Northamptonshire Archaeology

Late Saxon, medieval and post-medieval activity at the former Cranfield University site Silsoe, Bedfordshire March 2012

Northamptonshire Archaeology
2 Bolton House
Wootton Hall Park
Northampton NN4 8BE
t. 01604 700493 f. 01604 702822
e. sparry@northamptonshire.gov.uk
w. www.northantsarchaeology.co.uk

Northamptonshire County Council

Tim Upson-Smith

Report 13/14

August 2013

LUTNM:2011.48

STAFF

Project Manager:	Adam Yates BA MIfA
Text:	Tim Upson-Smith BA PG Dip
Fieldwork:	Tim Upson-Smith
	Adrian Adams, Jonathan Elston, Peter Haynes
	Robyn Pelling BA and Rob Smith
Pottery:	Paul Blinkhorn BTech
Metal finds:	Tora Hylton
Clay tobacco-pipe:	Tim Upson-Smith
Querns and millstones:	Andy Chapman BSc MIfA FSA
Ceramic building material:	Pat Chapman BA CMS AIfA
Animal bone:	Lazlo Lichtenstein MA
Charred plant remains:	Val Fryer BA MIfA
Illustrations:	Amir Bassir BSc & Charlotte Walker BSc AIfA
Editing:	Pat Chapman & Andy Chapman

QUALITY CONTROL

	Print name	Signature	Date
Verified by	A Yates		
Checked by	P Chapman		
Approved by	A Chapman		

OASIS REPORT FORM

PROJECT DETAILS	**OASIS NUMBER: 155527**	
Project name	Late Saxon, medieval and post-medieval activity at the former Cranfield University Site, Silsoe, Bedfordshire, March 2012	
Short description	Scattered pits are dated to the late Saxon period, 10th-11th centuries, and one contained a dump of fired clay lining and charred seeds from a drying oven. These pits may have been contemporary with the establishment of a boundary ditch, although the ditch was recut and may have been in use until the 15th century. Further pits and gullies were in use between the 12th and mid-15th centuries, and pottery dating to the 12th and 13th centuries had also accumulated in a group irregular natural hollows. Further ditches, pits and the remains of a rectangular stone building were associated with post-medieval pottery. Other archaeological features may have been removed by a combination of late medieval or post-medieval ridge and furrow cultivation, and landscaping and groundwork associated with the former university campus.	
Project type	Excavation	
Site status	None	
Previous work	MoLAS desk-based assessment (Pethen 2008), Northamptonshire Archaeology geophysical survey (Smith 2011), Northamptonshire Archaeology Evaluation (Upson-Smith 2011)	
Current Land use	Arable	
Future work	Unknown	
Monument type	Late Saxon and medieval boundary ditch, pits and post-medieval building	
Significant finds	Late Saxon and medieval pottery	
PROJECT LOCATION		
County	Bedfordshire	
Site address	Former Cranfield University, Barton Road, Silsoe	
Study area	25 ha	
OS Easting & Northing	TL 080 352	
Height mOD	57-66m	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology	
Project brief originator	Martin Oake, Central Bedfordshire Council Archaeologist	
Project Design originator	Northamptonshire Archaeology	
Director/Supervisor	Tim Upson-Smith	
Project Manager	Adam Yates	
Sponsor or funding body	Bloor Homes	
PROJECT DATE		
Start date	03/2012	
End date	03/2012	
ARCHIVES	Location	Content
Physical	LUTNM:2011.48	Pottery, clay tobacco-pipe, quern frags, metal and glass finds, bone and flots
Paper	LUTNM:2011.48	Evaluation pro forma sheets, context sheets, colour slides, black and white contact prints, digital photographs, plans and section drawings
Digital	LUTNM:2011.48	Report text and figures
BIBLIOGRAPHY		
Title	Late Saxon, medieval and post-medieval activity at the former Cranfield University Site, Silsoe, Bedfordshire, March 2012	
Serial title & volume	13/14	
Author(s)	Tim Upson-Smith	
Page numbers		
Date	August 2013	

Contents

Tables

Figures

LATE SAXON, MEDIEVAL AND POST-MEDIEVAL ACTIVITY AT THE FORMER CRANFIELD UNIVERSITY SITE SILSOE, BEDFORDSHIRE MARCH 2012

Abstract

An open-area excavation was undertaken following geophysical survey and trial trenching. Scattered pits are dated to the late Saxon period, 10th-11th centuries, and one contained a dump of fired clay lining and charred seeds from a drying oven. These pits may have been contemporary with the establishment of a boundary ditch, although the ditch was recut and may have been in use until the 15th century. Further pits and gullies were in use between the 12th and mid-15th centuries, and pottery dating to the 12th and 13th centuries had also accumulated in a group irregular natural hollows. Further ditches, pits and the remains of a rectangular stone building were associated with post-medieval pottery. Other archaeological features may have been removed by a combination of late medieval or post-medieval ridge and furrow cultivation, and landscaping and groundwork associated with the former university campus.

1 INTRODUCTION

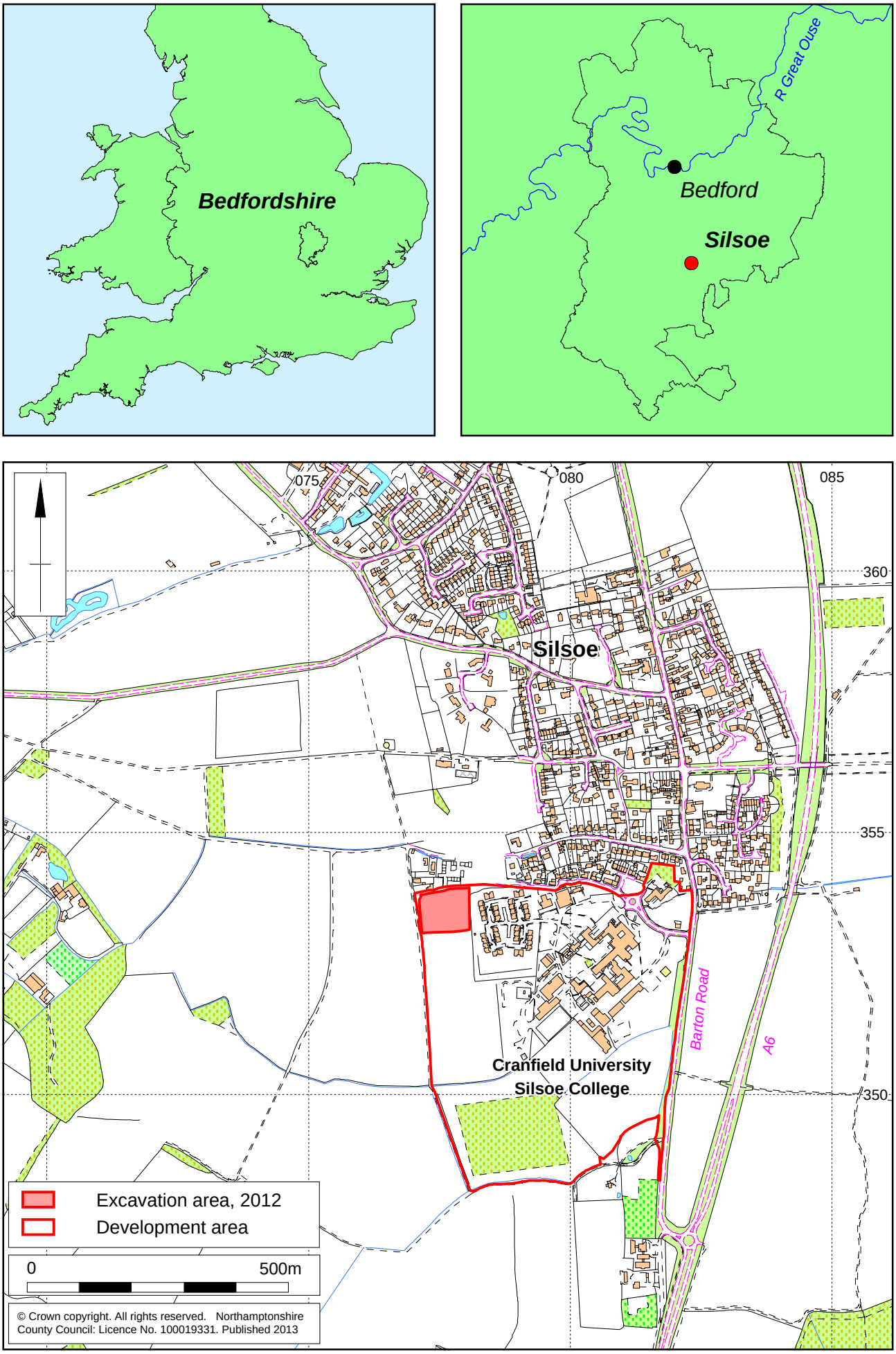
Northamptonshire Archaeology was commissioned by Bloor Homes to undertake open area excavation on the former Silsoe Campus of Cranfield University, Silsoe, Bedfordshire (NGR TL 08050 35250 (Fig 1). The excavation followed a phased programme of desk-based assessment, geophysical survey and trial trenching (MoLAS 2008, Smith 2011 & Upson-Smith 2012). Works were undertaken in order to fulfil a condition on planning consent, issued by Central Bedfordshire Council (Oake 2011) and followed a Written Scheme of Investigation prepared by Northamptonshire Archaeology (NA 2012). Luton Museum has issued an accession number for the works: LUTNM 2011.48.

2 BACKGROUND

2.1 Topography and geology

The development area consisted of 25ha of land on the southern edge of Silsoe. It was bordered to the north by West End Road, to the east by Barton Road, to the south and south-west by a large land drain and wooded copse, and to the west by agricultural fields. Much of the site was occupied by the buildings, sports fields, roads, car parks, and landscape features associated with the former Cranfield University campus; although the application area also included an area of former arable land to the west, and the wooded copse.

The geology of the development area comprises Gault formation-mudstone (http://mapapps2.bgs.ac.uk/geoindex/home.html) with some alluvium near the former watercourse which had been canalised and turned into the open land drain. The site is mostly level and situated at 57-60m above Ordnance Datum (OD), although it rises gradually to the north-west where it reaches a maximum elevation of *c* 66m aOD.



Scale 1:5000

Site Location Fig 1

2.2 Archaeological background

The desk-based assessment by MoLAS (2008) indicates that whole site had been agricultural fields before the construction of the campus in the 1970s. Plough-damaged ridge and furrow is visible on aerial photographs in the northern portion of the campus. It was concluded that the site 'had low to moderate potential to contain archaeological remains, as for most of recorded history the site lay in an open rural landscape on the edge of the nucleated settlement of Silsoe'. The main potential of the site was seen to be for 'low density medieval and later agricultural features' (MoLAS 2008).

In 2007 Oxford Archaeology East undertook an evaluation on land at the College Farm development, which borders the northern boundary of the present site (Thatcher 2011). The evaluation of this neighbouring site revealed evidence of Roman agricultural activity and residual finds, and a possible Roman roof tile is recorded as coming from the campus playing fields. The site lies directly south of the historic core of the settlement, and the evaluation also found evidence of plots dating to the 10th to 13th centuries fronting onto West End Road (Thatcher 2011). Historic map evidence suggested that much of the rest of that site was part of the open fields surrounding the village during the medieval and post-medieval periods.

Geophysical survey was undertaken by Northamptonshire Archaeology during 2011, in arable fields in the west of the present site and playing fields in the south, covering a total of 10.3ha (Smith 2011). The survey identified medieval or post-medieval ridge and furrow cultivation patterns confirming the cartographic evidence (Smith 2011, fig 3). No further archaeological features were found, however, there were many magnetic anomalies representing various features such as land drains, ferrous pipelines, ferrous or ceramic debris in the soil, larger ferrous objects and magnetic disturbance caused by standing buildings, fences and other modern installations.

Trial trench evaluation, in two phases, was undertaken by Northamptonshire Archaeology during 2011. This identified an area containing features dating to the 10th-12th centuries, as well as features of post-medieval date (Upson-Smith 2012). On the basis of these results an area in the north-western part of the development site was designated for open-area excavation.

