



An Archaeological Evaluation on Land at Hallaton Road, Tugby, Leicestershire NGR: SK 76331 00814

Roger Kipling

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For: Langton Developments Ltd

Filename/Version	Checked by	Date
2017-046	Patrick Clay	12/04/2017

University of Leicester

Archaeological Services

University Rd., Leicester, LE1 7RH

Tel: (0116) 2522848 Fax: (0116) 2522614

ULAS Report Number 2017-046 ©2017 Accession Number X.A30 2017

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Summary

An archaeological evaluation was undertaken in March 2017 by University of Leicester Archaeological Services on behalf of Langton Developments Ltd. at Hallaton Road, Tugby, Leicestershire. The fieldwork was undertaken in response to a proposed planning application for a residential development on land at Hallaton Road, Tugby, Leicestershire. A preliminary Desk-based Assessment concluded that the proposed development area is located on the southern edge of the historic settlement core of the village and hence had the potential for the presence of buried archaeological remains relating to the medieval and post-medieval settlement. Consequently a scheme of archaeological evaluation was undertaken in order to mitigate the potential impact of the development on any such archaeological remains as might be present.

The archaeological evaluation at Hallaton Road, Tugby revealed evidence for localised archaeological activity in the northern corner of the proposed development area in the form of ditches, a possible pit and a post-hole, the majority of which were dated by pottery to the late 3rd or 4th century. The ditches appear to follow the contour of the brow of the slope and hence form the line between the falling land to the southeast and the higher land to the north-west.

Consequently the ditches may represent the boundary to an enclosure occupying the higher, flatter ground immediately to the north-west of the site. The presence of several recuts suggests that this boundary having been maintained over a lengthy period. The absence of these linear features from Trench 1 implies their course shifted sharply to the north or north-west and hence suggesting the presence of a square or rectangular enclosure. Environmental analysis of ditch fills points to wheat cereal processing and consumption activity in the near vicinity, and animal faunal evidence suggests typical Roman domestic consumption. The discovery of a 3rd century military baldric terminal plate from one of the ditches was a rare and unexpected find.

The wetter land downslope appears to have been unoccupied. In addition, there are no indications that the changes in slope visible across the eastern area are archaeological in origin and, possibly, associated with the adjacent medieval manorial site to the north. Rather, these appear to be geological in origin.

The site archive will be deposited with Leicestershire County Council under the accession number X.A30 2017.

Introduction

In accordance with National Planning Policy Framework (NPPF) Section 12 *Conserving and Enhancing the Historic Environment*, this document forms the report for an archaeological evaluation on land at Hallaton Road, Tugby, Leicestershire. The fieldwork represented a preapplication enquiry on a proposed planning application for a residential development.

Site Description, Topography and Geology

The proposed development area is located in the village of Tugby. The site lies on the southeast edge of Tugby and comprises an irregular open pasture field bounded to the south by the wooded area of Fishpool Spinney and to the north-east by a hedgeline. Hallaton Road lies to the west with several buildings and a smaller field to the north. (Figs 1-2).

The British Geological Survey notes that the superficial geology consists of Diamicton till (Oadby Member). The bedrock geology consists of mudstone of the Whitby Member Formation. The site lies at a height of c.165m O.D. on fairly flat land.



Figure 1: Site Location

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Figure 2: Proposed Development Area outlined Red



Figure 3: Proposed scheme of development (provided by client)

Archaeological and Historical Background

A desk-based assessment has been undertaken for the proposed site (Score 2016). The Leicestershire and Rutland Historic Environment Record (HER) shows that the area is located on the southern edge of the historic settlement core of the village and within the Conservation Area (MLE10345). The available cartographic evidence indicates that the current village has shrunk since the medieval/post-medieval period and that proposed site could have been part of the original village.

Prehistoric - Roman

In the north of the village, a stone with a smooth surface bearing several cup shaped marks lies west of the church (MLE6339). A fragment was detached in 1962 and is in the museum collections. It is considered possible that it dates from the Bronze Age.

A pit containing three mid-2nd century Roman pottery sherds was recorded at the Old Manor House, Main Street on the eastern side of the village during a strip, plan and sample excavation in 2015 (MLE22630).

