The Red Lion Hotel, Whittlesford

An Archaeological Excavation

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Summary

This report is the assessment of the results of excavations at the The Red Lion Hotel, Whittlesford, Cambridgeshire, carried out between 7th and 21st December 2009 and 11th and 19th January 2010. The project was commissioned by The Red Lion Hotel; whilst the consultant for the investigations was Adrian Tindall from Archaeological Risk Management. The excavation expanded on the results of an evaluation, revealing a buried plough soil, which yielded a chronologically mixed assemblage of material that provided evidence for activity ranging in date from the Late Mesolithic through to the post medieval period. 15th century pits and ditches were also exposed; however, none of the archaeological activity identified at the site could be directly linked to the 13th century chapel hospital (SAM 24432).

INTRODUCTION

An archaeological excavation was undertaken within the grounds of the Red Lion Hotel, Whittlesford Bridge, Cambridgeshire, (NGR TL 4848 4725), in two phases from 7th December to 21st December 2009 and 11th January to 19th January 2010 in advance of development. The excavation followed a project specification set out by the Cambridge Archaeological Unit (Beadsmoore 2009), in response to a design brief issued by Cambridge Archaeology Planning and Countryside Advice (Gdaniec 2009). The investigations were divided into three areas; A, B and C. Area A, the first phase, consisted of a test pit sampling strategy to investigate the buried soil horizon prior to its removal to expose the underlying archaeological features. Areas B and C were the second Phase; Area B was also an open area excavation whilst Area C comprised four test pits and a service trench which was reported separately (Hutton *et al* 2010). Combined, Areas A and B revealed ditch and pit features, the majority were undated, with the exception of two ditches and five pits that contained 15th century pottery. The features in Area A and the southern part of Area B were overlain by a buried plough soil that contained material culture from the later prehistoric period through to the 19th century.

Topography and Geology

The development area is situated on first terrace river deposits overlying Holwell Formation Chalk, the area is characterised by the River Cam, the site is approximately 200m north of the Cam; the area slopes down towards the river, and lies between approximately 25m and 26m OD. The site is bordered by a railway line to the west, and the A505 to the south with a small development of houses and commercial premises to the north (Figure 1).

Area A was an area of grassed lawn with small trees and other garden shrubs that was on a higher elevation than the rest of the site (25.80m OD). Area B consisted of a gravel and tarmac car parking area adjacent to an open garage (25.45m OD). Whilst Area C's test pits were in the main car park of the hotel (24.85m OD) and a small grassed area (25.57m OD) (see Figure 2).

Archaeological and Historical Background

Abundant archaeology is known both within the development area and surrounding landscape. The archaeological background of the site's environs was presented fully in the Archaeological Desk Based Assessment and will consequently only be summarised here (Anderson 2008). Within the immediate vicinity there is one Scheduled Ancient Monument and two listed buildings which comprise of a 13th century chapel hospital (SAM 24432), a 16th century coaching inn, now the Red Lion Hotel, (Listed Building No. 52912). Cartographic evidence also suggests a complex of outbuildings located to the south of the inn and chapel during the 19th century. More recently, monuments relating to World War Two defensive structures were located in the surrounding area, including an air raid shelter within the grounds of the hotel itself.

The Red Lion Hotel building has existed on the site for 500 years with numerous alterations and additions. The building is thought to overlie the remains of the hospital associated with the adjacent Chapel of St. John the Baptist, commissioned by William de Colville and founded in the beginning of the 12th century. Only the Chapel remains which was rebuilt during the 14th century and overlies the original 13th century structure (Anderson 2008). In 1337 it became a free Chapel and no longer a hospital and was suppressed around 1548 after which it was used as a barn associated with the adjacent inn. The Chapel was restored by the Ministry of Works between 1947 and 1954; only the chancel and nave have survived without any internal structural divisions. There is an extra priest's door on the southern side.

The oldest part of the current hotel is the front range that is parallel with Station Road (to the north) and part of the adjoining sections to the rear cross-wings at either end. The surviving fabric of the building suggests 15th/16th century date (QuBE Planning Ltd 2008).

