



# University of Leicester

## Archaeological Services

**An Archaeological Field Evaluation  
on land at MIRA, Higham on the Hill,  
Leicestershire.  
NGR: SP 368 957**



John Thomas

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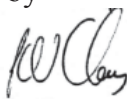
**NGR: SP 368 957**

**John Thomas**

**For: MIRA Limited**

Approved by

Signed:



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## **An Archaeological Field Evaluation on land at MIRA, Higham on the Hill, Leicestershire. NGR: SP 368 957**

John Thomas

### **Summary**

*An archaeological field evaluation was undertaken on land at MIRA, Higham on the Hill, Leicestershire by the University of Leicester Archaeological Services (ULAS) between the 25th of August and the 20th of September 2010. Under planning application number 11/00360/OUT it is proposed to develop the site into a Business Technology Campus. The Senior Planning Archaeologist, Leicestershire County Council, as advisor to the planning authority, requested that trial trenching take place in specific areas of the proposed development site, covering c.46ha., to locate and characterise any archaeological remains that may be affected by the development. The work was undertaken, pre-determination, following a Written Scheme of Investigation (WSI) agreed with the Senior Planning Archaeologist.*

*A series of trenches were excavated along the southern border of the development area, adjacent to the A5/Watling Street. These located at least two distinct areas of Roman roadside occupation characterised by linear boundaries that probably demarcated plots adjacent to Watling Street. Material evidence from these features included pottery, quernstones and roof tile indicating domestic occupation on the site between the 2nd and 4th centuries AD. The remains of two post holes suggest that buildings were present on the site and this is further supported by the assemblage of roof tile recovered.*

*An undated stone spread adjacent to the A5/Watling Street may also relate to the Roman activity, perhaps representing a trackway used in conjunction with the roadside occupation.*

*A separate area of activity was located some 150m from the A5/Watling Street within trenches that were positioned along a proposed access road. This activity consisted of a boundary ditch, located in two trenches, and an associated small pit. A fragment of Roman pottery was recovered from the ditch although a saddle quern from the same context might suggest an earlier date.*

*A series of trenches located close to the remains of medieval Lindley village did not locate any evidence for any associated remains within the development area. One trench contained a small undated pit and several stone lined drains that were also undated.*

*Trenching in the northern part of the development area targeted specific geophysical anomalies. Excavation revealed that these were remains of small brick-built structures that were probably part of the Lindley Airfield complex.*

*Trenching on the eastern side of the development area was designed to target geophysical anomalies and evaluate this area of the A5/Watling Street frontage. However the presence of Great Crested newts on this part of the site meant that this part of the evaluation could not take place.*

*The archive will be deposited with the, Leicestershire Museums Services under Accession Number X.A.114.2011.*

## **Introduction**

In accordance with PPS5 (Planning and the Historic Environment, 2010), this document presents the results of an archaeological field evaluation (AFE) on land at MIRA, Higham on the Hill, Leicestershire. The evaluation was undertaken by University of Leicester Archaeological Services in response to development proposals for a Business Technology Campus (Planning Application No. 11/00360/OUT).

Leicestershire County Council, Historic and Natural Environment Team (LCCHNET) as archaeological advisors to the planning authority requested an evaluation by trial trenching to identify and locate any archaeological remains of significance and propose suitable treatment to avoid or minimise damage that may be caused by the development. The specific details of the AFE are set out in the written scheme of investigation prepared by ULAS (ULAS 2011).

The proposed development site lies within the parish of Higham on the Hill, in the District of Hinckley and Bosworth, Leicestershire, approximately 5 miles south-east of Atherstone (Fig. 1). It is demarcated by the A5 (Roman Watling Street) to the south; which is also the border between Leicestershire and Warwickshire. The dismantled Ashby and Nuneaton Joint Railway runs to the south-east of the site, and to the north-west and north-east lie fields and local roads. The total area for the MIRA site, including the test track is around 310 hectares. The development site consists of two areas that are currently occupied by various MIRA buildings, which are surrounded by two large arable fields to the north, east and west.

The development site was evaluated with a total of 36 trial trenches targeting specific parts of the affected area. The main concentration of trenches was located in the southern part of the development area within the large field to the west of the current MIRA buildings. A series of trenches was excavated along the A5/Watling Street frontage and along the line of a proposed new access road. Further trenches were excavated along the northern boundary of the field which is closest to the earthwork remains of Lindley village. Four trenches were also excavated in the northern part of the development area and were specifically located to evaluate anomalies revealed during the geophysical survey of the area. Proposed trenching on the eastern side of the development area, which was to target geophysical anomalies and evaluate the A5/Watling Street frontage, was not undertaken due to the presence of Great Crested newts in the field.

The site lies at a general height of *c.* 100m OD, with a high point close to the southern edge which lies at a height of *c.* 104m OD. The British Geological Survey of England and Wales Sheet 169 (Coventry) shows that the underlying geology of the site consists of Thrussington Till overlain by Dunsmore Gravel and Anker Sand and Gravel to the south, with skerries of siltstone. To the north and north-west of the site lie deposits of Wolston Clay and alluvial deposits.

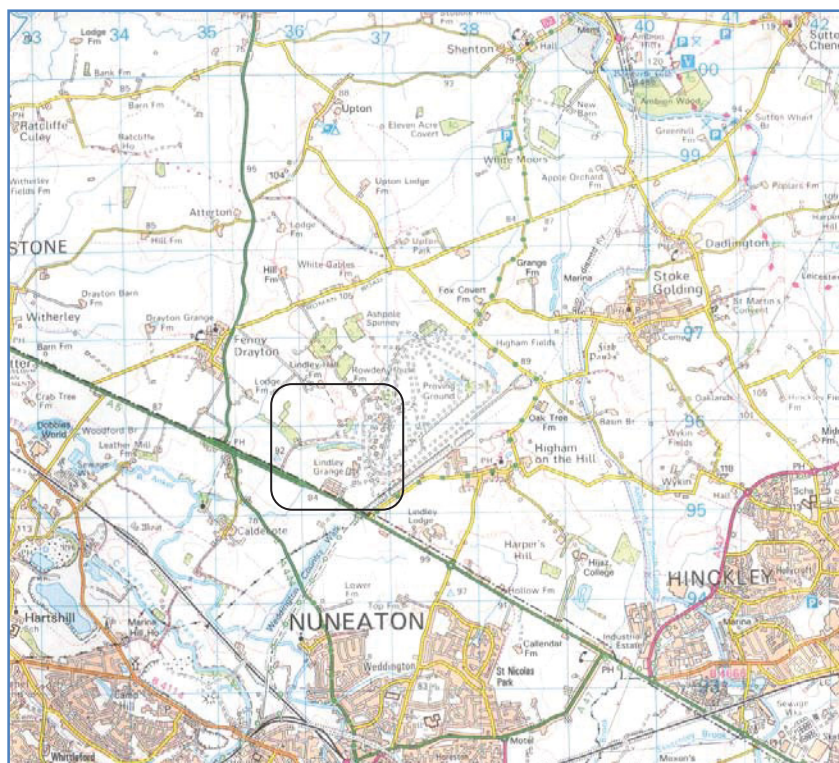


Figure 1 Location of site

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## Background

The development site is situated in a wide area of archaeological potential as indicated by the Leicestershire & Rutland and Warwickshire Historic Environment Record (HER). Enclosures possibly dating to the Iron Age are located adjacent to the site (MLE9578) and other prehistoric sites are located nearby (MLE8245, MLE6080 and Warks HER Nos. 4420 & 4501). The southern part of the site lies adjacent to the A5 Watling Street, a former Roman Road (MLE1388) and the Mancetter Roman Road has been projected to run to the north of the site (MLE3019). Roman pottery has been found within the former Lindley parish at the edge of the assessment area (MLE8503) and a large assemblage has been found further to the south (Warks HER No. 7439). Roman coins have also been retrieved from two hoards to the south of the site (Warks HER No. 5141) and near Harper's Hill, around 800m south-east of the site (Warks HER No. 1653). The development area lies within the deserted parish of Rowden (MLE2795) and adjacent to earthworks associated with the abandoned medieval village of Lindley (MLE2792). The area was also the site of the old Lindley Airfield (MLE15973).

