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Archaeological Services

**An Archaeological Field
Evaluation of Land to the
Rear of Hall Farm, Mere
Road, Waltham on the
Wolds, Leicestershire
(NGR SK 803 252)**



Richard Huxley

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**An
Archaeological Field Evaluation
of Land to the Rear of Hall Farm, Mere Road,
Waltham on the Wolds, Leicestershire,
NGR SK 803 252**

Planning Application 14/00136/OUT

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An Archaeological Evaluation For Land to the Rear of Hall Farm, Mere Road, Waltham on the Wolds, Leicestershire, NGR SK 803 252

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Summary

Trial trenching by ULAS on behalf of M. Duffin Builders Ltd in advance of proposed residential development to the rear of Hall Farm, Mere Road, Waltham on the Wolds revealed evidence for Roman activity of the 1st century AD. Three trenches contained several gullies and pits and there was evidence of small-scale iron working. Environmental remains suggested crop processing and consumption in the vicinity. The archaeological features may indicate a small Roman rural settlement or farmstead in the eastern and southern part of the site. Finds and records will be deposited with Leicestershire Museums, Arts and Records Service under Accession Number XA14.2016.

Introduction

This report presents the results of an archaeological field evaluation undertaken by ULAS in January 2016 at Land to the Rear of Hall Farm, Mere Road, Waltham on the Wolds (NGR: SK 803 252). The work was commissioned by M Duffin Builders Limited ahead of the planned development of eight single-storey residential units. Melton Borough Council was advised by the Principal Planning Archaeologist, Leicestershire County Council in May 2014 (CLE11002/RC) that no development should take place until a two-phase programme of archaeological work (detailed in a Written Scheme of Investigation) had been implemented. This was to commence with an initial phase of trial trenching to characterise the nature, extent, depth date and significance of any archaeological deposits which might be present. Depending on the results of the trenching, a second phase of investigation and recording might then be required to mitigate any damage to such remains from the development proposals.

Site Description, Topography and Geology

The proposed development is located in a prominent position on the northern edge of the village of Waltham on the Wolds, approximately 7km north-east of Melton Mowbray, Leicestershire. The development is bounded by Mere Road to the east and the A607 to the west, with the site occupying a triangular-shaped area at the junction of the two roads. The proposed development site is currently open grassland which was previously used as an equestrian exercise paddock. The land has been covered with matting and sand to provide a suitable surface for the horses. The site is approximately 0.45 hectares in size and lies at an approximate height of 170m aOD. The Ordnance Survey Geological Survey of Great Britain indicates the bedrock geology consists of Northampton sand formation- sandstone, limestone and ironstone deposited during the Jurassic period.

Archaeological and Historical Background

The name 'Waltham' derives from 'weald' (woody) and 'ham' (town), while the word 'wold' is from the Saxon word meaning 'hill or high place' (Nichols 1795, 379). According to the Historic Environment Record for Leicestershire and Rutland (HER) there are no records of prehistoric features within the village; however an undated cropmark of a rectangular enclosure (**MLE4191**) is visible to the west of the development area and this may represent activity from this period. A Roman road passes through the village on a north-west to south-east alignment following the line of the High Street and Goadby Road (**MLE3814**). This road links the small Roman towns at Thistleton and Goadby Marwood and probably continues to Margidunum in south Nottinghamshire (Liddle 2002, 1). The road joins the Drift (also known as Sewstern Lane) with the Salt Way, which runs between Six Hills and Grantham. Locally made Roman pottery was found at a property on the High Street (**MLE4201**) and the presence of this suggests nearby occupation during the Roman period.

The village core has been deduced by R.F. Hartley (**MLE9114**). At the time of Domesday lands in Waltham belonged to Hugh de Grentemaisnil (who owned much of Leicestershire). From Hugh the land devolved to the Earls of Leicester. The greatest part of the town belonged to nearby Croxton Abbey (Nichols 1795, 379), north-east of the village. There is documentary evidence for a medieval market (**MLE4200**). Henry III granted a weekly market in the village on a Thursday and an annual fair on the 8th September. Nichols remarks that the small market no longer occurs in his day (late eighteenth century) but there is still a fair held on 19th September 'for horses, horned cattle, hogs and goods of all sorts' (Nichols 1795, 382). During the fair anyone who wanted to brew beer could sell it and many made it just to give away.

The Church of St. Mary Magdalene (**MLE4183**) has origins in the Saxon-Norman period, but most of the fabric dates around 1300. It contains a Norman octagonal font (**MLE4194**) and there is a well associated with the building, possibly post-medieval in date (**MLE4195**). The medieval manorial complex is located approximately 500m to the south-east of the site (**MLE4205**). Approximately 700m to the south-west of the site are the remains of a large dam used to retain the millpond (**MLE4182**).

Vertical aerial photographs show earthwork remains in the village at grid reference (SK803 248) to the south-east of the proposed development site. The lane to the old windmill continues as a hollow way and there are faint traces of earthworks between this and the main road, including the foundations of a substantial building 50m south-west of the windmill (Hartley 1987, 15).

Hall Farm is an impressive farmhouse building, Grade II Listed (EH ID 190344), fronting onto Melton Road. The farmhouse dates to the mid-late 19th century and it was formerly part of the Duke of Rutland's estate.

Waltham on the Wolds seems to have been primarily agricultural. The Leicester Advertiser remarks that farming was the only industry of the village and by the mid-1950s those that did not work on the land tended to work in Melton Mowbray.

Aims and Objectives

- The purpose of the archaeological work was:
- To identify the presence/absence of any archaeological deposits.
- To establish the character, extent and date range for any archaeological deposits to be affected by the proposed ground works.
- To advance understanding of the heritage assets.
- To produce an archive and report any results.

Within the stated project aims, the principal objective of the trial trenching is to establish the nature, extent, date, depth, and significance of the heritage assets within their local and regional context. This should enable an assessment to be made of the impact of the development on any archaeological remains which might be present on the site and, if necessary, formulate an appropriate mitigation strategy so that they are adequately recorded.

Initial objectives are derived from *East Midlands Heritage: An Updated Research Agenda and Strategy for the Historic Environment of the East Midlands* (Knight *et al.* 2012) and *The Archaeology of the East Midlands: An Archaeological Resource Assessment and Research Agenda* (Cooper 2006).

