure 11c).

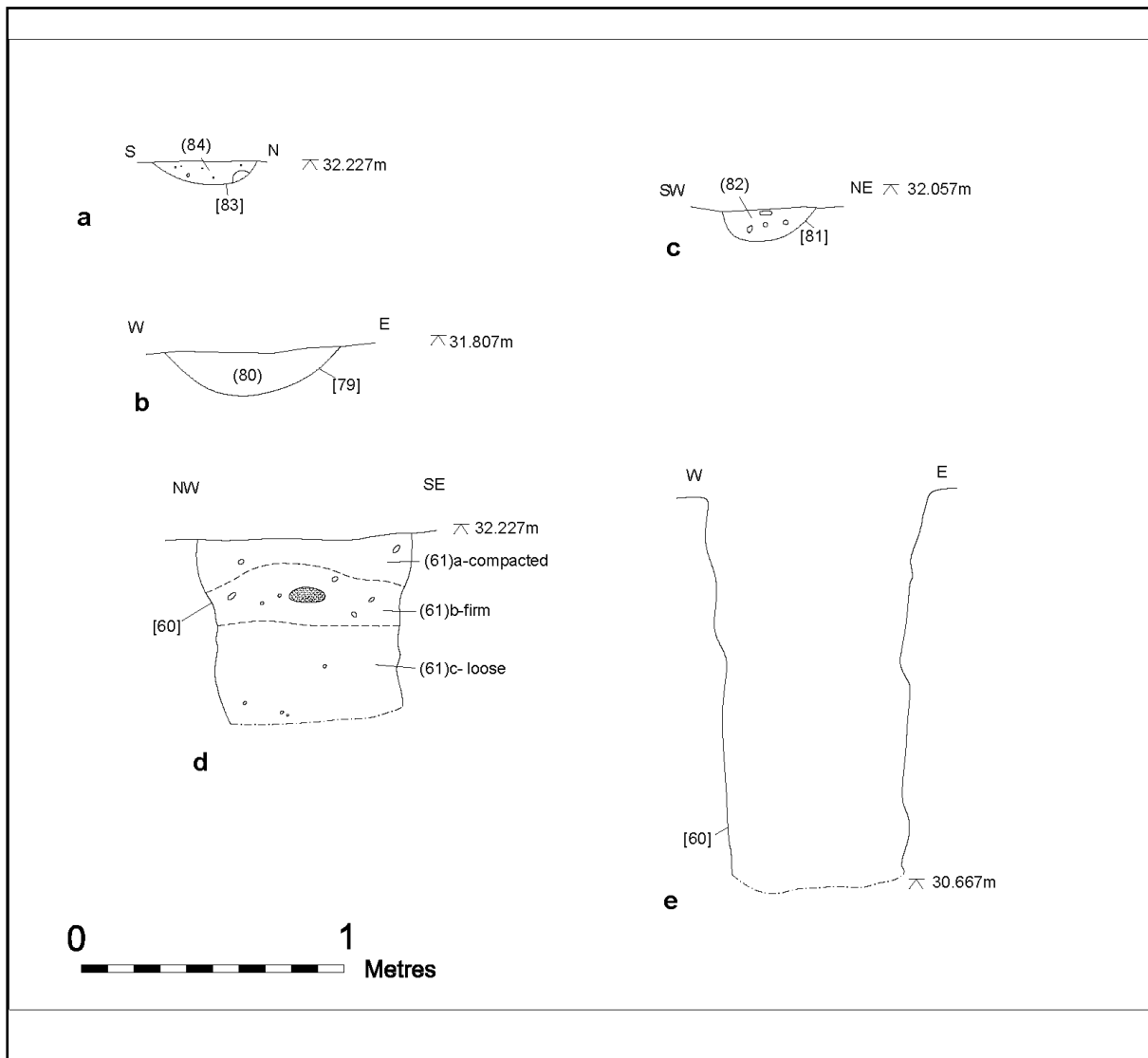


Figure 11: Well [60] and post-hole [79], [81] and [83] sections (see Figure 8)

Towards the eastern side of the trench, was a large, deep pit [60] (Figure 11d, 11e & Plate 4). This measured 0.8m in diameter and was at least 1.5m deep and vertically sided and can be interpreted as a possible well. The fill (61) consisted of brown silty clay with few stones and charcoal, bone and many sherds of medieval pottery, mostly dating to the 11th-14th centuries, including pieces of at least two Light Bodied Gritty ware jars. A single sherd of Nene Valley

colour coated ware dating to the late 2nd-early 3rd century was also recovered from the pit. The fill was far more compacted at the top of the feature.



Plate 4: Post-excitation view of well [60]



Plate 5: Post-excitation view of Haul Road, looking north

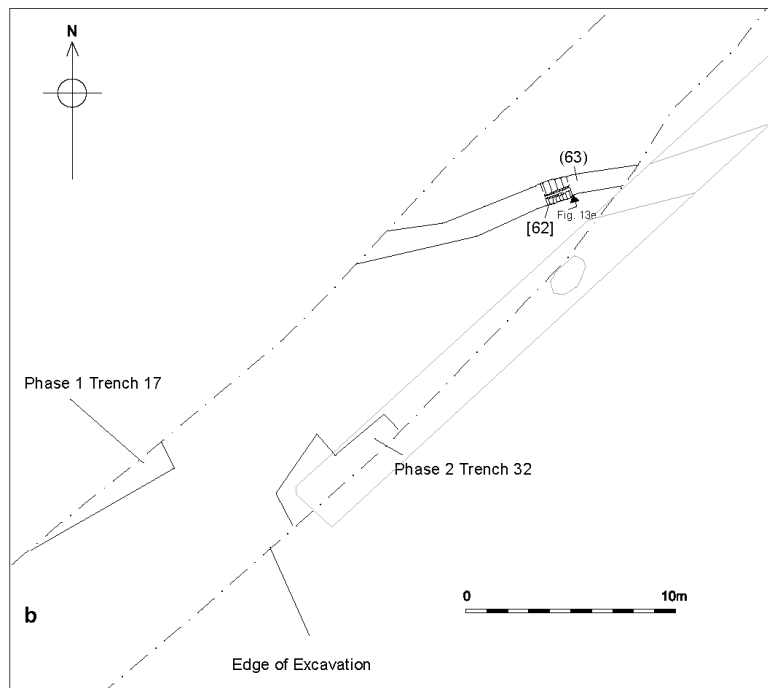
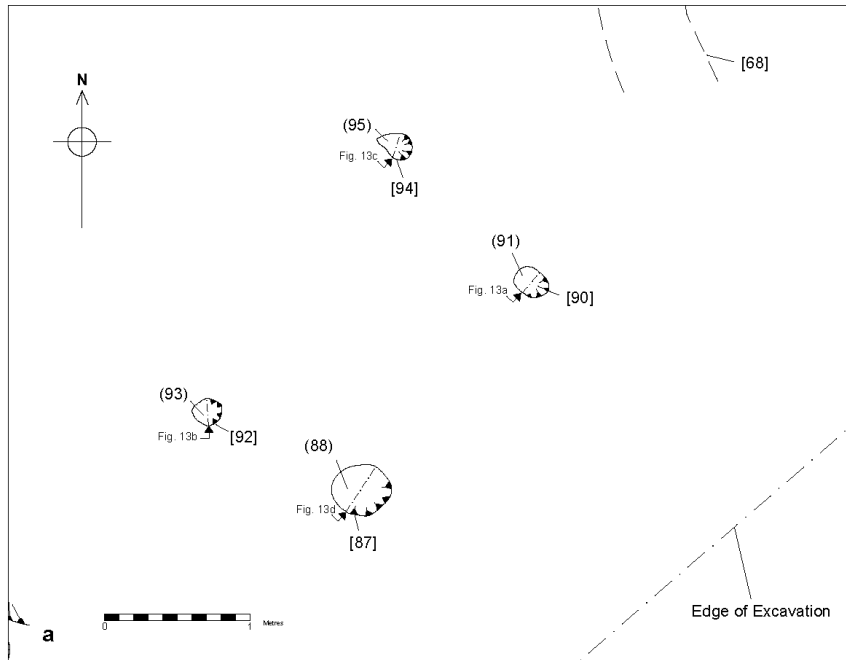


Figure 12a: Post-excitation plan of southern end of Haul Road trench
Figure 12b: Northern end of Haul Road trench

At the southern end of the trench was a group of four small sub-circular post-holes arranged in a rectangle (Figure 12a and 13a-d). Features [90], [92] and [94] were all of a similar size (around 0.2m in diameter). Feature [87] was slightly bigger at 0.35m diameter. The fills (88), (91), (93) and (95) were fairly similar consisting of dark grey brown sandy silt with occasional pebbles and charcoal flecks. Both fills (88) and (93) contained medieval pottery.

The northern part of the trench was largely featureless except for a narrow linear feature [62] (Figure 12b). This ran across the trench from west to east and was approximately 1.3m wide and 0.35m deep, with a shallow northern side and a steeper southern side. The fill (63) was a pinkish-brown silty clay with rounded pebbles (Figure 13e) and contained post- medieval and modern pottery, bone and metal.

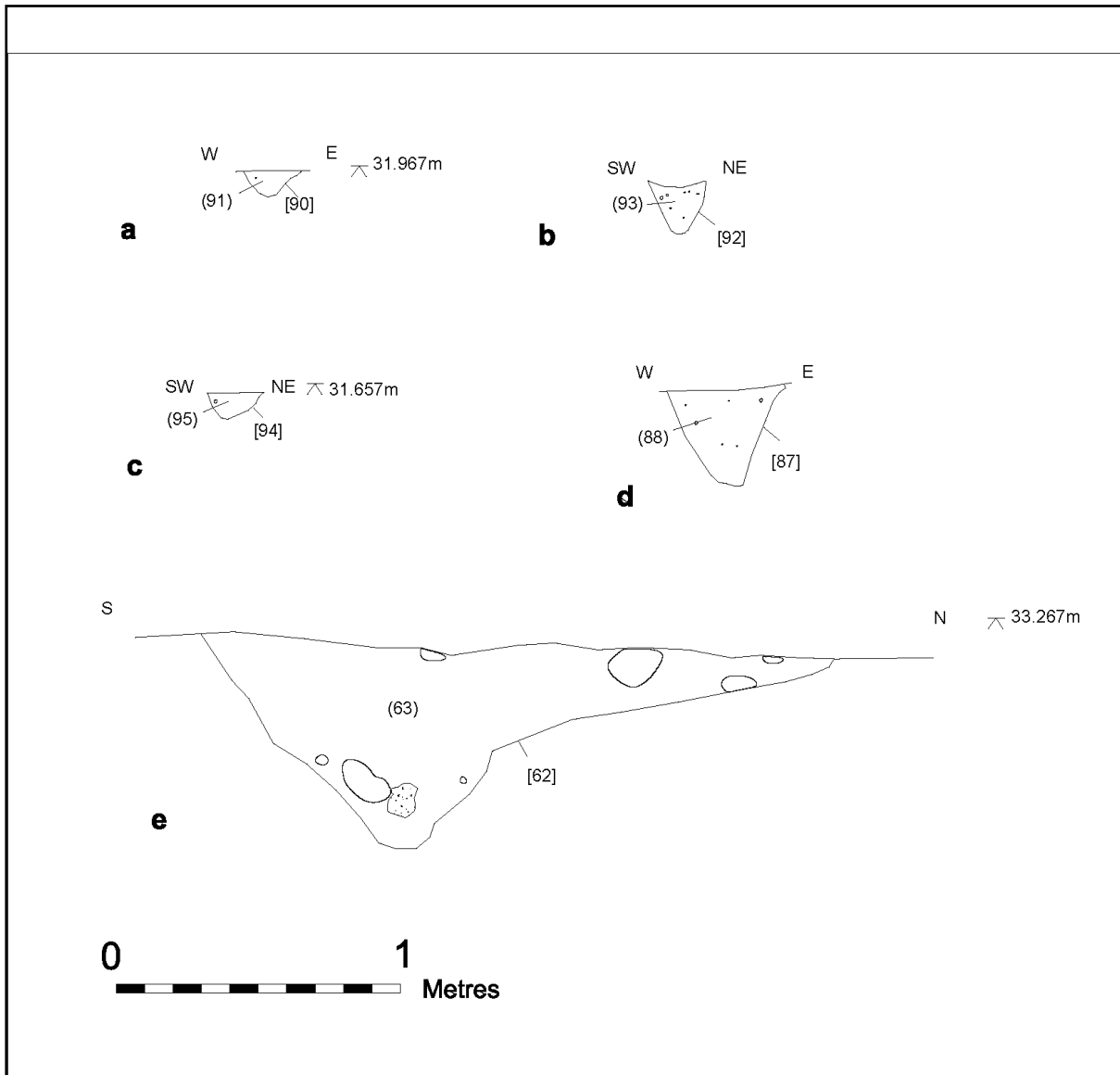


Figure 13: Sections of features [62], [87] and [94]; (see Figure 12 for locations)

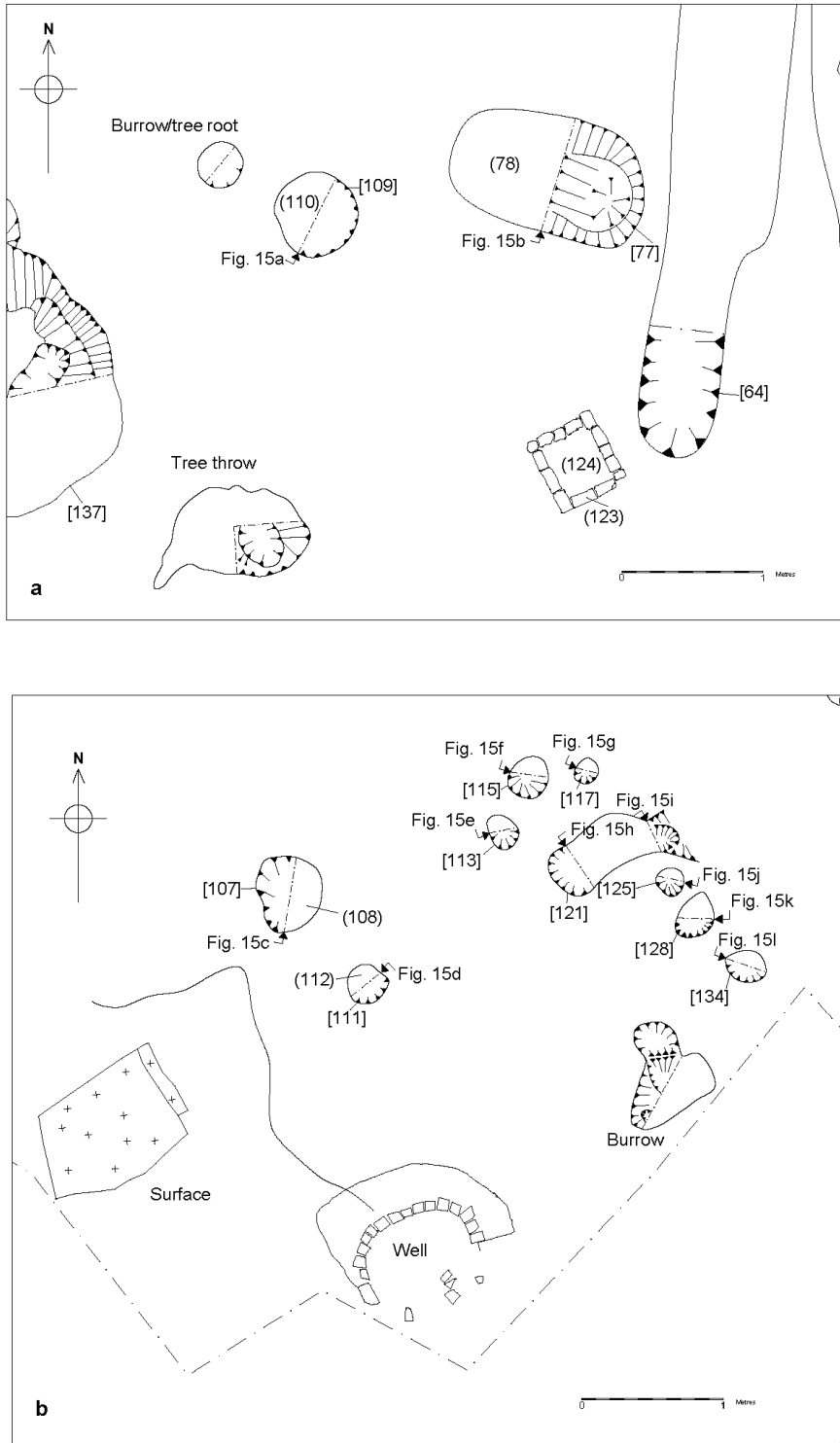


Figure 14: Post-excitation plans of south-eastern end of Access Road trench

Access Road

At the junction of the Haul Road and the Access Road was a large oval pit (Figure 14a; [77]). This measured 1.19m x 1.99m and was 0.4m deep, with fairly shallow sides and uneven base (Figure 15b). The fill (78) was orangey brown sandy silt with very occasional rounded pebbles and small angular pieces of gravel. Finds from the pit included fragments of animal bone and sherds of Roman pottery, including a grey ware jar with barbotine dot decoration and a flanged segmental bowl.

To the west of pit [77] was a pit [109], (Figure 14a) similar in form to [60]. The feature was 0.81m in diameter and was excavated to a depth of 0.8m. Further auguring showed it to be *c.* 1.2m in depth. The fill (110) was mid greyish-brown sandy silt with 5% sub-rounded stones and contained 2nd century Roman pottery and animal bone (Figure 15a).

Nearby were two shallow features that inspection revealed to be natural; most likely tree roots or animal burrows (Figure 14a). Close to the terminus of feature [64] was a rough square of roughly made red bricks of one course laid directly onto the sand substrate (Figure 14a; (123)). The bricks were burnt blue in places and were approximately 0.21m x 0.12m x 0.063m in size. These were laid end to end in a rectangular pattern measuring 0.8m by 0.73m, with the remains of a second course visible in the north-east corner. Within the square of bricks the fill (124) comprised grey silt and ash with black streaks and patches. This contained pieces of 19th century clay pipe, as well as charcoal, coal and clinker. Two modern features lay to the south-west of (123), which appeared to be a well and part of a collapsed wall or surface (Figure 14b).

Also to the south of [123] were two sub-rounded features (Figure 14b, [107] and [111]). Feature [107] was *c.* 0.71m x 0.64m and was *c.* 0.16m deep. The feature had a shallow northern edge and a steep southern edge (Figure 15c). The fill (108) was light brownish grey silty sand with frequent sub-angular pebbles and charcoal flecks and flecks of brick. The smaller feature [111] was *c.* 0.38 in diameter and 0.12m deep with smooth sides. The fill (112) was light brownish grey with common small angular pebbles and some charcoal flecks (Figure 15d). Neither feature contained any artefacts.

To the east lay a group of small post-holes and a curvilinear gully [121] (Figure 14b). The post-holes were a mixed group of various sizes. Post-holes [113], [115] and [117] lay to the north of [121] and were all sub-rounded, with smooth concave sides, between 0.24m and 0.4m in diameter. The fills ((114), (116) and (118)) were all dark greyish or yellowish-brown sandy silt with occasional sub-rounded pebbles and no finds (Figures 15e-g). Gully [121] was between 0.37m and 0.47m wide with fairly steep sides, between 0.22m and 0.3m deep, slightly shallower on the north-west side of the south-west terminus. The fill (122) was dark brown, slightly organic sandy silt with occasional sub-rounded pebbles and charcoal flecks. Artefacts from the gully included medieval pottery, flint, bone, glass and small pieces of brick and clay pipe (Figure 15h & i).

South of [121] lay three more post-holes (Figure 14b, 15j-l; [125], [128] and [134]). These formed a line oriented north-west to south-east and were similar in form to the post-holes further north. The exception was feature [128], which was slightly larger, *c.* 0.31m deep with steep sides (Figure 15k). Post-hole [134] contained several stones which may represent packing material for a post. (Figure 15l). Post-holes [128] and [134] both contained post-medieval pottery in their fill.

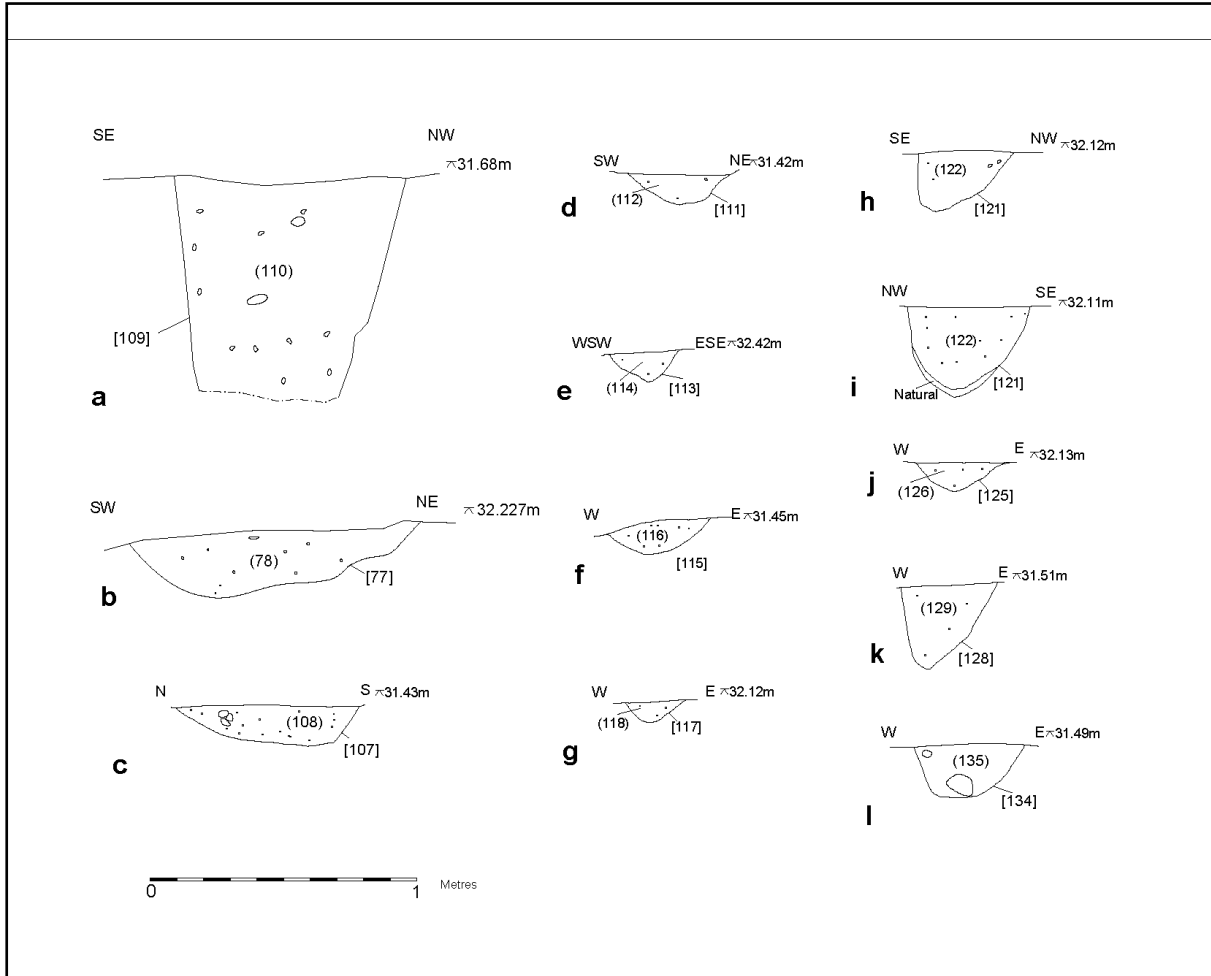


Figure 15: Sections of features [109], [77], [107], [111], [113], [115], [117], [121], [125], [128] and [134]; see (Figure 14)

Further along the trench to the north-west lay a large linear feature (Figure 16a, [131]). This feature was orientated south-west to north-east across the trench and contained modern finds such as plastic and string (Figure 17a).

North of [131] lay a shallow oval shaped pit (Figure 16a, [144]), containing modern pottery (Figure 17b). Close to [144] was an amorphous shallow pit [105], measuring 1.37m by 0.9m with uneven, shallow sides and a depth of 0.23m (Figure 17c). The fill (106), was yellowish-brown very sandy silt with small stones. The fill also contained eight sherds of Roman pottery dating to the 2nd century AD.

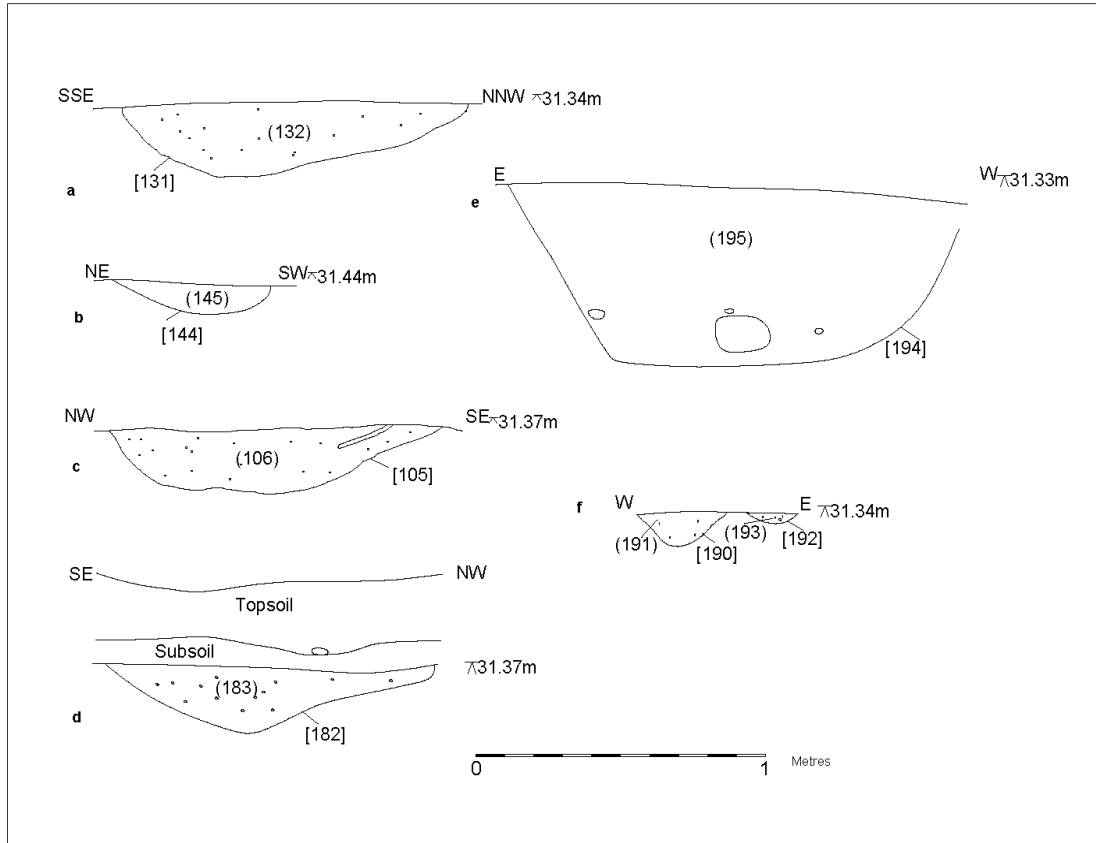


Figure 17: Sections of features [105], [131], [144], [182], [190] and [194] (see fig 16)

At the south-western edge of the Access Road trench lay pit [182] which was oval in plan, although, as it partly lay under the baulk, may have been the terminus of a linear feature. The feature was 1.02m long and *c.* 1m wide with shallow, uneven sides falling to a depth of 0.24m (Figure 16a and Figure 17d). The fill (183) consisted of yellowish-brown sand and silt with occasional angular stones and charcoal flecks. The fill also contained an abundance of Roman pottery dating from between *c.* AD 120-150 including Samian ware, amphora and sherds of a white ware flagon and pieces of animal bone.

