SCOTLAND FARM
SCOTLAND ROAD
DRY DRAYTON
CAMBRIDGESHIRE

ARCHAEOLOGICAL EXCAVATION

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Contents

List of Tables

List of Figures

The figures are bound at the end of this document.

Preface

Every effort has been made in the preparation and submission of this document and all statements are offered in good faith. Albion Archaeology cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party, or for any loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in this document.

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The project was managed by David Ingham, under the overall direction of Joe Abrams. All Albion projects are under the overall management of Drew Shotliff. Fieldwork was supervised by David Ingham, with excavation carried out by Iain Leslie, Wiebke Starke and Adam Williams. Processing and preliminary recording of the finds were undertaken by Jackie Wells, while soil samples were processed by Slawomir Utrata. Analysis of the pottery was undertaken by Sarah Percival, while the charred plant remains were analysed by John Giorgi, the daub/fired clay by Jackie Wells, the non-ceramic artefacts by Holly Duncan, and the animal bone by Jennifer Browning. Illustrations are by David Ingham and Cecily Marshall.

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Structure of this Document

Section 1 details the background to the project and outlines its objectives. Sections 2 to 7 provide the results of the fieldwork and subsequent analysis, while Section 8 offers a broader discussion of what was found. Section 9 is a bibliography.

Key Terms

Throughout this project design the following terms or abbreviations are used:

ALGAO	Association of Local Government Archaeological Officers
CAPCA	Cambridgeshire Archaeology, Planning and Countryside Advice office
CCC	Cambridgeshire County Council
CHER	Cambridgeshire Historic Environment Record
Client	Dry Drayton Estate Ltd
IfA	Institute for Archaeologists
LPA	Local Planning Authority
Procedures Manual	*Procedures Manual Volume 1: Fieldwork*, 2nd edition, 2001, Albion Archaeology

Non-technical Summary

The proposed extension of an existing grain store at Scotland Farm, Scotland Road, Dry Drayton (NGR TL 36620 60160), where a late Iron Age settlement had previously been found (Ingham 2008), led the CAPCA to request the archaeological excavation of the affected area as a condition on planning consent. Albion Archaeology was commissioned by Dry Drayton Estate Ltd to produce a written specification for the excavation (Albion Archaeology 2009), and to implement it. The results of the excavation are presented in this report.

Dry Drayton lies c. 7km to the west of Cambridge (Fig. 1). Scotland Farm itself is situated 2.5km south-west of the village, to the west of Scotland Road. The underlying geological deposits primarily comprise Boulder Clay, with occasional outcrops of degraded chalk (Ingham 2008).

The extensions to the grain store cover two areas totalling c. *2,800m^2, on land that slopes gently down towards the south-east. These areas had been affected by landscaping works associated with construction of the existing grain store.*

The late Iron Age settlement was initially revealed by crop-marks on an aerial photograph (CHER 11441), which appears to show a number of enclosures. Excavation within the footprint of the existing grain store revealed the south-western end of a late Iron Age enclosure, containing a non-domestic roundhouse and a small number of settlement-related features (Ingham 2008). Fieldwork undertaken in advance of the A428 Improvement Scheme had previously revealed a middle to late Iron Age farmstead (CHER MCB16338) c. *250m south of the grain store, primarily on the opposite side of the Dam Brook (Abrams and Ingham 2008, 20–33).*

The excavation in 2009 exposed more of the late Iron Age enclosure to the north-east, whereas only furrows and a post-medieval ditch that had previously been identified in a trial trench were revealed to the south-west. Evidence for partitioning within the enclosure was revealed, along with some possible structural remains that may have related to the settlement's domestic core.

The site archive is held by the Cambridgeshire County Store.

1. INTRODUCTION

1.1 Project Background

The development comprised the extension of an existing grain store at Scotland Farm, Scotland Road, Dry Drayton, centred on NGR TL 36620 60160 (Fig. 1).

Due to the archaeological potential of the development area, the LPA's archaeological advisor, the CAPCA, requested the implementation of a programme of archaeological mitigation works as a condition on planning consent. The CAPCA made this recommendation based on the findings of an earlier excavation at the site, in advance of the grain store's construction (Ingham 2008).

Albion Archaeology was commissioned by Dry Drayton Estate Ltd to produce a written specification for the mitigation works (Albion Archaeology 2009), and to implement them. The results of the mitigation works are presented in this report.

1.2 Site Background

Dry Drayton lies *c.* 7km to the west of Cambridge (Fig. 1). Scotland Farm itself is situated *c*. 2.5km south-west of the village, to the west of Scotland Road. The underlying geological deposits primarily comprise Boulder Clay, with occasional outcrops of degraded chalk (Ingham 2008).

The extensions to the existing grain store cover two areas totalling *c.* 2,800m^2, on land that slopes gently down towards the south-east. These areas were under grass immediately prior to excavation.

1.3 Archaeological Background

The potential presence of archaeological features to the west of Scotland Farm was initially revealed by crop-marks on an aerial photograph (CHER 11441), which appeared to show a number of enclosures. Reassessment of the aerial photograph, as part of a programme of archaeological work ahead of the grain store's construction, cast doubt on the archaeological origin of these crop-marks (Albion Archaeology 2007). However, excavation within the footprint of the grain store revealed that one of the crop-marks related to a late Iron Age enclosure — the excavated part contained a non-domestic roundhouse and a small number of settlement-related features (Figs 1–2; Ingham 2008). Fieldwork undertaken in advance of the A428 Improvement Scheme had previously revealed a middle to late Iron Age farmstead (CHER MCB16338) *c*. 250m south of the grain store, primarily on the opposite side of the Dam Brook (Abrams and Ingham 2008, 20–33).

Scotland Farm is believed to have been a settlement since the medieval period (Williamson 2003, 75–7; fig. 26).

Landscaping work undertaken to the north-east and south-west of the previous excavation area had reduced the potential for any archaeological deposits to be preserved. Parts of the north-western end of the site had suffered severe vertical truncation (Fig. 3), although the south-eastern half of the site, including the area defined by the Iron Age enclosure ditch, was mostly unaffected.

1.4 Project Objectives

The overall objective of the archaeological works were fully to define, investigate and record any archaeological deposits which would be destroyed or truncated during ground-works associated with the grain store's extension.

The specific aims of the investigation were to:

i. establish the date, nature and extent of activity or occupation in the development area;
ii. establish the relationship of any remains found to the surrounding contemporary landscapes;
iii. recover artefacts to assist in the development of type series within the region;
iv. recover palaeo-environmental remains if suitable deposits were revealed, in order to determine local environmental conditions.

2. CONTEXTUAL RESULTS

Previous excavation within the original footprint of the grain store in October 2007 had revealed the south-western end of a large enclosure (Ingham 2008). Crop-marks suggest it measured about 60m by 80m in total, although this end of the enclosure had been subdivided. Further excavation in March 2009 revealed more of the enclosure to the north-east, whereas only furrows and a post-medieval ditch that had previously been identified in a trial trench were revealed to the south-west.

2.1 Late Iron Age settlement (Fig. 2)

Remains dating to the late Iron Age were confined to the eastern half of the northern excavation area (Fig. 4). A 14.5m length of the enclosure ditch 2528 was exposed; excavation revealed its dimensions to be similar to those previously recorded, at 3.6m wide and 1.4m deep. Its infill was light in colour and fairly sterile, with the exception of a concentration of animal bone in the base of the ditch. Its uppermost fill was slightly darker and had a higher organic content, but this deposit only survived truncation by the episode of landscaping in 2007 at the northern edge of the excavated area.