The Roman Period (Taylor 2006; Knight *et al.* 2012; English Heritage 2012)

Roman spot finds in the area are an indication of potential Roman activity. Therefore, the evaluation may contribute to knowledge on Iron Age – Roman transitions in rural settlement, landscape and society. Artefacts may identify trade links and economy.

Medieval (Lewis 2006; Knight *et al.* 2012)

The area lies close to the medieval village core and medieval earthworks and may contribute to the study of rural medieval settlement and East Midlands Research Strategy 6.7.7.2 (Knight *et al.* 2012: 94; Lewis 2006).

Methodology

The work followed the Written Scheme of Investigation (Rodriguez 2016) and adhered to the Chartered Institute for Archaeologists (CIfA) Code of conduct (2014) and *Standard and Guidance for Archaeological Evaluations* (2014). The Leicestershire County Council Guidelines and Procedures for Archaeological work Leicestershire and Rutland has been adhered to. An accession number/site code was obtained prior to commencement of the project and used to identify all records and artefacts.

Prior to any machining general photographs of the site areas were taken. The programme of work consisted of the excavation of six 30m by 1.8m trenches using a machine equipped with a flat-bladed ditching bucket. The orientation of several trenches differed from that as detailed within the Written Scheme of Investigation (WSI) due to spoil and building materials currently being stored in the south and south-western edges of the site. This change in orientation lead to a slight alteration of other trenches in order to maintain a reasonable spread across the development area.

Topsoil and overburden were removed carefully in level spits, under continuous archaeological supervision. The trenches were excavated down to the top of archaeological

deposits or natural undisturbed ground. All excavation by machine and hand was undertaken with a view to avoid damage to archaeological deposits or features which appeared worthy of preservation in situ or more detailed investigation than for the purposes of evaluation.

Trenches were examined by hand cleaning and any archaeological deposits located were planned at an appropriate scale. Archaeological deposits were sample-excavated by hand as appropriate in order to establish the stratigraphic and chronological sequence, recognising and excavating structural evidence and recovering economic, artefactual and environmental evidence. Particular attention was be paid to the potential for buried palaeosols and waterlogged deposits in consultation with ULAS's environmental officer.

Measured drawings of all archaeological features were prepared at a scale of 1:20 and tied into an overall site plan. All plans were tied into the Ordnance Survey National Grid. Relative spot heights were taken as appropriate. Sections of any excavated archaeological features were drawn at an appropriate scale. At least one longitudinal face of each trench was recorded. All sections were levelled and tied to the Ordnance Survey Datum, or a permanent fixed benchmark. Trench locations were recorded by an appropriate method and then be tied in to the Ordnance Survey National Grid.



Figure 4: Location of Trenches at Waltham on the Wolds

Results

Trench 1

Length (m)	Width (m)	Area (sq. m)	Min. Depth (m)	Max. Depth (m)				
30	1.8	54	0.48	0.87				
Interval (m) from East end	0	5	10	15	20	25	30	To West end
Modern topsoil depth	0.11	0.18	None	None	None	None	None	
Made ground depth	0.29	0.15	None	0.1	None	0.12	0.28	
Subsoil depth	0.2	0.17	0.32	0.42	0.32	0.2	0.38	
Top of Natural	0.6	0.5	0.32	0.52	0.32	0.32	0.66	
Base of trench	0.8	0.87	0.45	0.52	0.57	0.48	0.7	

Trench 1 was located in the south-east corner of the site and positioned along an east to west orientation. The trench was 30m long by 1.8m wide and had a depth ranging from 0.48-0.87m. The modern topsoil and made ground had been partly removed from the area where the western side of the trench was positioned. The topsoil was composed of a friable, dark greyish-brown silty sand which overlay a modern deposit of orange sand, matting and limestone rubble. The modern sand, matting and limestone deposits were the remains of the equestrian paddock which covered the majority of the site and in Trench 1 it ranged from 0.4-0.1m deep. These modern deposits were overlying a homogeneous mid yellowish-brown subsoil, which consisted of a smooth silty clay ranging from 0.42-0.17m deep. The natural substratum was predominantly composed of limestone, ironstone and occasionally sandstone blocks in a matrix of yellowish-orange clay with lenses of orange-red sand.

Approximately 10m from the eastern end of the trench an oval shaped pit [114] was found, which measured 1.42m long by 1.22m wide and 0.28m deep. The pit was well defined and filled with a dark greyish-black silty clay deposit (115) which contained animal bone from medium to large mammals (see appendix for full report), pottery, fuel ash, slag and a residual Neolithic or Bronze Age flint flake. The pottery consisted of a sherd from an Iron Age granite-tempered vessel and another from an Early Roman sandy ware vessel of mid-late 1st century date. In view of the potential for industrial residues the pit was sampled (sample 1) and found to contain many seeds and charred plant remains in addition to industrial residues indicative of high temperature working of iron (either smelting and/or smithing).