Directly to the east of feature [182] was a circular pit (Figure 16a, [194]). This was *c.* 1.55m in diameter and 0.62m deep with gently sloping sides and a flat base. The fill comprised yellowish grey silty sand with rounded to angular pebbles and occasional larger rounded pebbles (Figure 17e, (195)). The fill was very sterile and contained no finds. Within the pit were two very small post-holes ([190] and [192]). Post-hole [190] was *c.* 0.3m in diameter with a depth of 0.12m. It was smooth and concave in section (Figure 17f) with a fill of pinkish brown clayey sandy silt with occasional pebbles and large flecks of charcoal. Post-hole [192] was similar but approximately half the size of [190] (Figure 17f).

To the north-west of these [131] was a large group of pits and post-holes (Figure 16b). Feature [150] was a modern post-hole containing a modern mug handle, metal and bone

To the west of post-hole [150] was an oval pit [171], measuring 0.54m x 0.42m with a depth of 0.2m. The sides were sloped at a 45° angle and the feature had an uneven base (Figure

18b). The fill (172) was yellowish-brown sandy silt with few small and medium stones, small pieces of charcoal, post-medieval or modern earthenware pottery and the bone from a foal. To the northwest was pit [165], which measured 0.55m x 0.3m with a depth of 0.18m. The sides of the pit were gently sloped with a flat base (Figure 18c). The fill (166) was dark brown sandy silt with small stones and charcoal flecks. The fill contained post-medieval and modern pottery and a partial pig skeleton. Close to these two features lay feature [167], a small round pit, 0.28m in diameter and 0.12m deep with steep sides and a flat base. The fill (168) was yellowish-brown silty sand with few very small stones, an animal tooth and a large piece of a grey ware jar, dating to the 3rd century AD onwards (Figure 18d). Another small, shallow pit [163], 0.2m in diameter lay nearby with a fill (164), of dark yellowish-brown silty sand with no dating evidence (Figure 18e).

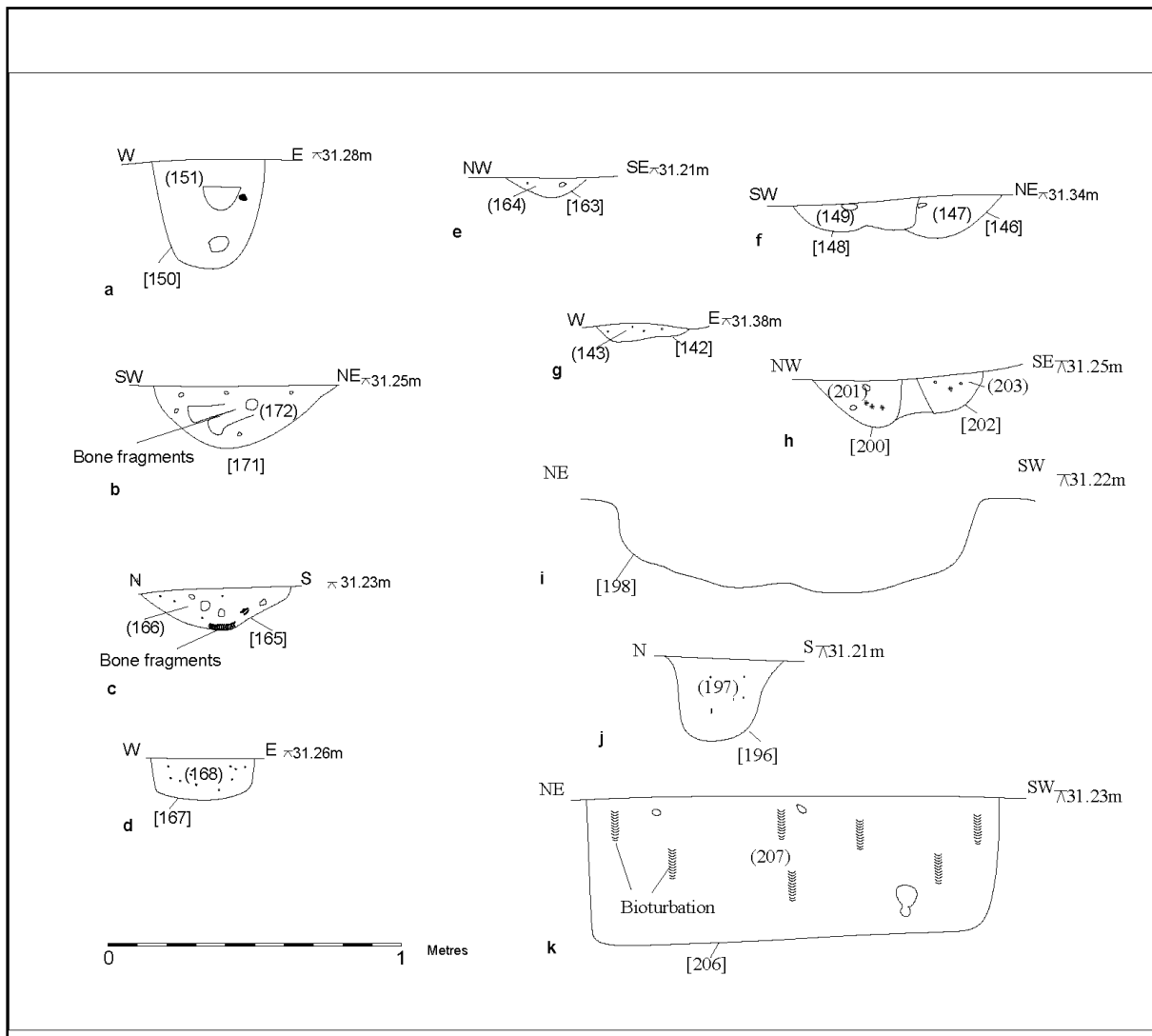


Figure 18: Sections of features [150], [164], [148], [171], [142], [165], [198], [167], [196] and [206] (see Figure 16).

To the east lay two pits [146] and [148]. Pit [146] was *c.* 0.35m long; its width was cut by [148] on the south-west side (Figure 18f). Pit [148] was 0.53m long, 0.46m wide and 0.13m deep. The fills (147) and (149) were subtly different with (147) comprising brownish-grey silty sand with frequent stones and some charcoal flecks and (149) comprising sandy silt with occasional gravel, larger rounded pebbles and Romano-British pottery. North of these

features was a smaller pit [142], sub-circular in shape. It was very shallow (only 0.06m deep) with a fill (143), of orangey-brown sandy silt with small gravelly stones (Figure 18g).

To the west of these features were two small pits (Figure 16b, [200] and [202]). Pit [200] was almost oval in plan and measured 0.36m x 0.28m and was 0.13m deep with fairly steep sides and a curved base (Figure 18h). Pit [202] was very similar in form, 0.28m in diameter and 0.16m deep. Both fills (201) and (203) comprised mid yellowish-brown sandy silt with few small stones. Fill (201) contained post-medieval/modern pottery.

To the north of [200] lay a large lozenge shaped pit containing a large pig skeleton [198] (Figure 16b & Plate 6). The pit measured 1.27m long and 0.48m wide and had steep sides and a flattish but uneven base (Figure 18i). The pit appeared to have been cut to exactly the right size for the carcass, a young female pig (Appendix VI). The pit fill (199) was dark grey silt with sandy streaks and sub-angular stones. Post-medieval and modern pottery was also recovered from the pit.



Plate 6: Post-excavation view of feature [198] with pig carcass in situ

Post-hole [196] was sub-oval in shape measuring 0.38m x 0.3m and 0.29m deep with vertical sides and a rounded base (Figure 18j). The fill (197) was mid dark yellowish-brown silty sand with very few small stones and no artefacts. To the east of this feature was a large sub-circular pit [206], 1.55m wide with almost vertical sides and a flat base (Figure 18k). The fill (207) was yellowish-brown silty sand, with a few large cobbles and flat stones. The pit contained one piece of Iron Age scored ware pottery.

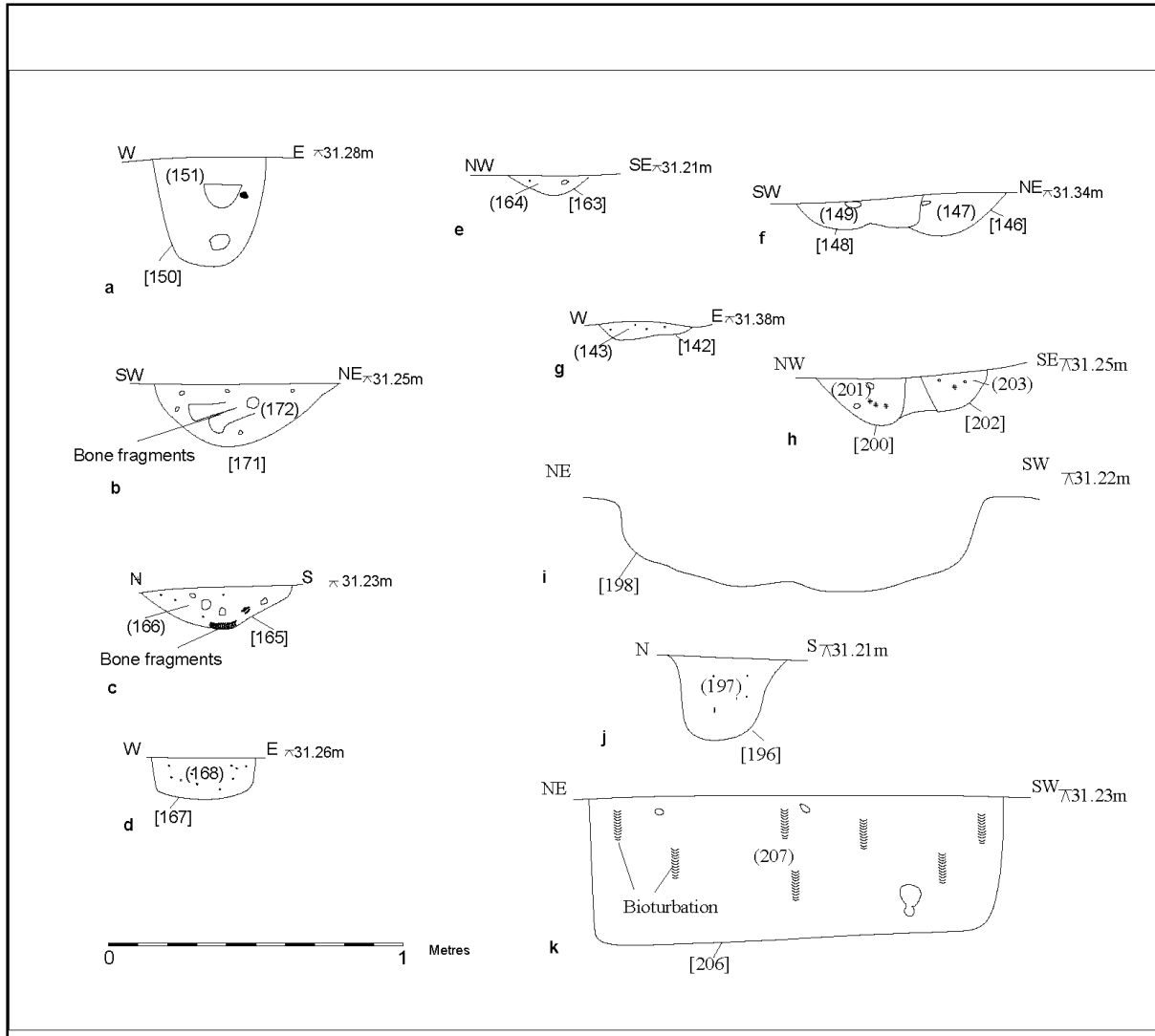


Figure 19: Sections of features [154], [173], [175], [177] and [14] (see Figure 16).

To the east of [206] lay a much larger rectangular feature (Figure 16b, [154]) measuring 2.33m x 1.33m and 0.42m deep had vertical sides and an uneven base (Figure 19a). The fill (155) was dark greenish brown silty sand with small stones. The fill was very uniform but contained Roman grey and Black Burnished ware and animal bone. Cut into the top of this feature were a number of smaller features, including feature [152], which was a long oval shaped pit, measuring 0.64m by 0.3m and 0.2m deep with fairly steep sides and a curved base (Figure 19b).

Feature [152] was *c.* 0.2m deep and almost entirely full of animal bone and a single piece of grey ware pottery. The fill (153) was very dark yellowish-brown sandy silt and considerably darker than the fill of the rectangular pit.

Also cut into [154] was a small pit [173], measuring 0.22m x 0.17m and *c.* 0.07m deep. The fill (174) was brownish-grey silty sand and contained no finds (Figure 19c). Nearby lay two larger pits; [175], cut into pit [154], and [177]. Both features were of a similar size; *c.* 0.32m in diameter, and very shallow (Figures 19d). Fills (176) and (178) were greyish-brown sandy silt with occasional rounded pebbles and charcoal flecks. Post-medieval pottery was recovered from fill (178). Sub-circular feature [179], was of similar size to [175] and [177],

although deeper at 0.22m. The fill (180) was identical to (176) and (178) and contained post-medieval/modern pottery (Figure 19e). A further sub-circular feature [140] lay close-by. This was *c.* 0.29m in diameter with concave sides and a curved base (Figure 19f). The fill (141) was orangey-brown silty sand with occasional pebbles and no finds.

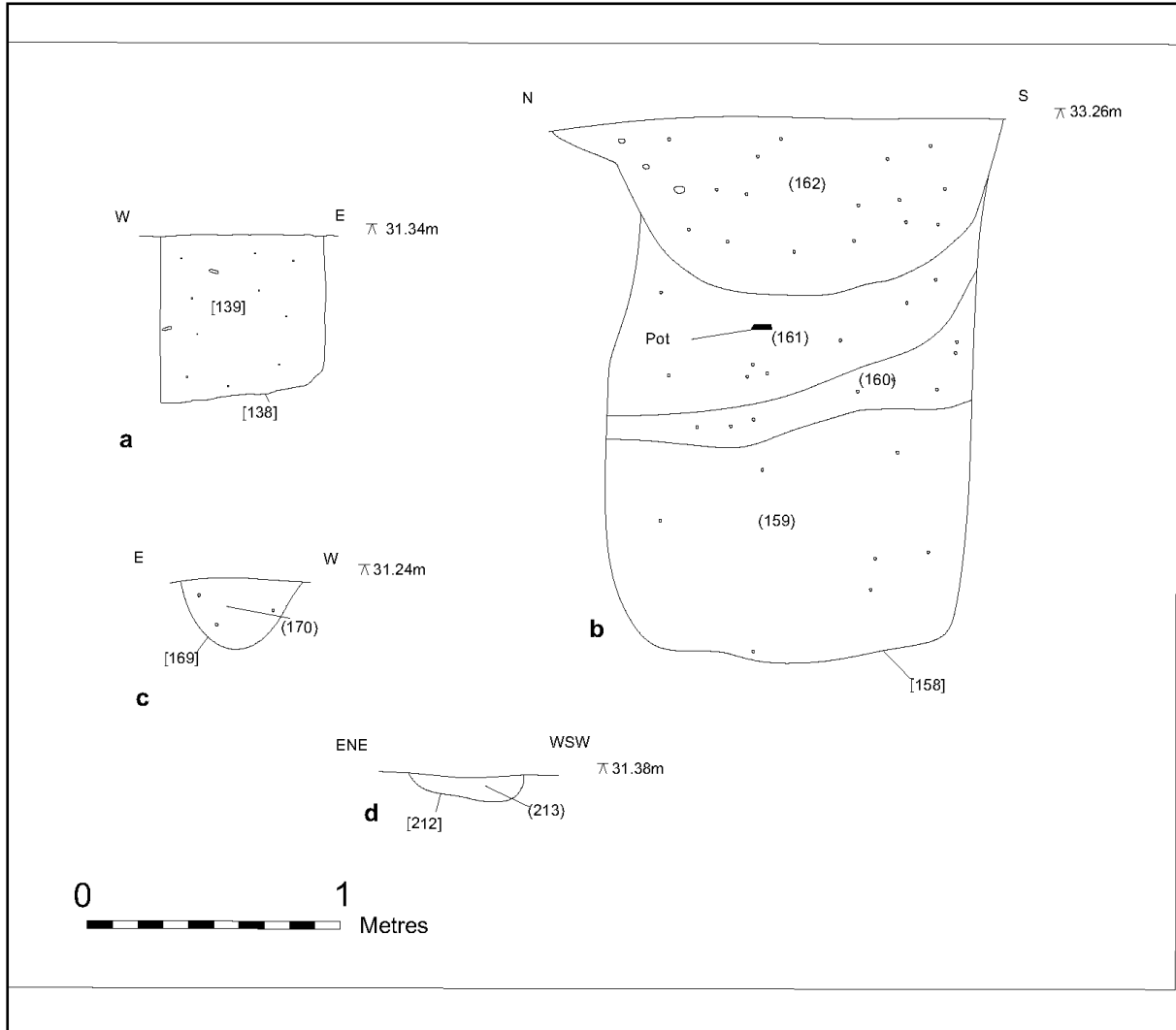


Figure 20: Sections of features [138], [158], [169] and [212] (See Figure 16).

East of this group of features lay a rectangular pit [138], measuring 0.94m x 0.64m, and 0.7m deep (Figure 16b). The pit had vertical sides and a base that sloped slightly to the west (Figure 20a). The fill (139) was dark brown, almost black silt, which was very fine and appeared to contain organic material. The fill contained occasional sub-rounded pebbles and cobbles and one large heat affected stone along with bone and post-medieval pottery.

A slightly larger pit [158] lay to the north (Figure 16b). This pit was *c.* 1.25m long, 1.05m wide and 1.29m deep, with near vertical sides (undercut in places) (Figure 20b). The primary fill (159), comprised dark greyish-brown sandy silt with occasional large rounded cobbles, some of which were heat affected. This fill contained numerous artefacts, including pieces of Roman pottery (grey ware, shelly ware, Nene Valley coated wares comprising beakers, a jar and a castor box, five sherds of Samian ware), and slag. Overlying [159] was yellowish-orange silty sand (160) with very small angular pebbles. This fill was very sterile and may

represent washed-in natural sand. This was overlain by a brownish grey silty sand (161), with occasional sub-angular pebbles and charcoal flecks, Roman pottery, glass, bone and a piece of clay pipe. The final fill of the pit (162) was dark brownish grey sandy silt with clay and containing frequent angular and sub-rounded pebbles, some heat affected. This fill also contained modern pottery, bone, glass and metal nails dated to the Roman period.



Plate 7: West-facing section of feature [158]

Close to the large pit lay a small post-hole (Figure 16b, [169]), measuring 0.36m x 0.29m and 0.18m deep (Figure 20c). It was sub-circular with steep sides and a u-shaped base. The fill (170) consisted of an orangey greyish-brown sandy silt with frequent sub-angular pebbles and contained no dating evidence. West of [169] lay a shallow pit [212], 0.4m x 0.38m and 0.09m deep (Figure 20d). The fill (213) was sandy silt with no stones and no artefacts.

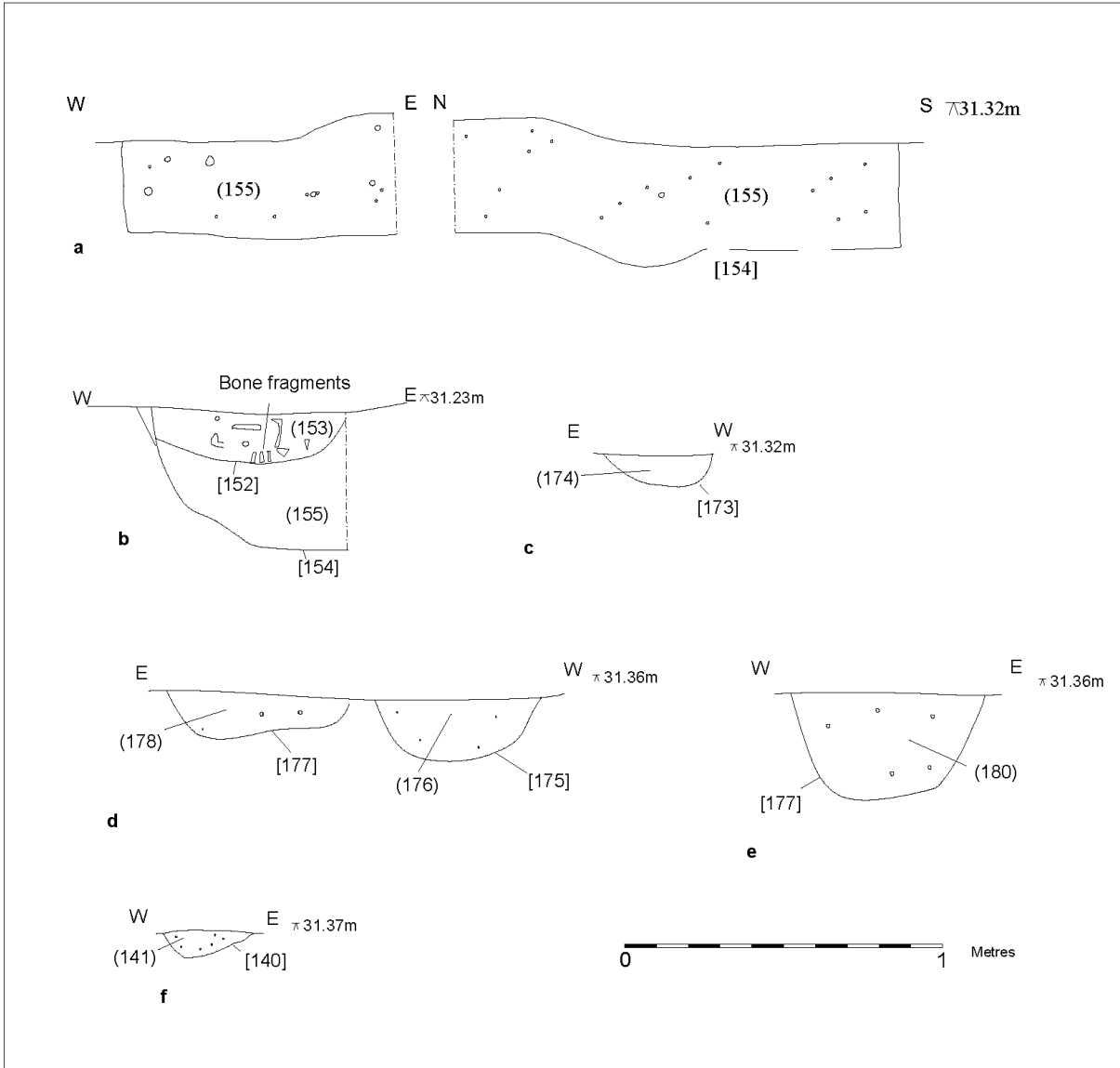


Figure 21: Plan of large features within Access Road trench

To the east of this group of pits and post-holes lay pit [137], measuring 2.75 metres in diameter (Figure 21). The sides of the pit were fairly steep sided and the sides and base of the pit were irregular, suggesting steps cut into it. The main fill of the pit (130), comprised greyish-brown sandy silt, with a few sub-rounded pebbles. The fill contained 44 sherds of Roman pottery, mostly grey ware and oxidised ware jars and bowls as well as flint and bone (Figures 21 a-d). The pit had been disturbed by bioturbation, represented by fills (127) and (133) in the sections. The centre of [137] was filled with pink and orange silty sand (136) which is likely to be the fill of a later feature cut into (130) and [137] (Plate 8).



Plate 8: South-facing section of feature [137]

Cut into the top of feature [137] on the northern side was a sub-circular pit (Figure 21, [156]) with steep, straight sides and a flat base (Figure 22b). The pit measured 0.32m in diameter and was 0.13m deep. The fill (157) was dark brownish grey sandy silt with very few pebbles and similar range of Roman pottery to (130) and (127).

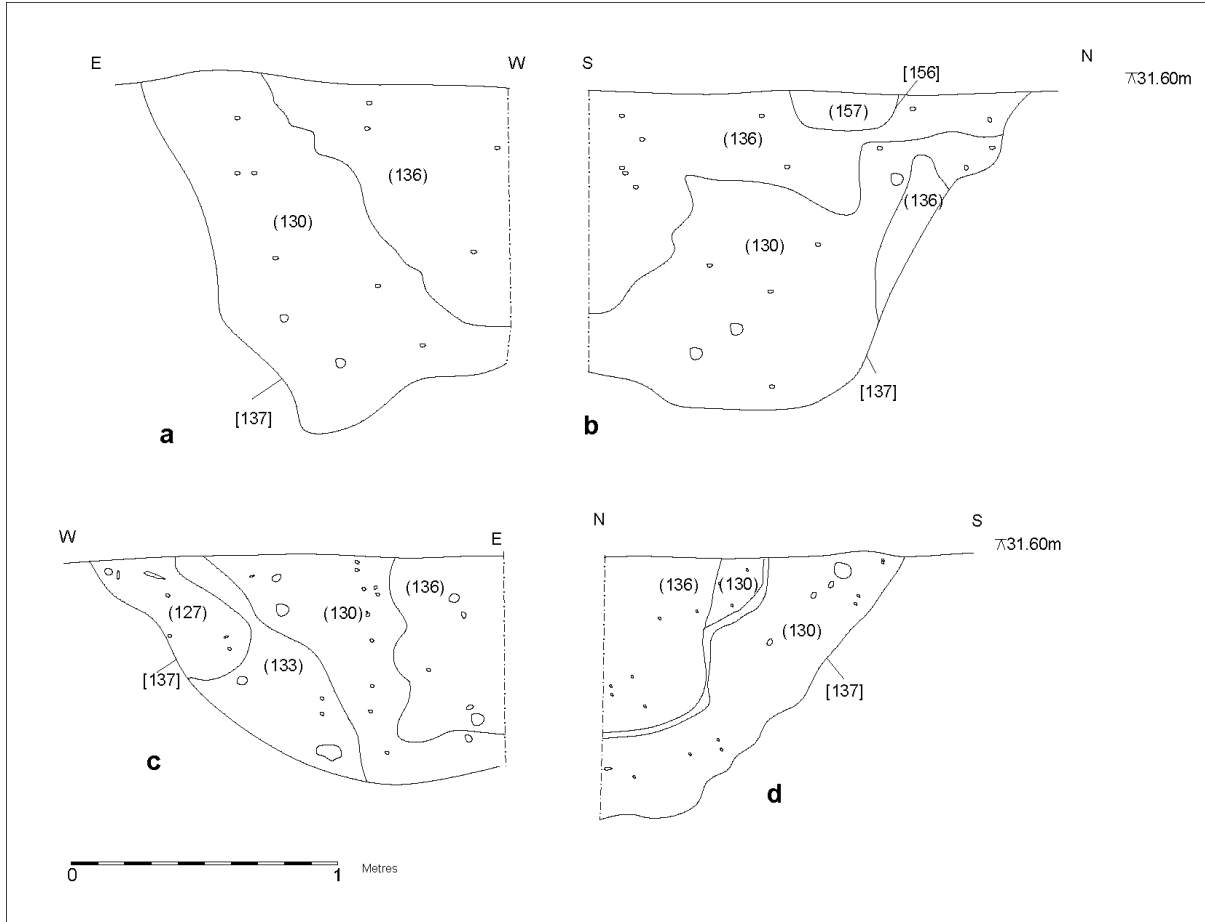


Figure 22: Sections of feature [137]

Directly north of [137] was the terminal of a linear feature [218], which ran north-west and under the edge of the excavation (Figure 21). The feature was *c.* 0.64m wide at the northern end, 1.1m in the middle and narrowing to 0.3m at the southern end, and was between 0.2-0.4m deep with irregular sides and base (Figures 23a & b). The fill (181) was grey sandy silt with some very small stones and 18 sherds of Roman pottery, including a very fine white beaker or jar, and Samian ware. However, it also contained some modern earthenware pottery. Close to the northern end, [218] was cut by a large rectangular feature [210] (Figure 23c, d & e) measuring 1.5m by 0.60m and *c.* 0.8m deep. The fill (211) consisted of a very mottled brown and black silty sand and sandy silt containing Roman, medieval and modern pottery, bone and charcoal.