Anglo-Saxon

Approximately 750m south-east of the site, an Anglo-Saxon burial was discovered at Keythorpe Hall in May 1859 'whilst removing earth in a new flower garden' **MLE2568** (SK 768 002). The individual was accompanied by a number of grave-goods, including an elaborately-decorated hanging bowl, a pair of bone dice, 46 bone gaming pieces and some possible brooches. In 1863 the gaming pieces, dice and comb were displayed by Lord and Lady Berners at Keythorpe Hall.

Medieval

The site lies within the medieval and post-medieval historic settlement core of the village, as deduced using historic maps, landscape maps (MLE10345). The ridge and furrow plan (Hartley 1992, unpublished; Figs 4 and 6) shows some of the old boundaries and earthworks as well as the ridge and furrow in the fields surrounding the village.

The proposed development area lies immediately west of the earthworks north of Fishpool Spinney, which possibly represent a terraced garden, a fishpond and other boundary features (MLE20620). Earthworks indicating a complex of substantial buildings (MLE2572) lie northeast of Manor Farm. Observations made during archaeological work in 2013 indicate that these earthworks are still extant (Browning 2013). The appearance of the earthworks, with apparent building platforms and indications of formal gardens, as well as their close proximity to the church, suggests that they could represent the site of an old Manor House and its associated grounds. Old Manor Farm House, Main Street was demolished in 2015 (MLE21882). The house was probably constructed as a 2-storey hall and cross-wing house *c*.1505. The hall was timber-framed, the cross-wing had a stone ground storey and a timber-framed upper storey.

Trial trenching in 2013 recorded two ditches to the south of the earthwork complex and 130m north-east of the proposed site, thought to be medieval field or stock enclosure boundaries (MLE21652).

Faint village earthworks were photographed from the air in 1981 south-east of Wellfield Close, Tugby (MLE2565), 150m west of the proposed site. The northern part was developed in the 1990s but the southern section is still visible on 2011 aerial photographs. Further earthworks were identified to the north-west (MLE2573).

In the centre of the village a watching brief was carried out on levelling operations in the 1970s found possible medieval cobbling with 12th-13th century pottery (MLE2566). Another watching brief at Spinney Nook, Main Street in 1998 recorded several gullies thought to be boundary ditches for medieval plots with medieval pottery (MLE2564). These included Saxo-Norman sherds, providing supportive evidence for the pre-Conquest origins of the village (Browning and Warren 1998). The site appeared to have fallen out of use after the 14th century, possibly suggesting settlement shift or shrinkage

Aims and Objectives

The objectives are as set out in the ULAS *Written Scheme of Investigation* (ULAS 2017) approved by the Planning archaeologist. Within the stated project objectives, the principal aim of the evaluation was to establish the nature, extent, date, depth, significance and state of preservation of any archaeological deposits on the site in order to determine the potential impact upon them from the proposed development.

The principal aims of the archaeological evaluation were to:

- 1. Identify the presence/absence of any earlier building phases or archaeological deposits.
- 2. Establish the character, extent and date range for any archaeological deposits to be affected by proposed ground-works.
- 3. Record any archaeological deposits likely to be affected by the ground-works.
- 4. Produce an archive and report of any results.

While the nature, extent and quality of archaeological remains within the areas of investigation for the project remain unknown until archaeological work is undertaken, it is possible to determine some initial objectives 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 archaeological evaluation was identified as having the potential to contribute to the following research aims.

The Medieval period (Lewis 2006, Knight et al. 2012; English Heritage 2012)

The evaluation may contribute towards research into the origins and development of medieval settlement, landscape and society. Environmental evidence could provide information on local environmental conditions as well as settlement activity, craft, industry and land use. Artefacts can assist in the development of a type series within the region and provide evidence for evidence for craft, industry and exchange across broad landscape areas. The evaluation has the potential to contribute to Research Agenda topics 7.2.1-7.2.4, 7.3.1-7.3.5, 7.6.1-2, 7.7.1-7.7.5 and Research Objective 7E.

All work was undertaken in accordance with the Chartered Institute for Archaeologists (CIfA) *Code of Conduct* (2014), and adhered to their *Standard and Guidance for Archaeological Field Evaluation* (2014). All exploratory and mitigation work was considered in light of the East Midlands Research Framework (Cooper ed. 2006) and strategy (Knight *et al.* 2012), along with targeting national research aims.

Methods

Fieldwork was carried out in March 2017 and involved the machine excavation of a number of evaluation trenches across the potential development area in order to target the locations of the proposed buildings as well as potential archaeological deposits.