3 AIMS, OBJECTIVES AND METHODOLOGY

3.1 Aims and objectives

The principal aim of the archaeological excavation was to identify the location, extent, nature, date and quality of archaeological deposits and features within the site through preservation by record, as part of the mitigation of the impact of the development upon the archaeological resource, in accordance with Policy HE12 of Planning Policy Guidance 5: Planning for the Historic Environment (PPG5, DCLG 2010), now superseded by the National Planning Policy Framework (NPPF, DCLG 2012).

The research aims followed the broad research frameworks set out in English Heritage's National Framework for Research (EH 1997) and for eastern England and Bedfordshire (Brown and Glazebrook 2000; Oake *et al* 2007;Medlycott 2011), especially those pertaining to rural Saxon and medieval settlement (Wade in Brown and Glazebrook 2000; Edgeworth in Oake *et al* 2007).

The specific objectives of the project were set out in the WSI as follows:

- to determine the date, phasing and nature of the archaeological activity on site;
- to contribute to the understanding of the origins, development and character of Saxon and medieval settlement and settlement patterns;
- to place the remains in their local and regional context;
- to recover any evidence for the palaeo-environment and palaeo-economy of the remains.

3.2 Methodology

Site procedures for the investigation and recording of potential archaeological deposits and features were defined in the Northamptonshire Archaeology Written Scheme of Investigation (NA 2012), and agreed with the Archaeology Team of Central Bedfordshire Council.

The topsoil and subsoil were removed by a 360-degree mechanical excavator equipped with a toothless ditching bucket. The topsoil was stored separately from the subsoil. The excavation area was cleaned by hand in places to aid the identification of features, and the excavated area and spoil heaps were scanned visually and with a metal detector in order to maximise finds retrieval.

Recording followed standard Northamptonshire Archaeology procedures (NA 2011). All deposits and features were assigned individual context numbers. Deposits, cut features and masonry structures were described on pro-forma context sheets, and scale plans and sections were drawn of the overall excavation area and individual features. All artefacts were collected and retained.

A programme of bulk soil sampling for palaeo-environmental analysis was also undertaken.

A full photographic record comprising 35mm black and white, colour slide and digital photography was maintained.

The work was carried out according to standards specified by the Institute for Archaeologists (2008), the principles of MAP2 and MoRPHE (English Heritage 1991, 2009), and the guidelines detailed in *Standards for Field Archaeology in the East of England* (Gurney 2002). All procedures complied with the Northamptonshire County Council Health and Safety provisions and Northamptonshire Archaeology Health and Safety at Work Guidelines.

Scale 1:750 (A4)

The excavated area Fig 2

4 THE EXCAVATED EVIDENCE

The excavation occupied an area of 0.8ha, measuring 95m by 40m, located in the north-western part of the development area (Fig 2). It targeted those features observed during the evaluation (Upson-Smith 2012).

4.1 Romano-British activity

One abraded sherd of residual Romano-British pottery was recovered from a Late Saxon gully [5050].

4.2 Late Saxon pits and ditches (10th-11th century AD)

Significant quantities of pottery dated to the 10th and 11th centuries were recovered from pits and gullies, including a pit containing oven debris (Fig 4). Contemporary pottery was also recovered from the medieval boundary ditch system, which may have had its origin at this time (see below).

Gully [5050], in the south-eastern part of the excavation, was aligned north-south. It was 13m long, 0.84m wide by 0.23m deep, and at its southern end it turned west for 0.8m before terminating (Figs 4 and 7, Section 49). The fill consisted of a firm mid dark grey silty clay (5049), and contained pottery dated to the 10th century

Immediately to the east of the southern terminal of the gully were two sub-rectangular pits, [5048] and [5045]. There were no clear relationships between these features, and no dating evidence was recovered, but the pits are likely to be broadly contemporary with the gully. Pit [5048] was 0.70m wide by 0.22m deep, with a primary fill (5047) of firm mid brown silty clay, 0.14m thick, overlain by firm mid dark grey silty clay (5046), 0.08m thick. Pit [5045] was 1.62m wide by 0.36m deep, with fills (5044) and (5043) of the same character as those in pit [5048].

Two short gullies [5116] and [5114], aligned broadly east-west, are dated to the 10th and 11th centuries. Gully [5116] was 4m long, 0.40m wide by 0.12m deep, but the western end was not defined. The fill comprised firm dark grey silty clay (5115). Lying immediately to the north, gully [5114] was 0.47m wide by 0.10m deep, but the western end of this short gully had been removed by boundary ditch [5133]. The fill (5113) was similar to the fill of the adjacent gully.

There were a number of pits in the southern part of the excavation area and a further pit [5163] in the north-western part of the excavation area (Figs 2, 3 and 4).

Three pits lay in the southern part of the site (Fig 4). The southernmost pit, [5130] was sub-circular, 1.10m in diameter and 0.24m deep, with shallow slopping sides and a flat base. The fill of firm dark grey-brown silty clay contained pottery dating to the 10th century. Pit [5106] was sub-oval, 0.77m long by 0.69m wide and 0.18m deep, with shallow sloping sides. The fill (5105) was firm dark-grey silty clay, and contained pottery dating to the 11th century. Pit [5100], immediately to the south of the south-west corner of the boundary ditch was sub-oval, 1.30m long by 1.03m wide and 0.20m deep, with steep sides and a flat base. The fill, dark-grey silty clay (5099) contained a large amount of charcoal, seeds, bramble pips and capsule fragments of flax, and pottery dating to the 11th century. Located inside the south-western corner of the boundary ditch there was a further small sub-circular pit, [5112], 0.65m in diameter by 0.13m deep, with shallow sloping edges. The fill (5111) comprised firm dark grey silty clay and contained 11th-century pottery.

Pit [5124], near the south-west corner of the boundary ditch, was sub-oval in plan 2.70m long by 2.00m wide and 0.78m deep, with a shallow U-shaped profile. The fills, (5123), (5122), (5121), (5120) and (5119), consisted of clays with silty sandy lenses of various grey-brown hues with degraded stone and occasional charcoal

flecks or lenses of charcoal. The lower fills were more silty in texture, and fill (5123) produced one sherd of pottery dated to the 10th century, while the upper fills (5121), (5120) and (5119) contained a further 35 sherds of 10th-century pottery (Fig 7, Section 55).

A small elongated pit [5104], 1.15m long by 0.30m wide and 0.10m deep, contained no pottery but was probably contemporary with pit [5124] which lay 2m to the north.

A spread of soil (5022) between the boundary ditch and gully [5050] contained St Neot's ware pottery of the 10th century.

Pit [5163] was sub-oval in plan, 1.80m long by 1.10m wide and 0.34m deep, with steep sloping sides and a flat base (Fig 2). The pottery recovered from the firm dark grey clay (5161) upper fill is dated to the 10th century. A nail (SF5) and a small iron knife of 10th/11th century date (SF1) were also recovered from this context (Fig 9).

Late Saxon pit [5163], looking north-east Fig 3

Two pits [304] and [306], in the western end of evaluation trench 3 were dated to the 10th century (Fig 2), along with pit [404] in evaluation trench 4 (Fig 4), which contained 15 sherds of 10th-century pottery (Blinkhorn 2012) and bread wheat grains.

An irregular elongated pit [5191], lying west of the boundary ditch, was 5.00m long by 1.64m wide and 0.38m deep, with steep sloping sides and a flat base. The lower fill (5190) was firm mid grey-yellow silty clay overlain by dark grey silty clay (5189).. The fills contained pottery dated to the 11th century

In the south-east corner of the site, a pit [5056], cut by a re-cut of the boundary ditch, contained dumped debris from a drying oven (Figs 4 and 5). The pit was sub-rectangular, 1.5m long by 0.60m deep, with steeply sloping sides and a flat base. The middle fill (5054) of dark grey-black silty clay, 0.30m thick, contained a quantity of fired clay with wattle impressions that may have been derived from the clay-domed oven roof. This deposit also contained charred seeds of wheat, large pulses, a range of weed seeds as culinary refuse and fuel residues, burnt bedding/flooring material and possible residue from grain drying, suggesting that the oven had had multi-functional uses.

10th - 15th centuries
11th century
12th - 15th centuries
18th - 19th century

5176
5185
S.72
Demolition spread 5175
5197
5150
evaluation trench
evaluation trench
5193
5191
5140
5170
S.71
5172
5174
5130
5106
5126
5128
5136
5116
S.61
315
5118
5100
5133
5116
5104
5102
S.55
5124
5112
Natural hollows / spreads
5155
5159
5098
Natural hollows
5095
5050
5021
5024
5022
5048
S.30
5035
5026
5045
S.49
5199
5028
5015
5017
5040
5057
5013
5089
5011
5087
5007
5080
5002
5056
5005
evaluation trench
404
S.44
5091
S.43
5093
0
10m
5146
5144
5148
evaluation trench

Scale 1:250 (A3)

Site plan Fig 4

Pit [5056] containing oven debris, looking north Fig 5

4.3 Late Saxon to medieval boundary ditch

This feature appeared to have had several phases of reuse, as evidenced by re-cuts (Fig 6). Pottery dating to the 10th and 11th centuries was recovered from the southern and eastern terminals of the ditch and along the western arm; however, pottery dating to the mid 14th to late 15th centuries was recovered from its south-western corner, suggesting that the boundary may have been a long-lived feature within the landscape.

The boundary ditch extended south from beyond the northern boundary of the excavation area before turning east for 27m then turning south again and terminating after 22m (Fig 4).

The northern end of the ditch, [5174], was *c*0.7m wide by 0.35m deep, with a fill (5173) of firm grey-brown silty clay. The ditch had been re-cut twice. Ditch [5170] was 0.44m wide by 0.25m deep, with a fill (5169) of firm dark blue-grey silty clay; ditch [5172] was 0.41m wide by 0.30m deep, with a similar fill (Fig 6, Section 71). This arm of the ditch was excavated in the evaluation, ditch [315], and the fill contained nine sheds of 10th-century pottery (Blinkhorn 2012).

The south-western corner [5136] of the ditch was *c*1.30m wide by *c*0.30m deep with steep sloping sides and a concave base. The lower fill (5135) comprised firm orange-brown silty clay 0.10m thick, overlain by firm dark grey silty clay (5134). This ditch had been re-cut on its eastern side, ditch [5133], 0.78m wide by 0.22m deep, with a lower fill (5132) of firm mid orange-brown silty clay, overlain by (5131) firm mid-dark grey silty clay(Fig 6, Section 61). Pottery dating to the mid 14th to 15th centuries was recovered from this layer.

The southern arm of the ditch [5040] had been re-cut twice, [5199] and [5035] (Fig 6, Section 30). Ditch [5040] was 0.90m wide by 0.32 deep, with a shallow V-shaped profile. The primary fill (5039) comprised firm medium-light grey silty clay, 0.09m thick, overlain by firm dark grey silty clay (5038), 0.20m thick. The upper fill (5037) comprised firm mid grey with orange mottling silty clay, 0.22m thick. The re-cut ditch [5199], which just clipped the earlier ditch on its northern edge, was 0.74m wide by 0.15m deep, with a broad flat base and shallow southern side. The fill was of firm medium grey silty clay (5036). This ditch was cut on its northern side by gully [5035],

0.19m wide by 0.16m deep, with a U-shaped profile, and a fill (5034) of firm dark brown-grey silty clay.

The eastern arm comprised two parallel ditches. The western ditch terminal [5093] was 0.56m wide by 0.27m deep, with a U-shaped profile, and a fill (5192) of firm grey silty clay, containing pottery dated to the 10th century. The eastern terminal [5091] was 0.44m wide by 0.08m deep, with a shallow U-shaped profile and fills, (5192) and (5090), of firm grey silty clay (Fig 6, Sections 44 and 43). An earlier terminal was seen a little way north, in ditch [5005].

4.4 Medieval activity (12th to mid-15th centuries)

There were a number of features scattered across the site that produced a small amount of pottery dated to the 12th to mid 15th centuries. Two gullies and a spread adjacent to the boundary ditch produced 13th-century pottery. The pottery, dated to the 12th and 13th centuries, recovered from gullies [5011] and [5013], adjacent to the south-east corner of the boundary ditch, was from the surface of their respective fills (5010) and (5012), which comprised firm mottled light grey brown silty clay. A shallow spread [5073] immediately adjacent to the gullies was probably of similar date. Feature [5007] in the same area was a natural hollow.