Either side of the northern end of ditch [218] were two post-holes, ([225] and [236], Figure 21). Post-hole [225], to the east of the ditch, was oval shaped, 0.35m by 0.4m with steep sides to a depth of 0.4m and a flat base (Figure 23f). The fill (226) was dark brown sandy silt with small stones, medieval and post-medieval pottery and animal bone. Post-hole [236], to the west of [218] was circular, 0.35m in diameter and was steep and uneven sided with a depth of 0.3m (Figure 23g). The fill (237) was very similar to (226) and contained sherds of Roman amphora and a grey ware necked jar.

Sub-rectangular feature [185] lay to the west of feature [218]. It was 0.79m by 0.48m and 0.27m deep with vertical sides and a flat base (Figure 23h). The feature contained a fill (184) of greyish-brown sandy silt, containing two sherds of grey ware, 17th-18th century earthenware and several Roman nails. To the west of [185] lay an irregular shaped shallow pit [188], measuring 0.53m in diameter, and with uneven sides to a depth of just 0.08m (Figure 23i). The fill (189) was a mottled yellowish-brown and dark yellowish-brown silty sand with very few angular stones, charcoal and contained a sherd of a Roman white ware flagon.

A small post-hole [186], lay to the south with a diameter of 0.32m and a depth of 0.12m (Figure 23j). The fill (187) was identical to (189) and also contained late medieval pottery.

There were fewer features at the northern end of the trench. Feature [220] was a sub-oval, almost angular pit with steep and vertical sides (Figure 24). The base was flat and the feature measured 0.85m by 0.65m and was 0.27m deep. The fill (219) was a dark greyish-brown sandy silt with mottles and patches of orange brown sand. The matrix included sub-rounded pebbles and also contained sherds of an amphora and a sandy ware beaker or jar and animal bone (Figure 25a).

To the west of this pit lay a sub-circular pit or post-hole [222], 0.66m x 0.61m with a vertical eastern side and a gently sloping western side. It had a flat base at a depth of 0.31m. The fill (221) was a greyish-brown sandy silt with sandy patches containing sub-rounded pebbles along with some coal and clinker fragments, but no datable artefacts (Figure 25b).

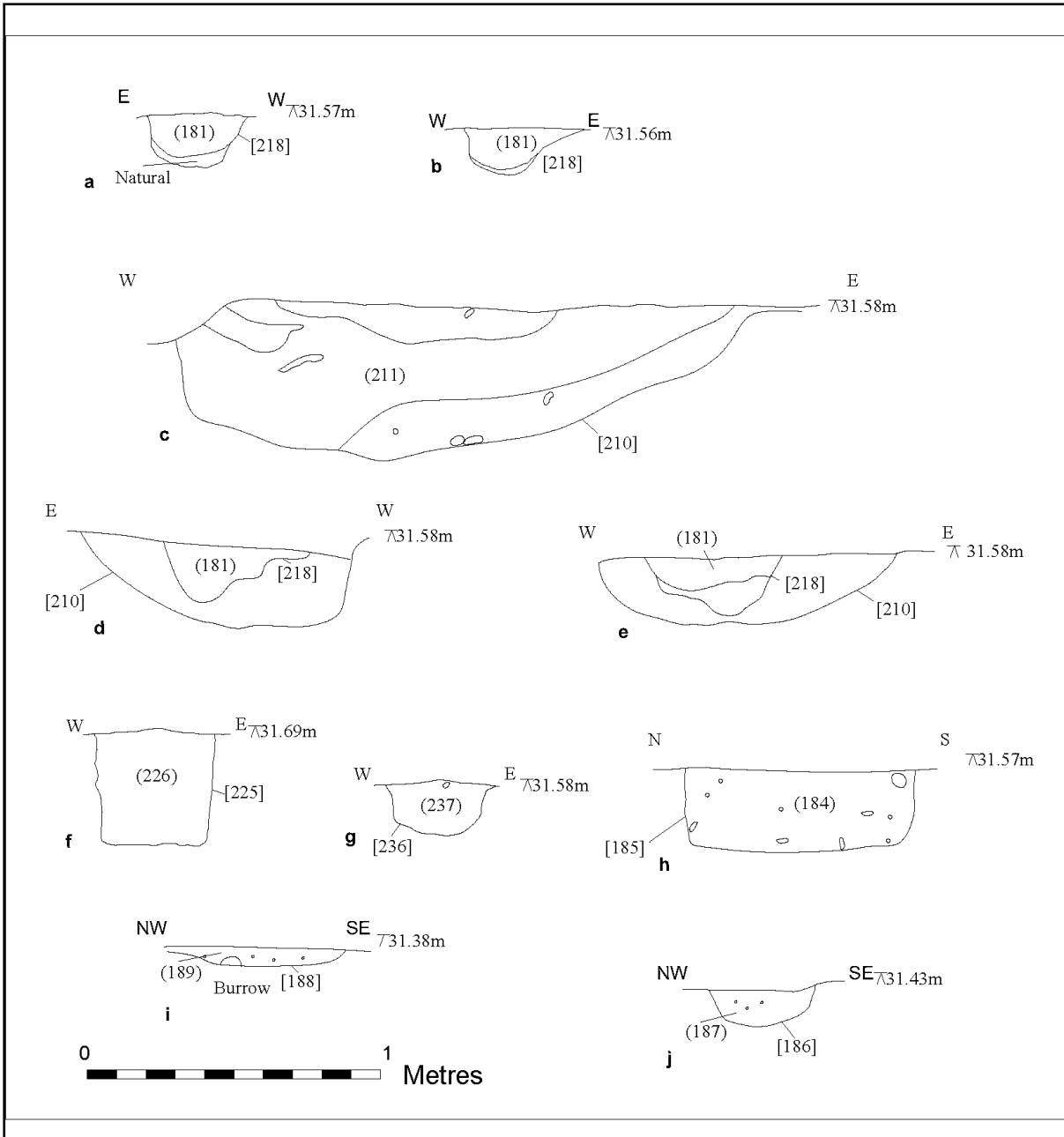


Figure 23: Sections of features [218], [210], [225], [185], [188] and [186] (See Figs 21 and 24)

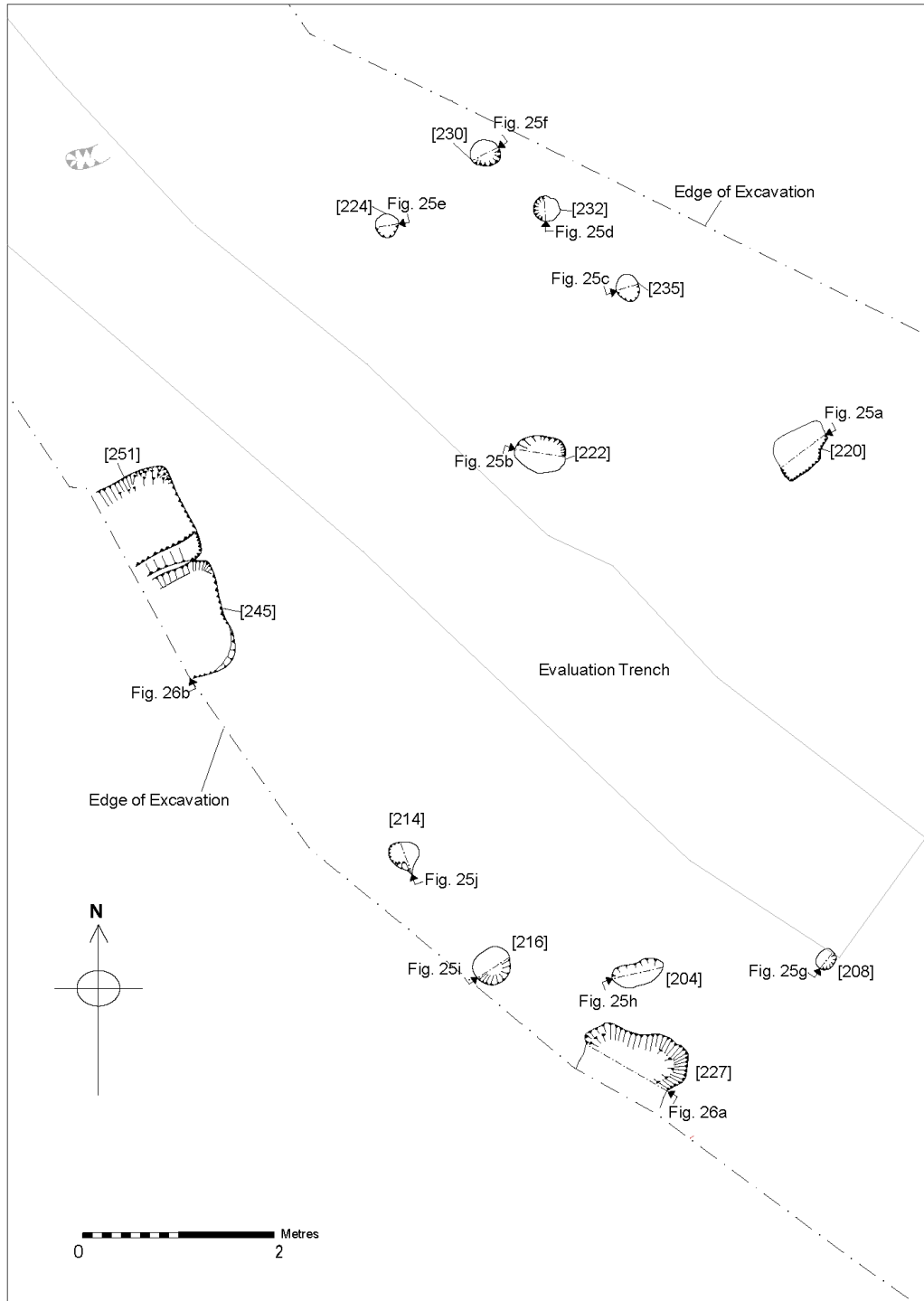


Figure 24: Post-excavation plan of central part of Access Road trench

To the north of [222] lay a group of smaller pits and post-holes. [235] was a circular post-hole measuring 0.4m in diameter with vertical sides and a flat base at a depth of 0.24m. The fill (234) was a dark greyish-brown silty sand with small sub-rounded pebbles, but no finds (Figure 25c). Circular pit [232] lay to the north-west, 0.38m in diameter and 0.19m deep with steep sides and a flat base. The fill was identical to (234) and contained no finds (Figure 25d). Circular feature [224] lay to the west of [232] with steeply sloping sides and 0.65m deep. The fill was very similar to the other features (Figure 25e). The final feature in this group was [230], a circular pit, 0.41m wide and 0.16m deep with steeply sloping sides and a flat base. The fill (229) was the same as the neighbouring features and it too contained no dating evidence (Figure 25f).

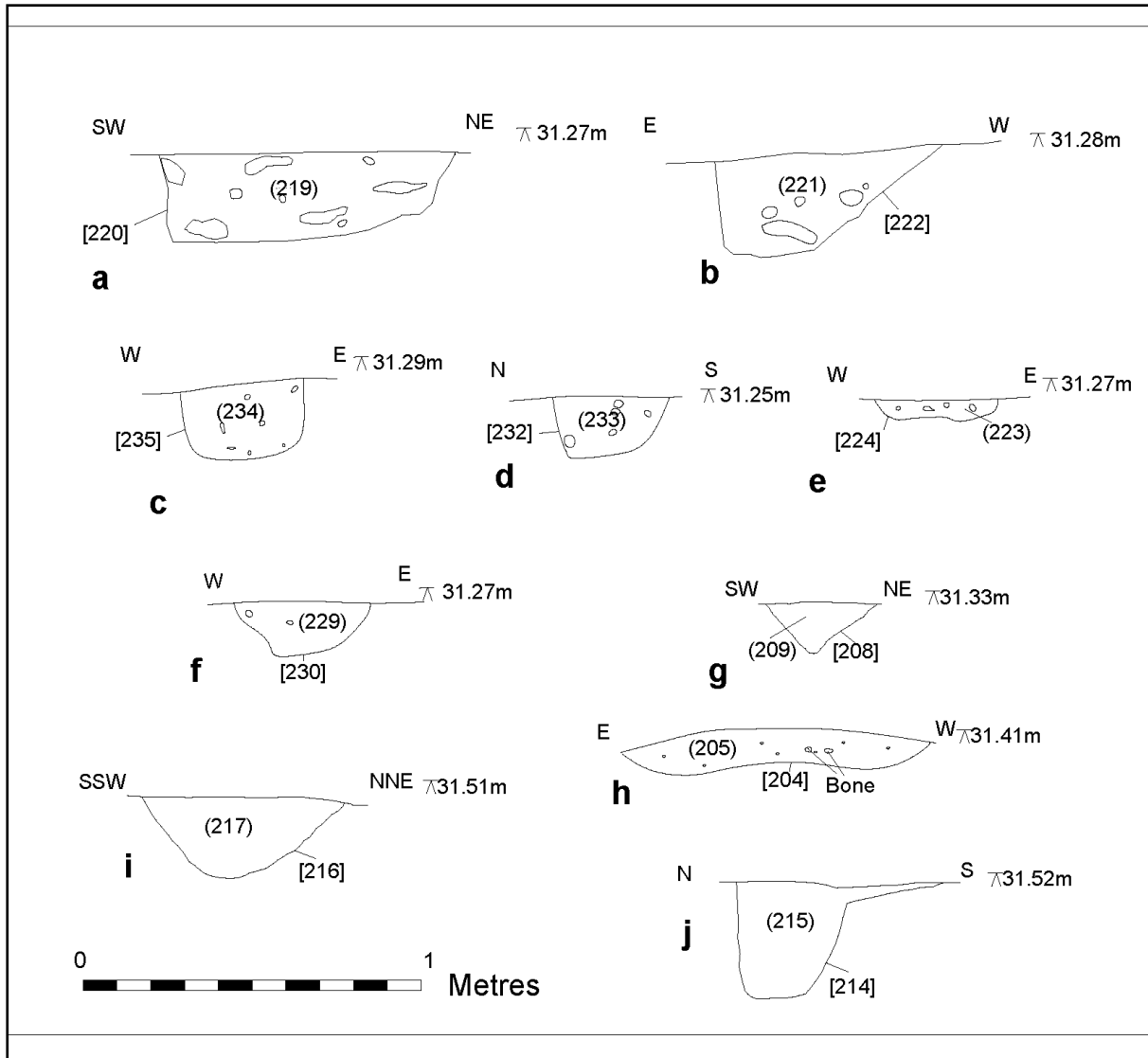


Figure 25: Sections of features [220], [222], [235], [232], [224], [230], [208], [216], [204] and [214] (see Figure 24)

At the southern edge of the evaluation trench was a small pit [208], which had an almost v-shaped profile (Figure 25g), and an almost concave north-eastern side. The fill (209) was of dark greyish-brown sandy silt with no finds. To the west of this feature was an irregularly shaped pit [204] with a very uneven base and very shallow sides (Figure 25h). The fill (205) was very similar to (209) but contained some animal bone.

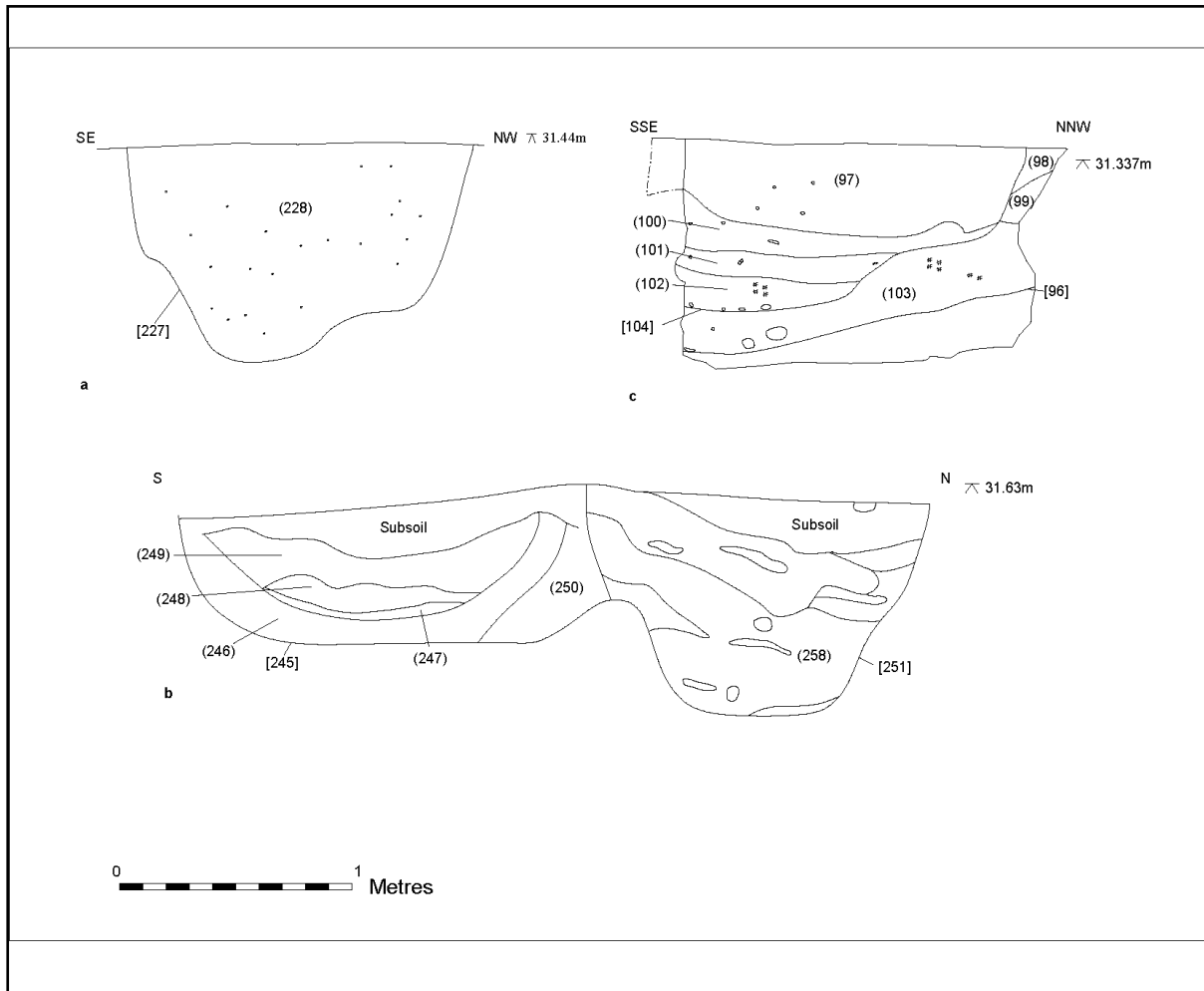


Figure 26: Sections of features [227], [104], [96], [245] and [251] (see Figure 24)

To the west of this pit was circular posthole [216], measuring 0.65m in diameter with gently curving sides and a curved base at 0.26m. The fill (217) was very dark brownish grey with small sub-angular pebbles, and Roman pottery, including a piece of a Samian ware dish, charcoal and animal bone (Figure 25i). Feature [214], which lay to the north was a more irregular feature measuring 0.62m by 0.44m with steep sides and a flat base at 0.37m. The fill (215) was very similar to (217) and also contained Roman pottery as well as animal bone (Figure 25j). Close to this pit at the south western edge of the excavation was feature [227], which may have been the terminal of a ditch. Its width was *c.* 1.5m with a depth of 0.43m. The sides of the feature were uneven and slightly stepped, leading down to a fairly flattish base. The fill (228) was greyish-brown sandy silt with inclusions of charcoal, shale and heat affected pebbles as well as animal bone, tile, Roman and slag (Figure 26a).

A further pair of large features, [251] and [245] lay to the north west of [227] and these too were partially lay under the baulk (Figure 24). Feature [245] was sub- rectangular in plan with vertical sides and a flat base. The feature measured 1.75m wide and 0.64m deep and contained several fills (Figure 26b). The apparent primary fill (250), was only visible along the northern edge and consisted of yellowish-brown silty sand with occasional pebbles and cobbles and some animal bone fragments. It was overlain by (246), which was *c.* 0.26m deep

and consisted of black and grey silty sand with occasional cobbles and pebbles, Roman pottery and animal bone. Overlying (246) was a thin layer (0.05m) of charcoal (247), containing burnt bone and medieval pottery, which itself was overlain by a layer of yellowish orange sand (248) to depth of 0.16m, which contained pebbles, several sherds of Roman pottery, medieval pottery and animal bone. The upper fill of [245] was (249), which consisted of grey and yellow mottled silty sand with small pebbles, charcoal and fire cracked cobbles and Roman pottery to a depth of 0.3m.

Feature [251], which cut [245] was *c.* 1.56m wide and had a visible depth of 1.1m with a vertical north-eastern side and fairly steep sides to the north-west and south-east. The fill (258) was very mixed and appeared to consist of a series of tip-lines. Fill (258) consisted of brown and yellow sandy silt heavily disturbed by burrows and roots, but contained Samian ware pottery, medieval pottery, post-medieval pottery and large and small stones.



Plate 9: Work in progress on excavation of amphora



Plate 10: Post-excitation view of amphora

Isolated against the baulk of the trench the inverted remains of a large amphora were found within a pit, ([120]; Figure 27, Plates 9 & 10). The upper part of the amphora was in-situ, but the base had been destroyed by ploughing. Roots had also damaged the amphora so it was not possible to remove the vessel whole. This artefact was a Dressel 20 olive oil amphora from Baetica in Southern Spain. These amphorae were produced between the 1st and the mid-3rd century and therefore this artefact cannot be closely dated.

The pit [119] appeared to have been excavated specifically for burying the amphora. The fill (120) within the amphora was yellowish-brown sandy silt, very similar to the subsoil above it, and contained small stones, slag pieces and medium sized chunks of gypsum. It also contained sherds of other Roman jars and bowls as well as pig bones.

The fill of the amphora was sampled and analysed for archaeobotanical remains (see Appendix VII). The analysis revealed that the fill contained a relatively low density of cereal grains compared to other features that were sampled. The grains included those of wheats, barley, rye, and several types of wild flowers associated with agriculture. This density of plant remains suggests that they were simply a low density scatter that had accumulated over time as part of the general fill.

During the Phase 2 evaluation a large pit-like feature [96] (originally [26]) was discovered close to the south-western baulk of Trench 30. This was only partially excavated during the evaluation and as this work revealed more of its extent it was re-excavated (Figure 27). This showed that the feature was likely to be the terminal of a large ditch with almost vertical sides and a flat base sloping to the south-east (Figure 26b). The primary fill (103) was 0.34m deep and comprised a dark grey sandy silt with large pebbles and few cobbles in the lowest

part of the deposit. Fill (103) also contained bone and charcoal and was overlain by (99), a yellowish-brown sandy silt, which was in turn overlain by (98), a greyish-brown silt with scarce rounded stones. All these deposits had been disturbed by a later re-cut [104], that appeared to be stepped on the north-west side and vertical on the south-east side, possibly following the line of the original cut [96]. The re-cut contained a number of fills, all of a similar thickness of between 0.16m-0.25m((100), (101) and (102)), with no dating evidence. The final fill (97) consisted of dark pink sandy silt with sub-rounded pebbles very similar to the local Mercia Mudstone Group substratum, suggesting that this may have been deliberately back-filled.

Along the eastern side of the trench was a linear feature running east to west across the trench. This feature [242] had been identified in the original evaluation trench as [22]. The feature was generally *c.* 0.4m wide, although slightly wider at the eastern end. It was approximately 0.4m deep with steep sides and curved base (Figures 28a, b & d). A circular pit [244], measuring 0.7m with a depth of 0.4m lay on the northern side of [242] and appeared to be contemporary with it (Figure 28c). The fills of the features (243) and (259) both consisted of dark brown sandy silt that contained small stones, bone and charcoal. The fill of the linear feature (243) contained two sherds from a Roman mortarium.

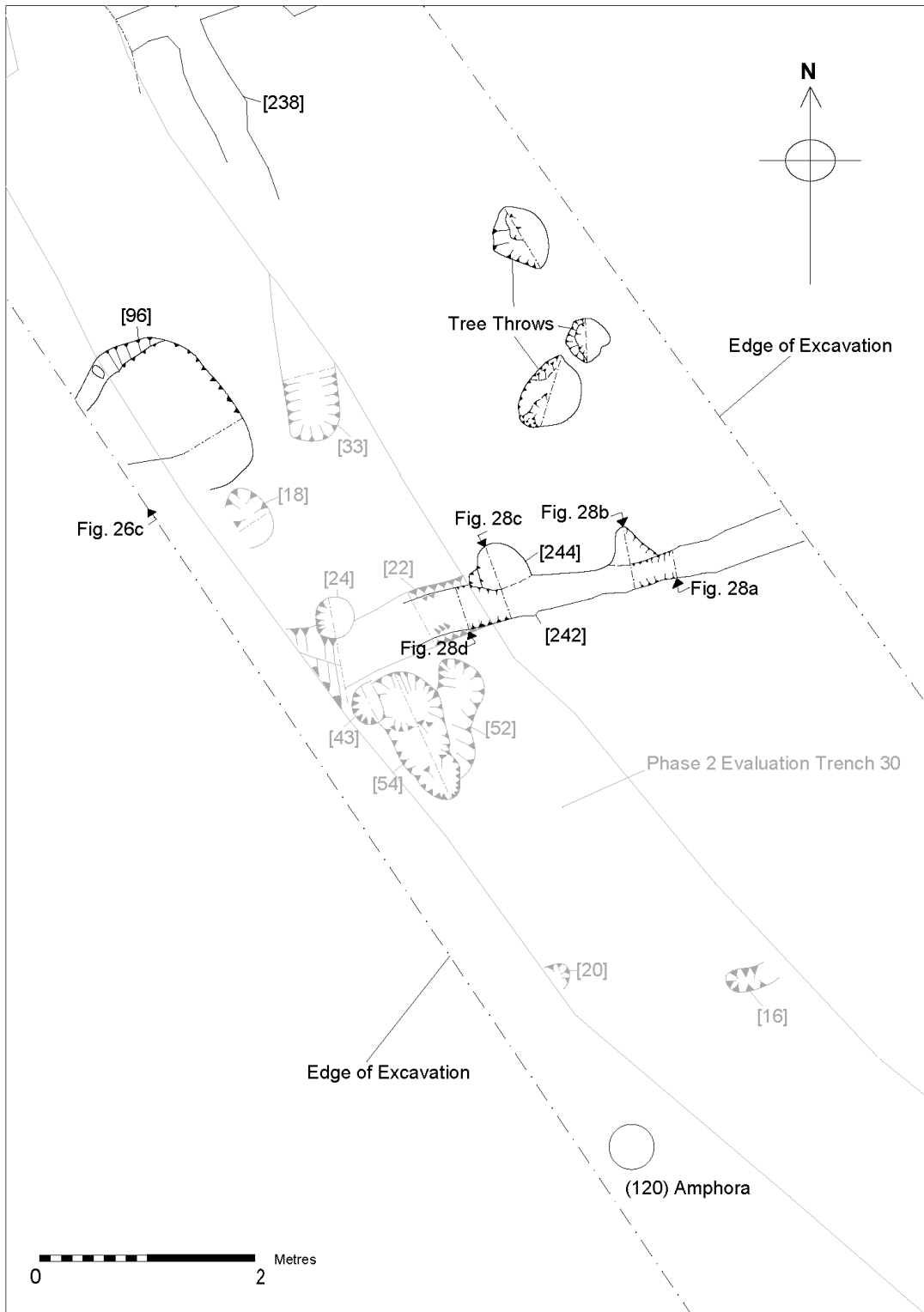


Figure 27: Post-excavation plan of northern end of Access Road trench

North of these features, on the eastern side by the baulk of the trench were two linear features. Feature [240], oriented broadly east-west, was around 1m wide at the baulk narrowing to 0.6m at the intersection with feature [238], which appeared perpendicular to it (Figure 29). Feature [240] was stepped on the southern side and gently sloped on the northern side (Figure 28e). Feature [238] was more uniform in section and gently curved (Figure 28f). Both were of similar depth of between 0.28-0.30m. Both fills (241) and (239) were dark greyish-brown and yellowish-brown sandy silt with sub-rounded pebbles. The similarity between the fills suggested that the features were contemporary. Both fills contained Roman pottery, however fill (241) also contained medieval pottery and animal bone. Feature [238] appeared to continue south and it is likely that it continued as feature [33] which seen in the previous evaluation trench.