Outside the development area, documentary evidence suggests a small hamlet had developed by Whittlesford Bridge, west of the chapel, by the end of the 13th century. Within the wider landscape, prehistoric activity ranging from the Mesolithic period through to Roman and Saxon occupation has been recorded, with evidence ranging from flint artefact scatters, to inhumations and settlement features, (McFadyen 1999a & 1999b, Mackay 2007, Anderson 2008).

ORIGINAL RESEARCH AIMS

The principle objective of the excavation was to preserve any archaeological evidence identified at the site by record. The evaluation identified a potential former land surface containing Late Mesolithic/earlier Neolithic flint, which presented an opportunity not only to contribute to an understanding of early activity at the site, predating the Chapel, but also of early land use. Consequently the deposit was sampled through hand excavated test pits.

The exposure of the medieval features during the evaluation also provided an opportunity to improve understanding of the context of the Chapel, as the features were potentially contemporary with the now Scheduled Monument.

Excavation Aims

The aim of the excavation was to define the Late Mesolithic/earlier Neolithic and medieval activity at The Red Lion Hotel, Whittlesford, Cambridgeshire. More broadly, the excavation aims were;

(i) To determine the extent, character and date of the archaeological deposits and features revealed throughout the designated area.

(ii) To determine, as far as possible, the origins, development, function, character and status of the site.

(iii) To establish the stratigraphic sequence of the site, the date of the features and the 'occupation' horizons, and the nature of the activities carried out at the site during the phases of its occupation.

(iv) To place the findings of aims (i) to (iii) in both regional and national research contexts.

INVESTIGATION STRATEGIES

The excavation area was stripped with a 360° tracked excavator with a 2.00m wide toothless ditching bucket, which removed the topsoil down to an archaeological level, under the careful supervision of an experienced archaeologist. Area A was the first phase of investigation; the topsoil was removed to expose the upper level of the buried plough soil. A baulk was left in situ in the southern part of the area (Figure 2) so that a full profile of the stratigraphic layers of soil formation could be recorded. In total 15 test pits were hand excavated through the buried plough soil; Test Pit 1.1 to 1.12 were sampled by context and Test Pits 1.13 to 1.17 were sampled by 10cm increments for a more detailed artefact collection (Figure 3). The aim was to investigate the distribution of artefacts throughout the buried plough soil and to identify any potential material culture concentrations. Once the test pits were completed the buried plough soil was removed by machine to the natural substrate to expose archaeological features. In Area B the overburden was removed by machine to the archaeological level without test pit sampling, as the buried plough soil was shallow in this area.

The unit modified version of the MoLAS recording system was used; all relevant archaeological and geological features were planned at 1:50 and 1:20, with sections drawn at 1:10 and augmented by a colour digital imagery. Small pits and postholes were half sectioned

and linear features were sampled at appropriate intervals. Archaeological features were assigned a unique number (e.g. **F.100**; bolded upon introduction within the text) and each stratigraphically distinct episode (e.g. a cut, a fill) was recorded with a unique context number, (e.g. [001]).

The buried plough soil was metal detected using a Laser Rapier metal detector prior to and during the removal of the context, after which the exposed features were surveyed. The site was surveyed into the Ordnance Survey Grid and Ordnance Datum by means of an RTK GPS unit. All work was carried out with strict adherence to Health and Safety legislation and within the recommendations of SCAUM (Allen & Holt 2007).

Within Areas A and B, a total of 25 features and 6 layers were identified during the excavation, with 115 separate contexts assigned. The artefacts and accompanying documentation have been compiled into a stable, cross-referenced and indexed archive in Accordance with Appendix 6 of MAP 2 (English Heritage 1991). The archive is currently stored at the offices of the Cambridge Archaeological Unit under the project code RLD 09.

RESULTS

Test Pits

Two phases of test pits were excavated into the buried plough soil in Area A. The first phase of test pits (1.1 to 1.12) were excavated by hand, by context, through the subsoil and plough soil after the overburden of topsoil was removed. The second phase of test pits, an additional five, 1.13 to 1.17, were excavated in increments of 0.10m by context (see Figure 3). Test Pits 1.2 and 1.7 were to the west of the area but due to the presence of trees and the proximity of the railway station, these were not sampled. The objective of this sampling strategy was to examine the recovery of finds by depth and context to facilitate analysis of the dispersion of finds throughout the plough soil horizon.