Figure 5: Pit [114] In Trench 1

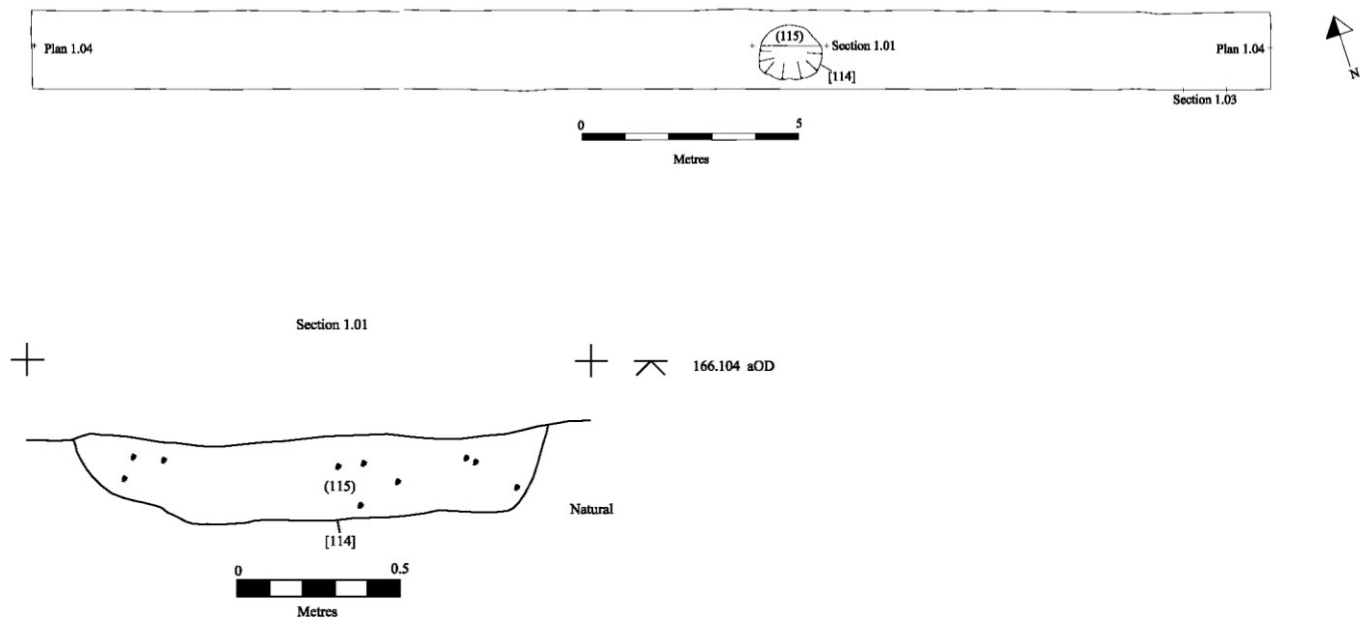


Figure 6: Plan of Trench 1 with Section of Pit [114]

Trench 2

Length (m)	Width (m)	Area (sq. m)	Min. Depth (m)	Max. Depth (m)				
30	1.8	54	0.51	0.74				
Interval (m) from South end	0	5	10	15	20	25	30	To North end
Modern topsoil depth	None	None	None	None	None	None	None	
Made ground depth	None	None	None	None	None	None	None	
Old topsoil depth	0.1	0.16	0.1	0.09	0.08	0.04	0.08	
Subsoil depth	0.33	0.2	0.24	0.26	0.23	0.28	0.32	
Top of Natural	0.43	0.36	0.34	0.35	0.31	0.32	0.4	
Base of trench	0.59	0.74	0.44	0.54	0.52	0.53	0.51	

Trench 2 was positioned centrally, close to the southern edge of the site and orientated north to south. The trench was 30m long by 1.8m wide and had a depth ranging from 0.74-0.44m. The modern topsoil and made ground had been mostly removed from this area before the trench was machined. The remains of the made ground were visible and appear to be sealing an older topsoil. The topsoil was between 0.04-0.16m deep and composed of friable dark brownish-grey clay silt, containing fragments of ironstone and limestone. The subsoil was a mid yellowish-brown silty clay and ranged in depth from 0.2-0.33m. This subsoil appeared consistent with the subsoil found in trench 1 and contained the damaged and abraded rim of a bead and flanged bowl dating from the latter half of the 3rd century and into the 4th century. It does not therefore relate to the earlier Roman occupation found on the site and may instead result from later manuring.

The natural substratum was a yellowy brown clay with ironstone, limestone and sandstone blocks the same as in trench 1.

Approximately 10m-15m from the southern end of the trench two irregular features [104] and [106] were found. [104] measured 1.60m long by 0.80m wide and 0.30m deep. Its shape was amorphous, with an undulating base and was filled with a poorly defined mid yellowish-brown sandy silt (105). Feature [106] was also amorphous with an undulating base, measuring 0.9m long by 0.6m wide and 0.2m deep. It too was filled with a poorly defined mid yellowish-brown sandy silt (107) which was very similar to (105). No artefacts were found in either feature and their irregular shape suggest they were naturally produced with a 'tree bowl' being the most likely formation.



Figure 7: Tree bowl [104] in Trench 2

Trench 3

Length (m)	Width (m)	Area (sq. m)	Min. Depth (m)	Max. Depth (m)				
30	1.8	54	0.61	0.93				
Interval (m) from South end	0	5	10	15	20	25	30	To North end
Modern topsoil depth	0.11	0.1	0.1	0.2	0.18	0.43	None	
Made ground depth	0.07	0.25	0.18	0.22	0.3	0.16	None	
Old topsoil depth	None	None	None	None	None	None	0.34	
Subsoil depth	0.23	0.4	0.3	0.35	0.5	0.33	0.27	
Top of Natural	0.41	0.75	0.58	0.77	0.9	0.92	0.61	
Base of trench	0.61	0.85	0.7	0.8	0.9	0.93	0.77	

Trench 3 was orientated north-north-east to south-south-west and was positioned to the east of the site, roughly parallel with Mere road. The trench measured 30m long by 1.8m wide and had a depth ranging from 0.61m-0.93m. The modern topsoil was composed of a dark greyish-brown silty sand and covered made ground consisting of matting and limestone rubble. The limestone rubble was only present in the southerly three quarters of the trench and was replaced by orange sand in the north. At the furthest northerly extent of the trench the made ground ended and the topsoil appeared to be older. A thin band of older topsoil composed of friable dark grey clay silt was also present between the made ground and subsoil at several places along the western edge of the trench. The subsoil was a mid yellowish-brown silty clay ranging from 0.23m-0.5m deep and appeared consistent with the subsoil found in other trenches. The natural substratum was a yellowish-brown clay with ironstone, sandstone and limestone blocks, the same seen in trenches 1 and 2.

Several archaeological features were found throughout this trench; the first was gully [108] found in the south of the trench and orientated east to west. The gully was over 2m long, 0.5m-1m wide and between 0.2-0.3m deep. The edges were slightly ‘stepped’ with a shallow

slope becoming steeper and narrower with a concave base. It was filled with a mid greyish/yellowish-brown clay silt with sand (109), which contained ironstone fragments and charcoal (see section 2.01 in figure 6). No artefacts were recovered from this deposit, however to the east gully [108] truncated a second gully [110] which yielded a single body sherd from an Early Roman sandy ware vessel of mid-late 1st century date. The fill of gully [108] at the intersection with [110] was composed of a sandy clay with silt, ironstone and a few flecks of charcoal (116).



