



Archaeological excavations at Bridge Farm, Shefford Bedfordshire: Assessment Report and Updated Project Design

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Author: Adam Reid

Illustrator: Olly Dindol



ARCHAEOLOGICAL EXCAVATION AT BRIDGE FARM, SHEFFORD, BEDFORDSHIRE: ASSESSMENT REPORT AND UPDATED PROJECT DESIGN

Site Code: BEDFM: 2012.22

Report No. 16/179

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Project Manager: Jim Brown

Author: Adam Reid

Illustrator: Olly Dindol

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MOLA
Bolton House
Wootton Hall Park
Northampton
NN4 8BN
01604 809800
www.mola.org.uk
sparry@mola.org.uk

Staff

Project Management:	Jim Brown BSc PGDip MCIfA
Text:	Adam Reid BSc MSc
Illustrations:	Olly Dindol BSc
Fieldwork	Jonathan Elston, Kamil Orzechowski BA MA Adam Reid Angel Carrera, Jude Children, Olly Dindol George Everest-Dine BA MA, Laura Gutel BA David Haynes, Peter Haynes, Gemma Hewitt BA Ben Kidd BA, Piotr Kieca MA Adam Meadows BSc, Judyta Mlynarska BA Ryszard Molenda, Tom Revell BA Anna Rojek BA, Tim Sharman BA, Rob Smith Kathrin Winzer BA, Harry Young BA
Flint	Yvonne Wolframm-Murray BSc PhD
Iron Age pottery	Andy Chapman BSc MCIfA FSA
Ceramic roof tile	Pat Chapman BA ACIfA
Fired clay	Pat Chapman
Metalworking debris	Andy Chapman
Small finds	Tora Hylton
Human Bone	Chris Chinnock BA MSc PCIfA
Animal bone	Adam Reid
Charred Plant remains	Val Fryer BA MIfA

OASIS REPORT FORM

PROJECT DETAILS		OASIS number: molanort1-266617
Project title	Archaeological excavation at Bridge Farm, Shefford, Bedfordshire: Assessment Report and Updated Project Design	
Archaeological excavations were undertaken by MOLA (Museum of London Archaeology) on land at Bridge Farm, Shefford, Bedfordshire. The remains of an Iron Age settlement and field system, comprising at least three enclosures, were uncovered. It is thought that the three enclosures represent different phases of activity comprising early to middle, middle to late and late pre-Roman Iron Age. Probable stock enclosures, routeways, a probable four-post structure, pits and other features were also found. A moderate quantity of artefacts and ecofacts and evidence of small scale metalworking were found. Two east to west aligned inhumation burials were found outside of one of the enclosures and may date to the Anglo-Saxon period.		
Project type	Excavation	
Previous work	Trial trench evaluation (Simmonds 2012), Geophysical survey (Butler 2012)	
Future work	Unknown	
Monument type and period	Iron Age enclosures and field systems. Anglo-Saxon burials	
Significant finds	Pottery, animal bone	
PROJECT LOCATION		
County	Bedfordshire	
Site address	Bridge Farm, Shefford	
Easting & northing	TL 1473 3835	
Area	1.25ha	
Height OD	41m- 54m aOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology/ MOLA	
Project brief originator	Central Bedfordshire Council (CBC 2012)	
Project Design originator	Northamptonshire Archaeology/MOLA (NA 2013)	
Director/ Supervisor	Jonathan Elston, Adam Reid	
Project Manager	Jim Brown	
Sponsor or funding body	Bovis Homes	
PROJECT DATE		
Start date	2013	
End date	December 2015	
ARCHIVES		
	Location	Content
Physical	Bedford Museum (BEDFM:2012.22)	Iron Age and Roman pottery, animal bone, human bone, , flint, small finds, plant fossils
Paper		Proforma sheets, plans, sections, black and white contact sheets, colour slides and digital photograph contact sheets
Digital		Report, map and site data, digital images
BIBLIOGRAPHY		
Title	Archaeological excavation at Bridge Farm, Shefford, Bedfordshire: Assessment Report and Updated Project Design	
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ARCHAEOLOGICAL EXCAVATION AT BRIDGE FARM, SHEFFORD, BEDFORDSHIRE: ASSESSMENT REPORT AND UPDATED PROJECT DESIGN

Abstract

Archaeological excavations were undertaken by MOLA (Museum of London Archaeology) on land at Bridge Farm, Shefford, Bedfordshire. The remains of an Iron Age settlement and field system, comprising at least three enclosures, were uncovered. It is thought that the three enclosures represent different phases of activity comprising early to middle, middle to late and late pre-Roman Iron Age. Probable stock enclosures, routeways, a probable four-post structure, pits and other features were also found. A moderate quantity of artefacts and ecofacts and evidence of small scale metalworking were found. Two east to west aligned inhumation burials were found outside of one of the enclosures and may date to the Anglo-Saxon period.

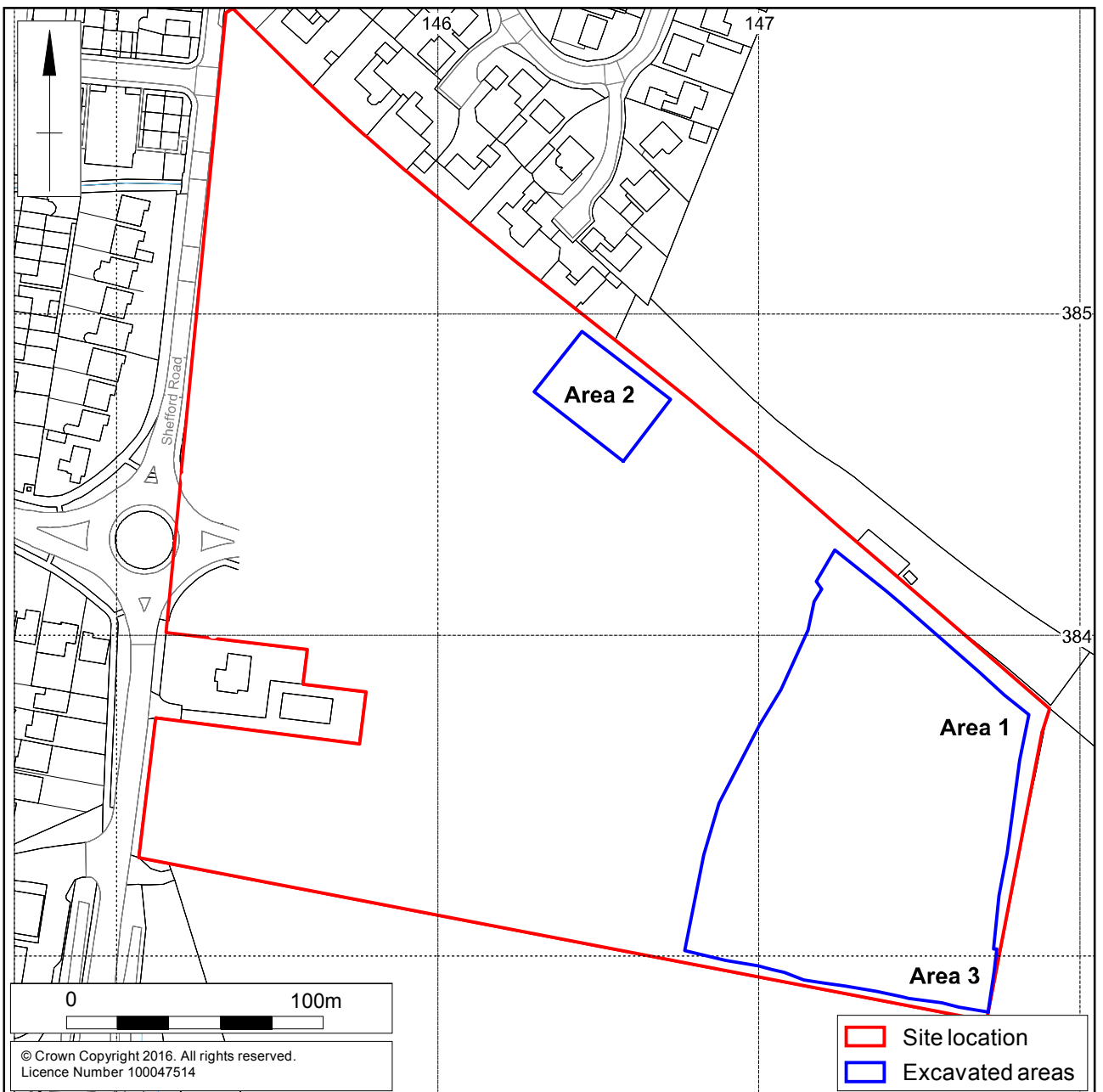
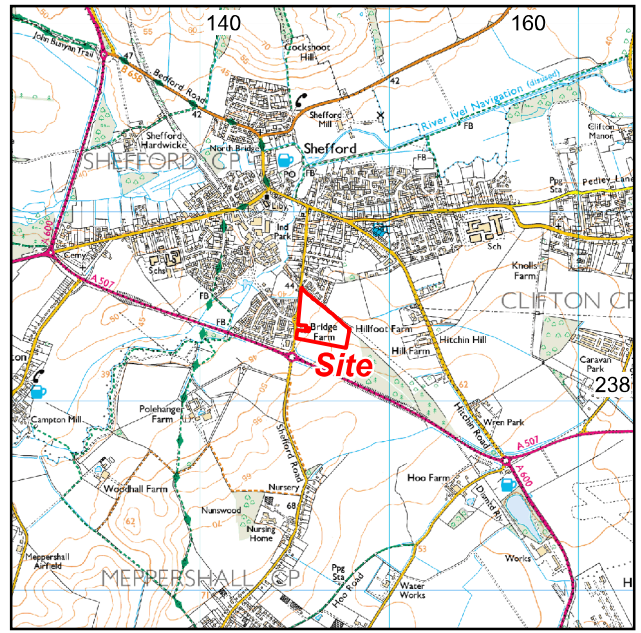
1 INTRODUCTION

1.1 Project background

CgMs Consulting, on behalf of Bovis Homes, commissioned MOLA (Museum of London Archaeology) to undertake archaeological mitigation work on the proposed development site at Bridge Farm, Shefford (NGR TL 1473 3835, Fig 1). The work was carried out in accordance with a brief provided by the Central Bedfordshire Archaeological Advisor (CBC 2012), a Written Scheme of Investigation (Northamptonshire Archaeology 2013) and the Chartered Institute for Archaeologists *Standards and guidance: archaeological excavation* (CIfA 2014a) and *Code of Conduct* (CIfA 2014b), and the procedural document *Management of Research Projects in the Historic Environment* (Historic England 2015). Where appropriate the research frameworks set out for the East of England and its wider region were applied (EH 1997; Glazebrook 1997; Brown and Glazebrook 2000; Oake *et al* 2007; Medlycott and Brown 2008; Medlycott 2011).