Test Pit No.	Depth of Test Pit	Context No.	Quantity of Flint (no. & weight)		Quantity of Pottery (no. & date)		Metalwork
1.1	0.65m	31, 32	45	402.4g	7	13th century	
1.3	0.60m	31	6	9.3g			
		32	21	200.4g			
1.4	0.66m	31	5	29.3g			
		32	36	314.3g			Fe, 2 square sectioned nails
1.5	0.52m	32	29	265.6g	4	Prehistoric, Saxon	Fe, knife fragment, post-medieval
1.6	0.36m		8	59.2g			
1.8	0.21m	30	13	170.4g	1	12th century	Fe, 1 square sectioned nail
1.9	0.34m	31	2	5.2g			
		32	7	41.6			
1.10	0.23m	30	4	14.8	8	12th century	
1.11	0.62m	30	13	57g			
		32	15	131.4g	3	Roman, 12th century	
1.12	0.52m	31	5	15.8g			

		32	24	133.5g	1	Iron Age	Cu-alloy brooch, 14th/15th century

Table 1; Artefacts from Test Pits excavated by context

There was evidence of four layers overlying the natural substrate. The lowest layer, [37], a buried land surface, was overlain by a plough soil [32] that probably represented medieval ridge and furrow that was on a northeast-southwest orientation across the southern part of Area A (see Figure 6 for section). In time, this plough soil was overlain by made-up ground [31] that consisted of mixed topsoil and subsoil; it is conceivable that this could have come from the eastern area of the grounds of the Red Lion Hotel which was lower than the excavation area. The evaluation that took place in this lower area revealed evidence of truncation and modern disturbance (Hutton 2008). In parts, the made up ground had evidence of modern layers of disturbance represented by [35]. The make up of the ground [30] to the north of Area A was slightly different to [31] as it contained structural debris such as brick and tile which probably related to the demolition of the outbuildings during the 20th century.

The distribution of artefacts across the site in the plough soil and the made-up ground can be seen in Tables 1 and 2 below. The largest quantity of artefacts were from the test pits in the southern part of Area A where the plough soil was at its deepest; which could explain the density of artefacts, particularly flint in this area.

The chronologically mixed nature of the artefact assemblage correlates with a soil that was continually ploughed. The presence of a buried land surface in Test Pits 1.1, 1.4, 1.16 and 1.17 and the baulk section was where the plough soil was at its thickest, protecting and sealed the buried land surface. The buried land surface was not recorded in Test Pits 1.13, 1.14 or 1.15 suggesting that it only survived in patches. The patchy distribution suggests that the ridge or headland was on a northeast-southwest orientation across the southern part of the area. The baulk section is shown in Figure 6, with a ditch (F.21) cut through the buried land surface, which was overlain by the plough soil [32] and subsequently the made up ground [31]. Very few artefacts were recovered from [37]; 1 piece of flint was in Test Pit 1.16.

The quantity of flint recovered from the five test pits that were excavated in 10cm increments is shown in Table 2 below.

Test Pit No.	Depth of Test Pit	Context No.	Depth (cm)	Quantity of Flint (no. & weight)		Quantity of Pottery (no. & date)		Metal Work
1.13	0.70m	31	0-10	7	16.8g			
			10-20	7	4.4g			
			20-30	13	51.5g			Fe, socketed barbed and tanged arrowhead, Medieval
		32	30-40	11	69.6g	8	14th, 15th, 17th century	Cu-alloy belt bar, Late Medieval
			40-50	19	41.9g			
1.14	0.50m	35	0-10	4	6.6g			
		31	10-20	8	28.9g			Fe, 1 square sectioned nail
			20-30	11	167.2			
		32	30-40	1	10g			
			40-50	1	5g			

1.15	0.58m	35	0-10	13	24.4g	2	Saxon, 19th century	Fe, 3 nails
			10-20	15	76.4g			
		31	20-30	17	201.9g			
			30-40	10	100.2g			
		32	40-50	3	15.7g			
1.16	0.70m	31	10-15	2	33.5g	6	15th century	Fe, 4 nails
		32	15-20	2	1.5g			
			20-30	3	7.1g			
			30-40	4	31g			
			40-50	2	2.8g			
			50-60	2	51.2g			
		37	60-70	2	38.9g			
1.17	0.50m	31	0-10	9	82.5g	1	19th century	Fe, 3 nails
			10-20	10	43.8g			
		32	20-30	13	116.6g			
			30-40	7	31.9g			
		37	40-50	6	22.9g			

