



LAND AT HAY CLOSE Balsham, Cambs

HN627

Archaeological Report



THE HERITAGE NETWORK LTD

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Archaeological Director: David Hillelson, BA MIFA

LAND AT HAY CLOSE Balsham, Cambridgeshire

HN627

Archaeological Report

Prepared on behalf of McCann Homes Ltd.

by

Helen Ashworth BA AIFA and David Kaye, BA PIFA

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Contents

	Summary	Page i
Section 1	Introduction	Page 1
Section 2	General Background	Page 2
Section 3	Fieldwork	Page 4
Section 4	Artefacts and Ecofacts	Page 9
Section 5	Conclusions	Page 14
Section 6	Bibliography	Page 16
Section 7	Illustrations	following Page 17
Appendix 1	OASIS Record Form	Page 19
Appendix 2	Species List	Page 21

The cover illustration shows the entrance to the site, looking south-east

Acknowledgements

The fieldwork for this project was carried out by David Kaye, Abigail Rothwell and Alison Hudson. Illustrations were prepared by David Kaye, and the report was edited by David Hillelson.

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Summary

Site name and address:	Land at Hay Close, Ba	alsham, Cambridgeshire					
County:	Cambridgeshire	District:	South Cambridgeshire				
Village/town:	Balsham	Parish:	Balsham				
Planning reference:	S/0177/06/F	NGR:	TL 5895 5050				
Client name and address:	McCann Homes Ltd., Arden Press House, Arden Pressway, Pixmore Avenue,						
	Letchworth, SG 6 1LF	H					
Nature of work:	New housing	nousing Former land use: Allotments					
Site status:	None	Reason for investigation:	Direction of local planning				
			authority (PPG 16)				
Position in planning process:	Predetermination	Project brief originator:	Local authority				
Size of affected area:	$c.4207m^2$	Size of area investigated:	$c.477m^2$				
Site Code:	HN627	Other reference:	ECB2757				
Organisation:	Heritage Network	Site Director:	David Hillelson				
Project type, methods etc.:	Evaluation & Open	Archive recipient:	Cambridgeshire County				
	area excavation		Archaeological Store				
Start of work	03/10/2006	Finish of work	15/11/2006				
Related SMR Nos:	n/a	Periods represented:	Late Bronze Age / Early Iron				
			Age				
Oasis UID	Heritage1-20667	Significant finds:	Pottery & flint tool				
Monument types:	n/a	·					
Physical archive:	Pottery, flint, stone, CBM, animal bone, charcoal, glass						
Previous summaries/reports:	n/a	<u> </u>					

HN627/report Page i

Synopsis: As a result of a condition on the planning permission for the construction of eighteen new dwellings, with associated car parking access on land at Hay Close, Balsham, Cambridgeshire, the Heritage Network was commissioned by the developer to undertake a programme of archaeological investigation.

Two phases of fieldwork were undertaken, comprising an archaeological evaluation followed by open area excavation. In Phase 1 five trial trenches, of various lengths, were excavated across the proposed building footprints and roadway. Trenches 1-4, on the eastern end of the site, were blank but Trench 5, in the north-western corner, contained two pits and a possible gully/ditch. Flint-tempered pottery, dating from the late Bronze Age / early Iron Age, was recovered from the larger of the two pits.

As a result of these findings the project moved to an immediate second stage, involving open area excavation to the west of Trench 5. This demonstrated that the two pits form part of a three pit complex containing late Bronze Age / early Iron Age domestic debris. Two shallow ditches were also investigated. One also contained flint-tempered pottery and is likely to be contemporary with the pits. The date of the other ditch is suggested to be medieval on the basis of the ecofacts identified in the environmental samples collected from its fill.

Page ii

1. Introduction

- 1.1 This report has been prepared on behalf of McCann Homes Ltd., as part of the archaeological evaluation of a development site located on land at Hay Close, Balsham, Cambridgeshire. The planning permission for the development (ref. S/0177/06/F), controlled by South Cambridgeshire District Council (SCDC), was granted subject to a standard archaeological condition in accordance with the provisions set out in Planning Policy Guidance Note No.16 (PPG16) on Archaeology and Planning. The scope of the required investigation was defined in a Design Brief for Archaeological Evaluation prepared by the Cambridgeshire Archaeology, Planning and Countryside Advice (CAPCA) section of Cambridge County Council, acting as advisers to the planning authority. The evaluation followed the provisions set out in the Heritage Network's approved Project Design, dated September 2006. The scope of the subsequent investigation was defined in an exchange of emails and followed the provisions set out in the Heritage Network's approved Project Design for the Stage 2 archaeological excavation, dated October 2006.
- 1.2 The site is situated at the south-eastern limit of the village of Balsham, centred on NGR TL 5895 5050 (Figure 1). It is located within former allotments, covering approximately 0.44ha, and is bounded by residential dwellings to the north and west, more allotments to the east and open agricultural land to the south. The development proposes the construction of 18 new dwellings with associated access road, car parking and landscaping, and the creation of 6 new allotment plots immediately to the south (Figure 2).
- 1.3 The aim of the evaluation was to consider the location, extent, date, character, condition, significance and quality of any remains which were liable to be threatened by the development, and to provide a local and regional archaeological and historical context for them, in accordance with the current published regional research agenda (Glazebrook 1997, Brown and Glazebrook 2000). The aim of the subsequent investigation has been to preserve by record the identified remains which were to be destroyed by the development programme.

2. General Background

SITE TOPOGRAPHY AND GEOLOGY

- 2.1 The study area consists of land formerly used for allotments off Hay Close, on the south-eastern edge of the village. The ground rises by approximately 1.32m between the site access off Hay Close and the south-eastern limits of the site.
- 2.2 Locally the soils belong to the Ragdale Association (712g), described as *Slowly* permeable seasonally waterlogged clayey and fine loamy over clayey soils. Some slowly permeable calcareous clayey soils especially on slopes (SSEW 1983). This outcrop is surrounded by soils of the Hanslope Association (411d).
 - 2.3 The underlying drift geology consists of Boulder Clay over Chalk parent material.

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 2.4 The study area lies within an important historic landscape with defined archaeological activity ranging from the Neolithic period onwards. Bronze Age evidence, in the form of a flint dagger and beakers (NMR 374495), have been located 1km to the south of the site. Iron Age 'A' pits (NMR 374485) have been investigated 1.5km to the north-west. Several Roman roads run through or near the village and 1.5km to the south-west of the village are crop marks, thought to represent a Roman farmstead (NMR 373958). The line of Fleam Dyke, a Scheduled Ancient Monument (SAM 7) of Anglo Saxon date, lies 2km to the north of the village. An Anglo Saxon grave slab (NMR 37448), lies 400m north of the site. The village of Balsham, which has its origins in the Anglo Saxon period, suffered Viking raids and is mentioned in the Domesday Survey of 1087 as *Belesham* and *Belessham*.
- 2.5 The Cambridgeshire Historic Environment Record (CHER) indicates the presence of mainly medieval activity within a 1km radius of the site (Figure 3). An enclosed site of medieval date (CHER 01203) is located 525m north of the site. Medieval house platforms (CHER 10837) are situated 380m to the north-west of the study area, and a possible moated site has been identified at Plumian Farm, 550m to the north-east (CHER 01202). A ditch, also dating to the medieval period, has been located at Oxcroft Farm, 875m to the north (CHER CB14629).

METHODOLOGY

General

2.6 All work was carried out in accordance with the approved *Project Designs*, current health and safety legislation, and both IFA and ALGAO standards.

Evaluation

- 2.7 The trenches were triangulated from known points using fibreglass tape measures.
- 2.8 Five trenches were opened using a wheeled JCB excavator fitted with a 1.6m wide toothless bucket, under close archaeological supervision (Figure 6).
- 2.9 Trenches were machined to the first significant archaeological horizon. Spoil from the machining was inspected for archaeological artefacts.

- 2.10 All potential archaeological features and deposits were sampled to ascertain their nature, depth, date, and quality of preservation.
- 2.11 All identified contexts were photographed and recorded using the appropriate *pro forma*. Scaled plans and sections were drawn on drafting film, at scales of 1:20 and 1:50.

Excavation

- 2.12 The overburden was removed, under close supervision, to the first significant archaeological horizon using a wheeled JCB excavator fitted with a 1.6m wide toothless bucket.
- 2.13 Spoil from the machining was inspected for archaeological artefacts.
- 2.14 All potential archaeological features and deposits were sampled to ascertain their nature, depth, date, and quality of preservation.
- 2.15 All identified contexts were photographed and recorded using the appropriate *pro forma*. Scaled plans and sections were drawn on drafting film, at scales of 1:20 and 1:50.

Post-excavation

2.16 Following current professional practice, the post-excavation stage of the present project was divided between Archive and Assessment, and Post-Excavation Analysis and Publication.

Archive

- 2.17 The site archive, comprising the excavation records and materials recovered, have been quantified, ordered, indexed, cross-referenced and checked for internal consistency. A Harris Matrix has been compiled, together with an overall site summary, and a summary of the artefactual and ecofactual data.
- 2.18 The archive is in prepararation, in accordance with UKIC guidelines, for deposition with Cambridgshire County Archaeology Store.