The nature of the development was for a combination of residential and commercial premises. It was a condition upon both outline and full planning consents that a programme of archaeological investigation was conducted (Condition 16: CB/12/01125/FULL; Condition 4: CB/12/011233/OUT). The conditions followed paragraph 141 of the *National Planning Policy Framework* (NPPF) to record and understand significant heritage assets before they are lost (CLG 2012).

The development directly affects archaeological remains identified during preliminary geophysical surveys and trial trench excavations, which are attributed to middle to late Iron Age settlement (Butler 2012; Simmonds 2012). A Written Scheme of Investigation (WSI), was prepared by Northamptonshire Archaeology (now MOLA Northampton). It described the proposed methodology, resources and programme for the archaeological work to meet the requirements of the Central Bedfordshire Council (CBC) brief (CBC 2012). The works were monitored by the CBC Archaeologist, who was given the opportunity to visit the site and conduct monitoring as work progressed.



Scale 1:2500

Site location and excavated areas Fig 1

1.2 Location, topography and geology

Situated south-east of the River Hiz, the land lies upon a clay ridge. The River Ivel flows from the confluence of the Rivers Hiz and Flit, approximately 0.5km north of the site, to join the River Great Ouse at Tempsford.

The site is arable land surrounding Bridge Farm. The ground slopes from the south-east, at 54m above Ordnance Datum, to the north-west, at 41m above Ordnance Datum, overlooking the River Hiz and modern housing estates that mark the southern expansion of Shefford.

The solid geology of the site is composed of mudstones belonging to the Lower Cretaceous Gault Formation overlain by glacial tills of the Quaternary Lowestoft Formation (BGS 2001). The soils are of the Evesham 3 Association (411c) which comprise slowly permeable calcareous clayey soils that form over the clay (LAT 1983).

1.3 Archaeological background

A Heritage Assessment was undertaken by CgMs Consulting (Dawson 2012) and its findings were summarised during the trial trench evaluation (Simmonds 2012). The evidence from the Central Bedfordshire Historic Environment Records (HER) is tabulated below. The development lies outside of the boundaries of the Roman focus of occupation to the west, the medieval historic core to the north and modern urban growth (Albion 2003).

A search of Historic Environment Records within 0.5km produced the following data:

Table 1: HER data

Earliest period	HER Ref.	Event or monument
Prehistoric	602	possible ring ditches on cropmarks, Robert Bloomfield School
	11766	cropmark complex, partly within site and extending north-east
Iron Age/Roman	10480	settlement, Robert Bloomfield & Shefford Lower Schools
	11766	cropmark complex, partly within site and extending north-east
Roman	5342	suggested road, Viatores no. 176
	10480	suggested road, Viatores no. 210
medieval	1775	earthworks, part of a deserted settlement, Polehanger
	5501	site of village green, Polehanger
	17106	medieval historic town core, Shefford
post-medieval	18709	Elizabeth I half groat coin, found north-east of Hillfoot Farm
	5236	Nun Lane, historic road documented 1506 onwards
	5448	watermill, Polehanger
	7640	Clay pit
	6805	Gasworks, demolished
19th-century	11832	Bedford to Hitchin railway
	15338	The Brewery, Ivel Road
	16378	The Woolpack, Hitchin Road

Earliest period	HER Ref.	Event or monument
20th-century	17033	Memorial Hall dedicated to victims of WWII
Recent work	EBD152	Archaeological desk-based assessment, Shefford Town FC
	EBD395	Geophysical survey, possible enclosures

Much of this data, referred to in the Heritage Assessment synthesises the works undertaken in advance of recent development, allied to evidence from local antiquarians and archaeologists, including Thomas Inskip and David Kennet; as well as the available historic mapping for the proposed development area.

The early prehistoric period is defined by two cropmark complexes; HER602, possible ring ditches within the grounds of Robert Bloomfield School to the west of the proposed development site and HER11766, a possible Neolithic enclosure. The latter is part of a set of prehistoric or later enclosures (see below) which falls partly within the boundaries of the development area (Fig 1).

Later prehistoric and Roman evidence is known to cluster in the western part of the parish, specifically focussed on the Ampthill Road and centred on Robert Bloomfield School and Shefford Lower School (Albion Archaeology 2003, Walker 2011). The information indicates the presence of a settlement, the size of which has not yet been determined, the course of a possible Roman road is also known to the west of the site (HER10480). Antiquarian and recent excavations within the environs of Ampthill Road show the settlement was established prior to the Roman Conquest and comprised a large ditched enclosure which continued to function throughout the 2nd century until the 3rd century and contained evidence for a possible roundhouse and a later substantial aisled building (Luke *et al* 2010).

Within the margins of the development site and extending to the north-east are a series of cropmarks HER11766 which indicate the remains of a probable Iron Age and Roman settlement (Fig 1). They comprise a trapezoidal enclosure with attached smaller curvilinear enclosures. The situation of these cropmark enclosures on a south-west facing slope above a watercourse is typical of later prehistoric and Roman period settlement.

The town of Shefford probably originates in the late Saxon period but excavations at Stanford Road, to the north of Shefford located the remains of a small Early to Middle Saxon period settlement comprising three sunken featured buildings, which produced finds associated with textile manufacture (Taylor 2014).

Although there is no mention of Shefford in the Domesday Book, there is a record of a 'Sheep-ford', by which the crossing was known in the early 11th century. It only appears to become a place in its own right, rather than just a river-crossing, in the 12th century. Although no settlement is mentioned here at Domesday it is thought that there was at least one, if not several, mills in the area at that time, including a watermill belonging to Walter Gifford, lord of the manor of Campton. It is probable that the proximity of the Gilbertine Priory at Chicksands, 2km to the west, influenced the development of the settlement (Steadman and MacQueen 2003). By 1225, the right to a market was granted. The population of the town, however, remained relatively small until the middle of the 19th century.

The Ordnance Survey maps from 1884 onwards illustrate a lack of development on the site throughout the 19th and 20th centuries, with the landscape remaining agricultural. The railway to the north was in place by the publication of the 1st edition

map and Bridge Farm was built between 1938 and 1976. Shefford expanded significantly in the 20th century and the proposed development area sits on the periphery of the modern development.

Geophysical survey

The geophysical survey revealed two probable ditched enclosures in the eastern half of the proposed development area (Butler 2012; fig 2). One in the north-east of the field is ovoid in shape, approximately 20m long, abutting a likely L-shaped ditch. The other enclosure is situated on the south-eastern boundary of the area, at least 5-sided, of approximately 30m by 30m area and likely to extend to the south of the development. Ridge and furrow cultivation was also noted across the entire area of proposed development. The enclosures are part of the known cropmark complex (HER11766).

2 FIELDWORK AND RESEARCH STRATEGY

2.1 Objectives

The general purpose of the mitigation programme was to record and enhance the understanding of the significance of the heritage assets before they were wholly or partially lost. This was achieved by determining the nature, function and character of the archaeological site in its cultural and environmental setting.

The aims of the archaeological investigation were stated in the brief (CBC 2012):

- to establish the date, nature and extent of activity or occupation within the development area;
- to establish the relationship of any remains found with the surrounding contemporary landscapes;
- to recover palaeo-environmental remains to determine local environmental conditions.

The excavation programme was carried out within the parameters suggested by the published research priorities for the East of England and its wider region (EH 1997; Glazebrook 1997; Brown and Glazebrook 2000; Oake *et al* 2007; Medlycott 2011).

Particular attention was paid towards the following topics as an extension of the general aims set out above:

- Chronology and dating in the Iron Age (Oake 2007, 11; Bryant 2000, 14 and 16; Medlycott 2011, 29).
- Characterisation and understanding Iron Age settlements including structure, form and function (Oake 2007, 11; Bryant 2000, 14 and 16; Medlycott 2011, 31).
- Development of the Iron Age landscape and settlement patterns (Oake 2007, 11; Bryant 2000, 14 and 16; Medlycott 2011, 31).
- Regional variations in settlement, particularly looking at settlement outside the river valleys (Oake 2007, 11; Bryant 2000, 14).
- Agrarian Economy in the Iron Age (Oake 2007, 11; Bryant 2000, 16; Medlycott 2011, 31).

Part of the purpose of this document is to amend and update the research aims to reflect the results of the excavation work. An updated discussion of the research aims can be seen below (Section 6).

2.2 Methodology

The mitigation work took the form of three open-area excavations, each of which was intended to locate an enclosure that was visible as an anomaly in the geophysical data (Butler 2012; Fig 2). Areas 1 and 3 had a combined size of 1.13ha and comprised the whole eastern side of the development area and Area 2 was 0.12ha in size and focused on an enclosure to the west. Originally the intention was to strip Areas 1 and 3 in a single phase but this was not possible due to the client's programme of works. As a result of this Area 1, comprising the northern half of the area, was excavated in Spring 2013 and Area 3, the southern half, was excavated in December 2015.

Removal of the topsoil and other overburden was carried out by tracked 360-degree mechanical excavator, fitted with a toothless ditching bucket, operating under archaeological supervision. Mechanical excavation proceeded to the natural substrate or the first significant archaeological horizon. All works were carried out in accordance with the Chartered Institute for Archaeologists *Code of Conduct* (2014) and *Standard and Guidance for Archaeological Excavation* (2014). All works conformed to Historic England's *Management of Research projects in the Historic Environment* (2015). Site recording procedures followed MOLA Northampton's in-house Archaeological Fieldwork Manual (MOLA 2014).

The excavation areas was measured in and marked out prior to the commencement of work using Leica System 1200 GPS operating to an accuracy of +/- 0.05m to Ordnance Survey National Grid. The spoil heaps and excavated areas were scanned with a metal detector to ensure maximum finds retrieval.

The location of all archaeological features and deposits were plotted using Leica Viva Global Positioning System (GPS) survey equipment using SMARTNET real-time corrections, operating to a 3D tolerance of $\pm 0.05\text{m}$, to produce a base plan. All archaeological deposits and artefacts encountered were fully recorded following standard MOLA Northampton procedures (MOLA 2014).

The excavation method followed the standards set out in the WSI (NA 2013) which in turn followed the brief provided by the Central Bedfordshire Council's Archaeological Advisor (CBC 2012).