An archaeological Desk-based Assessment and Environmental Statement has been prepared (Hunt and Speed 2008) and fieldwalking and geophysical surveys have been undertaken across the development area (Coward 2010, Austrums 2011). The fieldwalking and geophysical surveys did not locate significant material or anomalies. Two areas that were subject to detailed gradiometry revealed anomalies with possible archaeological origins, while a thin scatter of medieval and post-medieval pottery from the fieldwalking was interpreted as a product of manuring.

## Archaeological Objectives

The main objectives of the evaluation were:

- To identify the presence/absence of any archaeological deposits identified by the geophysical survey.
- To identify the presence or absence of any archaeological deposits and remains not previously identified by geophysical survey.
- To establish the character, extent and date range for any archaeological deposits to be affected by the proposed ground works.
- To produce an archive and report of any results.

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 archaeological deposits on the site in order to determine the potential impact upon them from the proposed development. From this an appropriate method of dealing with any archaeological deposits can be formulated or an appropriate mitigation strategy developed.

Trial trenching is an intrusive form of evaluation that will demonstrate the existence of earth-fast archaeological features that may exist within the area.

## Methodology

All work followed the Institute for Archaeologists (IfA) Code of Conduct in accordance with their *Standard and Guidance for Archaeological Field Evaluation* (2008).

Topsoil and subsoil was removed in level spits, under continuous archaeological supervision, down to the uppermost archaeological deposits by a mechanical excavator fitted with a toothless ditching bucket. All spoil heaps were inspected for unstratified archaeological material. All trenches were excavated to a width of 1.8m and down to the top of archaeological deposits or the natural substratum in the absence of any archaeological deposits. After recording, the trenches were backfilled and levelled during the course of the evaluation.

Trenches were examined by hand cleaning and any archaeological deposits located were planned at an appropriate scale and sample-excavated by hand as appropriate to establishing the stratigraphic and chronological sequence. All plans were tied into the Ordnance Survey National Grid. Spot heights were taken as appropriate.

Sections of any excavated archaeological features were drawn at an appropriate scale. Each trench was recorded on a standard ULAS pro-forma trench recording sheet noting soil depths and descriptions. One longitudinal face and the base of each trench was recorded in this way. Any drawn sections of archaeological features would be levelled and tied to the Ordnance Survey Datum. Trench locations were recorded and tied in to the Ordnance Survey National Grid.

A photographic record of the investigations was prepared illustrating in both detail and general context the principal features and finds discovered. Colour digital and black and white 35mm photographs were taken throughout the evaluation. The



photographic record also included 'working shots' to illustrate more generally the nature of the archaeological operation mounted.

## Results

The results of all excavated trenches are presented below in Table 1, with archaeologically positive trenches highlighted in grey. For easier cross-referencing the results of the trenches will be presented below according to each specific area of the site that was evaluated.

Trench	Length (m)	Height of base of Trench (m OD)	Natural Substratum	Notes	Min. depth to archaeology/natural (m)
1	c.30.6	86.65	Mixed Reddish brown clay & pale greyish orange sandy clay	One ditch, three post holes; furrow and land drains	0.27
2	c.29	86.09	Mixed Reddish brown clay & pale greyish orange sandy clay	Ditch and furrow	0.24
3	c.30.4	85.60	Mixed Reddish brown clay & pale greyish orange sandy clay	Negative: furrow and land drains	0.40
4	c.31.6	85.05	Mixed Reddish brown clay & pale greyish orange sandy clay	Negative: multiple land drains	0.45
5	c.29.5	85.40	Mixed Reddish brown clay & pale greyish orange sandy clay	Gully, colluvium, land drains	0.32
6	c.29.5	83.95	Reddish brown clay & mixed orange/reddish brown sandy clay & gravels	Negative: colluvium and land drains	0.55
7	c.29.7	83.30	Reddish brown clay and gravel	Laid stone layer, colluvium, land drains	0.61
8	c.30	86.30	Reddish brown clay and gravel	Negative: land drains	0.50
9	c.28	88.22	Mixed reddish brown & pale blue/grey clay	Negative: land drains	0.58
10	c.30	90.05	Mixed reddish brown & pale blue/grey clay – very compact	Negative: land drains	0.45
11	c.30.7	91.47	Reddish brown clay & v. compact pinkish brown gravel	Ditch, pit, plough scars	0.28
12	c.30	90.10	Mottled brownish red clay & pale greyish orange gravel – all v. compact	Small pit, stone lined drains, land drains	0.38
13	c.31	90.14	Mottled brownish red clay & pale greyish orange gravel – all v. compact	Negative: land drains on various alignments	0.36
14	c.29.8	91.14	Mottled brownish red clay & pale greyish orange gravel with greenish grey mudstone patches – all v. compact	Negative: land drains on various alignments	0.36
15	c.30	91.00	Mottled brownish red clay & pale greyish orange gravel with greenish grey mudstone patches – all v. compact	Negative: land drains on various alignments	0.50
16	c.30	91.56	Mottled brownish red clay & pale greyish orange gravel with greenish grey mudstone patches – all v. compact	Negative: land drains on various alignments	0.44
17	c.30	91.60	Mottled brownish red clay &	Negative: furrow	0.40