Excavation revealed the majority of ditch 2524 that separated off the southern end of the enclosure, although its full profile was not seen. Its southern edge lay just within the area of the 2007 excavations, although this had not fully been recognised at the time; its upper fill — probably colluvial in origin, filling in a hollow left in the top of the ditch — had mistakenly been interpreted as a layer, unassociated with any cut features. It also now seems probable that the ditch was contemporary with enclosure ditch 2528, rather than a later addition or a re-cut of an earlier subdividing ditch, as previously thought.

Landscaping in 2007 had truncated ditch 2524 with increasing severity towards its western end; its surviving extent was 3.5m wide and 0.85m deep, but extrapolation of the recorded profile suggests dimensions in the region of 4.1m wide and 1.05m deep. The terminus of the ditch was slightly shallower, but wider — in excess of 4m, with the base of the ditch's southern side not revealed within the excavated segment. At the western end of the ditch, its infill was similarly light in colour and sterile to that of 2528; darker deposits suggestive of occupation debris were only recorded towards the terminus, which produced the bulk of the feature's artefact assemblage.

The enclosure was further subdivided by ditches 2513/2516 and possibly 2507, which is thought to represent the terminus of a ditch. The relationship between 2513 and its re-cut 2516 was fairly indistinct, and could only be determined with confidence in the northern excavated slot; this perhaps suggests rapid natural infilling of the earlier ditch, with re-cutting taking place soon afterwards. Ditch 2516 was substantially smaller than its predecessor (Fig. 2, a), but the similarity in location and alignment suggests it fulfilled the same function.

At least three phases of activity were apparent at the eastern end of the excavated area, although the narrow date span of the pottery assemblage suggests that the changes took place in quick succession. A small pit 2534 was stratigraphically earliest, cut through by probable roundhouse gully 2525, which was 14.5m long and constituted

slightly less than a semicircle. Its circuit may originally have been continued by 2508, with a gap of 2m between the two; however, 2508 was truncated to the north by a furrow, and no further trace of it could be detected. 2525 was subsequently truncated by steep-sided gully 2510, which was *c*. 0.9m wide and up to 0.5m deep. The curving nature of 2510 suggests that it may have had a similar function to 2525, but its northern extent lay beyond the excavated area.

Unlike the penannular gully excavated in 2007, 2525 appeared to have been designed for drainage rather than to hold ground beams. Beam slot 2532, however, did have a clearly structural function: a 0.34m deep hole slightly south of its centre indicated where a post had been driven in. The beam slot itself was 4.7m long, and its flat base, 0.35–0.4m wide, is likely to have held ground beams. It is unclear whether gully 2525 and beam slot 2532 were contemporary.

2.2 Medieval and post-medieval agricultural remains

The remains of three furrows were revealed on a WNW–ESE alignment. The furrows were up to 1.8m wide, but had been heavily truncated by the landscaping works, only surviving at all at the south-eastern end of the site. A post-medieval ditch — up to 1.6m wide and 0.6m deep, previously revealed during evaluation of the original grain store's site (Ingham 2008) — had been dug through the southernmost furrow, on a NE–SW alignment. The ditch remained in use until the mid-20th century (Adrian Peck, pers. comm.).

3. NON-CERAMIC ARTEFACTS

The non-ceramic artefact assemblage is limited to a coin and a fragment of saddle quern, both found within the lower fills of the terminus of ditch 2524. The poor condition of the coin does not permit certainty as to its date; while it could be of Iron Age date (as strongly suggested by its stratigraphic location within the ditch); its size and weight are more suggestive of 3rd/4th-century coinage (Peter Guest, pers. comm.).

Too little of the reddish pink sandstone saddle quern survives to determine its original dimensions, although it does retain part of a concave grinding surface. The fragment appears to have been heat-affected, suggesting re-use as perhaps a hearth stone. Saddle querns were in use from the Neolithic period until at least the middle Iron Age, when the rotary quern was introduced; the transition was lengthy, however, and the rotary quern did not become ubiquitous until the early Roman period (Shaffery 2007, 89).

Previous excavation of the settlement at Scotland Farm (Ingham 2008) did not produce any non-ceramic artefacts, but there are similarities in deposition to the middle Iron Age settlement located to the south-west (Abrams and Ingham 2008, 20–33). There, fragments thought to be from saddle querns were also of non-local stone, and in at least two cases appeared to have been re-used. The marking of ditch terminals was also noted there, where two perforated chalk weights appeared to have been placed deliberately in a ditch terminal (Abrams and Ingham 2008, 33).

RA1: Quern. Sandstone. Heat-affected fragment of saddle quern. Worn, slightly concave grinding surface. Underside of quern worn smooth. Thickness 63.5mm; length 140mm; width 79mm. Ditch 2524; context 2523.

4. POTTERY

4.1 Introduction

The 2009 excavations at Scotland Farm produced an assemblage of 266 sherds (3,298g). The assemblage is comparable in date, fabric and form with pottery found during the 2007 excavations, which comprised a tightly dated group from the late 1st century BC to 1st century AD (Ingham 2009, 33–6). The assemblage includes handmade jars and bowls in a mix of grog- and sand-tempered fabrics, with a small number of wheel-made sherds. The pottery is moderately well preserved and includes some partial profiles.

4.2 Fabric

The fabrics are comparable with those found during the 2007 excavations: both assemblages are made from unsourced local clays, with no obvious imports or fine wares (Ingham 2009, 33–6). While the 2007 pottery was entirely handmade, the 2009 assemblage includes a number of wheel-made forms (30%, 958g).

Fabric	Description	Sherds	% of total	Weight (g)	% of total
PGW	Proto-grey ware with quartz sand	78	29.3%	1075	32.6%
GTW	Grog-tempered ware	51	19.2%	586	17.9%
Q2	Medium sandy handmade ware	41	15.4%	306	9.3%
STW	Shell-tempered ware	18	6.7%	123	3.7%
DGTW	Dark grog-tempered ware	17	6.4%	397	12.0%
Q1	Coarse sandy handmade ware	17	6.4%	173	5.2%
GTW P	Grog-tempered ware with pink surfaces	13	4.8%	306	9.3%
C1	Sand with rounded chalk inclusions	11	4.1%	134	4.1%
GTW R	Reduced grog-tempered ware	6	2.3%	74	2.2%
MSRW	Micaceous sandy reduced ware	6	2.3%	61	1.8%
SOW	Sandy oxidised ware	4	1.5%	14	0.4%
GS	Grog and shell	2	0.8%	41	1.2%
MPGW	Micaceous proto-grey ware	1	0.4%	7	0.2%
Q	Sandy handmade ware	1	0.4%	1	0.1%
Total		266	100.0%	3298	100.0%

Table 1: Quantity and weight of pottery by fabric type

Vessels within both assemblages are mostly made of sand- or grog-tempered fabrics (Table 1); however, while grogged fabrics were slightly more common within the 2007 assemblage, the pottery from the 2009 excavations is predominantly sandy (52.3%, 1,724g), with grogged fabrics making up 39.9% (1,317g). Pink-surfaced grog-tempered and dark or black grog fabrics are again present, fabrics which are commonly found on other Cambridgeshire sites such as Bob's Wood, Hinchingbrooke and Love's Farm, St Neots (Alice Lyons, pers. comm.).

