

Trial trench evaluation on land at Eaton Leys Milton Keynes, Buckinghamshire August 2016

Report No. 16/172

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Illustrator: Olly Dindol





© MOLA Northampton Project Manager: Adam Yates Site Code: AYBCM: 2015. 8

NGR: SP 888 329

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Environmental samples: Rebecca Gordon

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OASIS REPORT FORM

PROJECT DETAILS	OASIS No: molarnort1	- 264501			
Project name	Trial trench evaluation or	n land at Eaton Leys, Milton Keynes, Buckinghamshire			
Short description (250 words maximum)	MOLA (Museum of London Archaeology) was commissioned by CgMs to out an archaeological trial trench evaluation on land at Eaton Leys, Keynes, Buckinghamshire prior to the proposed development of the Twenty-two trenches were located within the evaluation targeting geop anomalies. A single early-middle Roman cremation, located less than 2 the south of the Scheduled Monument of the Roman town of <i>Magioviniu</i> , the only feature uncovered in the northern part of the evaluation.				
	geophysical anomalies. corner of the proposed artefacts were recovered. The site seems to start ithe mid 3rd century. To features including a curparts of a range of locally	th of Magiovinium, seven trenches were targeted over A settlement was located in the far south-western development area where most of the features and and the geophysical anomalies suggest enclosures. In the early Roman period and continued into at least to the east, one trench produced three early Roman vilinear ditch. A moderate quantity of pottery (mostly made jars) was recovered from these features.			
Project type (eg DBA, evaluation etc)	Evaluation				
Site status	None				
(none, NT, SAM etc) Previous work	Coophysical survey (Mal	ford 2014 and 2015): Fieldwalking (Molfrage Murray			
(SMR numbers etc)	Geophysical survey (Walford 2014 and 2015); Fieldwalking (Wolframm-Murra				
Current Land use	2015) Pasture and arable				
Future work (yes, no, unknown)	Unknown				
Monument type/ period	Early-middle Roman crer	nation: Roman ditches			
Significant finds		ner nails recovered from the Roman cremation;			
(artefact type and period)	Roman pottery; Roman t				
PROJECT LOCATION	, ,	-,			
County	Buckinghamshire				
Site address	Land at Eaton Leys, Milto	on Keynes, Buckinghamshire			
(including postcode)					
Study area (sq.m or ha)	c 45ha				
OS Easting & Northing	SP 888 329				
(use grid sq. letter code)	70 m 00 m ab ava Ondrana	as Datum			
Height OD PROJECT CREATORS	70m-80m above Ordnan	ce Datum			
Organisation	MOLA (Museum of Lond	on Archaeology)			
Project brief originator	CgMs Consulting	on monucology)			
Project Design originator	MOLA Northampton				
Director/Supervisor	Sam Egan				
Project Manager	Adam Yates				
Sponsor or funding body	CgMs Consulting				
PROJECT DATE					
Start date/End date	19/08/2016 - 31/08/2016				
ARCHIVES	Location	Content (eg pottery, animal bone etc)			
Physical	AYBCM: 2015. 8	Pottery animal bone and other finds			
Paper	AYBCM: 2015. 8 AYBCM: 2015. 8	Site file			
Digital BIBLIOGRAPHY		Mapinfo plans, Word report lished or forthcoming, or unpublished client report			
	(MOLA report)				
Title	Trial trench evaluation on land at Eaton Leys, Milton Keynes, Buckinghamshire August 2016				
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Trial trench evaluation on land at Eaton Leys Milton Keynes, Buckinghamshire August 2016

Abstract

MOLA (Museum of London Archaeology) was commissioned by CgMs to carry out an archaeological trial trench evaluation on land at Eaton Leys, Milton Keynes, Buckinghamshire prior to the proposed development of the site. In the northern part of the site a single early-middle Roman cremation, located less than 200m to the south of the Scheduled Monument of the Roman town of Magiovinium, was the only feature uncovered. The cremation was unurned, contained 73g of cremated bone and was furnished. It included part of a ceramic vessel dating between the 1st and 3rd centuries AD as well as 81 hobnails and other nails, some with cremated bone attached. The vessel is likely to have been a deliberate token deposit and the nails were from pyre-derived remains.

One kilometre to the south of Magiovinium, seven trenches were targeted over geophysical anomalies over a c 350m by 150m area. The main domestic part of the settlement was probably located in the far south-western corner of the proposed development area where most of the features and artefacts were recovered and the geophysical anomalies suggest enclosures. The site seems to start in the early Roman period and continued into at least the mid 3rd century One hundred and fifty metres to the east, one trench produced three early Roman features including a curvilinear ditch. A moderate quantity of pottery (mostly parts of a range of locally made jars) was recovered from these features and may suggest domestic occupation had also been located within this part of the site.

1 INTRODUCTION

MOLA (Museum of London Archaeology) was commissioned by CgMs Consulting to undertake archaeological trial trench evaluation on land at Eaton Leys, Milton Keynes (NGR SP 888 329, Fig 1). The work had been required by Aylesbury Vale District Council (AVDC) and Milton Keynes Council (MKC) in advance of the proposed development of the area. An Outline Planning application has been submitted for the demolition of all existing farm buildings (except the existing farmhouse) and the development of up to 1800 dwellings including affordable housing, a Local Centre, primary schools, associated highway infrastructure, multi-function public open space, open space incorporating the Scheduled Monument, playing fields, allotments, surface water attenuation and strategic landscaping; and associated services and utilities (Planning Applications: 15/02201/AOP, 15/01533/OUTEIS).

The archaeological evaluation works were carried out in order to further inform decisions regarding the potential impact of the proposed development upon the archaeological resource, in accordance with the National Planning Policy Framework (NPPF; DCLG 2012). Ten trial trenches were located within the northern half of the

evaluation within Milton Keynes Unitary Authority area and 12 trial trenches within Aylesbury Vale District Council area (Fig 1).

The evaluation conformed to the Chartered Institute for Archaeologists' *Standard and guidance for archaeological field evaluation* (2014). All stages of the project were undertaken in accordance with English Heritage, *Management of Research Projects in the Historic Environment* (MoRPHE) (EH 2006).

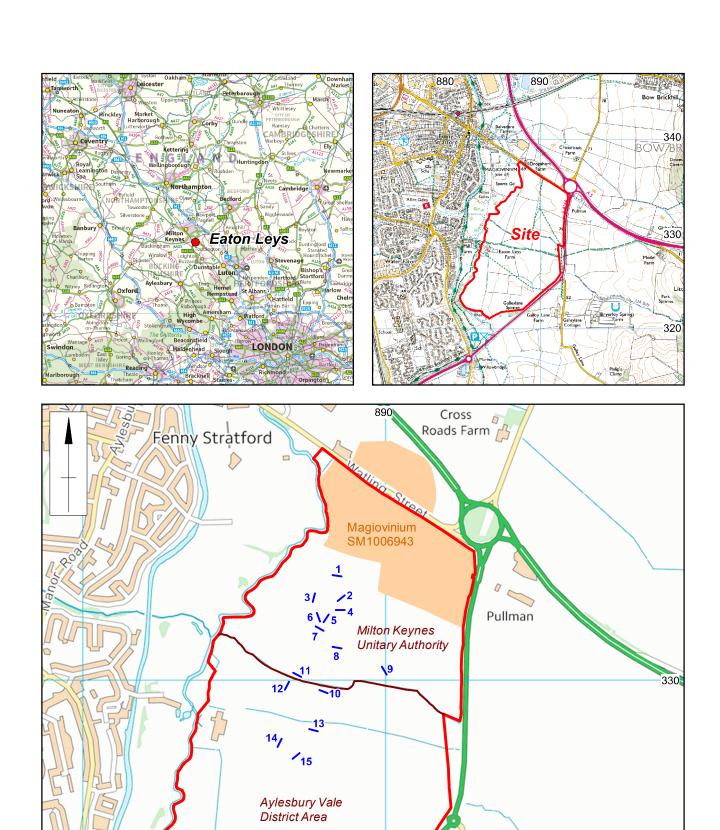
2 AIMS AND OBJECTIVES

The general aims of the archaeological evaluation were to determine the location, extent, date, character, condition, significance and quality of any surviving archaeological remains liable to be threatened by the proposed development. Specifically, the work aimed to:

- establish the date, nature and extent of activity or occupation on the development site;
- recover artefacts to assist in the development of type series within the region;
- and to recover palaeo-environmental remains to determine local environmental conditions.

Specific research objectives have been drawn from national and regional research frameworks documents (English Heritage 1997, Hey and Hind 2014).