Table 2: Artefacts from Test Pits excavated by 0.10m increments

Excavation

Although the excavation took place in two phases, the results will be discussed by the appropriate phases/dates; this will only be related to archaeological features cut into the natural substrate and not the overlying plough soil[1]. The features consisted mainly of ditches with small shallow pits interspersed throughout both Areas A and B (Figures 2 & 3). There were 23 features in total; 6 ditches and 17 pits/postholes; 6 of the pits were dated to the post-medieval period or were fairly modern in date. All of the features in Area A and the southern part of Area B were overlain by the plough soil [32].

The majority of the pottery recovered from features dated from the 15th Century with residual pottery from the 12th, 13th/14th Century incorporated into the matrix of the fills. There was evidence of rooting, animal disturbance and bioturbation which could have caused the dispersion of the artefacts.

Pre-15th Century

Two ditches in Area A, **F.24** and **F.27** were shallow gullies (Figure 4), which were truncated by a larger L-shaped ditch **F.23**, dated to the 15th century that formed part of an enclosure. As F.24 and F.27 were on the same alignment as the larger ditch, it can be surmised that the earlier features were still visible when the larger ditch re-established the enclosure. However, there were no diagnostic artefacts recovered from these earlier features.

A large ditch, **F.39**, recorded in Area B (Figure 5) was on an east-northeast-west-southwest orientation that appeared to continue under the public house. Recent investigations, a monitoring exercise to the east of the excavation area, between the Red Lion and the Chapel, provided no evidence for the continuation of this feature[2] (Hutton *et al* 2010). This 4.00m wide ditch could have had various functions. It would have been a major undertaking to excavate such a large feature and could indicate a boundary, either for the early chapel and hospital or earlier activity. The layering of flint cobbles on the base of the feature is interesting; this layer was recorded in both sampled slots (Figure 8). The most plausible

[1] These features were postholes that were either dated to the Post Medieval period or relatively modern in date.

[2] However, the disturbance by services could have masked or destroyed any remains.

explanation is that this was a large drainage ditch with cobbled stones added to the base to facilitate the drainage of water. However, it is unclear where the water would have drained to; to the west is the current railway line which has probably destroyed any evidence that side of the site; and to the east is the hotel. Evidence of the ditch was not exposed during the monitoring exercise to the east of the hotel (Hutton *et al* 2010).

15th Century

In Area A, a ditch **F.23**, (Figure 6) formed the southwest corner of an enclosure that contained a series of small truncated pits (**F.16**. **F.17**, **F.18**, **F.19** and **F.20**), which all yielded small amounts of pottery dating to the 15th century. An additional two pits (F.5 and F.6) were exposed during the evaluation that also yielded 15th century pottery. F.16 [40] was the only feature sampled to have a large assemblage of grain; it also contained a range of cereal grains, including hulled barley (*Hordeum vulgare sensu lato*), free-threshing wheat (*Triticum aestivum sl.*) and possibly rye (*Secale cereale*). As there were so few artefacts in these pits, they were unlikely to have been depositories for unwanted waste, which could suggest that there was limited activity in the area. This set of features pre-date the founding of the current public house and potentially could indicate that that this area was utilised as paddocks or fields. Documentary evidence has suggested that the owner of the public house could have leased the land out to drovers and other passing trade whilst their services were used (Markham 1997).

Additionally, a ditch **F.33** in Area B contained 15th century pottery with residual earlier pottery (figure 8). The ditch was orientated north-south and continued out of the area of investigation both to the north and south; although, the southern length of the ditch appeared to turn to the east at the edge of the excavation (see Figure 5). The relationship with F.23 in Area A is unknown although the artefactual evidence suggests they could be broadly contemporary.

Post-Medieval

There were several features that can be attributed to the post-medieval period. Two postholes in Area A (**F.28** and **F.29**) probably relate to the shed that previously stood in this area prior to the investigation. A large pit in Area B contained building rubble (such as bricks, glass etc.) that was probably contemporary with the demolition of the outbuildings during the 20th century (Hutton 2008).