			pale greyish orange gravel with greenish grey mudstone patches – all v. compact	and land drains	
<b>18</b>	<i>c.30</i>	91.50	Mottled brownish red clay & pale greyish orange gravel with greenish grey mudstone patches – all v. compact	Negative: furrow and land drains	0.50
<b>19</b>	<i>c.29</i>	92.15	Mottled brownish red clay & pale greyish orange gravel with greenish grey mudstone patches – all v. compact	Negative: furrow and land drains	0.35
<b>20</b>	<i>c.30</i>	91.86	Mottled brownish red clay & pale greyish orange gravel with greenish grey mudstone patches – all v. compact	Negative: furrows and land drains	0.44
<b>21</b>	<i>c.29.5</i>	92.25	Mottled brownish red clay & pale greyish orange gravel with greenish grey mudstone patches – all v. compact	Negative: furrows and land drains on various alignments	0.45
<b>22</b>	<i>c.32</i>	86.70	Mixed Reddish brown clay & pale greyish orange sandy clay	Negative: multiple plough scars	0.30
<b>23</b>	<i>c.30.4</i>	86.09	Mixed Reddish brown clay & pale greyish orange sandy clay	Ditch, gully, possible gully, land drains	0.26
<b>24</b>	<i>c.40</i>	85.12	Mixed Reddish brown clay & pale greyish orange sandy clay	Negative: land drains	0.48
<b>25</b>	<i>c.30</i>	85.02	Mixed Reddish brown clay & pale greyish orange sandy clay	Negative: land drains	0.42
<b>26</b>	<i>c.30.5</i>	84.03	Mixed Reddish brown clay & pale greyish orange sandy clay	Sandstone drain, colluvium, modern land drains	0.39
<b>27</b>	<i>c.39</i>	85.20	Mixed Reddish brown clay & pale greyish orange sandy clay	Four linear features, land drains	0.38
<b>28</b>	<i>c.27</i>	85.43	Mixed Reddish brown clay & pale greyish orange sandy clay	Negative: furrow, land drain	0.48
<b>29</b>	<i>c.16.3</i>	83.30	Brownish red clay mixed with sandier patches	Negative: plough scars and land drains	0.50
<b>30</b>	<i>c.30</i>	97.19	Mixed Reddish brown clay & pale greyish orange sandy clay	Negative	0.31
<b>31</b>	<i>c.30</i>	97.17	Brownish orange clay sand with pebble patches & blue/grey clay	Field boundary ditch and land drains	0.33
<b>32</b>	<i>c.30</i>	96.16	Reddish brown silty clay with frequent pebbles	Field boundary, brick-built structure	0.34
<b>33</b>	<i>c.30</i>	96.14	Mid-yellowish brown sandy clay & patches of	Field boundary, brick-built structure	0.32
<b>34</b>	<i>c.30.5</i>	91.32	Reddish brown clay & v. compact pinkish brown gravel	Ditch, plough scars	0.38
<b>35</b>	<i>c.31</i>	91.04	Mottled and compact brownish red clay with lenses of blue/grey clay	Negative: plough scars and field drains	0.36
<b>36</b>	<i>c.30</i>	86.48	Mixed Reddish brown clay & pale greyish orange sandy clay	Negative	0.32

Table 1: Trench Summaries (positive trenches shaded)

### **Trenches Adjacent to the A5/Watling Street**

A total of 22 trenches was excavated in the southern part of the development area in locations adjacent to the A5/Watling Street frontage and on the line of a proposed new access road (Fig. 2, Plate 1). Initially this comprised Trenches 1-11 however Trenches 22-29 and 34-36 were added to help further characterise the spread of archaeological remains.



Plate 1 General view of trenches adjacent to the A5/Watling Street frontage

#### ***Trench 1 (Fig. 4, Plate 2)***

Trench 1 was excavated in the south-west corner of the development area and lay adjacent the A5/Watling Street border. The trench lay on a north-south orientation and contained a concentration of archaeological features near its centre. All of the features and natural deposits in this trench were extremely dry and compact. A possible flint scraper was unstratified from this trench.

A ditch [103] crossed Trench 1 on an east-west alignment and contained Roman pottery, tile and quernstone fragments. Ditch [103] was c.0.9m wide x 0.3m deep with a broad 'v'-shaped profile (Fig. 6). It was filled with a single deposit of very dark greyish brown silty clay (102) containing charcoal flecks, occasional rounded pebbles and angular granite fragments. A small collection of Roman pottery dating between the 2nd-4th centuries was recovered from this ditch, as well as tile fragments

and a complete lower stone from a rotary quern (SF1). A broken fragment of an upper stone from a rotary quern (SF2) was also recovered.

Approximately 2.5m south of [103] an elongated oval feature [107] may have been a post-hole or small pit. It was *c.*0.8m long x 0.20m wide and 0.10m deep with a squared profile. It contained a single fill of mixed dark greyish brown and burnt red clay containing charcoal flecks, Roman pottery and tile. The pottery represented much of a handled tankard, possibly of 2nd century date.



Plate 2 Querns in Ditch [103]

Just north of ditch [103] lay two very truncated post-holes [109] and [110]. [109] was the better preserved feature of the two. This was oval in shape measuring *c.* 0.38m x 0.26m x 0.17m deep with steep edges and a flat base. A single fill of greyish brown silty clay (105) contained a large rounded cobble and a flat, angular granite fragment, both of which were probably packing stones and their presence may have helped preserve the feature. A sherd of 2nd-4th century pottery was associated with the feature. To the east a second post hole [110] was circular with a diameter of *c.*0.25m, but was less well preserved, surviving to a depth of only *c.*0.02m. Despite the

truncation a small group of 2nd-4th century pottery sherds was associated with the post hole.

***Trench 2 (Fig. 4, Plate 3)***

Trench 2 was located to the east of Trench 1 and lay on a north-south alignment. It contained a single linear feature [202] which was located in the northern half of the trench. Ditch [202] had a north-south orientation with a broad 'v'-shaped profile measuring c.90m wide x 0.32m deep (Fig. 6). It contained a single fill of compact mid-greyish brown silty clay (203) from which a single sherd of 2nd-4th century Roman pottery and a fragmentary cattle tooth was recovered. Occasional charcoal flecks and small-medium rounded pebbles were also present in the ditch fill.

A sherd of post-medieval earthenware was unstratified from the trench but probably came from the topsoil.



Plate 3 Ditch [202] with T23 in background

***Trench 3***

Trench 3 lay on a north-east to south-west alignment and contained no archaeological features. A furrow was identified in the centre of the trench and numerous plough scars crossed the base of the trench on a north-south alignment. Two sherds of medieval Chilvers Coton pottery were unstratified from this trench but may have come from the topsoil or furrow.

#### ***Trench 4***

Trench 4 was located 60m to the west of Trench 3 on a north-west to south-east alignment. Numerous land drains crossed the trench on a north-south alignment. No archaeological features were revealed in this trench.

#### ***Trench 5 (Figs. 4 & 6)***

Trench 5 lay on a north-east to south-west orientation and was located adjacent to the A5/Watling Street frontage some 120m from T3. A single archaeological feature was identified in the northern half of this trench. Gully [502] traversed the trench on a north-south orientation and had been truncated by a modern land drain. [502] had a shallow 'U'-shaped profile measuring c.0.60m wide x 0.16m deep and contained a single fill of pale yellowish brown clay silt (503). Two sherds of 2nd-4th century Roman pottery and heat cracked stones were recovered during the excavation of the gully.

The southern half of the trench contained a colluvial layer (504) consisting of greyish brown silty sandy clay. Two sherds of mortaria were associated with this layer.

#### ***Trench 6***

Trench 6 was oriented north-east to south-west and contained no archaeological features. The southern half of the trench contained a c.0.30m thick layer of colluvium represented by a deposit of greyish brown silty sandy clay. A number of land drains crossed the trench on various alignments, cutting both the natural subsoil and the colluvial layer.

#### ***Trench 7 (Figs. 4 & 6, Plate 4)***

Trench 7 lay on an east-west alignment adjacent to the A5/Watling Street near to the eastern side of the field. A c.0.30m thick colluvial layer was encountered across the length of the trench, similar to that in other nearby trenches.

Beneath the colluvial layer in the centre of the trench was a discrete layer of stone (703), measuring approximately 2.5m wide x up to 0.20m deep. The layer consisted of deliberately laid small, medium and large rounded cobbles and angular granite chunks within a matrix of mixed orange brown/greyish brown silty clay. It also had relatively distinct edges and may have formed part of a linear spread/track on a north-east to south-west alignment. There was no sign of a continuation to the north in Trench 29 however. No datable evidence was recovered from the layer.