A single sherd of 12th to mid 13th century pottery was recovered from the shallow spread (5140), alongside the western arm of the boundary ditch. The spread was 2.0m across and 0.05m deep and comprised dark black-grey silty clay filling a natural shallow depression.

The remaining pottery, dating from the 12th to mid 13th centuries, was recovered from spreads (5155) and (5159) in the north-eastern part of the excavation area. These were similar in character to spread (5140) and consisted of subsoil filling irregular natural depressions.

Pottery dating to the mid 14th to late 15th century was also recovered from one of the spreads (5098) on the northern edge of the excavation area.

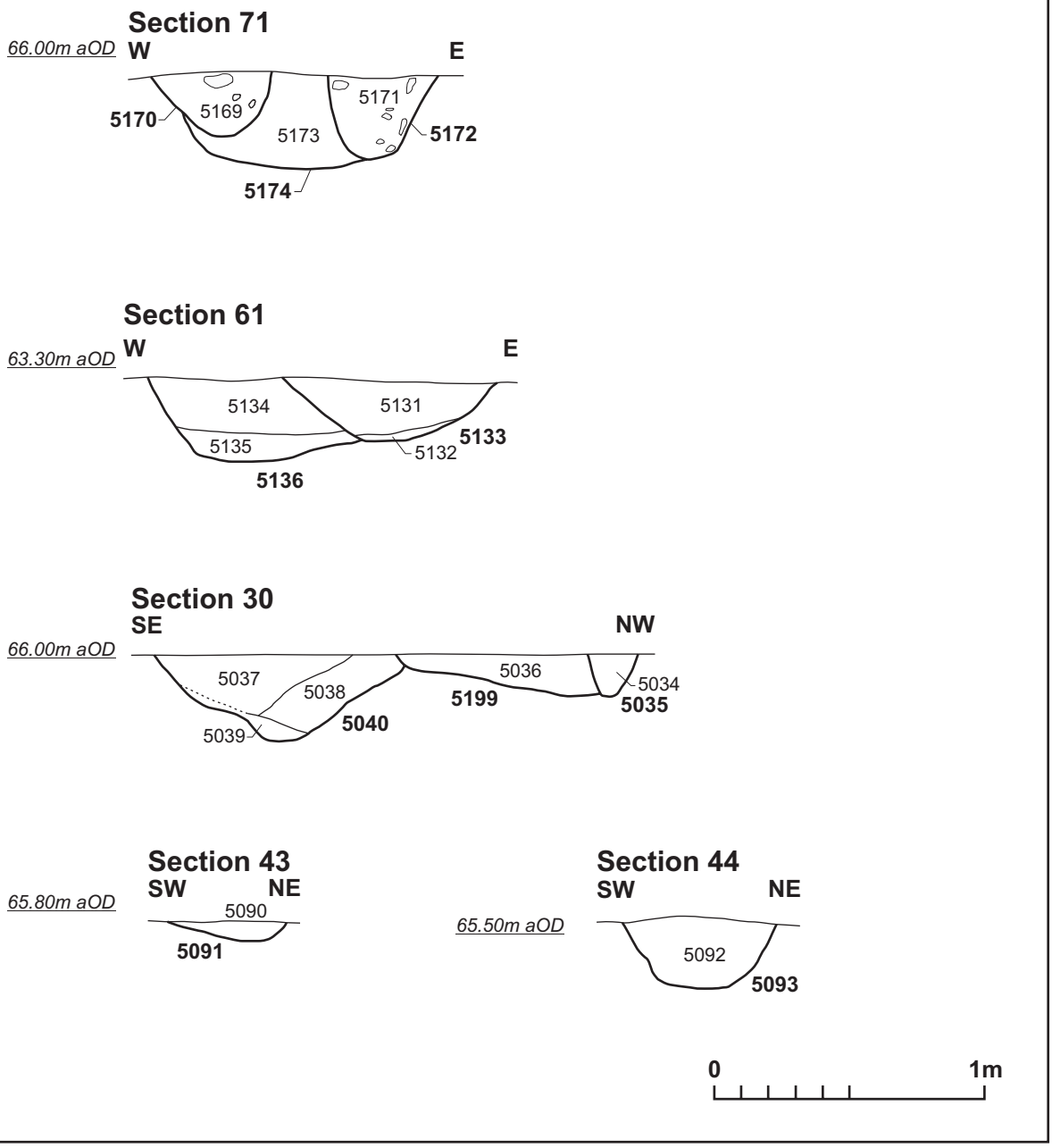
4.5 Probable medieval features

In the south-eastern part of the site were a number of small pits and gullies which, though undated, are most likely to date broadly to the 11th to 12th centuries.

By the south-eastern corner of the boundary ditch were two small postholes [5087] and [5089] and a short shallow gully [5080]. Both postholes were *c*0.40m in diameter by *c*0.12m deep with firm mid grey silty clays fills (5086), (5088). The gully [5080] was 2.3m long by 0.27m wide and 0.10m deep, with a shallow U-shaped profile; the fill (5079) was firm dark brown-grey silty clay.

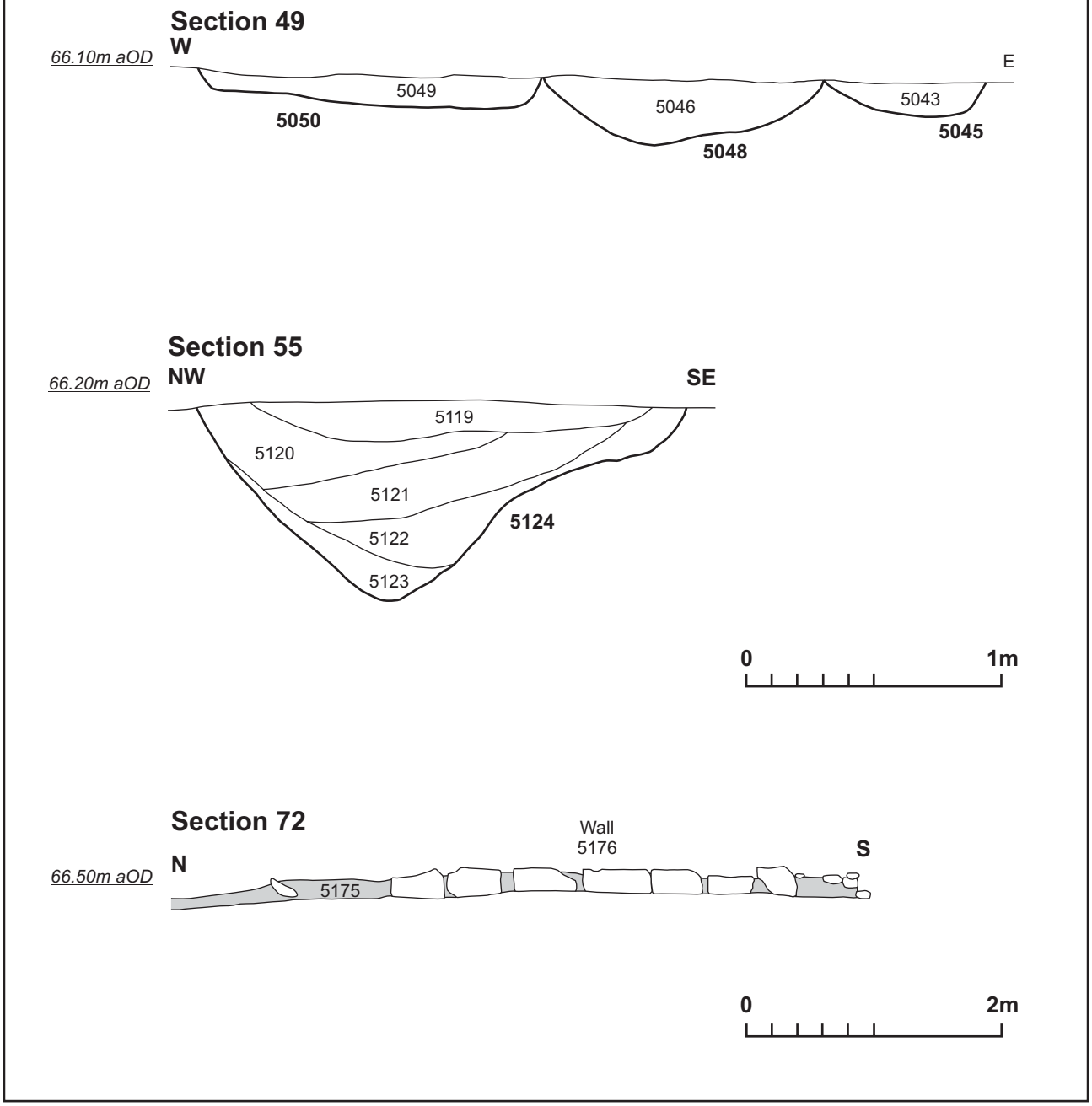
Diagonally opposite to these features on the northern side of the boundary ditch were a further group of four small postholes [5024], [5026], [5028], [5017] and a short gully [5021]. The postholes measured between 0.42m-0.16m in diameter and between 0.05 and 0.29m deep, with fills of firm dark grey silty clays. The short gully [5021] was 2.90m long by 0.50m wide and 0.16m deep, with a U-shaped profile and a fill (5020) of firm dark grey silty clay.

A short length of ditch [5148], in the north-eastern part of the site, was 0.60m wide by 0.20m deep, with a U-shaped profile and a fill (5147) of dark brown silty clay. Although the ditch was undated, it was parallel to the dated boundary ditch and it was also on the observed by Oxford Archaeology East in their excavation on the adjacent area to the north of the site (Thatcher 2011). It is likely, therefore, that the ditch is of medieval date.



Scale 1:25 (A4)

Boundary ditch sections Fig 6



Scale 1:25 & 1:50 (A4) Sections of a late Saxon gully and pits, and a post-medieval wall Fig 7

4.6 Post-medieval and early modern (AD 1550 – 1900)

In the central part of the site, there were the stone footings of the western gable wall (5176) and elements of the north wall (5185) of a post-medieval stone building (Fig 7, Section 72). From the extent of the demolition layer (5175), it is possible to suggest that the building was probably *c*20m long by *c*8m wide. There were no surviving internal features, but the large quantity of domestic pottery is suggestive of a reasonably well-to-do rural household of the early to mid 18th century. A quantity of clay tobacco-pipe and a 'Jews' harp, was also recovered. The footings of the west wall comprised roughly faced ironstone blocks with a rubble core, of the north wall only the rubble core survived. The overlying demolition rubble comprised fragmented ironstone with infrequent brick and tile fragments.

Wall (5176), looking east Fig 8

No building was shown on the 1882 1st Edition Ordnance Survey map, which would indicate that it had been demolished by this date. However, the building was broadly aligned on a pair of parallel ditches [5150] and [5197], from which 19th-century material was recovered and which appeared on the 1882 1st Edition Ordnance Survey map. The ditches, which were *c*3m apart, were aligned broadly east-west. The northern of the two ditches [5150], was 0.43m wide by 0.16m deep with a V-shaped profile. The fill (5149) comprised firm dark grey-brown sandy clay. The southern ditch [5197] was 0.37m wide by 0.18m deep with a U-shaped profile, the fill (5196) the same as (5149).

North of the building footprint were three pits of post-medieval date. The northernmost of these, pit [5110] was 1.00m in diameter by 0.19m deep with near vertical sides and a flat base (Fig 2). Located 10m to the south of this pit was a further circular pit [5130], 1.1m in diameter by 0.24m deep, with steep sides and a flat base (Fig 2). The fills of both pits (5109) and (5129) comprised firm dark brown-grey silty clays. Pit [5193], immediately north of the building footprint (Fig 4), was 1.5m wide by 0.6m deep, with steeply sloping sides and a flat base. The fill (5192) was compact dark green-grey silty clay.

5 THE FINDS

5.1 The medieval and post-medieval pottery by Paul Blinkhorn

Analytical methodology

The pottery was initially bulk-sorted and recorded on a computer using DBase IV software. The material from each context was recorded by number and weight of sherds per fabric type, with featureless body sherds of the same fabric counted, weighed and recorded as one database entry. Feature sherds such as rims, bases and lugs were individually recorded, with individual codes used for the various types. Decorated sherds were similarly treated. In the case of the rim sherds, the form, diameter in mm and the percentage remaining of the original complete circumference was all recorded. This figure was summed for each fabric type to obtain the estimated vessel equivalent (EVE).