Archaeological assessment and Updated Project Design (UPD)

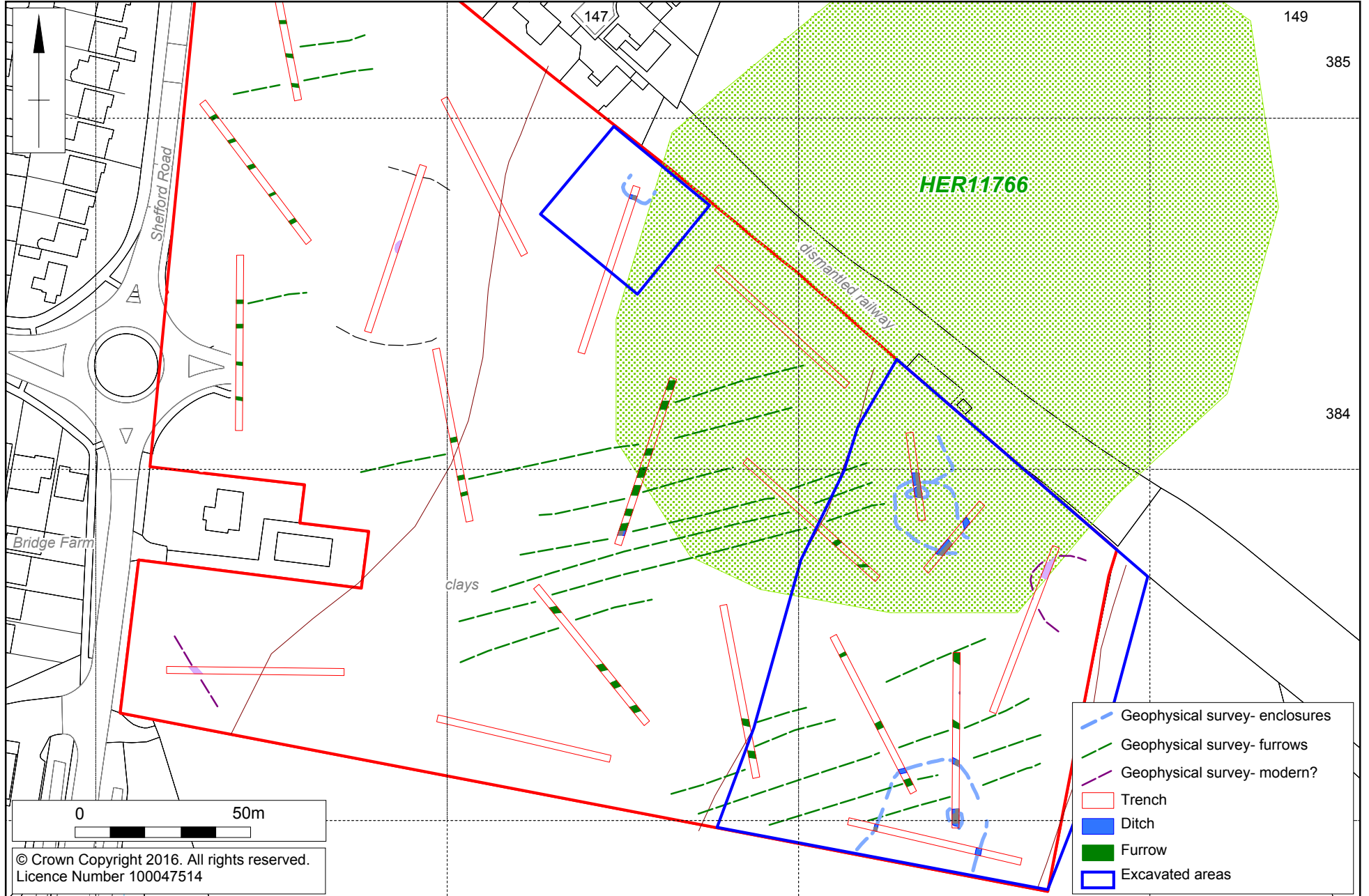
The purpose of this assessment is to provide the information necessary to make decisions about the future direction of the project, to determine what is achievable amongst the original objectives, what other objective may be achievable in reference to the research criteria (EH 1997; Cooper 2006; Knight *et al.* 2012) and to decide how best to apply the resources available to best effect. This process is prescribed by the *Design Manual for Roads and Bridges* (HA 2001), based upon the recommendations of *MAP2* (EH 1991), the forerunner of the more recently published advice in the *Management of Research Projects in the Historic Environment* (HE 2015). This report addresses the following:

- A factual summary characterising the quantity and perceived quality of the data contained in the site archive;
- Information on the archaeological potential of the data contained in the site archive;
- Information on the significance of the data recovered and the contribution its analysis will make to archaeological studies;
- Specialist recommendations for further work, conservation, retention and disposal of archive materials.

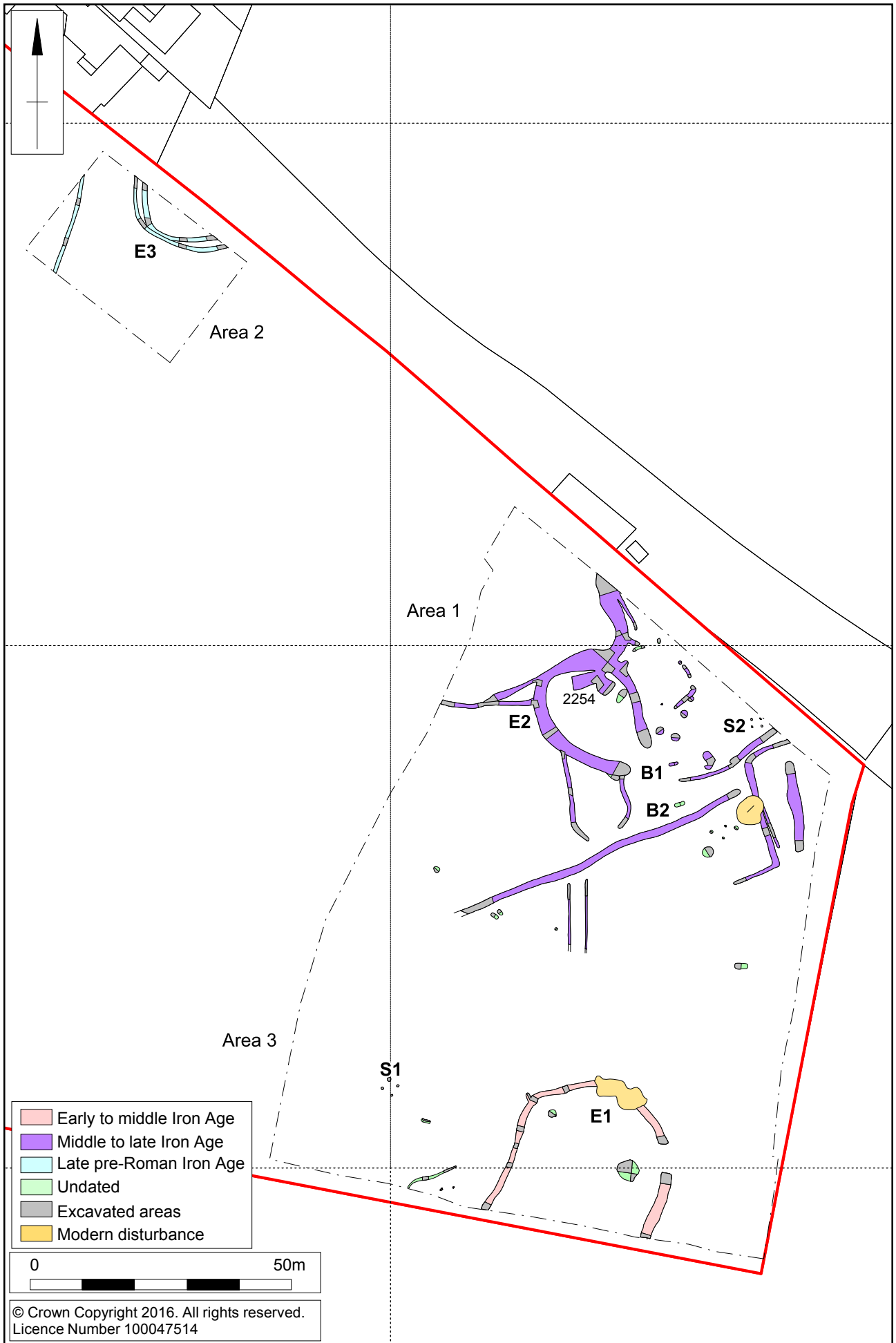
Scale 1:1500

Geophysical interpretation, trial trenches, HER detail and excavation area

Fig 2



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Scale 1:1000

Areas of excavation with phasing Fig 3

3 SUMMARY OF ARCHAEOLOGICAL REMAINS

3.1 Early to middle Iron Age enclosure and field system

Part of a possible rectilinear enclosure (E1) was located in Area 3, at the southern extent of the development area (Fig 3). Only the northern part of the enclosure was present, measuring at least 30m long by 30m wide. It appears to have had an east-facing entrance, which measured approximately 8m wide. Excavation of Enclosure E1 demonstrated that the enclosure ditch measured up to 1.9m wide and 0.85m deep (Fig 4). The ditch fills contained approximately 3.5 kg of pottery, which has been dated to the early to middle Iron Age. Two circular pits were located within the enclosure, one of which was large, measuring 2.5m in diameter and 0.84m deep and may have been a quarry pit or watering hole. A four-post structure (S1), measuring 5m by 5m was located c30m to the west of E1. Three postholes for another structure were located next to a gully c30m to the south of (S1), adjacent to the site's southern baulk. All were shallow, measuring less than 0.10m deep. No pottery was recovered from the postholes for either structure so it is not certain that they relate to the same phase of activity as E1.



E1 ditch, looking south Fig 4

3.2 Middle to late Iron Age enclosure

Another enclosure (E2) and associated features were located in Area 1, covering an area c100m by 75m. Enclosure E2 was 25m long by 20m wide and was roughly horseshoe-shaped with a south-east facing entrance. It was located approximately 60m to the north of Enclosure E1 (Fig 5). Excavation of the enclosure identified that it comprised several recut ditches and had a maximum width of around 2m and a depth of up to 1.34m. E2 had multiple recuts in its northern arm. It is possible that another larger enclosure or sub-division lay directly to the north, as there were no ditches attached on its eastern and northern sides.

Within the enclosure there was a c3m by 2m wide quarry pit, also thought to date to the late Iron Age.



E2 ditch, looking west Fig 5

The presence of two gullies, aligned north to south, attached to the southern extent of E2 indicates that E2 may have been the centre of an extensive, well planned landscape. The extension measured c15m wide by at least 20m long and had an entranceway 10m wide on its southern side. This seems to respect a north-east to south-west aligned ditch, 75m long, located 10m to the south of E2, although excavation did not determine a date for the feature. Two parallel gullies, aligned roughly north to south and spaced approximately 2.5m apart, extend at least 15m to the south of this boundary and comprise a possible routeway or droveway.

A possible four-post structure (S2), measuring 5m square, was located c20m to the east of E2. Directly to the east of E2 there was a cluster of small pits and gullies, covering an area approximately 15m by 25m. Many of these features did not contain finds, but those that did appear to date to a fairly wide period that may indicate an overlap with the occupation of E1 (Section 4.2). The gullies probably represent a series of stock enclosures, with possible routeways between the different fields.

An assessment of the pottery from the area indicates that E2 and other associated features may have seen at least two phases of activity and was in use for a period ranging from c250 BC into the early first century AD.

3.3 Late pre-Roman Iron Age enclosure

Area 2, located c100m to the north-west of the middle to late Iron Age settlement contained part of a possible late pre-Roman Iron Age enclosure (E3). The northern extent of the double-ditched enclosure lay outside of the development area, but it appeared to have a width of approximately 25m (Fig 6). The inner ditch had a width of approximately 0.80m, a depth of 0.52m and appeared to predate the outer ditch, which measured 0.86m wide and 0.22m deep. The inner ditch was fully excavated and, as a result, a large quantity of Late Iron Age Belgic pottery (approximately 10kg) was recovered including several complete vessels (Fig 7). Only one other feature was located in the vicinity of E3; an undated boundary ditch, which was aligned approximately north to south and was located 20m to the west of the enclosure.