When the pottery from both phases of excavation is considered as a single assemblage, grogged fabrics contribute 48% of the total weight and sandy fabrics 45%, a fairly even mix which is highly characteristic of the late pre-Roman Iron Age (LPRIA) in Cambridgeshire (Thompson 1982, 17). Only very small quantities of calcareous chalk and shell-tempered fabrics are present, reflecting the lack of earlier Iron Age occupation at the site.

4.3 Form

At least 26 vessels are represented, based on rim count. The small assemblage is entirely utilitarian in character, with no fine wares and limited specialist table wares (Table 2). The assemblage includes one handmade stunted pedestal urn (Fig. 5, P13; Thompson 1982, A6); a tall-necked, narrow-mouth jar (Thompson 1982, type B3–3); a round cordoned jar with tall, narrow neck (Thompson 1982, B3–5); and body sherds from a corrugated jar (Thompson 1982, B2). These tall, cylindrical forms first appeared on settlements and in burials during the later first century BC and may have been associated with drinking or serving liquids at table, though the practical application of this would have been somewhat unwieldy (Hill 2002, 148). The remainder of the assemblage comprises vessels for cooking, principally everted-rim jars (eight examples), and for serving food, such as the cordoned bowl with offset neck (Thompson 1982, D1–1). A single large, grog-tempered storage jar was also found. As with the 2007 assemblage, decoration is limited here to fine combing found on three vessels (Ingham 2009, fig. 4, P7).

Thompson	Form	Sherds	Weight (g)	Number of vessels
A6	Stunted pedestal urn	5	101	Base only
B1-1	Everted-rim jar	67	717	7
B2	Corrugated jar	1	18	Body sherd only
B3-3	Tall necked narrow-mouthed jar	2	39	1
B3-4	Round cordoned jars with short wide neck	1	149	1
B3-5	Round cordoned jar with tall narrow neck	6	223	1
C1-1	Rounded jar	1	13	Body sherd only
C6-1	Everted-rim jar	1	43	1
D1-1	Bowl with offset neck and cordon	1	323	1
	Unknown jar/bowl	11	53	13
	Storage jar	3	92	1

Table 2: Quantity and weight of diagnostic pottery by form

4.4 Deposition

Feature	Feature type	Sherds	Weight (g)
2508	Gully	2	2
2510	Ditch	40	566
2513	Ditch	52	697
2516	Ditch	3	57
2524	Ditch	125	1,770
2525	Gully	25	117
2528	Ditch	18	85
2534	Pit	1	4
Total		266	3,298

Table 3: Distribution of pottery by feature

Over half of the 2007 pottery came from pits. By contrast, almost all of the pottery from the 2009 excavations (89.5%, 3,175g) came from the enclosure ditches, with a small quantity from structural gullies (Table 3). All of the features contained sherds from the late 1st century BC to the 1st century AD, suggesting that they were contemporary with those excavated in 2007 and related to the same short episode of occupation. The sherds are fairly large and well preserved, with a minimum sherd weight of 13g, suggesting that they had remained relatively undisturbed in the ditch.

Sherds found within the probable roundhouse gully are too small and fragmentary to be identified to specific forms, having a minimum sherd weight of only 4g. This pottery was almost certainly material from the topsoil which entered the gully once the building had fallen out of use.

5. DAUB/FIRED CLAY

The post-hole near the centre of beam slot 2532 contained 213g of daub or fired clay in a friable chalk- and sand-tempered fabric. This type also constituted the majority of the fired clay assemblage recovered from the Iron age farmstead to the south of Scotland Farm (Wells, 2008), and is common to many local sites, such as Caldecote Highfields (Sealey 2006, 21) and Cambourne (Brown 2009). The fragments have an average weight of 12g and are largely amorphous, although a number retain surfaces. Partial wattle impressions of indeterminate diameter occur on two fragments.

Fabric description: Coarse, friable buff fabric with variable grey patchy reduction. Inclusions are abundant sub-rounded and sub-angular quartz (*c*. 0.1–0.5mm) and occasional red iron ore (*c*. 0.5mm). The fabric is characterised by the presence of abundant sub-rounded chalk pieces, *c*. 0.5–4.0mm. Some larger fragments contain sub-angular or angular flint or chert pebbles ranging up to 10mm in size.

6. ANIMAL BONE

6.1 Introduction

A small assemblage of animal bone was recovered from the late Iron Age features. Previous work in 2007, on adjoining parts of the same settlement, had produced a smaller assemblage in which cattle, sheep/goat, pig, horse, dog and domestic fowl were identified (Ingham 2008).

The faunal remains from the 2009 intervention consisted of 518 specimens, which were reduced to 448 by re-assembling joining fragments. Surface preservation of the material was often mixed, even within the same features, though all specimens tended to be brittle and fragmented. Most of the assemblage exhibited root etching and erosion of the bone surface, possibly associated with the chemistry of the sediment in which the bones were buried. Bone from ditch 2528 was generally in better condition, suggesting slightly different burial conditions.

6.2 Methods

Bones were identified using the skeletal reference collection housed at the School of Archaeology and Ancient History, University of Leicester. Information on bone element, completeness, species, state of fusion and condition was recorded for each specimen, and butchery, burning, pathologies and tooth eruption and wear were noted, where present. A zoning method (Serjeantson 1996) was employed to assess the parts of bones present. Measurements were taken when bone completeness permitted, following von den Driesch (1976) and Payne and Bull (1988). Recording of tooth eruption and wear for cattle, sheep and pig followed Grant (1982), but assignment of age categories followed O'Connor (2003).

Where fragments were not sufficiently diagnostic to identify to species, characteristics such as size and thickness of the cortical surface were used to categorise them as either 'large mammal' — undiagnostic fragments probably from cattle, horse or red deer — or 'medium mammal' — likely to derive from either sheep, goat, pig, roe deer or possibly dog. The remainder were classed as unidentified mammal or bird.

6.3 Results

Feature	Context	No Fragments
2508	2509	1
2510	2511	7
	2512	38
2513	2514	3
	2515	9
2516	2517	6
2524	2519	23
	2520	15
	2522	33
	2523	1
2525	2527	171
2528	2529	131
	2530	1
	2531	9
Total		**448**

Table 4: Number of bone fragments from each feature and context

6.3.1 Species Representation

Domestic species were the main contributors to the assemblage, with cattle and sheep/goat providing the largest proportion of identified fragments. Pig, horse, deer and hare were also represented. The importance of cattle at the site was emphasised by a restricted fragment count, which included only those bones where one or more zones were present (Table 5). The change in the proportion of sheep/goat was a consequence of the removal of a large number of loose teeth and other un-zoned fragments, which had inflated the raw fragment count.

Species	Raw fragment count	%	1 or more 'zones'	%
Cattle	62	41	29	48
Sheep/goat	67	45	16	26
Pig	6	4	5	8
Horse	12	8	9	15
Red deer	1	<1	0	0
Roe deer	1	<1	1	2
Hare	1	<1	1	2
Total no. identified	**150**		**61**	
Large mammal	211			
Medium mammal	78			
Indeterminate mammal	9			
Total	**448**			

Table 5: Species proportions: raw fragment and bones with 'zones'

Cattle bones were widespread, occurring in every feature (Table 6). By contrast, there was a particular concentration of sheep/goat in ditch 2528; the bones of this species were present in smaller quantities in several other features.