The southern end of linear feature [252] had been truncated and only a short 2m stretch which lay to the north-west of [240] and [238] could be seen (Figure 29). Feature [252] ran north to south, parallel to [238] and also to [45], within the original evaluation trench and had an irregular profile (Figures 28g & h). To the west of [252] was a circular post-hole [256], which measured 0.25m in diameter with a u-shaped profile (Figure 28i). Both [252] and [256] were filled with dark brown sandy silt, (253) and (257), with small stones and charcoal flecks. Fill (253) contained several sherds of Roman pottery, including a colour coated ware beaker, and a grey ware jar.

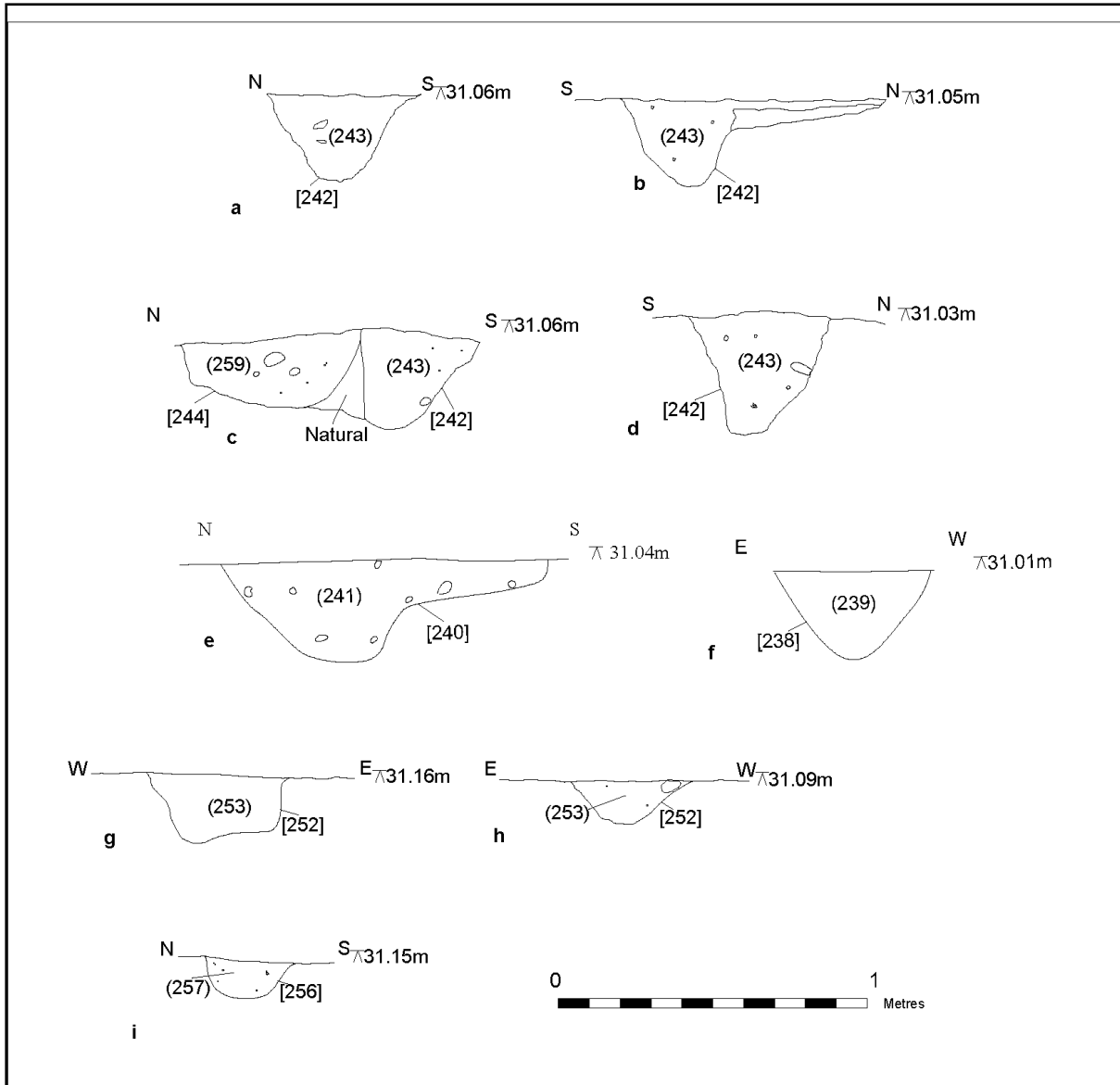


Figure 28: Sections of features [242], [244], [240], [238], [252] and [256] (see Figure 27).



Figure 29: Plan of northern end of Access Road trench

Results: Phase 4 Watching brief

Intermittent watching brief visits were carried out during the excavations and evaluations on the site and subsequently throughout groundworks for the construction of the station and car park.

Field 5 was stripped of topsoil during the excavations to a depth of *c.* 0.3m, partially revealing the Mercia Mudstone substratum beneath. No archaeological features were revealed.

The site was visited during February 2008 in order to observe the stripping of the upper soils across the site and the excavation of the balancing ponds (Plate 11). No archaeological features were observed (Plate 12).

Further visits were made to the site in April, May and September 2008 in order to observe trenching prior to the laying of drainage pipes from the top balancing pond to the drainage dyke between Fields 1 and 3.



Plate 11: Work in progress on new station site, looking east



Plate 12: Field 1 following stripping, looking north towards Redhill

The trench was around 300m long and ran broadly north to south from the pond down to the dyke, across an archaeologically sensitive area of Field 3. The initial excavation of the trench was excavated and back-filled prior to any observation by an archaeologist, however a new trench was excavated enabling observation of any archaeological deposits.

The work comprised excavation from the dyke northwards (Plate 13) and included the stripping of an area of turf around 4m wide, followed by the trench itself, which at the trackway near the dyke, was *c.* 0.5m wide and *c.* 1.2m deep. This revealed a sequence of ash and hardcore with large stones to a depth of 0.4m down to Mercia Mudstone beneath. Within the trench close to the dyke, a feature around 2 m wide and *c.* 0.6m deep was observed. The narrowness and depth of the trench made it difficult to observe the feature properly, but it appeared to consist of a fill of grey silty clay, with pieces of ash and brick (Plate 14).

The sequence within Field 3 was 0.4m of topsoil over 0.6m of brown subsoil. Beneath this was a layer of buried soil, which was *c.* 0.3m deep onto gravel and clay. On the north side of the field there was *c.* 0.3m of topsoil and 0.4m of subsoil over the sand and gravel. No archaeology was observed, although a few pieces of Romano-British grey ware were recovered from the topsoil.

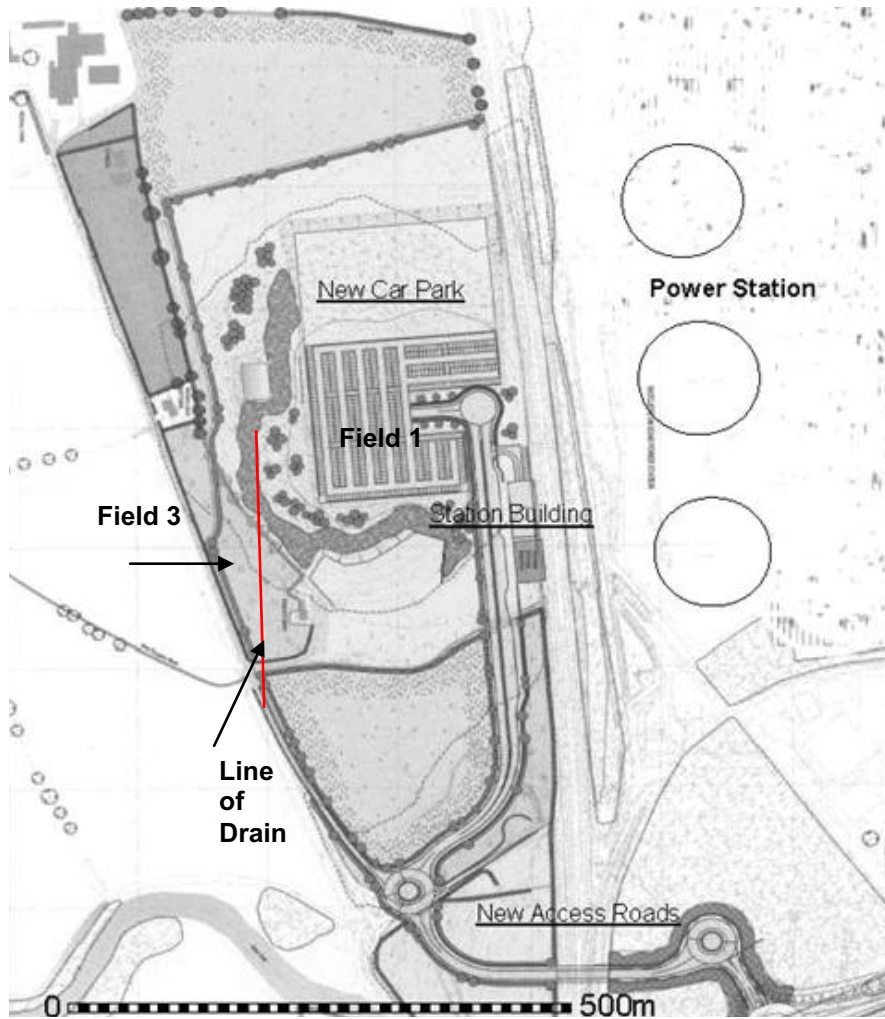


Figure 30: Plan of development showing position of drain covered by watching brief

The sequence was similar in Field 1. No archaeological features were observed although two further pieces of Roman greyware pottery were recovered from the topsoil. The backfill of two previous evaluation trenches was recorded

The final part of the watching brief consisted of the excavation of the headwall into the dyke at the southern end of the trench. This comprised an area measuring 3m x 3m excavated between the farm track and the dyke. This was *c.* 0.9m deep at the deepest point, from the top of the grass edging of the trackway into the dyke. No archaeological deposits were observed.



Plate 13: Topsoil stripping in Field 3, prior to trenching for drainage, looking north-east



Plate 14: Ditch feature within drain trench close to dyke, looking west

Section 3 Phasing and Discussion

The Phase 4 archaeological strip plan and sample and excavation programmes targeted an area of *c.* 1000 sq metres where impacts were identified based on the results of the Phase 1-3 evaluations. Other areas were subject to a watching brief. In view of the limited number of features located in this small area detailed interpretation and phasing of the activities is difficult. However the recording confirmed the presence of Romano-British features suggested from the Phase 1 and 2 evaluations. In addition, there was evidence of Iron Age, medieval and post-medieval activity. The phasing outlined below is based on stratigraphic relationships where present and the presence of datable artefacts (Figure 34).

Phase 1 Prehistoric

Only one sherd of Iron Age pottery was discovered during this archaeological work, within a pit (Figure 16, [206]). There were also small numbers of flint, dated to the Neolithic and Bronze Age in Roman ditch fills (67), (86), (122), (166) and (199). This may point to some background prehistoric activity in the area. The form of pit [206] is similar to another undated pit [194], which might suggest they are both of Iron Age date (Figure 16).

Small quantities of Bronze Age pottery had been recovered from Field 1, Trenches 2 and 19 during both the 2001 and 2007 evaluations. Features below Roman levels within Trench 15 of the BA evaluation also pointed tentatively to pre-Roman activity (Cutler 2003, 29; Hunt and Score 2007, 24). Prehistoric activity has been located previously in the Redhill area (Palfreyman and Ebbins, 2003, 23-26), although the Phase 4 work has not allowed any new conclusions to be drawn with regard to pre-Roman activity, other than note its presence.

Phase 2 2nd century

Linear features running from north-north-east to south-south-west within the Haul Road trench, (Figure 8, [64], and [85]), would appear to be field systems of 2nd century Roman date, although one intrusive sherd of medieval pottery, possibly due to manuring, does appear in the upper fill of [71]. The types of pottery within these contexts, such as oxidised ware, shelly ware and black burnished ware would suggest a late 1st-mid 2nd century date. The relative longevity of the features may also be suggested by the number of deep re-cuts to them (Phase 3 Figs 10d and 12 a). The smaller linear features within the Access Road trench, such as the north-west to south-east aligned [238] and [252] and the east-west aligned [240] and [242] may also be part of the same Roman agricultural field system (Figure 27 and 29). Second century Roman pottery was recovered from fills (239), (241) and (243) and also from north-west to south-east aligned ditch [29] during the Phase 2 evaluations. These ditches may be associated with the Roman field system identified to the east during a watching brief (Dawson 2001). Similarly aligned ditches of Roman date were also located in the Phase 1 BA evaluation trenches on this part of the site in Trenches 15 and 17.

Features such as the large pits [137], [154], [227], which contained quantities of 2nd century pottery, may be quarry pits due to their situation upon the sand substratum at this point of the site. Pits [52] and [54] in the evaluation trench 30 revealed evidence of vitreous fuel ash, heat affected stones, slag and charcoal, pointing to metal working activity, which may have required sand to be quarried from nearby. Other 2nd century features include several post-holes [105], [109], [146], [169], [188], [185], [196], [212], [214], [216] and [220]. Although undated, post-holes [204], [222], [224], [225], [230], [232], [235] and [236] may be associated with these. No discernible pattern was evident within the small area excavated.

The discovery of the amphora on the site (120) is good evidence that a nearby Roman settlement had trading contact with the continent. Given the presence of the possible temple at Redhill, along with the wealth of finds from the Roman period discovered on the site since the 18th century, the discovery of a large Roman artefact of this kind would not be totally unexpected, although what the obviously damaged and re-used amphora may have been used for in this context is unknown. It was buried in an inverted position and contained some pig bones while archaeobotanical remains from within the amphora only suggest gradual natural in-filling over time. While there is the possibility of this being a structured deposit it is more likely to have been used for storage.

Phase 3 3rd century

Re-cutting of the north-east to south-west aligned ditches, [66] cutting [64] and [70] cutting [85], appears to have taken place in the 3rd century (Figs 8 and 10d). Further re-cutting of ditch [66] to the east is also evident (Figures 8 and 9c, [68]). One post-hole [167] contained 3rd century material although this may be residual. Other undated features may indicate further 3rd century activity. A tegula fragment was present in the fill of [70], (71). 3rd-4th century pottery and coins were also present in unstratified contexts or residually in later features (e.g [158]) as was the case for the Phase 1 and 2 evaluations indicating nearby activity during this time.

Phase 4 Medieval-Early post-medieval

The clearest example of a medieval feature on the site was feature [60], a possible well. A large quantity of medieval pottery dated from the 11th to 14th century was contained within the fill (61). This was a fairly isolated feature, cut into the Mercia Mudstone. Medieval material was also present in a pit [96] and ditch [240] to the north-west (Figures 27 and 29).

At the southern end of the trench was a group of four small sub-circular post-holes (Figure 12a and 13a-d). The small post-holes at the southern end of the trench may be of late medieval –early post medieval date. Cistercian ware and early post-medieval earthenware was recovered from features [87] and [92]. Four-post structures are known from many different periods and may be evidence of raised grain or hay stores. Medieval material was also present in some of the Phase 2 trenches although absent from the Phase 1 evaluation.

Phase 5 Post-medieval and Modern

Many of the other features on the site are post-medieval or modern in date. These include pits [158], [163], [171], [178] [83] to the north and [121] to the south-west, Feature [131] contained string, plastic and modern pottery within the fill (132) and all the features containing pig remains, such as [198], [165] and [152] are most likely of a 19th century date. Features such as [245] and [251], despite containing a number of Roman, medieval and post-medieval artefacts, are also likely to be modern as the fills within these features, (e.g. (246), (247), (250)) are loose and loamy and their cuts were identified at high levels in the trench section. Several post-holes also contained post-medieval material including [138], [144], [150], [171], [186] and [200]. Other undated post-holes in the vicinity may be of the same date (Figure 16), although no discernible pattern was possible within the small area examined. Structural evidence was in the form of a brick-lined well and fireplace (123). A south-west to north-east aligned ditch [62] to the north-east of the site contained 18th century pottery.

Cartographic evidence has provided possible answers to the post-medieval activity evident within this part of the Redhill site. The tithe map of Ratcliff from 1850 clearly shows two farmsteads situated on the site (Figure 31). These are annotated as 121 and 124 and the accompanying tithe award describes both the plots as ‘house and housestead’. The land was owned by Earl Howe and the occupiers of plots 121 and 124 are shown as John Withers Junior and William Sadler respectively.

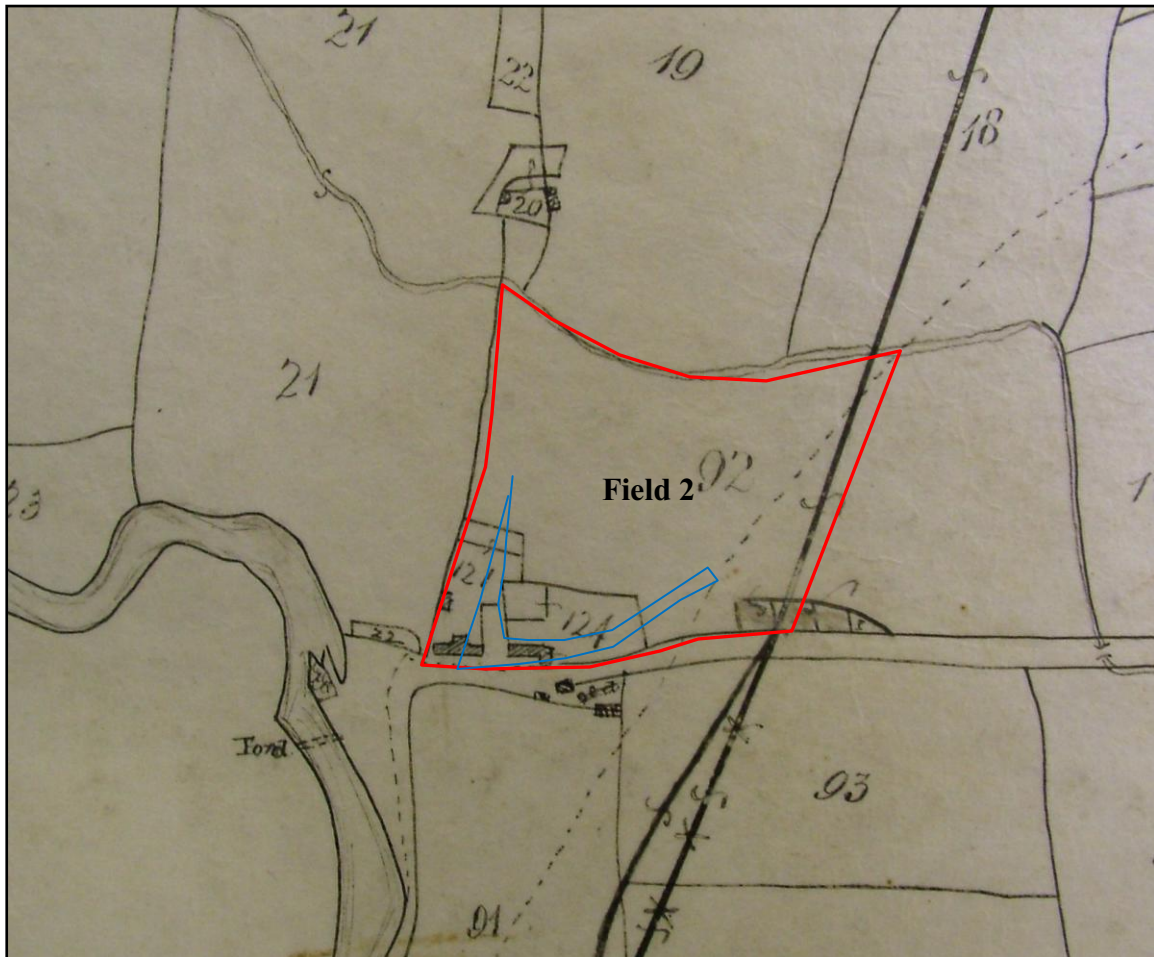


Figure 31: Detail of 1850 tithe map of Ratcliff parish, with site location highlighted (Nottinghamshire Archives). Scale Unknown

The evidence for buildings on this land is corroborated by an 1836 map provided by a local landowner during the excavations (Figure 32). This depicts the area before the railway was constructed and was given to the landowner’s family by the railway company to illustrate the route of the new railway.

The plan shows one large single building and a smaller one to the north-west; a slight difference to the later tithe map. The ownership is listed as Earl Howe, with John Withers and Lydia Sadler as tenants. This map also shows a track leading from the road junction towards Mason’s Barn, unlike the later tithe map. If there was a track here, this would

account for the gravel layer, which appeared in the north east facing section of the Access Road trench (Figure 7b).

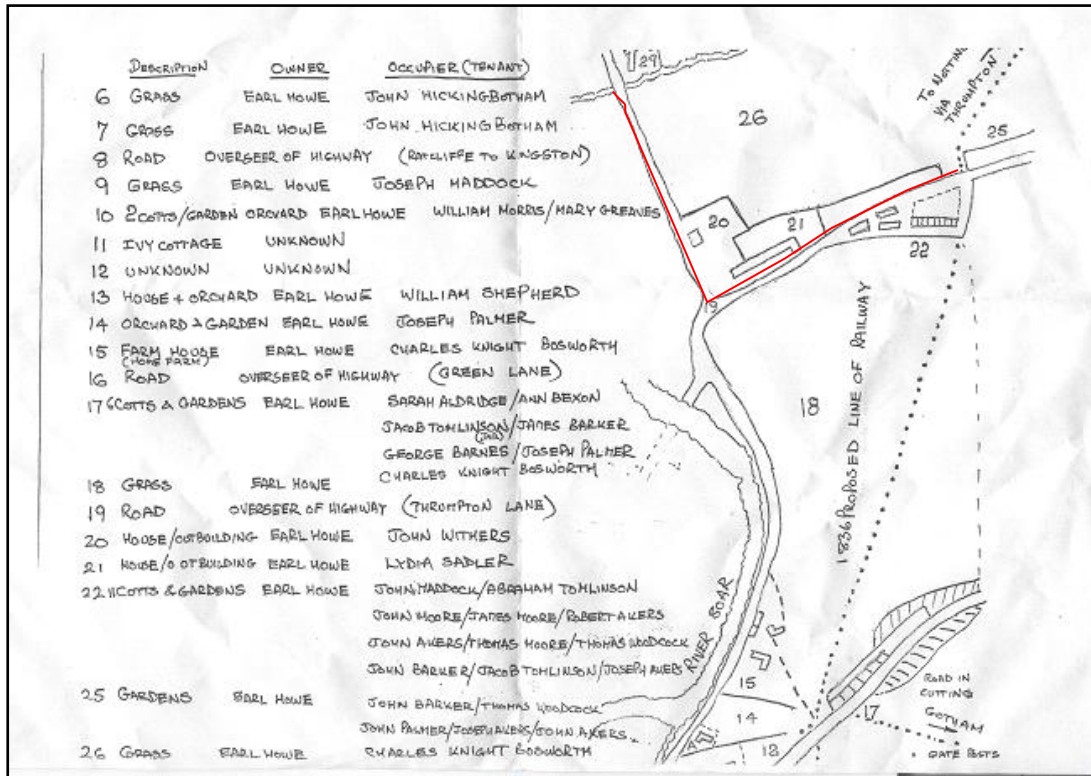


Figure 32: Sketch plan of proposed line of railway, dated 1836. Scale Unknown

The buildings had been demolished by the time the 1900 Ordnance Survey map (Figure 33) was published. The area at this time appears to have been partially covered in trees, which would explain the number of tree throws uncovered during the excavations. The map also shows a field boundary running from the corner of the field towards Mason’s Barn, as it does in the earlier maps, and not following the present road line.

The map also shows a well on the site. Presumably this correlates to the unexcavated well in the southern corner of the site, rather than the medieval one [60] to the north. The presence of the buildings on the site would also explain the wall or surface located close to the well and also the brick hearth or fireplace [123], which lay at the edge of the Access Road trench. The small pits containing animal remains are good examples of 19th century farmyard activity, whereas features such as [131] and [210] are possibly even more recent, with [210] probably having been excavated by a machine.