E3, with inner ditch fully excavated, looking south-east Fig 6



Complete pottery vessel, E3, looking west Fig 7

3.4 Probable Anglo-Saxon inhumations

Two inhumation burials were located to the south-east of Enclosure E2, close to its entranceway. Both appear to have been adult males and were aligned north-east to south-west. Metal finds were recovered from the burials: Burial 1 contained an iron-alloy knife blade (Fig 8) and both burials contained small copper-alloy buckles. A preliminary assessment suggests that the artefacts date to the Anglo-Saxon period. At this time no other features within the excavation area are thought to be of Anglo-Saxon date.



Burial 1 with iron knife blade, looking south Fig 8

4 FINDS

4.1 The worked flint by Yvonne Wolfram-Murray

Introduction

In total three pieces of worked flint were recovered as residual finds from the fill of Iron Age ditches. The flint comprised two flakes and one blade.

Method

Each object was recorded onto an MS Access spreadsheet by type, condition, possible raw material and tool form.

Raw material and condition

The condition of the artefacts was moderate with the artefacts displaying frequent nicks and occasional crushing of the edges. Patination is present on one blade as a bluish-white discolouration of the surface.

The raw material is light grey and grey-brown vitreous flint with a white or light brown cortex. The raw material was likely to have comprised local gravel deposits.

Assemblage composition

The assemblage consists of two flakes, and one blade, catalogued in Table 2. The flakes are squat and one flake has a cortical striking platform.

Table 2: Catalogue of flint

Context	Flake/ blade	Portion	Raw material/cortex	comments
(2386)	Flake	Whole	raw material mid grey vitreous flint	Squat flake
(2386)	Flake	Whole	raw material light grey-brown opaque flint/white	cortical striking platform; squat flake
(2395)	Blade	Whole	raw material light grey-brown vitreous flint/light brown	post- depositional edge damage; patinated

Discussion

Technological characteristics of the assemblage are not directly dateable but can be generally ascribed to the Neolithic to early Bronze Age. The previous trial trench evaluation revealed eight flints with similar squat characteristics and date (Simmonds 2012). No further work is required on the assemblage.

4.2 The Iron Age pottery by Andy Chapman

Introduction

More than 25kg of pottery was recovered from the three areas of excavation (Table 3). Each of the three areas was focussed on a single ditched enclosure, although in Area 1 the oval Enclosure, E2, lay within a larger complex of linear ditches, pits and postholes. Assessment of the pottery has shown that each of these enclosures is of a different date, with activity spanning the entire middle to late Pre-Roman Iron Age.

For the purposes of assessment the assemblage had been weighed and then rapidly scanned, with only the larger context groups being examined for evidence of form, fabric and date.

Table 3: Quantification of pottery by weight and site area

Total weight by area (g)	Total weight for enclosures(g)	% of Area	Date
Area 3 5030	E1 3455	69%	Early Middle Iron Age (400-250BC)
Area 1 9777	E2 3777	39%	Middle to Late Iron Age (250-0BC)
Area 2 10514	E3 10079	96%	Late Pre-Roman Iron Age (0-43AD)
Total 25321			

The fabrics

For assessment, the range of fabrics has been noted by visual observation of the larger context groups, but there has been no thorough qualitative or quantitative analysis. The assemblage as a whole is dominated by hard, well-fired vessels in

sandy fabrics. In the late Iron Age assemblages in Areas 1 and 2 a proportion of the sandy fabrics also contain grog. In the middle Iron Age assemblages there is also a proportion of coarse shelly fabrics, which occur mainly as thick-walled sherds from larger storage jars.

As there is no sherd count, it is not possible to provide an average sherd weight, but given the presence of many large primary pottery groups, particularly in the late Pre-Roman group, it will be quite high.

Area 3, Enclosure E1: early middle Iron Age (400-250BC)

The earliest material comes from Enclosure E1 in Area 3, the southernmost enclosure. A total of 5kg of hand-built pottery comes from the enclosure ditch and associated pits, with the majority, 3.5kg (69%) coming from the ditches of Enclosure E1. The assemblage is well preserved and is dominated by hard sandy fabrics, although it also includes thick-walled storage jars in shelly fabrics. The group includes a number of necked and shouldered jars that are likely to date to the early Middle Iron Age, perhaps 400-250BC, although other vessels also suggest a continuation into the middle Iron Age (250-100BC).

From the fill (4049) of ditch [4055] of Enclosure E1 there is a near complete bowl, which has no neck but the flat-topped rim is decorated with oblique fingernail impressions (Fig 9).



Bowl from Enclosure E1, with fingernail decorated rim (Scale 10mm) Fig 9

Burial B1 in Area 2 produced a single sherd of 1st century AD pottery, from grave fill (2206), which may be residual, as grave goods suggest a Saxon date.

Area 1, Enclosure E2: middle to late Iron Age (250-0BC)

This area produced nearly 10kg of pottery. The largest group comprises nearly 4kg (39%) of pottery from the ditches of Enclosure E2, but the associated linear ditches, pits and postholes also produced pottery in some quantity.

This is the most mixed assemblage from the site. There are some jars with pronounced shoulders and a short concave neck that are of early middle Iron Age form, perhaps indicating an overlap with the occupation of Enclosure E1. However, there are also high shouldered jars typically with grey surfaces and a single scored

ware jar and thick-walled storage jars characteristic of the late Middle Iron Age (250-100BC). In addition, there is a small jar with a pale brown surface and deep vertical scoring, with burnt residue on the everted rim, from the ditch [2415] of Enclosure E2 which probably dates to the 1st century BC or even into the early 1st century AD. A thick-walled (15mm) storage jar from gully [2330] with pale brown surfaces and incised scoring is probably also of a similarly late date. However, there are no wheel-finished vessels from Area 1.

Area 2, Enclosure E3: late Pre-Roman Iron Age (0-43AD)

Enclosure E3 and associated features produced a total of 10.5kg of pottery from only seven contexts. These were mainly fills of the enclosure ditch, with fill (2109) of ditch segment [2111] producing 7.18kg comprising large fresh sherds, many joining, coming from at least six separated vessels. These include fineware vessels such as a carinated bowl and at least two jars with corrugated necks, and also coarseware jars, some with heavy rims, either plain or with bold fingertip decoration ('pie-crust' style). All of these vessels are wheel-finished, and the forms indicate that this is an assemblage of Belgic-type wares datable to the first half of the 1st century AD. The presence of such a high proportion of at least semi-complete vessels suggest that these were most probably deposited at the abandonment of the settlement as part of an act clearance or levelling, perhaps at around the time of the Roman Conquest.

Recommendations for further analysis

This is a well-preserved assemblage with a high proportion of primary groups each containing large sherds, often joining sherds, which will provide a range of complete or near complete vessel profiles that can be illustrated.

The assemblage should be fully quantified to fabrics, and for many the forms will also be definable. Assessment has indicated the presence of three distinct chronological groups:

Early middle Iron Age (400-250BC), from Area 3, Enclosure E1 and associated features;

Middle to late Iron Age (250-0BC), from Area 1, Enclosure E2 and associated features;

Late Pre-Roman Iron Age (0-43AD), from Area 2, Enclosure E3.

The full quantification of the assemblage by sherd count, weight and fabric should be carried out within these three chronological groups, in order to quantify the changes through time.

Radiocarbon dating

The small jar with a pale brown surface and deep vertical scoring from the ditch [2415] of Enclosure E2, has burnt residue on the everted rim that may well be suitable for radiocarbon dating.

4.3 The ceramic roof tile by Pat Chapman

The eight sherds and seven crumbs, weighing 230g, come from six contexts. One sherd, from fill (2386) in ditch [2388], is made with hard coarse yellow clay. All the other sherds are made from hard orange-brown sandy clay with rare tiny or large flint. The sherds are 14mm thick, except for the yellow sherd, which is 12mm thick and

slightly curved. One of the two sherds from fill from fill (2365) in furrow [2366] has a remnant peghole 14mm in diameter and traces of hard white mortar. The sherd from fill (2391) in posthole [2392] and the two sherds and crumbs from fill (2397) in gully terminal [2398] are very worn.

Table 4: Quantification of ceramic roof tile

Fill / cut / type	No	Wt (g)	Comment
2365 / 2366 furrow	2	95	peghole, mortar
2386 / 2388 ditch	1	20	yellow
2391 / 2392 posthole	1	20	-
2397 / 2398 gully terminal	9	45	-
4020 / 4021 ditch	1	35	-
4094 / 4098 pit	1	15	-
Totals	14	230	

These are the few scattered remnants of medieval or post-medieval flat plain roof peg tiles.

4.4 The fired clay by Pat Chapman

There are 160 elements of fired clay, weighing 1755g, of typically one to four individual pieces scattered through various features, with the exception of one large assemblage of 45 fragments and four smaller between eight and 25 pieces (Table 5). The large assemblage comes from fill (2408) in ditch [2415]. It is made with hard fine silty sandy pale orange, occasionally blackened, well-mixed clay with very rare tiny flint. There are eight wattle impressions, six 15mm in diameter, and two at 20mm. The smoothed outer surfaces have survived as either thin flat plates or chunky curved pieces.

The fragments from the other contexts are sub-rounded or angular and mainly buff or pale brown to orange-brown to black, occasionally black, silty to fine sandy clay. Unlike the large assemblage, the rest of the fired clay has typically frequent gravel, flint, shell and/or chalk inclusions. Some fired clay fragments are slightly cindery to the touch from the effects of high temperatures. Only three fragments had wattle impressions, 14-20mm in diameter. One assemblage in fill (2411) from ditch [2415] had one large sub-rectangular piece 75x45x35mm with a flat top.

The large assemblage and the other material would generally be structural debris from dwellings or functional structures, the latter perhaps the origin for the more cindery fired clay.

The material from fill (4094) in pit [4098] is different from the other fired clay by being hard dark red-brown fine slightly cindery clay with flint and quartz up to 10mm, the surviving surfaces are both flat and rounded. This suggests that they could be lining fragments.