Feature	2508		2510		2513		2516		2524		2525		2528		Total
	HR	S	HR	S	HR	S	HR	S	HR	S	HR	S	HR	S	
cattle	1		7		2		1		12		26		13		**62**
sheep/goat			5				3		2		3	2	33	19	**67**
pig			2						1		2		1		**6**
horse			1						10				1		**12**
red deer											1				**1**
roe deer											1				**1**
hare					1										**1**
large mammal			27		9				45	2	96	1	31		**211**
medium mammal			2				2				5	28	19	22	**78**
indeterminate mammal				1								6	2		**9**
Total	**1**	**0**	**44**	**1**	**12**	**0**	**6**	**0**	**70**	**2**	**134**	**37**	**100**	**41**	**448**

Table 6: Species represented in each feature (HR= hand-recovered; S=sieved)

Horse was better represented than pig, although the majority of the horse bones were recovered from ditch 2524, with single fragments in ditches 2510 and 2528. The few pig bones in the assemblage occurred singly or in small groups, while the wild species, red deer, roe deer and hare, were isolated fragments. The identification of roe deer was

somewhat tentative, as the bone in question was a rather poorly preserved tibia, yet it exhibited certain distinctive characteristics suggestive of roe deer rather than sheep. No rodent, bird or fish bones were recovered, even amongst the sieved samples, where the only identified bones belonged to sheep/goat (Table 6).

Gnawing was rare, identified only on three bones of cattle and three of pig, although tooth-marks may have been obscured by the surface condition of some of the bone. Nevertheless, this does suggest the presence of dogs at the site, which are not otherwise represented in the assemblage. Gnawing coupled with poor preservation may have resulted in the destruction of fragile or juvenile elements. Burnt bone, apparently calcined, was recovered in small quantities from only two features: gully 2525 and ditch 2510. A cattle incisor appeared to have been affected, but the other specimens were not diagnostic.

There were few whole bones in the assemblage, which precluded calculation of withers heights for any species but horse. Measurements of sufficiently complete articular ends and measurable teeth were taken, and have been tabulated for future comparison with similar assemblages (see Tables 7–11).

Cattle	Stage	Age (months)	Fused	Unfused
Pelvis (acetabulum)	Early	7–10	1	
Scapula D		7–8	2	
Humerus D		15–18	2	
Radius P		15–18	1	
Metac D	Middle	24–36		1
Tibia D		24–30	4	1
Metat D		27–36		2
Femur P	Late	42	1	
Tibia P		42–48	1	
Total			12	4

Table 7: Cattle epiphysial fusion (ages after Silver 1969). D = distal, P = proximal

Sheep	Age Stage	Age (months)	Fused	Unfused
1st Phal P	Early	13–16		1
Metac D	Middle	18–24		2
Metat D	Middle	20–28		2
Total			**0**	**5**

Table 8: Sheep/goat epiphysial fusion (ages after Silver 1969)

Pig	Age Stage	Age (months)	Fused	Unfused
Humerus D	Early	12	1	
Calc P	Middle	24–30		1
Total			1	1

Table 9: Pig epiphysial fusion (ages after Silver 1969)

Feature	Context	Sample	Bone	Species	Side	Tooth-wear	Suggested age stage after O'Connor (2003)
2528	2529		Lm3	cattle		m3=k	E (elderly)
2508	2509		mandible	cattle	R	m1–3=kgg	A3 (adult stage 3)
2525	2527		ldp4	cattle	L	dp4=j	SA (sub-adult)
2525	2527		Lmolar	cattle	L	m1–2=g,d	SA(sub-adult)
2525	2527		lm3	cattle	R	m3=k	E (elderly)
2528	2529		mandible	pig		m2–3=da	A (adult)
2510	2512		lm3	sheep/goat	L	m3=b	
2528	2529		ldp4	sheep/goat	L	dp4=f	J/I (juvenile/immature)
2528	2529		ldp4	sheep/goat	R	dp4=f	J/I (juvenile/immature)
2528	2529		ldp4	sheep/goat	R	dp4=j	I/SA(immature/sub-adult)
2528	2529		lm3	sheep/goat	L	m3=a	SA2 (sub-adult)
2528	2529		lm3	sheep/goat	R	m3=a	SA2(sub-adult)
2528	2529		lm3	sheep/goat	L	m3=g	A3 (adult stage 3)
2510	2511		mandible	sheep/goat	R	dp4=f	J/I (juvenile/immature)
2528	2529	25	Lmolar	sheep/goat	L	m1=a	J (juvenile)
2528	2529	25	Lmolar	sheep/goat	R	m1=a	J (juvenile)

Table 10: Tooth-wear scores after Grant (1982), with suggested age categories after O'Connor (2003)

Feature	Context	Sample	Bone	Species	Measurements (mm)
2528	2529		axis	cattle	bfcr=75.8
2524	2522		femur	cattle	dc=40.1
2528	2529		humerus	cattle	htc=30.9, bt=68.5
2525	2527		humerus	cattle	bt=63.7, htc=23.2, bd=69.6
2525	2527		ldp4	cattle	l=27.1, w=12.2
2528	2529		LM3	cattle	l-33.8, w=14.3
2525	2527		Lmolar	cattle	m1: l=24.8, w=12.4; m2: l=26.7, w=12.0
2508	2509		mandible	cattle	m3 l=32.3, w=13.4; m2 l=24.7, w=13.7; m1 l=23.8, w12.7;
2510	2512		scapula	cattle	glp=58.4
2528	2529		skull & horn core	cattle	Basal circumference=113, l=111, max basal diameter=37.8, min basal diameter=30.5
2510	2512		tibia	cattle	bd=53.8, dd=41.1
2524	2520		tibia	cattle	bd=56.9, dd=40.0
2525	2527		tibia	cattle	bd=54.6, dd=38.9,
2524	2522		femur	horse	dc=46.8
2524	2519		metac	horse	bp=48.0, sd=34.9, bd=50.5, gl=244
2524	2519		radius	horse	bfd=66.8, bd=76.9, gl=356, sd=39.5
2524	2519		scapula	horse	glp=95.3, sd=73.7
2510	2512		humerus	pig	htc=17.5, bt=29.9, bd=35.1
2528	2529		mandible	pig	m3 l=29.9, wa=17.1; m2 l=21.1, wa=16.0, wp=15.1;
2524	2522		scapula	pig	slc=21.3
2528	2529		ldp4	s/g	l=16.7, w=5.6
2528	2529		ldp4	s/g	l=16.9, w=5.9
2528	2529		ldp4	s/g	l=13.8, w=5.8
2510	2511		ldp4	s/g	l=16.0, w=5.6
2510	2512		lm3	s/g	l=17.8, w=7.2
2528	2529		lm3	s/g	l=18.3, w=6.9
2528	2529		lm3	s/g	l=18.5, w=6.7
2528	2529		lm3	s/g	w=7.2
2528	2529	25	Lmolar	s/g	m1:l=14.2, w=5.9
2528	2529	25	Lmolar	s/g	m1: l=14.5, w=6.0

Table 11: Measurements taken during the work. For measurement abbreviations see von den Driesch 1976, and Payne & Bull 1988

6.3.2 Cattle

The cattle were horned, as indicated by both cattle skull examples in the assemblage; one whole horn-core provided a length of 111mm, which fell into the small horn category, as defined by Sykes and Symmons (2007, table 1) and typical of cattle of this period. Although there is some debate over the exact sequence and timing of the fusion of each bone element (O'Connor 2003, 166), it is possible to be relatively confident about whether a bone fuses early or relatively late and to look for patterns in the data, if the number of specimens allow. At Scotland Farm, the state of epiphysial fusion was recorded for only sixteen cattle bones, three quarters of which — early, middle and late-fusing — were united. The unfused elements were all from the middle-fusing range, indicating that death occurred prior to 24–36 months (Silver 1969). The fact that these were recovered from ditch 2524 suggests that it is possible that they all derived from the same animal, although difficult to prove. Toothwear evidence was sparse but mostly derived from mature animals. Evidence for a younger beast came from gully 2525, indicating the presence of at least one sub-adult animal. No pathological conditions suggestive of injury or infection were observed. The third cusp appeared to be congenitally absent on a cattle third molar from gully 2525; however, possible malocclusion and/or damage to the occlusal surface make this difficult to verify.