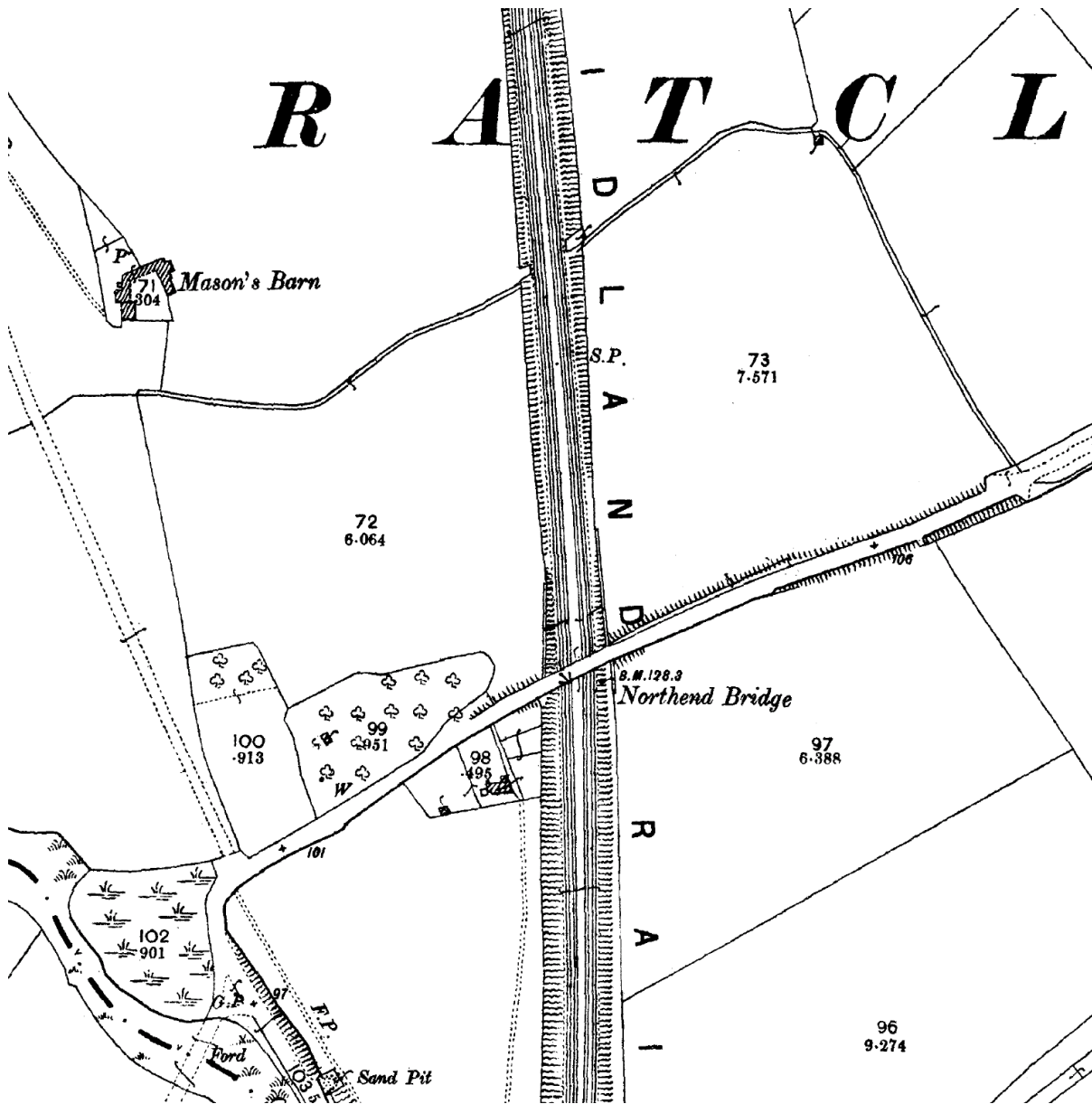


Figure 33: Detail of 1900 OS map of Ratcliffe-on-Soar. Scale 1: 2500

Discussion

The Phase 2 evaluations had shown there to be evidence for significant archaeological deposits on the north and west sides of the development site. The design of the new station, car park and infrastructure has allowed the areas of highest archaeological potential to be preserved in situ. Where possible remains may have been impacted (the Haul Road and Access Road) controlled archaeological excavation was undertaken (Phase 4). The work on the Haul Road and Access Road trenches appears to show the archaeology in this part of the site to be concentrated on the sandy areas rather than the Mercia Mudstone to the north and east. The watching brief that followed showed little activity in the knoll area of Field 1.

The excavations at Redhill have provided some evidence for further Roman archaeology in the vicinity of the Redhill Scheduled Monument. The work on the Haul Road and Access Road trenches appears to show the archaeology in this part of the site to be concentrated on

the sandy areas rather than the Mercia Mudstone to the north and east. The watching brief that followed showed little activity in the knoll area of Field 1.

The phasing of the excavation site has been complicated by considerable post-medieval and modern activity associated with the buildings which once occupied the site. Although there is some evidence for prehistoric activity most evidence on the site is from the Roman period, which shows peripheral agricultural activity in the form of ditched field systems and quarrying and possible industrial activity. However, the small scale of the excavations does not clearly show the focus of this activity, such as the location of any farmsteads or urban centre and it is likely that the deposits relate to typical activities found outside the main settlement to the north and west. The pottery assemblage suggests Roman activity largely during the 2nd century, although later regional wares are present indicating continued activity into the 3rd and 4th centuries. Although most of the material is probably local, there is a wide range of regional wares encompassing Black Burnished ware, Derbyshire ware and products from the Nene Valley, Mancetter-Hartshill and Bourne-Greetham industries.

Of note is the presence of a Roman cavalry harness fitting or baldric terminal of 2nd or 3rd century AD in an unstratified context (below p.83). Roman military fittings are unusual from the East Midlands in general although they have been found previously at Redhill and a temporary military presence has been suggested (Palfreyman and Ebbins 2003, 27). Industrial residues indicative of iron extraction and working, including possible furnace bases, tap slag, and hearth or furnace linings (below p. 85) are also present. The evidence would be consistent with early Roman technology and appears typically to have been located away from the main centre of the settlement to the north and east. However iron working on a larger scale, comparable to that found at Laxton and Byfield, Northamptonshire is hinted at by the previous recovery of an iron bloom during soil regrading north of the site (Palfreyman and Ebbins 2003, 29). The main crop represented in the samples from the site was spelt wheat with some barley and bread wheat. The archaeobotanical assemblages all show a level of crop cleaning was taking place at the site and in general it can be said that the assemblages analysed were representative of both domestic and cereal cleaning waste. The presence of, albeit unstratified, quern fragments also indicates cereal production.

The Roman evidence therefore adds a little further information to the extent and nature of the occupation at Redhill. The features appear to be associated with field systems with some agricultural and industrial activity. Although there are hints of occupation during the Iron Age the absence of 1st century material is perhaps notable. The material located from this area of Redhill all suggests that the main occupation originated during the 2nd century and may be associated with the field systems identified by Dawson (2001) and interpreted as part of a villa estate. The date ranges are consistent with other villa estates including Lockington 2 km to the south-west (Clay 1985; Hurford and Macintosh 2008).

The material recovered, including tegulae, coins and an item of military equipment, is consistent with the evidence found previously at Redhill suggesting the presence of a nearby settlement of some importance serving as a centre of communications. This has been variously interpreted as a villa estate or small town including a temple and military camp (Houldsworth 1963; Palfreyman and Ebbins 2003; Dawson 2001). Other evidence from Redhill, however, has produced material with industrial, military and religious connotations perhaps more consistent with it being a small town (Palfreyman and Ebbins (2003, 32). Unfortunately it is likely that the status of the settlement will remain unclear as much of it is

likely to have been destroyed by the construction of the railway and Ratcliffe-on-Soar power station.

There is also evidence of medieval activity from the presence of pottery in some features. While some of this may be intrusive in Roman features the largest assemblage, 73 sherds, came from the backfill of a possible well [60], which lay towards the northern end of the excavation. Most of this pottery was in the Nottingham Glazed wares and the Light Bodied Gritty wares with a date range from the early or mid 13th century to the later 13th or early 14th century. This is well outside the core of the medieval settlement of Ratcliffe-on-Soar but may indicate the presence of a medieval farmstead, perhaps a forerunner of the post-medieval occupation indicated from the archaeological and cartographic evidence. Here a group of cottages are recorded which were demolished in the 19th century before the railway was constructed. Their origins are uncertain although post-medieval pottery of 16th-19th century date was located. An early post-medieval date for some occupation in the area is therefore likely with the possibility of earlier 13th-14th century origins.

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The site was directed by the author with assistance from Rob Barnett, Simon Davison and Adam Clapton. Vicki Score managed the Phase 2 evaluations while Patrick Clay was the project manager for Phases 3 and 4.

Special thanks go to the Redhill Research Group for their assistance and interest throughout the work at Redhill

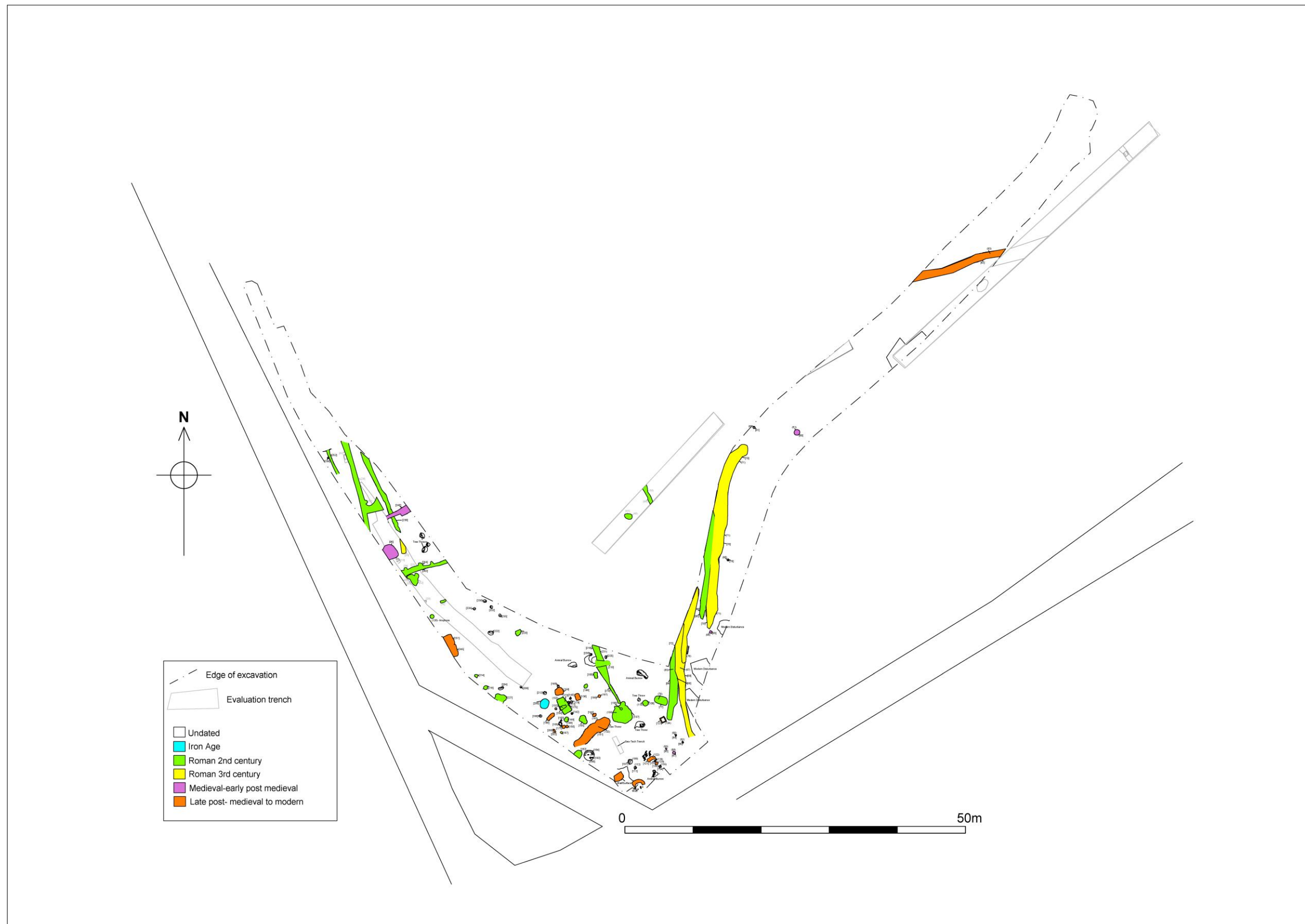


Figure 34: Phase plan of the Phase 4 excavation and strip, plan and record areas

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Archive

An archive of the site containing field data, drawings, photographs and finds will be compiled and deposited with a local museum. The site code was EMP-2007.

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Appendix I: The Roman Pottery

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Assemblage Size and Condition

A stratified assemblage of 542 sherds of Roman period pottery weighing 27.515kg was retrieved from the excavations. Within the assemblage, 237 sherds accounting for 20.654kg of the total weight belonged to a single large amphora vessel. Levels of preservation within the remaining 305 sherds (6.861kg) are good overall, with an average sherd weight of 22.5g. One sherd (19g) of prehistoric pottery and a further 1.735kg of re-deposited Roman material was also recovered.

Methodology

The material was classified using the Leicestershire Fabric Series (Pollard 1994) and quantified by sherd count and weight as shown in the pottery catalogue below. Vessel forms were also assigned where diagnostic sherds allowed using published typologies (Howe *et al* 1980; Holbrook and Bidwell 1991; Pollard 1994; Webster 1996; Clark 1999). The complete dataset was recorded and analysed in an Excel workbook which forms the detailed archive record.

Haul Road Trench

Nine sherds of pottery were recovered from ditch [64] (65) including a complete rim and neck from a white ware devolved ring-neck flagon dating to the middle of the 2nd century (Clark 1999). The remaining pottery comprises a shelly ware jar, rusticated grey ware jar and sandy ware bowl dating to the late 1st-early 2nd century.

Thirty-one sherds were present in a second ditch, [66]/[72], (67)/(73), cut [64]. Nineteen sherds of pottery were recovered from (67) including oxidised, grey and shelly ware jars. The oxidised wares include beakers or jars with roulette and roller stamped decoration commonly found in Leicestershire during the 2nd century (Pollard 1994, 77-79). Most of the grey wares probably date to the 2nd century however two jars are comparable with East Midlands Burnished type wares, suggesting a date into the 3rd century (Todd 1968). Two Black Burnished ware jars dating to the mid-late 2nd century are also present, as is a tiny sherd of South Gaulish samian ware dating to the 1st century. A further 12 sherds from [72] (73) comprise shelly and grey ware jars, a white-slipped ware flagon, a Mancetter-Hartshill mortarium and a Black Burnished ware jar. The latter is the most datable sherd, the form suggesting a mid-2nd century date (Holbrook and Bidwell 1991, 95). Ditch [66] is cut by [68] (76), from which one sherd from a Black Burnished ware dish or bowl was recovered. The sherd is not diagnostic, but is unlikely to date before *c.*AD 120 (Pollard 1986, 6).

Four sherds of pottery were recovered from ditch [70] (71) including a Black Burnished ware bowl or dish, two oxidised ware jars including one with roulette decoration and an abraded shelly ware jar, again indicating a date within the 2nd century from *c.*AD120-140 onwards. A Black Burnished ware bowl dating to the mid-late 2nd century was recovered from [85], which was cut by [70] (Holbrook and Bidwell 1991, 108-109).

A single sherd from a Nene Valley colour coated ware beaker dating to the late 2nd-early 3rd century was found in [60] (61) (Howe *et al* 1980, 16-17). This feature also contained post-Roman material.

The last feature in this trench was a large pit [77] (78), which stretched over both this and the Access Road trench. Four sherds of pottery were recovered comprising a white ware flagon, grey ware jar with barbotine dot decoration, large shelly ware combed storage jar and an oxidised ware flanged segmental bowl, indicating a date from the early to mid-2nd century (Pollard 1994, 77-79).

Access Road Trench

Four sherds of pottery were found in a large post-hole [109] (110), comprising oxidised, sandy and grey ware jars or bowls. A date within the 2nd century is likely, possibly the first half of the 2nd century. One of the grey ware vessels is small with an everted rim and is covered with vitrified residue. The jar itself is thin walled and would appear too delicate to have been manufactured as a crucible type vessel, but has perhaps been re-used in some way. Eight sherds of Roman pottery were recovered from a pit [105] (106) dating to the 2nd century, however post-Roman material was also present.

Twenty-five sherds of pottery were found in pit [182] (183). The latest datable vessel is a Black Burnished ware flat rimmed bowl with acute lattice dating from *c.*AD 120 to the end of the 2nd century. The grey ware jars include lattice, burnished and rusticated decoration with lid-seated rim forms suggesting an early-mid 2nd century date. An oxidised ware jar or beaker with white painted decoration and bowls or jars including a segmental bowl supports this date. The remaining pottery comprises a white ware flagon, shelly ware lid-seated jar, sherd of Dressel 20 amphora and South Gaulish samian ware decorated bowl. Overall a date between *c.*AD 120-150 is most likely for this group of material.

A grey ware jar comparable to East Midlands Burnished type wares dating from the 3rd century onwards was found in pit or post-hole [167] (168). A large rectangular feature [152] (153), revealed an oxidised ware jar and a Black Burnished ware bowl dating to the later 2nd-mid-3rd century (Holbrook and Bidwell 1991, 109). One sherd from a grey ware jar was recovered from pit [154] (155) cut into [152].

One sherd of Iron Age scored ware was recovered from a large pit [206] (207). The fabric is comparable to Marsden's R1 rock tempered fabric and is common in the East Midlands (Marsden 1998).

A total of 60 sherds of pottery was recovered from pit [158] (159), (161), (162). The latest datable vessels are the Nene Valley colour coated wares which comprise beakers, a jar and a castor box dating from the late 2nd-early 3rd century through to the 4th century (Howe *et al* 1980). The coarse wares include a range of grey, shelly, oxidised and Black Burnished ware jars and bowls and a white ware flagon. Much of the material dates to the 2nd century and is comparable with pottery already discussed. However, a shelly ware jar probably from Bourne-Greetham dates to the later 2nd or 3rd century. A grey ware jar of East Midlands Burnished type and similar to a ribbed rimmed jar found at Rutland Water, dates to the 3rd century and possibly the early 4th (Cooper 2000, 89-91). There are also five samian ware bowls and dishes. The earliest is a South Gaulish Drag.29 decorated bowl dating to the 1st century. The remaining vessels include a 2nd century decorated Drag.37 bowl and a dish or bowl dating to the early-mid-2nd century from Central Gaul (Webster 1996). Although the fills overly one another, the dating evidence is mixed with pottery ranging from the 1st century through to the later 3rd or 4th century. There is also no sequence as mid-3rd to 4th century pottery was found in the lowest fill (159) and the upper fill (162). In addition, post-Roman material was recovered from all three fills. Having said that, the variety of regional

and imported wares demonstrates access to a market place where such goods could be purchased and activity into the late 3rd-4th century.

Another large pit [137] (130) (127), revealed 66 sherds of Roman pottery (44 from (130) and 22 from (127)). The main fill is (130), which includes a range of grey and oxidised ware jars and bowls along with some regional and continental imports. The grey wares include jars with barbotine dot panels, barbotine ring and dot and rusticated decoration indicating a date from the late 1st to the middle of the 2nd century (Pollard 1994, 77-79). A fine grey ware jar or bowl comparable to Leicester fabric GW2 is unlikely to date after *c.*AD 140 (*ibid* 1994, 55). The oxidised wares include jars with roulette decoration and a flanged bowl similar to the samian ware Drag.38 flanged bowl which suggests a date from around the middle of the 2nd century, so slightly later than most of the grey wares. Of interest is an oxidised mortaria. The vessel fabric looks like an oxidised ware but the form suggests a mortarium dating to the early-mid-2nd century. The remaining pottery from (130) comprises a Dressel 20 olive oil amphora, shelly ware combed jar, Derbyshire ware jar, South Gaulish samian Drag.15/17 platter, Central Gaulish samian Drag.18/31 dish and a Black burnished ware jar with acute lattice. The Derbyshire and Black Burnished wares suggest a date from the mid-late 2nd century, whereas the other pottery dates slightly earlier more in line with the grey wares. The pottery from fill (127) is comparable with that of (130) and most likely dates to around the middle of the 2nd century overall.

Six sherds of pottery were recovered from pit [156] (157) cutting into the top of [137]. The pottery could easily relate to the fill of [137] as it comprises grey ware, oxidised ware, Black Burnished ware, Derbyshire ware and Central Gaulish samian comparable with (130) and (127).

A linear feature [218] was situated to the north of [137]. Eighteen sherds of Roman pottery were recovered from fill (181). A very fine white ware beaker or jar with an everted rim and roughcast decoration is of note. The form indicates a date within the first half of the 2nd century. In addition, there are two notable grey ware vessels; a cup and beaker. The biconical beaker is in a Gallo-Belgic style with incised chevron decoration; a comparable beaker was found in Leicester dating to the late 1st-early 2nd century (Pollard 1994, 88-90). A cup base with moulded decoration is perhaps derived from samian forms such as the Drag.46 cup and Drag.78 decorated bowl, both of which date to the late 1st-early 2nd century (Webster 1996, 57; 63). The other grey wares include jars with barbotine dot panels and burnishing also dating to the late 1st-early/mid-2nd century. The remaining pottery comprises a samian ware dish, Derbyshire ware and Black Burnished ware. The latter two vessels provide the latest datable material, indicating a date from the mid-late 2nd century. Post-Roman material was also recovered from this fill. A large rectangular feature [210] (211) cut into [218] and four sherds of Roman pottery dating to the 2nd century were recovered. The material is comparable with that of (181) and may be upcast from the construction of [210]. Post-Roman material was also found in (211), and perhaps this is the source of the post-Roman pot found in (181).

Two sherds were recovered from a post-hole [236] (237), located near [218]. The pottery comprises a sherd of Dressel 20 amphora and a grey ware necked jar, probably dating to the 2nd century but not closely datable.

A rectangular feature [185] (184), also near [218], contained two sherds of undiagnostic grey ware, perhaps dating within the 2nd century but not closely datable. Pit [188] (189) revealed one sherd from a white slipped ware flagon dating from the later 1st or 2nd century.

Pit [220] (219) revealed two sherds; a Dressel 20 olive oil amphora and a sandy ware burnished beaker or jar with an applied vertical strip dating to the late 1st-early 2nd century. Post-hole [216] (217) contained three sherds of pottery including a samian ware dish dating to the early-mid-2nd century. One sherd from a 2nd century white ware flagon was recovered from feature [214] (215).

A possible ditch terminus, [227] (228) revealed six sherds of Roman pottery. The grey and shelly ware jars date to the late 1st-early 2nd century. The Derbyshire ware jar dates from the middle of the 2nd century onwards and the Bourne-Greetham shelly ware jar dates from the later 2nd or 3rd century. Post-Roman material was also recovered from (228).

To the north-west of [227] lay feature [245] (246), (248), (249). Eighteen sherds of pottery were recovered, most of which date within the 2nd century including grey and oxidised ware jars and bowls, a white ware flagon or bowl and a samian ware dish. However, two of the grey ware jars are comparable with East Midlands Burnished type wares dating to the 3rd century and a Black Burnished ware bowl with intersecting arc decoration dates from the later 2nd to mid-3rd century (Holbrook and Bidwell 1991, 109). One sherd from a samian ware dish or bowl dating to the 2nd century was recovered from feature [251] (258) which seemed to cut [245]. Post-Roman material was also recovered from (258) and it may be that the samian ware belongs with [245], with [251] being a later, possibly post-Roman, feature.

A large amphora was recovered from [119] (120), situated to the north of [251]. Although the total sherd count came to 237, weighing 20.654kg, the vessel was found intact *in situ*. Damage from tree roots growing around and through the deposit prevented the vessel from being excavated intact. The amphora is a Dressel 20 olive oil amphora from Baetica in Southern Spain. These amphora were produced from the 1st century through to the early-mid 3rd century and are not, therefore, particularly closely datable on their own. The rim had been deliberately sawn off in antiquity to enable re-use of the large jar as some other kind of receptacle. A handle scar is present on one body sherd but no handles or base sherds were recovered. The amphora had been deposited upside down and it is highly probable that the base has been lost as a result of post-Roman activity. An oxidised ware jar and bowl along with a shelly ware jar dating to the later 1st or 2nd centuries were also found in (120). It is possible that deposition was sometime during the 2nd century given the amount of 2nd century pottery across the site as a whole and the additional pot in (120) would support this. However, the three other sherds are small and with such a large soil deposit subject to tree-root damage and possible disturbance through later activity, tying the additional material conclusively to the amphora deposit is difficult.

One vessel (two joining sherds) from a mortarium was recovered from linear feature [242] (243). The fabric has a grey core with white/cream surfaces and mixed grits. It is fairly coarse and might be early Mancetter-Hartshill, but this is not certain as it does not resemble the typical fabrics of that industry. A Midlands source is most likely. As no form is present to assist with dating, a date from the 2nd century onwards is suggested.

Interlinked linear features [240] 241) and [238] (239) were located to the north of [242]. Five sherds comprising a white ware flagon and shelly, oxidised and grey ware jars most likely

dating to the 2nd century were recovered from (239). Three sherds comprising a white ware flagon, shelly ware jar and samian ware decorated bowl dating to the early-mid-2nd century were found in (241). Post-Roman material was also recovered from (241). Five sherds of pottery were recovered from feature [252] (253), comprising a colour coated ware beaker, grey ware jar, white ware and oxidised ware. The colour coated ware is possibly from the Nene Valley and dates to the 3rd century, as does the grey ware jar.

Summary

The assemblage suggests Roman activity, largely during the 2nd century, although later regional wares are present indicating continued activity into the 3rd and 4th centuries. Although most of the material is probably local, there is a wide range of regional wares encompassing Black Burnished ware, Derbyshire ware and products from the Nene Valley, Mancetter-Hartshill and Bourne-Greetham industries. The location of the site on the Nottinghamshire/Leicestershire border is also of interest, as the coarse wares show similarities with fabrics found in both areas (Johnson 2007a; 2007b). In this respect, research into the sources of pottery found at this site would be an avenue for further work worth pursuing.