The terminology used is that defined by the Medieval Pottery Research Group's *Guide to the Classification of Medieval Ceramic Forms* (MPRG 1998) and to the minimum standards laid out in the *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics* (MPRG 2001). The statistical analyses were carried out were carried out to the minimum standards suggested by Orton (1998-9, 135-137), using a DBase package written by the author which interrogated the original or subsidiary databases, with some of the final calculations made with an electronic calculator.

Quantitative data

The pottery assemblage comprised 561 sherds with a total weight of 7276g, comprising material from two entirely separate phases of activity, one from the late Saxon to high medieval period, the other from the early to mid-18th century. The estimated vessel equivalent (EVE) based on surviving rim sherd circumference was 2.66, and all the wares were types well-known in the region. Where appropriate, pottery was recorded using the codings and chronology of the Bedfordshire County Archaeology Service type-series (eg Baker and Hassall 1977), as follows.

F100: B01: T1(1) type St Neots Ware, *c* AD 900-1100, 221 sherds, 1866g, EVE = 2.21
F200: B01A: T1(2) type St Neots Ware, *c* AD 1000-1200, 72 sherds, 368g, EVE = 0.29
F330: B07: Medieval Shelly Ware, *c* AD 1100-1400, 7 sherds, 40g, EVE = 0.06
F360: C59b: Sandy ware, 12th-13th century, 2 sherds, 10g, EVE = 0
F324: C09: Brill/Boarstall Ware, mid-13th to 15th centuries, 1 sherd, 1g, EVE = 0
F365: E01: Late medieval reduced ware, mid-14th to 16th centuries, 5 sherds, 28g, EVE = 0.10
F401: E02: Late Medieval Oxidized Ware, mid-14th to 16th centuries, 1 sherd, 19g, EVE = 0
F404: P12: Cistercian Ware, *c* AD 1470-1700, 3 sherds, 93g, EVE = 0
F405: P25: Frechen Stoneware, AD 1550-1700, 3 sherds, 40g, EVE = 0
F406: P23: Raeren Stoneware, late 15th to late 16th centuries, 1 sherd, 6g, EVE = 0
F407: P28C: Midland Purple Ware, mid-14th to 17th centuries. 1 sherd, 43g, EVE = 0
F425: P01: Glazed Red Earthenware, mid-16th to 18th centuries. 104 sherds, 2525g
F410: P33: Anglo-Dutch Tin-Glazed Earthenware, 17th to 18th centuries. 1 sherd, 19g, EVE = 0
F412: P06: Slip-decorated earthenware, 17th to 18th centuries. 25 sherds, 1893g
F413: P24: Westerwald/Cologne Stoneware, 17th to 18th centuries. 1 sherd, 9g

F414: P19: Staffordshire Manganese Mottled Ware, late 17th to 18th centuries. 1 sherd, 13g
F416: P30: Staffordshire slipware, mid-17th to 18th centuries. 11 sherds, 80g
F433: P37: White Salt-glazed Stoneware, early to mid-18th century. 1 sherd, 24g
F1000: P56: Mass-produced White Earthenware, 19th to 20th centuries. 8 sherds, 186g
F1001: All Romano-British. 1 sherds, 13g

The pottery occurrence by number and weight of sherds per context by fabric type is shown in Tables 3 and 4. The range of fabric types is typical of sites in the region, and indicates that the main periods of activity represented at the site were in the Late Saxon to early medieval period, and also during the early to mid-18th century.

Chronology

Each context-specific pottery group was given a Ceramic Phase date (CP) based on the range of ware types present. The scheme, and the pottery occurrence by phase, is shown in Table 1. Table 2 shows the pottery occurrence per ceramic phase by major fabric type.

Table 1: Ceramic phase chronology and pottery occurrence per phase, Area 1

Phase	Date	Defining Ware	No	Weight (g)	EVE	Mean Weight (g)
CP1	10th century	B01	239	1542	1.60	6.5
CP2	11th century	B01A	95	495	0.42	5.2
CP3	12th to mid-13th centuries	B07, C59b	21	95	0.25	4.5
CP4	Mid-13th to mid-14th centuries	C09	0	0	0	0
CP5	Mid-14th to late 15th centuries	E01, E02	38	179	0.39	4.7
CP6	Late 14th to mid-16th centuries	P23	2	10	0	5.0
CP7	Mid-16th to early 17th centuries	P01	4	81	0	20.3
CP8	Early to late 17th centuries	P06, P24, P30, P33	8	32	0	4.0
CP9	Late 17th to late 18th centuries	P19	0	0	0	0
CP10	Early to mid-18th centuries	P37	146	4656	0	31.9
MOD	Late 18th century +	P59	8	186	0	23.3
Total			**561**	**7276**	**2.66**	

The data in Table 1 above and in Table 2 below show that the main periods of pottery deposition were during the Late Saxon period and the early to mid-18th century. There was activity at the site throughout most of the medieval period, but the assemblages from each phase were limited to a handful of sherds, other than in CP5, although most of the pottery from that phase was residual (see Table 3 below). The mean sherd weight, CP10 and CP MOD aside, was low, although in CP1 and CP2 this was due to the presence of large quantities of St Neots Ware which is generally relatively fragile, and is usually found broken into small pieces. For example, similar mean sherd weights were observed for the stratified St Neots Ware from Raunds, Northamptonshire (Blinkhorn 2009, table 6.17).

Table 2: Pottery occurrence per ceramic phase, major fabric types only, by percentage of the phase assemblage, by weight (in g)

	CP1	CP2	CP3	CP5	CP6	CP7	CP8	CP10	MOD
B01	99.7%	29.9%	31.6%	72.6%	0	0	65.6%	0	0
B01A	-	70.1%	15.8%	3.4%	0	0	0	0	0
B07	-	-	42.1%	0	0	0	0	0	0
C59b	-	-	10.5%	0	0	0	0	0	0
E01	-	-	-	13.4%	40.0%	0	0	0	0
E02	-	-	-	10.6%	0	0	0	0	0
P23	-	-	-	-	60.0%	0	0	0	0
P28C	-	-	-	0	0	0	0	0.9%	0
P12	-	-	-	-	0	0	0	2.0%	0
P01	-	-	-	-	-	100%	0	52.5%	0
P06	-	-	-	-	-	-	0	46.6%	0
P25	-	-	-	-	-	-	0	1.0%	0
P24	-	-	-	-	-	-	28%	0	0
P30	-	-	-	-	-	-	3.1%	1.7%	0
P33	-	-	-	-	-	-	0	0.4%	0
P19	-	-	-	-	-	-	-	0.3%	0
P37	-	-	-	-	-	-	-	0.5%	0
P56	-	-	-	-	-	-	-	-	186
Total	**1542**	**495**	**95**	**179**	**10**	**81**	**32**	**4656**	**186**

The data in Table 2 above indicate that residuality was very high in most of the phases of 12th century and later date, and that there was very little activity at the site after the Norman Conquest, other than in the early to mid-18th century.

The pottery

Ceramic Phase 1, 10th century. 239 sherds, 1542g, EVE = 1.60
All the pottery from this phase is T1 (1) type St Neots Ware, apart from one sherd of residual Romano-British pottery. The stratified pottery is typical of the tradition, with the rim sherds indicating that the assemblage is entirely made up of jars (EVE = 0.90) and bowls (EVE = 0.70). Most of the jar rims are in the 140-180mm diameter range, which is fairly typical, but there is also a single sherd with a rim diameter of 240mm, likely to be from a storage vessel. The bowl rims all have diameters in the 260-300mm range. This is again typical of the tradition (Denham 1985). No decorated sherds are present, but St Neots Ware was rarely decorated.

Ceramic Phase 2, 11th century. 95 sherds, 495g, EVE = 0.42
The pottery from this Ceramic Phase comprises a mixture of T1 (1) and T1 (2) St Neots wares, with the latter forming the bulk (70.1%) of the assemblage. The rim sherd assemblage again shows that all the vessel types are jars (EVE = 0.23) and bowls (EVE = 0.19), and the size range is little different to that in the previous ceramic phase. The body sherds include two sherds in T1 (2) with applied strip decoration. These are almost certainly from a storage jar, with such vessels with applied strips generally being more common in the 11th century than the 10th.

Ceramic Phase 10, early to mid-18th century. 146 sherds, 4656g
The pottery from this phase consists of a single dump of material from demolition layer (5175). The bulk of the material comprises large sherds and partially complete vessels, including at least three large polychrome marbled slipware dishes (Fig 9). A monochrome-slipped handled jar is also present. These make up 46.6% of the assemblage (by weight), with a large proportion of the rest of the assemblage comprising utilitarian vessels in Glazed Red Earthenware (52.5%). Most of the latter

are pancheons, but handled jars are also present, as are fragments from a single costrel, or water-bottle. Much of the rest of the assemblage comprises fragments of drinking pottery in the form of Cistercian Ware tygs and Manganese Marbled Ware and German Stoneware mugs, bottles and jugs. A few sherds of fine tablewares such as Staffordshire Slipware, and a chamber-pot rim in White Salt-Glazed Stoneware were also noted, as was a Tin-Glazed Earthenware ointment pot. The group is a typical domestic one from a reasonably well-to-do rural household of the early to mid-18th century.

Ceramic Phase MOD, 19th century. 8 sherds, 186g
Most of the 19th-century pottery was intrusive, consisting of six sherds (180g) from a single vessel, a Yellow Ware chamber-pot, from building layer (5175). Given the size of the rest of the assemblage from this feature (above), it seems very likely that the 19th-century pottery was introduced into it during the demolition of the structure.

Table 3: Pottery occurrence by number and weight (in g) of sherds per context by fabric type, Late Saxon and medieval contexts

	F1001		F100		F200		F330		
Fill/cut	***No***	***Wt (g)***	***No***	***Wt (g)***	***No***	***Wt (g)***	***No***	***Wt (g)***	**Ceramic Phase**
5003 / ditch 5004	-	-	-	-	18	62	-	-	CP2
5010 / gully 5011	-	-	-	-	-	-	1	5	CP3
5012 / gully 5013	-	-	-	-	-	-	2	2	CP3
5022 spread	-	-	2	33	-	-	-	-	CP1
5036 / ditch 5199	-	-	-	-	7	23	-	-	CP2
5038 / ditch 5040	-	-	1	10	-	-	2	7	CP3
5043 / pit 5045	-	-	1	1	-	-	-	-	CP1
5046 / pit 5048	-	-	2	9	-	-	-	-	CP1
5049 / gully 5050	1	5	4	12	-	-	-	-	CP1
5051 / ditch 5052	-	-	12	35	-	-	-	-	CP1
5054 / pit 5056	-	-	-	-	2	12	-	-	CP2
5059 / pit 5061	-	-	3	15	-	-	-	-	CP1
5081 / ditch 5083	-	-	-	-	16	129	-	-	CP2
5098 spread	-	-	1	4	-	-	-	-	CP5
5099 / pit 5100	-	-	19	34	4	30	-	-	CP2
5105 / pit 5106	-	-	-	-	3	25	-	-	CP2
5111 / pit 5112	-	-	4	14	1	1	-	-	CP2
5113 / gully 5114	-	-	-	-	6	49	-	-	CP2
5115 / gully 5116	-	-	5	26	-	-	-	-	CP1
5117 / ditch 5118	-	-	1	13	-	-	-	-	CP2
5119 / pit 5124	-	-	14	222	-	-	-	-	CP1
5120 / pit 5124	-	-	13	36	-	-	-	-	CP1
5121 / pit 5124	-	-	8	39	-	-	-	-	CP1
5123 / pit 5124	-	-	1	15	-	-	-	-	CP1
5129 / pit 5130	-	-	9	98	-	-	-	-	CP1
5131 / ditch 5133	-	-	33	140	1	6	-	-	CP5
5140 spread	-	-	1	5	-	-	-	-	CP3
5155 spread	-	-	-	-	9	15	1	5	CP3
5159 spread	-	-	-	-	-	-	1	21	CP3
5161 / pit 5163	-	-	122	931	-	-	-	-	CP1
5162 / pit 5163	-	-	43	80	-	-	-	-	CP1
5166	-	-	-	-	1	8	-	-	CP2
5190 / ditch 5191	-	-	9	87	4	8	-	-	CP2
Totals	**1**	**5**	**308**	**1859**	**72**	**368**	**7**	**40**	