6.3.3 Sheep/goat

The small size of the sheep/goat assemblage increased the difficulty in separating the two species; however, no bones were positively identified as goat, while elements believed to belong to sheep were observed. The sheep/goat bones appear to derive predominantly from young animals. The evidence is limited by the small number of bones with epiphysial surfaces and the fact that no complete tooth-rows were available. Some indication of age was obtained through the examination of loose teeth. Loose dp4 and m3 teeth were of most value as they are both distinctive and also tend not to be in wear in the jaw at the same time. Teeth were recovered from juvenile animals, possibly aged around 4–6 months (first molar unworn), and sub-adults aged around 2 years (third molar not in wear) (Hillson 2005, 231). An adult animal on the site is denoted by a worn third molar. There were no fused bones present and all the unfused bones were recovered from ditch 2528, indicating the presence of at least one animal aged less than 13–16 months. This evidence is open to interpretation, but the presence of these young animals hints that stock may have been bred on or near the site, and perhaps also suggests a preference for younger meat.

6.3.4 Pig

The presence of a fused and unfused epiphysis suggests that pigs aged at least 12 months were present, but there is no evidence for survival of animals aged over 24–30 months. A single mandible with m3 unworn indicates an animal around 2 years of age (Hillson 2005, 234).

6.3.5 Horse

The horse bones were predominantly recovered from ditch 2524 and all appear to be adult. Most of a right foreleg and parts of a hind-leg were recorded and it is conceivable that they belonged to one individual, since no duplication of bone elements was observed. No butchery marks were recorded on the horse bones. Greatest length measurements from two horse bones from ditch 2524 allowed the calculation of withers heights and show that there was also a close correlation in size. Heights of 1.54m and 1.56m were estimated from the two bones (based on factors by Kiesewalter 1888), which fit into the 'medium' bracket devised by Vitt (1952). This is notably larger than the example noted in the assemblage from the earlier farmstead to the south of Scotland Farm, which stood 1.26m high (Rielly 2008, 4), and slightly larger than at Danebury, which produced a range from 1.10m to 1.50m (Grant 1984, 521).

6.3.6 Carcass Representation and Butchery

The recording of diagnostic zones is particularly useful where assemblages are heavily fragmented, since to a certain extent it mitigates against counting the same bone several times over: each zone only occurs on each element once. The most common elements for cattle were the distal humerus, distal metatarsal and particularly distal tibia. For sheep/goat, the mandible was the most common bone, followed by the metapodials and with elements from the limbs occurring rarely, a pattern that could be associated with slaughter waste. Unsurprisingly, these are all robust elements and their presence may owe more to factors of preservation and survival than selectivity by the inhabitants. None of the other species had more than one example of each element. Red deer and roe deer were represented by a tooth and a tibia respectively, and hare by the distal radius.

Evidence for butchery was rare and was identified only on bones of cattle or large mammal. Three mandibles had cut or chop marks around the condyle and the coronoid process, which are likely to be associated with the disarticulation of the lower jaw in order to provide better access to the tongue and cheek meat. Fine cut marks to the middle of a humerus shaft may have occurred during filleting, while cut marks close to the distal articulations of two separate humeri are more likely to relate to dismemberment of the carcass. A hole had apparently been pierced through the distal articular surface of a cattle tibia. It was regular in shape and the edges were smooth, suggesting it was caused by people rather than the action of animals. It is possible that it was inflicted during the accessing of the marrow cavity. A cattle skull exhibited a number of chop marks at the base of the horn-core, probably carried out with a cleaver or small axe and suggesting the removal of the horn-sheath. All the butchered bones were recovered from gully 2525 and ditches 2510 and 2528.

7. CHARRED PLANT REMAINS

7.1 Methodology

Nine bulk soil samples were taken, four from ditches (2510, 2513, 2524 and 2528), one from beam slot 2532, three from round-house gully 2525 and one from associated feature 2508. All the sampled features date to the late Iron Age.

The individual samples were all ten litres and were processed using a 'Siraf' type flotation tank, with mesh sizes of 0.25mm and 1mm for the recovery of the flot and residue respectively. The flots were dried together with the sample residues, which were sorted for biological remains and other finds. All the samples produced small flots (3–25ml), with botanical remains preserved by charring; no waterlogged remains were present.

The plant remains were identified using a binocular microscope with a magnification of up to 40x, together with seed reference material (both modern and charred) and various seed reference manuals. Identifiable charred plant remains were sorted from the flots and quantified in absolute numbers, with the exception of charcoal fragments and small cereal fragments (less than 2mm). The quantities of these remains were estimated using the following codes: + = 1–10; ++ = 11–50; +++ = 50+ items.

7.2 Results

Only five of the nine samples produced identifiable charred plant remains (Table 12). The other four flots consisted almost entirely of rootlets and very little fragmented charcoal. All the samples contained low quantities of fragmented charcoal.

		Feature	**2510**	**2508**	**2525**	**2525**	**2528**
		Context	2511	2509	2527	2527	2529
		Sample	19	20	22	23	25
		Vol. processed (l)	10	10	10	10	10
		Vol. flot (ml)	25	10	10	5	3
Grains							
Triticum cf. *dicoccum*	?emmer					1	
T. spelta L.	spelt				1		
cf. *Triticum* sp.	?wheat		1				
Cerealia	Indet. Cereal		3	1	3		2
Cerealia	Indet. Cereal fragments <2mm		+	+	+	+	+
Chaff							
Triticum spelta L.	Spelt glume base						2
Triticum sp.	Wheat spikelet bases						1
Triticum spp.	Wheat glume base						2
Weed seeds							
Rumex sp.	dock						1
Gramineae indet	indeterminate small grass seeds						1
Charcoal	fragments		+++	+++	+++	++	+++
Total nos quantified items			**4**	**1**	**4**	**1**	**9**
Density of plant items (per litre of soil)			0.4	0.1	0.4	0.1	0.9

Key: + = 1–10; ++ = 11–50; +++ = >50 items

Table 12: Charred plant remains

The charred plant remains in the productive samples consisted of small numbers of generally poorly preserved cereal grain, several chaff fragments, and a few weed seeds. Cereal grains and occasional fragments were present in all five samples, while cereal chaff and weed seeds were only recovered from enclosure ditch 2528. Only twelve grains were counted, nine of which could not be identified further; the three identifiable grains were spelt (*Triticum spelta*) and possibly emmer (*T.* cf *dicoccum*), both hulled wheats, and an indeterminate wheat (*Triticum* sp.) grain. The presence of hulled wheat was confirmed by the recovery of several glume bases, including two of spelt, and a wheat spikelet base. A single charred dock (*Rumex* sp.) seed and a small indeterminate grass (Poaceae indet.) seed were also identified; these remains are probably from arable weeds incidentally harvested with the cereals.