Artefacts

2.19 Where appropriate, bulk finds such as pottery and ceramic building material have been carefully washed in clean water to remove the soil, and quantified. All pottery has been marked with the site code and context number.

Ecofacts

2.20 Seven 30 litre bulk samples were taken during both stages of fieldwork. These have been processed and analysed (Vaughan-Williams, this report).

3. Fieldwork

PHASE 1 EVALUATION

Stratigraphy

3.1 The overlying stratigraphy was consistent across the site, consisting of a very dark grey (10YR 2/2) loose, silty clay topsoil, between 0.25-0.35m in depth, overlying a light olive brown (2.5Y 5/6) natural clay with chalk flecks. The area has been cultivated as allotments for at least 40 years, consequently the subsoil has been integrated into the general matrix. Ordnance Survey maps show that it was open farmland until the mid 20th century (Figures 4 & 5).

Trench 1

Length (m):	25.0	Width (m):		1.6	Maximum Depth (m): 0.4 Orientation		tion	NE-SW			
Level at North-East End of			Top	115.56	Level at South-West End of T			Top	115.30		
Trench (m(Trench (mOD) Base 115.07 Trench (mOD)				Base	114.98					
Contort	Contact			Demonstration				Dimensions (m)			
Context	Туре		Description				Length	Wi	idth	Depth	
101	Layer	Very dark Topsoil.	brown (10YR 2/2)	loose, silty clay		25+	1.	6+	0.30	
102	Layer	Light oliv flecks. Na		. ,	firm, clay with	chalk	25+	1.	6+	-	

3.2 Trench 1 was located in the south-east corner of the site (Figure 6). No archaeological features or deposits were observed within this trench.

Trench 2

Length (m):	25.0	Width (m):		1.6	Maximum Depth (m): 0.35 Orientation			tion	N-S	
Level at North End of Trench			Top	115.37	Level at South End of Trench Top 1			115.29		
(mOD)			Base	115.06	(mOD)				Base	114.92
Context		December 41 and				Dimensions (m)				
Context	Type		Description				Length	Wi	idth	Depth
201	Layer	Very dark Topsoil.	brown (10YR 2/2)	loose, silty clay	y.	25+	1.	.6+	0.25
202	Layer	Light oliv flecks. Na		. ,	firm, clay with	chalk	25+	1.	.6+	-

3.3 Trench 2 was located on the eastern edge of the site (Figure 6). No archaeological features or deposits were observed within this trench.

Trench 3

Length (m):	30.30	Width (m):		1.6 Maximum Depth (m): 0.35 Orientation			tion	E-W		
Level at East End of Trench			Top	115.54	Level at West End of Trench Top 1			114.98		
(mOD)			Base	115.16	(mOD)				Base	114.61
Comtont	Т		Description				Dimensions (m)			
Context	Type						Length	Wi	idth	Depth
301	Layer	Very dark Topsoil.	brown (10YR 2/2)	loose, silty clay	y.	30.30+	1.	6+	0.30
302	Layer	Light oliv flecks. Na			firm, clay with	chalk	30.30+	1.	6+	-

3.4 Trench 3 was located in the north-east corner of the site (Figure 6). No archaeological features or deposits were observed within this trench.

Trench 4

Length (m):	26.0	Width (m):		1.6 Maximum Depth (m): 0.4		Orientation		NW-SE			
Level at North-West End of			Top	114.86	Level at South-East End of Trench Top 1			115.21			
Trench (m(O D)		Base	114.51	(mOD)				Base	114.86	
Contout				T				Dimensions (m)			
Context	Type		Description				Length	Wi	idth	Depth	
401	Layer	Very dark Topsoil.	brown (10YR 2/2)	loose, silty clay	/ .	26.0+	1.	6+	0.30	
402	Layer	Light oliv flecks. Na		. ,	firm, clay with	chalk	26.0+	1.	6+	-	

3.5 Trench 4 was located in the centre of the site (Figure 6). No archaeological features or deposits were observed within this trench.

Trench 5

Length (m):	40.0	Width (m):		1.6	Maximum Depth (m):	0.45	Orientatio	n N	E-SW
Level at N	Level at North-East End of			114.95	Level at Sou	th-West I	End of	Top	114.59
Trench (m		Base	114.54	Trench (mO	D)		Base	114.24	
C44	TF			D			Di	imensions ((m)
Context	Type			Descrip	tion		Length	Width	Depth
501	Cut	Linear					0.8+	0.6	0.09
502	Fill		Dark olive grey (5Y 3/2) firm, silty clay fill of [501]. Contained charcoal and sub-circular flints <40mm ø.				0.8+	0.6	0.09
503	Cut	Sub-circu	lar pit.				1.2+	1.06+	0.27
504	Fill		Olive brown (2.5Y 4/4) firm, silty clay fill of [503]. Contained charcoal and sub-circular flints <160mm				1.2+	1.06+	0.27
505	Cut	Sub-oval	pit.				0.58	0.53+	0.18
506	Fill	of [505].	Dark, yellowish brown (10YR 4/4) firm, silty clay fill of [505]. Contained occasional sub-circular flints <50mm ø.				0.58	0.53+	0.18
507	Cut	Sub-circu	lar pit.				0.75	0.65+	0.1

508	Fill	Olive brown (2.5Y 4/4) firm, silty clay fill of [503]. Contained frequent charcoal pieces.	0.75	0.65+	0.1
509	Layer	Very dark brown (10YR 2/2) loose, silty clay. Topsoil.	40.0+	1.6+	0.35
510	Layer	Light olive brown (2.5Y 5/6) firm, clay with chalk flecks. Natural geology.	40.0+	1.6+	-
511	Fill	Dark olive grey (5Y 3/2) firm, silty clay fill of [501]. Contained charcoal and sub-circular flints <40mm ø.	0.4+	0.58	0.14

- 3.6 Trench 5 was located in the north-west corner of the site (Figure 6) and was the only trench to contain any archaeological features (Figure 7). Its stratigraphy was the same as that recorded in the other evaluation trenches and comprised a single layer of topsoil, approximately 0.35m in depth, overlying the natural clay and chalk (Figure 8). Features identified in the trench consisted of a shallow, possibly linear feature, [501], and three pits, [503], [505] and [507]. Linear [501] and pits [503] and [505] were clustered towards the north-eastern end of the trench, whilst [507] was located approximately 10m to the southwest.
- 3.7 The only features to produce dateable artefacts were pits [503] and [505], which contained sherds of Late Bronze Age / Early Iron Age pottery. A number of large stones, many of which appear to have been heat effected, were recovered from the base of pit [503]. They constituted approximately 17% of the total volume of the feature.

PHASE 2 OPEN AREA EXCAVATION

- 3.8 On the basis of the results of the evaluation CAPCA requested further investigation of the vicinity of Trench 5. Accordingly, the trench was expanded to incorporate the area up to the western site boundary and approximately 20m south of the access path on the northern boundary (Figure 10).
- 3.9 The area was machined to the first archaeological horizon, revealing a number of features, including two ditches, a tree bole and the remnants of 12 modern planting holes (Figure 11). The extent of the features identified in evaluation Trench 5 was clarified, and the supposed linear [501] was shown to form part of a small pit [042].
- 3.10 Ditch [048] was an L-shaped feature, approximately 20m in length, which extended beyond the northern and western bulks. It contained a single fill, a very dark greyish brown (10YR 3/2) silty clay. Within the fill there were occasional small flints <10mm in diameter and charcoal flecks. This probably represents the natural silting-up of the ditch.
- 3.11 Ditch [047] was greater than 8.6m in length, running north from the western baulk to a termination at the intersection with Ditch [048]. It contained two shallow fills, (014) and (015), at its northern end and a single fill, (019), at its southern end. As the upper fill was only approximately 0.07m in depth, its absence from the southern end may be accounted for by a possible variation in the depth of the machining. Ditch [047] was cut by [048], and terminated within it (Figure 12).