Figure 8: Intersection of gullies [108] and [110]

Gully [110] was orientated north to south entering the trench in the south-east and appearing to slightly curve as it exits the western edge of the trench. It measured over 8m long by 0.6m wide and 0.2m deep. The gully had moderately sloped edges with a concave base and was filled with a mid brownish-grey silty clay with patches of redeposited yellow natural clay (117) in addition to a mid brownish-grey silty clay (111). Both deposits were soft and had inclusions of charcoal and ironstone. Deposit (111) was located at the intersection with gully [108] and contained early Roman pottery. An early Roman sandy ware vessel of mid-late 1st was also found within deposit (116) in gully [108] and it is possible this represents disturbed material from [110].

Approximately 3m north after gully [110] exits the western edge of the trench, feature [119] enters and runs parallel with this side for 6.5m. The eastern edge of this feature is only visible and it measured 0.3m-0.52m wide and 0.29m deep, with a moderate to steeply sloping edge. Feature [119] was filled with a mid greyish/yellowish-brown silty clay with ironstone fragments and flecks of charcoal (118). Glass slag was present within this deposit and due to the potential for industrial residues a sample (sample 2) was taken. No other artefacts were found within this feature and it is unclear whether [119] represents a continuation of gully [110] or a separate feature.

Immediately after feature [119] exits the western edge of trench 3 gully [112] enters the trench orientated on a north-east to south-west alignment. This gully measured over 2.5m long, between 0.5-1m wide and 0.3m deep with moderately sloping sides and a concave base. The gully was filled with a friable mid greyish-brown silty clay with sand, which contained inclusions of ironstone and a few flecks of charcoal. No artefacts were recovered from this feature and no relationship was visible with feature [119].



Figure 9: Gully [112] in the north of Trench 3

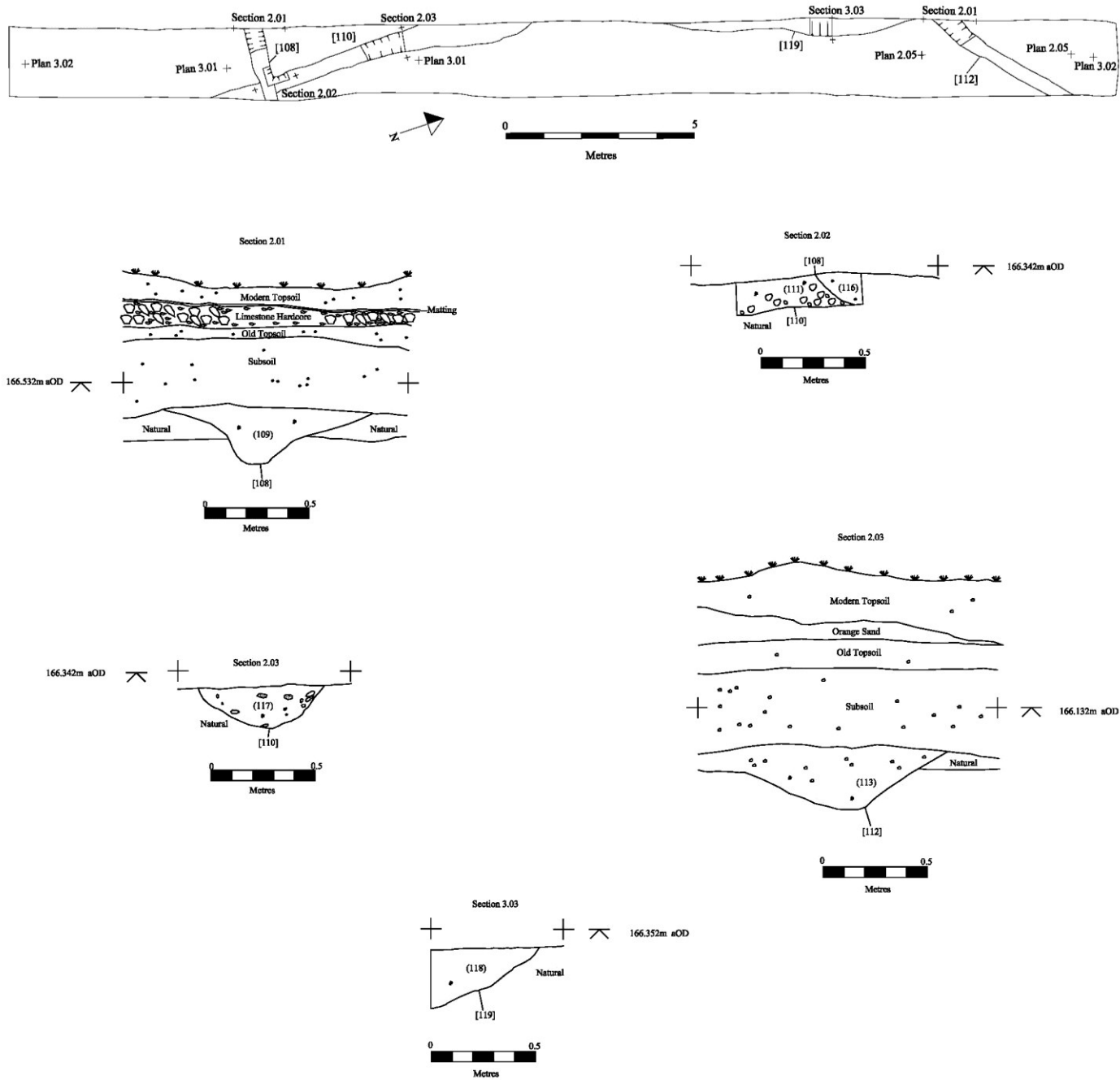


Figure 10: Plan and Sections from Trench 3



Figure 11: Trench 3 facing south with gully [112] in the foreground

Trench 4

Length (m)	Width (m)	Area (sq. m)	Min. Depth (m)	Max. Depth (m)				
30	1.8	54	0.47	0.84				
Interval (m) from South end	0	5	10	15	20	25	30	To North end
Modern topsoil depth	0.1	None	None	None	None	None	None	
Made ground depth	0.16	None	None	None	None	None	None	
Old topsoil depth	0.13	0.1	0.2	0.18	0.28	0.25	0.22	
Subsoil depth	0.35	0.22	0.38	0.26	0.4	0.28	0.22	
Top of Natural	0.64	0.32	0.58	0.44	0.68	0.53	0.44	
Base of trench	0.84	0.47	0.8	0.69	0.7	0.6	0.52	

Trench 4 was positioned in the north of the development area and was orientated north to south. The trench measured 30m long, by 1.8m wide and ranged from 0.47-0.84m deep. The first southerly 5m of the trench contained a modern topsoil composed of a friable dark greyish-brown silty sand above made ground composed of orange sand. This was sealing an older topsoil composed of a dark brownish-grey clay silt with fragments of ironstone and limestone. The subsoil was a mid yellowish-brown silty clay and the natural was a mid yellowish-brown clay with ironstone, limestone and sandstone fragments similar to the substratum found in other trenches. There was a dump of modern bricks and rubble at the southern end of the trench at a depth which had penetrated the subsoil which was removed by mechanical digger during the machining. This marked the northern extremity of the made ground and modern topsoil and after this point the ground appeared to be in its original state prior to its use as an equestrian exercise paddock. No features were found within this trench and no artefacts were recovered from the deposits.