The Written Scheme of Investigation (ULAS 2017) approved by the LCC Senior Planning Archaeologist on behalf of the planning authority, who also monitored the fieldwork, dictated a programme of archaeological evaluation consisting of seven 20m x 1.6m trenches in order to determine the presence/absence, character and extent of archaeological remains (Fig. 4).

Excavation was undertaken using a mechanical excavator fitted with a 1.6m wide toothless ditching bucket, with topsoil and overburden removed carefully in level spits, under continuous archaeological supervision.

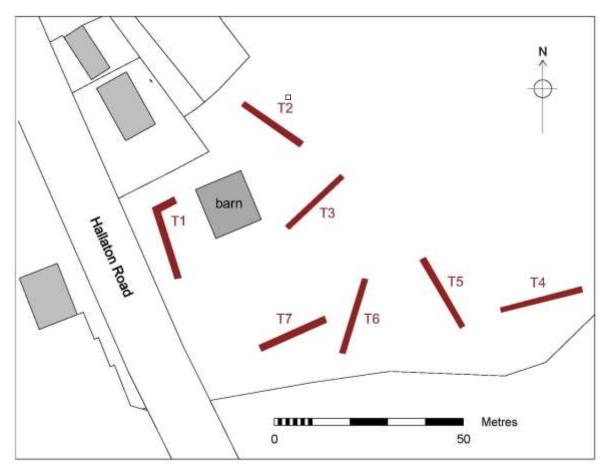


Figure 4: Proposed development area with evaluation trench locations

Results

Machining established an absence of archaeology in six of the seven evaluation trenches (Trenches 1& 3-7). Dense archaeological activity was, however, encountered in Trench 2, located at the northern end of the development area adjacent to the site boundary. Trench details are summarised in Table 1.

Table 1: Trench Descriptions

TRENC H	ORIENTATIO N	LENGTH (m)	TOPSOIL THICKNESS (m)	SUBSOIL THICKNESS (m)	DESCRIPTION
	-11	()	THICH (LOS (III)	THICH (Edd (III)	
1	NW-SE	20	0.12-0.28	0.07-0.16	No archaeology present
2	NW-SE	20	0.2-0.5	0.08-0.26	Linear features [01], [03],
					[05], [07], [09], [11], [13],
					[17], [19], [21], post-hole
					[15]
3	NE-SW	20	0.22-0.35	0.35-0.45	No archaeology present
4	E-W	20	0.08-0.2	0.13-0.36	No archaeology present
5	NW-SE	20	0.1-0.2	0.1-0.2	No archaeology present
6	N-S	20	0.15-0.2	0.15-0.27	No archaeology present
7	NE-SW	20	0.15-0.3	0.12-0.32	No archaeology present

Trench 1

Trench 1 was the closest of the five trenches to the Hallaton Road frontage, positioned in the north-west corner of the site adjacent to a modern barn. The trench was aligned broadly north-west-southeast and measured 20m x 1.6m x 0.36-0.42 deep. Machine removal of 0.12-0.28m of dark grey clay loam topsoil and 0.07-0.16m of underlying mid orange-brown clay silt subsoil revealed a dull mid orange-brown clay with pale grey mottling. There was no archaeology present in the trench (Fig. 4).



Figure 5: Trench 1; general view north-east (1m scale)

Trench 2Linears Features [01], [03], [05], [07], [09], [11], [13], [17] & [19] Post-hole [15] ?Pit [21]

Trench 2, located a short distance west of Trench 1 on the northern site boundary, was the sole trench of the seven to produce archaeology. It was aligned north-west to south-east and measured 10m x 1.5m x 0.41-0.58m deep. Machine removal of 0.2-0.5m of topsoil and 0.08-0.26m of subsoil revealed a number of archaeological features cutting the dull mid orange-brown, pale grey mottled natural clay substratum.

The earliest feature appeared to be a gully, **[01]** (0.41m x 0.19m x 8m+) running parallel with the trench on a north-west to southeast alignment at its north end (

Figure 6, Figure 7). The single fill (02) produced residual 2nd century pottery and a 3rd century military baldric fitting (Appendix 2). In addition, a small quantity of charred wheat grains were recovered, suggestive of wheat cereal processing and consumption activity in the near vicinity. The feature was subsequently cut at right angles by several truncated ditches running parallel with the head of the slope. The largest feature, [03] (Figure 9) measured 0.8m x 0.35m x 1.6m+ with moderately sloping sides to a concave base. The single mid greyish brown silty sand fill (03) produced 4th century pottery. A succession of shallow recut ditches [05], [07], [09] & [11] ran northeast - southwest across the north-west end of the trench, with [05] being the earliest (producing 3rd or 4th century) and [11] the latest in the sequence (Figure 8). Several of the ditches produced animal bone suggesting typical Roman domestic consumption of beef and mutton. A dog ulna from ditch [11] suggests the presence of a working animal.