Recorded Contexts

C44	T	D	Dimensions (m)			
Context Type	Description	Length	Width	Depth		
01	Cut	Sub-circular. Probable remnant of horticultural planting.	0.40	0.39	0.07	

	_		D	imensions (1	m)
Context	Type	Description	Length	Width	Depth
02	Fill	Black (5Y 3/2) firm, silty clay fill of [01]. Contained occasional small flints and charcoal.	0.40	0.20+	0.07
03	Cut	As [01].	0.40	0.37	0.06
04	Fill	As (02).	0.40	0.16+	0.06
05	Cut	As [01].	0.37	0.32	0.07
06	Fill	As (02).	0.37	0.16+	0.07
07	Cut	As [01].	0.44	0.42	0.11
08	Fill	As (02).	0.44	0.21+	0.11
09	Cut	Butt end of ditch [047]. Junction of ditches [047] & [048].	0.45+	1.75	0.17
010	Fill	Olive brown (2.5Y 4/4) firm, clayey primary fill of [047]. Contained occasional flecks of chalk.	0.24+	1.75	0.13
011	Fill	Brown (10YR 4/3) firm, silty clay secondary fill of [047]. Contained occasional flecks of chalk and flints <20mm ø.	0.24+	1.75	0.04
012	Fill	Very dark grayish brown (10YR 3/2) firm, silty clay primary fill of [048]. Contained occasional flints <40mm ø, chalk flecks and charcoal.	0.45+	0.80	0.12
013	Cut	Section of ditch [047].	0.70+	1.55	0.20
014	Fill	Olive brown (2.5Y 4/4) firm, clayey primary fill of [047].	0.70+	1.55	0.15
015	Fill	As (011).	0.7+	0.82	0.06
016	Cut	Section of ditch [048].	0.6+	1.05	0.13
017	Fill	As (012).	0.6+	1.05	0.13
018	Cut	As [013].	0.85+	0.8	0.13
019	Fill	As (010).	0.85+	0.7	0.11
020	Fill	As (011).	0.85+	0.7	0.03
021	Cut	As [016].	0.40+	0.75	0.05
022	Fill	As (012).	0.40+	0.75	0.05
023	Cut	As [016].	0.24+	1.03	0.06
024	Cut	As [01].	0.47	0.43	0.12
025	Fill	As (02).	0.47	0.22+	0.12
026	Cut	As [01].	0.50	0.40	0.06
027	Fill	As (02).	0.50	0.20+	0.06
028	Cut	As [01].	0.37	0.30	0.06
029	Fill	As (02).	0.37	0.15	0.06
030	Cut	As [01].	0.39	0.34	0.10
031	Fill	As (02).	0.39	0.17+	0.10
032	Cut	As [01].	0.45	0.40	0.06
033	Fill	As (02).	0.45	0.20	0.06
034	Cut	As [01].	0.35	0.30	0.10
035	Fill	As (02). Contained fragment of modern roof tile.	0.35	0.15	0.10
036	Cut	As [01].	0.45	0.33	0.08
037	Fill	As (02). Contained glass, burnt material and plastic.	0.45	0.17	0.08
038	Cut	As [01].	0.37	0.34	0.03
039	Fill	As (02).	0.37	0.17+	0.03
040	Cut	Sub-oval. Tree bole.	3.20	1.70	0.37
041	Fill	Olive brown, firm, silty clay with occasional flints <80mm ø.	1.70+	1.70	0.37
042	Cut	Sub-oval. Pit.	1.40	1.05	0.30
043	Fill	Olive brown (2.5Y 4/4), firm, slightly silty clay primary fill of [042]. Contained occasional chalk flecks.	0.68+	1.05	0.08

C44	Т	D	D	imensions (1	m)
Context	Type	Description	Length	Width	Depth
044	Fill	Very dark gray (10YR 3/1) firm, silty clay secondary fill of [042].	0.60+	0.93	0.23
045	Cut	Excavated slot to evaluate depth of clay lens.	2.50	0.12	0.10
046	Fill	Olive brown (2.5Y 4/4), firm, clay with occasional flecks of chalk. Matrix of clay lens.	2.50	0.12+	0.10
047	Group	Ditch. Includes [09], (010), (011), (012), [013] & (014).	-	-	-
048	Group	Ditch. Includes (012), [016], (017), [021], (022) & [023].	ı	-	-
049	Cut	Land drain cut.	0.70+	0.13	0.12
050	Fill	Brown (10YR 4/3), firm, sandy clay fill of [050].	0.70+	0.13	0.12
051	Layer	Dark brown (10YR 2/2), loose, silty clay topsoil.	1	-	-
052	Layer	Light olive brown (2.5Y 5/6) firm, clay with chalk flecks. Natural geology	ı	-	-
053	Group	Pit cuts & fills [501], (502), [503], (504), (511), [505], (506), [042], (043) & (044)			
054	Group	Planting cuts & fills [01], (02), [03], (04), [05], (06), [07], (08), [024], (025), [026], (027), [028], (029), [030], (031), [032], (033), [034], (035), [036], (037) [038] & (039)			

4. Artefacts And Ecofacts

CONCORDANCE OF FINDS - Evaluation

		imal one	Flin	nt	Pott	ery	St	one	Comments
Context	No	Wt	No	Wt	No	Wt	No	Wt	
504	34	735			6	50	12	7685	Stones possible "pot boilers"
506					8	75			
511	12	100	4	20	92	475			
U/S			4	40	4	15			
Total	46	835	8	60	110	615	12	7685	

CONCORDANCE OF FINDS - Open Area Excavation

	Anima	l Bone		/fired ay	Cha	rcoal	F	lint	Po	ttery	М	isc.	Comments
Context	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	
08					6	5							
017			6	<5	4	<5							
019							3	80	3	20			
035									2	5			Modern
037					5	<5					2	5	Polythene & glass
044	11	40					6	25	106	755			
Total	11	40	6	<5	15	<10	9	105	111	780	2	5	

STRUCK FLINT by Keith Fitzpatrick-Matthews (Archaeology Officer, North Hertfordshire Museums)

- 4.1 A combined assemblage of 17 pieces of struck flint, weighing 165g, was recovered during both phases of fieldwork. Of this 8 pieces, weighing 60g, were collected from one stratified, (511), and one unstratified context during Phase 1, and 9 pieces, weighing 105g, came from two stratified contexts during Phase 2.
- 4.2 A brief examination of the assemblage suggests that the pieces found during the evaluation were not deliberately struck, however, those recovered from ditch [047] and pit [042] were worked. Most of the group represents debitage, indicating flint working in the vicinity, but one tool was collected from context (043). This is described below.

Description

- 4.3 A nearly triangular piece of flint, 62.5 mm maximum length, 32,8 mm wide at the distal end and 10.5 mm maximum thickness (Plates 1 and 2). It has a small, almost punctiform, triangular striking platform 5.2 mm wide and 3.1 mm deep. The object weighs 16.64 g. Its colour is very mottled, ranging from dark grey to light bluish grey, with patches of off-white to very pale yellow cortex towards the distal end of the dorsal surface. This is a result of cortication, as minerals leached from the struck flake while it was in the ground.
- 4.4 The profile is evenly curved and the flake was struck from an unusually low conical core, the point of which is present about 13 mm from the distal end. There are two flake scars on the dorsal surface producing an almost central dorsal ridge; at the distal end, there are

HN627/report Page 9

traces of what may be two more flake scars from flakes struck from the opposite side of the core.

4.5 On the right side of the dorsal surface, beginning 6.7 mm distally from the striking platform, is a band of abrupt retouch 15 mm long. It then moves to the ventral surface, where it continues for a further 22 mm. This indicates that this side was deliberately blunted and the opposite edge intended to be used as a cutting edge. This is confirmed by a series of small edge damage scars on the left edge of the ventral surface (although there is one larger recent scar with no cortication perhaps caused by a trowel during excavation).

Interpretation

4.6 A probable cutting tool. It does not fit a standard typology of knife forms, which suggests a late date. This is confirmed by the presence of Late Bronze Age/Early Iron Age pottery in the upper fill of the pit from which this flint derived. Although flint is generally thought to have ceased to be used widely for tool making during the second millennium BC as bronze became more widely available, there is growing evidence – at least in areas with a plentiful supply of flint – that lithics continued to be made well into the first millennium BC. These later forms often appear to be of eccentric type, although this may be a reflection of the current lack of typologies and assemblages of parallels.

GLASS ROD

4.7 A fragment of fine glass rod was recovered from sample 5, fill (504) in pit [503]. It measures 3mm in length and approximately 1mm in diameter (Plate 3). The glass is turquoise and white and is possibly modern and intrusive in an earlier feature.

POTTERY

- 4.8 A combined total of 221 sherds, weighing 1395g, was recovered during both phases of fieldwork. Of this 110 sherds, weighing 615g, were recovered from one unstratified and three stratified contexts, (504), (506) and (511), during the Phase 1 evaluation and 111 sherds, weighing 780g, were collected from three stratified contexts, (019), (035) and (044), during the Phase 2 excavation. The bulk of the pottery from the Phase 1 evaluation came from context (511), the fill of pit [501]. The bulk from the Phase 2 excavation came from context (044), the secondary fill of pit [042].
- 4.9 The majority of the assemblage consists of hand-made, flint-tempered pottery sherds of late Bronze Age / early Iron Age date (Plates 4 to 8). Two small and abraded residual sherds of medieval pottery were collected from context (035).
- **4.10** The overall condition of the pottery may be described as being between abraded and slightly abraded.
- 4.11 Most of the material comprised undiagnostic bodysherds, with only four rim fragments present within the assemblage, all from context (044), and 9 base sherds, including 8 from context (506). The rims relate to two separate vessels, almost certainly jars. Unfortunately the rim sherds are too small to clearly identify their vessel form, nonetheless the styles are consistent with those identified at Wandlebury (Webley 2005, 39-45).

- 4.12 The prehistoric pottery assemblage consists entirely of a coarse sandy ware, with frequent angular and ill sorted flint inclusions and sparse to frequent organic tempering. The latter is represented by voids, which on occasion are burnt out. All of the pottery is coarse, none within this collection demonstrates a variation in crushed flint, with, for instance sherds being consistently finer, as those recently encountered at Brinkley (Fawcett forthcoming). The only visible difference is that the pottery from (506) and (019) is not as highly fired as the remainder of the assemblage.
- 4.13 The pottery assemblage indicates occupation on the present in the late Bronze Age / early Iron Age. No evidence for later occupation was present. The only other pottery from the site consisted of two sherds of medieval date, residual in a later feature, and a single sherd of early post-medieval brown-glazed ware from the topsoil.