Trench 5

Length (m)	Width (m)	Area (sq. m)	Min. Depth (m)	Max. Depth (m)				
30	1.8	54	0.55	0.96				
Interval (m) from South-east end	0	5	10	15	20	25	30	To North-west end
Modern topsoil depth	0.13	None	None	None	None	None	None	
Made ground depth	0.3	0.3	0.37	None	None	None	None	
Old topsoil depth	0.25	0.26	0.2	0.2	0.3	0.2	0.25	
Subsoil depth	0.23	0.4	0.3	0.4	0.25	0.2	0.34	
Top of Natural	0.91	0.96	0.87	0.6	0.55	0.4	0.59	
Base of trench	0.91	0.96	0.87	0.73	0.61	0.55	0.59	

Trench 5 was positioned in the north-west of the development area and was orientated north-west to south-east. The trench measured 30m long by 1.8m wide and ranged from 0.55m-0.96m deep. The south-easterly third of the trench contained a modern topsoil composed of friable dark greyish-brown silty sand above orange sand and limestone made ground. These deposits were sealing an old topsoil composed of dark brownish-grey friable clay silt. Beneath the old topsoil was a subsoil, which was mid yellowish-brown colour and composed of silty clay. The natural substratum was predominantly composed of limestone, ironstone and occasionally sandstone blocks in a matrix of yellowish-orange clay with lenses of orange-red sand and yellow clay. The north-westerly two thirds of the trench only contained older topsoil and this marks the north-westerly extremity of the made ground and equestrian exercise paddock. No features were found within this trench and no artefacts were recovered from the deposits.



Figure 12: Trench 5 showing the extent of made ground

Trench 6

Length (m)	Width (m)	Area (sq. m)	Min. Depth (m)	Max. Depth (m)				
30	1.8	54	0.67	1.12				
Interval (m) from South-west end	0	5	10	15	20	25	30	To North-east end
Modern topsoil depth	None	None	None	0.2	0.23	0.3	0.46	
Made ground depth	None	None	None	0.09	0.11	0.07	None	
Old topsoil depth	0.06	0.12	0.16	0.1	0.18	0.15	0.25	
Subsoil depth	0.38	0.48	0.42	0.39	0.44	0.53	0.29	
Top of Natural	0.44	0.6	0.58	0.78	0.96	0.95	1	
Base of trench	0.74	0.67	0.8	0.98	1.06	1.12	1.09	

Trench 6 was positioned in the south-west of the development area and was originally planned to be orientated east to west. This was changed to avoid building materials and existing mounds of earth which were being stored in the vicinity. The trench was positioned on a south-west to north-easterly alignment and measured 30m long by 1.8m wide and ranged from 0.67-1.12m deep. The modern topsoil was composed of dark greyish-brown friable silty sand, which lay directly on top of made ground consisting of orange sand. These deposits were only present in the northern half of the trench and this marks the south-westerly extent of the equestrian exercise paddock. Beneath the modern deposits an older topsoil composed of dark brownish-grey clay silt was found and this became more prominent in the south-westerly end of the trench when the made ground terminated. The subsoil was a mid yellowish-brown silty clay ranging in depth from 0.29-0.53m and similar to the subsoil found in other trenches. The natural substratum was composed of limestone, ironstone and sandstone within a matrix of yellowish-orange clay and similar to the natural seen in other trenches.

Approximately 7m from the northern end of the trench a dump of modern bricks and rubble was found similar to the modern material found in trench 4. This deposit had penetrated the subsoil as deep as the natural substratum and had to be removed by mechanical digger. Close to the centre of the trench an oval pit [101] was found and this measured 0.8m long, by 0.4m wide and 0.3m deep. The sides of the pit were concave and steeply sloping with a concave base. The pit was filled with two distinct deposits; the primary fill (102) was a dark grey brown silty clay with flecks of charcoal and measured 0.13m deep. The secondary fill (103) was a mid grey/yellowish brown silty clay measuring 0.11m deep. This deposit contained animal bone and teeth from pig, cattle and sheep/goat (see appendix for full report). Both fills were separated by patches of yellow clay, which appear to be redeposited natural. No artefacts were recovered from this feature.

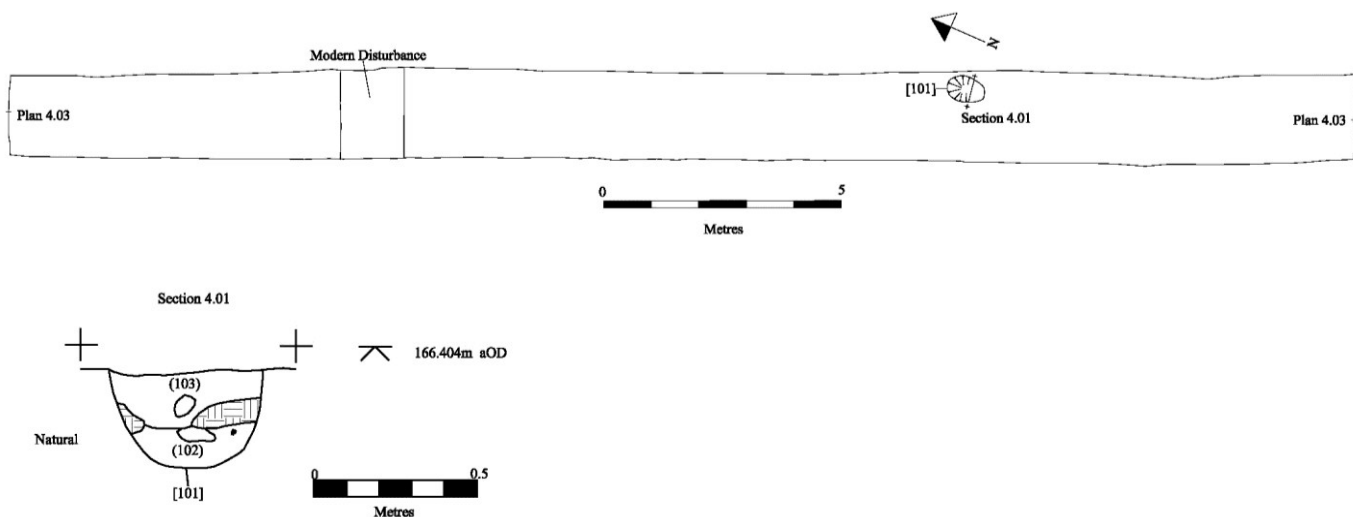


Figure 13: Plan and Section of pit [101] in Trench 6



Figure 14: Pit [101] in Trench 6.