Plate 4 Stone layer (703)

***Trench 8***

Trench 8 was excavated on a north-west to south-east alignment to the north of Trench 5. Three land drains crossed the trench on a north-south alignment. No archaeological features were revealed.

***Trench 9***

Trench 9 lay on a north-west to south-east alignment and contained no archaeological remains. Only two land drains were revealed cutting across the trench on a north-south alignment.

***Trench 10***

Trench 10 was excavated on a north-west to south-east alignment to the north of Trench 9. Three land drains crossed the trench on a north-south alignment. No archaeological features were revealed.

***Trench 22***

Trench 22 lay to the north of Trench 23 on a north-east to south-west alignment. Numerous plough scars crossed the trench on a north-south alignment but no archaeological features were revealed.

***Trench 23 (Figs 4 & 6, Plate 5)***

Trench 23 lay to the north of Trench 2 and had an east-west orientation. A group of archaeological features, including a ditch and two gullies, was located towards the western end of the trench.

Ditch [2302] crossed the trench on a north-south orientation and had a broad 'v'-shaped profile measuring c.1.10 wide x 0.40m deep. The feature was filled with a single deposit of dark greyish brown silty clay (2303) containing occasional sub-rounded pebbles and charcoal flecking throughout. Thirty nine sherds of 2nd-4th century Roman pottery were recovered from [2302], including fragments of jars, bowls, amphorae and mortaria dating between the 2nd-4th centuries. A cattle tooth fragment was also found.

Slightly east of the ditch was a narrow gully [2304], lying on a north-east to south-west alignment. This was a shallow feature measuring c.0.60m wide x 0.18m deep with a fill of pale reddish brown silty clay (2305). No datable evidence was recovered from this feature although abundant burnt and heat-cracked stones were contained in the fill.



Plate 5 Gully [2304] with Ditch [2302] in the background

#### ***Trench 24***

Trench 24 was oriented north-west to south-east and contained a series of land drains following a broadly east-west alignment. No archaeological remains were revealed.

#### ***Trench 25***

Trench 25 lay to the east of Trench 24 on a north-west to south-east alignment. No archaeological remains were revealed but numerous land drains crossed the trench on an east-west alignment.



**Trench 26**

Trench 26 was oriented north-east to south-west and contained a number of land drains on various alignments. The southern half of the trench contained a layer of greyish brown sandy silty clay, interpreted as a colluvial layer, approximately 0.30m deep. No archaeological features were revealed.

**Trench 27 (Figs 5 & 6, Plate 6)**

Trench 27 lay on a north-west to south-east alignment approximately 30m to the east of Trench 5 and contained a series of shallow linear features all on a similar north-south alignment.



Plate 6 General view of T27 showing sequence of linear features

At the western end of the trench [2708] was a fairly wide and shallow linear feature measuring approximately 4m wide x 0.10-0.18m deep. A full profile of this feature was not determined but it was clear that it had a flat base, becoming slightly deeper towards the eastern side. It is possible that two adjacent features are represented here however excavation conditions did not allow for any clear distinctions to be made.

The feature was filled with a single deposit of compact mid-greyish brown silty clay containing occasional charcoal flecks, heat-cracked stone and four sherds of Roman pottery dating to 2nd-4th century.

To the east of this were two further linear features which lay adjacent to one another although their relationship was not clear. [2705] was the more westerly of the two and was approximately 2m wide x up to 0.20m deep, with a wide 'U'-shaped profile. Lying adjacent to this was a linear feature on the same alignment – [2709] measuring c.2m wide x up to 0.10m deep – which was also filled with the same material. Both features contained 2nd-4th century Roman pottery, heat-cracked stones and charcoal flecks. Fill (2706) of linear feature [2705] also contained two bone shaft fragments of a large mammal.

Approximately 1m east of these was a fourth feature, [2702], measuring c.1.25m wide x up to 0.07m deep. This was the shallowest of the linear features in the trench but also followed the alignment adopted by the others. The feature was also filled with a similar dark greyish brown silty clay deposit (2703), from which 2nd-4th century Roman pottery and heat-cracked stones were recovered.

A sherd of medieval Chilvers Coton pottery was unstratified from the trench.

### ***Trench 28***

Trench 28 lay to the north of Trench 27 on a broad east-west alignment. It was positioned to coincide with any continuation of the linear features revealed in Trench 27. In the event no archaeological features were encountered in this trench, but a land drain and furrow, both on north-south alignments, were recorded.

### ***Trench 29***

Trench 29 lay slightly to the north of Trench 7 and was positioned to further characterise stone layer (703) in Trench 7. No archaeological evidence was revealed in the trench although two land drains and numerous plough scars, on various alignments, were present.

## **Trenches along the line of proposed access road**

### ***Trench 11 (Figs 4 & 5, Plate 7)***

Trench 11 was located near the middle of the southern area and was positioned to target areas affected by a proposed road. It lay on a north-east to south-west alignment and contained two archaeological features in the northern half of the trench. A ditch, [1105] crossed the trench on a north-west to south-east alignment. This was relatively shallow with a broad 'V'-shaped profile measuring c.0.85m wide x 0.20m deep. The ditch was filled with a single deposit of pale greyish brown clay silt, from which a sherd of 2nd-4th century Roman mortaria and a possible saddle quern fragment were recovered.

A small pit [1103] lay approximately 3m to the north of Ditch [1105]. This was sub-rounded with sloping edges and a rounded base, measuring c.0.70m in diameter x 0.15m deep. The pit contained a single fill, (1102) which consisted of light greyish brown clay silt. A single fragment of slag was the only find associated with this feature.



Plate 7 Ditch [1105]

***Trench 34 (Figs 4 & 6, Plate 8)***

Trench 34 was located to the east of Trench 11 and was excavated to further characterise Ditch [1105]. A single linear feature [3403] crossed the trench on a north north-west to south south-east alignment. It had a similar 'V'-shaped profile to Ditch [1105] and contained a similar greyish brown fill. No finds were associated with this ditch although a concentration of angular granite blocks lay in the upper levels of the feature.



Plate 8 Ditch [3403] with stones from top of feature

### ***Trench 35***

Trench 35 was located to the west of Trench 11 and lay on a north-south alignment. No archaeological features were revealed in this trench but land drain and numerous plough scars were recorded, crossing the trench on a north-east to south-west alignment.

### **Trenches adjacent to northern boundary of the southern field**

#### ***Trench 12 (Figs. 5 & 6, Plate 10)***

Trench 12 lay on an east-west orientation close to the northern boundary of the southern field. The trench contained a single pit and a series of stone-lined drains.

A small oval pit, [1207] was located approximately 4.5m from the western end of the trench and was shallow with a rounded profile measuring c.0.74m x 0.46m x 0.10m deep. It was filled with a very hard and compact deposit of mid-greyish brown silty sand containing occasional small pebbles and charcoal flecks. No datable material was recovered from the feature.



Plate 9 General view of trenches adjacent to northern boundary

A series of four stone-lined drains (1202-1205), cutting through the subsoil, were spaced irregularly down the length of the trench. Typically the original cut for these drains was square, *c.*0.25m wide and cut *c.*0.05m into the natural subsoil. The drain lining comprised roughly shaped granite pieces with flatter pieces of the same stone forming the capping.