STONE

- 4.14 A total of 24 stones, weighing 12380g, was recovered from fill (504) in pit [503]. They were a mixture of smooth sandstone and irregular flint, and varied in size from 80mm to 120mm in diameter. The combined volume of the stones is equivalent to approximately 30% of the fill of the pit.
- 4.15 Of the 24 stones recovered, 21 appear to been heated to some degree. It is possible that this assemblage represents discarded 'pot boilers'.

DAUB / FIRED CLAY

- **4.16** Six fragments of ceramic building material, weighing less than 5g, were recovered from fill (017) in ditch [048] during the Phase 2 excavation. They appear to be fragments of fired clay or daub, and may indicate a structure in the vicinity.
- 4.17 No examples were collected during the Phase 1 evaluation.

ANIMAL BONE

- 4.18 A total of 46 fragments of animal bone, weighing 835g, was recovered during Phase 1 and 11 fragments of animal bone, weighing 40g, during Phase 2. The general condition of the assemblage recovered was good, but the fragmentary nature of some of the bones meant that it was impossible to identify the species. It is likely that most originated from medium sized mammals.
- 4.19 The entire assemblage came from two features, pit [503] in Trench 5 and pit [042].
- 4.20 Identified species include sheep/goat and cattle. Fusion evidence indicates both mature and juvenile animals were present. The small size of the sample prohibited any meaningful statistical analysis being carried out and therefore no bias towards any particular species was detected.
- **4.21** Butchery evidence was recorded on several of the larger bones in the form of single and multiple knife cuts and saw marks.
- **4.22** This assemblage is typical of those found in domestic refuse pits.

CHARCOAL

4.23 A total of 15 fragments of charcoal, weighing less than 10g, were recovered from three stratified contexts fills (017), (08) and (037). Fills (08) and (037) are probably the remnants of modern planting holes dug by the allotment holders. The remains of several bonfires were visible prior the start of the evaluation process.

ENVIRONMENTAL EVIDENCE by A Vaughan-Williams (ARCUS)

INTRODUCTION

4.24 This report presents the findings from the analysis of archaeobotanical material recovered during an evaluation on land at Hay Close, Balsham (HN622 / 627) [NGR: TL 5895 5050] by The Heritage Network. Bulk samples were taken from two pits dated to the late Bronze Age / early Iron Age, and two undated ditches. The assemblages contained charred and desiccated material of a poor to moderate standard of preservation. The aim of this analysis was to identify the function of the features and their associated activities in relation to the individual sites, and the area as a whole.

Site Code	HN627	HN627	HN627	HN627	HN627	HN627	HN622
Sample	1	2	4	3	6	5	1
Context	014	017	043	044	502	504	508
Sample vol. (I)	30	30	30	30	30	30	20
Res. vol. (gms)	575	1940	1370	2235	2600	6580	665
Flot vol. (ml)	-	125	10	20	20	20	45
		Environn	nental sa	mples			

METHODS

4.25 The bulk samples were processed by flotation by The Heritage Network using a 500 micron mesh sieve. The flots were sorted and identifications were made using a low power zoom-stereo microscope. Identifications were made with reference to the author's modern seed reference collection, and Berggren (1981) and Anderberg (1994). Plant nomenclature follows Stace (1997). The results are presented in Appendix 2.

RESULTS

Late Bronze Age / early Iron Age pits

- 4.26 The two pits sampled presented similar results. The primary fill [504] of pit [503] contained occasional desiccated seeds of orache (*Atriplex* sp.), common chickweed (*Stellaria media*), fool's parsley (*Aethusa cynapium*), white dead-nettle (*Lamium album*), long-headed poppy (*Papaver dubium*) and creeping buttercup (*Ranunculus repens*). Occasional fragments of anthracite was also identified. The upper fill [508] from pit [503] contained only occasional seeds of orache and creeping buttercup.
- 4.27 The primary fill [043] and secondary fill [044] of pit [042] presented the same type of desiccated assemblages with occasional seeds of fat hen (*Chenopodium album*), orache, petty spurge (*Euphorbia peplus*), white deadnettle and bristly ox-tongue (*Pricris echoides*). One seed of raspberry (*Rubus idaeus*) was also present in context [043]. Modern grass was also present.

Undated ditches

- 4.28 The primary fill [014] from ditch [047] contained a small assemblage of desiccated seeds typical of waste ground. These included the seeds of fat hen, knotgrass (*Polygonum avicularia*), brambles (*Rubus fructicosus / idaeus*) and white dead-nettle. Modern grass and insects were occasional found as well.
- 4.29 Context [017] from ditch [048] presented a richer assemblage with moderate diversity. The assemblage was again dominated by waste ground taxa, with seeds of fat hen, common nettle (*Urtica dioica*), lesser stitchwort (*Stellaria gramineae*), petty spurge and bristly oxtongue to name a few. Damp ground taxa were rare, with occasional seeds of sedge (*Cyperaceae* sp.). The occasional charred remains of cereals included one grain of straight hulled barley (*Hordeum* sp.) and two barley internodes. One mineralised grain of barley was also present. Anthracite was abundant; Mollusca occasional; and modern grass / roots were also present.

INTERPRETATION

- 4.30 All samples from this site were dominated by desiccated seeds representative of cultivated and disturbed ground. The samples also mostly contained remnants of modern grass / roots. The site at Hay Close, Balsham used to be an allotment (Kaye, 2006), and the presence of anthracite in some of these samples is evidence of post-depositional contamination. For non-charred seeds to survive in this country, they have to be preserved through either mineralisation or through waterlogging. Waterlogged preservation requires a permanently high water-table, as fluctuating water-levels would cause the seeds to dry out and crack. It is therefore highly probable that the desiccated seeds from this site reflect the fact that it used to be an allotment, as well as the vegetation on the land prior to excavation.
- 4.31 Occasional charred and mineralised grains were preserved in context [017] of ditch [048] including one well preserved grain of straight hulled barley. The presence of two barley internodes suggests that the cultivation of the crop was taking place in the vicinity. The presence of a mineralised grain suggests there was cess in the ditch, as it is a good source of the high phosphates which are key to mineralisation (Green, 1979).
- 4.32 Barley was the main crop cultivated during this period, with the benefits of being a hardy cereal, tolerant of poor soils and a cooler climate (Jones, 1981; Van der Veen, 1992). Contemporary sites with barley include Aldermaston Wharf, Reading (Arthur and Paradine, 1980), Rowden, Dorset (Carruthers, 1991) and Runneymede, Berkshire (Greig, 1991). Their deposition was probably the result of domestic rubbish being dumped in the ditch.

DISCUSSION AND CONCLUSIONS

4.33 Unfortunately the majority of the seeds were modern, reflecting the prior use of the land as an allotment. The barley grains and internodes (chaff) indicate its cultivation. It was a common cereal during the medieval period, and complements the general knowledge for this period. It is not clear how these items came to be charred, and they may be wind-blown deposits following the burning of fields post-harvest; or the remains of domestic hearths. The presence of mineralised grain means that it is probable the ditch was also used as a toilet.

5. Conclusions

RESEARCH AIMS

- 5.1 The defined aims of the present project were to identify and record any archaeological features and deposits which may have been uncovered; to retrieve artefactual and ecofactual elements which would allow the date, character, and significance of the site to be assessed in accordance with the current published regional research agenda (Glazebrook 1997; Brown and Glazebrook 2000); and to preserve by record such features and deposits as would inevitably be destroyed by the development works.
- 5.2 Hay Close lies within an important historic and archaeological landscape, with activity ranging from the Neolithic period onwards in the vicinity. A number of medieval sites have also been recorded from within a 1km radius of the site.
- 5.3 The site was considered to have the potential to contribute to the understanding of the archaeological landscape of this part of Cambridgeshire.
- 5.4 The assessment of the results of the fieldwork demonstrates that sufficient data has been collected to allow the aims of the project to be met. The results can be summarised as follows:
 - The present site is located in a known archaeological landscape. Until the mid 20th century it was open farmland, after which it was used as allotments. As a result the topsoil and subsoil has been homogenised down to the natural geology.
 - The Phase 1 evaluation revealed that the archaeological features were located in the north-western corner of the site. These consisted of a pit complex, group [053] and three linear features, ditches [507], [047] and [048].
 - Sherds of flint-tempered pottery of late Bronze Age / early Iron Age date, worked flints, stone 'pot boilers' and animal bone fragments were recovered from the fills of the pit complex, group [053], possibly representing discarded domestic waste. Linears [507] and [047] also contained sherds of flint-tempered pottery, suggesting that they were contemporary and may have formed part of a boundary or enclosure ditch.
 - Ditch [048] post-dates Ditch [047] and is possibly medieval in date. However, no other evidence for medieval activity was encountered on the site. Fragments of daub were recovered from its fill, indicating the presence of a structure in the vicinity.
 - Twelve modern planting holes (Group [054]) were also identified, relating to the use of the site as allotments.
 - No archaeological features, deposits or unstratified artefacts were identified anywhere on the site to the east of evaluation Trench 5. This suggests that the present site lay on the eastern edge of a late Bronze Age / early Iron Age settlement, which may have been destroyed during the construction of Hay Close.
 - The ecofactual evidence suggests the cultivation of barley in the immediate vicinity in the medieval period. However, the use of the site for allotments during the 20th century has contaminated the samples from the fills of the archaeological features.