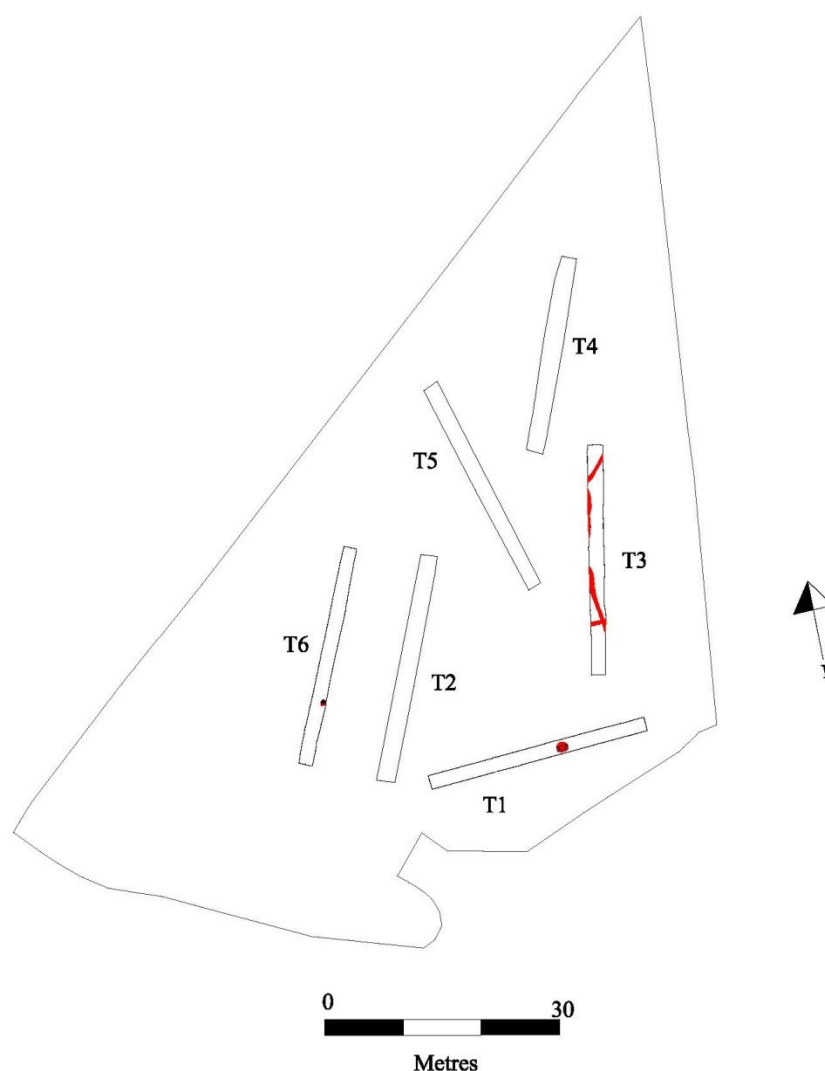


Figure 15: General Plan of the Trenches and archaeology highlighted in red

Discussion and Conclusions

The results of the trial trenching show that archaeologically significant remains were present on the site, with the dateable features indicating activity existing from the early Roman period in the mid-late 1st century AD. One sherd of Iron Age pottery was found, but was residual in a later feature, whilst a sherd of late Roman pottery is thought to have derived from later manuring rather than indicating further settlement of this period. The location of archaeology found across the site suggests the eastern and southern areas are where the dominant activity is likely to be found. The presence of industrial waste from features located in trenches 1 and 3 indicates small scale ironworking industry in the vicinity, the pottery from one of the features suggesting that this was from the early Roman period.

The identifiable animal bone recovered during the evaluation namely cattle, sheep/goat and pig are all animals associated with domestic occupation. The evidence of faunal remains coupled with the assemblage of flora confirms the presence of activity associated with

agriculture. Therefore there is a high potential for nearby occupation during the early Roman period.

Archive and Publications

The site archive (X.A119.2015), consisting of paper and photographic records, will be deposited with Leicestershire Museums Service.

The paper archive consists of:

- 1 x A4 drawing sheet
- 6 x Evaluation Recording forms
- Photographic record indices
- 82 digital photographs
- A risk assessment form
- 1 x Sample Register
- 15 x Context Recording sheets

Publication

A version of the excavation summary (see above) will appear in due course in the *Transactions of the Leicestershire Archaeological and Historical Society*.

Acknowledgements

Richard Huxley of ULAS undertook the archaeological evaluation on behalf of M Duffin Builders Limited. The project was managed by Richard Buckley.

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Oasis Information

Project Name	Hall Farm, Mere Road, Waltham on the Wolds
Project Type	Trial Trenching
Project Manager	Richard Buckley
Project Supervisor	Richard Huxley
Previous/Future work	None
Current Land Use	Pasture
Development Type	Residential
Reason for Investigation	Planning condition

Position in the Planning Process	Post-determination
Site Co ordinates	SK 803 252
Start/end dates of field work	18-22 January 2016
Archive Recipient	LMARS
Study Area	0.45ha

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Appendix I Finds and Environmental Evidence

Iron Age and Roman Pottery from Waltham on the Wolds XA14.2016

Nicholas J. Cooper

A single Iron Age sherd and four of Roman date were recovered, and classified according to the Leicestershire Prehistoric and Roman Pottery fabric Series (Marsden 2011; Pollard 1994) and quantified by sherd count and weight.