Two sherds of Roman pottery and a tile fragment and a medieval roof tile were associated with these drains, although all of the finds were from soils surrounding the features and may therefore be residual.



Plate 10 Example of stone-lined drain from T12

### ***Trench 13***

Trench 13 lay to the west of Trench 12 on a north-west to south-east alignment. Several land drains crossed the trench on various alignments. No archaeological features were recorded.

### ***Trench 14***

Trench 14 also lay on a north-west to south-east alignment. This trench contained numerous land drains on a variety of alignments but no archaeological features were revealed.

### ***Trench 15***

Trench 15 lay adjacent to the northern field boundary on a north-east to south-west alignment. Numerous land drains crossed the trench on a north-south alignment. No archaeological remains were revealed in the trench.

### ***Trench 16***

Trench 16 lay approximately 30m south of Trench 15 on a similar alignment. No archaeological features were revealed although several land drains and a furrow were recorded on a north-south alignment.

### ***Trench 17***

Trench 17 was oriented north-west to south-east and lay to the west of Trench 16. A furrow aligned north-south and several east-west land drains were revealed but no archaeological features were present.

### ***Trench 18***

Trench 18 lay on an east-west alignment and was positioned close to the northern field boundary. Four regularly spaced furrows (approximately 4-5m apart) were revealed crossing the trench on a north-south alignment. A single land drain was also apparent. No archaeological features were present.

### ***Trench 19***

Trench 19 lay on a north-south orientation. Two furrows on an east-west alignment were recorded in the northern part of the trench while the remainder was crossed by a series of land drains on various alignments. No archaeological features were present.

### ***Trench 20***

Trench 20 was excavated on an east-west alignment and contained six regularly spaced furrows on a north-south alignment. Numerous land drains also crossed the trench on similar alignments. No archaeological features were revealed.

### ***Trench 21***

Trench 21 lay at the westernmost end of this group of trenches and was orientated north-south. A furrow on a north-south alignment and numerous land drains were revealed. No archaeological features were present in the trench.

### **Trenches in the northern area**

Four trenches were excavated in the northern area (Trenches 30-33) specifically to evaluate a series of pit-like anomalies identified during the geophysical survey. All had a dark greyish brown friable sandy clay silt topsoil layer which overlay a subsoil layer of dark orange brown clay silt. The natural subsoil in this area consisted of mid-orange brown silty clay mixed with patches of blue/grey clay and sandy gravels.

### ***Trench 30***

Trench 30 was excavated on an east-west alignment onto the top of natural substratum. No archaeological features or evidence for modern truncation was encountered.

### ***Trench 31***

Trench 31 lay on the eastern side of the field and was orientated north-south. A c.1.5m wide ditch was revealed in the southern half of the trench and was also evident in Trenches 32 and 33 (below). The feature was full of roots and represents a former field boundary which is indicated on the 1955 Ordnance Survey map of the area.

Ceramic land drains were located either side of the ditch. No archaeological remains were located.

### ***Trench 32 (Fig. 5, Plate 11)***

Trench 32 was located near the centre of the field and positioned to target a geophysical anomaly. The field boundary located in Trench 32 ran across the entire length of the trench.

Approximately 7m from the eastern end of the trench a small brick-built structure (3202) was partially revealed. This was a single skin brick construction with a concrete pad mid-way along the northern side. The structure was filled with an

ashy/tarmac type material which appears to have been the cause of the geophysical anomaly. No datable material was recovered from the building however it seems likely that it was associated with the former airfield.

***Trench 33 (Fig. 5)***

Trench 33 lay to the west of Trench 32 on a north-south alignment and was also positioned to coincide with a geophysical anomaly.

As with the previous two trenches, evidence for a former field boundary was revealed as a ditch heading across the trench in an east-west direction.

A second brick-built structure (3302) was also partly revealed approximately 10m from the southern end of the trench. This had similar characteristics to the building remains revealed in Trench 32 although it seemed more disturbed. A deposit of ash/tarmac lay within the walls and around the building and again, probably accounted for the response in the geophysical survey.



Plate 11 Brick structure (3202)

**Discussion**

The evaluation trenches have targeted several areas of the proposed development site at MIRA. Positive results in a number of the trenches have revealed areas of archaeological activity.



The possible flint scraper represented the earliest evidence for human activity (Neolithic/Early Bronze Age) recovered during the evaluation but this was unstratified and no further evidence for associated activity was revealed.

At least two discrete areas of Roman roadside occupation have been revealed adjacent the A5/Watling Street. Both areas are characterised by groups of linear features, probably representing ditched boundaries to plots lying next to the Roman road. A pit and some evidence for structural activity, in the form of post-holes and roofing tile, was recovered in association with the boundaries, suggesting that the occupation included domestic activity. This is supported by a reasonable assemblage of Roman pottery, quernstones, heat cracked stone and animal bone that was recovered from the site. The animal bone was fragmentary and the pottery noticeably abraded which may be a consequence of the acidic nature of the soil, however the pottery and querns indicated a range of imports to the site including a high proportion of mortaria from the nearby production centre at Mancetter. In contrast with the relatively fragmentary nature of much of the pottery assemblage that probably derived from middens, a virtually complete tankard deposited in a pit may have been deliberately placed.

As well as the boundaries an area of deliberately laid stone lay adjacent to the road and may too have been associated with Roman activity, perhaps as a minor trackway or area of hard-standing. Several of the Roman features were sampled for paleoenvironmental evidence but these were largely negative suggesting the potential for such information on this site is low.

Several trenches contained evidence for a colluvial layer. Dating for this was uncertain although Roman pottery was found in association, as well as slag indicating industrial processes in the vicinity.

A second area of activity was revealed near the centre of the southern field, some 150m from the A5 frontage. This consisted of a boundary ditch, observed in 2 trenches, and a small pit. A Roman pottery fragment was found within one of the excavated ditch sections although a saddle quern from the same feature may suggest an earlier date. This activity is situated on relatively high ground and located on fairly free-draining soils in contrast to the activity near the road which occupies stiff clay.

A series of trenches was excavated close to medieval remains of the abandoned site of Lindley village. Apart from an unstratified roof tile no evidence for the continuation of this site into the development area was revealed. A series of stone-lined drains in Trench 12 were undated but may relate to the construction of a large pond/lake immediately north of the site boundary, associated with Lindley Park.

Four trenches designed to target geophysical anomalies in the northern part of the development area revealed a disused field boundary and remains of two small brick buildings which were the cause of the anomalies. The field boundary is indicated on the 1955 Ordnance Survey map for the area.

Trenching on the eastern side of the development area was designed to target geophysical anomalies and evaluate this area of the A5/Watling Street frontage. However the presence of Great Crested newts on this part of the site meant that this part of the evaluation could not take place.

## **Acknowledgements**

The fieldwork was carried out by John Thomas, Andrew Hyam and Matthew Morris, who also prepared the line drawings. James Harvey helped locate and survey the trenches precisely using GPS. The project was managed by Dr P. Clay.

## **Site Archive and Results**

The archive consists of:

This report,

36 pro-forma trench recording sheets,

44 context sheets,

5 A2 size drawing sheets,

6 35mm black and white negative films and corresponding contact sheets,

203 colour digital photographs,

Photographic record sheets,

1 environmental sample index sheet,

1 small find sheet,

1 compact disc of this report and the digital photographs.