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Scale 1:12500 Site location Fig 1

Galleylane Farm

A4146

500m

0

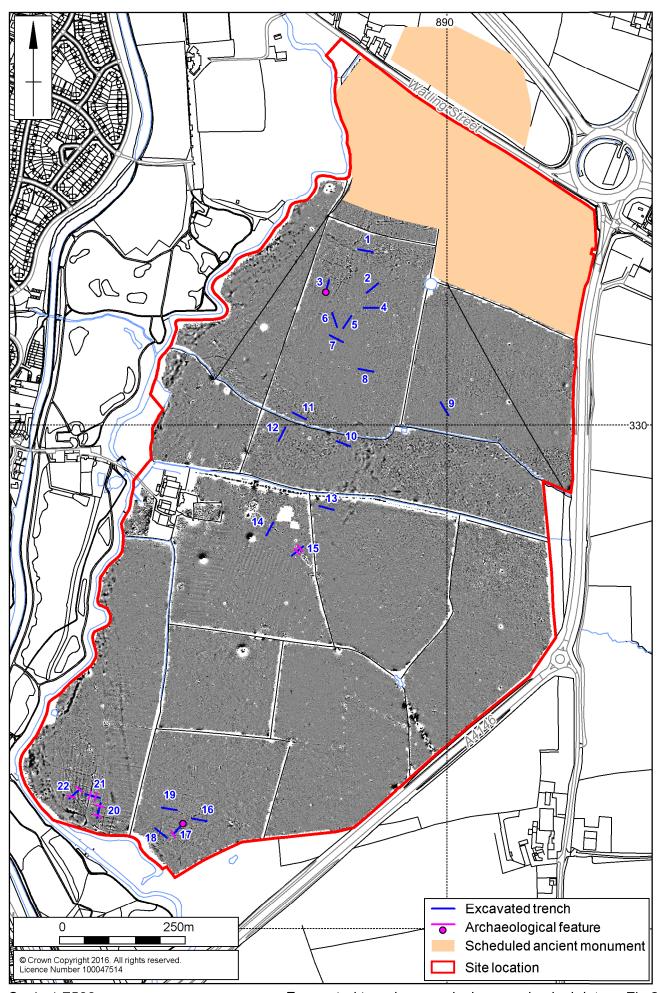
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Bryerley Springs Farm

Scheduled ancient monument

Site location Trial trenches

Authority boundary



3 BACKGROUND

3.1 Topography and geology

The site of the proposed development comprises a block of land located immediately east of Bletchley, and includes land in the historic townships of Water Eaton and Fenny Stratford. The northern boundary of the area is defined by Watling Street. The site is bound to the east by the A4146 Little Brickhill Bypass and to the south and west by the River Ouzel. Eaton Leys Farm itself stands just inside the survey area, midway along its western edge (Fig 1). A Scheduled Monument (SM: 1006943) lies within the boundary of the development area to the north.

The survey area lies between the 70m and 80m contours on a gentle and irregular west-facing slope. Its geology consists of Oxford Clay, overlain in places by terrace gravels, alluvium and head (BGS 2016). The head deposits are likely incorporate material derived from the Lower Greensand ridge which rises above the survey area to the east.

3.2 Historical and archaeological background

The following historic background is summarized from a desk-based assessment by Phoenix Consulting (PC 1998) and the report by Wolframm-Murray (2015), which included Historic Environment Record (HER) information provided by CgMs Consulting.

The remains of the Roman town of *Magiovinium* (Scheduled Monument no. 1006943) partially underlie the northern end of the survey area, straddling the line of Watling Street (Fig 1). Previous archaeological investigations on this site (Neal 1987, Bartlett 1999) have shown that it dates from the 1st to the 4th centuries AD and comprises a defended core with suburbs extending along the road to the south-east. Near the centre of the area are two sets of parallel linear features to the south-west of the Roman town, aligned in a south-west to north-east direction (MMK7684). A possible Roman fort, identified from cropmarks, also lies to the south-east of the scheduled area and may represent the original focus from which the settlement developed.

In the far south of the survey area, cropmarks indicate the presence of a small sub-rectangular enclosure (0187200000) which may be of Iron Age or Roman date (PC 1998, fig 2). Just outside of the survey area is a cropmark of a possible ring ditch (0186400000). No other prehistoric or Roman sites are known from within the survey area, but a scatter of worked flints, pottery (MMK5492, MMK7869-71) and other chance finds have been recorded from locations all along the line of the Ouzel Valley to the west (PC 1998). Notable amongst these finds are the concentration of Iron Age material from Saffron Gardens (MK HER MMK1166) and a half-dozen Palaeolithic handaxes which have been recovered from various exposures of the river terrace gravels (Millard 1965). To the south of the survey area possible Roman inhumations were found eroding from the river bank (0596700000).

Whilst no Saxon remains are known within the survey area, two sites of this date have been recorded to the west, on the opposite side of the River Ouzel. One site, at Saffron Gardens, comprised a cluster of apparently late Saxon pits and ditches investigated under salvage conditions (MMK1987). The other, further south at Stoke Road, produced evidence for 8th to 9th-century settlement (Hancock 2006). Medieval settlement seems to have followed a similar pattern, with the main settlement foci lying to the west of the river, around Water Eaton and the former site of Bletchley manor house (PC 1998). Within the survey area the only known medieval remains are the ridge and furrow earthworks which lie in the field immediately east of Eaton

Leys Farm. The original date of the farm itself is unknown, although it was clearly extant by 1813, when it was depicted on the Ordnance Survey surveyor's draft.

Previous archaeological works

The current phase of trial trench evaluation follows previous archaeological works on the site. This includes two phases of geophysical survey (Walford 2014 and Walford 2015), and an archaeological fieldwalking survey (Wolframm-Murray 2015).

The magnetometer survey mapped much of the southern half of the Roman town of Magiovinium, revealing an extensive sprawl of unenclosed settlement remains cut through by later multivallate defences. There was evidence for possible industrial activity in the eastern part of the town and a possible monumental building in the west, close to the River Ouzel. A separate area of Roman settlement was identified approximately 1km south of the town, where two adjacent sets of rectilinear enclosures were present. Less substantial archaeological remains, of unknown date, were detected in the intervening area. Traces of medieval ridge and furrow and post-medieval field boundaries were detected widely across the entire survey area.

A resistivity survey was carried out on selected areas the following year (Walford 2015). Five 0.48ha sample blocks were surveyed. The results were dominated by anomalies of geological origin. Whilst a few features of possible archaeological interest were detected there was little correlation between the earth resistance survey data and the archaeological findings of the previous magnetometer survey, and there was no evidence for the known archaeological sites extending further than the previous survey had indicated.

A fieldwalking survey was undertaken in 2015 to characterise the artefactual content of the topsoil (Wolframm-Murray 2015). The fieldwalking survey noted an increase of worked flint towards the north with a small concentration in the north-east field. Roman pottery was nearly exclusively recovered from the fields bordering the area of the Scheduled Monument to the north, with a single samian pottery sherd being recovered from the south-east. There was a slight scatter of medieval/transitional late medieval pottery and post-medieval pottery, with a higher concentration of post-medieval pottery in a field to the north of the farm.

4 EXCAVATION METHODOLOGY

Following the geophysical and field walking surveys, a trial trench evaluation was undertaken, the site comprising twenty-two 30m long trenches, positioned to target specific anomalies identified in the geophysical data (Fig 2). All trenches were excavated using a JCB mechanical excavator fitted with a 1.8m-wide toothless ditching bucket. The topsoil and subsoil were removed under archaeological direction to reveal natural substrate and were stacked separately at the side of the trench. All procedures complied with MOLA Health and Safety provisions and MOLA Health and Safety at Work Guidelines.

All archaeological deposits encountered during the course of the excavation were fully recorded, following standard MOLA procedures (MOLA 2014). All deposits were given a separate context number in a sequence assigned to each trench. They were described on *pro-forma* context sheets to include details of the context, its relationships and interpretation.

All trench locations were recorded using Leica Viva Global Positioning System (GPS) survey equipment using SMARTNET real-time corrections, operating to a 3D

tolerance of \pm 0.05m. A full digital photographic record was maintained. The field data from the evaluation has been compiled into a site archive with appropriate cross-referencing. All trenches were backfilled with their up-cast material and compacted by the mechanical excavator

5 THE EXCAVATED EVIDENCE

5.1 General Stratigraphy

Archaeological features were limited to Trenches 3, 15, 17, 20, 21 and 22. Trenches with archaeological features are described in Sections 5.2 and 5.3 below. Blank trenches are dealt in summary form in the Context Inventory (Appendix A).

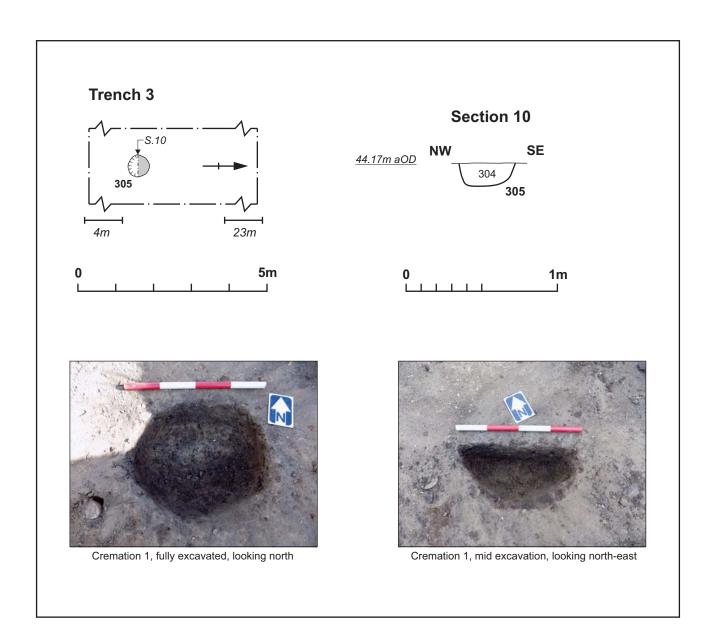
All trenches exhibited a similar stratigraphic sequence of natural substrate, subsoil and topsoil (e.g. Fig 3). The natural substrate was between 0.25m and 0.65m below the present surface and was characterised as mid yellow brown silty clay with occasional ironstone fragments. All trenches were located in the ploughed fields and had either a thin subsoil band and in some cases no subsoil, presumably due in part to agricultural processes. Where there was subsoil it was approximately 0.05m-0.32m thick and comprised mid orange brown silty clay with rare small ironstone fragments. The topsoil was between 0.20m - 0.31m thick and comprised dark orange-brown silty clay with rare small ironstone fragments.



Trench 19, representative section, looking north Fig 3

5.2 Northern area (Milton Keynes Unitary Authority)

Ten trenches (Trenches 1-9 and 11) were located within the Milton Keynes Unitary Authority area in the northern part of the site nearest the Scheduled Monument of *Magiovinium* (Fig 1). All trenches were devoid of archaeological features with the exception of cremation [305] within Trench 3.