ARCHIVE

- 5.5 The documentary and material archive is currently held by The Heritage Network Ltd at its premises at 11 Furmston Court, Icknield Way, Letchworth, Herts.
- 5.6 In its final form the archive will conform to UKIC guidelines for the preparation of excavation archives for long-term storage. All post-excavation documentation will be filed, ordered, and indexed as part of the research archive.
- 5.7 The documentary and material archive will be deposited with the Cambridge County Archaeology Store, Cambridge.

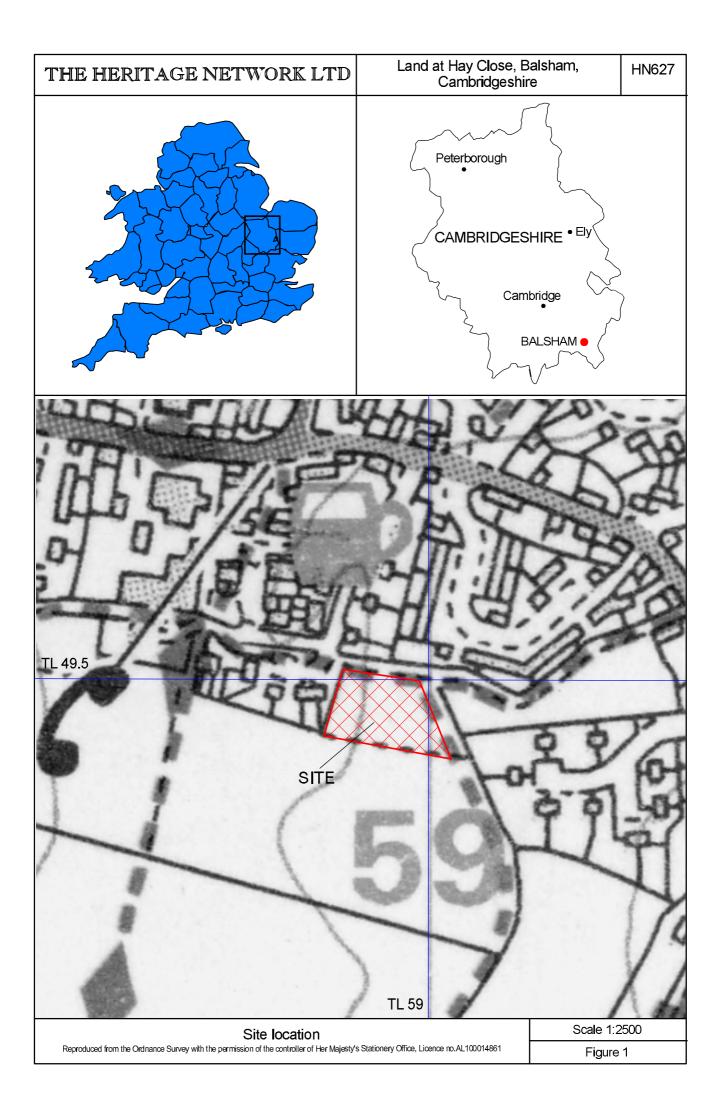
HN627/report Page 15

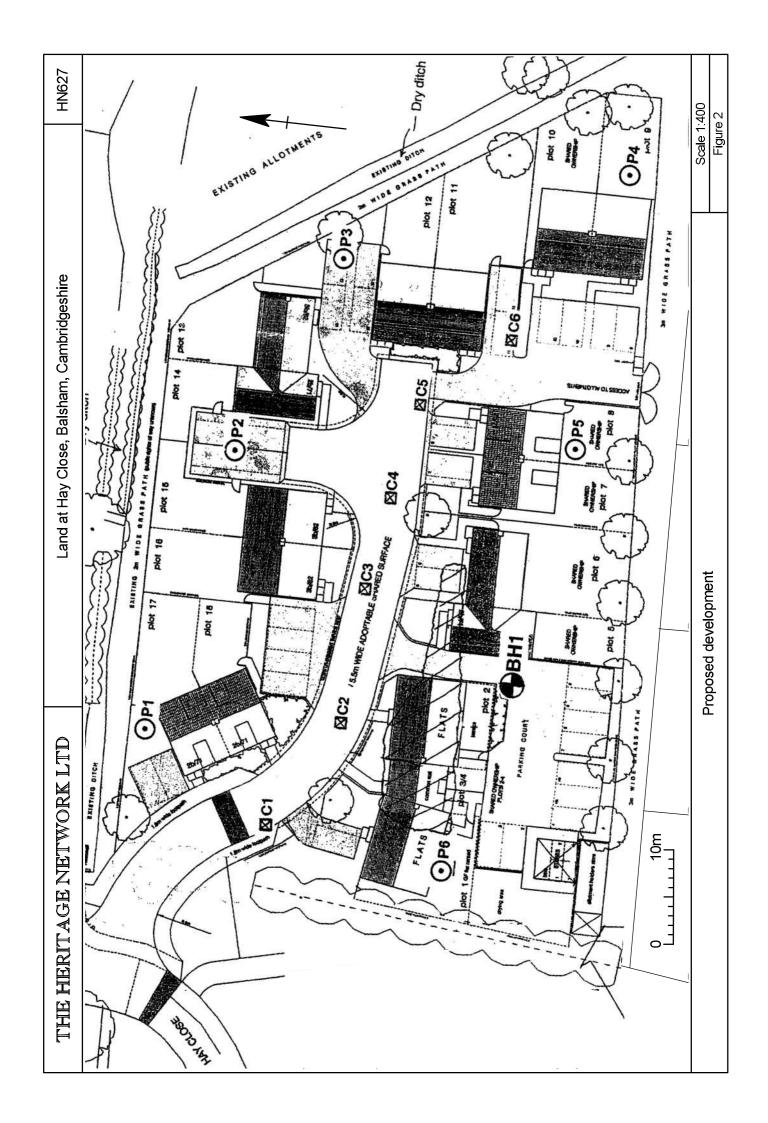
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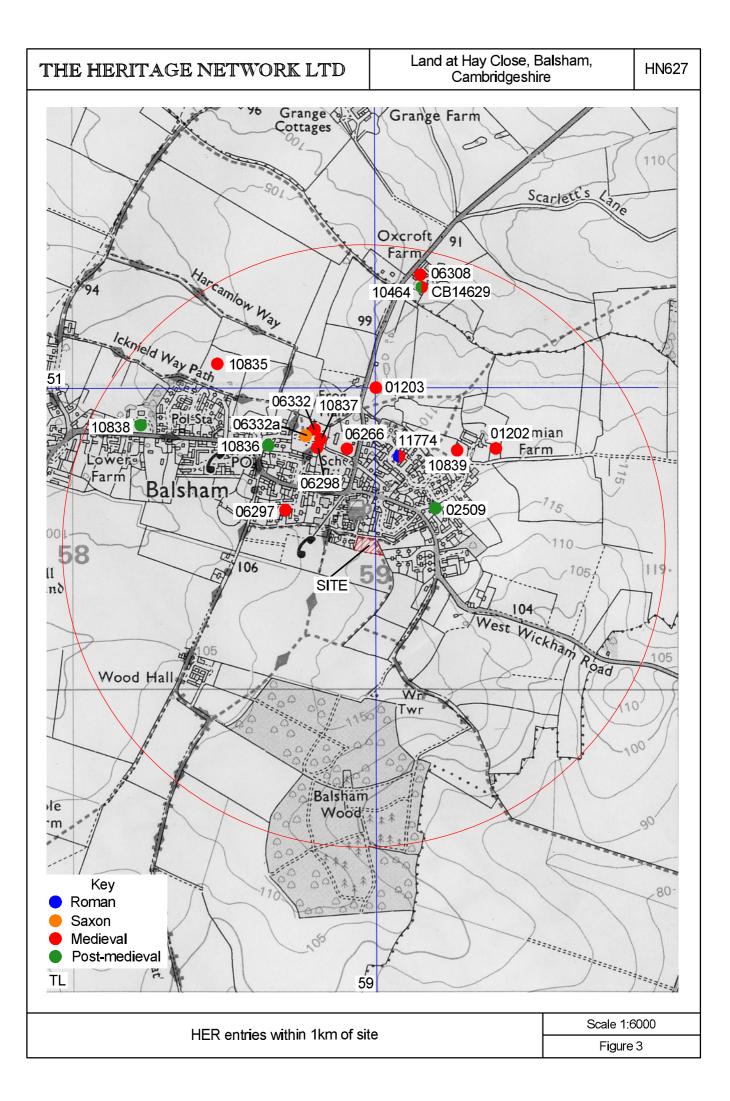
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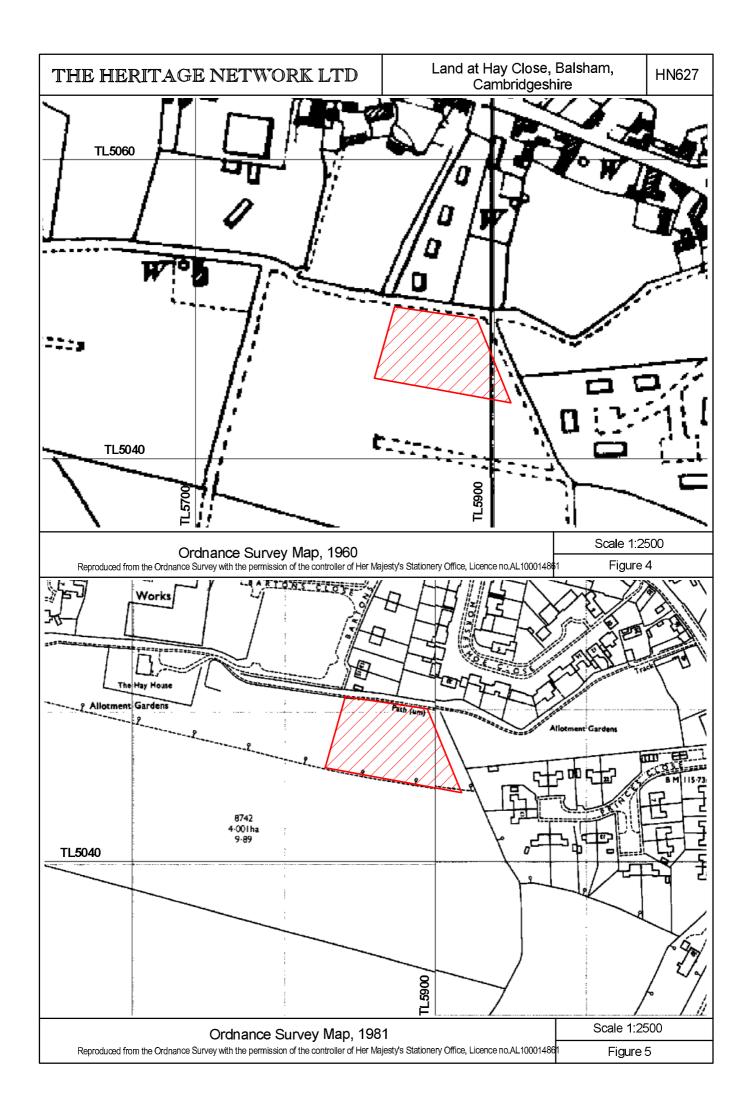
7. Illustrations