Roman Pottery Catalogue

| Phase | Cut | Cont | Fabric | Form | Shds | Wgt (g) | Dating |
|-------|-----|------|-------------------------|------------|------|---------|--------------------|
| 4 | 60 | 61 | Nene Valley colour coat | Beaker | 1 | 2 | late2nd-early3rdC+ |
| 2 | 64 | 65 | White ware | Flagon | 5 | 206 | mid2ndC |
| 2 | 64 | 65 | Shelly ware | Jar | 1 | 20 | 2ndC+ |
| 2 | 64 | 65 | Grey ware | Jar | 2 | 9 | late1st-early2ndC |
| 2 | 64 | 65 | Sandy ware | Jar/bowl | 1 | 12 | late1st-early2ndC |
| 3 | 66 | 67 | Samian | Misc | 1 | 1 | late1st-early2ndC |
| 3 | 66 | 67 | Grey ware | Jar | 1 | 81 | 3rdC+? |
| 3 | 66 | 67 | Grey ware | Jar | 2 | 41 | 3rdC+? |
| 3 | 66 | 67 | Grey ware | Jar | 2 | 43 | 2ndC+ |
| 3 | 66 | 67 | Grey ware | Jar | 1 | 27 | 2ndC+ |
| 3 | 66 | 67 | Grey ware | Jar | 1 | 15 | 2ndC |
| 3 | 66 | 67 | Black Burnished ware | Jar | 4 | 31 | mid-late2ndC |
| 3 | 66 | 67 | Shelly ware | Jar | 1 | 16 | 2ndC+ |
| 3 | 66 | 67 | Grey ware | Jar | 1 | 29 | 2ndC+ |
| 3 | 66 | 67 | Oxidised ware | Beaker | 2 | 16 | 2ndC |
| 3 | 66 | 67 | Oxidised ware | Beaker/jar | 1 | 13 | 2ndC |
| 3 | 66 | 67 | Oxidised ware | Beaker | 1 | 9 | 2ndC |
| 3 | 66 | 67 | Oxidised ware | Jar/bowl | 1 | 6 | 2ndC |
| 3 | 70 | 71 | Oxidised ware | Beaker/jar | 1 | 4 | 2ndC |
| 3 | 70 | 71 | Oxidised ware | Misc | 1 | 1 | 2ndC |
| 3 | 70 | 71 | Black Burnished ware | Bowl/dish | 1 | 16 | mid2ndC+ |
| 3 | 70 | 71 | Shelly ware | Jar | 1 | 3 | late1stC+ |
| 2 | 72 | 73 | Shelly ware | Jar | 3 | 121 | late1st-2ndC |
| 2 | 72 | 73 | Mortarium (MHH) | Mortarium | 1 | 13 | 2ndC+ |
| 2 | 72 | 73 | White Slipped ware | Flagon | 1 | 5 | 2ndC |
| 2 | 72 | 73 | Black Burnished ware | Jar | 2 | 28 | mid2ndC |
| 2 | 72 | 73 | Grey ware | Jar | 1 | 9 | 2ndC+ |
| 2 | 72 | 73 | Grey ware | Jar | 4 | 71 | 2ndC+ |
| 3 | 68 | 76 | Black Burnished ware | Bowl/dish | 1 | 6 | mid2ndC+ |
| 2 | 77 | 78 | White ware | Flagon | 1 | 9 | 2ndC |

| | | | | | | | |
|---|-----|-----|----------------------|------------|-----|-------|-------------------|
| 2 | 77 | 78 | Grey ware | Jar | 1 | 7 | late1st-mid2ndC |
| 2 | 77 | 78 | Shelly ware | Jar | 1 | 111 | late1st-early2ndC |
| 2 | 77 | 78 | Oxidised ware | Bowl | 1 | 41 | early2ndC |
| 2 | 83 | 84 | Colour coated ware | Beaker | 1 | 2 | 3rdC+ |
| 2 | 85 | 86 | Black Burnished ware | Bowl | 4 | 89 | mid-late2ndC |
| 2 | 105 | 106 | Shelly ware | Jar | 5 | 745 | late1st-2ndC |
| 2 | 105 | 106 | Grey ware | Jar | 3 | 24 | 2ndC |
| 2 | 109 | 110 | Oxidised ware | Jar/bowl | 1 | 4 | 2ndC(+) |
| 2 | 109 | 110 | Sandy ware | Jar/bowl | 1 | 3 | late1st-early2ndC |
| 2 | 109 | 110 | Grey ware | Jar/bowl | 1 | 5 | 2ndC+ |
| 2 | 109 | 110 | Grey ware | Jar/beaker | 1 | 4 | 2ndC+ |
| 2 | 119 | 120 | Amphora (Dressel 20) | Amphora | 237 | 20654 | late1st-mid3rdC |
| 2 | 119 | 120 | Oxidised ware | Jar/bowl | 1 | 2 | 2ndC |
| 2 | 119 | 120 | Shelly ware | Jar | 1 | 30 | late1st-2ndC |
| 2 | 119 | 120 | Oxidised ware | Jar/bowl | 1 | 3 | 2ndC+ |
| 2 | 137 | 127 | Grey ware | Jar | 5 | 68 | 2ndC |
| 2 | 137 | 127 | Grey ware | Jar | 2 | 77 | late1st-early2ndC |
| 2 | 137 | 127 | Grey ware | Jar | 3 | 38 | late1st-2ndC |
| 2 | 137 | 127 | Grey ware | Jar | 1 | 13 | late1st-mid2ndC |
| 2 | 137 | 127 | Black Burnished ware | Jar | 1 | 14 | mid-late2ndC |
| 2 | 137 | 127 | Oxidised ware | Jar | 1 | 37 | 2ndC |
| 2 | 137 | 127 | Oxidised ware | Jar/beaker | 1 | 2 | 2ndC |
| 2 | 137 | 127 | Oxidised ware | Jar/beaker | 1 | 6 | 2ndC |
| 2 | 137 | 127 | Samian | Dish/plate | 1 | 1 | early2ndC |
| 2 | 137 | 127 | Oxidised ware | Jar/bowl | 1 | 2 | late1st-2ndC |
| 2 | 137 | 127 | Oxidised ware | Jar | 1 | 12 | 2ndC+ |
| 2 | 137 | 127 | Grey ware | Jar | 1 | 9 | 2ndC+ |
| 2 | 137 | 127 | Grey ware | Jar | 3 | 27 | 2ndC+ |
| 2 | 137 | 130 | Amphora (Dressel 20) | Amphora | 9 | 651 | late1st-mid3rdC |
| 2 | 137 | 130 | Shelly ware | Jar | 2 | 104 | late1st-2ndC |
| 2 | 137 | 130 | Derbyshire ware | Jar | 3 | 44 | mid-late2ndC+ |
| 2 | 137 | 130 | Samian | Platter | 1 | 5 | mid-late1stC |
| 2 | 137 | 130 | Samian | Dish | 1 | 1 | early-mid2ndC |
| 2 | 137 | 130 | Oxidised ware | Jar | 6 | 160 | 2ndC |
| 2 | 137 | 130 | Oxidised ware | Jar | 1 | 28 | 2ndC |
| 2 | 137 | 130 | Oxidised ware | Bowl | 1 | 107 | mid2ndC+ |
| 2 | 137 | 130 | Mortarium | Mortarium | 1 | 96 | early-mid2ndC |
| 2 | 137 | 130 | Oxidised ware | Jar | 1 | 1 | 2ndC+ |
| 2 | 137 | 130 | Oxidised ware | Misc | 1 | 8 | 2ndC+ |
| 2 | 137 | 130 | Black Burnished ware | Jar | 4 | 26 | mid-late2ndC |
| 2 | 137 | 130 | Grey ware | Jar | 1 | 12 | late1st-mid2ndC |
| 2 | 137 | 130 | Grey ware | Jar | 1 | 17 | late1st-early2ndC |
| 2 | 137 | 130 | Grey ware | Jar | 1 | 15 | late1st-mid2ndC |
| 2 | 137 | 130 | Grey ware | Jar | 1 | 30 | late1st-2ndC |
| 2 | 137 | 130 | Grey ware | Jar | 1 | 45 | late1st-2ndC |
| 2 | 137 | 130 | Grey ware | Jar | 1 | 18 | 2ndC |
| 2 | 137 | 130 | Grey ware | Jar/bowl | 1 | 8 | late1st-mid2ndC |
| 2 | 137 | 130 | Grey ware | Jar | 4 | 41 | 2ndC+ |
| 2 | 137 | 130 | Grey ware | Jar | 2 | 35 | 2ndC+ |
| 2 | 148 | 149 | White Slipped ware | Flagon? | 1 | 4 | 2ndC |
| 2 | 152 | 153 | Grey ware | Jar | 1 | 10 | mid2ndC+ |
| 2 | 154 | 155 | Black Burnished ware | Bowl | 1 | 20 | later2nd-mid3rdC |

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|---|-----|-----|-------------------------|------------|---|-----|--------------------|
| 2 | 154 | 155 | Oxidised ware | Jar | 1 | 3 | 2ndC+ |
| 2 | 156 | 157 | Samian | Cup | 1 | 4 | early-mid2ndC |
| 2 | 156 | 157 | Derbyshire ware | Jar | 1 | 4 | mid-late2ndC+ |
| 2 | 156 | 157 | Grey ware | Jar/bowl | 1 | 11 | 2ndC |
| 2 | 156 | 157 | Grey ware | Jar | 1 | 3 | 2ndC |
| 2 | 156 | 157 | Black Burnished ware | Jar | 1 | 11 | mid2ndC+ |
| 2 | 156 | 157 | Oxidised ware | Bowl | 1 | 26 | 2ndC |
| 5 | 158 | 159 | Samian | Bowl | 3 | 2 | 1stC |
| 5 | 158 | 159 | Samian | Dish/plate | 2 | 1 | early-mid2ndC |
| 5 | 158 | 159 | White ware | Flagon | 2 | 20 | 2ndC |
| 5 | 158 | 159 | Shelly ware | Jar | 2 | 10 | 2ndC+ |
| 5 | 158 | 159 | Oxidised ware | Jar/beaker | 1 | 5 | late1st-2ndC |
| 5 | 158 | 159 | Nene Valley colour coat | Beaker | 1 | 4 | mid3rdC |
| 5 | 158 | 159 | Nene Valley colour coat | Jar | 2 | 28 | 4thC |
| 5 | 158 | 159 | Nene Valley colour coat | Beaker | 2 | 2 | late2nd-early3rdC+ |
| 5 | 158 | 159 | Black Burnished ware | Jar | 1 | 23 | mid-late2ndC |
| 5 | 158 | 159 | Grey ware | Jar | 1 | 4 | mid2ndC+ |
| 5 | 158 | 159 | Grey ware | Jar | 1 | 53 | 3rdC+? |
| 5 | 158 | 159 | Grey ware | Jar | 2 | 20 | 2ndC+ |
| 5 | 158 | 159 | Grey ware | Bowl-Jar | 2 | 42 | 2ndC+ |
| 5 | 158 | 159 | Grey ware | Jar | 5 | 14 | late1st-mid2ndC |
| 5 | 158 | 159 | Grey ware | Jar | 2 | 9 | 2ndC+ |
| 5 | 158 | 159 | Grey ware | Jar | 6 | 63 | 2ndC+ |
| 5 | 158 | 159 | Grey ware | Jar | 2 | 13 | 2ndC+ |
| 5 | 158 | 161 | Samian | Bowl | 1 | 5 | 2ndC |
| 5 | 158 | 161 | Shelly ware | Jar | 2 | 5 | 2ndC |
| 5 | 158 | 161 | Shelly ware | Jar | 1 | 4 | 2ndC+ |
| 5 | 158 | 161 | Oxidised ware | Jar | 1 | 4 | 2ndC+ |
| 5 | 158 | 161 | Grey ware | Jar | 1 | 11 | 2ndC+ |
| 5 | 158 | 161 | Grey ware | Jar | 1 | 10 | 2ndC+ |
| 5 | 158 | 162 | Nene Valley colour coat | Beaker | 1 | 2 | 3rdC |
| 5 | 158 | 162 | Nene Valley colour coat | Castor box | 1 | 4 | mid3rd-4thC |
| 5 | 158 | 162 | Samian | Misc | 1 | 1 | 2ndC |
| 5 | 158 | 162 | Samian | Bowl | 1 | 1 | 2ndC |
| 5 | 158 | 162 | Shelly ware | Jar | 1 | 4 | later2nd-3rdC |
| 5 | 158 | 162 | Shelly ware | Jar | 1 | 21 | 2ndC+ |
| 5 | 158 | 162 | Grey ware | Lid | 1 | 7 | 2ndC |
| 5 | 158 | 162 | Grey ware | Jar | 3 | 18 | 2ndC+ |
| 5 | 158 | 162 | Grey ware | Jar | 1 | 17 | 2ndC+ |
| 5 | 158 | 162 | Oxidised ware | Jar | 1 | 4 | 2ndC |
| 5 | 158 | 162 | Oxidised ware | Jar/bowl | 1 | 1 | 2ndC |
| 5 | 158 | 162 | Oxidised ware | Jar/bowl | 1 | 1 | 2ndC |
| 5 | 158 | 162 | Oxidised ware | Jar/bowl | 1 | 2 | 2ndC |
| 5 | 158 | 162 | Oxidised ware | Jar/bowl | 1 | 2 | 2ndC |
| 3 | 167 | 168 | Grey ware | Jar | 2 | 172 | 3rdC+? |
| 2 | 218 | 181 | Samian | Dish | 1 | 25 | early-mid2ndC |
| 2 | 218 | 181 | Amphora (Dressel 20) | Amphora | 1 | 501 | late1st-mid3rdC |
| 2 | 218 | 181 | Grey ware | Jar | 1 | 8 | late1st-mid2ndC |
| 2 | 218 | 181 | Black Burnished ware | Jar | 1 | 8 | mid-late2ndC |
| 2 | 218 | 181 | Grey ware | Jar | 1 | 40 | 2ndC |
| 2 | 218 | 181 | Derbyshire ware | Jar | 1 | 4 | mid-late2ndC+ |
| 2 | 218 | 181 | Grey ware | Jar | 1 | 10 | 2ndC+ |

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|---|-----|-----|-----------------------|-------------|---|-----|-------------------|
| 2 | 218 | 181 | Grey ware | Jar | 1 | 8 | late1st-2ndC |
| 2 | 218 | 181 | Derbyshire ware | Jar | 3 | 13 | mid2ndC+ |
| 2 | 218 | 181 | White ware | Misc | 1 | 4 | 2ndC |
| 2 | 218 | 181 | White ware | Jar/beaker | 3 | 29 | 2ndC |
| 2 | 218 | 181 | Grey ware | Cup | 1 | 30 | early2ndC |
| 2 | 218 | 181 | Grey ware | Beaker | 2 | 67 | late1st-early2ndC |
| 2 | 182 | 183 | Samian | Bowl | 1 | 51 | late1st-early2ndC |
| 2 | 182 | 183 | Shelly ware | Jar | 3 | 44 | late1st-2ndC |
| 2 | 182 | 183 | Oxidised ware | Jar/bowl | 1 | 30 | late1st-2ndC |
| 2 | 182 | 183 | Shelly ware | Jar | 2 | 110 | late1st-2ndC |
| 2 | 182 | 183 | Amphora (Dressel 20) | Amphora | 1 | 219 | late1st-mid3rdC |
| 2 | 182 | 183 | White ware | Flagon | 1 | 4 | 2ndC |
| 2 | 182 | 183 | Mortarium (Midlands?) | Mortarium | 1 | 9 | 2ndC? |
| 2 | 182 | 183 | Oxidised ware | Bowl | 2 | 15 | 2ndC |
| 2 | 182 | 183 | Oxidised ware | Jar | 1 | 4 | 2ndC |
| 2 | 182 | 183 | Oxidised ware | Jar | 2 | 7 | 2ndC |
| 2 | 182 | 183 | Oxidised ware | Jar/beaker | 1 | 4 | 2ndC |
| 2 | 182 | 183 | Grey ware | Jar | 2 | 24 | 2ndC+ |
| 2 | 182 | 183 | Grey ware | Jar | 1 | 17 | 2ndC |
| 2 | 182 | 183 | Grey ware | Jar | 1 | 4 | late1st-early2ndC |
| 2 | 182 | 183 | Grey ware | Jar | 1 | 7 | 2ndC |
| 2 | 182 | 183 | Grey ware | Jar | 1 | 8 | 2ndC+ |
| 2 | 182 | 183 | Grey ware | Jar | 2 | 11 | 2ndC+ |
| 2 | 182 | 183 | Black Burnished ware | Bowl | 1 | 25 | mid2ndC |
| 2 | 185 | 184 | Grey ware | Jar | 1 | 204 | 2ndC+ |
| 2 | 185 | 184 | Grey ware | Jar | 1 | 4 | 2ndC+ |
| 2 | 188 | 189 | White Slipped ware | Flagon/bowl | 1 | 3 | late1st-2ndC |
| 1 | 206 | 207 | Iron Age Scored ware | Jar | 1 | 19 | Mid-Late Iron Age |
| 2 | 210 | 211 | White | Flagon | 1 | 239 | 2ndC |
| 2 | 210 | 211 | Black Burnished ware | Jar | 1 | 18 | mid2ndC+ |
| 2 | 210 | 211 | Grey ware | Jar | 1 | 14 | 2ndC+ |
| 2 | 210 | 211 | Grey ware | Jar | 1 | 21 | 2ndC+ |
| 2 | 214 | 215 | White ware | Misc | 1 | 7 | 2ndC |
| 2 | 216 | 217 | Samian | Dish | 1 | 40 | early-mid2ndC |
| 2 | 216 | 217 | Grey ware | Jar | 1 | 3 | 2ndC+ |
| 2 | 216 | 217 | Grey ware | Jar | 1 | 5 | mid2ndC+ |
| 2 | 220 | 219 | Amphora (Dressel 20) | Amphora | 1 | 33 | late1st-mid3rdC |
| 2 | 220 | 219 | Sandy ware | Jar/beaker | 1 | 10 | late1st-early2ndC |
| 2 | 227 | 228 | Shelly ware | Jar | 1 | 40 | later2nd-3rdC |
| 2 | 227 | 228 | Grey ware | Jar | 1 | 17 | late1st-early2ndC |
| 2 | 227 | 228 | Grey ware | Jar | 2 | 24 | late1st-early2ndC |
| 2 | 227 | 228 | Shelly ware | Jar | 1 | 7 | late1st-2ndC |
| 2 | 227 | 228 | Derbyshire ware | Jar | 1 | 10 | mid2ndC+ |
| 2 | 236 | 237 | Amphora (Dressel 20) | Amphora | 1 | 22 | late1st-mid3rdC |
| 2 | 236 | 237 | Grey ware | Jar | 1 | 7 | 2ndC+ |
| 2 | 238 | 239 | White ware | Flagon | 1 | 17 | 2ndC |
| 2 | 238 | 239 | Shelly ware | Jar | 1 | 18 | 2ndC+ |
| 2 | 238 | 239 | Oxidised ware | Jar | 1 | 25 | 2ndC |
| 2 | 238 | 239 | Grey ware | Jar | 1 | 11 | 2ndC+ |
| 2 | 238 | 239 | Grey ware | Jar | 1 | 46 | 2ndC+ |
| 2 | 240 | 241 | White ware | Flagon | 1 | 6 | 2ndC |
| 2 | 240 | 241 | Samian | Bowl | 1 | 2 | early2ndC |

| | | | | | | | |
|---|-----|-----|-----------------------|-------------|---|----|---------------|
| 2 | 240 | 241 | Shelly ware | Jar | 1 | 9 | late1st-2ndC |
| 2 | 242 | 243 | Mortarium (Midlands?) | Mortarium | 2 | 75 | 2ndC+ |
| 5 | 245 | 246 | Grey ware | Jar | 1 | 4 | 2ndC+ |
| 5 | 245 | 248 | Grey ware | Jar | 1 | 10 | 3rdC+ |
| 5 | 245 | 248 | Grey ware | Jar | 1 | 4 | 2ndC+ |
| 5 | 245 | 248 | Oxidised ware | Misc | 1 | 1 | 2ndC+ |
| 5 | 245 | 248 | Black Burnished ware | Bowl | 2 | 27 | later2nd-3rdC |
| 5 | 245 | 248 | Oxidised ware | Jar/bowl | 1 | 4 | 2ndC+ |
| 5 | 245 | 248 | Grey ware | Jar | 1 | 39 | 3rdC+ |
| 5 | 245 | 248 | Grey ware | Jar | 1 | 6 | 2ndC |
| 5 | 245 | 248 | Grey ware | Jar | 1 | 4 | 2ndC+ |
| 5 | 245 | 248 | Grey ware | Jar | 2 | 7 | 2ndC+ |
| 5 | 245 | 248 | Grey ware | Jar | 1 | 10 | 2ndC |
| 5 | 245 | 248 | Grey ware | Bowl/dish | 1 | 10 | 2ndC+ |
| 5 | 245 | 249 | Grey ware | Jar | 1 | 14 | 2ndC+ |
| 5 | 245 | 249 | White ware | Flagon/bowl | 1 | 6 | 2ndC |
| 5 | 245 | 249 | Grey ware | Jar | 1 | 11 | 2ndC+ |
| 5 | 245 | 249 | Samian | Dish | 1 | 1 | early-mid2ndC |
| 5 | 252 | 253 | Colour coated ware | Beaker | 2 | 13 | 3rdC+ |
| 5 | 252 | 253 | Grey ware | Jar | 1 | 4 | 3rdC+ |
| 5 | 252 | 253 | Oxidised ware | Misc | 1 | 3 | 2ndC+ |
| 5 | 252 | 253 | White | Misc | 1 | 7 | 2ndC |
| 5 | 251 | 258 | Samian | Dish | 1 | 6 | 2ndC |

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Appendix II: The Post-Roman Pottery

Deborah Sawday

The pottery assemblage from the evaluation and excavation, 221 sherds, weighing 3.183 kg, was examined under a binocular microscope and catalogued with reference to the ULAS fabric series (Davies and Sawday 1999). (Young *et al*, 2005). This reference collection includes pottery from Nottingham, identified by former staff at the Nottingham Castle Museum, Victoria Nailor and Charles Young, to whom I am much indebted.

A summary of the results is shown in the table below.

Table 1: The medieval and later pottery from the evaluation and the excavation by fabric, sherd numbers and weight (grams).

| Ware | Sherd Nos. | Weight Grams |
|---|------------|--------------|
| Saxo Norman/Early Medieval | | |
| Lincoln Shelly ware | 2 | 13 |
| Fine Stamford ware | 5 | 69 |
| Coarse Shelly ware | 3 | 32 |
| ? Nottingham - Oxidised/Reduced Sandy wares | 8 | 186 |
| Nottingham - Splashed wares | 9 | 103 |
| Potters Marston | 2 | 19 |
| Sub Total | 29 | 422 |
| Medieval | | |
| Nottingham - Transitional Glazed ware | 2 | 47 |
| Nottingham - Pink Bodied Glazed Sandy ware | 5 | 15 |
| Nottingham – Light Bodied/Reduced Green Glazed Sandy ware | 29 | 277 |
| Light Bodied Gritty ware – ?Nottingham | 38 | 570 |
| Sub Total | 74 | 909 |
| Later Medieval/Early Post Medieval | | |
| Coarse Gritty ware | 2 | 46 |
| Orange Sandy ware - ?Derbyshire | 11 | 208 |
| Midland Purple | 3 | 309 |
| Cistercian/Blackware | 18 | 171 |
| Midland Yellow | 3 | 33 |
| Post Medieval Earthenware | 24 | 409 |
| Sub Total | 61 | 1176 |
| Post Medieval/Modern | | |
| Post Medieval/Modern Earthenwares | 54 | 658 |
| Blackware | 1 | 10 |
| Stoneware | 1 | 2 |
| Sub Total | 56 | 670 |
| Unclassified Fine ware | 1 | 6 |
| Totals | 221 | 3183 |

The earliest stratified pottery comprises two sherds of Lincoln Shelly ware and two sherds of Stamford ware, including a fragment of the very fine fabric B with a probable terminal date some time after the mid or later 12th century (Kilmurry 1980). This pottery was found in the pit [245], on the western edge of the excavation. The Lincoln ware, which includes a rouletted bowl or jar rim, could date from as early as the 10th or 11th centuries, but is extremely abraded, and is possibly residual in this context. A tiny fragment of Potter Marston dating from the 12th century occurred in the pit [84], whilst a sherd of Nottingham

Glazed ware dating from the mid or latter 13th century, and the sooted base of a jar, weighing 44 grams, were the only post Roman pottery finds in the linear ditches [70] and [240]. The latter is in Orange Sandy ware and probably dates from the mid 13th or 14th century.

The largest assemblage, 73 sherds, came from the backfill of the large pit or post-hole [60], which lay towards the northern end of the excavation. Most of this pottery was in the Nottingham Glazed wares and the Light Bodied Gritty wares with a date range from the early or mid 13th century to the later 13th or early 14th century. However, fine Stamford ware dating from the late 11th or 12th centuries, Nottingham Splashed wares dating from the 12th to the mid 13th centuries and hard fired Orange Sandy ware with a possible terminal date in the later 14th century or even later, were also present.

Late medieval Cistercian ware and/or early post medieval Blackwares and dark brown glazed Earthenwares with a terminal date in the 16th or 17th centuries were recovered from the post holes or small pits [87], [92], [128], [134], [145], [150], [186] and [225], the tree bole context (89) and the large square pit [251]. The latter also contained part of the stem from a clay tobacco pipe, probably also dating to the 17th century. Four sherds of pottery were found in the animal burial pit, [198], post-medieval brown glazed Earthenwares, together with a fragment of post medieval or modern Earthenware or pancheon ware and a jar rim in Midland Yellow, the latter with a terminal date in the early to mid 18th century. A tiny chip of modern pottery is possibly intrusive in this context and has been discarded.

The pottery finds suggests that there was activity in the area from at least the 12th century if not earlier in the 11th or, possibly, the 10th century. This ties in well with the documentary evidence relating to the nearby village of Ratcliffe on Soar, whose beginnings can be traced back to Domesday, (V. Score, pers. comm.), if not before. The assemblage probably relates to agricultural processes associated with the nearby village, perhaps manuring in the first instance, as few features, save the large pit [60] contained a significant quantity of medieval pottery. Only in the early post-medieval period, from the 16th or 17th centuries, is the pottery found in a number of cut features, chiefly post holes or small pits, perhaps representing hurdling or fencing associated with animal husbandry in the vicinity, at least part of the site is thought to lie within a post-medieval farm yard.

The two sherds of Potters Marston are among the first that the author has identified from Nottinghamshire, though it has been previously found in the county (V. Nailor, pers. comm.). The production centre lies some 30 km to the south, in south-west Leicestershire and the ware is more commonly found in the south and west of that county. Whether this pottery was a traded item, or part of an individual's personal household equipment, is unclear. However, not surprisingly as most pottery was not widely traded in the medieval period, much of this pottery appears to be local in origin. Nottingham wares make up the bulk of the assemblage, and the town, a major production centre at this time, lies only approximately 15 km to the north. Whilst it was originally thought that the later medieval wares, including Orange Sandy ware and Midland Purple, were also Nottingham products (Coppack 1980), it now seems likely that Nottingham had ceased to manufacture pottery by this time. Much of this and post-medieval material may originate from kilns at Burley Hill or Ticknall in Derbyshire to the west.