Cremation [305]

Cremation pit [305] was within the southern extent of Trench 3. It was 0.37m in diameter and 0.14m deep with very steep sides and a near flat base (Fig 3). Cremated human bone (73g) was recovered at the base of the pit (see Chinnock, Section 6.2). Eighty-one nails, some with cremated bone attached were also recovered (see Hylton, Section 6.3). The general backfill (304) was a dark greyish to black sandy silt which contained some Roman pottery (see Richardson, Section 6.1). An environmental soil sample (2) taken from this deposit only found sparse cereal and weed seeds. The cremation and its significance are reported on in the Discussion (see Section 8, below).

5.3 Southern area (Aylesbury Vale District Council)

Twelve trenches (Trenches 10 and 12-22) were located within the Aylesbury Vale District Council area within the southern part of the site (Fig 1). Five of the trenches (Trenches 15, 17, 20, 21 and 22) contained archaeological remains whilst the remaining seven were sterile.

Seven trenches (Trs 16, 17, 18, 19, 20, 21, and 22), spread over two fields at the far southern extent, were positioned to target anomalies which appeared to represent sub-rectangular enclosures of a settlement (Fig 2). In the centre of the site five trenches (Trs 10, 12-15) were positioned over faint, sparse.

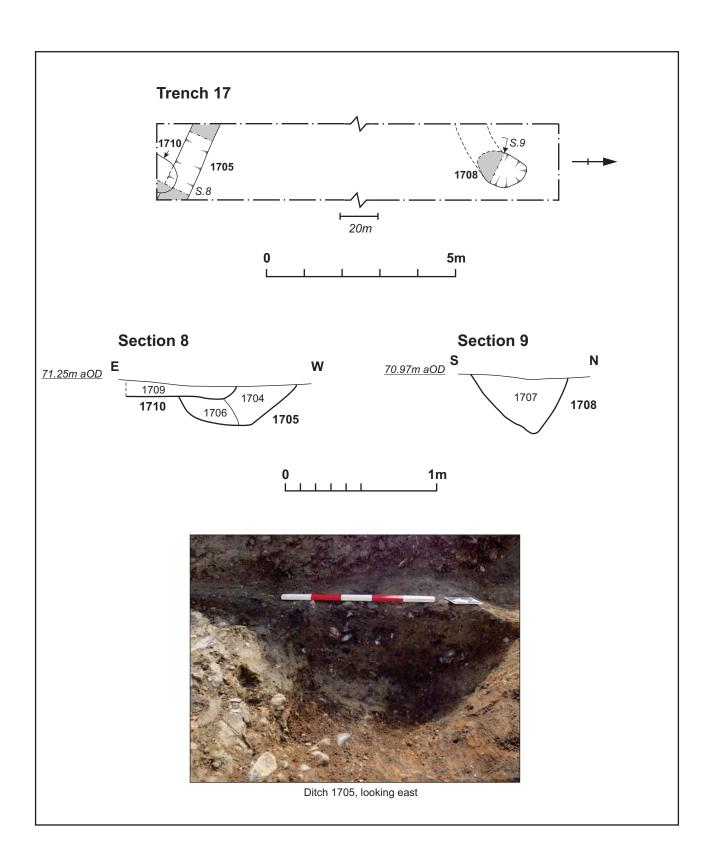
Roman settlement (Trenches 17, 20, 21 and 22)

Trench 17 was within an area of sparse features next to the southern site boundary in the middle field. Three adjacent trenches (Trs 20-22) were positioned over very clear geophysical anomalies in the extreme south-western extent of the site. In all three trenches there were multiple archaeological ditches.

Trench 17

Three ditches were found within Trench 17 (Fig 5). In the northern extent there was a probable curvilinear ditch [1708], which extended from the trench's western baulk. It was aligned north-east to south-west before curving to the north where it terminated within the trench. It was 0.64m wide and 0.38m deep with a steep-sided V shaped profile (Fig 5, S.9). Ditch [1708] was filled with a dark greyish brown silty clay which contained five Roman pottery sherds (0.109kg).

In the southern part of the trench were two intercutting features [1705 and 1710; Fig 5, S.8)]. Ditch [1705] was aligned north-west to south-east and was 0.58m wide and 0.15m deep with moderate sloping sides and a flatish base (Fig 5). Its primary fill (1706) was a mid browny orange silty clay which contained 15 Roman pottery sherds (0.102kg). This deposit was sealed by the upper fill (1704), which was a mid greybrown silty clay with occasional small to medium sub-rounded pebbles. Finds retrieved from the fill comprised 137 sherds (0.681kg) of Roman pottery, a single floor tile (0.055kg) and two animal bone pieces. Ditch [1705] was cut on its eastern side by undated ditch [1710], which was aligned north-east to south-west and terminated in the middle of ditch [1705].



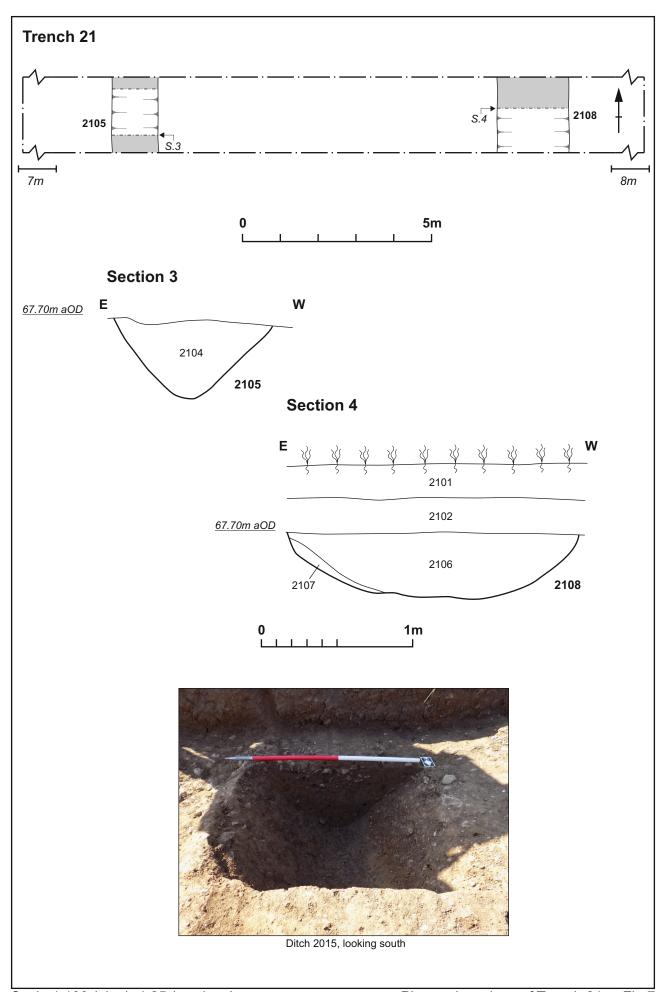
Trench 20

Four ditches were located within Trench 20 and these ditches corresponded with anomalies evident in the geophysical survey data. Ditch [2008], within the southern part of the trench, was aligned approximately east to west (Fig 6). The ditch was 1.38m wide and 0.67m deep with a U-shaped profile and a flat base (Fig 6, S.2). Its earliest fill (2007) was light orange grey silty clay with occasional small ironstones fragments. Fill (2005) overlay fill (2007) and was a silting lense along the southern edge of the ditch and consisted a mid orange brown silty clay with rare small subrounded gravel. It was sealed by fill (2006) which was a mid orange yellow silty clay with frequent sub-rounded gravel. The uppermost deposit (2004) was a dark grey brown silty clay with occasional small sub-rounded gravel. It contained nine sherds (0.044kg) of Romano-British pottery, a single tile fragment (0.014kg) and a single fragment of cattle bone.

A series of three intercutting ditches was located in the northern half of Trench 20. The first ditch in the sequence was the northernmost [2017](Fig 6, S.6). It was aligned approximately east to west with a U-shaped profile and a flat base. The ditch was more than 0.63m wide and 0.45m deep. Its earliest fill (2016), a mid grey brown sandy clay with moderate small sub-rounded and sub-angular gravel inclusions, contained no artefacts. The latest deposit (2015) was also undated and comprised a mid grey brown sandy clay with occasional small to medium sub- angular and sub-rounded gravel.

Ditch [2017] was cut on its southern edge by ditch [2014], which was more than 0.70m wide and 0.37m deep. It was aligned east to west and had a U- shaped profile with a flat base. It contained two fills; the lowermost (2013) was mid grey brown sandy clay with moderate small and medium sub-angular and sub-rounded gravel. It contained a single piece of tile (3g). The uppermost fill (2012) was mid grey brown sandy clay with moderate small and medium sub-rounded gravel. It contained no finds.

Ditch [2014] was the latest in the sequence of ditches. It was 1.07m wide and 0.40m deep. It was aligned east to west and had a U-shaped profile with a flat base. It contained two fills; its lowermost fill (2010) was mid grey-brown sandy clay with frequent small sub-angular and sub-rounded gravel. It contained no finds. Fill (2009) overlay (2010) and was mid grey brown sandy clay with occasional small to medium sub-angular and sub-rounded gravel. It contained a moderate quantity of Roman pottery (19 sherds weighing 0.211kg) and brick and tile (13 fragments weighing 0.435kg). Eleven sherds (0.127kg) of Roman pottery was also recovered from the topsoil.



Trench 21

Two ditches were located within Trench 21 and their locations matched the responses on the geophysical data (Figs 2 and 7). At the western side of the trench ditch [2105] was excavated. It was aligned approximately north to south, 1.06m wide and 0.51m deep with a slack V-shaped profile and a concave base (Fig 7, S.3). Its single fill (2104) was a mid brown grey silty clay with occasional small and medium subangular and sub-rounded gravel. It contained four Roman pottery sherds (0.037kg) and four brick or tile fragments (0.045kg).

Ditch [2108] was at the eastern part of the trench. It was aligned north to south with a U-shaped profile and a flat base (Fig 7, S.4). It contained two fills (2107 and 2106). The former was a sterile primary silting within the eastern side and consisted of a mid orange brown sandy clay with occasional small to medium sub-rounded pebbles. This was overlain by (2106), a dark orange-brown sandy clay with occasional small to medium sub-rounded pebbles. It contained eleven sherds (0.114kg) of Roman pottery and two recordable fragments of animal bone.