Additional (undated) features included an adjacent gully [17] and small scoop or post-hole [15]. Further gullies [13] and [19], the former containing later Roman pottery, and a possible

pit [21] were located towards the south-eastern end of the trench, which had been subject to considerable disturbance by an animal burrow and field drains. All three linear features ran on the same north-west to south-east alignment as the others. The remaining 25% of the trench was archaeologically blank and characterised by an increasingly shallow topsoil and subsoil and the appearance of clay silt, possibly colluvial, deposits, which were also encountered in trenches to the east (see below).



Figure 6: Trench 2: general working view looking south-east



Figure 7: Trench 2: Features [01], [03] & [15]; view looking south-east (1m scale)



Figure 8: Ditches [05], [07], [09] & [11]; view looking south-west (1m scale)



Figure 9: Ditch [03]; view looking south-west (1m scale)

Trenches 3-7

The remaining trenches (3-7) targeted the southern half of the proposed development area along the boundary adjacent to Fishpool Spinney and sought to investigate the area characterised by possible medieval standing earthworks.

As with Trenches 1&2, the trenches were characterised by shallow topsoil and subsoil, and were uniformly shallow, with average depths of 0.3-0.7m. Trenches 5 and 6 sloped south towards the Fishpool Spinney boundary and featured organic natural clay. The changes in slope visible in this area appeared to represent changes in natural topography and not to have an archaeological origin; all trenches were archaeologically blank.

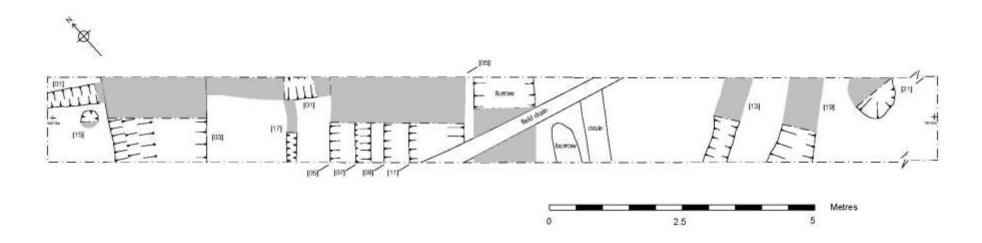


Figure 10: General plan of Trench 2

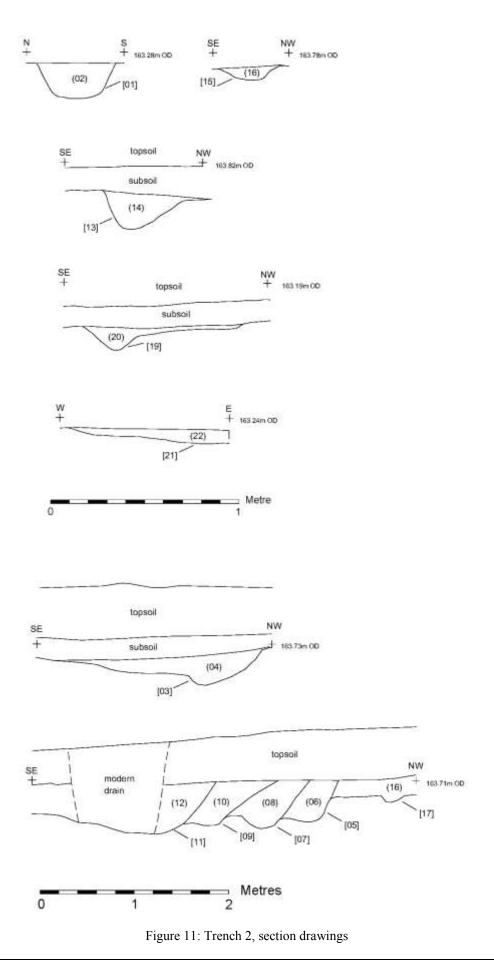




Figure 12: Trench 5: view north-west (1m scale)



Figure 13: Trench 3, eastern arm: general view south-east (1m scale)

Discussion and Conclusions

The archaeological evaluation at Hallaton Road, Tugby revealed evidence for localised archaeological activity in the northern corner of the proposed development area in the form of ditches, a possible pit and a post-hole, the majority of which were demonstrably later Roman in date. The ditches appear to follow the contour of the brow of the slope and hence form the line between the falling land to the southeast and the higher land to the north-west.