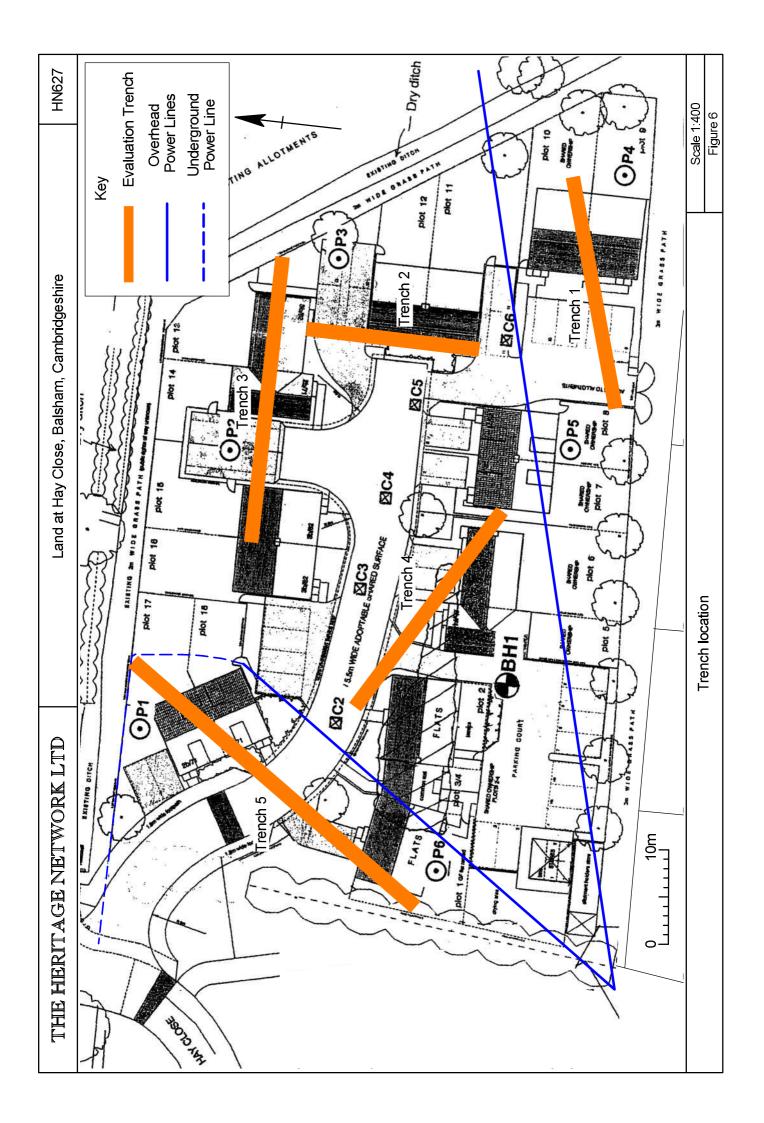
Figure 1
Figure 2
Figure 3
Figure 4Ordnance Survey map 1960
Figure 5Ordnance Survey map 1981
Figure 6
Figure 7Evaluation features location
Figure 8 Southeast facing section of Trench 5
Figure 9
Figure 10 Open area excavation
Figure 11
Figure 12 Open area plans and sections
Plate 1Flint tool, obverse side
Plate 2 Flint tool, reverse side
Plate 3Glass rod
Plate 4 Flint-tempered bodysherds, fill (044)
Plate 5Flint-tempered rim sherds, fill (044)
Plate 6 Flint-tempered base sherds, fill (044)
Plate 7Flint-tempered sherd section, fill (044)
Plate 8Flint-tempered base, fill (506)