Trench 22

The two ditches recorded in the trench had been identified as anomalies on the geophysical survey (Figs 2 and 8). Ditch [2205] was with the southern extent of the trench and aligned north-west to south-east. It was 0.95m wide and 0.38m deep and had a V-shaped profile with a rounded base (Fig 8, S.5). Its single fill (2204) was mid brown grey silty clay with frequent medium rounded pebbles. It contained 27 sherds of Roman pottery, four fragments (0.17kg) of tile and two fragments of animal bone.

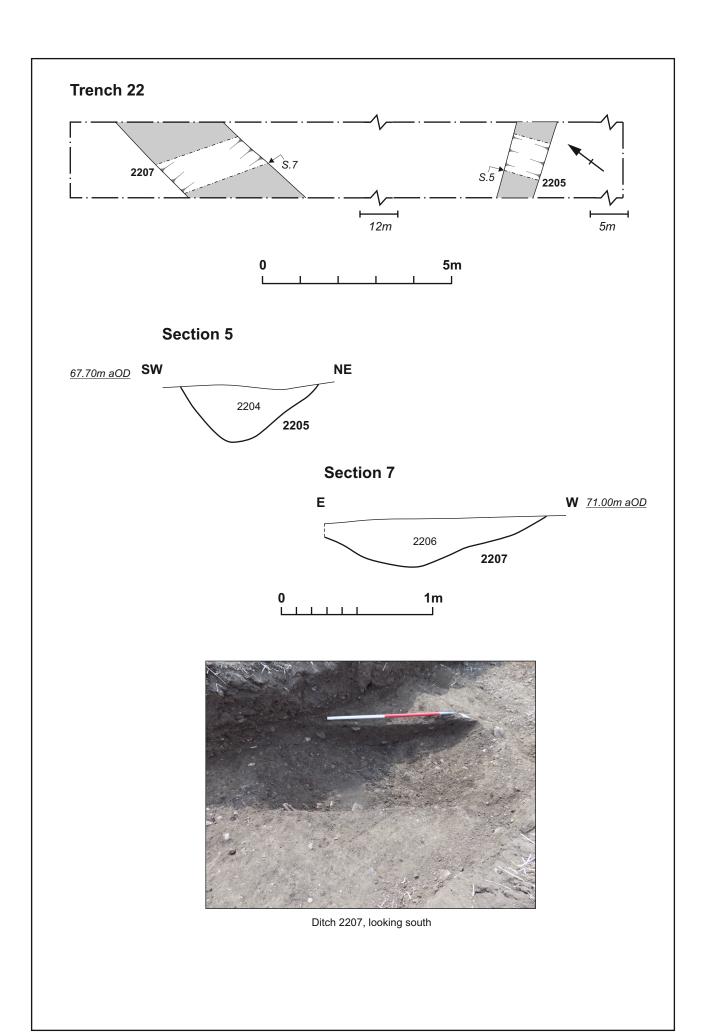
Ditch [2207] was aligned north-west to south-east. It was 1.47m wide and 0.32m deep and had gentle sloping sides and a rounded base (Fig 8, S.7). It contained a single fill (2006), which was a mid grey-brown silty clay with occasional small to medium subrounded pebbles. Nineteen sherds (0.254kg) of Roman pottery, a large collection of CBM (45 fragments weighing 1.985kg) and four fragments of animal bone were recovered from the fill. An environmental soil sample (1) taken from this deposit only found sparse cereal and weed seeds.

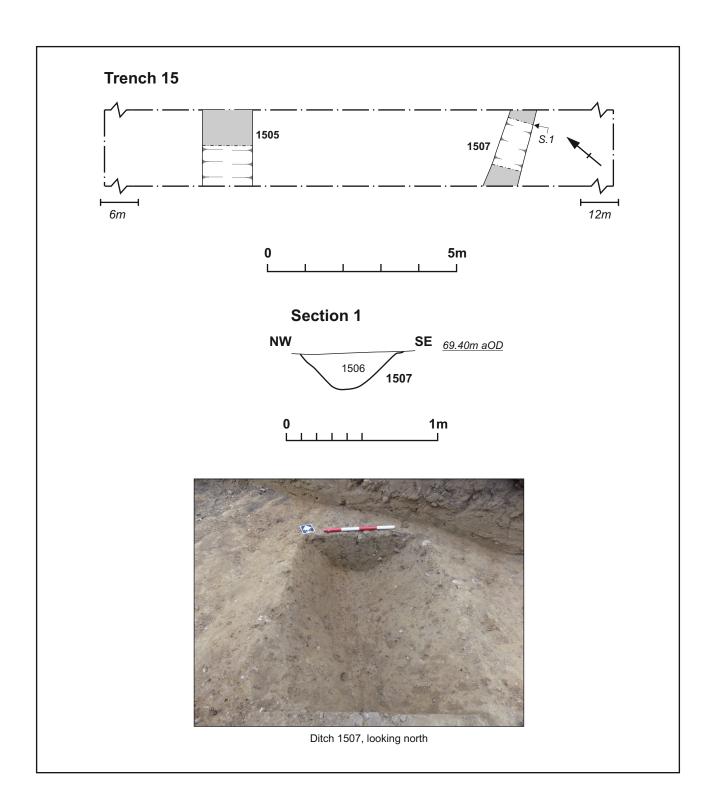
Northern part of the Aylesbury Vale District Council area

Three trenches (Trs 13-15) were positioned in the northern part of the Aylesbury Vale District Council area (Figs 1 and 2). Only Trench 15 contained features.

Trench 15

Two ditches [1505 and 1507] were uncovered within Trench 15 (Fig 9). Ditch [1507] in the middle of the trench was aligned east to west. It was 0.68m wide and 0.24m deep with moderate sloping sides and a rounded base (Fig 9, S.1). Its single fill (1506) was a light brown sandy clay with occasional small sub-rounded pebbles. It contained three sherds (0.024kg) of Roman pottery. Ditch [1505] was 5m to the north-west of ditch [1507]. It was aligned north-east to south-west. It was 0.9m wide, more than 0.41m deep and was modern in date.





6 THE FINDS

6.1 The Roman pottery by Tora Hylton; **note on pottery from cremation [305]** by Beth Richardson

The evaluation produced a small group of Roman pottery. A total of 260 sherds with a combined weight of 1,728kg were recovered from 12 individual deposits in six trenches (Table 1). The fabrics represented equate to those recovered previously during the field walking phase (Blinkhorn and Hylton 2015).

With the exception of a single cremation vessel from Trench 3 which has been reported on by Beth Richardson (below), and three sherds from Trench 15, the entire assemblage was recovered from trenches sited at the southern end of the area of investigation (Trenches 17, 20-22). The largest concentration of pottery (51.6%) was recovered from Trench 17 and this is where the earliest datable sherds (late 1st -2nd century) were located. Smaller amounts of pottery were recovered from Trenches 20-22, and these mainly produced wares dating to the *c* 2nd-4th century. The overall condition of the pottery is good, however much of the assemblage comprises undiagnostic sherds and the fragmentary nature of the grog-tempered wares, and has resulted in a mean sherd weight of 6.6g. The analysis included sherd count and weight by fabric type and where possible the fabrics have been catalogued according to the Milton Keynes Roman fabric type series (Marney 1989).

The earliest pottery was recovered from Trench 17 and with the exception of two sherds of shell-gritted ware, this comprised entirely of locally produced grog-tempered wares (variations of MK Fabric 46). The assemblage includes a range of storage jars and identifiable forms include necked jars with plain everted rims (cf. Thompson 1982, Type B1) and jars with corrugations below the rim (lbid 1982, Type B2). Decorative techniques include burnishing, grooves, cordons and lattice motifs; the latter may be paralleled by excavated examples from the nearby Roman Town of Magiovinium (Parminter 1987, fig 41, 244) and Caldecotte (Marney 1989, fig 40, 60), which date from the 1st to mid-2nd century. Small undiagnostic sherds of grog-tempered ware were also recovered from Trenches 20-22, the largest amount (127gm) coming from topsoil deposits over lying Trench 20 [2001].

Later wares were recovered from Trenches 20-22. This assemblage includes undiagnostic body sherds in shell-gritted, greyware and oxidised sandy wares. There are a small number of identifiable and datable forms, including wide-mouthed bowl in shell-gritted ware (MK fabric 1a), which originates from the kilns at Harrold (Brown, 1994, fig 32, 199) and dates to the mid-3rd century; and bodysherds from large storage jars in a Soft-Pink Grog fabric (MK Fabric 2a) including and a bowl dating to the 3rd/4th century (cf. Marney 1989, fig 27, 6). Regional wares include an undiagnostic sherd of Nene Valley Colour Coat and two sherds of Oxfordshire Colour Coat (including an abraded fragment of mortaria). There are no imported wares.

EATON LEYES, MILTON KEYNES

Table 1: Roman pottery

FABRIC/MK FABRIC NO										-	TRENCI	H/CONT	EXT N	NUMBE	R									
	9	304	15	506	17	'04	1	706	1	707	20	01	2	004	2	2009	2	2104	21	06	220)4	2	2206
	No	/Wgt	No	/Wgt	No/	Wgt	No	/Wgt	No	o/Wgt	No/	Wgt	No	/Wgt	N	o/Wgt	No	o/Wgt	No/	Wgt	No/V	Ngt	No	o/Wgt
Roman Pottery																								
Grog tempered wares / MK Fabric 46			1	3	133	659	15	102	5	109	11	127	1	6	1	7			3	5	1	17		
Greyware/MK Fabric 3			2	21									4	27	4	41	2	24			1	3	4	31
Lower Nene valley CC/ MK																					1	5	1	1
Fabric 6																								
Mortaria / MK Fabric 4b															1	4								
Oxford Ware CC / MK Fabric 24																			1	5			1	19
Oxidised sandy ware	9	60											1	3	2	11							1	19
Shell-gritted ware/ MK Fabric 1					4	22							2	4	5	105	1	1	4	45			7	10
Soft-pink-grog/ MK Fabric 2															5	40	1	12	3	59	24		5	174
Misc, whitewares													1	4	1	3								
Total	9	60	3	24	137	681	15	102	5	109	11	127	9	44	19	211	4	37	11	114	27	25	19	254

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Note on pottery from cremation [305] by Beth Richardson

Within cremation pit [305] there were 9 joining sherds from the upper half of a small wheel-made necked jar with everted rim and single shoulder cordon (Rim diameter 110mm; weight 60gms).