Two body sherds were recovered from Pit [114] (115) comprising one (4g), residually, from an Iron Age granite-tempered vessel (Fabric R1) and the other (3g) from an Early Roman sandy ware vessel of mid-late 1st century date (Fabric SW2). Pit [108] (116) yielded a single body sherd (11g) from an Early Roman sandy ware vessel of mid-late 1st century date (Fabric SW2). Pit [110] (111) also yielded a single body sherd (7g) from an Early Roman sandy ware vessel of mid-late 1st century date (Fabric SW2).

The final sherd, from the subsoil of Trench 2, was the damaged and abraded rim of a bead and flanged bowl in a grey ware fabric (Fabric GW5) which dates from the latter half of the 3rd century and into the 4th century. It doesn't therefore relate to the earlier Roman occupation represented by the two pits and may result from manuring of the ploughsoil during the later Roman period.

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Marsden, P., 2011 'The Prehistoric pottery and briquetage' in J. Thomas, *Two Iron Age Aggregated Settlements in the Environs of Leicester: Excavations at Beaumont Leys and Humberstone*, Leicester Archaeology Monograph 19, 61-80. Leicester: University of Leicester, School of Archaeology and Ancient History.

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Industrial Residues from Waltham on the Wolds XA14.2016

Heidi Addison

Limited evidence for high temperature working of iron either smelting and/or smithing was recovered from mid-late 1st century pit [114] (115) which contained two small lumps of partially-roasted natural ironstone (91g), a small fragment of hearth lining (22g), and two fragments of vesicular fuel ash (16g). Three fragments of vesicular fuel ash (193g) also came from (118).

Worked Prehistoric Flint from Waltham on the Wolds XA14.2016

Lynden Cooper

A small secondary flake of Neolithic or Bronze Age date was recovered, residually, from early Roman Pit [114] (115).

The Animal Bones from an Archaeological Evaluation at Waltham on the Wolds

Site code: XA14 2016

Jennifer Browning (January 2016)

Introduction and Methods

Stratified hand-recovered animal bones recovered during trial trenching were rapidly scanned to assess preservation and variety and provide an indication of the faunal potential, should the site progress to excavation. No remains recovered through environmental sampling were available. The bones were recovered from pits of Early Romano-British date. The bones were examined macroscopically and their preservation was assessed using criteria defined by Harland et al (2003).

The Assemblage

Animal bones were recovered from two pit fills (table 1). The bones were generally in a fair condition, indicating that the surface was ‘solid in places, but flaky or powdery on up to 49% of the specimen’ (Harland et al 2003), however the fragments tended to be small. Pit 114 contained several rib fragments (possibly from the same bone), a fragment of vertebra and some shaft /skull fragments, while pit 101 mainly produced teeth. The presence of several adjacent teeth suggests that a cattle maxilla was originally deposited but the connecting bone has since decayed. Cattle, sheep/goat and pig were all identified in the assemblage; animals associated with domestic occupation.

Discussion

This brief examination confirmed the presence of common domestic mammals, such as cattle, sheep/goat and pig. However, several factors suggest that bone preservation at the site is fairly poor. Teeth, which tend to be more durable than bones, are dominant in the assemblage, and the bone fragments present are small and undiagnostic. The size of the assemblage is insufficient to suggest patterns in terms of taxa, element distribution, dietary preference or husbandry. Should the site progress to excavation, it would be important to recover a larger sample to provide useful information on the exploitation of animal resources at the site, however, if the preservation of the recovered assemblage is typical, significant evidence may not have survived. The recovery of environmental remains and animal bones is a research priority for environmental archaeology in the East Midlands (Monckton 2006, 272): despite the growing number of Iron Age and Roman sites in the region, many have produced relatively small and poorly preserved animal bone assemblages.

References

Harland, J. F., Barrett, J. H., Carrott, J., Dobney, K. and Jaques, D. (2003) *The York System: an integrated zooarchaeological database for research and teaching. Internet Archaeology 13:* (http://intarch.ac.uk/journal/issue13/harland_toc.html)

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Table 1: Basic catalogue of material (Key: large mammal= undiagnostic to species but of cattle, horse, red deer size; medium mammal = undiagnostic to species but of sheep/goat, pig, roe deer size; Cxt=context number; Pres=preservation

CUT	CONTEXT	Preservation	No	Taxa	Brief description
114	115	3	4	Large mammal	Rib fragments (prob part of same bone)
114	115	3	14	Medium mammal	Shaft fragments
114	115	3	1	Medium mammal	Thoracic vertebra (spinous process)
114	115	3	5	Large mammal	Shaft fragments
114	115	3	2	Large mammal	Shaft fragments (charred)
101	103	2	1	Pig	Upper incisor
101	103	3	4	cattle	Upper premolars
101	103	3	3	cattle	Upper molars
101	103	3	1	cattle	Lower molar
101	103	3	1	cattle	Lower premolar
101	103	3	1	Sheep/goat	Lower molar fragment
101	103	3	1	Medium mammal	Shaft fragment (calcined)
101	103	4	10	Large mammal	Shaft fragment (small fragments)

The charred plant remains from Waltham on the Wolds, Leicestershire (Accession XA14.2016)

Rachel Small

Introduction

This report presents the study of the charred plant remains recovered from environmental samples taken during an evaluation at Waltham on the Wolds, Leicestershire. Two samples were considered: sample 1 (115) and 2 (118), both were from pit fills thought to date to the early Roman period. Plant remains, which may include cereal grains, chaff, and weed seeds, provide evidence for past food production, consumption, agricultural practises and environment.

Method

One part of each sample was processed in a York tank using a 0.5mm mesh with flotation into a 0.3mm mesh sieve. The flotation fractions (flots) were transferred into plastic boxes and left to air dry; they were then sorted for plant remains using a x10-40 stereo microscope. The residues were also air dried and the fractions over 4mm sorted for all finds. The fractions under 4mm were scanned for small animal bones and then re-floated to ensure all plant remains were recovered. Plant remains were identified by comparison to modern reference material available at ULAS and names follow Stace (1991). Plant remains were counted: for grains only the embryo or embryo scar was counted, and for chaff, each glume base was counted as one. Seeds were counted as one, even when broken, with the exception of large

weed seeds fragments that clearly represented parts of the same. Van der Veen's (2007) ratios were calculated when over 25 remains were present.