Table 3: Pottery occurrence by number and weight (in g) of sherds per context by fabric type, Late Saxon and medieval contexts (cont'd)

	F360		F365		F401		F406		
Fill/cut	***No***	***Wt (g)***	***No***	***Wt (g)***	***No***	***Wt (g)***	***No***	***Wt (g)***	**Ceramic Phase**
5003 / ditch 5004	-	-	-	-	-	-	-	-	CP2
5010 / gully 5011	-	-	-	-	-	-	-	-	CP3
5012 / gully 5013	-	-	-	-	-	-	-	-	CP3
5022 spread	-	-	-	-	-	-	-	-	CP1
5036 / ditch 5199	-	-	-	-	-	-	-	-	CP2
5038 / ditch 5040	-	-	-	-	-	-	-	-	CP3
5043 / pit 5045	-	-	-	-	-	-	-	-	CP1
5046 / pit 5048	-	-	-	-	-	-	-	-	CP1
5049 / gully 5050	-	-	-	-	-	-	-	-	CP1
5051 / ditch 5052	-	-	-	-	-	-	-	-	CP1
5054 / pit 5056	-	-	-	-	-	-	-	-	CP2
5059 / pit 5061	-	-	-	-	-	-	-	-	CP1
5081 / ditch 5083	-	-	-	-	-	-	-	-	CP2
5098 spread	-	-	1	7	-	-	-	-	CP5
5099 / pit 5100	-	-	-	-	-	-	-	-	CP2
5105 / pit 5106	-	-	-	-	-	-	-	-	CP2
5109 / pit 5110	-	-	1	4	-	-	1	6	CP6
5111 / pit 5112	-	-	-	-	-	-	-	-	CP2
5113 / gully 5114	-	-	-	-	-	-	-	-	CP2
5115 / gully 5116	-	-	-	-	-	-	-	-	CP1
5117 / ditch 5118	-	-	-	-	-	-	-	-	CP2
5119 / pit 5124	-	-	-	-	-	-	-	-	CP1
5120 / pit 5124	-	-	-	-	-	-	-	-	CP1
5121 / pit 5124	-	-	-	-	-	-	-	-	CP1
5123 / pit 5124	-	-	-	-	-	-	-	-	CP1
5129 / pit 5130	-	-	-	-	-	-	-	-	CP1
5131 / ditch 5133	-	-	3	17	-	-	-	-	CP5
5140 spread	1	4	-	-	-	-	-	-	CP3
5155 spread	-	-	-	-	-	-	-	-	CP3
5159 spread	1	6	-	-	-	-	-	-	CP3
5161 / pit 5163	-	-	-	-	-	-	-	-	CP1
5162 / pit 5163	-	-	-	-	-	-	-	-	CP1
5166	-	-	-	-	1	19	-	-	CP5
5190 / ditch 5191	-	-	-	-	-	-	-	-	CP2
Totals	**2**	**10**	**5**	**28**	**1**	**19**	**1**	**6**	

Table 4: Pottery occurrence by number and weight (in g) of sherds per context by fabric type, post- medieval contexts

Fabric	Residual		F404		F405		F407		
Fill/cut	**No**	**Wt (g)**	**No**	**Wt (g)**	**No**	**Wt (g)**	**No**	**Wt (g)**	**Ceramic Phase**
5107/ 5108	-	-	-	-	-	-	-	-	MOD
5147/ 5148	-	-	-	-	-	-	-	-	MOD
5149/ 5150	-	-	-	-	1	38	-	-	CP7
5153 spread	-	-	-	-	1	21	-	-	CP7
5175 layer	1	8	3	93	3	40	1	43	CP10
5187/ 5188	-	-	-	-	-	-	-	-	CP7
5192/ 5193	6	22	-	-	-	-	-	-	CP8
5196/ 5197	7	30	3	93	5	99	1	43	

Fabric	F425		F410		F412		F413		
Fill/cut	No	Wt (g)	No	Wt (g)	No	Wt (g)	No	Wt (g)	**Ceramic Phase**
5107/ 5108	-	-	-	-	-	-	-	-	MOD
5147/ 5148	-	-	-	-	-	-	-	-	MOD
5149/ 5150	-	-	-	-	-	-	-	-	CP7
5153 spread	-	-	-	-	-	-	-	-	CP7
5175 layer	100	2444	1	19	25	1893	-	-	CP10
5187/ 5188	2	22	-	-	-	-	-	-	CP7
5192/ 5193	-	-	-	-	-	-	1	9	CP8
5196/ 5197	102	2466	1	19	25	1893	1	9	

Fabric	F414		F416		F433		F1000		
Fill/cut	**No**	**Wt (g)**	**No**	**Wt (g)**	**No**	**Wt (g)**	**No**	**Wt (g)**	**Ceramic Phase**
5107/ 5108	-	-	-	-	-	-	1	5	MOD
5147/ 5148	-	-	-	-	-	-	1	1	MOD
5149/ 5150	-	-	-	-	-	-	-	-	CP7
5153 spread	-	-	-	-	-	-	-	-	CP7
5175 layer	1	13	10	79	1	24	6	180	CP10
5187/ 5188	-	-	-	-	-	-	-	-	CP7
5192/ 5193	-	-	-	-	-	-	-	-	CP8
5196/ 5197	1	13	10	79	1	24	8	186	

Shaded cells = intrusive material

5.2 Late Saxon and medieval finds

Late Saxon fired clay by Pat Chapman

This sizeable assemblage of 240 large, medium and small fragments of fired clay weighs 3.7kg (Table 5). They come from fill (5074) of pit/oven 5056/5075, of 10th-11th century date. Two very small fragments came from two other features.

The fired clay comprises angular, irregularly-shaped fragments made of very hard fine slightly sandy clay, almost all buff-yellow-brown in colour, with occasional gravel or flint up to 12mm long. There are also 34 small irregular fragments that are very hard and black, all from fill (5054). All of the fired clay had been subjected to some prolonged heat.

Table 5: Quantification of fired clay

Context/ feature	No	Wt (g)	Comment
5014 / gully	1	2	-
5023 / pit	1	4	-
5053 / pit/oven 5056	12	224	1 wattle impression
5054 / pit/oven 5056	222	3365	48 wattle impressions
5074 / pit/oven 5975	4	122	-
Totals	**240**	**3717**	**49**

The vast majority of the fragments come from the middle fill (5054) of pit [5056], with 19 large pieces typically measuring 80mm long, 40mm wide and 30mm thick, while 18 slightly smaller pieces measure *c* 50x50x20mm. The remaining 185 fragments are progressively smaller. Forty-eight wattle impressions survived within and on 43 fragments of fired clay, and these range from being almost circular to narrow remnants. The diameters of these round wood impressions were 10mm, 15mm and occasionally 20mm suggesting standardised sizes of wood, probably from coppiced sources. Some fragments had the finger marks of a hand-smoothed surface, occasionally showing the change in direction of the finger marks where the builder's hands crossed. The twelve fragments from the upper fill (5053) of the oven/pit consisted of two large pieces measuring 80x50x30mm, with two slightly smaller pieces and the remainder being very small fragments. One piece had a wattle impression 10mm in diameter.

This quantity of fired clay evidently came from a demolished oven structure. This assemblage, although a century or so earlier in date, is very similar to one recovered from a drying oven at West Cotton, Raunds, Northamptonshire, dated to the 12th-13th centuries (Chapman 2010, 111), where a mass of fired clay from the domed structure was found within the flue and chamber.

Late Saxon metalwork by Tora Hylton

Part of an iron knife and a nail were recovered from the fill of a 10th-century pit [5163]. The style and date of the knife corresponds well with the date of the pottery from the pit. Although incomplete, part of the blade and the terminal of the tang are missing, stylistically it is a type of knife that has a tang which is longer than the blade; a feature noted on knives dating to the 10th-11th centuries. The blade is small with a triangular cross-section and the back of the blade is horizontal and angles down to a tapered rectangular-sectioned tang, which is set below the blade (Fig 9). The small size of the blade suggests that it may have been sharpened excessively with a hone. Similar examples have been recovered from Thetford (Goodall 1984, fig 125, 99-101) and York (Waterman 1959, fig 7, 10-11).

An incomplete iron nail, *c*37mm long, with a squared head was also recovered from pit [5163].

Querns and millstones by Andy Chapman

There were three fragments of quern and millstone, all of which would be appropriate for stones in use during the late Saxon/medieval periods. From the fill (5081) of gully [5082] there is a small fragment from a lava quern, as imported in quantity from the Eifel region of Germany during the Roman and Anglo-Saxon periods.

From the fill (5141) of ditch [5142] there is an irregular fragment of fine-grained sandstone, 90mm long, 80mm wide and 37mm thick which had a heavily worn concave surface, suggesting that it was derived from the upper stone of a quern.

From the fill (5054) of pit [5056] there is a triangular section from the circumference of a millstone, possibly in Millstone Grit, but the stone is both hardened and discoloured to a dark red-purple, possibly by mineralisation whilst in a wet environment. The stone is approximately 700-800mm in diameter with 8% of the circumference surviving, indicating that it was from a powered mill rather than a rotary quern.

The upper surface retained tooled dimples, but while the stone was up to 60mm thick, the grinding surface had been lost.

5.3 Post-medieval and early modern finds

Late medieval to post-medieval metalwork by Tora Hylton

Two copper alloy fittings, a wire loop fastener and a suspension ring, and a Jews harp were recovered from a post-medieval demolition spread [5175]. The wire loop fastener comprises a small circular loop, 10mm diameter, with twisted ends manufactured from a short length of circular-sectioned wire, 1mm diameter. Such objects are recovered in great numbers in late medieval and early post-medieval contexts and examples from burials suggest that they may have functioned as fasteners on items of clothing (Margeson 1993, 20). The annular ring has a hexagonal cross-section, measuring *c*25mm in diameter. Crudely manufactured rings of this type had any number of functions, for suspension etc (cf. ibid 1993, fig 47, 523).

The corroded Jews harp, consists of a length of iron rod, hexagonal or rhomboid in cross-section, bent to an angular broad-headed sub-triangular shape to form a head or 'frame', and tapered arms at either end. The two arms are *c*35mm long and up to 6mm wide, with the 'frame' up to 39mm across, and 11mm wide and 7mm thick in cross-section, with bevelled edges. At the apex of the sub-triangular 'frame' on the anterior face is a heavily-corroded 'crimp' to accommodate the missing iron 'tongue' that produced the vibration and the resulting sound.

Jews harps may have originated in Asia, and were perhaps brought to Britain and Europe by returning Crusaders. The earliest dated examples in Britain were found in London in late 13th or 14th-century contexts (Egan 1998, 284-5). The instrument is played by being held in one hand, with the frame lightly supported between the player's teeth. The metal tongue is then plucked by the fingers on the other hand. The mouth cavity acts as a resonator and the pitch is modified using the lips, tongue and cheeks. Many other examples recorded by the Portable Antiquities Scheme have sub-circular 'frames', whereas this example is more sub-triangular in shape, and most similar to an example recorded at East Lindsey in Lincolnshire (PAS NLM-5A5D33), which was attributed a post-medieval date of *c*1720-1800.

Clay tobacco-pipe by Tim Upson-Smith

An assemblage of 198 fragments of clay tobacco-pipe was recovered. The majority, 189 fragments weighing 849g, was from the demolition layer (5175), overlying the post-medieval stone building. This group comprised 126 stem fragments and 63 bowl fragments, dating to between the mid to late 17th-century and the mid 18th-century. Of the bowl fragments, 17 pieces were complete enough for accurate dating using Oswald's simplified typology using bowl, foot/spur form (Oswald 1975, 37-41).

The earliest pipes represented are three incomplete bowls and four complete bowls of Oswald G6 type, dating to *c*1660-1680. The four complete bowls feature incomplete rouletting around the rim of the bowl. A single plain bowl with a small pointed spur was also recovered from this context and is broadly comparable with

Oswald G21, which dates to *c*1700-1740. The remaining nine bowls were broadly comparable with Oswald G10 also dating to the first half of the 18th century. Of these bowls a single example was marked with a double row of rouletting on the base of the foot.

The remaining fragments consist of stem pieces from a variety of contexts; a single stem fragment from a small pit [5108], a single stem fragment from a gully (5150), a single fragment from a pit [5187] within the post-medieval building footprint. Two un-diagnostic bowl and two stem fragments from (5192) and three stem fragments, dating to the late 19th century, from ditch [5197].