Consequently the ditches may represent the boundary to an enclosure occupying the higher, flatter ground immediately to the north-west of the site. The presence of several recuts suggests that this boundary having been maintained over a length of time. The absence of these linear features from Trench 1 implies their course shifted sharply to the north or north-west and hence suggesting the presence of a square or rectangular enclosure. Environmental analysis of ditch fills points to wheat cereal processing and consumption activity in the near vicinity, and animal faunal evidence suggests typical Roman domestic consumption. The discovery of a 3rd century military baldric terminal plate from one of the ditches was a rare and unexpected find.

The wetter land downslope appears to have been unoccupied. In addition, there are no indications that the changes in slope visible across the eastern area are archaeological in origin and, possibly, associated with the adjacent medieval manorial site to the north. Rather, these appear to be geological in origin.

Archive and Publications

The site archive (X.A30 2017), consisting of animal bone and ceramic material plus paper and photographic records, will be housed with Leicestershire County Council.

The archive consists of:

ceramic material
animal bone
7 trench record sheets
22 single context record sheets
Context, drawing and photographic record indices
29 digital photographs
2 x A3 drawing sheets
risk assessment form

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

Acknowledgements

Roger Kipling, Adam Clapton and Donald Clark of ULAS undertook the archaeological evaluation on behalf of Langton Developments Ltd. The project was managed by Patrick Clay.

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Roger Kipling ULAS University of Leicester University Road Leicester LE1 7RH Tel:0116 252 2836 Fax: 0116 252 2614

Email: rwk1@le.ac.uk

10/04/2017

Appendix 1: The Romano British Pottery

Nicholas J. Cooper

Introduction

A total of 16 sherds of Roman pottery weighing 302g was recovered from five contexts. In addition a single abraded fragment of Roman tile (15g) was recovered from (4). The pottery is generally in a fragmentary and abraded condition, the high average sherd weight of 20g being exaggerated by the presence of a large mortarium sherd from (4) and two grog-tempered jar sherds from (2). The material therefore probably results from secondary deposition at some distance from the centre of the settlement. However, the diagnostic sherds indicate that the filling of the features probably occurred during later 3rd or 4th century.

Methodology

The material was classified using the Leicestershire Roman pottery form and fabric series (Pollard 1994, 110-114) and quantified by sherd count, weight and EVEs using rims.

Results

The full quantified record by context is presented below (Table 1).

Table 1: full quantified record of Roman pottery from Tugby

Roman I	ottery fr	XA30.20	17							
Contex	Fabri				Sherd	Weigh	EVE	Dia		
t	c	Form	Type	Part	s	t	s	m	Date	
2	GW3	jar	necked	body	1	5			2nd- 4th	
	0 113	Juz	IIIIII	004)					E-	
2	GT3	jar	misc	body	2	96			M2n d	abraded
4	MOG	mortariu	HPM10		1	00	0.1	200	L3rd	1 . 1 . 1
4	MO6	m	3	rim	1	90	0.1	300	-4th	abraded
4	GW5	jar	misc	body	2	35			2nd- 4th	
4	OW	misc	misc	body	1	3			2nd- 4th	tile 15g
			neckbea	hookri						Ü
4	CG1B	jar	d	m	1	3	0.05	160	4th	abraded
6	C2N V	bowl	?flanged	base	1	15			4th	abraded
6	GW5	jar	cordone d	body	3	30			2nd- 4th	
6	GW5	jar	misc	body	1	7			2nd- 4th	
10	CG1	misc	misc	body	1	15			1st- 4th	abraded
10	231	111150	111150	oody		13			2nd-	uoruucu
14	GW5	misc	misc	body	2	6			4th	
Total					16	305	0.15			

Analysis and discussion

The fill (2) of [1] contained only body sherds from a fine grey ware jar (GW3) and a grog-tempered ware jar (GT3), all small or abraded but indicating at least a 2nd century date. However, the occurrence of the copper alloy military baldric fitting probably indicates a 3rd-century filling date. Fill (4) contained a Lower Nene Valley mortarium