The sherds were oxidised sand-tempered fabric tempered with ill-sorted rounded and sub-angular quartz which protrudes through the surfaces (0.2- >1mm; mainly clear and opaque white); also red and black iron ore in the matrix. The kiln source is not known but the fabric appears similar to products of (e.g.) the local Ampthill and Caldecotte kilns. This is a generic jar form with parallels from other Romano-British pottery industries dating from the 1st to early 3rd century.

6.2 Ceramic Building Material (CBM) by Pat Chapman

There are 69 tile sherds weighing 2.7kg (Table 2). All but one sherd come from ditches within adjacent Trenches 20, 21 and 22 in the south-western end of the development area (see Table 2). The remaining sherd comes from Trench 17, about 150m to the south-east.

The majority of the tile, 45 sherds, come from fill (2206) in ditch [2207] and comprise 14 diagnostic roof tile sherds, with nine curved *imbrices* unusually outnumbering the six flat flanged *tegulae*, one floor tile and the remainder being body sherds derived from the roof tile. The floor tile is 40mm thick, from a large paving tile, or possibly a brick.

The fabric falls into two main types: pale or bright orange slightly soft fine sandy clay, with or without a pale grey core; and hard slightly reddish, orange-brown to brown fine silty clay with broad dark grey to black cores and tiny grog, shell, flint and possible organic inclusions. The exceptions are three sherds, including a *tegula*, which are made with a hard pink fabric with a very pale grey core.

The concentration of the tile sherds in one place suggests a building quite close by. Their size does not suggest primary demolition rubble, however, that could be the result of centuries of ploughing.

Table 2: Roman CBM

Table L. Hollian CBM			
Fill/cut/type (trench)	No	Wt (g)	Comment
1704 / 1705 ditch (17)	1	55	Floor tile fragment
2004/ 2008 ditch (20)	1	14	
2009 / 2011 ditch (20)	13	435	1 tegula + 2 body sherds, pink and pale grey
			1 possible imbrex
			9 body sherds
2013 / 2014 ditch (20)	1	3	fragment
2104 / 2105 ditch (21)	4	45	body sherds
2204 / 2205 ditch (22)	4	170	base of tegula
2206 / 2207 ditch (22)	45	1985	3 tegulae
			8 imbrices
			1 floor tile 40mm thick
			33 body sherds
Totals	69	2707	

6.3 The iron nails by Tora Hylton

In total 81 individual hand-forged nail and nail fragments were recovered from cremation deposit (304). Most of the nails/fragments are covered in corrosion deposits and some retain miniscule pieces of burnt human bone adhering to their surfaces. Where possible the nails have been classified according to Manning Type Series (1985). The assemblage includes 52 complete nails and 29 of indeterminate form; the latter comprising both shank fragments (x 21) and small amorphous lumps, presumably nail heads (x 8). The complete nails range in recorded length from c 20mm-40mm, with the majority clustering around 20mm in length. The nails at the larger end of the scale (c 40mm) have flat sub-circular heads (Manning's Type 1b) and could have had any number of uses, while those at the lower end (c 20-25mm) have domed heads and they presumably derive from footwear (Manning's Type 10).

7 HUMAN, FAUNAL AND ENVIRONMENTAL REMAINS

7.1 Cremated bone by Chris Chinnock

Introduction

The cremated human remains, (304), were recovered from a small, shallow circular pit. A total of 81 small iron nails were also recovered from the pit and were associated with the deposit of cremated bone. The cremated bone was recovered from the base of the pit and appeared undisturbed at the time of excavation. It is therefore likely that the cremated bone recovered represents the total amount deposited in antiquity.

Preservation and completeness

The cremated remains, (304), were well-fired and highly fragmentary. Very few identifiable elements were amongst the assemblage. In total 73 grams of cremated bone was present, roughly half of which fell into the <6mm category. This amount of bone is likely to represent a very small proportion of the cremated individual. Due to the degree of fragmentation, no specific pattern of fissuring or warping could be identified, though occasional U-shaped fissures were observed on some of the long bone fragments.

Methods

The cremated skeletal remains were recorded onto an excel spreadsheet, following Museum of London methodology (Powers, unpublished MoLAS report). The burnt bone from probable cremation burials was examined in accordance with current guidelines (McKinley and Roberts 1993; Brickley and McKinley 2004). The total weight of each context was measured in grams; fragmentation determined by noting the largest fragment size and the average (mean) size of fragments within each context. Sieving separated the >10mm, >6mm and >2mm fractions, each of which was weighed. Identifiable fragments were separated by body area (skull, axial skeleton, upper and lower limbs) and weighed. The percentage of the sample within each fraction and body was calculated.

The colour of the cremated bone fragments was described and an approximate percentage assigned for each colour present. Age estimations, where possible, were made using standard osteological techniques. No intrusive material was noted during the excavation or analysis of the cremated remains.

Pathological bone changes, where present, were recorded onto the database and supplemented by digital photographs when necessary. Crude prevalence rates by individual and true prevalence rates by bones or joint were calculated where appropriate. Full details of pathology locations, measurements and all other osteological data can be found in the site archive.

Results

Osteological analysis of the cremated remains identified at least one individual. Due to the highly fragmentary nature of the remains, sex estimations were not possible for either individual nor could they be assigned to an osteological age category. No repeated elements were recorded and there was no evidence to suggest multiple individuals were represented by the deposit.

The level of fragmentation precluded any metric analysis of the remains. Similarly, no observations on the presence or absence of non-metric traits could be made. No pathological lesions were present on any of the bone fragments.

Pyre technology and ritual

Oxidation

Observation of the physical characteristics of burnt bone may enable an understanding of the cremation process; the appearance will represent the extremes of any cremation event. Time allowed, temperature and availability of oxygen all affect the efficiency of the cremation process (McKinley 2000).

The majority of the cremated bone from (304) was white/off-white in colour indicating consistently high pyre temperature in excess of 600°C (Holden *et al* 1995a and b). Very slight variations in the colour may be caused by a myriad of factors such as; degree of soft tissue coverage or variations in the local pyre environment, which can be affected greatly by external factors such as weather conditions.

Total weight of the bone

Over a kilogram (and up to more than three kilos) of burnt bone will result from the cremation of an adult individual (McKinley 1989). The amount of bone for burial will depend on efficiency of collection, with on average, 40-60% recovery of the burnt bone from the pyre over the course of several hours (McKinley 2000).

The amount of cremated bone recovered from (304) was 73 grams. This weight falls significantly below the estimated weight of a whole individual and would appear to indicate partial or selective recovery of the cremated bone for final deposition.

Fragmentation and dehydration

No commentary on the pattern of fragmentation could be made due to the small sample size and small fragment size. Maximum fragment size was less than 34.06mm. As an undisturbed modern cremation will produce fragments of *c* 250mm (McKinley 1994 (a) and (b)), this appears to demonstrate breakage of hot bone due to pyre collapse or collection of still brittle pieces together with post-burial fragmentation (Gejval 1969, McKinley 1989).

Identifiable bone fragments

Less than 10% (very small fragments of cranial vault and indeterminate vertebral fragments) of the cremated remains could be identified to body area.

Pyre goods and debris

A total of 81 small iron nails were recovered with the cremated bone. It is, as yet, unclear whether these represent pyre goods or were added to the deposit of cremated bone post cremation. Additionally it is possible that they may relate to a wooden container for the bone which has since decomposed.

Discussion

As no duplicated skeletal elements were identified within the assemblage, the minimum number of individuals has been calculated as one. However, the possibility remains that the cremated human bone contains elements from more than one individual, a fact which may be disguised by the degree of fragmentation and partial recovery/deposition of bone. Due to the level of fragmentation an assessment of age was not possible. No juvenile morphological traits were observed on any of the fragments and it is likely that the cremated remains reflect adult human bone,

however, 'absence of evidence is not evidence of absence' and thus no confident conclusion on age can be given. Similarly, no pathological lesions were observed on any of the elements, though again this may be a result of the partial deposition and highly fragmentary nature of the remains.

The discovery of a large number of iron nails with the cremated bone is of interest and potential regional significance. A similar deposit, dated to the mid-2nd century, was excavated at nearby Passenham Quarry, Calverton (Walker 2011). Here, a large urn containing cremated human bone was associated with over 1300 iron nails. The example from Passenham Quarry was found within what has been interpreted as a Roman mausoleum.

The research framework and research agenda for the Solent-Thames region for the Roman period, notes that the relationship between ritual and settlement is not well understood (Fulford and Allen 2010). Specific emphasis is placed on the study of cremated human remains:

 Sampling for biological remains from deposits associated with temples and shrines, and cremation cemeteries should be given higher priority in order to widen our understanding of the use of plants and animals in religion and ritual (ibid).

The remains from Eaton Leys, in isolation, cannot address these research questions. However, when assessed alongside similar deposits, such as those at Passenham Quarry, the potential exists to place these burials within their archaeological landscape and to address the specific research agenda for the region.

7.2 Animal Bone

Background information

Animal bones recovered derived from Roman ditches and gully (Tables 3-5).