Undated

The majority of the exposed features from both Area A and Area B contained no diagnostic artefacts; however they pre-dated the formation of the buried plough soil. Two parallel ditches, **F.21** and **F.26** were similar in profile and composition and orientated northeast-southwest. However, the northern slot of F.26 highlighted a curve of the ditch towards the east. These parallel ditches could represent drainage gullies forming part of a trackway leading away/towards the chapel hospital, or part of a field system of uncertain date.

A pit **F.25** in Area A contained a single piece of flint; the feature was comparable with the postholes recorded in Area B (**F.34**, **F.35**, **F.36** and **F.37**). However, there was no further evidence to suggest that these four postholes represented a structure.

DISCUSSION

The programme of test pits and the two areas of excavation carried out on the site of the Red Lion Hotel has provided evidence of a landscape of activity spanning from the later prehistoric period through to the present day. The chronologically mixed and dispersed artefacts recovered from the plough soil horizon have provided a diverse collection of material culture that hints at past activities.

The soil formation over the southern end of Area A consisted predominantly of three layers; a potential buried soil horizon that was overlain by a plough soil, probably relating to medieval ridge and furrow cultivation. This was overlain by made-up ground comprised of topsoil and subsoil that perhaps came from the eastern side of the grounds where the previous evaluation suggested that an area of ground was truncated. The nature of the plough soil, whether it derived from ridge and furrow, or was part of a headland cannot be positively ascertained from such a small area of investigation. It will probably never be proved either way due to the surrounding disturbances; the railway line to the west, the construction of the road to the south, and the truncation of the ground to the north and east. The flint assemblage recovered from the plough soil provided evidence of prehistory activity with a major Mesolithic/Early Neolithic component and significant Late Neolithic/Early Bronze Age element. The recovery of a Mesolithic microburin and a Late Neolithic arrow head attest to this (see Billington below), however, there were no features that could be positively attributed to these dates.

The recovery of pottery dated to the Late Iron Age/Early Roman period from the plough soil suggests a background activity in the area. The site is located close to the Icknield Way, an important trackway with Iron Age origins that was probably utilised through into the Romano-British period. No features were attributed to these dates. The presence of pottery dated from the Middle Saxon period attests to the occupation of the locale when the hospital was first established, however, due to the small quantities of material, it is unlikely that there was a major settlement within the sites environs. Documentary evidence suggests that many medieval hospitals had earlier 11th century origins, which could also be the case here. There is documentary evidence of the possibility of a Saxon Hundred meeting place (Wapentake) approximately 50m to the west of the site (HER 11892). There were no associated features or connected remains in the investigated area.

The large ditch F.39 in Area B could possibly represent a boundary as it runs parallel with the routeway that originally passed by on the northern side of the public house. However, if that was the case, the orientation of the ditch would have been further to the north and not directly adjacent to the chapel. It is also entirely plausible that this feature pre-dates the chapel and hotel buildings. No dateable artefacts were recovered although the feature was truncated by a 15th century ditch (F.33), which was potentially a drainage ditch used for the collection of water, due to the cobbles on the base.

The coins recovered from the site, an Edward IV (1461-1483) silver penny and a Charles I (1625-1649) farthing, were probably accidental losses; not surprising given the vicinity of the public house. The recovery of the 14th to 15th century brooch and buckles also attest to accidental losses in the area. The high numbers of clay pipes recovered were associated with discarded finds from the Red Lion.

The original function of a hospital during the medieval period was to provide hospitality and shelter for travellers of all kinds, not exclusively just for the sick, moreover the function and character of a hospital could alter over time. One example is St Johns Hospital in Oxford which was originally a hostel for the entertainment of travellers, but was re-founded in 1231 as a hospital for the sick. Hospitals of all varieties became more numerous in England as a whole after the early part of the 12th century. Some were short lived, re-founded in slightly different forms, or they were amalgamated (Markham 1997). In the case of the Red Lion, it was first established primarily as a hospital and later as a hostelry. During the excavation there was no definitive evidence of features associated with the earlier hospital. The features were largely linked to the 15th century, where a potential change in function took place at the site from a place of respite for the sick to that of hostelry.