(MO6) with upright bead and a reeded down-curving flange with internally hooked terminal, dating from the later 3rd and into the early 4th century (Howe *et al.* 1980, 26 no.103). The grey (GW) and oxidised wares (OW) from the context are less closely datable but the hooked bead from necked jar in South Midlands (Harrold) shell-tempered ware would also indicate a date in the 4th century. Fill (6) contained the base of a, possibly flanged, bowl in Lower Nene Valley colour-coated ware (C2NV) dating to the later 3rd or 4th century (Howe *et al.* 1980, 24 no.79). The material from (10) and (14) is less diagnostic but a later Roman date is perhaps most likely for these too, the sherds being small and abraded. The evaluation has highlighted the preservation of well-dated stratified deposits of Roman date, in an area where it is not widely recognised, and further work will undoubtedly help to further our understanding or this period of the area's past.

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Appendix 2: The Copper Alloy Object

A single copper alloy object was recovered from the (2) [1] on the site as catalogued below (fig 1).

1) Sf1 (2) [1]. Cast copper alloy strap fitting which is probably a terminal plate from a baldric (wide leather strap supporting a sword scabbard). Rectangular openwork plate with an integral fungiform stud (flattened head) projecting at each corner of the inner surface to which it would have been secured to a wide leather strap (the baldric). There are four semi-circular projections on the lower and upper edges of the plate, corresponding to the position of the studs. The outer edge of the plate has four grooved hinge loops, into which a terminal pendant would have been secured with a spindle. The openwork design comprises a transverse bar supported by two double-pointed arrows, above which is a stylised 'native' Briton or 'Celtic' head with 'pudding bowl' haircut and lentoid eyes. The head is surrounded by a curvilinear trellis, damaged at the centre and partly infilled with corrosion products. There are four ring and dot motifs; two where the arrows meet the outer frame, one below the head and the last above the head. Length of plate 53mm, width of plate 44mm.



Fig.1 Copper alloy open-work baldric terminal plate from (2) [1].

The terminal plate has parallels with other baldric fittings with openwork designs, of third-century date, including one from Scole in Norfolk with the same kind of

attachment studs (Bishop and Coulston 1993, 135, fig.91.9-11), and another example comes from Aldborough (Bishop 1996, 68, fig.37.427). However, these examples incorporate motto inscriptions within the openwork and none have a native head in the design as in this example. The hinge loops on the present fitting are also different to those on the cited examples, which have two or three centrally placed projections, rather than four evenly spaced loops, as here. The hinge of the present fitting therefore have similarities with some Roman military belt (rather than baldric) fittings of both early and late date (Bishop and Coulston 1993, 96, fig.591.11 and 173, fig.126.3), but these are rarely made in openwork designs. The presence of the 'fungiform' attachment studs confirms that this is a baldric terminal plate (Mike Bishop pers. comm.). Two fittings of similar type have been recorded by the Portable Antiquities Scheme and I am grateful to Wendy Scott for alerting me to these. One is from Sessay in North Yorkshire (SWYOR-91A033) and the other from Ashwell in Hertfordshire (BH-D36487), both are smaller and more fragmentary than the present piece. Roman military objects are few and far between in Leicestershire and this would appear to be the first of theis type and date from the county.

References

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Appendix 3: The Animal Bone Rachel Small and Joseph Bartholomew

Introduction

A very small animal bone assemblage (25 fragments) was collected by hand during excavation at Hallaton Road, Tugby, Leicestershire. The animal bones were collected from four contexts: (2) was a gully fill and (4)(6)(12) were ditch fills. All of the contexts were dated to the Romano-British period (2nd to 4th century), except for (12) which was undated due to a lack of pottery. Fragments of bone were also recovered from three environmental samples that were taken.

Method

The bones were identified by comparison to reference material held at the University of Leicester bone laboratory and ULAS. A catalogue was made for hand-collected bones (table 1) and for the bones recovered from samples (table 2). Condition was scored using Harland et al's (2003) scale.

Results

Hand collected bone

Generally, the preservation of the bone was 'good' as the surface lacked a fresh appearance but was solid with only localized flaking. Signs of weathering (cracking) were limited and no root-etching was noted on specimens. Two fragments had been gnawed and the marks were broad grooves which are characteristic of dog. Butchery marks were visible on medium mammal ribs, cut marks indicative of de-fleshing and chop marks indicative of portioning.