Assessment methodology

The assessment of the animal remains from Eaton Leys, Milton Keynes was recorded based on the guidelines presented in Baker and Worley (2014). Hand-collected and sieved material was included in the assessment. Identifiable elements and teeth were recorded by context, in addition to the number of bones and teeth with ageing and measureable data. A correction factor was employed when recording the number of partial skeletons so their abundance was not overestimated. Additional information such as butchery, pathologies and ABGs (associated bone groups) were also noted. The state of preservation was observed for each context following Harland *et al.* (2003), which recorded the condition of the bones as excellent, good, fair or poor.

Summary of findings

The animal remains from Eaton Leys, Milton Keynes are in good to fair condition. There are no signs of butchery, gnawing or burning on the bones. The assemblage is small and comprises cattle and sheep. Ageing data and measurement data for cattle and sheep is negligible (see Table 2 and Table 3).

Table 3: Number of hand-collected recordable mammals

	Context		
Fill/cut	type	Cattle	Sheep/goat
1704/	Gully	1	1
2004/	Ditch fill	1	
2106/	Ditch fill	2	
2204/	Ditch fill	2	
2206/	Ditch fill	4 (3)	
Total		13	1

Table 4 Number of hand-collected ageable elements and isolated teeth/mandibles of the main domestic taxa

Taxa	
Cattle (bones)	3
Cattle (teeth)	1
Sheep/goat (bones)	1
Total	5

Table 5 Number of hand-collected measurable bones and teeth of the main domestic taxa

1
1
2

Potential and Significance

The size of the assemblage prevents any further analysis and is too small to draw meaningful conclusions about diet and husbandry strategies on site. However if future interventions take place the data from the assessment should be included in the reports.

7.3 The environment sample from Cremation [305] by Rebecca Gordon

Introduction and methodology

Two samples were taken from a ditch [2207] and cremation [305] for the recovery of plant macrofossils (Table 6). The samples were taken from a ditch and cremation. The samples were processed by flotation at MOLA Northampton using a siraf tank fitted with a 250 micron mesh and 500 micron flot sieve. The flots and residues were dried and sorted for archaeobotanical remains and artefacts and flots were sorted under a binocular microscope (10x magnification). Plant remains were identified using the University of Leicester, School of Archaeology and Ancient History archaeobotany laboratory and with the aid of Jacomet (2006) and Cappers et al. (2006) Nomenclature in the tables follows Stace (2010). The plant remains were preserved by charring and modern fibrous roots and seeds were present.

The following scale was used to record the abundance of environmental material: + = 1-10 specimens, ++= 11-50 specimens, ++= 50+ specimens

Results

The plant assemblage is poorly preserved. Some of the cereals have mineralised/soil concretions, which precluded accurate identifications. The assemblage is small with very few cereals. Charcoal/charred wood fragments are largely present as tiny fragments. Sample 1 has wheat grains, one of which may be barley, and a potential glume base. Sample 2 is similar in composition, although there are a number of charred amorphous blobs. These most likely comprise plant material, which were exposed to high temperatures during combustion. Weed seeds from the Polygonaceae and Chenopodiaceae family are also present.

Table 6. Charred plant and other remains

Sample No.	1	2
Context No.	2206	304
Feature type	Ditch	Cremation
Hordeum sp. (grains)	х	
Triticum sp. (grains)	x	x
(?glume base)	x	
Cereal indet. (grains)	х	х
Polygonaceae family		х
Chenopodiaceae indet.	x	х
Charcoal <2mm	х	х
Charcoal >2mm		
Charcoal >5mm	х	x

Significance and recommendations

The data recorded has little significance beyond site-level. The poor preservation of the environmental material suggests that the area has a low survival rate for plant remains. However, should further interventions take place as a standard, 20-40 litre samples should be taken from a range of archaeological features to inform upon agricultural practices and diet.

7 **DISCUSSION** by Rob Atkins and Sam Egan

Milton Keynes Unitary Authority area

In the Milton Keynes Unitary Authority area only a single feature, an unurned cremation in Trench 3, was found and the other nine trenches had no archaeological remains. This cremation contained hobnails and other nails which probably derived from a pyre. Part of a vessel was also found and may have been a deliberate token deposit. This section of the discussion attempts to put this cremation and the lack of other features uncovered into context with the development area's location within/next to the Scheduled Monument (1006943) of *Magiovinium*, a small Roman town located on Watling Street.

Northern part of the Milton Keynes area (Trenches 1 and 3)

In the northern part of the evaluation two 30m long trenches (1 and 3) were located to target geophysical survey anomalies which identified possible enclosures and these were directly to the south of the Scheduled Monument (Fig 2). It is noticeable that the geophysical anomalies within this part of the site were relatively well defined with possible sub-rectangular enclosures. Trenches 20-22 nearly 1km to the south of the town, had also produced evidence for similar well-defined geophysical anomalies and these recovered Roman features (see below).

The trenching aimed to determine whether the geophysical anomalies within the northern part of the site represented former features or were caused by other causes such as variations in natural subsoil. Trench 1 was positioned over a single subrectangular anomaly. No corresponding features were present within the trench, indicating a perhaps natural origin for the geophysical anomalies, although it is possible that the trench may have been positioned through a gap in an enclosure ditch such as an entranceway at this point. Trench 3 was located directly to the south of the postulated enclosures recorded in the geophysical survey and a Roman cremation was located in this trench nearly 200m to the south of the Scheduled Roman town. Where excavated, all known Roman cremations in Buckinghamshire were within or directly adjacent to Roman settlements – certainly none have been shown isolated 200m away from settlement (by 2010 these numbered *c* 262 from the county (Atkins *et al* 2014, table 4.24)).

Several burial cemeteries have been uncovered in different areas of *Magiovinium*. In Site 17 (Area 1) there were nine early Roman cremations, eight infant inhumations in a ditch and 31 dated to the 3rd/4th century inhumations (Neal 1987). In Area 2 there were 14 early Roman cremations and eight inhumations (*ibid*). The 21 cremations in Areas 1 and 2 were in four separate cremation groups and lay to the rear of individual properties on either side of Watling Street, perhaps representing separate family plots (*ibid*, 27-28). One undated inhumation was found during work by Jonathon Hunn *et al* (1997) and more than 23 late Roman inhumations by Mumford and Hillier (2004). Collectively, as of *c* 2010, burials from *Magiovinium* accounted for 107 of the 451 recorded LPRIA to late Roman cremation and inhumation burials from Buckinghamshire (Atkins *et al* 2014, table 4.24).

The cremation in Trench 3 dates to the early to middle Roman period and as such conforms to the vast majority of the other cremations found in the county with only a very few dating to after *c* AD 200 (*ibid*). Milton Keynes, which forms about one-third of the area of Buckinghamshire, has produced *c* 77% of the cremations. This is higher than would be expected, possibly hinting that the Milton Keynes area may have had a

different or more distinctive burial practice than elsewhere in Buckinghamshire (*ibid*, 233). The population of this part of the Catuvellaunian territory may have been influenced or controlled by the hillfort at Danesborough (including its burial policy), which is thought to have been a tribal area which may have continued in use until the late Iron Age (Zeepvat and Radford 2010, 76). The town of *Magiovinium* was subsequently founded within 2km of this hillfort and there seems to have been a seamless continuation of the predominantly cremation burial practice into at least the early Roman period (Atkins *et al* 2014).

It has been postulated that the decline in cremation burials in the Milton Keynes area in the 2nd century may reflect the general widespread trend towards Romanisation, perhaps triggered by a change in policy with the ever increasing domination of *Magiovinium* over this area (*ibid*, 246). The authors stated that such patterns are reflected in the presence of Roman footware in three of the 2nd-century cremations recovered at Broughton Manor Farm, Milton Keynes (*ibid*, 246). It is worth considering the hobnails found in the cremation in Trench 3 in the same context. Other cremations with footware within Milton Keynes and the Buckinghamshire area comprise a late Iron Age/early Roman cremation from Gayhurst Quarry (Chapman 2007, 92) and a cremation found from the Stoke Hammond and Linslade Western bypass (Moore *et al* 2007, 39). At the Pepper Hill cemetery in Kent it was noted that shoes, as well as other metal objects and animal bone, tended to be placed on the pyre in the early Roman period, but deposited unburnt within middle Roman graves (Edward Biddolph, pers. comm.).

The other nails found in the cremation probably came from either wood or possibly from objects such as boxes and these seem to have been collected from the pyre. It is worth noting that at *Magiovinium* boxes were not uncommon with several probable small boxes found within cremations at Site 17, Area 1 (Neal 1987). The discovery of a large number of iron nails with the cremated bone is of interest with a similar deposit, dated to the mid 2nd century, excavated at nearby Passenham Quarry, Calverton (Walker 2011). Cremated bone was attached to some of the iron nails indicating they had derived from a pyre.

Central and southern part of the Milton Keynes area (Trenches 2, 4-9 and 11) In the central and southern part of the site ten trial trenches were targeted across very faint, ephemeral and sparse geophysical anomalies (Fig 2). None of the trenches within this area uncovered any features or artefacts. It is extremely likely that these anomalies were of natural origin. Elsewhere excavations within other small towns have found the direct hinterland, outside and adjacent to them, were devoid of archaeological features *e.g.* at Wixoe, Suffolk (Atkins forthcoming).

Aylesbury Vale District Council Area

Northern part of the Aylesbury Vale area

Five trenches were positioned over very ephemeral and sparse geophysical anomalies within the northern part of the Aylesbury Vale area. Only two features were found and these were both from Trench 15. One ditch was dated by three scraps of abraded Roman pottery which are likely to be residual as this part of the site has extremely few remains. The other feature was modern in date.

Southern part of the area Aylesbury Vale area

Seven trenches were targeted over geophysical anomalies recorded over a c 350m by 150m area at the southern boundary of the proposed development area. The site probably originated in the early Roman period and its establishment may have been

contemporary with the founding of *Magiovinium*, 1km to the north. The earliest pottery dates to *c* late 1st century AD and the latest to at least the mid 3rd century. Animal bone survived in relatively good condition, but just 14 recordable fragments (all cattle and sheep/goat) were found and this is too small to draw meaningful conclusions. The two environmental samples taken only recovered sparse quantities of cereals and weed seeds.