There was no evidence of human remains during any of the recent investigations implying that the cemetery associated with the Chapel does not lie to the west or south of the hotel. The location of the cemetery is somewhat ambiguous, evidence from the tithe map located the

chapel immediately adjacent south of the road allowing little space for burials. It was suggested in the Desk Based Assessment (Anderson 2008) that an area to the east of the chapel is a potential location for the cemetery. This area is now largely wooded.

The wide date range of artefacts recovered from the plough soil attest to activity in the area spanning from the Late Mesolithic/Early Neolithic period through to the Late Medieval period. However, it was not until the 15th century that there was more substantial evidence, features which coincided with the abandonment of the hospital prior to the establishment of the hotel. The land to the east of the area of excavation was previously truncated when the buildings that stood on this site were demolished, potentially erasing any evidence for activity associated with either the hospital or the earlier phase of the hostel.

STATEMENT OF POTENTIAL

The excavations at the Red Lion Hotel provided unexpected evidence for early background activity at the site; Late Mesolithic/earlier Neolithic and Late Neolithic/Early Bronze Age flint recovered from the buried plough soil indicates that flint was worked and utilised in the immediate area during these periods. Whilst evidence for limited Late Iron Age/Early Roman activity was also provided from artefacts recovered from the plough soil.

However, the excavations revealed surprisingly limited evidence for activity broadly contemporary with the hospital and the subsequent hostelry. Fragments of Middle Saxon pottery date to the founding of the hospital, however only very limited quantities were recovered. Chance finds, broadly contemporary with the hostelry were recovered from the plough soil. Whilst comparatively more substantial evidence of 15th century activity was exposed, none of the features could be clearly linked to the buildings on the site.

Further analysis of the material culture and results of the excavation would not be rewarded with an increased understanding of the site, due to the limited number of archaeological features exposed during the excavations, combined with the chronologically mixed buried soil, which yielded the majority of the artefacts.

ACKNOWLEDGEMENTS

The work was funded by The Red Lion Hotel. The Consultant was Adrian Tindall of Archaeological Risk Management. Kasia Gdaniec from CAPCA monitored the works. Shannon Hogan and Dan Brittain excavated the site, Donald Horne surveyed in the trenches. Emma Beadsmoore managed the project, Jason Hawkes catalogued the finds and Bryan Crossan assisted with the illustrations.

APPENDICES

Specialist Reports

Environmental Remains *Anne de Vareilles*

Methodology

Six samples were processed using an Ankara-type flotation machine. Three range from the 12th – 15th century, F.39 has a *terminus ante quem* of 12th century, and two are undated. The flots were collected in 300µm aperture meshes and the remaining heavy residues washed over a 1mm mesh. Both the flots and heavy residues were dried indoors prior to analysis. The >4mm heavy residue fractions were sorted by eye by Frankie Cox; all finds have been added to Table 1. Sorting of the flots and identification of macro remains were carried out under a low power binocular microscope (6x-40x magnification). Identifications were made using the reference collection of the G. Pitt-Rivers Laboratory, university of Cambridge. Nomenclature follows Zohary and Hopf (2000) for cereals, Stace (1997) for all other flora and an updated version of Beedham (1972) for molluscs. All environmental remains are listed in Tables 1 and 2.

Preservation

All archaeobotanical remains were carbonised. Few plant remains were recovered from all of the features except F.16, and the majority were poorly preserved. The cereal grains are quite heavily puffed and abraded, and frequent vitrified charcoal points to intense burning conditions. The remains also appear to have suffered some physical erosion, probably before as well as after deposition. Modern rootlets and the blind burrowing snail *Ceciloides acicula* were present in all samples, showing that contexts have been affected by recent bioturbation. Various types of mollusca were found in all samples and are listed in Table 2.

Results and Discussion

The only feature to have a large assemblage of grain was the 15th century pit F.16 [40]. It contained a range of cereal grains, including hulled barley (*Hordeum vulgare sensu lato*), free-threshing wheat (*Triticum aestivum sl.*) and possibly rye (*Secale cereale*). Fewer wild plant seeds were recovered and two or three lentils (*Lens culinaris*). There are over twice as many cereal grains as wild plant seeds which suggest that these remains were not crop processing waste but rather an unclean product. Why the crop was charred is unclear; it may have been lost accidentally or perhaps infested or contaminated and no longer edible. These remains were probably associated with the chapel and hospital, and give us an insight into their daily diet.