Five of the samples also contained a small number of uncharred seeds from wild plants: duckweed (*Lemna* spp.) and crowfoots (*Ranunculus Batrachium*), both of which are species associated with wetland (aquatic) environments; and stinging nettle (*Urtica dioica*), a plant of disturbed (including cultivated) ground and waste places. A similar range of uncharred seeds were noted in previous investigations at the site (Ingham 2008). These remains are probably intrusive, given the absence of waterlogged soils at the site and the presence in all the flots of large amounts of roots and rootlets, which could allow the passage of such material through the soil profile.

8. DISCUSSION

The results from the 2009 excavation at Scotland Farm correlate strongly with those from 2007, and are able to enhance the interpretation of the earlier results. It is now apparent that the enclosure's subdivision was contemporary with its establishment; the tentative previous suggestion of two phases of activity within the settlement's short lifespan (Ingham 2008) is still supported, but this involved a reorganisation of the enclosure, rather than a change from purely agricultural to domestic activity.

The finds assemblage recovered from the two excavations is sufficient to indicate domestic activity within the enclosure — particularly in view of the settlement's short lifespan, evidenced by the narrow date range of the pottery — even though no houses have conclusively been identified. The majority of the finds were concentrated in the eastern side of the two excavated areas, away from the enclosure ditch: this suggests that any domestic dwellings within the enclosure are either represented by gully 2525 and/or beam slot 2532 (the presence of daub within the post-hole in beam slot 2532 supports this), or lie beyond the eastern limit of excavation. It is clear, however, that the enclosure was split into at least three areas by ditches 2524 and 2513/2516, and some of these areas may have had non-domestic functions. The scarcity of domestic material at the edge of the enclosure may indicate that the outer parts of the enclosure were used for livestock, while the narrow gap between ditches 2513/2516 and 2507 may have been used as a 'race' for the close confinement of animals, for example to facilitate close examination of them for signs of disease or pregnancy (Pryor 2006, 105).

The pottery assemblage again represents short-lived occupation at the turn of the 1st century AD. No middle Iron Age forms and fabrics were recovered, concentrating instead on LPRIA types dating from *c*. 140 BC and continuing into the 1st century AD (Thompson 1982).

In addition to the low-status, utilitarian coarse ware jars and bowls found previously, the 2009 assemblage shows that the occupants had some access to specialised drinking vessels in the form of tall cylindrical jars, sometimes with elaborate corrugated bodies (Thompson 1982; Hill 2002). Moderate quantities of wheel-made fabrics were also recovered, although sources of supply for the pottery probably continued to be local, and the use of shell-tempered wares was avoided (Ingham 2009, 33–6). Fully Romanised fine wares such as beakers, platters and samian are again absent, underlining the reluctance of the inhabitants to adopt Romanised forms (Hill 2002, 159).

The faunal assemblage is again small, albeit slightly larger than the 2007 material, and consists largely of domestic animals. The poor condition of the material has probably resulted in under-representation of small species and juvenile epiphysial ends, as well as hindering identification and obscuring modifications such as butchery marks. Given these limitations and the small sample size, the following observations are presented with caution.

Economically, cattle appear to have been the most important species, even more so when the larger size of the carcass is taken into account. Iron Age sites in southern

England, particularly Wessex, are usually characterised by the importance of sheep husbandry. However, research suggests that regional patterns exist in terms of species proportions, frequency of skeletal elements and mortality profiles and that in Eastern England there was greater emphasis on the exploitation of cattle (Hambleton 1999, 89).

The limited evidence suggests that most cattle were kept to maturity before slaughter, implying utilisation for traction and possibly milking. At the end of their useful life, butchery marks indicate that the beef was consumed. The animals appear to have been a small horned variety typical of the period. The available information suggests that sheep were slaughtered at a younger age than cattle, implying greater emphasis on meat and possibly suggesting breeding. It is significant that sheep bones were most common in the feature with the best preservation and implies that they are under-represented elsewhere in the assemblage. Pig bones are neither numerous nor widespread, which may be partly attributed to the low survival of immature bones; however, this is also consistent with observations from the previous work at Scotland Farm and on the earlier farmstead to the south, which also suggests that pigs were relatively unimportant (Abrams and Ingham 2008, 32; Ingham 2008). Twice as many horse bones as pig were recovered, occurring primarily in ditch 2524. Only adults are represented, and there was no indication of immature animals which might have been bred on site. Horses are often reasonably prevalent at Iron Age sites, and were the third most common species on the farmstead to the south (Rielly 2008, 2). The low incidence of wild animals signifies that hunting supplemented the diet only occasionally, although red deer and possibly roe deer are present in the assemblage for the first time from either this site or the earlier farmstead to the south. Evidence for utilisation of animals for non-dietary purposes is rare; however, axe or cleaver marks at the base of a cattle horn-core suggested that the horn-sheath had been separated for working.

The 2007 works produced a smaller faunal assemblage, consisting of 180 fragments of bone (Ingham 2008). This was composed primarily of cattle and sheep/goat, although bones of domestic fowl, pig, horse and dog were retrieved in small numbers. The faunal assemblage from the 2009 excavation provides further evidence of husbandry at the site. The fact that the species located in the earlier assemblage occurred in differing proportions may indicate that the assemblage was not homogenous throughout the settlement. This is demonstrated by concentrations of sheep and horse bones in the current assemblage. Examination of a larger sample from the site as a whole may be able to suggest particular patterns of disposal, although some of the differences may be attributable to varying conditions of preservation.

The few charred plant remains recovered from the 2009 excavation allow little detailed comment on agricultural activities at the site, other than that hulled wheat was probably being grown and used at the site. A similar paucity of charred cereal remains was evident from the earlier excavation, which also showed the presence of hulled wheat but additionally barley (*Hordeum vulgare*) (Ingham 2008); both cereals were also identified at the earlier farmstead to the south of Scotland Farm (Giorgi 2008).

The distribution of the few remains show that the occasional chaff fragments and weed seeds, representing crop-processing debris, were all from enclosure ditch 2528, while the poorly preserved cereal grains (accidentally burnt during the latter stages of crop-cleaning and food preparation) were mainly from sampled features in the vicinity of round-house 2525. It is not possible, however, to interpret this distribution as definite evidence for separate areas of crop-processing activities, given the very small amount and low density of charred plant remains in these samples and the possibility that this material may derive from activities taking place some distance away from these features.

9. BIBLIOGRAPHY

Abrams, J & Ingham, D 2008 *Farming on the Edge: Archaeological Evidence from the Clay Uplands to the West of Cambridge*. East Anglian Archaeology Monograph 123

Albion Archaeology 2009 *Scotland Farm, Scotland Road, Dry Drayton, Cambridgeshire: Project Design for Archaeological Excavation*. Unpublished report 2009/20

Brown, K 2009 'Fired Clay'. In J Wright, M Leivers, R Seager Smith and CJ Stevens, *Cambourne New Settlement – Iron Age and Romano-British settlement on the clay uplands of west Cambridgeshire*. Wessex Archaeological Report 23, Volume 2: 67–69

Giorgi, J 2008 'The charred plant remains'. In J Abrams & D Ingham: Appendix 15

Grant, A 1982 'The use of toothwear as a guide to the age of domestic ungulates'. In B Wilson, C Grigson and S Payne (eds), *Ageing and Sexing Animal Bones from Archaeological Sites*. BAR British Series 109

Grant, A 1984 'Animal Husbandry'. In B Cunliffe, *Danebury: an Iron Age hillfort in Hampshire. Volume 2: The excavations 1969–1978.* CBA Research Report 52