The main domestic part of the settlement was probably located in the far south-western corner where the geophysical anomalies were clear and included postulated enclosures. Most of the features and artefacts were recovered from these three trenches. Although no post holes or walls were found, the quantity of artefacts, including a moderate number of pottery sherds and tile, including imbrex and tegula) suggests that there had probably been at least one building within the south-west part of the settlement.

One hundred and fifty metres to the east, four trenches were located over less clear and more sparse geophysical anomalies. Only Trench 17 produced archaeological features. Three early Roman features, including a curvilinear ditch, were found. A moderate quantity of pottery, mostly parts of a range of locally made jars, was recovered from these features and may suggest domestic occupation had also been located with this part of the site.

APPENDIX A: CONTEXT INVENTORY

Trench No.	Length, width & alignment		Surface height, SW end (aOD)	Depth & height of natural (aOD)
1	30m x 1.6m SE-NW		48.48m	0.30m 47.98m
Context	Context type	Description	Dimensions	Artefacts/ Samples
101	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments poorly sorted.	0.30m thick	-
103	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.	-	-

Trench No.	Length, width & alignment		Surface height, E end (aOD)	Depth & height of natural (aOD)
2	30m x 1.6m NE-SW		44.67m	0.50m 44.17m
Context	Context type	Description	Dimensions	Artefacts/ Samples
201	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.30m thick	-
202	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.12m thick	-
203	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.	-	-

Trench No.	Length, width & alignment		Surface height, SW end (aOD)	Depth & height of natural (aOD)
3	30m x 1.6m N-S		44.85m	N/A
Context	Context type	Description	Dimensions	Artefacts/ Samples
301	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.25m thick	-
302	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.37m thick	-
303	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.	-	-
304	Fill of Cremation 1	Dark grey black sandy clay with occasional cremated bone inclusions	0.30m wide 0.14m deep	Roman pottery
305	Cut of Cremation 1	U- shaped with steep sides and a flat base.	0.30m wide 0.14m deep	-

Trench No.	Length, width & alignment		Surface height, W end (aOD)	Depth & height of natural (aOD)
4	30m x 1.6m E-W		43.16m	0.55m 42.61m
Context	Context type	Description	Dimensions	Artefacts/ Samples
401	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.17m thick	-
402	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.20m thick	-
403	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.	-	-

Trench No.	Length, width & alignment		Surface height, W end (aOD)	Depth & height of natural (aOD)
5	30m x 1.6m E-W		49.60m	0.50m 49.10m
Context	Context type	Description	Dimensions	Artefacts/ Samples
501	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.26m thick	-
502	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.17m thick	-
503	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.	-	-

Trench No.	Length, width & alignment		Surface height, SW end (aOD)	Depth & height of natural (aOD)
6	30m x 1.6m NNW-SSE		49.39m	0.42m 48.97m
Context	Context type	Description	Dimensions	Artefacts/ Samples
601	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.28m thick	-
602	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.12m thick	-
603	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.	-	-

Trench No.	Length, width & alignment		Surface height, E end (aOD)	Depth & height of natural (aOD)
7	30m x 1.6m NW-SE		47.58m	0.60m 46.98m
Context	Context type	Description	Dimensions	Artefacts/ Samples
701	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.25m thick	-
702	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.18m thick	-
703	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.	-	-

Trench No.	Length, width & alignment		Surface height, W end (aOD)	Depth & height of natural (aOD)
8	30m x 1.6m E-W		46.26m	0.55m 45.71m
Context	Context type	Description	Dimensions	Artefacts/ Samples
801	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.27m thick	-
802	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.12m thick	-
803	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.		-

Trench No.	Length, width & alignment		Surface height, W end (aOD)	Depth & height of natural (aOD)
9	30m x 1.6m SE-NW		46.26m	0.55m 45.71m
Context	Context type	Description	Dimensions	Artefacts/ Samples
901	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.18m thick	-
902	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.13m thick	-
903	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.		-

Trench No.	Length, width & alignment		Surface height, W end (aOD)	Depth & height of natural (aOD)
10	30m x 1.6m E-W		46.26m	0.55m 45.71m
Context	Context type	Description	Dimensions	Artefacts/ Samples
1001	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.30m thick	-
1002	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.12m thick	-
1003	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.	-	-

Trench No.	Length, width & alignment		Surface height, W end (aOD)	Depth & height of natural (aOD)
11	30m x 1.6m E-W		46.26m	0.55m 45.71m
Context	Context type	Description	Dimensions	Artefacts/ Samples
1101	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.32m thick	-
1102	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.11m thick	-
1103	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.		-

Trench No.	Length, width & alignment		Surface height, W end (aOD)	Depth & height of natural (aOD)
12	30m x 1.6m E-W		46.26m	0.55m 45.71m
Context	Context type	Description	Dimensions	Artefacts/ Samples
1201	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.31m thick	-
1202	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.12m thick	-
1203	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.	-	-

Trench No.	Length, width & alignment		Surface height, W end (aOD)	Depth & height of natural (aOD)
13	30m x 1.6m E-W		46.26m	0.55m 45.71m
Context	Context type	Description	Dimensions	Artefacts/ Samples
1301	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.36m thick	-
1302	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.19m thick	-
1303	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.	-	-

Trench No.	Length, width & alignment		Surface height, W end (aOD)	Depth & height of natural (aOD)
14	30m x 1.6m NE-SW		46.26m	0.55m 45.71m
Context	Context type	Description	Dimensions	Artefacts/ Samples
1401	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.26m thick	-
1402	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.26m thick	-
1403	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.	-	-

Trench No.	Length, width & alignment		Surface height, W end (aOD)	Depth & height of natural (aOD)
15	20m x 1.6m E-W		46.26m	0.55m 45.71m
Context	Context type	Description	Dimensions	Artefacts/ Samples
1501	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.25m thick	-
1502	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.30m thick	-
1503	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.	-	-
1504	Fill	Modern ditch and land drain	0.90m wide 0.41m+ deep	-
1505	Cut	Modern ditch and land drain	0.90m wide 0.41m+ deep	-

1506	Fill of ditch	Light brown grey sandy clay with occasional small ironstone fragments.	0.68m wide 0.24m deep	-
1507	Cut of ditch	U- shaped profile with a concave	0.68m wide	-
		base.	0.24m deep	

Trench No.	Length, width & alignment		Surface height, W end (aOD)	Depth & height of natural (aOD)
16	30m x 1.6m E-W		46.26m	0.55m 45.71m
Context	Context type	Description	Dimensions	Artefacts/ Samples
1601	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.18m thick	-
1602	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.11m thick	-
1603	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.		-

Trench No.	Length, width & alignment		Surface height, W end (aOD)	Depth & height of natural (aOD)
17	NE-SW		46.26M	0.55m 45.71m
Context	Context type	Description	Dimensions	Artefacts/ Samples
1701	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.17m thick	-
1702	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.10m thick	-
1703	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.	-	-
1704	Fill of gully	Mid grey brown silty clay with frequent manganese fleck.	0.58m wide 0.15m deep	Pottery Bone
1705	Cut of gully	U-shaped with a broad flat base	0.58m wide 0.15m deep	-
1706	Fill of ditch	Mid brown orange, silty clay with occasional manganese flecks	0.58m wide 0.23m deep	Pottery
1707	Fill of ditch	Dark grey red, silty clay with frequent small to medium subrounded gravel.	0.64m wide 0.38m deep	Pottery
1708	Cut of ditch	V- shaped with a rounded base.	0.64m wide 0.38m deep	-
1709	Fill of ditch	Mid brown grey, silty clay with moderate small sub-rounded gravel	0.32m wide 0.38m deep	Pottery
1710	Cut of ditch	U- shaped with a rounded base.	0.32m wide 0.38m deep	-

Trench No.	Length, width & alignment		Surface height, W end (aOD)	Depth & height of natural (aOD)
18	30m x 1.6m E-W		46.26m	0.55m 45.71m
Context	Context type	Description	Dimensions	Artefacts/ Samples
1801	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.25m thick	SF9
1802	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.30m thick	-
803	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.		-

Trench No.	Length, width & alignment		Surface height, W end (aOD)	Depth & height of natural (aOD)
19	30m x 1.6m E-W		46.26m	0.55m 45.71m
Context	Context type	Description	Dimensions	Artefacts/ Samples
1901	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.24m thick	-
1902	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.		-

Trench No.	Length, width & alignment		Surface height, W end (aOD)	Depth & height of natural (aOD)
20	30m x 1.6m S-N		46.26m	0.55m 45.71m
Context	Context type	Description	Dimensions	Artefacts/ Samples
2001	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.24m thick	-
2002	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.34m thick	-
2003	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.	-	-
2004	Fill of ditch	Dark grey silty clay with small to medium sub-rounded flint nodules.	1.38m wide 0.37m deep	Pottery Bone
2005	Fill of ditch	Mid orange red, silty clay with small sub-angular flint nodules.	0.07m wide 0.42m deep	-

2006	Fill of ditch	Mid orange yellow silty clay with frequent small sub-angular flint nodules.	1.16m wide 0.49m deep	-
2007	Fill of ditch	Light orange grey silty clay with moderate sub-angular flint.	0.76m wide 0.13m deep	-
2008	Cut of ditch	V-shaped profile with a flat base.	1.38m wide 0.67m deep	-
2009	Fill of ditch	Mid grey brown sandy clay with occasional small to medium subrounded and sub-angular flint nodules.	1.07m wide 0.25m deep	Pottery
2010	Fill of ditch	Mid grey brown sandy clay with frequent small and medium subrounded and sub-angular flint nodules.	0.65m wide 0.15m deep	-
2011	Cut of ditch	U-shaped profile with a flat base.	1.07m wide 0.40m deep	-
2012	Fill of ditch	Mid grey brown sandy clay with moderate small to medium subangular and sub-rounded flint nodules.	0.72m wide 0.28m deep	-
2013	Fill of ditch	Mid grey brown sandy clay with frequent small to medium gravel inclusions.	0.55m wide 0.14m deep	-
2014	Cut of ditch	U- shaped p=rofile with a flat base	0.70m wide 0.37m deep	-
2015	Fill of ditch	Mid grey brownsandy clay with occasional small to medium subrounded and sub-angular flint nodules.	0.63m wide 0.23m deep	-
2016	Fill of ditch	Mid grey brown sandy clay with moderate small to medium flint nodules.	0.58m wide 0.26m deep	-
2017	Cut of ditch	U-shoped profile with a flat base.	0.63m wide 0.45m deep	-