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| | |
|---|---|
| Site/ Parish: Ratcliff on Soar, East Midlands Parkway, Redhill. Accession No.: EMP2007 Document Ref: ratcliffe on soar2.docx Material: Potter/clay pipe Site Type: ?medieval open fields/post-med farmyard. | Submitter: L. Hunt Identifier: D. Sawday Date of Identification: 22.1.09 Method of recovery: evaluation/excavation Job Number: 08/629 |
|---|---|

| Context | Ware | Nos | Grams | Comments |
|---------|---|-----|-------|---|
| | EVALUATION | | | |
| 28 [26] | Nottingham Light Bodied/Reduced Green Glazed Sandy ware | 3 | 18 | Mid/late 13 th C. – rilled jug neck |
| 28 [26] | Nottingham - Pink bodied green glazed sandy ware | 1 | 4 | c.1250-1270 |
| 20 [29] | Post Medieval Earthenwares | 3 | 106 | Includes the rim & wall of a colander, ?16/17 th C+ |
| TR 20 | ?Nottingham Light Bodied Gritty ware | 1 | 4 | (kept for reference) c.1350-15 th C. |
| TR 20 | Midland Purple | 2 | 69 | Late medieval |
| TR 20 | Blackware | 1 | 10 | Modern |
| TR 20 | Stoneware | 1 | 2 | Modern |
| TR21 | Midland Purple | 1 | 3 | Later medieval |
| TR22 | Nottingham Splashed ware - coarse | 1 | 38 | Abraded jug red handle with traces of incised diagonal line dec. c.1180/90-1250 |
| TR22 | ?Nottingham Light Bodied Gritty ware | 2 | 67 | Bowl rim, c.1350-15 th C |
| TR22 | Midland Purple | 1 | 15 | Bowl rim |
| TR22 | Post Medieval Earthenwares | 2 | 12 | |
| TR28 | Unclassified Fine ware | 1 | 6 | Bowl rim, spot of glaze exterior- kept for reference |
| TR30 | Nottingham Splashed ware – fine | 1 | 17 | Jar rim, c1100-1180/90 |
| TR30 | Coarse Shelly ware | 1 | 4 | Late 11c. + |
| TR30 | Potters Marston | 1 | 15 | |
| TR30 | ? Nottingham Reduced Sandy wares | 3 | 100 | Hand made, abraded, ?early med. |
| TR30 | Nottingham Light Bodied/Reduced Green Glazed Sandy ware | 2 | 16 | Mid/late 13 th |
| TR30 | ?Derbyshire Orange Sandy ware | 4 | 34 | Med & later med |
| TR30 | ?Nottingham Light Bodied Gritty ware | 1 | 9 | c.1350-15 th C |
| TR30 | Midland Purple | 3 | 148 | Later medieval |
| TR30 | Blackware | 2 | 51 | |

| | | | | |
|------|---|----|-----|--|
| TR30 | Post Med/Modern Earthenwares | 11 | 197 | |
| TR31 | Developed Stamford ware | 1 | 12 | c. 1150+ Copper glazed |
| TR31 | ?Nottingham Oxidised/Reduced Sandy wares | 5 | 86 | Hand made, abraded, ?early med., one with 'splashed' glaze |
| TR31 | Coarse Shelly ware | 1 | 10 | Late 11C + |
| TR31 | Nottingham Splashed ware - coarse | 1 | 20 | c.1180/90-1250 |
| TR31 | Nottingham Light Bodied/Reduced Green Glazed Sandy ware | 2 | 8 | Late 13 th – early 14 th C. |
| TR31 | Coarse Gritty wares | 2 | 46 | Later medieval |
| TR31 | Post Medieval Earthenware | 4 | 162 | 16-17C+ |
| TR33 | Nottingham Transitional Glazed ware | 1 | 5 | c.1235-1270 |

| Phase/context | Ware | Nos | Grams | Comments |
|----------------------|---|-----|-------|--|
| | EXCAVATION | | | |
| Ph 4 61 [60] well | Fine Stamford ware | 2 | 24 | Jar rim, Kilmurry form 3, late 11 th – 12 th C |
| Ph 4 61 | Nottingham Splashed ware | 6 | 28 | Fine and coarse examples present, including a jug rim fragment. 12 th – mid 13 th C. |
| Ph 4 61 | Nottingham Transitional Glazed wares | 1 | 42 | Base, glazed internally, possibly a bowl. C1230+ |
| Ph 4 61 | Nottingham Pink Bodied Glazed Sandy ware | 4 | 11 | 3 with yellow/orange glaze |
| Ph 4 61 | Nottingham Light Bodied/Reduced Green Glazed Sandy ware | 5 | 86 | Jug base and rilled neck, light grey interior surfaces, dark green glaze, mid/late 13 th C |
| Ph 4 61 | Nottingham Light Bodied Green Glazed ware | 12 | 97 | Misc. body/base sherds, with yellow/green glaze, 1 with applied clay strip decoration, c1225/1250+ |
| Ph 4 61 | Nottingham Reduced Green Glazed Sandy ware | 4 | 32 | Jug body, reduced dark grey interior, later 13 th C |
| Ph 4 61 | ?Nottingham Light Bodied Gritty ware | 17 | 114 | Minimum of 2 vessels including a jug neck/body with olive green glaze externally |
| Ph 4 61 | ?Nottingham Light Bodied Gritty ware | 15 | 370 | Jar rim & body, traces of glaze internally, inscribed wavy line decoration on rim, sooted lower body exterior, later 13 th – 14 th C, possibly a Burley Hill product, similar but harder fired example at Derby (Coppack 1980, fig.262.155). |
| Ph 4 61 | ?Derbyshire Orange Sandy ware | 2 | 45 | Splayed base, orange glaze internally - ?14C+ |
| Ph 4 61 | ?Derbyshire Orange Sandy ware | 4 | 85 | Hard fired, going into Midland Purple. Similar at Nottingham (ibid 1980, fig.242), where dated from the later 14 th century. |
| Ph 4 61 | Coarse Shelly ware | 1 | 18 | Jug handle |
| Ph 4 63[62] linear f | Slipware | 2 | 8 | Press moulded dish, trailed slip decoration -18C+ |
| Ph 4 63 | Modern Earthenwares | 10 | 50 | |
| Ph 3 71 [70] | Nottingham Light Bodied Green | 1 | 20 | Mid/late 13 th C. Intrusive ? |

| | | | | |
|----------------------------------|---|---|----|--|
| linear ditch | Glazed ware | | | |
| Ph 4 83 [84] pit | Potters Marston | 1 | 4 | Sooted ext, thin wall 12C+ |
| Ph 4 88 [87] ph | Cistercian/Blackware | 1 | 4 | Cup handle |
| Ph 4 88 | Early Post Medieval Earthenware | 1 | 13 | Hollow – ware, brown glaze, 16 th - 17 th C+. |
| UP 89 [89] tree bole | Cistercian ware | 1 | 25 | Cup base |
| 89 | Blackware | 1 | 41 | Hollow ware base, finely finished externally – 16-17C |
| Ph 4 93 [92] ph | Cistercian ware | 1 | 1 | Late medieval |
| Ph 5 122 [121] linear feature | Cistercian ware | 1 | 1 | Late medieval, cup rim |
| Ph 5 122 | Midland Yellow | 1 | 7 | C1500+ |
| Ph 5 122 | Post Med/Modern Earthenware/Mottled ware | 4 | 14 | |
| Ph 5 129 [128] ph | Post Medieval Earthenware | 1 | 13 | 16 th C + |
| Ph 5 131 [131] ?linear f | Mottled ware | 1 | 9 | C1680+ |
| Ph 5 135 [134] ph | Post Medieval Earthenware | 1 | 1 | 16 th C + |
| Ph 5 139 [138] | Cistercian ware | 1 | 2 | Late medieval |
| Ph 5 139 square f | Post Medieval Earthenware | 2 | 26 | 16 th C + |
| Ph 5 139 | Post Medieval/Mod. Earthenwares | 8 | 89 | |
| Ph 5 144 [145] pit | Post Medieval Earthenwares | 2 | 15 | 16 th C + |
| Ph 5 151 [150] ph | Cistercian/Blackware | 1 | 11 | Cup handle |
| Ph 5 151 | Post Medieval Earthenware | 3 | 82 | 16 th C+ |
| Ph 5 162 [158] pit | Modern Earthenware | 1 | 1 | Possibly int17-18 th C ?intrusive |
| Ph 5 166 [163] pit | Post Medieval Earthenware | 2 | 27 | 16 th C+ |
| Ph 5 166 | Post Medieval/Mod. Earthenwares | 3 | 16 | |
| Ph 5 172 [171] pit | Post Medieval/Mod. Earthenware | 1 | 12 | |
| Ph 5 178 [177] pit | Post Medieval Earthenware | 1 | 24 | 17 th -18 th C |
| Ph 5 179 [180] ph | Post Medieval/Mod. Earthenware | 2 | 54 | 16-17 th C+ |
| Ph 5 181 /tree root/linear | Post Medieval/Mod. Earthenware | 2 | 15 | 16- later 17C+ |
| Ph 5 184 [185] pit | Post Medieval/Mod. Earthenware | 1 | 6 | 17-18 th C ?intrusive |
| Ph 5 187 [186] ph | Cistercian/Blackware | 1 | 5 | |
| Ph 5 187 | Post Medieval Earthenware | 1 | 4 | 16 th C+ |
| Ph 5 199 [198] pig burial | Midland Yellow | 1 | 8 | Jar rim c.1500-1725 |
| Ph 5 199 | Post Medieval Earthenware | 1 | 15 | Brown glaze 16C+ |
| Ph 5 199 | Post Medieval/Mod Earthenwares | 3 | 16 | including ‘imitation’ mottled ware c.1680+ and ?18 th C pancheon ware & a tiny chip of modern pot possibly intrusive |
| Ph 5 201 [200] /burial | Post Medieval/Mod Earthenwares | 2 | 18 | 16-18 th C+ |

| | | | | |
|-------------------------------|---|---|----|--|
| Ph 5 211[210] machine cut? | Coarse Shelly ware | 1 | 6 | |
| Ph 5 211 | Midland Purple | 1 | 74 | Under fired cistern or jar base 15C+ |
| Ph 5 211 | Cistercian/Blackware | 2 | 12 | |
| Ph 5 211 | Midland Yellow | 1 | 18 | c.1500+ |
| Ph 5 211 | Post Medieval Earthenware | 1 | 9 | Handle 16C+ |
| Ph 5 211 | Post Medieval/Mod Earthenwares | 2 | 8 | |
| Ph 5 226 [225] pit/ph | ?Nottingham Light Bodied Gritty ware | 1 | 4 | Mid/late 13 th C |
| Ph 5 226 | Post Medieval Earthenware | 1 | 41 | Brown glaze – 16C+ |
| Ph 5 241 [240] e/w linear | Derbyshire Orange Sandy ware | 1 | 44 | Base, flat, sooted ext – mid 13- 14C |
| Ph 5 247 [245] pit | ?Lincoln Shelly ware | 1 | 1 | Leached fragment ‘joins’ 248 |
| Ph 5 248 [245] pit | ?Lincoln Shelly ware | 1 | 12 | Leached/abraded ?jar rim, rouletted, ?Lincoln Kiln type or Late Saxon Shelly (Young et al 2005, 47-62). |
| Ph 5 248 | Fine Stamford ware | 1 | 31 | |
| Ph 5 248 | Very Fine Stamford ware | 1 | 2 | Fabric B 1150/1200+ |
| Ph 5 258 [251] pit/linear | ?Nottingham Light Bodied Gritty ware | 1 | 4 | Green glaze |
| Ph 5 258 | ?Nottingham Light Bodied Gritty ware | 1 | 2 | |
| Ph 5 258 | Post Medieval Earthenware | 1 | 21 | Brown glaze – 16C+ |
| CLAY PIPE | | | | |
| Ph 5 121 [122] lin f | | 1 | | Stem (access rd) |
| Ph 5 [123] brick str | | 1 | | Stem Access rd |
| Ph 5 [123] | | 3 | | Bowl & stem, burnt internally, oak leaf pattern, late 19 th C. (Ayto 1990, 9) |
| Ph 5 139 [138] square f | | 2 | | Stems |
| Ph 5 161 [158] pit | | 1 | | Stem |
| Ph 5 258 [251] pit/lin | | 1 | | Stem |

Appendix III: The Coins

Richard Buckley

All coins were from unstratified contexts and located by metal detector in the spoil

Roman

1. Obv. Radiate bust right []AVG
Rev. Illegible
Ca
Antoninianus of Postumus or Tetricus I
2. Illegible. 3rd – 4th C?
Ca or possibly Ar
3. Illegible. Possibly 3rd – 4th C.
Ca
4. Illegible. Possibly early 4th C follis based on size.
Ca
5. Obv. Radiate bust right []AVG
Rev. Illegible
Ca
Antoninianus of Postumus or Tetricus I
6. Obv. 4th c bust right with pearl diadem
Rev. ? Victory adv. Left.
CA
2nd half 4th C
7. Obv. [DN GRATI]ANVS AVGG[AVG]
Rev. Figure standing facing, holding standard, probably [GLORIA NO]VI
[SAECVLI]
CA
AD 367-75
8. Obv. FLIVLCRISPVSNOBCAES
Rev. PROVIDENTIAE CAESS camp gateway
Mm SMK [] Cyzicus
CA
AD 324-30
9. Obv. DNVALEN[]PFAVG
Rev. GLORIA R[OMAN]ORVM emperor dragging captive
MM $\frac{\text{OF III}}{\text{CON}}$
CA
Valentian I or Valens, Arles AD364-367

10. Obv. 4th c bust right
Rev. [GLORIA EXERCITVS] 1 standard
Ca
AD 335-337
11. Obv. 4th c bust right
Rev. 2 victories facing each other, arms outstretched, holding wreaths. Probably
[VICTORIAE DD AUGG Q NN] type
Ca
House of Constantine
AD 341-6

Medieval

- 12 Obv. Head facing
Rev. Long cross
AR long-cross penny
- AD 1307-27

Appendix IV: The Worked Stone

Introduction

The worked stone assemblage from this site comprises six broken rotary quern fragments possibly representative of three or four original pieces. Two of the fragments (Numbers 2 and 3) certainly fit together and other fragments may relate together based on appearance.

Lithology

The fragments are all made on Millstone Grit and are likely to have been imported to the site from relatively local sources such as the Derbyshire Peak District where this geology outcrops. Both coarse and fine-grained examples of this rock type are represented.

Morphology

All of the fragments are representative of rotary querns although in all but one instance it is not possible to determine if upper or lower pieces are represented. The two joining fragments show a distinct concavity to the grinding surface indicating this to be an upper stone. This example is particularly informative as it has surviving remnants of both the outer rim and central spindle hole, enabling an informed estimate of the original size of the quern (see catalogue).

Context

Unfortunately all of the querns were unstratified and recovered from spoil heaps following excavation. Interestingly however they were all found in a relatively localized area of the site (Trench 30) during the initial evaluation stages. A number of archaeological features were examined in this trench including pits, ditches and gullies so it is probable that the querns were disturbed from these contexts at some point, probably as a result of ploughing.

Dating

As unstratified items the querns are difficult to date precisely however they do appear to have similar characteristics to Curwen's Flat topped – early Romano-British types (1937, 143). Such a date would correspond with surrounding evidence gathered from nearby features which produced pottery dating to the 1st-2nd century AD.

Discussion

Given the disturbed context of the group there is a limited amount of information that can be discussed. As to be expected on a Romano-British site the querns are all of the rotary type. By association they indicate crop processing on the site as their primary function would have been to grind grain for bread or porridge. Evidently their presence within a localised area of the site indicates some proximity to domestic activities, as supported by other finds from the surrounding area. The querns illustrate well the Romano-British development of the rotary quern towards a more streamlined version of the bulkier Iron Age examples that preceded. The querns are all made on the same material and seem likely to have been imported, probably as readymade items from quarries and production centres in the Peak District. This information hints at some of the wider links of trade and exchange that the settlement was involved with.

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Appendix V: Miscellaneous Finds

Nicholas J. Cooper with flint identified by Lynden Cooper

Roman Objects of Dress

A single bow brooch was recovered unstratified from the Access Road. This is a Colchester derivative or T-shaped type with a hinged pin held by an iron axis pin within solid cylindrical wings. The bow is decorated with a linear tapering moulding and the foot is formed into a drum. The catchplate is solid. The drum-like foot is unusual and derives from trumpet-type brooches. The brooch is likely to date to the later first or early second century,

Roman Military Equipment

Also unstratified from the Access Road was a Roman cavalry harness fitting or baldric terminal of 2nd or 3rd century AD. A cast, tapering plate with a projecting transverse moulding spanning the constriction on the upper surface decorated with a rope twist beading. The upper and lower portions of the plate have crescent-shaped cut outs defined by lines of punched decoration on the upper surface. The narrower end has a spherical knob terminal whilst the wider end has a similar terminal on a down-curving hook in the manner of cavalry harness pendants of the first and early second century (eg Bishop and Coulston 1993, 105 and fig. 65.2). I am grateful to Simon James for providing confirmation of the identification of this object.



Plate 15 Roman cavalry harness fitting

Roman Fastenings and fittings

Iron nails of Manning's (1985) Type 1b were found in two groups. Three complete examples of 40, 65 and 110mm came from (162) whilst four up to 80mm with mineralised wood deposits came from (184).

Roman Vessel Glass

Out-turned rim of 80mm diameter from (57) in blue/green glass probably from a small bowl or cup.

Modern Vessel glass

Miscellaneous fragments of modern (18th and 19th century) vessel glass came from (159) (161), (162) all from cut 158, and from (122) and (166).

Roman Ceramic building material

A small and abraded assemblage of tile of diagnostically Roman date, weighing 4kg, was retrieved from the evaluation and excavation. A variety of sandy orange fabrics were represented, the most distinctive having occasional rounded inclusions of calcium carbonate. The occurrence of tegula (flanged) roof tiles and occasional wall tiles suggests a stone-founded building in the vicinity but lack of flue tile suggests no hypocaust heating system.

Table 1 Roman tile from the evaluation

| Trench | Context | Cut | Type | Count | Weight g |
|--------------|---------|-----|--------|-----------|-------------|
| | 6 | 5 | tegula | 1 | 289 |
| | 6 | 5 | misc | 10 | 188 |
| | 14 | | tegula | 2 | 383 |
| | 14 | | misc | 5 | 224 |
| 25a | US | | misc | 1 | 61 |
| 25b | US | | tegula | 2 | 81 |
| 30 | 23 | | tegula | 2 | 129 |
| 30 | 30 | 29 | tegula | 1 | 40 |
| 30 | 30 | 29 | misc | 2 | 89 |
| 30 | US | | tegula | 1 | 197 |
| 30 | US | | wall | 1 | 431 |
| 31 | US | | misc | 1 | 8 |
| Total | | | | 29 | 2120 |

Table 2 Roman tile from the excavation

| Context | Cut | Type | Count | Weight |
|--------------|-----|--------|----------|-------------|
| 67 | 66 | tegula | 1 | 50 |
| 71 | 70 | tegula | 1 | 150 |
| 127 | | misc | 1 | 25 |
| 228 | | wall | 2 | 992 |
| 248 | 245 | misc | 1 | 357 |
| 255 | 252 | tegula | 1 | 267 |
| Total | | | 5 | 1841 |

Modern or unidentified ceramic building materials

A number of small, mostly undiagnostic, fragments of brick in harder, hackly fabrics were retrieved and are most likely to be of modern date.

Table 3 Modern or undiagnostic brick from the excavation

| Context | Cut | Type | Count | Weight |
|--------------|-----|--------------|-----------|-------------|
| 61 | 60 | misc | 1 | 10 |
| 93 | 92 | misc | 1 | 10 |
| 95 | 94 | misc | 1 | 10 |
| 122 | 121 | misc | 1 | 93 |
| 139 | 138 | misc | 3 | 71 |
| 132 | 131 | misc | 3 | 47 |
| 159 | 158 | modern brick | 2 | 645 |
| 161 | 158 | misc | 1 | 6 |
| 162 | 158 | misc | 3 | 31 |
| 166 | 165 | misc | 3 | 6 |
| 172 | 171 | misc | 1 | 4 |
| 211 | 210 | misc | 1 | 27 |
| 258 | 251 | misc | 2 | 94 |
| Total | | | 23 | 1048 |

Ironworking debris

A total of 9kg of debris indicative of iron extraction and working was retrieved, including possible furnace bases, tap slag, and hearth or furnace linings. The evidence would be consistent with early Roman technology. The majority was unstratified from the evaluation trenches (especially 30) and might indicate that significant contexts had been previously truncated by recent ploughing or machining.

Table 4 Ironworking waste from the evaluation

| Trench | Context | Cut | Description | Weight (g) | Comment |
|--------------|---------|-----|------------------------------|-------------|---------|
| 21 | US | | Iron smelting furnace bottom | 201 | |
| 25b | US | | Iron furnace bottom? | 70 | |
| | 23 | | Fuel ash | 44 | |
| 30 | 30 | 29 | Fuel ash | 18 | |
| 30 | 34 | 33 | Hearth lining | 459 | |
| 30 | 53 | | Hearth slag? | 548 | |
| 30 | 55 | | Hearth lining | 714 | |
| 30 | US | | Tap slag | 1891 | |
| 30 | US | | Hearth lining | 1853 | |
| 31 | US | | Iron slag | 263 | |
| 31 | US | | Hearth lining | 16 | |
| 33 | US | | Slag? | 81 | |
| 36 | US | | Fuel ash and fe obj? | 271 | |
| Total | | | | 6429 | |

Table 5 Ironworking waste from the excavation

| Context | Cut | Description | Weight (g) | Comment |
|---------|-----|-------------------|------------|---------|
| 73 | 72 | Hearth slag | 992 | |
| 73 | 72 | Fuel ash | 111 | |
| 120 | 119 | Iron working slag | 635 | |
| 130 | | slag | 84 | |
| 132 | 131 | ? | 62 | |

| | | | | |
|--------------|-----|------------------------------|-------------|--|
| 159 | 158 | Fuel ash | 64 | |
| 162 | 158 | Fuel ash | 3 | |
| 183 | 182 | Fuel ash | 31 | |
| 189 | 188 | Fuel ash | 71 | |
| 211 | 210 | Vitrified clay hearth lining | 22 | |
| 228 | 227 | Fuel ash | 296 | |
| 228 | 227 | Vitrified clay hearth lining | 76 | |
| US | | Vitrified clay hearth lining | 38 | |
| Total | | | 2485 | |

Shale or coal

Small fragments of a black laminated, shale-like material weighing 74g was recovered from contexts (71), (130), (139) and (161).

Mortar

Two small fragments of sandy mortar (56g) with a faced edge came from (132) and a fragment of a more vesicular limestone or tufa came from (159) (62g).

Prehistoric Flint

Lynden Cooper

A small assemblage of flint dating to the Neolithic and Bronze Age was retrieved, comprising eight pieces from the evaluation trenches (Table 6) and a further seven pieces from the excavation (Table 7).

| Trench | Description | Number |
|--------------|-----------------|----------|
| 19 | Flakes | 4 |
| 25 | End scraper | 1 |
| 25 | Flake | 1 |
| 33 | Retouched flake | 1 |
| 34 | Flake | 1 |
| Total | | 8 |

Table 6 Flint from the evaluation trenches

| Context | Description | Number |
|--------------|------------------|----------|
| 67 | Flake | |
| 86 | Flake | |
| 122 | Scraper | 1 |
| 122 | Shatter | 1 |
| 166 | Core (crude) | 1 |
| 199 | Calcined shatter | 1 |
| US | Flake | 1 |
| Total | | 7 |

Table 7 Flint from the excavation

Other imported stone

Three fragments of gypsum came from the fill of the amphora from (120).

Shell

A group of *c.*50 freshwater mussel shells was retrieved from (249) of cut 245. Typical size was 60mm x 32mm. It is quite likely these were harvested from the Trent or Soar.

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Appendix VI: The Animal Bones

Jennifer Browning

Introduction

A small assemblage of animal bone was hand-recovered from ditches, pits and post-holes ranging in date from the Roman to the post-medieval period. The assemblage has been divided into broad periods according to the structural and ceramic evidence. The Roman features may represent a mixture of peripheral settlement activity, including field systems and some industrial processes. Many of the pits and post-holes of this period appear to have been excavated during the extraction of sand for small scale industrial activities, possibly relating to slag and vitrified material recovered nearby (L. Hunt. pers comm.). The medieval archaeology does not lend itself to an easy interpretation, although it may also be associated with boundary activity. The post-medieval features are likely to be related to cottages previously present on the area.

The surface preservation of the material was mixed, although it tended to be brittle and fragmented, with common exfoliation. In general, the condition of the bone permitted examination for butchery marks, pathologies and other modifications.

Methods

Bones were identified using the skeletal reference collection housed at the School of Archaeology and Ancient History, University of Leicester. Information on bone element, completeness, species, state of fusion and condition was recorded for each specimen and butchery, burning, pathologies and tooth eruption and wear were noted where present. A zoning method (Serjeantson 1996) was employed to assess the parts of bones present. Measurements were taken as appropriate following von den Driesch (1976) and Payne and Bull (1988). Recording of tooth eruption and wear for cattle, sheep and pig followed Grant (1982). Bones were predominantly recorded into a *pro forma* spreadsheet, however whole skeletons were recorded separately onto ULAS Animal Skeleton recording sheets.

Where fragments were not diagnostic enough to identify to species, they were assigned to one of the following categories based on characteristics such as size and thickness of the cortical surface: 'cattle-size', representing bones from large mammals such as cattle, horse or red deer and 'sheep-size', representing undiagnostic fragments of sheep, pig, roe deer or possibly dog. The remainder were classed as unidentified mammal or bird. The small size of the assemblage increased the difficulty in separating sheep and goat; a mandible from the post-medieval/modern phase carried a characteristic usually associated with goat (md2 after Halstead *et al* 2002) and sheep skulls were positively identified in the medieval phases. However, in keeping with most other sites, it seems likely that most of the sheep/goat bones are in fact, sheep.

Results

Table 1: Number of identified specimens from each Phase (hand-recovered)

| Species | Roman | Med | Post-med | Post-med/mod | Modern | Undated | Total |
|--------------------|------------|-----------|-----------|--------------|-----------|------------|------------|
| cattle | 28 | 6 | 3 | 7 | 10 | 21 | 75 |
| s/g | 29 | 6 | 5 | 8 | 3 | 13 | 64 |
| pig | 4* | 1 | 3* | 2 | 1 | 41 | 52 |
| horse | | 4 | 7 | | | 3 | 14 |
| domestic fowl | 1 | 1 | 3 | | | | 5 |
| cat | | | | | | 1 | 1 |
| rat | | | | 1 | | | 1 |
| cattle-size | 25 | 17 | 2 | 13 | 10 | 6 | 73 |
| sheep-size | 27 | 6 | | 10 | 1 | 9 | 53 |
| unident. mammal | 5 | 5 | | 3 | | 7 | 20 |
| Grand Total | 119 | 46 | 23 | 44 | 25 | 101 | 358 |

Species proportions * Includes skeletons/partial skeletons counted as '1'.

Phase 1 Iron Age

Feature: [206] (207).

Phase 2 2nd century Roman

Features: [70] (71); [77] (78); [105] (106); [109] (110); [119] (120); [137] (130); [152] (153); [156] (157); [167] (168); [182] (183); [185] (184); [220] (219); [227] (228).

Phase 3 2nd century Roman

[66] (67); [72] (73);

A small assemblage of animal bone, comprising 119 fragments was recovered from one Iron Age and 15 features of Roman date (table 1). While this activity could not be tightly dated, it predominantly belonged to the 2nd and 3rd centuries AD (above p.62). Bones of the three main domestic species, cattle and sheep/goat are most common but pig, horse and domestic fowl are also represented. There are equal numbers of cattle and sheep/goat bones.

The cattle were horned; two available horn core lengths (135 and 145mm) indicated that the animals fell into the small horn category, as defined by Sykes and Symmons (2007, table 1). This is typical of cattle of this period. There was not sufficient ageing data to allow analysis of patterns of skeletal representation or mortality profiles for any of the main species. The state of epiphyseal fusion was recorded for only six cattle bones and six sheep/goat bones and there were no examples from pig, although a pig maxilla fragment from an adult animal was recorded. Although there is some debate over the exact sequence and timing of the fusion of each element (O'Connor 2003, 166), it is possible to be confident about whether a bone fuses early or relatively late in an animal's life and to look for patterns in the data, if there are enough specimens. At Redhill the data was too sparse to suggest any mortality profiles, however the two unfused cattle diaphyses were early and middle fusing bones, based on data from Silver (1969) (distal humerus: early, distal tibia: middle). The fused bones present were all early or middle fusing (early: distal humerus, proximal phalange, distal scapula, middle: distal metacarpal) therefore there is no evidence for cattle over the age of about three years (data from Silver 1969). Observations on the mandible and maxilla fragments containing

teeth ($n=4$) confirmed the presence of juvenile cattle, as none originated from fully adult animals (in the oldest jaw present, m2 was only lightly worn).

The sheep/goat bones provide evidence for a mixture of age groups on the site, including juvenile animals. There was a fused and an unfused example each of two early (distal scapula) and two middle fusing bones (distal tibia), while a late fusing epiphysis was in the process of uniting (proximal femur). The presence of young animals suggests that stock may have been bred on or near the site, rather than the bones simply representing animals procured for food from elsewhere. Two mandibles with age-able teeth were probably around two years old (m3 not yet erupted) (Hambleton 1999, 64 table 2).

A cut containing a well-preserved amphora [119] also contained skull and maxilla fragments from cattle, sheep and pig.

Table 2: Butchered, burnt and gnawed bones in the Roman phases

| Species | Butchered | Burnt | Gnawed |
|----------------------------|-----------|-------|--------|
| Cattle (& cattle-size) | 5 | 0 | 6 |
| Sheep/goat and sheep-size) | 5 | 6 | 1 |
| Total | 10 | 6 | 7 |
| % of assemblage affected | 8% | 5% | 6% |

Cattle and sheep/goat bones in a range of contexts were butchered. Both knife and cleaver were used, but there was a slight dominance of cut marks. Gnawed bones were similarly found in a variety of contexts and their presence indicates the presence of dogs on site, even though no dog bones were identified.

Phase 4 Medieval

Features: [60] (61);

A range of domestic species were recorded amongst the 46 fragments of medieval bone, including cattle, sheep/goat, pig, horse and domestic fowl (table 1). The bulk of the material derived from feature [60], which contained 39 fragments and also contained a substantial quantity of pottery (above p.70). The sheep/goat bones identified were predominantly from the skull and mandible. A sheep mandible with age-able teeth derived from an animal possibly 6-8 years old, while a cattle m3 at wear stage 'f' indicated a young adult animal (Hambleton 1999, 64-65 tables 2-3). Within the feature, there were four instances of gnawing on cattle bones and three bones were butchered. No butchered or gnawed bones were recovered from other medieval features.