Table 5: Quantification of fired clay

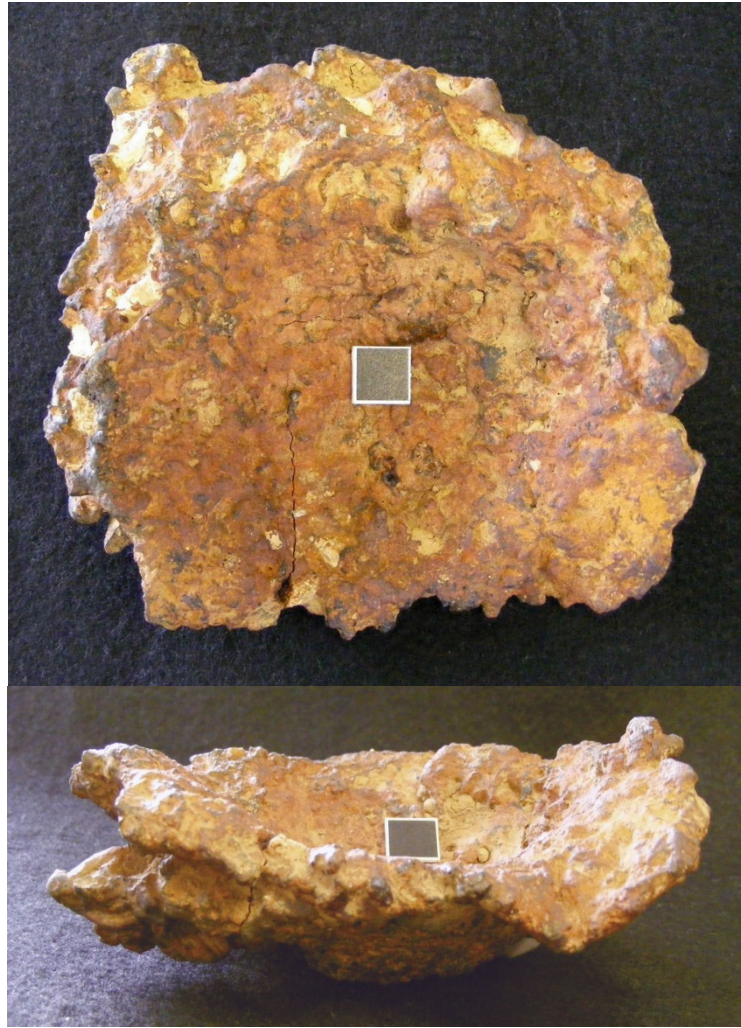
Fill / cut / type	No	Wt (g)	Comment
2112 / 2113 ditch	17	140	-
2125 / 2127 ditch	1	30	-
2253 / 2254 pit	1	10	cindery
2271 / 2277 pit	4	70	-
2301 / 2304 ditch	8	145	buff/orange-brown/black, wattle 20mm, cindery
2302 / 2304 ditch	4	55	sub-rounded, orange to black, cindery

Fill / cut / type	No	Wt (g)	Comment
2305 / 2306 ditch	1	20	wattle 14mm diameter
2329 / 2330 gully terminal	2	15	-
2353 / 2354 gully terminal	3	20	-
2386 / 2388 ditch	2	60	-
2408 / 2415 ditch	46	545	hard fine silty sandy pale orange, 8 wattles
2411 / 2415 ditch	13	165	hard pale brown fine silty sand, 1 large 75x45x35
4004 / 4005 posthole	25	155	-
4012 / 4013 gully	3	10	cindery
4037 / 4040 ditch	5	40	-
4038 / 4040 ditch	3	30	-
4049 / 4055 ditch	2	30	-
4061 / 4063 pit	4	20	-
4062 / 4063 pit	1	5	-
4071 / 4072 ditch	1	45	wattle 20mm diameter
4094 / 4098 pit	14	145	hard dark red-brown with flint and quartz
Totals	160	1755	

4.5 The metalworking debris by Andy Chapman

From the fill (2125) of ditch [2127] (Enclosure E3) there is a complete smithing-hearth bottom, with the characteristic concave upper surface and convex under surface where the slag has pooled in the base of the hearth (Fig 10). It is interpreted as a smithing-hearth bottom rather than a furnace bottom, given the absence of any further slag from the site. It is sub-square, measuring 115mm by 108mm and 10-30mm thick, weighing 565g, with a deep central concavity 80-90mm diameter.

This ditch has been dated to the late Pre-Roman Iron Age, the early 1st century AD.



The smithing-hearth bottom from ditch [2127] (Scale 10mm)

Fig 10

4.6 The small finds by Tora Hylton

Six small finds were recovered from Areas 1 and 3 and no small finds were recovered from Area 2. Three of the finds were recovered from two inhumations sited close to the entrance of Enclosure E2. The inhumations were aligned east-west and there was no evidence to suggest that the bodies had been interred in coffins, therefore it is assumed that the bodies were laid in earth graves and dressed as for life. The finds recovered include a buckle/plate, a strap-end and a knife; the forms represented are typologically Anglo-Saxon in date.

The remaining artefacts were recovered from the fills of ditches and a pit and they include, a small silver ring (probably for suspension), an iron nail and copper alloy sheet fragments.

Table 6: Catalogue of finds

Context	Feature	Object	Material	Date
2206	Burial 1 [2207]	Strap-end (SF1)	Iron	Saxon
2208	Ditch [2209]	Ring (SF 2)	Silver	-

Context	Feature	Object	Material	Date
2345	Burial 2 [2346]	Buckle/plate (SF 3)	Copper alloy	Saxon
2345	Burial 2 [2346]	Knife (SF 4)	Iron	Saxon
4036	Pit [4043]	Sheet/waste fragments (SF 8)	Copper alloy	-
4050	Ditch [4052]	Nail (SF 13)	Iron	-

Condition of finds

All the finds are stable. However, the copper alloy buckle-frame/plate is fragile and it has been packaged to ensure its longevity. The iron objects although identifiable are covered in corrosion products and these will need to be x-radiographed, to reveal technical details not visible beneath corrosion deposits and provide a permanent record.

Recommendations for further analysis

Although this assemblage is small, the presence of two inhumations with associated artefacts is of intrinsic importance, since Anglo-Saxon settlement is poorly understood in Bedfordshire. Anglo-Saxon domestic occupation has been discovered elsewhere in Shefford (Taylor 2014). The iron knife, strap-end and buckle frame/plate should be x-radiographed. They should be drawn and published, as an addition to other published examples from Bedfordshire.

Finds Catalogue

SF 1 Strap-end, iron. Complete but covered in corrosion products. It is difficult to be sure but the strap-end appears to have been made from two tongue-shaped sheets secured by rivets. **Needs to be x-rayed.** L:38mm W:20mm Context (2206), Burial 1, Position: above pelvis

SF 2 Ring, silver. Annular ring with sub-circular cross-section. Dia (int):10mm Dia ext):13mm H:2mm Context (2208), Ditch [2209], E2

SF 3 Buckle frame/plate, copper alloy. Oval frame (Marzinzik Type 1.11a) with sub-circular cross-section, pin and buckle-plate attached to inside edge. Plate manufactured from rectangular sheet folded in half widthways and secured by solid dome headed copper alloy rivets (one extant) set along the rear edge of the plate (Marzinzik Type II.24). The plate is recessed for the frame and there is a cut out for the pin. **Needs to be x-rayed.** Buckle frame – L:10mm W:18mm Plate – L:15mm W:18mm Context (2345), Burial 2, Position: above pelvis

SF 4 Knife, iron. Incomplete, tip of blade and terminal of tang missing. Tang central to blade with stepped shoulder; back of blade horizontal and angles down to tip, cutting edge horizontal. **Needs to be x-rayed.** Complete length:115mm Blade – L (incomplete):95mm W:c 25mm Th:c 3mm Tang (incomplete):22mm Context (2345), Burial 2, Position: between pelvis and lower left arm

SF 8 Sheet, copper alloy. Small fragments of sheet metal measuring 12 x 11mm and 10 x 10mm. Context (4036), Pit [4043]

SF 13 Nail, iron. Incomplete, terminal of shank missing. Covered in corrosion deposits therefore difficult to determine shape or even presence of head. L:35mm. Context (4050), Ditch [4052]

5 THE HUMAN BONE by Chris Chinnock

Introduction

Two inhumations, aligned east to west, were excavated close to the entrance of Enclosure E2 which has been dated to the middle to late Iron Age (Fig 2). Individual (2206; Burial 1) was buried with an iron strap end of uncertain date and the burial fill, (2205), contained one small sherd of pottery, tentatively dated to the 1st century AD. Individual (2345; Burial 2) was buried with an iron knife blade and a copper buckle thought, after preliminary analysis, to be dated to the Anglo-Saxon period. Disarticulated fragments of human skull were found in ditch [2216] (part of Enclosure E2) and pit [2254].

This report contains the results of the complete osteological analysis and discussion of the human bone assemblage. Analysis was limited by the small sample size and fragmentary nature of the remains. Nevertheless, this assemblage serves to add to the corpus of information for burials within the Anglo-Saxon period in Britain.

Nature of sample

Both individuals, (2206; B1) and (2345; B2), were aligned approximately east to west with the head at the western end of the grave. Whilst the graves were heavily disturbed and the remains poorly preserved and highly fragmentary, the individuals appeared to be lain in a supine position with the arms by the side.

Preservation and completeness

The skeletal remains were assessed for overall bone preservation and scored on a three-point scale from good to poor (Connell and Rauxloh 2007). Both inhumations displayed a high degree of fragmentation. The elements displayed poor levels of preservation with some erosion of the bone and few surface details clearly visible.

Assessment of the skeletal completeness of each individual concluded that approximately 50-55% of (2206; B1) and (2435; B2) were present. The partial and fragmentary nature of the burial limited the amount of osteological data available at analysis.

Methods

All skeletal remains were recorded onto an Oracle 9i (v9.2.0) relational database following Museum of London methodology (Connell and Rauxloh 2007; Powers 2008). This provided a full catalogue of the bones and teeth present, estimates of age and sex, measurements of cranial and post-cranial elements and observations of non-metric traits.

Where possible, observations of the dimorphic features of the skull and pelvis were used for sex estimation. Where long bones were present and sufficiently intact, stature calculations were conducted using Trotter (1970) and skeletal indices according to Brothwell (1981).

Pathological bone changes, where present, were recorded onto the database and supplemented by digital photographs when necessary. Full details of pathology locations, measurements and all other osteological data can be found in the site archive.

Results

Demographic data

Demographic analysis identified four adult individuals, two inhumations, (2206; B1) and (2345; B2) and two contexts containing disarticulated skull fragments, (2216) and (2253).

Despite the absence of the diagnostic elements, it was possible to determine the sex of individuals (2206; B1) and (2345; B2). Based on surviving parts of the skull and pelvis, both individuals were categorised as 'probable male'. The disarticulated skull fragments recovered from contexts (2216; E2) and (2253; Pit [2254]) were not sexually diagnostic and are of undetermined sex.

Individuals (2206; B1) and (2345; B2) were assigned to osteological age category (26-35 years) using aging methods developed for observations of dental wear (Brothwell 1981). Poor preservation and fragmentation of other elements used for aging skeletal remains prevented further age assessment. The two contexts containing fragments of human skull could only be described as 'adult'.

Metric Data

Stature

Due to the highly fragmented condition of the surviving bone, no stature estimations were possible for any of the excavated individuals.

Indices

Due to the highly fragmented condition of the surviving bone, no indices could be calculated for any of the excavated individuals.

Non-metric traits

The small sample size and partial remains prevented statistically viable calculations of prevalence rates of non-metric traits. No traits were observed in any of the individuals

Palaeopathology

Dental pathology

Dental calculus, characterised by mineralised deposits of plaque adhered to the surface of the teeth, was present in individuals (2206; B1) and (2345; B2). Periodontal disease and hypoplastic enamel defects of the crown surface were also present in both individuals.