Brick and roof tile by Pat Chapman

There are eight pieces of brick weighing 3.9kg (Table 6). Two bricks from demolition layer (5175) and fill (5192) of ditch [5093] were made from hard, fine silty red/orange-brown clay. They are only 30-35mm thick, suggesting a use as infilling for timber buildings, but each has worn, smooth surfaces and could also have been used or reused for floor or yard surfaces. Two fragments, one each from the same contexts, are *c* 100mm wide and 50mm thick (or 4x2 inches), made from hard fine sandy reddish-to orange-brown clay. These more standardised dimensions may suggest that these were bricks from older buildings. The hard fine white fragment from fill (5147) of a modern gully [5148] was probably early modern in origin, as white bricks tend to be 19th century or later in date.

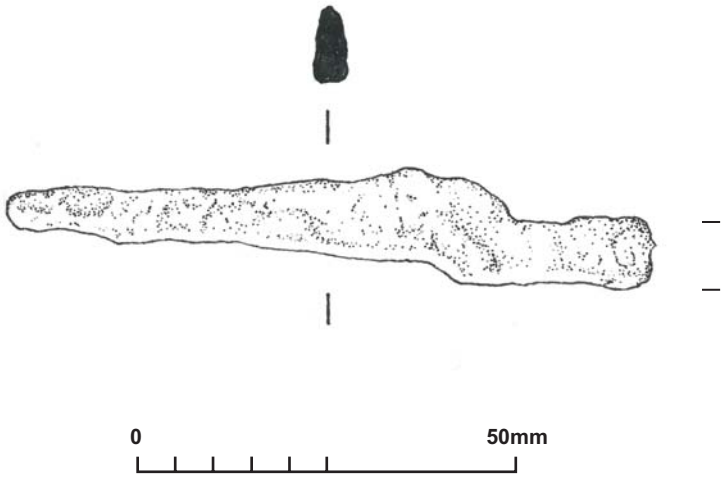
Table 6: Brick dimensions

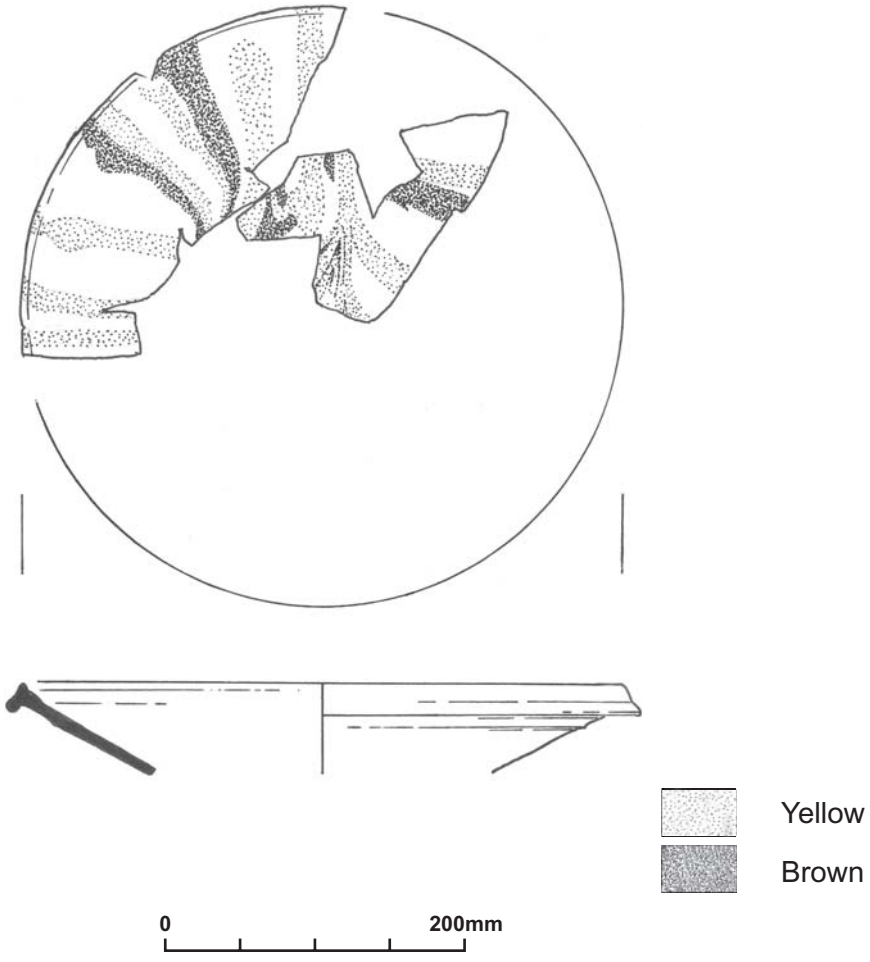
Context/feature	No	Wt (g)	Dimensions: mm (inches)
5109/pit 5110	2	16	fragment
5147/gully 5148	1	237	62 (2½) thick, white
5175/demolition layer	3	2193	200+ x 95 x 35 (8 x 3¾ x 1⅜) - x 105 x 55 (4⅛ x 2⅛) fragment
5192/ditch 5093	2	1406	- x 98 x 30 (3⅞ x 1¼) - x 100 x 50 (4 x 2)
Totals	**8**	**3852**	

The 12 fragments of plain roof peg tiles came from five contexts and weigh 1.2kg (Table 7). Ten were made from sandy orange-brown clay, one from fine silty pink-brown clay, and one was over-fired to a purple colour. The tiles are 13-15mm thick. The one measurable tile from demolition spread 5175 is 147mm (5¾ inches) wide, narrower than what used to be the standard 6½ inches (165mm) size, and it has two round pegholes 15mm in diameter. Two other fragments from the same context each have a peghole, 15mm and 20mm in diameter. Traces of white lime mortar still adhered to two fragments. Spread 5140 was dated by the pottery to the 12th-13th centuries, but there was little difference between the tile fragments from that layer and those from later contexts, as roof tiles changed very little over time until the advent of machine-made tiles in the 19th century.

Table 7: Ceramic roof tile quantification

Context/feature	No	Wt (g)
5107 pit 5108	1	20
5109 pit 5110	1	10
5140 layer	3	130
5175 demolition layer	5	886
5196 ditch 5197	2	147
Totals	**12**	**1193**





Scales 1:1& 1:5 (A4) Saxon whittle-tang knife and post-medieval dish Fig 9

6 ANIMAL BONE AND PALAEO-ENVIRONMENTAL EVIDENCE

6.1 **The animal bone** by Lazlo Lichtenstein

A total of 186 (NISP) animal bone elements and fragments was collected from a range of features, weighing 2.393kg. Some 74.2% of the specimens were hand-collected during the excavation, and the remaining 25.8% were recovered from the sieved environmental samples. Following cleaning and drying all fragments of animal bone were analysed and recorded using standard zooarchaeological methods. This material was analysed to determine the taxa present, state of preservation and the potential of the assemblage to provide evidence on the function and economy of the site.

Method

The animal bone was identified using Northamptonshire Archaeology's and the author's vertebrate reference collection, and further guidelines from Schmid (1972), Driesch (1979), Sisson and Grossman (1953) and Feher (1990). Due to anatomical similarities between sheep and goat, the criteria set out by Boessneck (1969) were used to separate the two species.

Ageing data and tooth eruption and wear were categorised according to Bull and Payne (1982), Grant (1982) and Hillson (2005) with the identification of juveniles after Amorosi (1989) and Schmid (1972).

All the animal remains were counted and weighed, and where possible identified to species, anatomical element, fragmentation, side, zone, fusion, cut- or animal teeth marks, age and sex. Bones that could not be identified to species were, where possible, categorised according to the relative size of the animal represented (large ungulate size: cattle or horse sized, small ungulate size: pig or sheep/goat). Presence of large and medium vertebrae and ribs was recorded for each context.

The Minimum Number of Individuals (MNI) was calculated on the most frequently occurring bone for each species and taking into account left and right sides, as well as epiphyseal fusion and tooth wear stage.

For the calculation of the number of identified fragments per species (NISP) all identifiable fragments were counted. All teeth and a restricted suite of parts of the postcranial skeleton were recorded and used in the counts. All fragments were recorded.

Results

Employing standard zooarchaeological methodological procedures, 171 specimens (91.9% of the total NISP) were identified to species or taxa and parts of anatomy, representing five mammalian species or taxa – *Equus* (horse), *Bos* (cattle), *Sus* (pig), Ovicaprid (sheep or goat), *Cervus* (red deer); one avian species – *Gallus* (domestic fowl); and one fish species (Table 8). The majority of bones came from cattle (18.8%) and sheep/goat (16.6%), followed by lower number of pig (6.5%). Horse (1.1%), domestic fowl (2.7%), red deer and fish were also represented at the site. No amphibian bones were recovered.

Table 8: Representative species by fragment count (including teeth)

Species/taxa	Number	Percentage
Equus caballus L.	2	1.1%
Bos taurus L.	35	18.8%
Sus scrofa domesticus B.	12	6.5%
Ovis L.	3	1.6%
Ovicaprid (Ovis aries L. and *Capra hircus* L.	28	15%
Cervus elaphus	2	1.1%
Gallus domesticus L.	5	2.7%
Fish	1	0.6%
Large ungulate size	24	12.9%
Small ungulate size	59	31.7%
Unidentified	15	8%
Total	**186**	**100%**

Taphonomy

The bones were generally in good condition, but the fragmentation was high (Table 9), with the majority (70.2%) being less than 50mm in size. The surface abrasion was at a low level. No complete long bones were recorded, because the proximal and the distal ends were damaged. Taphonomic factors affecting the material were recorded including gnawed and recently broken bones. Some bones were smashed in antiquity perhaps signifying a chosen method of disposal and/or the extraction of marrow and use in stews, but more than 40% of the assemblage showed signs of fresh breaks, probably through recovery.

Table 9: Size of the animal bone assemblage (excluding teeth)

Size (mm)	Number	Percentage
<20	48	26.8%
20-50	72	40.4%
50-100	47	26.3%
100-150	9	5%
150-200	2	1%
200-250	1	0.5%
Total	**178**	**100%**

Butchery marks were recorded on 4.8% of the assemblage. Chopping marks were identified on a *Bos* phalange from spread 5140, a radius from spread 5156 and the costa (rib) of a large ungulate sized animal from spread 5156. Knife marks were noted on a large ungulate sized animal vertebra from fill (5055) in pit [5056], and a small ungulate sized animal rib from fill (5161) of pit [5163]. Sawing evidence was observed on two fragments of cattle horn core from fill (5119) in cut [5124], and on red deer antler from spread 5165. Canid gnawing was observed on 6.9% of the bone, which is a relatively high frequency, and this was on cattle, pig and sheep/goat bone fragments. There was evidence for burning on some small bone fragments from sieved samples, forming 3.2% of the total.

Ageing

Very little ageing data was available from the horse, cattle, pig and sheep/goat tooth wear evidence (Table 10).

A severely worn down horse molar indicated the presence of a mature individual in fill (5049) from ditch [5050]. Tooth wear evidence from worn down molars indicated an adult pig in fill (5121) from cut [5124], another adult beast in fill (5046) from pit [5048], and an animal at least 15 months old in fill 5161 from pit cut [5163]. Some deciduous premolars and molars indicated a 12-24 months old sheep/goat in fill (5161) from pit [5163]. All of the cattle premolars and molars were part of adult animals.

Table 10: The age data based on tooth eruption

Context/feature	Species	Age
5121/ 5124	Pig	Older than 35 months
5046 / pit 5048	Pig	Adult
5049 /ditch 1550	Horse	Mature
	Cattle	Adult
5161 / pit 5163	Pig	Older than 15 months
	Sheep/goat	Adult TWS D (12-24 months)

Table 11: Minimum Number of Individuals identified in the animal bone assemblage

Common name	MNI
Cattle	2
Horse	1
Pig	2
Sheep/Goat	2
Domestic hen	1
Fish	1
Red deer	1

Discussion

The state of preservation for bone on the site was generally good, although the fragmentation was high. Many bones were smashed recently, probably during recovery, but 91.9% of the assemblage could nonetheless be identified to species. The assemblage was dominated by cattle 18.8% and sheep/goat (16.6%), followed by a lower proportion of pig (6.5%). Horse bones were relatively infrequent, comprising only two fragments (1.1%). The dominance of cattle and sheep/goat is not unusual for Anglo-Saxon and medieval contexts, and the assemblage reflects domestic waste disposal. Domestic chicken and fish remains were also present on the site, although the fish vertebra cannot be identified to species. Both were probably food items.