Trench No.	Length, width & alignment		Surface height, W end (aOD)	Depth & height of natural (aOD)
21	30m x 1.6m E-W		46.26m	0.55m 45.71m
Context	Context type	Description	Dimensions	Artefacts/ Samples
2101	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.25m thick	-
2102	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.20m thick	-
2103	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.	-	-
2104	Fill of ditch	Mid brown grey silty clay with occasional small to medium gravel inclusions.	1.06m wide 0.51m deep	Pottery Bone

2105	Cut of ditch	V- shaped profile with a regular,	1.06m wide	-
		narrow concave base.	0.51m deep	
2106	Fill of ditch	Dark orange brown, sandy clay	1.95m wide	Pottery
		with occasional sub-angular flint	0.39m deep	Bone
		nodules.		
2107	Fill of ditch	Mid orange brown, sandy clay	0.12m wide	-
		with frequent small to large sub-	0.11m deep	
		angular and sub-rounded gravel		
		and flint inclusion s.		
2108	Cut of ditch	U-shaped with a concave base.	1.95m wide	-
			0.39m deep	

Trench No.	Length, width & alignment		Surface height, W end (aOD)	Depth & height of natural (aOD)
22	30m x 1.6m NE-SW		46.26m	0.55m 45.71m
Context	Context type	Description	Dimensions	Artefacts/ Samples
2201	Topsoil	Mid grey brown, silty sand with rare small ironstone fragments. Poorly sorted.	0.31m thick	-
2202	Subsoil	Mid orange brown, sandy clay with occasional small ironstone fragments	0.07m thick	-
2203	Natural	Mid brown orange, silty sand with frequent small ironstone fragments poorly sorted.	-	-
2204	Fill of ditch	Mid brown grey silty clay with frequent small to medium subrounded gravel inclusions.	0.95m wide 0.38m deep	,
2205	Cut of ditch	V-shaped with an irregular concave base	0.95m wide 0.38m deep	-
2206	Fill of ditch	Mid grey brown, silty clay with occasional small to large gravel inclusion and charcoal flecks.	1.47m+ wide 0.32m deep	Pottery Bone
2207	Cut of ditch	U-shaped profile with a flat base.	1.47m+ wide 0.32m deep	-

BIBLIOGRAPHY

Atkins, R, forthcoming Excavations at Wixoe Roman Small Town, Suffolk East Anglian Archaeology report

Atkins, R, Popescu, E, Rees, G, and Stansbie, D, 2014 *Broughton, Milton Keynes, Buckinghamshire: the evolution of a South Midlands landscape* Oxford Archaeology Monograph, **22**

Baker, P, and Worley, F, 2014 Animal Bones and Archaeology: Guidelines for Best Practice. English Heritage

Bartlett, A, 1999 Eaton Leys, Fenny Stratford, Buckinghamshire & Milton Keynes, Report on archaeogeophysical survey, 1999, Bartlett-Clark Consultancy

BGS 2016 British Geological Survey GeoIndex, http://bgs.ac.uk/geoindex

Blinkhorn, P, and Hylton, T, 2015 The pottery. In Y Wolframm-Murray *An Archaeological Fieldwalking Survey on land at Eaton Leys, Milton Keynes,* MOLA Northampton report, **15/212**

Brickley, M and McKinley, J, 2004 *Guidelines to the standards and recording of human remains*, ClfA professional Practice Paper, No. **7**

Brown, A, 1994 A Romano-British Shell-Gritted Pottery and Tile Manufacturing site at Harrold, Bedfordshire, *Bedfordshire Archaeology*, **21**, 19-107

Cappers, R T J, Bekker, R M, and Jans, J E A, 2006 Digital Seed Atlas of the Netherlands. *Groningen Archaeological Studies* **4**, Barkhuis

Chapman, A, 2007 A Bronze Age barrow cemetery and later boundaries, pit alignments and enclosure at Gayhurst Quarry, Newport Pagnell, Buckinghamshire *Records of Buckinghamshire*, **47(2)**, 83-211

ClfA 2014 Standards and Guidance for archaeological field evaluation, Chartered Institute for Archaeologists

DCLG 2012 National Planning Policy Framework, Department of Communities and Local Government

EH 1997 English Heritage Archaeology Division Research Agenda, English Heritage

EH 2006 Management of Research Projects in the Historic Environment (MoRPHE) English Heritage Procedural Document

Finn, C, 2016 Written scheme of investigation for archaeological evaluation works on land at Eaton Leys, Milton Keynes, Buckinghamshire, MOLA Northampton

Fulford, M, and Allen, M, 2010 Solent Thames research framework research agenda: The Roman period, in G, Hey and J, Hind, Solent Thames: Research Framework for the Historic Environment, Resource Assessments and Research Agendas, Oxford Archaeology

Gejval, N-G, 1969, Cremations. In D Brothwell and E Higgs (eds.) *Science in Archaeology* (2nd edition), Thames and Hudson, 468-479

Hancock, A J, 2006 Archaeological excavation: Land adjacent to Stoke Road, Water Eaton, Bletchley, Milton Keynes, Archaeological Services and Consultancy 742/WES/02

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

Hey, G, and Hind, J, 2014 Solent-Thames Research Framework for the Historic Environment: Resource Assessments and Research Agendas, Oxford Wessex Monograph, 6

Holden, J L, Phakey, P P and Clement J G, 1995 (a) Scanning Electron Microscope Observations of incinerated human femoral bone: a case study. *Forensic Science International* **74**, 17-28

Holden, J L, Phakey, P P and Clement J G, 1995 (b) Scanning Electron Microscope Observation

Hunn, A, Lawson, J and Parkhouse, J, 1995 Investigations at *Magiovinium*, 1990-91, *Records of Buckinghamshire*, **37**, 3-66

Jacomet, S, 2006 *Identification of Cereal Remains from Archaeological Sites*, 2nd Edition, Basel, Institute for Prehistory and Archaeological Science

Manning W H, 1985 Catalogue of Romano-British Iron Tools, Fittings and weapons in the British Museum, British Museum Press

Marney, P T, 1989 Roman and Belgic Pottery from excavations in Milton Keynes 1972-1982, *Bucks Arch soc. Monogr Ser.* **2**

McKinley, J, 1989 Cremations: expectations, Methodologies and Realities. In C Roberts, F Lee and J Bintliff (eds.) *Burial Archaeology: current research, methods and development.* BAR British Series **211** 65-76

McKinley J, 1994 (a) Spong Hill Part VIII: The Cremations. East Anglian Archaeology Report, **69** Field Archaeology Division, Norfolk Museums Service

McKinley, J, 1994 (b) Bone fragment size in British Cremation Burials and its Implications for Pyre Technology and Ritual, *Journal of Archaeological Science* **21**, 339-342

McKinley, J, 2000 The analysis of cremated bone. In M. Cox and S. Mays (eds.). *Human Osteology in Archaeology and Forensic Science*. Greenwich Medical Media Ltd, 403-422

McKinley, J and Roberts, C, 1993 Excavation and Post-Excavation treatment of cremated and inhumed human remains, *IFA technical paper* **13** (IFA: Birmingham)

MOLA 2014 Archaeological Fieldwork Manual, MOLA Northampton

Moore, R, Byard, A, Mounce, S, and Thorpe, S, 2007 A4146 Stoke Hammond and Linslade western bypass: archaeological excavations 2005 *Records of Buckinghamshire*, **47(1)**, 1-62

Mumford, J, and Hillier, J, 2004 Belvedere Nurseries, Fenny Stratford, nr Milton Keynes, Buckinghamshire, Oxford Archaology Report

Neal, D S, 1987 Excavations at *Magiovinium*, Buckinghamshire, 1978-80, *Records of Buckinghamshire*, **29**, 1-124

Parminter, Y, 1987 The Coarse Pottery in Neal 1987, 58-98

PC 1998 Archaeological Desk Based Assessment Eaton Leyes Buckinghamshire and Milton Keynes, Phoenix Consulting report, **P/220/a**

Powers N, Museum of London Archaeology Service guidelines for the assessment of burnt bone, Unpublished MoLAS report

Stace, C, 2010 New Flora of the British Isles, 3rd edition, Cambridge, Cambridge University Press

Thompson, I, 1982 *Grog-tempered 'Belgic' pottery of south eastern England*, Brit. Archaeol. Rep. **108**

Walford, J, 2014 Archaeological geophysical survey at Eaton Leys Farm, Bletchley, Milton Keynes, February to September 2014, MOLA Northampton report, **14/217**

Walford, J, 2015 Earth resistance survey of land at Eaton Leys Farm, Bletchley, Milton Keynes, November 2015, MOLA Northampton report, 15/188

Walker, C, 2011 An assessment of the archaeological excavation of Areas 5, 6 and 7, Passenham Quarry, Calverton Milton Keynes, Buckinghamshire, Northamptonshire Archaeology, **11/136**

Wolframm-Murray, Y, 2015 An Archaeological Fieldwalking Survey on land at Eaton Leys, Milton Keynes, MOLA Northampton report, **15/212**

Zeepvat, R, and Radford, D, 2010 Roman Buckinghamshire AD 43-410, *M Farley in An illustrated history of early Buckinghamshire*, 75-108

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