The site archive will be deposited with Leicestershire Museums Service under accession code X.A.114.2011. A summary of the work will be submitted for publication in the *Transactions of The Leicestershire Archaeological and Historical Society* in due course. An OASIS record will also be produced and this report will be uploaded on to the Archaeology Data Service website.

## **Bibliography**

Austrums, R., 2010 *Higham on the Hill*. Stratascan Report J2866.

Coward, J., 2010 *An archaeological evaluation by fieldwalking survey on land at MIRA, Higham on the Hill, Leicestershire SP 368 957 centre*. ULAS Report 2010-047.

Hunt, L. and Speed, G., 2011 *An archaeological desk-based assessment for land at the MIRA site, Higham on the Hill, Leicestershire (SP 368 957)*. ULAS Report 2010-213.

IfA 2008 *Codes of Conduct and Standard and Guidance for Archaeological Field Evaluation*.

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## Appendix I: The Finds

### The Roman Pottery

*Nicholas J. Cooper*

#### Introduction

A total of 273 sherds of Roman pottery weighing 1.811kg and with an average sherd weight of 6.6g was retrieved from linear and other features from Trenches 1, 2, 5, 11, 12, 23 and 27 alongside a small assemblage of Roman tile. The total includes 17 sherds (268g) which were unstratified but, due to their intrinsic value, were fully recorded. The material was classified using the ULAS/Leicestershire Museums Fabric Series (Pollard 1994, 112-114) and quantified by sherd count and weight as detailed in the following table.

#### Results

<b>MIRA Higham on the Hill Roman Pottery</b>			
<b>Quantified Summary by Fabric</b>			
<b>Fabric</b>	<b>Sherds</b>	<b>Weight</b>	<b>% Sherds</b>
Samian	3	3	1%
Amphora	1	10	<1%
BB1	4	25	1%
Mortaria	30	624	11%
Derbyshire	5	45	2%
Grey	133	732	49%
Oxidised	93	333	34%
White	1	22	<1%
Shell	1	3	<1%
Grog	2	14	<1%
<b>Total</b>	<b>273</b>	<b>1811</b>	<b>100%</b>

Table 2 Quantified Summary of the Roman Pottery by Fabric

#### Discussion

##### *Condition*

The group is consistently in a very poor condition and, even on a rural site, the average sherd weight of 6.6g would be considered low. Whilst this is mainly due to the nature of the depositional activity involved; perhaps middening or disposal at some distance from the centre of settlement, which would account for the high level of abrasion, the acidic nature of the soil may also have been a factor.

##### *Fabric and Form*

In terms of the relative proportions of major fabrics and forms the assemblage is typically rural, but a number of anomalies relate to the specific location of the site on Watling Street. Locally produced grey and oxidised wares, probably made at the nearby Mancetter-Hartshill kilns, which were operating from the beginning of the second century onwards, make up 83% of the assemblage and, as would be expected, and where identifiable, most of these vessels are necked jars.

The characteristically low occurrence of samian imports and the single olive oil amphora sherd from Southern Spain, whilst being typical of rural sites, could also be coupled with the lack of shell-tempered and grog-tempered fabrics to support the idea that this is predominantly a later Roman assemblage, with no material which need necessarily date

before c.AD150. If it had started earlier, and given its location on the main road, more than two tiny abraded sherds of samian might have been expected. One exception to this is the occurrence of what appears to be the fragmentary remains of a handled tankard in oxidised ware from pit (107) [108] with another possible base fragment from (2706). This is a vessel type more typical of the West Midlands and Severn Valley and typologically could date to the 2nd century. Additionally, a white ware flagon neck came from (2706) and, although the rim was not preserved, it is likely to be of 2nd century date.

The occurrence of regionally traded wares is also of note including a small amount of South-east Dorset BB1, likely to date from the later 2nd or 3rd century, and Derbyshire ware jars, of similar date, which are more common in north-west Leicestershire and unusual to the south. The reason for the occurrence of both fabrics is likely to relate to the location of the site on Watling Street and close to the junction with the Mancetter road from Leicester. This, and the proximity to the kilns themselves, would also account for the unusually high occurrence of mortaria in the assemblage, all of which are products of the Mancetter-Hartshill industry. The total of 11% by sherd count represents more than twice that typical of both urban and rural sites and must be due to the ease of obtaining replacement vessels nearby, rather than any particular functional trait of the site itself. Typologically, all of the mortaria date from at least c.AD 150 due to the occurrence of black and red grits on the internal surface. There are three examples of bead and flanged rims dating to between c. AD150-250, four examples of reeded hammerhead rims dating the 4th century and one interesting flanged example with incised zig-zag decoration probably dating to the later 3rd.

Overall then the assemblage would appear to potentially span the later 2nd to 4th centuries in date. However, the lack of characteristic traded wares such as Lower Nene Valley colour-coated ware, Oxford red colour-coated ware and possibly South Midlands shell tempered ware might have been expected had the site been in occupation into the second half of the 4th century.

### ***Stratigraphic***

Most of the assemblage derives from a series of linear features across the site, notably the one which crossed Trenches 2 (202) and 23 (2303) which yielded 40 sherds. Only the hammer-headed mortarium from (2303) is diagnostic enough to give more than a broad date and indicates that the fill was still accumulating in the first half of the fourth century, with earlier material either being re-deposited at this time or having accumulated already lower down in the fill. Three parallel linear features crossed Trench 27. Fills (2703) and (2704) also both contained sherds of reeded hammer head mortaria, amongst other less diagnostic grey and oxidised wares, so a date in the first half of the 4th century is probably appropriate here too, whilst fill (2706) contained a bead and flanged rim mortarium, alongside BB1 and Derbyshire ware, and so a date in the later 2nd or first half of the 3rd century is more likely. Fill (2707) also contained a mortarium body sherd and BB1 and similar date is likely, but the abraded nature of all the pottery from these fills, and the relatively small amounts involved would not rule out the possibility of re-deposition of material later in the Roman period. The post-holes (105) and (106) in Trench 1, only contained abraded grey ware which, given the general character of the rest of the material, is more likely to date to the later 2nd century or later, rather than earlier. Pit fill (108) with its fragmentary part of a tankard stands out as an interesting, possibly placed, deposit of 2nd-century or later date.

### **Reference**

Pollard, R., 1994 *The Iron Age and Roman Pottery in P. Clay and R. Pollard Iron Age and Roman Occupation in the West Bridge Area, Leicester; Excavations 1962-71*, 51-114. Leicester: Leicestershire County Council, Museums, Arts and Records Service.

**Roman Ceramic Building Material***Nicholas J. Cooper***Introduction**

A total of 50 fragments of tile weighing 1608g (average fragment weight 32g) was retrieved from nine contexts, dating between the later 2nd and the 4th centuries, and including seven which were unstratified. The material was classified by form and quantified by fragment count and weight. All the material was manufactured in sandy oxidised fabrics typical of the city and county. The assemblage is summarised in the table below (Table 3).

**Results**

<b>MIRA Higham on the Hill Roman Tile XA114.2011</b>					
<b>Trench</b>	<b>Context</b>	<b>Cut</b>	<b>Type</b>	<b>Frag</b>	<b>Weight</b>
1	102	103	Tegula	1	210
1	102	103	Misc	1	10
5	504		Misc	2	5
12	1203		Misc	1	10
23	2303		Tegula	11	352
27	2703	2702	Tegula	1	65
27	2703	2702	Misc	7	60
27	2704		Tegula	5	110
27	2705		Tegula	4	153
27	2706	2705	Tegula	4	291
27	2706	2705	Misc	4	45
27	2707	2708	Misc	2	18
27	US		Imbrex	2	55
27	US		Tegula	1	115
22	US		Misc	1	54
24	US		Misc	3	55
<b>Total</b>				<b>50</b>	<b>1608</b>

Table 3 Quantified record of Roman tile by Type.