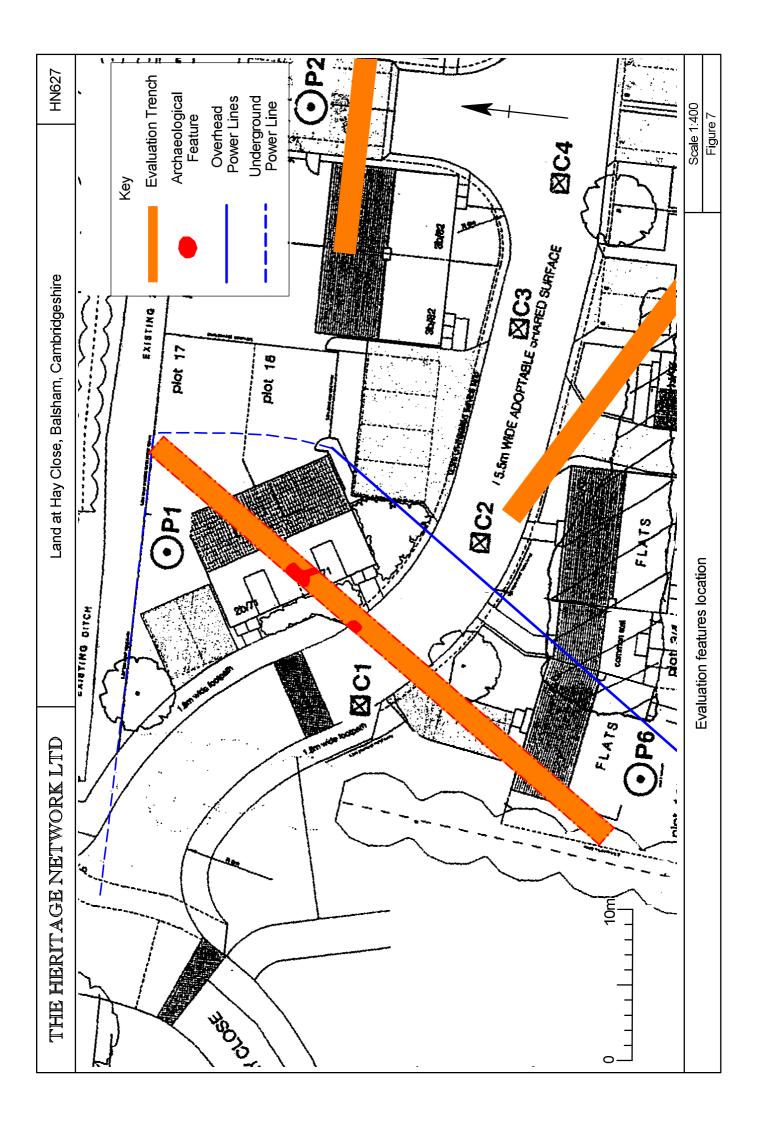


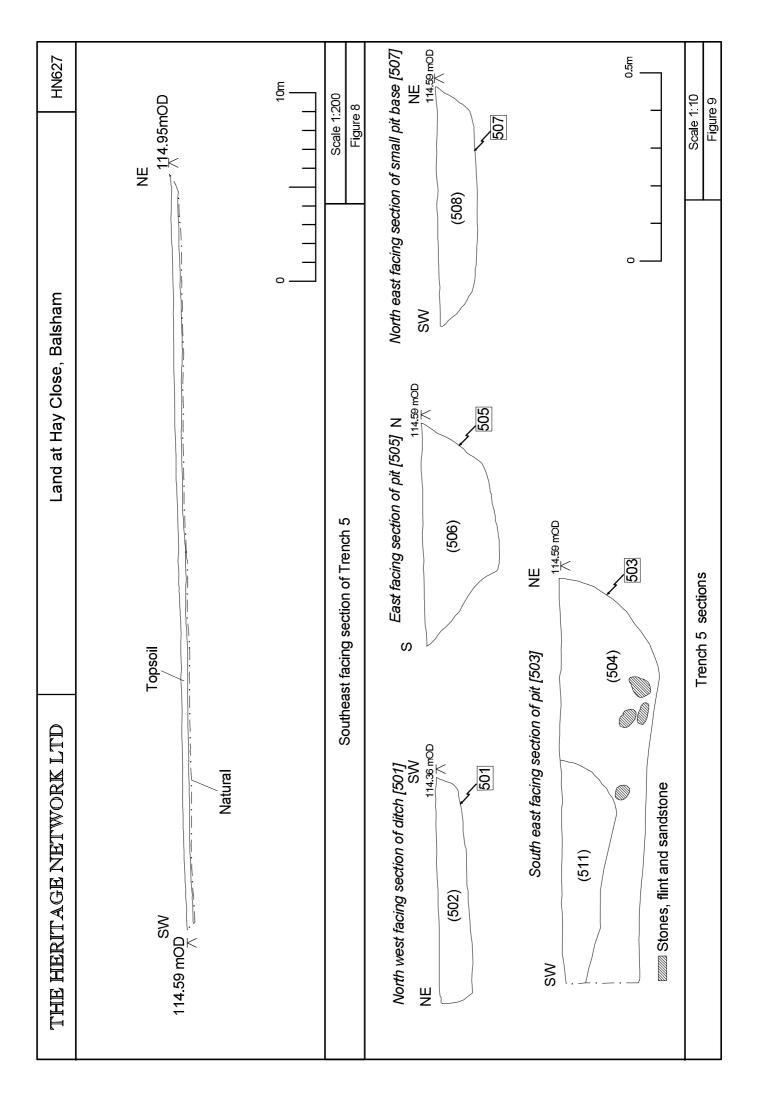


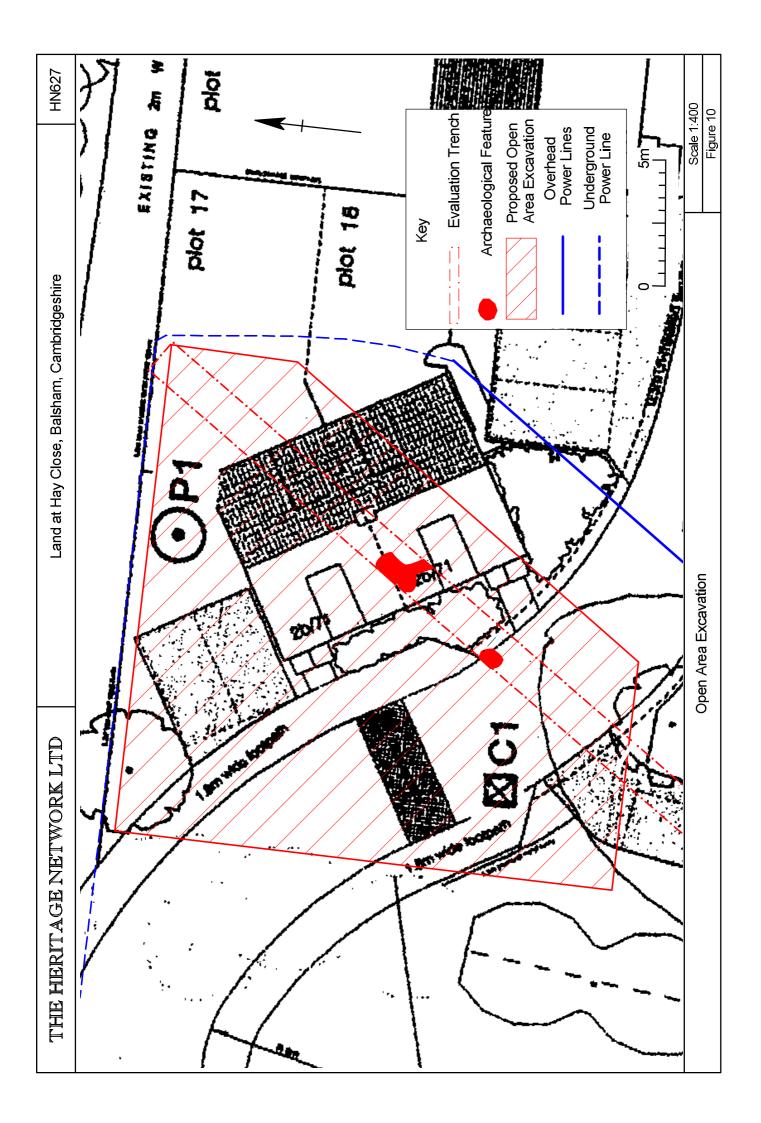


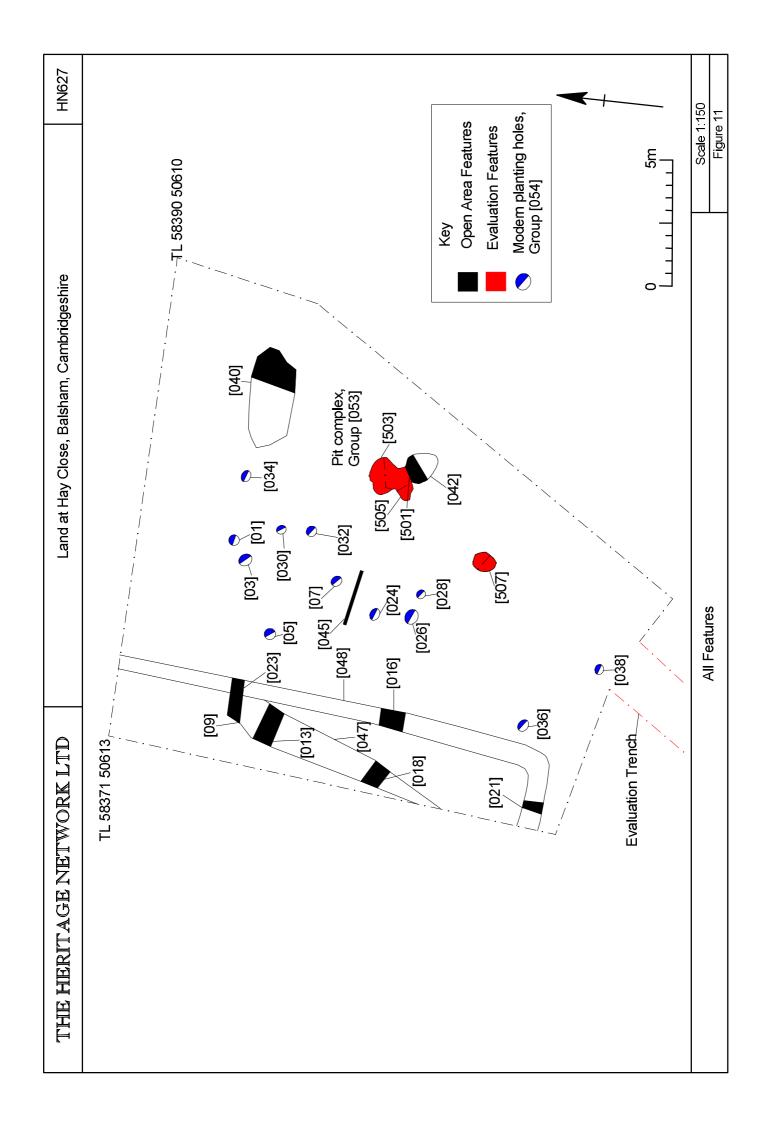












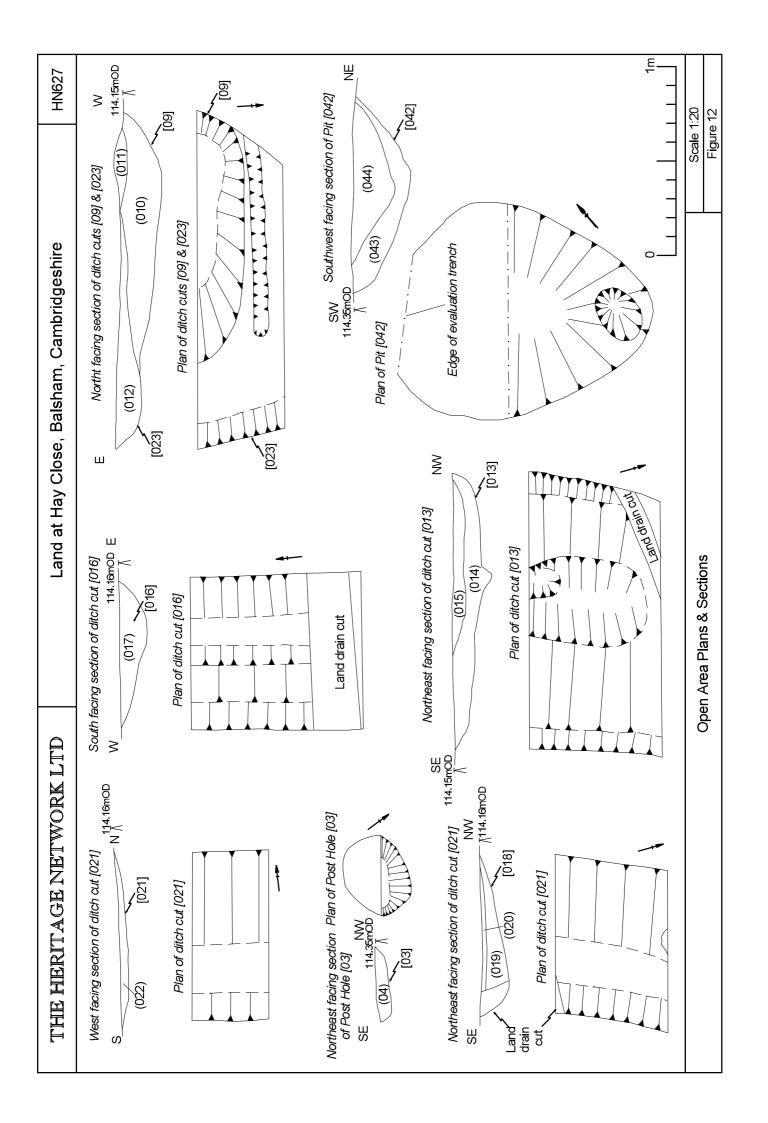




Plate 1: Flint tool, obverse



Plate 2: Flint tool, reverse

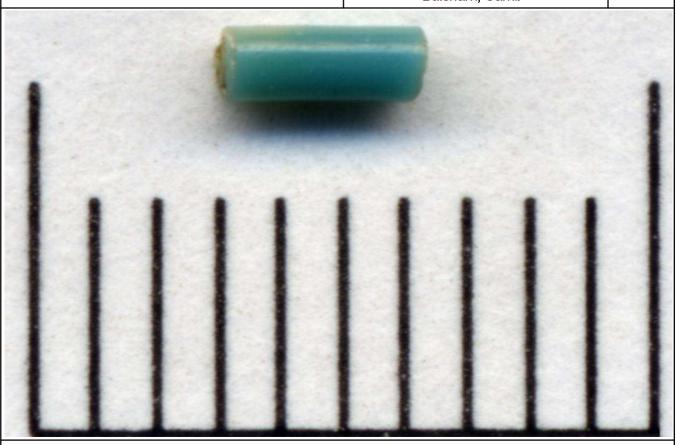


Plate 3: Glass rod fragment (scale = 10mm)



Plate 4: Flint-tempered body sherds, fill (044) (scale = 10 cms)



Plate 5: Flint-tempered rim sherds, fill (044) (scale = 5 cms)



Plate 6: Flint-tempered base sherds, fill (044) (scale = 5 cms)



Plate 7: Flint-tempered sherd section, fill (044) (scale = 5 cms)



Plate 8: Flint-tempered base, fill (506) (scale = 5 cms)

Appendix 1

OASIS Record Form

	OASIS ID: heritage1-20667
	Project details
Project name	Land at Hay Close, Balsham
Short description of the project	As a result of a condition on the planning permission for the construction of eighteen new dwellings, with associated car parking access on land at Hay Close, Balsham, Cambridgeshire, the Heritage Network was commissioned by the developer to undertake a programme of archaeological investigation. Two phases of fieldwork were undertaken, comprising an archaeological evaluation followed by open area excavation. In Phase 1 five trial trenches, of various lengths, were excavated across the proposed building footprints and roadway. Trenches 1-4, on the eastern end of the site, were blank but Trench 5, in the north-western corner, contained two pits and a possible gully/ditch. Flint-tempered pottery, dating from the late Bronze Age / early Iron Age, was recovered from the larger of the two pits. As a result of these findings the project moved to an immediate second stage, involving open area excavation to the west of Trench 5. This demonstrated that the two pits form part of a three pit complex containing late Bronze Age / early Iron Age domestic debris. Two shallow ditches were also investigated. One also contained flint-tempered pottery and is likely to be contemporary with the pits. The date of the other ditch is suggested to be medieval on the basis of the ecofacts
Project dates	identified in the environmental samples collected from its fill. Start: 03-10-2006 End: 15-11-2006
Project dates Previous/future work	Yes / Not known
Any associated project	HN627 - Contracting Unit No.
reference codes	11NO27 - Contracting Onit No.
Any associated project	ECB2757 - HER event no.
reference codes	ECB2/3/ TIER CVCIIC IIO.
Type of project	Recording project
Site status	None
Current Land use	Other 1 - Allotment
Monument type	DITCH Late Bronze Age
Monument type	PIT Late Bronze Age
Significant Finds	POTTERY Late Bronze Age
Significant Finds	FLINT Late Bronze Age
Investigation type	'Full excavation'
Prompt	Direction from Local Planning Authority - PPG16