Hambleton, E 1999 *Animal husbandry regimes in Iron Age Britain: a comparative study of faunal assemblages from British Iron Age sites.* BAR British Series 282

Hill, JD 2002 'Just about the Potter's Wheel? Using, making and depositing middle and later Iron Age pots in East Anglia'. In A Woodward & JD Hill, *Prehistoric Britain. The Ceramic Basis.* PCRG Occasional Publication 3. Oxford: Oxbow, 143–61

Hillson, S 2005 *Teeth,* 2nd edn, Cambridge Manuals in Archaeology. Cambridge University Press

Ingham, D 2008 'Iron Age settlement by the Dam Brook at Scotland Farm, Dry Drayton'. *PCAS* 97: 31–40

Kiesewalter. L 1888 *Skelettmessungen am Pferde als Beitrag zur theoretischen Grundlage der Beurteilungslehre der Pferdes Dissertation*. University of Leipzig

O'Connor, TP 2003 *The Analysis of Urban Animal Bone Assemblages.* The Archaeology of York: Principles and Methods 19/2. York Archaeological Trust / CBA

Payne, S and Bull, G 1988 'Components of variation in measurements of pig bones and teeth, and the use of measurements to distinguish wild from domestic pig remains'. *Archaeozoologia* II/1–2, 27–66

Pryor, F 2006 *Farmers in Prehistoric Britain.* Tempus

Rielly, K 2008 'Animal Bone'. In J Abrams & D Ingham: Appendix 13

Sealey, PR 2006 *Reports on the Late Iron Age Pottery and Fired Clay, Roman Pottery and*

Roman Brick and Tile from Caldecote, Highfields. Cambridgeshire County Council Archaeological Field Unit, unpublished

Serjeantson, D 1996 'The animal bones'. In S Needham & T Spence, *Refuse and disposal at Area 16 East Runnymede,* Volume II: Runnymede Bridge Research Excavations. British Museum Press

Shaffery, R 2007 'Worked stone'. In L Webley, J Timby and M Wilson, *Fairfield Park Later Prehistoric Settlement in the eastern Chilterns*. Bedfordshire Archaeology Monograph 7, 86–92

Silver, IA 1969 'The ageing of domestic animals'. In D Brothwell & ES Higgs, *Science in Archaeology*

Sykes, N and Symmons, R 2007 'Sexing cattle horn-cores: problems and progress'. *International Journal of Osteoarchaeology* 17, Issue 5: 514–23

Thompson, I 1982 *Grog-Tempered 'Belgic' Pottery of South-Eastern England*. BAR British Series 108

Vitt, VO 1952 'Horses of the Pazyrykh kurgans'. *Soviet Archaeology* 16: 163–205

von den Driesch, A 1976 *A guide to the measurement of animal bones from archaeological sites.* Cambridge, Massachussetts: Peabody Museum of Archaeology and Ethnology, Bulletin 1

Wells, J 2008 *Ceramic Building Material and Fired Clay*, in J Abrams and D Ingham: Appendix 9