**Discussion**

As the paltry average fragment count of 32g indicates, this is a heavily abraded and largely un-diagnostic assemblage, which like the pottery, probably represents secondary deposition of material, perhaps at some distance from the centre of settlement activity. The identification of tegula roofing tile was based largely on thickness rather than the occurrence of flanged edges and the only fragments of curved imbrex roof tile were unstratified from Trench 27. Over half the group was derived from the linear features encountered in Trench 27, whilst 11 more fragments came from the linear crossing Trench 23 (2303). The group clearly indicates the existence of masonry-founded building in the vicinity of middle or late Roman date but the lack of wall tiles or hypocaust flue tiles would suggest they were not architecturally sophisticated.

**Medieval and Modern Pottery and Tile***Deborah Sawday*

Four sherds of post-Roman pottery, weighing 128 grams, were catalogued with reference to the ULAS fabric series, (Connor and Buckley 1999). The results are shown below (Table 4). Two abraded sherds (29g & 20g) of medieval pottery (Leics. Fabric CC1?) from Chilvers Coton, dating to c.1200-1400, were recovered unstratified from Trench 3, whilst a single rim

sherd (65g) of post-medieval or modern earthenware (Leics. Fabric EA1) was unstratified from Trench 2. A rim sherd, also in Chilvers Coton fabric (c.1250-1300) was unstratified from Trench 27.

A single fragment of medieval flat roofing tile (220g), in a sandy orange fabric, was recovered from soils surrounding drain (1202).

Context	Fabric/Ware	No s	Gram s	Comments
U/S T2	EA1 – Earthenware 1	1	65	Oxidised, upright squared jar rim, post medieval.
U/S T3	CC1 – Chilvers Coton ware 1	1	29	Neck and strap handle base from a jug, dark brownish green glaze on exterior, 14th century.
U/S T3	CC1	1	20	Body, c.1250-1400.
U/S T27	CC5 – Chilvers Coton ware 5	1	14	Squared jar rim, c.1250-1300.

Table 4: The pottery by fabric, sherd numbers and weight (grams) by context.

## Bibliography

Connor, A., and Buckley, R., 1999 *Roman and Medieval Occupation in Causeway Lane, Leicester*, Leicester Archaeology Mon. 5.

## Evidence of Industrial Activity

*Nicholas J. Cooper*

Four fragments (15g) of heavily vitrified clay, with a vesicular clay mineral matrix and angular quartz inclusions came from (504) and probably represent hearth lining re-deposited in the colluvium alongside a mortarium sherd of middle or later Roman date. It suggests the possibility of metal working or other high-temperature craft activity in the vicinity.

## The Worked Stone

*John Thomas*

Three quernstones were discovered from two trenches during the evaluation. Small Finds 1 & 2 came from the fill of a ditch (102 – [103]) in Trench 1 and Small Find 3 from ditch [1105] in Trench 11 (see Table 5).

Small Finds 1 & 2 represent lower and upper stones from a Roman rotary quern. The lower stone is complete except for some slight damage around the edge while the upper stone is only a fragment. Both appear to have been deposited in the ditch together and the possibility remains that further fragments of the upper stone may still exist within other (unexcavated) areas of the ditch. Both fragments appear well-worn and it seems likely that they were deposited along with other refuse into the open boundary ditch. Both pieces were manufactured on Millstone Grit and were probably imported to the site as finished items. The size and form of the fragments correspond with Curwen's classification type for later Romano-British rotary querns (Curwen 1937, 144).

Small Find 3 is a small saddle quern in several pieces. This is fairly small for such an artefact but was probably made on a locally procured stone chosen for its suitable shape. In contrast to the rotary querns this is probably a locally produced artefact. It may also indicate an earlier

date for the feature that it came from as saddle querns are more generally found on sites dating to prehistoric periods.

Curwen, E.C., 1937 'Querns' *Antiquity* **11**, 133-51.

<i>Context</i>	<i>SF</i>	<i>Description</i>	<i>Stone</i>	<i>Context Description</i>	<i>Phasing</i>
102 [103]	1	Complete lower stone from a rotary quern c.380mm diam. x 40mm thick. Slightly damaged edges but generally in good condition. Worn/Smooth working surface. Central spindle hole perforates stone completely and is c.40mm diam.	Millstone Grit	Ditch fill	Roman 2-4 <sup>th</sup> century
102 [103]	2	Triangular fragment of upper stone from a rotary quern. Smooth working surface. Outer edge survives in reasonable condition & has been dressed. Meas. 110mmx180mmx 100mm thick. Weight 2kg	Millstone Grit	Ditch fill	Roman 2-4 <sup>th</sup> century
1104 [1105]	3	Saddle quern: small square block of stone meas. 150x120x50-30mm thick. Smooth upper/working surface	Granitic stone	Ditch fill	Uncertain

Table 5 Catalogue of Worked Stone

### **The Animal Bone** *Jennifer Browning*

The animal bone recovered by hand during the evaluation was rapidly scanned to assess preservation and variety and therefore provide an indication of the faunal potential should the site progress to excavation (table 6). The contexts are associated with Late Roman roadside settlement, adjacent to Watling Street.

A small amount of animal bone was recovered during the work and the evidence suggests that the soil conditions are not favourable to bone preservation. The material was very fragmented and the surface condition was also poor. A much larger sample of bone would be needed to provide useful information on exploitation of animal resources at the site. The relationship between the town and the countryside in this period is still fairly poorly understood and evidence from rural sites is needed (Monckton 2006, 277).

<b>Context</b>	<b>Cut</b>	<b>Brief Description</b>
2706	2705	2 x large mammal shaft fragments
2303	2302	1 x cattle tooth fragment
203		Fragmented cattle tooth (6 fragments)

Table 6: Summary of assemblage

## Reference

Monckton, A. 2006 Chapter 11: Environmental Archaeology in the East Midlands. In Nicholas J. Cooper (ed.) *The Archaeology of the East Midlands*. Leicester Archaeology Monograph 13, 259-286.

## The Plant Remains

*Anita Radini*

## Introduction

A series of features possibly dating the Late Roman period were located and soil samples were taken for the recovery of plant and animal remains which may provide evidence of activity on the site in the past. Samples from four ditches and one pit/post-hole were processed. All the samples were analysed for archaeobotanical evidence in the hope of gaining information on the nature of the occupation on site.

## Materials and Methods

Five contexts with some potential to produce remains were selected at ULAS to be processed as shown in Table 1.

All soil samples were wet sieved in a York tank using a 0.5mm mesh with flotation into a 0.3mm mesh sieve. The flotation fractions (flots) were air dried and then packed carefully in self-seal polythene bags. The samples contained a high proportion of clay and required soaking in water to disperse the sediment, the flotation procedure was therefore very time consuming.