Results

The two samples produced very different assemblages. Sample 1 (115) contained over 50 items; the minimum needed to reliably consider the use of the plants (pers. comm. Monckton 2015), and therefore was analysed in full (see below for results). Sample 2 (118), however, was dominated by modern rootlets (a sign of disturbance to the context) and contained no plant remains other than the occasional small piece of charcoal (approximately 7 litres of the sample was processed). Fragments of fuel ash and animal bone were retrieved from the fractions over 4mm whilst the fractions under 4mm contained few remains.

Sample 1 (115)

In total 178 specimens were present (table 1) which equates to 25.4 items per litre. Charcoal fragments (over 2mm in size) were also abundant in the sample. There was little sign of disturbance; modern rootlets and uncharred seeds were rare. The remains are discussed by type below: grain, chaff, nut shell and seeds.

Table 1: counts for the different plant remains from sample 1.

Sample 1 (115)		
Grain	Number of specimens	
<i>Hordeum vulgare</i> L.	2	Barley
<i>Triticum aestivum/turgidum</i> L.	2	Bread/rivet wheat
cf. <i>Triticum spelta</i> L.	1	Spelt wheat
Cereal	12	Cereal
Cereal/Poaceae	2	Cereal/grass
Chaff		
Cereal chaff	13	Cereal chaff
<i>Hordeum vulgare</i> L. rachis	1	Barley rachis
<i>Triticum spelta</i> L. glume base	24	Spelt wheat glume base
<i>Triticum</i> sp. glume base	31	Spelt/emmer wheat glume base
Seeds		
<i>Plantago lanceolata</i> L.	1	Rib grass
<i>Rumex</i> sp.	9	Dock
<i>Vicia</i> sp.	8	Vetch
Trifolium/medicago type	3	Clover/medick type
Large poaceae	22	Large grass
Indent.	4	Indeterminate
Other		
<i>Corylus avellana</i> L.	43	Hazelnut shell
TOTAL	178	
Litres	7	
ITEMS PER LITRE	25.4	

Grain

The grain was of poor preservation; it was distorted from being burnt at high temperatures and abraded from the ground conditions. Therefore it was very challenging to identify to species and most was recorded as 'cereal'. A small number of barley (*Hordeum vulgare* L.),

bread/rivet wheat (*Triticum aestivum/turgidum* L.) and (most probably) spelt wheat (*Triticum spelta* L.) grains were recorded.

Chaff

Triticum spp. (*Triticum spelta/dicoccon* L.) glume bases were most common and it was possible to identify a large proportion as spelt wheat due to the presence of prominent veining. No bread/rivet wheat rachis was identified, despite the presence of the grain, and only one fragment of barley rachis was seen. A small number of chaff fragments could not be identified beyond the level of cereal.

Other foods (nut shell)

A number of hazelnut shell (*Corylus avellana* L.) fragments were present. Hazelnut trees are found in woodlands, areas of scrub and hedgerow and so the nuts would have been collected, rather than cultivated.

Seeds

Common weeds of agricultural fields were identified and included docks (*Rumex* spp.), vetches (*Vicia* spp.), which could also have been grown as fodder, and large grass seeds (Poaceae). Species present that are specific to grassland habitats include: clover/medick (*Trifolium/ medicago*) type and rib grass (*Plantago lanceolata* L.) which is usually found on neutral and alkaline soils.

Ratios

The ratios of the different types of remains were considered. The ratio of weed seeds to cereal grains was calculated (table 2). The sample had a higher value (i.e. more weeds than grains) than other sites in the region such as Kirby Muxloe (Monckton 2005). This suggests that the sample predominantly represents a by-product from later processing stages.

Table 2: calculations for the ratio weed seeds to cereal grains.

Ratio calculations	
Weed seeds	47
Cereal grains	19
Weed seeds/cereal grains	2.47

The ratio of *Triticum* spp. glume bases to glume wheat grains was considered (table 3). A value higher than one (the ratio in the cereal plant: two glume bases to two grains) indicates a preponderance of glume bases. For this sample the value was higher at 13.75. This again suggests the sample represents a by-product from a later processing stage.

Table 3: calculations for the ratio *Triticum* spp. glume bases to grains. Indeterminate grains and chaff were split according to the proportion of identified grains and chaff in the sample and included in the ratio.

Ratio calculations	
<i>Triticum</i> spp. glume bases	55
<i>Triticum</i> (<i>spelta/dicoccon</i> L.) grain	4
Glume bases/grains	13.75

Discussion

The sample predominantly represents waste from the later stages of processing spelt wheat. However, evidence for consumption refuse was also present in the form of nut shells and grains. Compared to other regional sites the amount falls into the middle of the range and similar sites include Lockington (22 items per litre) and Ashby By-Pass (32 items per litre) (Monckton 2011).

In the Roman period small amounts of grain would have been taken out of storage on a day-to-day basis and prepared for consumption. A standard process was followed and involved parching and pounding to free the grain from the chaff; then winnowing, coarse and fine sieving, to remove light chaff, large weed seeds and glume bases, and small weeds respectively. Finally hand sorting would have removed any weed seeds similar in size to the grain. These waste products would have been burnt on the fire acting as good tinder. Food spilled during cooking would also have burned. A general scatter of ash would have formed across the site accumulating on surfaces and in open features such as gullies. Waste would have also of been formally deposited in features such as pits (Monckton and Hill 2011, 130). An indication of the environment surrounding the site was gained from the weed seeds present. Agricultural and grass lands were in the vicinity of the site and it was suggested, by the presence of rib grass, that the soils were neutral or alkaline in nature. The presence of hazelnut suggests the presence of woodland, scrub or hedgerow nearby.

Recommendations for further work

No further work is necessary on the samples discussed. If further excavation is undertaken at the site, or in the vicinity, the implementation of a suitable sampling strategy is recommended as the report has indicated the potential for the recovery of charred plant remains in quantities sufficient for analysis.

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Plates



Plate 1: Site Prior to trench machining facing north



Plate 2: Building materials and spoil affecting the position of Trench 6



Plate 3: Machining the trenches



Plate 4: Machining the trenches



Plate 5: Trench 1 facing west.



Plate 6: Trench 2 facing north-east



Plate 7: Trench 3 facing north



Plate 8: Trench 4 facing north



Plate 9: Trench 5 facing south-east



Plate 10: Trench 6 facing south

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