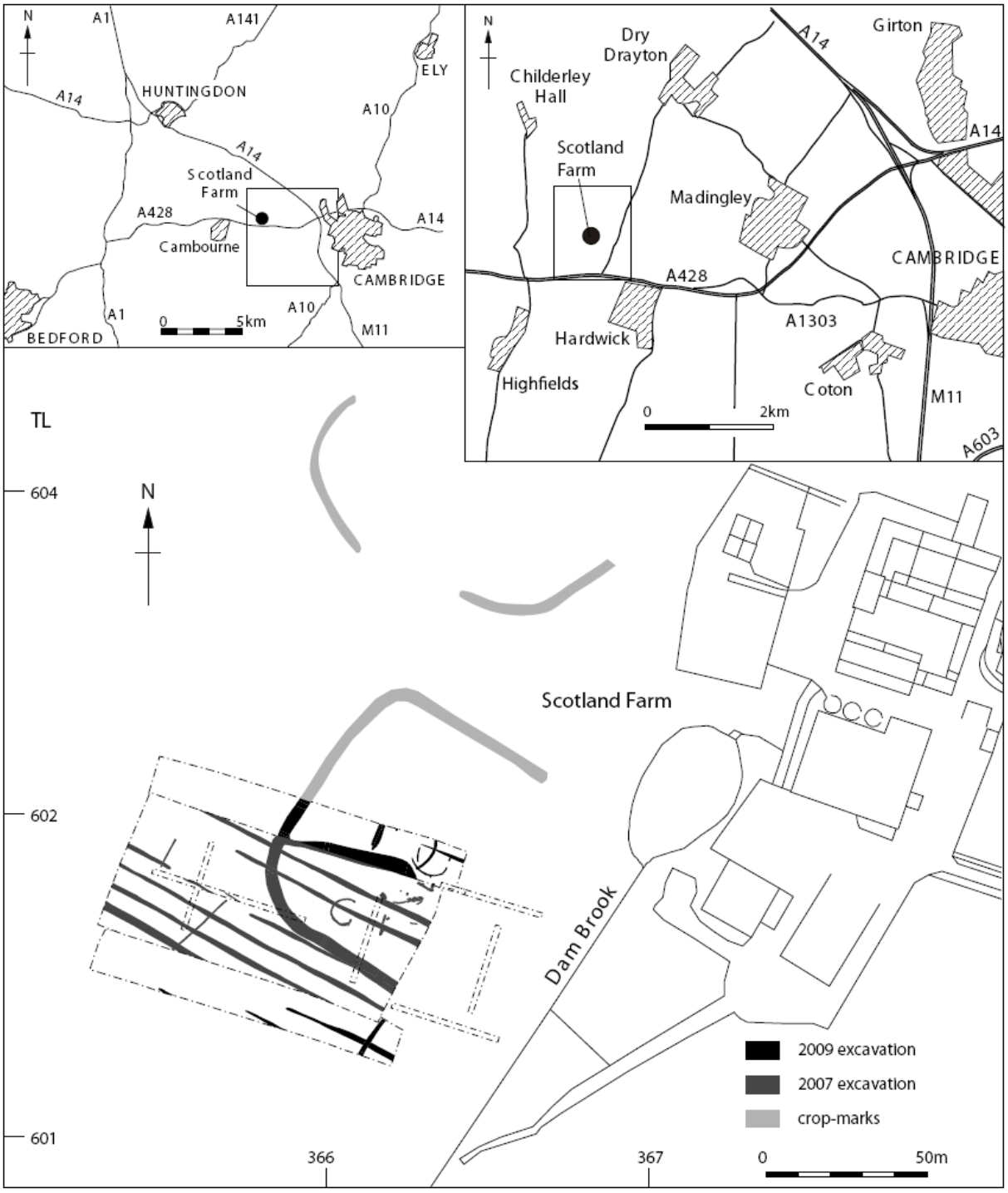

Figure 1: Site location plan showing excavated area, all features and crop-marks

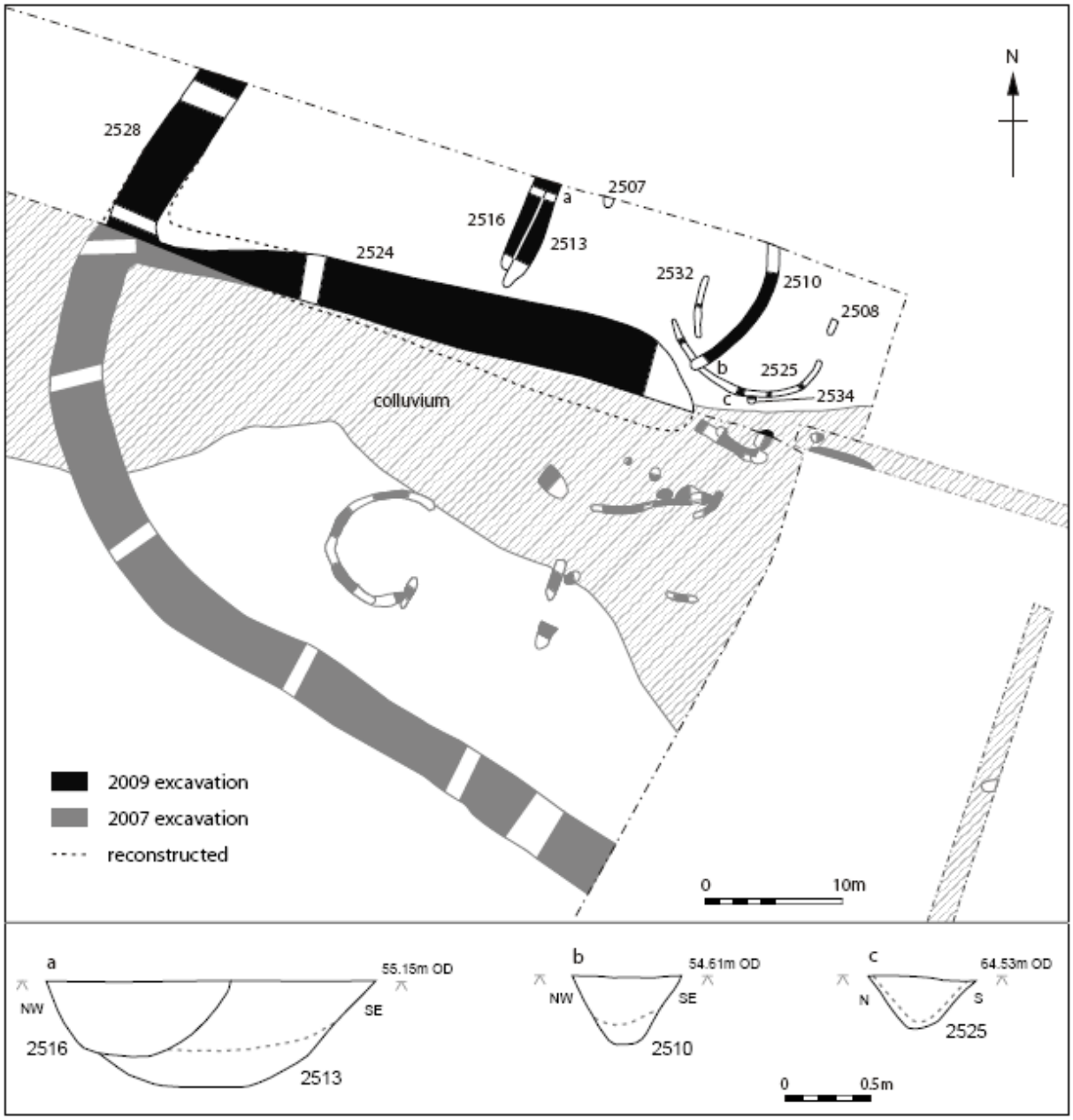

Figure 2: Plan of Iron Age enclosure, with representative sections

Figure 3: Truncation caused to the north-eastern half of the site by previous landscaping

Figure 4: The domestic core of the excavated area, looking north-west

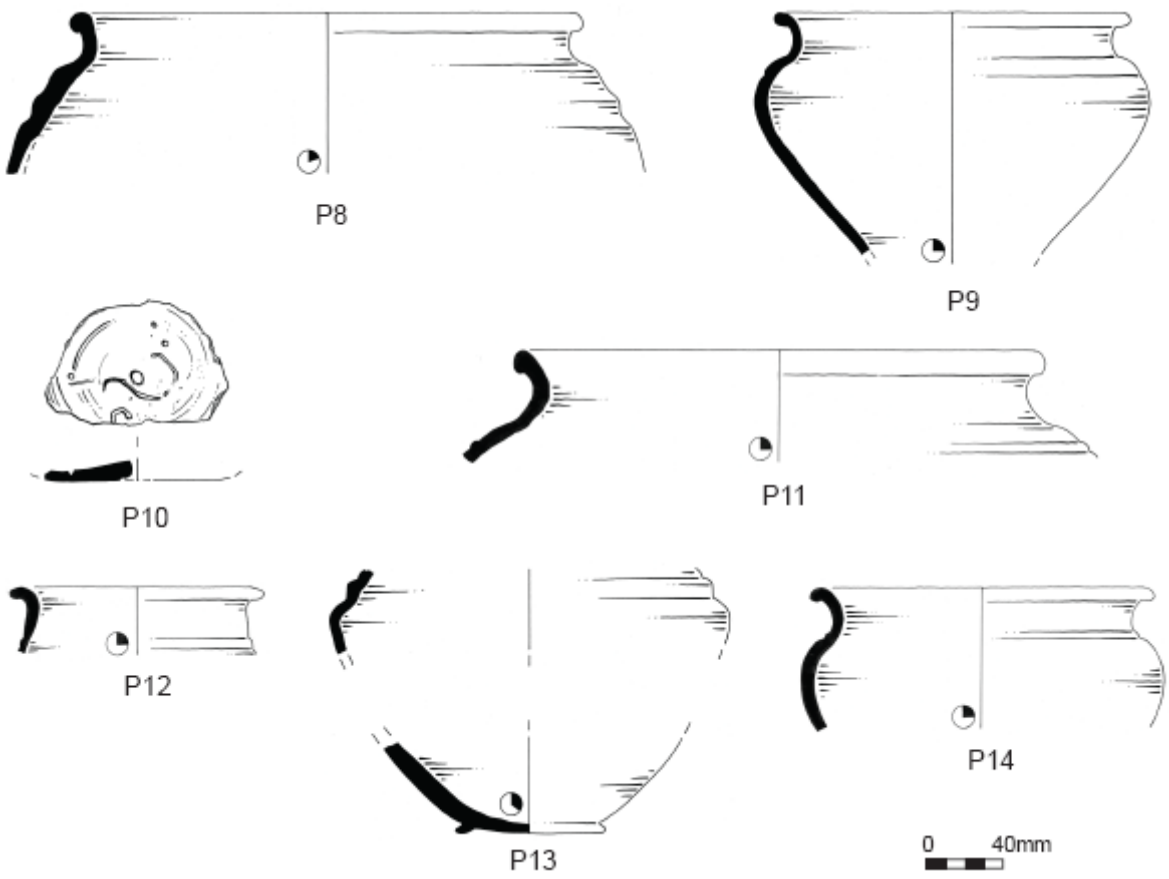

Figure 5: Illustrated pottery

Catalogue no.	Fabric	Description	Feature
P8	GTWP	Round cordoned jar with tall narrow neck	2510
P9	PGW	Round cordoned jars with short wide neck, wiped below shoulder	2513
P10	GTW	Basal sherd with single hole drilled in centre	2524
P11	PGW	Bowl with offset neck and cordon	2524
P12	PGW	Tall-necked narrow-mouthed jar, cordon on shoulder	2524
P13	DGTW	Stunted pedestal urn, cordoned	2524
P14	DGTW	Everted-rim jar	2524

Table 13: Illustrated pottery