Individual (2206) displayed six carious lesions in the upper and lower molars on both the right and left side. These varied in severity though in the right mandibular first molar a periapical lesion (abscess) had formed. In addition the left mandibular second premolar had been lost in life; the tooth socket had completely remodelled and the adjacent premolar was leaning distally into the previously occupied space (Fig 11). The left mandibular third molar was impacted and had erupted medially, at a 45 degree angle (Fig 11). Impaction is here defined as the failure of any tooth to occlude with teeth in the opposing jaw, the most commonly impacted tooth is the third molar (Hillson 1998, 113). The abnormal eruption had caused the third molar to press against the adjacent tooth, creating a wear facet at the cemento-enamel junction of the second molar.



Adult male (2206; B1), left mandible showing impaction of third molar
(scale 50mm) Fig 11

Infectious disease

Inflammation of the periosteum (outer surface) on the lateral mid shaft of the left tibia, categorised as non-specific periostitis, was present in adult individual (2345; B2). In this case the pathological lesion is of an unknown aetiology.

Adult male (2206; B1) displayed lesions on the right mastoid process (behind the ear), which may reflect a case of mastoiditis (Fig 12). The mastoid process is greatly reduced in size when compared to its equivalent on the left side. Bone resorption has exposed or destroyed many of the mastoid air cells. The edges of the lesion appear well-healed though some post-mortem damage to the area precludes a confident assessment of the stage of the infection at the time of death. Often, alongside bone resorption, irregular, spiculated or plaques of new bone growth are seen within the air cells (Flohr and Schultz 2009). This was not the case in this individual, where no new bone formation could be identified.



Adult male (2206; B1), right temporal showing the ear canal and pathological lesions on the mastoid process (scale 30mm) Fig 12

Discussion

The osteological analysis of the human remains was severely limited by the incomplete nature and poor preservation of the skeletal elements. It was possible to calculate that the assemblage represents the remains of four adult individuals. The two inhumations were both categorised as 'probable male' based on the morphology of some elements of the pelvis and skull. Furthermore, both individuals were tentatively assigned to osteological age category 26-35 years based on observations of dental wear. One example of possible mastoiditis (infection of the mastoid process behind the ear) is of note as it has been described as a condition underrepresented in the palaeopathological literature (Flohr and Schultz 2009).

Whilst the date of the burials has not been fully defined at this time, early indications suggest that they belong to the Anglo-Saxon period. While the two individuals from Bridge Farm do not represent a large sample of the population, they do provide the opportunity to address research objectives identified in the regional research agenda (Knight *et al* 2012). More broadly, they serve to add to the growing corpus of osteological data available for the period.

The two most relevant research objectives are:

- 6A: Elucidate the chronology and demography of the Roman to Anglo-Saxon transition period (*ibid*, 84).
- 6B: Assess the landscape settings of Anglo-Saxon burial sites (*ibid*, 85).

The remains and their setting within the landscape have the potential to provide data that may address both of these research questions.

Good preservation of the teeth in both of the articulated individuals may provide an opportunity to undertake stable isotope analysis that would, if successful, contribute to the understanding of demographic and social change highlighted as a key

research theme. This however, is reliant on the burials being confidently dated, as the movement of people during the early part of the period is of particular interest. Radiocarbon analysis of at least one of the articulated individuals combined with further analysis of the associated grave goods may indicate whether they belong to the earlier or later part of the early medieval period.

The burial of these two individuals during the early medieval period seemingly associated with an Iron Age site is of note. The notion of monument reuse by, particularly, Anglo-Saxon burial sites is not new and several instances have previously been recorded (Williams 1997). The preferred monument appears to have been round barrows though sites, both domestic and religious, from the prehistoric and Roman periods have been recorded (*ibid*,).

The burials from Bridge Farm do not, in isolation, provide in enough evidence to make any confident assertions about the burial practices of the time or the health and status of the population. However, they do contribute to the wider analysis of the people living in the region during this period.

The two contexts containing disarticulated fragments of human skull are more confidently associated with the Iron Age features. Secondary deposition of human bones, particularly elements of the skull, is frequently encountered during the excavation of Iron Age sites (Cunliffe 2001, 506). These examples, whilst not independently useful in addressing the question of the 'missing dead' during the Iron Age, may be of use in understanding wider national and regional funerary traditions for the period.

6 THE FAUNAL AND ENVIRONMENTAL EVIDENCE

6.1 The animal bone by Adam Reid

36.5kg of animal bone was recovered by hand collection from 80 contexts during the course of excavation. This material was assessed to determine the level of preservation, the taxa present and to inform on the potential for further work.

All material was washed prior to analysis. Identifiable bones were noted, and were examined for signs of butchery and the state of epiphyseal fusion. The state of preservation of each bone fragment was rated on a scale of 1 to 5, where 1 is equivalent to excellent preservation and 5 very poor (Lyman 1994). Identifications took place with the aid of the MOLA Northampton reference collection and Hillson (1992). Due to the anatomical similarities between the two species, all ovicaprid specimens were grouped as sheep/goat, unless possible to differentiate between the two using Boessneck *et al.* (1964) and Payne's (1985) criteria. Specimens that could not be positively identified were attributed, where possible, to categories including Large Mammal (cattle, horse, red deer), Medium Mammal (sheep/goat, pig, large dog), and Small Mammal (small dog, cat, rabbit).

Preservation

The state of preservation of the material was variable but generally poor, with a high incidence of fragmentation and breakage, both pre- and post-excavation (Table 7). Seventeen fragments of burnt bone were noted.

Table 7: Bone preservation assessment

State of preservation	Excellent	Good	Moderate	Poor	Very Poor
Number of fragments	-	2	307	1112	44

Species representation

Preliminary identification of the material suggests that the assemblage is largely composed of domestic taxa, with several wild mammal and bird species present (Table 8). The hand collected material contains no microfaunal, fish or amphibian specimens.

Table 8: Preliminary identification results (n.b. does include horse burial)

Taxon	Number of specimens
Cattle <i>Bos</i>	205
Sheep/goat <i>Ovicaprid</i>	86
Pig <i>Sus</i>	36
Horse <i>Equus</i>	24
Dog <i>Canis</i>	26
Red Deer <i>Cervus</i>	1
Roe Deer <i>Capraeolus</i>	3
Cervid sp.	1
Small Mam	9
Med Mam	362
Large Mam	525
Bird	10
Indet.	182
Total	1470

Potential for further analysis

Despite the highly fragmented nature of the material, it should be possible to gain more information from the assemblage regarding human-animal interactions at the site, including butchery and animal husbandry strategies (Table 9). It may also be possible to analyse how these practices changed over time, once a clearer indication of the phasing of the site has been achieved. The presence of a complete horse burial of apparent late Iron Age date is very unusual and further analysis may provide information regarding the age and way in which the animal was utilised before and after death.

Table 9: Number of specimens with the potential for further analysis

Type of data	Toothwear	Butchery	Metrical
Number of specimens	6	22	47

6.2 Charred plant macrofossils and other remains by Val Fryer

Introduction and method statement

Excavations at Shefford, undertaken by MOLA Northampton (MOLAN), recorded settlement and field systems of Iron Age date in addition to two burials of probable Anglo Saxon date. Samples for the retrieval of the plant macrofossil assemblages were taken from ditch, pit, post-hole and grave fills, with a total of twenty seven being submitted for assessment.

The samples were bulk floated by MOLAN, with the flots being collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x 16 and the plant macrofossils and other remains noted are listed in Tables 10 to 13. Nomenclature within the tables follows Stace (2010). All plant remains were charred. Modern roots, seeds, arthropod remains and moss fronds were also recorded.

Results

Cereal grains/chaff, seeds of common weeds and wetland plants, and tree/shrub macrofossils are present at a low to moderate density within all but eight of the assemblages studied. Preservation is moderately good, although some cereals and seeds are puffed and distorted, probably as a result of exposure to high temperatures during combustion. In addition, some material is abraded and comminuted, possibly suggesting that it was exposed to the elements for some considerable period prior to incorporation within the feature fills.

Barley (*Hordeum* sp.) and wheat (*Triticum* sp.) grains are recorded along with cereals which are too poorly preserved for close identification. Of the wheat grains, most are of an elongated 'drop' form typical of emmer (*T. dicoccum*) or spelt (*T. spelta*) and occasional glume bases of both varieties are also recorded.

Weed seeds are particularly scarce, with most being recorded as single specimens within an assemblage. Segetal species are predominant, with taxa noted including brome (*Bromus* sp.), fat hen (*Chenopodium album*), small legumes (Fabaceae), black bindweed (*Fallopia convolvulus*), goosegrass (*Galium aparine*), grasses (Poaceae), knotgrass (*Polygonum aviculare*) and dock (*Rumex* sp.). Occasional onion-couch (*Arrhenatherum* sp.) type tubers are also recorded. Wetland plant macrofossils include sedge (*Carex* sp.) and bur-reed (*Sparganium erectum*) nutlets and seeds of blinks (*Montia fontana*), and although tree/shrub macrofossils are scarce, pieces of hazel (*Corylus avellana*) nutshell are noted along with fragmentary hawthorn (*Crataegus* sp.) and sloe (*Prunus spinosa*) type fruit stones. Highly comminuted charcoal/charred wood fragments are present throughout, but other plant macrofossils are generally scarce.

Other remains also occur infrequently, although small fragments of abraded bone (some of which are burnt/calced) are noted at a low to moderate density within thirteen assemblages (excluding the grave fills). It is thought most likely that the black porous and tarry residues are all derived from the high temperature combustion of organic remains (including cereal grains). Possible faecal concretions are noted within the assemblage from ditch [2430] (sample 30).

Discussion

Where possible, the samples have been divided by date, group number and feature type.

Structure 1 (Table 12)

Four samples (20, 21, 22 and 23) are from the post-holes of a four post structure. This feature was discovered to the west of Enclosure 1, but it is currently unclear whether it may be of the same Early- to Middle-Iron Age date. The assemblages are extremely small (i.e. <0.1 litres in volume) and plant macrofossils and other remains are scarce. As a result, it is impossible to state with any degree of certainty how this particular structure may have functioned. However, similar contemporary 'buildings' recorded elsewhere in eastern England (for example, a 6-post structure at St. Osyth, Essex Fryer 2007) almost certainly acted as above ground grain stores.

Enclosure 2 (Table 10)

Three samples (12, 27 and 28) are from fills within the ditch of the Middle- to Late-Iron Age enclosure. Although the recovered assemblages are small, cereals, chaff and seeds are present throughout. However, it is unclear whether the remains are derived from cereal processing waste or from the use of such detritus as fuel within a domestic context. Either way, it is suggested that the low density of material is indicative of the accidental inclusion of the remains within the ditch fills, with little or no evidence for any primary deposition. Such patterns of deposition are relatively common from sites of this date, as it would appear that refuse was disposed of well away from buildings as a means of preventing accidental fires.