The flots were scanned in their entirety using a stereoscope with magnifications ranging from x7 to x45. Charcoal flecks, as well as modern root/rootlets and any other biological remains encountered were noted using a semi-quantitative scale (x = present, xx = common and xxx = abundant >25 items) to estimate their abundance. Morphological criteria were used for the identification of plant species, based on modern reference material. Plant names follow Stace (1997).

## Results

All samples contained a large amount of modern biological contaminants consisting of modern roots and rootlets, leaf fragments, and in some cases some modern seeds of grasses (Poaceae) and earthworm egg capsules were also noted but not removed from the flots. These remains suggest high degree of soil disturbance.

Overall the archaeobotanical assemblage was very poor. Only one charred grain, resembling a cereal grain, was found in sample 4 (2706) but could not be identified due to the poor state of preservation.

All the samples contained at least a few flecks of charcoal but no larger fragments of charcoal were recovered to allow identification.



Sample	C'text	Feature	V	Charcoal flecks	Charred Seeds	Mod Roots	Mod Seeds	Other
1	102	ditch	1 4	x		xxx	x	earthworm egg capsules x
2	2303	ditch	1 5	x		xxx	x	modern leaf fragments x
3	2703	ditch	1 4	x		xxx		modern leaf fragments x
4	2706	ditch	1 3	x	1Cereal?	xxx	x	earth worm egg capsules x
5	108	pit/post hole	1 2	x		xxx	x	earthworm egg capsules x

Table 7 Summary of Soil Sample Results  
V=volume in litres; Mod Roots=modern root/rootlets

### Discussion and Conclusions

The one possible charred grain found in sample 4 and the charcoal flecks suggest human activity related to food consumption but it is also possible that the grain represent intrusive or residual material resulting from modern biodisturbance. It is possible that these features were at some distance from domestic or other activities concerning cereals, or that the area was one of pastoral activity. Therefore the results may contribute to any future consideration of the distribution of plant remains in the area.

Due to the very small amount of remains recovered no further information can be gained from the samples and no further work is required.

Despite the assemblage being very poor, soil conditions and activities in the past can vary largely across sites and it is important that in any future excavation an appropriate sampling strategy is adopted.

### Bibliography

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

## Appendix II Metal Detecting Survey

*Richard Mackinder*

### Aims

The aim of the metal detector survey was to locate metalwork of historical/archaeological significance in the northern section of the proposed MIRA development area. In particular in view of the proximity of metalwork evidence of the Battle of Bosworth recently located the survey was undertaken to see if there was any evidence of the battle extending south into the application area

### Survey methodology

In defining the methodology for the metal detecting survey a consistent and efficient technique was required. It was also desirable to achieve comparability with datasets from the neighbouring battlefield site of 1485, to enable comparison of recovery rates. This is why the system chosen was the transect method developed for the survey at Bosworth Battlefield Heritage Centre.

The objective of the survey was not to recover all the artefacts from the site. This is neither practicable with current technology nor realistic in terms of time outlay. What was required was to recover a representative sample of the total population of metal artefacts in the ground. In determining the intensity a balance was drawn between the resources and time available, the area to be covered and the intensity believed to be necessary to recover a meaningful signature.

The reconnaissance survey at Bosworth was based on 2.5m spaced transects. This intensity appears to be the minimum which is adequate to provide an overview of the archaeology of a 15th century battle. This assumes a forward detecting speed of circa 12m per minute, that the team comprises detectorists experienced in battlefield survey, and that all are using high specification detectors such as the Minelab Explorer or Whites.

The survey was also to be undertaken in non-ferrous mode. This was considered essential because dealing with the large quantities of post-battle ferrous artefacts, known to exist in most fields in England, would have increased the time required for the survey by an order of magnitude. This would have rendered the survey impractical.

The survey was undertaken by members of the Bosworth Battlefield Heritage Centre Archaeological Team (AHARG) with a team of five on the 20th September 2011. The field surveyed was previously a field with rape in, which had recently been disked and harrowed. There was some vegetation over it, though not enough to impair the detectors. The weather was cool and initially dry however as the day progressed the weather gradually got worse with heavy rain squalls.

## **Results**

The field was remarkably ‘quiet’, with very few artefacts being bagged. Richard Knox, the curator at Leicestershire County Council who had been involved with the Bosworth Battlefield, however examined both logged finds and other objects retrieved from the field (Table 1; Figure 1).

In general there were no artefacts which could definitely be identified as associated with the Battle of Bosworth. The very few medieval artefacts, like those found in the fieldwalking survey, are probably from manuring. Modern artefacts may be associated with the airfield’s use.

Bos. Number	Finder	GPS number	Description	Date
6062	P Riley	140	?Cu alloy cutlery handle - teaspoon	Post med to modern
6063	P Riley	137	Domed Pb weight	Roman to EPM
	P Riley		3 sherds of early medieval pottery	13 <sup>th</sup> -14 <sup>th</sup> C
	P Riley		Cu alloy composite domed button	modern
	P Riley		Cu alloy bung	modern
	P Riley		Cu alloy button x2	PM - modern
	P Riley		Pb pistol ball	Post med
	P Riley		Victorian Half penny	modern
	P Riley		Crude rectangular nut	Post med
	P Riley		Fired clay fragment	unknown
	P Riley		Lead working dross x3	unknown
6061	R Mackinder	11	Ag coin - illegible	Early Post med
6057	R Mackinder	16	Pb musket ball	Early - mid PM
6058	R Mackinder	22	Pb ?button with ?enamel	??Early - mid PM
6059	R Mackinder	23	Cu alloy horse harness buckle	19 <sup>th</sup> - 20 <sup>th</sup> C
6060	R Mackinder	24	Cu alloy thin disk – coin?	?PM or modern
	R Mackinder		Lead working dross	unknown
	R Mackinder		Folded Pb disk	unknown
	R Mackinder		Pb object ??pot mend	unknown
	R Mackinder		Cu alloy casting waste	unknown
	R Mackinder		Half penny of George II or III	Post med
	R Mackinder		Alloy decorative wing nut	modern
	C Dawson		Cu alloy watch key handle	PM or modern
	C Dawson		Cu alloy pad lock arm	PM or modern
	C Dawson		Cu alloy decorative escutcheon	PM or modern
	C Dawson		Cu alloy livery button with resting hart.	PM or modern
	C Dawson		Penny of George V	PM or modern
	C Dawson		Folded thin Cu alloy sheet	Unknown
	C Dawson		Rolled Cu alloy cone/ferrule	?Roman to medieval
	R Spence		Very thin Cu alloy sheet fragment x 2	?post med
	R Spence		Large Pb sheet fragments x2 – roof flashing?	?Post med

Table 8 F887 Mira car park area. Metal detected on 20/9/11 on behalf of ULAS NGR SP3690896632. Finds identified by Richard Knox. NB objects without Bos. numbers were not recorded by GPS and placed in general collection bags. Each finder also collected scrap which is not listed here.

### Appendix III OASIS Information

<b>OASIS INFORMATION</b>	
Project Name	MIRA, Higham on the Hill
Project Type	Evaluation
Project Manager	P Clay
Project Supervisor	J Thomas
Previous/Future work	DBA, geophys, fieldwalking, unknown future work
Current Land Use	Agricultural
Development Type	Business Technology Campus
Reason for Investigation	Pre-determination evaluation
Position in the Planning Process	Preliminary
Site Co ordinates	SP 368 957
Start/end dates of field work	25.08.2011-20.09.2011
Archive Recipient	LCC
Study Area	310ha