Cattle bone fragments were most numerous in the assemblage and they were from the lower leg/ankle bones which is suggestive of butchery waste. However, large mammal vertebrae and a rib fragment were identified which suggests a broader utilization of the carcass. The distal end of a sheep/goat humerus was also present and the proximal end of a dog ulna. It was possible to record the state of fusion for some of the bones and ageing data is given in table 3.

Context	Fragments	Element	Completeness	Taxa	Notes
				Medium	
2	3	Rib	Fragments	mammal	1 cut and 1 chopped though
4	1	Astragalus	Complete	Cattle	
			Proximal end		
4	1	Metatarsal	and shaft	Cattle	
		Long bone		Large	
4	2	shaft	Fragments	mammal	Unfused epiphyses
					The fragments are associated
4	2	Metapodial	Distal end	Cattle	and fused
				Large	Cervical, vertebra plates
4	1	Vertebra	Complete	mammal	unfused
		Long bone		Large	

Fragments

mammal

Table 1: catalogue of hand collected bone.

shaft

4		Metacarpal	Proximal end and shaft	Cattle	Gnawed
				Sheep/	
4	1	Humerus	Distal end	goat	Fused, gnawed
6	1	Astragalus	Complete	Cattle	
			Proximal end		
6	1	Metacarpal	and shaft	Cattle	
				Large	
6	3	Indet.	Fragments	mammal	
				Large	
6	1	Rib	Fragment	mammal	
			Proximal end		
12	1	Ulna	and shaft	Dog	Fused
				Large	
12	1	Vertebra	Fragment	mammal	
12	1	Molar	Complete	Cattle	Maxillary M1/2, worn

Bone from environmental samples

25

Several fragments of bone were present in the residues of the three soil samples which had been processed. Of note was a possible bird rib in sample 1 (2) and a cattle tooth fragment in sample 3 (6). No bones were recovered from the flots.

Table 2: bone from environmental samples.

Sample	Context	Fragments	Notes
1	2	8	1 x medium mammal rib fragment, 1 x bird rib? 6 x large mammal indet. fragments
2	4	3	1 x medium mammal long bone shaft fragment, 2 x large mammal indet. fragments
3	6	1	1 x cattle tooth fragment
TOTAL		12	

Discussion

TOTAL

The assemblage seems typical of domestic refuse. It is likely the beef and mutton were eaten and the dog represents a working animal whose remains became incorporated into the household refuse. Due to the small assemblage size detailed conclusions can be drawn about diet, such as social stratification, nor animal husbandry strategies at the site.

Bibliography

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http://intarch.ac. uk/journal/issue13/harland_index.html (7 September 2013).

Reitz, E. and Wing, E. S. 1999 (2nd edition 2008). *Zooarchaeology*. Cambridge Manuals in Archaeology. Cambridge: Cambridge University Press.

Appendix

Table 3: ageing data for hand collected bones based on Reitz and Wing (2008, 72).

Context	Element	Taxa	Proximal fusion	Distal fusion	Age
4	Metapodial	Cattle		Fused	≥24 months
4	Vertebra	Large mammal	Unfused		≤108 months
4	Humerus	Sheep/ goat		Fused	≥3 months
12	Ulna	Dog	Fused		Late fusing element - adult?

Appendix 4: The Environmental Evidence

Rachel Small

Introduction

During excavation at Hallaton Road, Tugby three soil samples were taken which dated to the Roman period (2nd to 4th century). Sample 1 (2)[1] was taken from a gully fill and sample 2 (4)[3] and 3 (6)[5] from ditch fills. The results of the analysis of the charred plant remains from these samples are presented and what this can tell us about the diet, crop husbandry strategies and environment at the site discussed.

Method

The samples were thick clay and were 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 before being sorted in their entirety for plant remains and other artefacts under a x10-40 stereo microscope. The residues were air dried and the fractions over 4mm sorted in their entirety and the fractions under 4mm were scanned. Plant remains were identified by comparison to modern reference material available at ULAS and names follow Stace (1991). All plant fragments were counted.

Results

Sample 1 (2)[1]

Five cereal grains were present and it was possible to identify two as likely spelt wheat type (*Triticum spelta*). These grains were however poorly preserved, being blistered. A wheat (*Triticum* sp.) glume base was also present and a free-threshing wheat rachis internode.

Sample 2 (4)[3]

A single wheat grain (*Triticum* sp.) was present which was round. It could be free-threshing type but it is more likely a short fat grain of spelt wheat (see Campbell 2016, 138).