Enclosure 3 (Table 10)

Four samples (33, 35, 39 and 40) are from the Late Iron Age enclosure ditches. Although charcoal/charred wood fragments are abundant within three of the assemblages, other remains are generally scarce, although it is noted that two samples do include small fragments of bone. Whether these latter may be indicative of the nearby processing of meat or other animal products is unknown, although the presence of bone within other of the ditch fills at Bridge Farm may indicate that such activities were occurring on or near the site

Other ditch fills (Table 11)

A further eight assemblages are from ditch and gully fills of probable Iron Age date. Most are small and sparse, although sample 30 (from the fill of ditch [2430]) does contain a number of cereals and seeds of common segetal weeds. Charcoal fragments are abundant, and as the assemblage also includes mineralised faecal material, it would appear most likely that remains are derived from a small quantity of midden waste which was placed within the ditch fill. Small bone fragments are present within all eight ditch assemblages, possibly further supporting the hypothesis that pastoralism and/or the processing of meat was an important part of the local economy.

Pit fills (Table 12)

Six samples are from pit fills of probable Iron Age date. As with other assemblages from this site, plant macrofossils are generally scarce, although comminuted charcoal fragments are present throughout. However, pit [4063] (sample 36) does contain cereals, seeds, wetland plant macrofossils, hedgerow fruit/nut fragments and small pieces of bone, all of which may indicate that the pit acted as a midden for the deposition of domestic refuse.

Burial 2 (Table 13)

Two samples are from the fill of grave [2346], which contained an inhumation burial of probable Saxon date. Both assemblages are extremely small, containing little other

than small pieces of bone and occasional flecks of charcoal. It is thought most likely that the few cereals/seeds which are present within the assemblage from sample 17 are residual, being derived from the low density of Iron Age refuse which is spread across much of the excavated area.

Table 10: Charred plant macrofossils and other remains (Enclosures 2 and 3)

Sample No.	12	27	28	33	35	39	40
Context No.	2301	2408	2414	4038	4049	4099	4106
Feature No.	2304	2415	2415	4040	4055	4101	4109
Feature type	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch
Group No.	Enc 2	Enc 2	Enc 2	Enc 3	Enc 3	Enc 3	Enc 3
Potential date	M/LIA	M/LIA	M/LIA	LIA	LIA	LIA	LIA
Cereals							
<i>Hordeum</i> sp. (grains)	-	xcf	x	-	-	-	-
<i>Triticum</i> sp. (grains)	xx	x	-	-	x	-	-
(glume bases)	x	-	-	-	-	-	-
(rachis internodes)	x	-	-	-	-	-	-
<i>T. dicoccum</i> Schubl (glume bases)	-	xcf	-	-	-	-	-
<i>T. spelta</i> L. (glume bases)	x	-	-	-	-	-	-
Cereal indet. (grains)	xx	x	x	-	x	-	-
Herbs							
<i>Arrhenatherum</i> sp. (tubers)	x	-	-	-	-	-	-
<i>Bromus</i> sp.	x	-	-	-	-	-	-
<i>Chenopodium album</i> L.	x	x	-	-	-	-	-
Fabaceae indet.	-	x	-	-	x	-	-
<i>Fallopia convolvulus</i> (L.)A.Love	xtf	-	x	-	-	-	-
<i>Galium aparine</i> L.	-	-	-	-	x	-	-
<i>Plantago lanceolata</i> L.	-	x	-	-	-	-	-
Small Poaceae indet.	x	x	-	-	-	-	-
<i>Polygonum aviculare</i> L.	x	-	-	-	-	-	-
<i>Rumex</i> sp.	x	-	-	-	x	x	-
<i>R. acetosella</i> L.	x	-	-	-	-	-	-
Wetland plants							
<i>Carex</i> sp.	-	-	-	-	x	-	-
<i>Sparganium erectum</i> L.	x	-	-	-	-	-	-
Tree/shrub macrofossils							
<i>Corylus avellana</i> L.	-	-	-	-	xcf	-	-
<i>Crateagus</i> sp.	-	xcf	-	-	-	-	-
Other plant macrofossils							
Charcoal <2mm	xxxx	xxx	xx	xxxx	xxxx	x	xxxx
Charcoal >2mm	xxx	xx	x	xxxx	xx	x	xxxx
Charcoal >5mm	xx	-	x	xxx	x	-	xx
Charcoal >10mm	-	x	x	-	x	-	x
Charred root/stem	x	x	x	-	x	-	-
Indet. culm nodes	x	-	-	-	-	-	-
Indet. prickle	-	x	-	-	-	-	-
Indet. seeds	x	-	-	-	-	-	-
Other remains							
Black porous and tarry material	x	x	-	-	x	x	-
Bone	-	-	-	x	xx xb	-	-
Burnt/fired clay	-	-	-	-	x	-	-
Burnt stone	x	x	-	-	-	-	-
Small mammal/amphibian bones	x	-	-	-	x	-	x
Sample volume (litres)							
Volume of flot (litres)	0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1
% flot sorted	100%	100%	100%	50%	100%	100%	100%

Table 11: Charred plant macrofossils and other remains (other ditches and gullies)

Sample No.	18	19	25	26	29	30	31	41
Context No.	2387	2384	2353	2397	2425	2429	2305	4020
Feature No.	2388	2385	2354	2398	2426	2430	2306	4021
Feature type	Ditch	Ditch	Gully	Gully	Ditch	Ditch	Ditch	Ditch
Cereals								
<i>Hordeum</i> sp. (grains)			x					
<i>Triticum</i> sp. (grains)			xcf			x	x	
Cereal indet. (grains)			x			x		
Herbs								
<i>Arrhenatherum</i> sp. (tubers)		x				x		
<i>Atriplex</i> sp.						x		
<i>Bromus</i> sp.			x			xcf		
<i>Chenopodium album</i> L.						xx		
Chenopodiaceae indet.						x		
Fabaceae indet.			x			x		
<i>Galium aparine</i> L.				x				
<i>Medicago/Trifolium/Lotus</i> sp.						xcf		
Small Poaceae indet.				x		x		
Large Poaceae indet.			x			x		
<i>Polygonum aviculare</i> L.						x		
Polygonaceae indet.						x		
<i>Rumex</i> sp.			x	x				
<i>Stellaria media</i> (L.) Vill						x		
Wetland plants								
<i>Carex</i> sp.						x		
<i>Montia fontana</i> L.						x		
Other plant macrofossils								
Charcoal <2mm	xx	xxxx	xxx	xxx	xx	xxxx	xx	xxx
Charcoal >2mm	xx	xxx	xx	xx	x	xxx		x
Charcoal >5mm	x	x	x			xx	x	
Charcoal >10mm		x	x	x		x		
Charred root/stem		x	x			x		
Indet. seeds			x			x		
Other remains								
Black porous and tarry mat		x	x	x		x		x
Bone	xx	x xb	x	x	x	x	x	x
Burnt/fired clay				x	x			
Mineralised faecal concr						xcf		
Mineralised soil concretions						xxxx		
Small coal frags.				x	x			
Small mammal/amphibian			x					
Vitreous material		x						
Sample volume (litres)								
Volume of flot (litres)	<0.1	<0.1	0.1	<0.1	<0.1	0.1	<0.1	<0.1
% flot sorted	100%	100%	100%	100%	100%	100%	100%	100%

Table 12: Charred plant macrofossils and other remains (other IA features)

Sample No.	20	21	22	23	24	32	34	36	37	38
Context No.	2374	2376	2379	2380	2389	2469	4036	4061	4067	4089
Feature No.	2375	2377	2379	2381	2390	2277	4043	4063	4070	4091
Feature type	ph	ph	ph	ph	Pit	Pit	Pit	Pit	Pit	Pit
Group No.	Str. 1	Str. 1	Str. 1	Str. 1						
Cereals										
<i>Triticum</i> sp. (grains)	x	-	xcf	-	-	-	-	xx	-	-
(rachis internodes)								x		
Cereal indet. (grains)					x		x	xx		
Herbs										
<i>Bromus</i> sp.			x	x						
<i>Chenopodium album</i> L.								x		
Fabaceae indet.							x			
<i>Fallopia convolvulus</i> (L.)A.Love								x		
Lamiaceae indet.									x	
Small Poaceae indet.		x		x				x		
Large Poaceae indet.					x					
<i>R. acetosella</i> L.		x						x		
<i>Sherardia arvensis</i> L.								x		
Wetland plants										
<i>Carex</i> sp.								x		
<i>Montia fontana</i> L.								x		
Tree/shrub macrofossils										
<i>Corylus avellana</i> L.								x		
<i>Prunus spinosa</i> L.								xcf		
Other plant macrofossils										
Charcoal <2mm	xxx	xxx	xxx	xx	xxxx	xxx	xxxx	xxxx	xxxx	xx
Charcoal >2mm	x	x	x	x	xx	x	xxxx	x	xxx	x
Charcoal >5mm					x	x	x	x	xx	
Charcoal >10mm	x				x		x	x		
Charred root/stem					x		x	x		
Indet. fruit/nut frag.				x						
Indet. seeds			x		x	x		x		
Other remains										
Black porous and tarry material								x		x
Bone					xb			x xb	x	
Burnt/fired clay				x				x		
Burnt stone								x		
Pottery								x		
Small coal frags.				x						x
Small mammal/amphibian bones		x								
Sample volume (litres)										
Volume of flot (litres)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1
% flot sorted	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 13: *Charred plant macrofossils and other remains (burials)*

Sample No.	16	17
Context No.	2344/45	2345
Feature No.	2346	2346
Feature type	Grave	Grave
Group No.	Bur. 2	Bur. 2
Potential date	A/S	A/S
Cereals		
Cereal indet. (grains)		xcffg
Herbs		
Fabaceae indet.		x
Small Poaceae indet.		x
Other plant macrofossils		
Charcoal <2mm	x	x
Charcoal >2mm	x	x
Other remains		
Black porous and tarry material		x
Bone	xxx	x
Burnt/fired clay	x	
Sample volume (litres)		
Volume of flot (litres)	<0.1	<0.1
% flot sorted	100%	100%

Key to Tables

x = 1 – 10 specimens xx = 11 – 50 specimens xxx = 51 – 100 specimens xxxx = 100+ specimens
 cf = compare tf = testa fragment b = burnt fg = fragment
 Encl = enclosure ph = post-hole Struct = structure Bur = burial
 M/LIA = Middle- to Late- Iron Age LIA = Late Iron Age IA = Iron Age A/S = Anglo Saxon

Conclusions

In summary, the assemblages from Shefford are generally small and somewhat limited in composition, with much of the recovered material appearing to be derived from scattered refuse and/or midden waste. However, notwithstanding these limitations, it may be possible to infer the following:

- 1) Little can be said about the earliest occupation of the site, as samples were not taken from Enclosure 1. The assemblages from Structure 1 (which may or may not be of Early- to Middle-Iron Age date) are inconclusive, although such buildings were frequently used as above ground grain stores.
- 2) As indicated by the archaeology, the main focus of activity at the site appears to have concentrated around the Middle- to Late-Iron Age Enclosure 2. It would appear that cereals were being consumed by the occupants of the site, although there are few indications that grain was being processed within the near vicinity. However, evidence from other contemporary sites on somewhat marginal clay soils (for example Loves Farm, St. Neots (Fryer forthcoming) does suggest that cereals were probably being processed on an ad hoc basis, meeting the day to day requirements of the occupants. It also appears that the waste products from

processing would have been fed to the livestock, thereby reducing its occurrence as anything other than domestic refuse derived from the use of chaff as tinder or kindling.