The evidence for canid gnawing was of relatively high frequency (6.9% of the total NISP), suggesting that many bones were left on the surface and were accessible to dogs before being buried. This is also an indicator that dogs were present on or close to the Site despite none of their bones being recorded in the faunal assemblage. Evidence for burning was only seen on some small bone fragments in the sieved sample (3.2% of the total NISP), and this probably relates to cooking or charring in or near fires and domestic hearths rather than being a preferred method of disposal.

None of the hand-collected and sieved bones from the contexts displayed any evidence of pathological conditions.

Conclusions

The range of species present was not unusual for Late Saxon and medieval contexts. Cattle were the most important animal species in terms of food value on account of the much greater carcass weight during this period. The sawing evidence on the horn core suggests that this fragment was utilised for some form of tool making. There are

anatomical similarities between sheep and goats, but in this case the ovicaprid remains almost certainly came from sheep. Wool and milk were important secondary products of these animals. All of the pigs in the assemblage appear to have been domestic, although the frequencies of pig are normally higher at medieval sites. Small numbers of horse bones are common from sites of this period. The horse remains from Silsoe were all from adult animals, and of the two horse teeth found on the Site, one of them was a severely worn molar from an old animal.

Red deer was represented by antler fragments only. The antlers were commonly used for tool making (Grant 1984, 525), and evidence for antler working in the form of saw marks was identified on one of the fragments from the Site. This antler need not have been from a deer that was hunted, however, but might have been a shed example collected for later use. With the exception of these indications of bone used for craft activities, the assemblage from the Site appears to represent general domestic waste.

6.2 The palaeo-environmental evidence by Val Fryer

Samples for the retrieval of the plant macrofossil assemblages were taken from gully and pit fills, including a pit-like feature that may have acted as an oven. Eight samples were submitted for assessment, four (samples 1-4) from the evaluation phase and four (samples 5-8) from the subsequent excavation.

The samples were bulk floated by NA and the flots were 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 Table 12. Nomenclature within the table follows Stace (1997). With the exception of a very small number of mineral replaced seeds (denoted within the table by a lower case 'm' suffix), all plant remains were charred. Modern fibrous roots were present within all eight assemblages, along with a small number of seeds and arthropod remains.

Results

Cereal grains/chaff and seeds of common weeds, wetland plants and tree/shrub species were present at varying densities within all but sample 2 from context (409). Preservation was moderately good, although a number of the grains and some seeds were puffed and distorted, probably as a result of combustion at very high temperatures.

Table 12: Results from palaeo-environmental samples of excavated contexts

Sample No.	**1**	**3**	**4**	**5**	**6**	**7**	**8**
Context No.	***405***	***305***	***316***	***5054***	***5055***	***5099***	***5161***
Feature No and type	**404 Pit**	**304 Gully**	**315 Ditch**	**5056 Pit**	**5056 Pit**	**5100 Pit**	**5163 Pit**
Cereals and other food plants							
Avena sp. (grains)	x	x	-	xx	x	-	x
Hordeum sp. (grains)	x	xcf	xcf	x	-	-	-
Hordeum / Secale cereale type (rachis nodes)	-	-	-	x	-	-	x
Secale cereale L. (grain)	-	-	xcf	x	-	-	-
Triticum sp. (grains)	x	x	x	xxx	xx	-	x
(rachis node frag.)	-	-	-	x	-	-	-

Sample No.	**1**	**3**	**4**	**5**	**6**	**7**	**8**
Context No.	***405***	***305***	***316***	***5054***	***5055***	***5099***	***5161***
Feature No and type	**404 Pit**	**304 Gully**	**315 Ditch**	**5056 Pit**	**5056 Pit**	**5100 Pit**	**5163 Pit**
T. aestivum / compactum type (rachis node)	x	x	x	x	x	-	-
T. turgidum type (rachis node)	-	-	-	-	-	-	x
Cereal indet. (grains)	x	x	xx	xxxx	xx	x	xx
(detached embryos)	-	-	-	x	-	-	-
Vicia faba L.	xcfm	-	-	xcf	-	-	-
Large Fabaceae indet.	-	-	-	xfg	-	-	x
Herbs							
Agrostemma githago L.	-	-	x	x	-	-	x
Anthemis cotula L.	-	-	-	xxx	x	x	x
Atriplex sp.	-	-	-	x			
Bromus sp.	xcf	-	x	xx	x	x	x
Centaurea sp.	-	-	-	xcf	x	-	-
Chenopodium album L.	-	-	-	-	x	-	-
Chenopodiaceae indet.	-	-	-	x	x	x	-
Cirsium sp.	-	-	-	x		-	-
Euphrasia/Odontites sp.	-	-	-	x	x	-	-
Fabaceae indet.	x	x	x	xxxx	xx	-	xx
Fallopia convolvulus (L.) A. Love	-	-	x	x	-	-	-
Galeopsis sp.	-	-	-	x	-	-	-
Galium sp.	-	-	-	x	-	-	-
G. aparine L.	x	-	-	xx	x	-	-
Lapsana communis L.	-	-	-	x	-	-	-
Linum usitatissimum L.	-	-	-	-	-	xx	-
(capsule frags.)	-	-	-	-	-	x	-
Malva sp.	-	-	-	xxx	x	-	-
Medicago / Trifolium / Lotus sp.	-	-	-	-	-	-	xcf
Papaver sp.	-	-	-	x	-	-	-
Plantago lanceolata L.	-	-	-	x	-	-	-
Small Poaceae indet.	x	x	x	xx	x	x	x
Large Poaceae indet.	-	x	-	-	x	-	-
Ranunculus sp.	-	-	-	x	-	-	x
Rhinanthus minor L.	-	-	-	x	-	-	-
Rumex sp.	-	-	x	xx	x	x	x
R. acetosella L.	-	-		x	-	-	-
Scandix pecten-veneris L.	xcffg	-	-	-	-	-	-
Sherardia arvensis L.	-	-	-	xcf	-	-	-
Silene sp.	-	-	-	x	-	x	-
Sonchus oleraceus L.	-	-	-	x	-	-	-
Spergula arvensis L.	-	-	-	-	-	x	-
Valerianella dentata (L.) Pollich	-	-	-	x	-	-	-

Sample No.	**1**	**3**	**4**	**5**	**6**	**7**	**8**
Context No.	***405***	***305***	***316***	***5054***	***5055***	***5099***	***5161***
Feature No and type	**404 Pit**	**304 Gully**	**315 Ditch**	**5056 Pit**	**5056 Pit**	**5100 Pit**	**5163 Pit**
Vicia/Lathyrus sp.	-	-	-	xx	x	-	x
Wetland plants							
Bolboschoenus / Schoenoplectus *sp.*	-	-	-	x	-	-	-
Carex sp.	-	-	-	-	-	x	-
Eleocharis sp.	-	-	-	xx	x	-	x
Tree/shrub macrofossils							
Cornus sanguinea L.	xcf	-	-	-	-	-	-
Corylus avellana L.	x	-	-	-	x	x	x
Crataegus monogyna Jacq.	x	-	-	-	-	-	-
Malus / Pyrus sp.	x	-	-	-	-	-	-
Prunus spinosa L.	xx	-	-	-	-	x	-
Rosa sp.	x	-	-	-	-	-	-
Rubus sp.	x	-	-	-	-	-	-
R. sect, *Glandulosus* Wimmer & Grab	x	-	-	x	-	xxx	-
Other plant macrofossils							
Charcoal <2mm	xxxx	xx	xxxx	xxxx	xxx	xxxx	xxxx
Charcoal >2mm	xxx	x	xxx	xxxx	xx	xxxx	xxxx
Charcoal >5mm	x	-	x	xx	x	xx	xx
Charcoal.10mm	-	-	-	x	x	-	-
Charred root/stem	x	-	x	x	x	x	x
Indet.culm nodes	-	-	-	x		-	-
Indet,inflorescence frags.	-	x	-	x	x	-	-
Indet.seeds	x xm	-	x	x	x	x	-
Other remains							
Black porous 'cokey material	-	x	x	xxxx	xx	xx	xx
Black tarry material	x	-	x		x	xxx	x
Bone	x	x	x	xb	x xb	x	x xb
Burnt/fired clay	x	x	x	xx	x	xx	x
Burnt stone	-	-	-	-		x	-
Eggshell	-	-	-	-	x	x	-
Mineralised faecal material	x	-	-	-	-	-	-
Small coal frags.	x	x	x	-	-	-	x
Small mammal/amphibian bones	-	-	-	x	-	x	x
Vitreous material	x	-	-	-	-	xx	-
Sample volume (litres)	-	-	-	-	-	-	-
Volume of flot (litres)	***0.2***	***<0.1***	***<0.1***	***0.3***	***<0.1***	***0.3***	***0.4***
% flot sorted	**50%**	**100%**	**100%**	**50%**	**100%**	**50%**	**25%**

x = 1-10 specimens; xx = 11-50 specimens; xxx = 51-100 specimens; xxxx = 100+ specimens
cf = compare m = mineral replaced fg = fragment b = burnt

Oat (*Avena* sp.), barley (*Hordeum* sp.), rye (*Secale cereale*) and wheat (*Triticum* sp.) grains were recorded, with wheat occurring most frequently. Chaff was scarce, but bread wheat (*T. aestivum/compactum*) type rachis nodes were noted within the assemblages from sample 1, pit fill (405); sample 3 gully fill (305); sample 4 gully fill (316); sample 5 fill (5054), pit [5056] and sample 6 fill (5055), pit [5056]. Sample 8 pit fill (5161) contained a single rivet wheat (*T. turgidum*) type node. Possible field bean (*Vicia faba*) seeds, including one mineral-replaced specimen, were recorded within samples 1 and 5.

Although weed seeds were mostly recorded as single specimens within an assemblage, sample 5 from pit [5056] did contain a noticeably higher density of material. Common segetal and grassland species were predominant, and taxa noted included corn cockle (*Agrostemma githago*), stinking mayweed (*Anthemis cotula*), brome (*Bromus* sp.), small legumes (Fabaceae), black bindweed (*Fallopia convolvulus*), goosegrass (*Galium aparine*), mallow (*Malva* sp.), grasses (Poaceae), dock (*Rumex* sp.) and vetch/vetchling (*Vicia/Lathyrus* sp.). The assemblages from samples 1, 6 and 7, fill (5099) of pit [5100] and sample 8 fill (5161) pit [5163] also contained seeds/fruit stones and nutshell fragments of common trees or hedgerow shrubs including hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), apple/pear (*Malus/Pyrus* sp.), sloe (*Prunus spinosa*), rose (*Rosa* sp.) and bramble (*Rubus* sect. *Glandulosus*). Charcoal/charred wood fragments, including some larger pieces, were present throughout, although they were exceedingly scarce within the assemblage from sample 2.

The fragments of black porous and tarry material and the vitreous concretions were all probable residues of the combustion of organic remains (including cereal grains and straw/grass) at very high temperatures. Other remains were scarce, but included small fragments of bone (some of which were burnt), pellets of burnt or fired clay, eggshell and mineralised faecal material. Coal fragments were also recorded, but it was considered most likely that these were intrusive within the features from which the samples were taken.

Discussion

Of the eight assemblages studied, those from samples 5 and 6, from the fills of a pit [5056], were of particular note because of the range and density of material recorded. The assemblage from sample 5 was particularly rich, containing a high density of wheat grains, along with fragmentary large pulses, segetal weed seeds and a particularly diverse group of grassland herbs including thistles (*Cirsium* sp.), eyebright/bartsia (*Euphrasia/Odontites* sp.), small legumes, mallow, ribwort plantain (*Plantago lanceolata*), buttercup (*Ranunculus* sp.) and yellow rattle (*Rhinanthus minor*). The taphonomy of this assemblage would appear to be quite complex, as it includes culinary refuse, fuel residues, burnt bedding and/or flooring materials and possible relicts from the drying of grain, but as medieval ovens were almost always multi-functional, this is, perhaps, not surprising. Sample 6 contained a similar range of macrofossils, but a far lower density of material was recorded.