Sample 3 (6)[5]

A single barley grain (*Hordeum vulgare*) was present.

Table 1: remains present in samples.

Sample	Context	Cut	Volume (litres)	Plant remains	Notes
1	2	1	7	2 x cf. spelt wheat grains (<i>Triticum spelta</i>) 3. indet. cereal grain 1 x wheat (<i>Triticum</i> sp.) glume base	Modern rootlets Worm egg capsules

2	4	3	6	1 x free-threshing wheat (<i>Triticum</i> sp.) rachis internode Charcoal rare 1 x wheat (<i>Triticum</i> sp.) grain (rounded) Charcoal rare	Modern rootlets Modern seeds Worm egg capsules
3	6	5	6	1 x barley (<i>Hordeum vulgare</i>) grain Charcoal rare	Modern rootlets Modern seeds

Discussion

The free-threshing wheat rachis internode present in sample 1 and possible free-threshing wheat grain in sample 2 are likely to derive from later medieval activity and therefore be intrusive, as it is generally considered that free-threshing wheat was not cultivated in England during the Roman period (Campbell 2016, 138). However, the spelt grains and glume base likely represent contemporary waste from processing and consumption that was burnt on a hearth. It is possible that the remains were windblown across the site and collected in the open features. Conclusions cannot be drawn about crop husbandry strategies and environment at the site due to the lack of wild seeds in the samples.

Bibliography

Campbell, G. 2016. Market forces – a discussion of crop husbandry, horticulture and trade in plant resources in southern England. In D. Bird's, *Agriculture and Industry: In South-Eastern Roman Britain*. Oxford: Oxbow Books, pg. 134 – 155.

Stace, C. 1991. New Flora of the British Isles. Cambridge: Cambridge University Press.

Appendix 5: OASIS Data Entry

	OASIS ID	TBA					
	Project Name	Hallaton Road, Tu	gby, Leicestershire	e			
	Start/end dates of	21-03-2017 - 23-03					
	field work						
	Previous/Future	Yes					
	Work						
	Project Type	Evaluation					
	Site Status	None					
	Current Land Use	Pasture					
PROJECT	Monument	Roman ditches					
DETAILS	Type/Period						
	Significant	Roman, pottery					
	Finds/Period	Roman, military di	ess fitting				
	Development Type	Residential develo					
	Reason for	NPPF	<u> </u>				
	Investigation						
	Position in the	Pre-planning					
	Planning Process	8					
	Planning Ref.	N/A					
	Site	Hallaton Road, Tugby, Leicestershire LE7 9BS					
	Address/Postcode	,	5-7,				
PROJECT	Study Area	0.57ha					
LOCATION	Site Coordinates	SK 76331 00814					
	Height OD	165m OD					
	Organisation	ULAS					
	Project Brief	Local Planning Authority (LCC)					
	Originator						
	Project Design	ULAS					
PROJECT	Originator						
CREATORS	Project Manager	Patrick Clay					
	Project	Roger Kipling					
	Director/Supervisor						
	Sponsor/Funding	Langton Developn	nents Ltd.				
	Body						
		Physical	Digital	Paper			
	Recipient	ULAS	ULAS	ULAS			
	ID (Acc. No.)	X.A30 2017	X.A30 2017	X.A30 2017			
PROJECT	Contents	Pottery	Photos	Site records			
ARCHIVE		Animal bone		Field notes			
		Cu object		Plans			
	T	C I:	11:1 1				
	Type	Grey Literature (ur		11 . D 1			
	Title	An Archaeological		uaton Koad,			
	A 41	Tugby, Leicestersh	ire				
DDOJECT	Author	Kipling, R.	2017 021				
PROJECT	Other bibliographic	ULAS Report No 2	2017-021				
BIBLIOGRAPHY	details	2017					
	Date Dublish or/Dlage	2017	natan Amalaa1 - '	ol Comicae /			
	Publisher/Place	University of Leice		cai Services /			
	Description	University of Leice					
	Description	Developer Report A4 pdf					



Archaeological Services

Contact Details

Richard Buckley or Patrick Clay University of Leicester Archaeological Services (ULAS) University of Leicester, University Road, Leicester LE1 7RH

T: +44 (0)116 252 2848 **F:** +44 (0)116 252 2614

E: ulas@le.ac.uk w: www.le.ac.uk/ulas