- 3) The assemblages from Enclosure 3 suggest that by the Late Iron Age, agricultural/domestic activity was minimal, whilst animal husbandry and/or the processing of animal products were probably of more importance. However, it should be stated that this hypothesis has little in the way of corroborative evidence.
- 4) The few remains recovered from Saxon Burial 2 are almost certainly residual, being derived from the Iron Age activity within the area of Enclosure 2.

7 SUMMARY OF POTENTIAL AND PROPOSALS FOR FURTHER ANALYSIS

7.1 The worked flint

No further work is required.

7.2 The Iron Age pottery

Late Iron Age wheel-finished Belgic-type wares from Area 2 to be analysed by Rob Perrin

Early middle and middle to late Iron Age hand-built vessels from Areas 1 and 3 to be analysed by Andy Chapman

7.3 The ceramic roof tile

No further work is required.

7.4 The fired clay

No further work is required.

7.5 The metalworking debris

No further work is required.

7.6 The small finds

The iron strap-end (SF 1) from Burial 1 and the iron knife (SF 4) and copper alloy buckle frame/plate (SF3) associated with Burial 2 need to be x-radiographed and illustrated.

7.7 The human bone

No further work is required.

7.8 The animal bone

A full report will be written for the assemblage, including a description of the species representation by phase and a full description of the horse burial, which will be discussed in relation to other finds of horse remains at late Iron Age and Romano-British sites in the region.

7.9 The charred plant macrofossils and other remains

As none of the assemblages contain a sufficient density of material for quantification (i.e. 100+ specimens), no further analysis is recommended. However, a summary of this assessment should be included within any publication of data from the site.

7.10 Radiocarbon dating

It should be possible to ascertain a radiocarbon date for each of the main three enclosures, which will be derived from animal bone fragments recovered from the ditch fills. As indicated by the pottery assessment, a small jar with a pale brown surface and deep vertical scoring from the ditch [2415] of enclosure E2, has burnt residue on the everted rim that may also be suitable for radiocarbon dating. At least one of the human burials should be radiocarbon dated in order to better clarify if they are of Anglo-Saxon date.

8 REVIEW OF RESEARCH OBJECTIVES AND SIGNIFICANCE OF RESULTS

8.1 Iron Age

The potential for the excavations at Bridge Farm to contribute to the research aims for the region is low to moderate.

The enclosure fills have survived moderately well at Bridge Farm in addition to several postholes, although no domestic structures have been identified. This would appear to indicate that the settlement fulfilled a primarily agricultural purpose, although evidence of small scale metalworking activity was found in enclosure E3. However, the moderate quantity of artefacts and ecofacts recovered suggest domestic occupation has occurred at the site, but no buildings or structures survived in the archaeological record.

The Bedfordshire Archaeological Framework discusses the trend for sites with evidence of settlement through multiple Iron Age phases to comprise a single habitation area surrounded by several enclosures that were more focused in function. (Oake *et al* 2007, 67). The evidence from Bridge Farm would appear to further support this model, if one assumes the presence of a habitation site nearby, possibly superseded by the Romano-British settlement that is known to exist to the west (Albion Archaeology 2003, Walker 2011, Luke *et al* 2010).

Broad reviews of the animal bone evidence for a range of periods across southern and central Britain (Hambleton 2008, Albarella and Pirnie 2008) have identified very few examples of complete horse burials, although the phenomenon is not entirely unique for Bedfordshire as a late Iron Age burial containing a foal and a neonatal human was discovered at Stagsden, to the west of Bedford (Oake *et al* 2007, 71). Broad reviews of the animal evidence for a range of periods across southern and central Britain have identified very few examples of complete horse burials.

8.2 Anglo-Saxon

If the two inhumations prove to be of Anglo-Saxon date then it may raise new questions regarding the use of the site in the Post-Roman period. Chinnock (section 5) records two relevant research objectives relating to these burials including assessing the landscape settings of Anglo-Saxon burial sites (Knight *et al* 2012, 85). The nature of Anglo-Saxon settlement in Bedfordshire is poorly understood (Oake *et al* 2007, 93), and it is more likely that the two inhumations represent isolated burials rather than an indication of an Anglo-Saxon phase of occupation at the site. The lack of grave goods and east-west alignment may indicate Christian burial practice, which would suggest a middle Saxon or later date, and the burials' location next to the earlier enclosure may have been intentional, assuming that it was still visible as an earthwork above ground.

The Roman to Anglo-Saxon transition is listed as one of the future research topics for the East of England (Medlycott 2011, 57) as is ritual and religion, in particular the conversion to Christianity and re-use of earlier enclosures as Christian sites (Medlycott 2011, 59).

9 ARCHIVE, PUBLICATION AND DISSEMINATION

9.1 Archive

The archive has been offered to Bedford Museum, who have agreed to accept it upon completion of the project (Accession no: BEDFM:2012.22). The archive will be retained at the Northampton MOLA office until the conclusion of the work. OASIS forms will be completed for the project upon the issue of each report as part of the report procedure and each report will be submitted to the Archaeological Data Service (ADS). There is no requirement for the archive to be digitised. A microfilm copy of the site archive and narrative will be made to RCHME standards and submitted to the National Archaeological Record. The archive will be prepared according to professional standards and guidelines, together with the specific requirements for Bedford Museum (Walker 1990; MGC 1992; SMA 1993; Watkinson and Neal 2001; Duncan 2011; ClfA 2014c-d; Bedford Museum 2010).

The archive will comprise all written, drawn and photographic records, and all material finds and processed sample residues recovered from the excavation. The site archive will be accompanied by the research archive, which will comprise the text, tabulated data, the original drawings and all other records generated in the analysis of the site archive. The archive will be fully catalogued and prepared for deposition. Any material requiring special curation will be handled under the recognised guidelines (Watkinson and Neal 2001). MOLA Northampton will retain the archive until deposition is available.

9.2 Reporting and publication

A full site report will be prepared by MOLA Northampton. This will be submitted to the Historic Environment Record (HER) and deposited with the Archaeological Data Service (ADS). Provision will be made for the results to be published as a small article in the Bedfordshire Archaeology Journal.

9.3 Quantification of the site archive

The archive of materials following assessment comprises the following:

Site records

Watching brief: 28x *pro-forma* diary sheets, including annotated sketch plans.

Plans: 15 x A2 sheets (Area 1), 4 x A2 sheets (Area 2), 17 x A3 sheets (Area 3) at 1:50 or 1:100 comprising 36 hand drawn plans.

Sections: 8x A2 sheets (Area 1), 3x A2 sheets (Area 2), 6x A3 sheets (Area 3) at 1:10 and 1:20, comprising 125 section drawings.

Contexts: 419 descriptions on *pro-forma* record sheets.

Photographs: 10 x films and 567 digital images (Area 1), 4x films and 127 digital images (Area 2), 2 x films and 108 digital images (Area 3).

Levels: 5 sheets, comprising 174 spot heights recorded against Ordnance Datum, excluding GPS data.

Registered finds: 16 finds of special archaeological interest, recorded on 1 sheet.

Finds and samples

Pottery: 5 archive boxes (2x Area 1, 2x Area 2, 1x Area 3).

Ceramic building materials: 1 archive box, including all fired clay, roof tile etc.

Human remains: 2 inhumations (2 archive boxes).

Animal bone: 10 archive boxes (5x Area 1, 2x Area 2, 3x Area 3).

Flint finds: 1 archive box, including flakes, cores, tools etc.

Small finds: 1x box, including 4 iron alloy artefacts, 2 copper alloy artefacts, 1 shale artefact, 1 worked bone artefact, 3 stone artefacts, 2 flint flakes and 2 complete pottery vessels.

This quantification is prior to sorting and cataloguing for archive, whereupon finds will be distributed between boxes by weight according to museum accession requirements and standard professional practises (Walker 1990; MGC 1992; SMA 1993; Watkinson and Neal 2001; Duncan 2011). Similarly, following assessment, not all the flots and resultant residues from soil samples will be retained. Some material will be disposed of once it has been examined, such as modern bricks and contaminated samples, whilst other material, such as selected charred material, will be consumed through scientific analysis.

10 RESOURCES AND TIMETABLE

10.1 Future works

In order to bring the project to final reporting and publication a programme of future works will be undertaken.

Table 14: Post-excavation analysis task list

Tasks	Personnel
1. Report introduction and background	Adam Reid
2. Report structural site narrative	Adam Reid
3. Documentary research	Adam Reid
4. Flint artefact analysis and report	Andy Chapman or Yvonne-Wolfram Murray
5. Late Iron Age & Roman pottery analysis and report	Rob Perrin
6. Human bone	Chris Chinnock
7. Animal bone	Adam Reid or Rebecca Gordon
8. Other finds	Tora Hylton, Andy Chapman and Pat Chapman
9. Illustrations	James Ladocha
10. Integration of specialist reports	Adam Reid
11. Report digest and discussion	Adam Reid
12. Editing/proof reading	Andy Chapman & Pat Chapman
13. Preparation of research archive	Tora Hylton

10.2 Programme

The programme will commence once the Assessment Report and Updated Project design has been approved by the County Archaeological Advisor and is anticipated to start in December 2016

Table 15: Post-excavation analysis programme

Task/month	1	2	3
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

10.3 Key personnel

All staff are adequately qualified to undertake the tasks allotted to them and many have been established specialists for some years with an extensive track record of

written and published material. Other project staff will be appointed as appropriate and specialist analysis will be undertaken by period and artefact specialists regularly used by MOLA Northampton. Most specialists will be drawn from the following pool:

Table 16: Key personnel

Name	Specialism
<i>MOLA Northampton specialists</i>	
Andy Chapman	Prehistoric pottery and artefact specialist, also querns and industrial metalworking debris Senior Project Manager
Tora Hylton	Roman, medieval and post-medieval finds Finds Manager
Pat Chapman	Building materials Project Supervisor
Yvonne Wolfram-Murray	Prehistoric flint and stone tools Project Supervisor
Chris Chinnock	Human remains Project Supervisor
Adam Reid	Faunal remains Project Supervisor
<i>MOLA London specialists</i>	
Alan Pipe	Faunal remains and molluscs
Karen Stewart	Seeds, plant macrofossils, charcoal and wood
Graham Spurr	Geoarchaeology
<i>External specialists</i>	
Rob Perrin	Roman pottery

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ClfA 2014b *Code of Conduct*, Chartered Institute for Archaeologists

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MOLA
Updated January 2017



MOLA
Bolton House
Wootton Hall Park
Northampton
NN4 8BN
01604 700 493
www.mola.org.uk
sparry@mola.org.uk