Phase 5 Post-medieval and Modern

Features: [121] (122); [138] (139); [150] (151); [158] (159) (161) (162); [165] (166); [171] (172); [198] (199); [210] (211); [240] (241); [245] (246) (247) (248) (249); [251] (258);

The post-medieval and modern features predominantly consisted of pits containing articulated partial or complete skeletons. The non-articulated bones, consisting mainly of elements of cattle and sheep, were recovered from features [121], [138], [158] and [210]. A mandible with ageable teeth (cut 158) was from an animal possibly 6-8 years at death (Hambleton 1999, 64 table 2). The only butchered bone was a sheep/goat radius from context (211), which bore cut marks. Feature [245] contained a comparatively large number of bone ($n=25$) of which almost half were burnt. The remains of a cattle mandible were

completely calcined. However, this feature is thought to be modern, thereby is likely to contain mainly residual material (L. Hunt *pers. comm.*).

A bone recovered from a fill of pit [158], compared well in size and morphology to the brown rat (*Rattus norvegicus*), which arrived in Britain *c.*1720 and was widespread by the mid-18th century (Yalden 1999, 183).

Whole skeletons were recovered from features [198] and [165]. A third skeleton [152] was considered to be part of the Roman assemblage on the grounds that the feature contained no later pottery. However the condition and disposal of the skeleton is very similar to the post-medieval animal burials and it seems more likely that it belongs with this set of features. While context 205 is technically undated it also contains potentially articulated pig bones that may have derived from an animal burial. Records made during excavation indicate that the animals were buried neatly in purposely dug pits.

[198] (199)

A pig skeleton in [198] was the best preserved of the animal burials; completeness of the skeleton together with the presence of small bones such as loose epiphyses and carpals, demonstrate that the burial was undisturbed (Plate 6). The profile of the animal, with a comparatively long snout suggests that it was of an unimproved variety and the canines suggest that it was female. The stage of tooth eruption, with the second molar unworn, suggested an age of between 7-14 months (Hambleton 1999, 65, table 4). Most of the major limb bones were unfused but the distal humerus, proximal second phalanx and the bones of the pelvis were in the process of uniting. Since fusion for these bones occurs around the age of 12 months (Silver 1969, 285-286 table A), this seems to be the probable age of death. The carcass was not butchered and had therefore not been slaughtered for its products. The most plausible explanation is that the animal was a natural mortality from a rapidly advancing disease, which had advanced too rapidly to cause visible changes to the bones. Evidently the animal was not considered to be fit for either human or animal consumption.

[152] (153)

A pig skeleton in [152] was fairly complete, although the mandible and teeth was missing, therefore preventing assessment for age. However, as none of the major limb bones are fused the animal was certainly under 12 months at death. The vertebrae were at various stages of union; some were fusing while in other cases the neural arch and body were separate, which may suggest an age of 3-6 months (Silver 1969 285 table A).

[165] (166)

This feature contained a partial pig skeleton. The skull, mandible, ribs and vertebrae and the bones of the upper forelimb were present, although some fragmentation had occurred. The degree of tooth wear, with m1 erupting, suggests that the animal was aged between 2 and 7 months at death (Hambleton 1999, 65 (table 4). None of the post-cranial bones were fused and the bodies and neural arches of the vertebrae had not yet started to fuse, therefore indicating that the animal was actually less than six months of age (Silver 1969 285 table A). This pit also contained juvenile domestic fowl bones of the pelvis and hind legs.

[171] (172)

A pit contained a small number of bones representing the hind leg of a foal (femur, tibia, patella, metatarsals II, III, IV). None of the bones were fused and the porous texture of the

bones suggests that the animal was very young. The pit was not fully excavated and therefore more of the skeleton is likely to have been present within the unexcavated part.

Discussion

The character of the Roman assemblage, composed of juvenile and adult domestic animals, with evidence for butchery and burning, suggests that it resulted from domestic and agricultural activity nearby. However, the small size and general nature of the assemblage does not allow specific processes to be identified and it is also suspected that some of this material may be residual. The low numbers of bones in medieval features, together with the difficulty in relating them to specific archaeological activity make interpretation problematic and it is possible that many of these bones have been re-deposited from other features.

The post-medieval bones are of a specific nature, predominantly composed of deliberately deposited partial and complete skeletons. No evidence of butchery was observed on the articulated bones and without exception they are young animals. They are likely to represent natural juvenile mortalities, which were not considered suitable for eating or processing. At least one of the animals [198] would have been a suitable size for consumption. These factors make it likely that the animals died from a disease, which had evidently moved rapidly through the body since it left no marks on the bones. The separate burial of the animals suggests that they died at different times, further suggesting that they were natural mortalities. The skeletons were carefully placed within the pits, which were almost certainly dug specifically for the purpose and this implies that some care was taken in their disposal, even if this was only as a measure to prevent disease. The location of the burials in relation to the former farm buildings is currently unknown.

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Appendix VII: The Plant Remains

Alistair Hill

Introduction

In the course of the excavation of the site, soil samples were taken to facilitate the recovery of preserved plant remains. The collection and analysis of archaeobotanical evidence from archaeological sites presents archaeologists with a very distinctive range of data that can be used to interpret the economic systems of past societies as ‘almost all plant species attested for archaeological sites have economic implications, either of direct, or of indirect nature’ (van Zeist 1991:109).

Methods

The archaeobotanical samples were taken from discrete datable contexts identified as having the potential for the preservation of plant remains. A total of eight samples was taken from four contexts dated, based on the ceramic artefact evidence, to the Roman period.

The plant remains were processed by ULAS staff using bulk flotation and wet sieving in a York Tank, with a 0.5mm mesh and flotation into a 0.3mm sieve. The residues were air-dried and the coarse fractions over 4mm sorted for all finds, the fine fractions of residue were reserved for analysis. The flotation fractions (flots) were air dried and packed in self-seal polythene bags that were marked with details of the project code, context and sample numbers prior to laboratory analysis.

The analysis of nine flotation fractions (flots) - sample 8 was in two parts, was carried out by scanning and 100% sorting each flot using a binocular microscope with magnification settings of between x7 and x45. The carbonized plant remains (except charcoal) were separated from the flots and stored separately as either cereal grain, chaff and weed seeds, prior to being identified further.

The University of Leicester’s environmental laboratory’s modern seed reference collection and reference manuals (e.g. Anderberg 1994, Berggren 1969, 1981 and Cappers *et al* 2006) were then used to identify, subject to the degree of preservation, the morphological characteristics of the archaeobotanical evidence found in each of the samples. The plant names and order follow Stace (1997).

The numerical quantification, by species, of the grains, chaff and seeds from each sample was carried out using the following methodology. For cereals, each grain present in the assemblage was counted as one. Where fragments of grain were present an estimate of the number of whole grains this would have represented was made by combining fragments. This method was also used in the counting of the chaff present in the assemblage. The weed seeds, although generally poorly preserved, in common with the rest of the archaeobotanical assemblage were counted as one unless they could be identified as fragments of a fractured large weed seed (following van der Veen 1992). The grain/seed counts were recorded using a Microsoft Excel spreadsheet.

Preservation

The survival and quality of plant material at archaeological sites is mainly determined by the taphonomic conditions present at an excavation site. These conditions include the mode of preservation, the conditions that surrounded the organic evidence and the local or regional climatic conditions. In the case of EMP, the archaeobotanical remains from the excavations were found to have been preserved through carbonization.

Carbonization occurs when the botanical material has been subjected to fire, which in most cases preserves a carbonized morphological structure of the material that is not subject to biological decay but is susceptible to mechanical damage (Moffett 1993).

Results: the plant remains

Charred plant remains were found in all of the eight samples recovered. However, across the range of samples the numbers of seeds present per sample varied considerably (from 9 to 267 items), with the five samples (3, 4, 5, 6 and 7) from the amphora fill context (120) containing the least amounts.

Summaries of the charred plant remains found in each sample are tabulated in Table 1.

Cereals:

Cereals are the most frequently recorded food plant remains on archaeological sites for a number of reasons. They survive deposition in an archaeological context remarkably well when charred/carbonized and can survive so well in archaeological sediments that they may be redistributed into deposits of a later, or earlier, date (van der Veen 1992). Cereals, it has been suggested, are also more likely to come into contact with fire than other food plants, in part because of the requirement to parch the hulled varieties if pounding or milling is not sufficient to separate the grain from the chaff. The storage of cereals in buildings or granaries which were often susceptible to fire also increases the possibilities of cereal grain being charred/carbonized. There are also a number of other taphonomic routes by which charred/carbonized cereals can become incorporated into archaeological deposits e.g. from straw utilised for either thatch, animal or human bedding and from animal dung used for fuel. All of the samples contained charred cereal or cereal chaff remains, although there was very little chaff on the site. The most common cereals found were spelt wheat (*Triticum spelta*), wheat (*Triticum* sp.), and barley (*Hordeum*). Also present were possible bread wheat grains (*Triticum aestivum*) found in one sample (8), identified from the grains only and therefore a less positive identification than could be made if chaff were present, and rye (*Secale cereale*) found in samples 1, 2, and 3. Oat (*Avena* sp.) was also represented in three of the samples (1, 2 and 3). However, as both the size of the oat grains and the quantities involved were small it was probable that they were representative of a wild variety growing as a weed in the main crop, but due to the absence of oat chaff this could not be confirmed.

Weeds and wild plants:

All of the samples covered in this analysis contained seeds from weeds and/or wild plants. The *New Flora of the British Isles* (Stace 1997) and the tables of weed occurrence (van der Veen 1988 and 1992) were used as reference guides.

The charred weeds seeds included a number of species that are often associated with disturbed ground and as such are typical arable weeds. These included goosefoots

(*Chenopodium* sp.), knotweed (*Persicaria* sp.), sheep's sorrel (*Rumex acetosella* L.), other docks (*Rumex* sp.), knotweeds (Polygonacea), onion couch grass (*Arrhenatherum elatius* L.) and sedges (*Carex* sp.). Sedges indicate that certain areas of the site were subject to wet soil conditions. Also present were field bean (*Vicia faba* L.), vetches/vetchlings (*Vicia/Lathyrus* sp.), small legumes (*Medicago/Melilotus/Trifolium*), ribwort plantain (*Plantago lanceolata* L.), heath grass (*Danthonia decumbens* L.), brome grass (*Bromus* sp.) which has a large seed and is often found in archaeobotanical cereal grain assemblages (Jones 1981), and a number of unidentified small and large grass seeds.

The weed seeds were mainly representative of weeds that can occur on grassland or as arable weeds and are common to archaeobotanical assemblages.

In addition, all of the samples contained a small number of uncharred seeds (see Table 2). These were also identified and included fumatory (*Fumaria* sp.), goosefoot (*Chenopodium* sp.), knotgrass (*Polygonum aviculare* L.), and docks (*Rumex* sp.), all common weeds of disturbed ground. Also present were spear thistle (*Cirsium vulgare* L.), elder (*Sambucus nigra* L.) and small grass seeds (*Poaceae* sp.).

Results

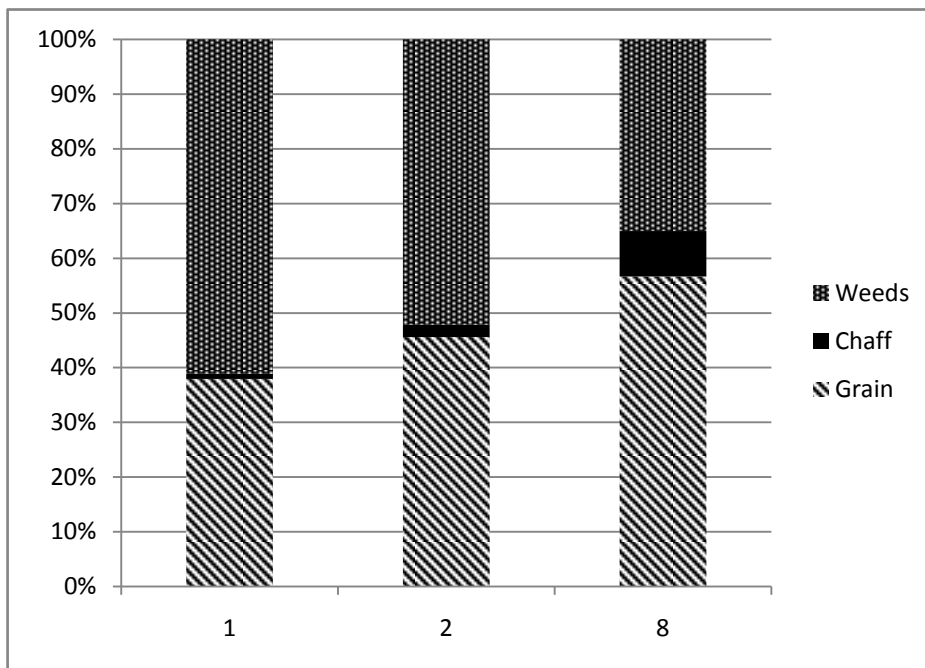


Figure 1: Cereal, chaff and weed percentage

Pit context samples

Past agricultural practices can be interpreted in instances where a sample contains sufficient quantities of carbonized plant remains to enable the relative proportions of grain, chaff and weed seeds to be measured. It has been established that during crop processing, the composition of residues that are left are indicative of the crop processing stage involved (Hillman 1981, 1984). For example, glume wheats, such as spelt, leave the grain within the chaff at the threshing stage. In order for the grain to be used for food, a further stage involving the parching and pounding of the grain to free the glumes is required. This is then followed by sieving to separate the weed seeds and chaff from the grain. Free threshing

cereals, such as barley, differ in that they are separated easily from the ear at the first threshing stage. The straw is then raked away prior to winnowing to remove any light small weed seeds and the remaining light chaff. The grain can then be subjected to coarse sieving to remove large chaff fragments followed by fine sieving to separate the clean grain from small weed seeds (Jones 1990).

Although all of the samples contained charred/carbonized remains, only samples 1, 2 (Phase 2 [55]) and 8, (Phase 4 [60]), were considered to contain a sufficient density (items/litre) and number of charred remains to facilitate an analysis with regard to cereal processing. This was carried out by examining the proportions of cereal grain, chaff and seeds of wild plants contained within the sample (see Figure 1), as well as calculating the ratio of weed seed to grain in each of the samples (see Table 1). For the purposes of this study the numbers of wheat and barley grains in the sample were combined.

It has been established that the proportions of the various types of plant remains found in a sample can assist in any archaeological interpretation of a site in terms of human activities, such as crop processing, and the surrounding environment.

Samples 1 and 2 from Phase 2 [55], have a relatively high weed to grain ratio that would suggest that the assemblages are representative of those found in association with the final stages of cereal processing containing partly cleaned grain and where the chaff has already been removed. Sample 8 contained a proportionally greater percentage of grain to weed (weed:grain ratio = 0.6) and can be interpreted as being representative of relatively cleaned grain. The low glume base to grain ratio value for this sample also supports this interpretation.

Additionally, by assessing the species frequency in terms of the number of times certain varieties occurred by sample, it was found that the weed seeds identified in these samples species generally regarded as being associated with disturbed ground and typical of the variety of weed found in an arable landscape of this period e.g. docks (*Rumex* sp.), vetches (*Vicia* sp.), small legumes (*Medicago/Melilotus/Trifolium* sp.) and grasses (Poaceae). Murray (1998) argues that the use of species frequency, as a measure of the relative proportions of species present in an archaeobotanical assemblage, is a more reliable indicator than a basic count of the seeds present, 'due to the effects of plant characteristics, processing, charring, disposal, deposition and recovery, it is impossible to assume that the absolute numbers of seeds accurately reflect the original proportions or importance of any plant taxa on a settlement in antiquity' (Murray 1998:318).

However, although it is likely that the weed seeds in samples 1, 2 and 8 were representative of weeds growing amongst the crops, they may have derived from other areas of soil disruption or even have been introduced to the area along with other plant material.

Amongst the wild plants identified in the assemblages, it is possible that the large and medium legumes present such as *Vicia faba* (field bean), *Vicia* sp. (vetches) and *Lathyrus* sp. (peas) were grown as pulse crops for human and animal consumption.

Phase 2 (120) Amphora context samples

The five samples (3, 4, 5, 6 and 7) from the amphora context 120 all came from different spits. However, all of the samples are similar in terms of the lower number and composition of the charred items present in the each assemblage (see Table 1). There is nothing in the

charred plant assemblages from the amphora samples to suggest that they are anything other than a low density scatter that has accumulated over time as part of the general pit fill.

Discussion

The density of remains present in the samples from the East Midlands Parkway site varied considerably and ranged from 1.5 (relatively low) to 20.5 (high) items per litre of soil sieved. The general low density scatter of cereal grains, the minimal presence of chaff and the low volumes of weed seeds present in the samples from the amphora context would appear to indicate that these remains were associated with the preparation and consumption of cereals on the site and could be interpreted as domestic waste. Low density domestic scatter is usually associated with a slow accumulation of domestic food preparation waste and waste from latter stages of cereal processing such as fine sieving over time. The relatively low ratio of weed to cereal grain present in these samples would also support the suggestion that a degree of crop cleaning/hand sorting to remove extraneous material may have taken place prior to food preparation.

The three samples from the pit contexts (samples 1, 2 and 8) all produced a noticeably higher density of charred plant material than the samples from the amphora context. Samples 1 and 2 both contained similar proportions and species of cereal grain, chaff and weed seeds. Spelt (*Triticum spelta*) and barley (*Hordeum*) are often present in the archaeobotanical assemblages from the Roman in the East Midlands. However, the presence of rye (*Secale cereal*) is more unusual and as the identification is not certain the evidence is too sparse to infer that rye was included as a crop in any agricultural regime associated with the site during the Roman period. Both samples are indicative of cereal waste accumulated during the final cleaning of cereals in the area.

Phase 4 medieval well 61 (Sample 8) differs however in that it has a cereal assemblage that includes bread wheat (*Triticum aestivum*), a more common crop in the medieval period. The evidence of bread wheat is limited for sites dating to the Roman period in the East Midlands region and when found it only occurs sporadically as occasional grains (Monckton 2006). The presence of free threshing bread wheat may be under-represented in the cereal assemblage as it does not required parching, which increases the possibility of accidental charring, and may have been processed elsewhere.

The presence of large/medium legumes such as field bean and pea, suggests there growing importance as a food/animal fodder crop during the Roman period as well as a possible method of maintaining soil fertility by legume cultivation.

The high seed density of 20.5 items per litre and low weed to grain ratio of 0.6 found in sample 8 suggests that the assemblage may be the result the primary deposition of cereals that had been given a degree of crop cleaning/hand sorting to remove extraneous material prior to food preparation.

Conclusions

The main crop represented in the samples from the East Midlands Parkway site was spelt wheat with some barley and bread wheat. The archaeobotanical assemblages all show a level of crop cleaning was taking place at the site and in general it can be said that the assemblages analysed were representative of both domestic and cereal cleaning waste.

The weed seeds from all phases were mainly typical of those found in arable/disturbed soil conditions and representative weeds of the crops and are common to archaeobotanical assemblages.

A number of the samples contained evidence of small animal bone, shell and hammer scale (see table 2).

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Table 1: Charred plant remains from East Midlands Parkway (EMP 2007)

| EMP 2007 | Sample No | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
|---------------------------------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------|----------------------|
| Phasing | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | |
| Context | 53 | 55 | 120 | 120 | 120 | 120 | 120 | 120 | 61 | |
| Feature type | Pit fill | Pit fill | Amphora fill | Amphora fill | Amphora fill | Amphora fill | Amphora fill | Amphora fill | Pit fill | |
| Grains | | | | | | | | | | |
| <i>Triticum cf. aestivum</i> L. | | | | | | | | | 25 | Bread wheat |
| <i>Triticum spelta</i> L. | | | 4 | 3 | 1 | | | 1 | 19 | Spelt wheat |
| <i>Triticum cf. spelta</i> | 11 | 10 | | | | | | | 27 | cf. Spelt wheat |
| <i>Triticum sp.(p)</i> | 6 | 10 | 3 | | | | | | 24 | Wheat |
| <i>Hordeum sp.</i> | | 3 | 2 | | 1 | | | | 8 | Barley |
| cf. <i>Hordeum</i> | 6 | | | | | | 2 | | 7 | Barley |
| cf. <i>Secale cereale</i> L. | 2 | 1 | 1 | | | | | | | Rye |
| <i>Cerealia</i> indet. | 14 | 17 | 7 | 10 | 1 | 4 | 5 | 40 | | Cereal |
| Grain total | 39 | 41 | 17 | 13 | 3 | 6 | 6 | 150 | | |
| Cereal Chaff | | | | | | | | | | |
| <i>Triticum spelt</i> glume bases | | 1 | | | | | | | 3 | Spelt wheat |
| <i>Triticum spelta</i> basal rachis | 1 | | | | | | | | 1 | Spelt wheat |
| <i>Hordeum</i> rachis | | | | | | | | | 2 | Barley rachis |
| Basal rachis | | | | | | | | | 4 | Basal rachis |
| Glume bases | | 1 | 1 | 1 | | | | | 4 | Glume bases |
| Culm nodes | | | | | | | | | 8 | Cereal stems |
| Detached embryos | | | | | | | | | 2 | Detached embryos |
| Chaff total | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 24 | |
| Fruit and nuts | | | | | | | | | | |
| Indet. fruit stone | | | 1 | | | | | | | Fruit stone |
| Indet.nut shell | | 1 | | | | | | | | Nut shell |
| Total | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Wild plants and others | | | | | | | | | | |
| <i>Ranunculus</i> sp. | 2 | | | | | 1 | | | | Buttercups |
| <i>Fumaria</i> sp. | 1 | | | | | | | | | Fumitories |
| <i>Chenopodium</i> sp.(p) | | 1 | | 1 | 1 | | | | 7 | Goosefoots |
| <i>Montia fontana</i> L. | 11 | 5 | | | | | | | | Blinks |
| <i>Montia</i> sp. | 3 | | | 1 | | | | | 1 | Blinks |
| <i>Caryophyllaceae</i> | | | | | | | | | | Pink family |
| <i>Persicaria</i> sp. | 1 | | | | | | | | | Knotweed |
| <i>Fallopia cf. convolvulus</i> L. | | | | | | | 1 | | | Black-bindweed |
| <i>Polygonaceae</i> | 4 | 1 | | | | | | 1 | 2 | Knotweed family |
| <i>Rumex acetosella</i> L. | 2 | | | | | | | | | Sheep's Sorrel |
| <i>Rumex cf. conglomeratus</i> Murray | 6 | | | | | | | | | Clustered Dock |
| <i>Rumex</i> sp.(p) | | 4 | 2 | 2 | | | | 2 | 15 | Docks |
| <i>Brassicaceae</i> | | | | | | | | | 1 | Cabbage family |
| <i>Vicia faba</i> L. | | | | | | | | | 1 | Field bean |
| <i>Vicia cf. faba</i> L. | | | | | | | | | 1 | Field bean |
| <i>Vicia/Lathyrus</i> sp. | | | | | | | | | 4 | Vetch/Vetchling |
| cf. <i>Vicia/Lathyrus</i> sp. | 1 | | | | | | | | | Vetch/Vetchling |
| <i>Vicia</i> sp. | | 3 | | | | | | | 6 | Vetches |
| <i>Lathyrus</i> sp. | | | | | | | | | 1 | Peas |
| <i>Medicago/Melilotus/Trifolium</i> | 7 | 4 | 6 | | | | 2 | 1 | 9 | Clovers type |
| <i>Fabaceae</i> (medium) | | | | | | | | | 27 | Medium sized legumes |
| <i>Linum</i> sp. | | | | | | | 1 | | | Flaxes |
| <i>Apiacaea</i> | 1 | | | | | | | | | Carrot family |
| <i>Lithospermum cf. arvense</i> L. | | | | | | | | | | Field gromwell |
| <i>Plantago cf. lanceolata</i> L. | | | | | | | 1 | | | Ribwort Plantain |
| <i>Plantago</i> sp. | 1 | | | | | | | | | Plantains |
| <i>Galium</i> sp. | | | | | | | | | 2 | Bedstraws |
| <i>Asteraceae</i> sp.(p) | | 2 | | | | | | | 5 | Daisy family |
| <i>Carex</i> sp.(p) | 8 | 11 | | 2 | | | 2 | 1 | 4 | Sedges |
| <i>Avena</i> sp. | 1 | 1 | | | | | | | | Oat (wild) |
| cf. <i>Avena</i> sp. | | | 3 | | | | | | | cf. Oat (wild) |
| <i>Bromus</i> sp. | 3 | 4 | 5 | 3 | | | | 2 | 2 | Brome grass |
| <i>Arrhenatherum elatius</i> L. | | | | 1 | | | | | | Onion couch grass |
| <i>Danthonia decumbens</i> L. | 1 | 4 | | 1 | 1 | | | | | Heath-grass |
| cf. <i>Danthonia decumbens</i> L. | | | | | | | 1 | 1 | 1 | Heath-grass |
| <i>Poaceae</i> (large) | 2 | 4 | | 1 | | | 1 | 1 | 3 | Large grasses |
| <i>Poaceae</i> (small) | 8 | 3 | | 2 | 3 | | | | 1 | Small grasses |
| Indet.bud | 2 | 2 | 1 | | | | 1 | | | Indeterminate bud |
| Wild plants and others total | 65 | 49 | 17 | 14 | 6 | 10 | 9 | 93 | | |
| Totals | 105 | 93 | 36 | 28 | 9 | 16 | 15 | 267 | | |
| Sample vol. Lts | 6 | 6.5 | 6.8 | 7 | 6 | 6 | 7 | 13 | | |
| Flot vol. mls. | 60 | 40 | 75 | 25 | 50 | 50 | 75 | 64 | | |
| Items/litre | 17.5 | 14.3 | 5.3 | 4.0 | 1.5 | 2.7 | 2.1 | 20.5 | | |
| Grain total | 39 | 41 | 17 | 13 | 3 | 6 | 6 | 150 | | |
| Chaff total | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 22 | | |
| Wild plants total | 63 | 47 | 16 | 14 | 6 | 9 | 9 | 93 | | |
| Weed/grain ratio | 1.6 | 1.1 | 0.9 | 1.1 | 2.0 | 1.5 | 1.5 | 0.6 | | |
| Glume bases/grain ratio | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | | |

Table 2: Uncharred material from East Midlands Parkway (EMP 2007)

| EMP 2007 | Sample No | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
|-------------------------------|--------------|----------|----------|----------|----------|----------|----------|----------|----------|---------------|
| | Phasing | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | |
| | Context | 53 | 55 | 120 | 120 | 120 | 120 | 120 | 61 | |
| | Feature type | Pit fill | Pit fill | Pit fill | Pit fill | Pit fill | Pit fill | Pit fill | Pit fill | |
| <i>Fumaria</i> sp. | | | + | | | | | | | Fumitories |
| <i>Chenopodium</i> sp.(p) | | | + | + | | | | + | + | Goosefoots |
| <i>Polygonum aviculare</i> L. | | | + | | | | | | + | Knotgrass |
| <i>Rumex</i> sp. | | | + | | | | | | | Docks |
| <i>Sambucus nigra</i> L. | | + | | + | | + | + | + | | Elder |
| <i>Cirsium vulgare</i> (Savi) | | | | | | | | | + | Spear thistle |
| <i>Poaceae</i> sp. small | | + | | | | | | | | Small grass |
| Bone | | + | + | + | | | + | | | Bone |
| Shell | | + | | + | + | ++ | + | + | | Shell |
| Hammer scale | | + | + | ++ | ++ | ++ | ++ | + | | Hammer scale |