	Project location
Country	England
Site location	CAMBRIDGESHIRE SOUTH CAMBRIDGESHIRE BALSHAM Land at Hay Close, Balsham
Study area	4207.00 Square metres
Site coordinates	TL 5895 5050 52.1294682560 0.322436425374 52 07 46 N 000 19 20 E Point
	Project creators
Name of Organisation	Heritage Network
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design	David Hillelson
originator	
Project	David Hillelson
director/manager	
Project supervisor	Geoff Saunders
Type of	Developer
sponsor/funding body	

HN627/report Page 19

	Project archives
Physical Archive recipient	Cambridgeshire County Archaeological Store
Physical Archive ID	ECB2757
Digital Archive Exists?	No
Paper Archive recipient	Cambridgeshire County Archaeological Store
Paper Archive ID	ECB2757
Paper Media available	'Context sheet', 'Diary', 'Matrices', 'Notebook - Excavation', 'Research', 'General Notes', 'Photograph', 'Plan', 'Report', 'Section', 'Unpublished Text'
	Grey literature (unpublished document/manuscript)
Publication type	
Title	Land at Hay Close, Balsham, Cambridgeshire: Archaeological Assessment
	Report
Author(s)/Editor(s)	Kaye, D.
Other bibliographic details	Heritage Network Report no.402
Date	2008
Issuer or publisher	Heritage Network
Place of issue or publication	Letchworth, Herts
Description	A4 booklet, comb bound, green cover

Appendix 2: Species List

			Sample	1	2	4	3	S	_
			Context	014	017	043	044	504	508
			Sample vol. (1)	30	30	30	30	30	20
			Flot vol. (ml)	10	125	10	20	20	45
Таха	Item	Common name	Charcoal	-	0	О	0	0	А
Ranunculus repens	seed	Creeping buttercup			9			1	5
Papaver dubium	seed	Long-headed poppy						1	
Papaver sp.	seed	Poppy			44				
Ficus carica	seed	Fig			4				
Urtica dioica	seed	Common nettle			5				
Chenopodium album	peed	Fat hen		9	154	4	2		
Atriplex sp.	seed	Orache		2	13	5	8	11	10
Stellaria media	seed	Common chickweed						1	
Stellaria gramineae	seed	Lesser stitchwort			1				
Silene sp.	seed	Campion			9				
Polygonum avicularia	seed	Knotgrass		3					
Rubus idaeus	seed	Raspberry			33	1			
Rubus sp.	seed	Bramble		7					
Euphorbia peplus	seed	Petty spurge			27		1		
Aethusa cynapium	seed	Fool's parsley			1		1	1	
Solanum dulcamara	seed	Bittersweet			3				
Lamium album	seed	White dead-nettle		14	29		1	1	
Veronica sp.	seed	Speedwell			1				
Sambucus nigra	seed	Elder			4				
Picris echioides	seed	Bristly ox-tongue			7	3	2		
Sonchus asper	seed	Prickly sow-thistle			7				
Cyperaceae indet.	seed	Sedge family			3				
Hordeum sp.	grain	Straight hulled barley			1				
Hordeum sp.	grain	Barley			I				
Hordeum sp.	internode	Barley			2				
Triticum / Hordeum sp.	grain	Wheat / barley			3				
Key: - = absent; 1 = charred; O = occasional; 1 = desiccated / waterlogged; F = frequent; 1	= occasional;	; 1 = desiccated / waterlogged; I	F = frequent; I = mi	= mineralized; A = abundant 99	ndant 99				
10000000									