The assemblage from sample 7, fill (5099) of pit 5100 was also of interest as it contained seeds and capsule fragments of flax (*Linum usitatissimum*) and a high density of bramble ‘pips’. Although this would at first appear to be a slightly unusual combination of remains, it should be noted that contemporary parallels from, for example, Hinxton Hall, Cambridgeshire (Fryer and Murphy forthcoming) and Ickleton, Cambridge (Fryer 2004), suggest that flax was sometimes used as food during the Late Saxon/early medieval period, although careful preparation in the form of roasting was required as the seeds contain high toxin levels. It is therefore likely that this assemblage was largely derived from food waste.

The remaining assemblages were relatively limited in composition, and although all were probably largely derived from midden waste, other possible activities were also indicated. The assemblages from samples 1, 3, 4 and 8 were essentially similar in composition, with all four containing cereal grains and a number of larger weed seeds. Such material is probably indicative of cereals at an advanced stage of processing, although whether this processing was occurring locally, or whether those living near the Site were reliant on the importation of grain is not known. It is also unclear how this material came to be burnt, but accidental charring during culinary preparation or the deliberate firing of storage waste are both possibilities. The predominance of wheat suggests that this was the primary crop (probably because it was well suited to cultivation on the heavy local clay soils), and although other cereals were recorded, it is suggested that they were present as either volunteer weeds or as relicts of a rotational cropping regime. Such rotations included the cultivation of leguminous crops as a means of soil improvement, and evidence for this practice was almost certainly present within the assemblages from samples 5, 6 and 8. The rivet wheat rachis node from sample 8 probably represents an early occurrence of this crop, although it should be stressed that a single chaff element could have been intrusive.

The assemblage from sample 1 also contained seeds, fruit stones and nutshell fragments from a range of trees and common hedgerow shrubs. Whether these were foodstuffs that had been deliberately gathered for human consumption, were the remains of hedgerow plants burnt as fuel, or were even as a cache of seeds/nuts/fruits gathered by rodents or other small mammals is unknown. Their presence does appear to indicate, however, that wooded or hedgerow habitats were present within the local environment.

7 DISCUSSION

7.1 The Iron Age and Roman landscape

During the excavation carried out by Oxford archaeology East an enclosure of late Iron Age date was identified on the north side of West End Road (Thatcher 2011), in the area to the north of the excavation area that this report refers to. In addition two residual sherds of Roman pottery were recovered during the evaluation and subsequent excavation. These, together with the finding of the possible roof tile on the former campus grounds, would suggest that there was a low level Roman occupation somewhere in the vicinity of the excavation area.

7.2 Late Saxon occupation (10th-11th centuries AD)

By this period a boundary ditch was laid out and a number of pits excavated. There was no evidence for domestic structures within the excavation area, however, one of the pits [5056], had been used for the disposal of a nearby oven. Pit [5100] also contained material suggestive of food and crop processing waste, indicating that domestic structures were likely to have been present nearby. Late Saxon material and features were identified during the excavations carried out by OAE immediately to the north of the excavation area, suggesting that the property boundaries on the south side of West End Road were perhaps laid out during this period, although caution has to be exercised as St Neots ware pottery may be of pre or post conquest date. It is probable that the boundary ditch identified during the excavation is a continuation of the plot boundaries fronting West End Road.

7.3 The medieval landscape

Only a relatively small amount of medieval pottery was recovered, however, some was recovered from the fill of the boundary ditch, which would perhaps indicate that this was a long-lived feature in the landscape. Further medieval pottery was recovered from the spreads of subsoil in natural hollows on the northern edge of the site. Evidence from the excavations carried out by Oxford Archaeology on sites either side of the West End Road (Thatcher 2011, 17, fig 7), to the north of the excavation area covered by this report, suggest that the focus of medieval activity may have moved north to flank West End Road. A trackway was excavated by Oxford Archaeology which continued south outside the limits of their excavation area, the eastern ditch of this trackway may continue into the northern edge of the excavation area as ditch [5148]. Although only a short length of this ditch entered the excavation area it was broadly parallel with the main boundary ditch, suggesting that the two features may have been open at the same time and respected each other. The pottery from the hollows represents background scatter of activity in the medieval period again suggesting that the focus of activity in this period had moved further north.

7.4 Post-medieval

The second major phase of occupation on the site relates to the 18th century and is represented by material recovered from the demolition layer of a post-medieval stone built building. Material dating from the mid 17th to mid 18th century was recovered from the demolition layer suggesting that the building was extant for around 100 years before it went out of use. There were no features surviving to suggest a function for the building but the artefact assemblage recovered was suggestive of domestic activity.

BIBLIOGRAPHY

Amorosi, T, 1989 *A Postcranial Guide to Domestic Neo-Natal and Juvenile Mammals,* British Archaeol Reports, International Series, **533**

Audouy, M, and Chapman, A, (ed) *Raunds: The origins and growth of a midland village AD450-1500, Excavations in north Raunds, Northamptonshire, 1977-87,* Oxbow Books

Baker, E, and Hassall, E, 1979 The Pottery, in D Baker *et al* 1979, 147 – 239

Baker, D, Baker, E, Hassall, J, and Simco, A, *Excavations in Bedford 1967-1977*, Bedfordshire Archaeological Journal, **13**

Blinkhorn, P, 2009 The pottery from Langham Road and Burystead, in M Audouy and A Chapman (ed) 2009, 172-93

Blinkhorn, P, 2012 The pottery, in T Upson-Smith 2012, 12

Boessneck, J, 1969 Osteological Differences between Sheep (Ovis aries Linne) and Goat (Capra hircus Linne), in D Brothwell, and E Higgs (eds) 1969, 331-58

Brothwell, D, and Higgs, E, (eds) 1969 *Science in* Archaeology*,* London

Brown, N, and Glazebrook, J, 2000 *Research and Archaeology: A Framework for the Eastern Counties 2: Research Agenda and Strategy*, East Anglian Occasional Paper, **8**

Bull, G, and Payne, S, 1982 Tooth eruption and epiphysial fusion in pigs and wild boar, in B Wilson *et al* (eds) 1982, 55-71

Cunliffe, B, (ed), 1984 *Danebury: an Iron Age Hillfort in Hampshire,* Part 2, London: Council for British Archaeology

Dawson, M, 1996 Plantation Quarry, Willington: Excavations 1988-1991, *Bedfordshire Archaeology,* **22**, 2-49

Dawson, M, 2004 *Archaeology in the Bedford Region*, British Archaeological Reports, British Series, **373**, Oxford, Archaeopress

Denham, V, 1985 The Pottery, in J H Williams *et al* 1985, 46-64

DCLG 2010 *Planning Policy Statement 5: Planning for the Historic Environment*, Department for Communities and Local Government

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

Egan, G 1998 *The Medieval Household: Daily Living c 1150 - c 1450*. *Medieval Finds from Excavations in London,* **6**, London, The Stationery Office, 284-285

EH 1991 *Management of Archaeological Projects 2*, English Heritage

EH 1997 *English Heritage Archaeology Division Research Agenda,* unpublished draft report

EH 2009 *Management of Research Projects in the Historic Environment. The MoRPHE Project Manager's Guide* (2nd revised edition), English Heritage

Feher, Gy, 1976 *Haziallatok funkcionalis anatomiaja*, Budapest, 25-108

Fryer, V, and Murphy, P, *forthcoming Plant macrofossils*, in S Kenney forthcoming

Fryer, V, 2004 *Plant macrofossils, molluscs and other remains from Ickleton, Cambridgeshire,* Assessment for the Cambridgeshire County Council Archaeological Field Unit

Glazebrook, J, 1997 *Research and Archaeology: A framework for the Eastern Counties: 1 Resource Assessment*, East Anglian Archaeology Occasional Paper, **3**

Goodall, I H, 1984 *Iron Objects,* in A Rogerson and C Dallas 1984, 76-106

Grant, A, 1982 The use of tooth wear as a guide to the age of domestic ungulates, in B Wilson *et al* 1982, 91-108

Grant, A, 1984 The animal husbandry, in B Cunliffe (ed) 1984 496-548

Gurney, D, 2003 *Standards for the Field Archaeology in the East of England.* East Anglian Archaeology Occasional Paper, **14**

Hillson, S, 2005 *Teeth. Cambridge manuals in archaeology*, 2nd edition

IfA 2008 *Standard and guidance for archaeological excavation,* Reading, Institute for Archaeologists

Kenney, S, Spoerry, P, and Leith, S, forthcoming *Excavations at Hinxton Hall, Cambridgeshire*, East Anglian Archaeology

Margeson, S, 1993 *Norwich Households: medieval and post-Medieval Finds from Norwich survey Excavations 1971-78*, East Anglian Archaeology, **58**

Medlycott, M, 2011 *Research and Archaeology Revisited: A Revised Framework for the East of England,* East Anglian Archaeology Occasional Papers, **24**

Mellor, M, 1994 Oxford Pottery: A Synthesis of middle and late Saxon, medieval and early post-medieval pottery in the Oxford Region, *Oxoniensia*, **59**, 17-217

MoLAS 2008 *Cranfield University Silsoe Campus, Silsoe MK45, Technical Annex 3: Archaeology*, Museum of London Archaeology Service

MPRG 1998 *Guide to the Classification of Medieval Ceramic Forms,* Medieval Pottery Research Group, Occasional Paper, **1**

MPRG 2001 *Minimum Standards for the Processing, Recording, Analysis and Publication of post-roman Ceramics,* Medieval Pottery Research Group, Occasional Paper, **2**

NA 2011 *Archaeological Fieldwork Manual*, Northamptonshire Archaeology

Oake, M, Luke, M, Dawson, M, Edgeworth, M, and Murphy, P 2007 *Research and Archaeology: Resource Assessment, Research Agenda and Strategy*, Bedfordshire Archaeol Monog, **9**

Orton, C, 1998-99 Minimum Standards in Statistics and Sampling, *Medieval Ceramics,* **22-23**, 135-8

Rogerson, A, and Dallas, C, 1984 *Excavations in Thetford 1948-59 and 1973-80,* East Anglian Archaeology, **22**

Schmid, E, 1972 *Atlas of animal bones for Prehistorians, Archaeologist and Quaternary Geologists*

Sisson, S, Grossman, J D, 1953 *The Anatomy of the domestic animals,* 4th edition revised, Philadelphia and London

Smith, H, 2011 *Archaeological Geophysical Survey on Land at the former Cranfield Unversity Campus, Silsoe, Bedfordshire*, Northamptonshire Archaeology report, **11/68**

Stace, C, 1997 *New Flora of the British Isles*, 2nd edition, Cambridge University Press

Thatcher, C, 2011 *Saxon and medieval settlement at land adjacent to west End Road, Silsoe, Bedfordshire*, Oxford Archaeology East, **1262**

Upson-Smith, T, 2012 *Archaeological trial trench evaluation at former Cranfield University Site Silsoe, Bedfordshire,* Northamptonshire Archaeology report, **12/06**

Von den Driesch, A, 1976 *A guide to the measurements of animal bones from archaeological sites*, Peabody Museum Bulletin **1**, Cambridge, Ma: Harvard University Press

Waterman, D M 1959 Late Saxon, Viking and Early Medieval Finds from York, A*rchaeologia,* **XCVII**

Williams, J H, Shaw, M, and Denham, V, *Middle Saxon Palaces at Northampton,* Northampton Development Corporation Monog, **4**

Wilson, B, Grigson, C, and Payne, S (eds) 1982 *Ageing and Sexing Animal Bones from Archaeological Sites*, British Archaeol Reports, International Series, **109,** Oxford

Web Pages

http://mapapps2.bgs.ac.uk/geoindex/home/html

Northamptonshire Archaeology
A service of Northamptonshire County Council 7 August 2013

Northamptonshire County Council

Northamptonshire Archaeology

Northamptonshire Archaeology
2 Bolton House
Wootton Hall Park
Northampton NN4 8BE
t. 01604 700493 f. 01604 702822
e. sparry@northamptonshire.gov.uk
w. www.northantsarchaeology.co.uk

CHAS Contractors Health & Safety Assessment Scheme Accredited Contractor www.chas.gov.uk

Registered Organisation IfA

Northamptonshire County Council