The other five features contained quite high concentrations of charcoal (though mostly small), some cereal grains and a few other seeds. The abraded condition of the remains suggests they were displaced on the ground surface before being randomly buried. They are unlikely to be *in situ* and one should not assume that individual assemblages necessarily represent single events. The brunt freshwater snails in F.39 were probably charred when water from a nearby stream/pond was collected to extinguish the fire.

Conclusion

The chapel and hospital complex appears to have been producing its own crops in the 15th century. Its apparent isolated position along a route-way may have encouraged or required it to be self sufficient.

The finds from ditches F.39 and F.33 may show that the consumption of crops occurred in the area prior to the establishment of the chapel and hospital, suggesting an earlier settlement nearby.

Sample number		**18**	**19**	**11**	**13**	**16**	**17**
Context		132	114	40	53	93+94	77
Feature		39	33	16	23	22	26
Feature type		ditch	ditch	pit	ditch	pit	ditch
Phase/Date		≤12th C	12-15th C	15th C	15th C	?	?
Sample volume - litres		15	12	19	25	5	8
Charcoal volume - millilitres, estimates		<1	<1	5	2	5	<1
Flot fraction examined - %		100	100	100	100	100	100
large charcoal (>4mm)		-		-		++	
med. charcoal (2-4mm)		+	-	++	+	+++	+
small charcoal (<2mm)		++	++	+++	+++	+++	++
vitrified charcoal		++	+	+	+		++
Cereal grains							
Hordeum vulgare sensu lato	hulled barley grain		1	6	1	1	
Triticum aestivum sl.	free-threshing wheat			23			
Triticum sp.	indet. wheat grain		3	26	1	1	
Triticum / Hordeum sp.	wheat or barley grain	1	1	24 (1)		1	
Triticum / Secale sp.	wheat or rye grain			4			
Avena sp.	oat grain - cultivated?			1			
cereal grain fragments indet.			1	+++	6	4	1
Cereal chaff							
Triticum sp. glume base - glume wheat chaff					1		
Triticum sp. rachis internode - free-threshing wheat chaff				1			
indet. cereal culm node - straw node				2			
Non Cereal seeds							
Chenopodium sp.	Goosefoots	1					
Silene sp.	Campion	1		8			
Fallopia convolvulus (L.) A´ Löve - Black bindweed				1			
R. conglomeratus/obtusifolius/sanguineus - Dock				1			
Rumex sp.	Dock			2			
Brassica / Sinapis sp.	Cabbages / Mustards			2			
Lens culinaris Medik.	Lentil			1.5			
Medicago / Trifolium sp.	Medics or Clover			6			
Anthemis cotula L.	Stinking Chamomile	3		1	1		
Alisma plantago-aquatica L.	Water-plantain	1					
Large Poaceae	large wild grass seed		1	6	1	1	1
Indet. Poaceae fragment - wild or cultivated seed				+++, 8 whole	1		
Indet. seed		3	2	3	1		

Table 1: Charred Plant Macro Remains

Sample number	**18**	**19**	**11**	**13**	**16**	**17**
Feature	39	33	16	23	22	26
Fresh water mollusca						
Lymnaea truncatula Müller	2 burnt		1 burnt			
Anisus leucostama Millet					-	
Damp / Shade loving species						
Vallonia excentrica / pulchella	+		+	++		+
Columella edentula Draparnaud	+			+		-
Cochlicopa lubrica/ lubricella	-		-	+		
Open, dryer landscapes						
Helicella itala L.	++		+			
Vallonia costata Müller			+			
Catholic species / unspecific habitats						
Lauria cylindraceae da Costa	++	++	+	++		
Trichia sp.	+	+	+	+	+	-
Ceciloides acicula Müller –Blind burrowing snail	++	+++	+++	+++	+++	+++
Other biological items						
bone fragments		-	++			
small whole bones	-		-			
bird bone			-			
shell fragments - oyster			-			
Artefacts						
worked flint				+		
burnt flint						-
slag?		+				
Modern intrusions (rootlets, seeds, etc.)	P	P	P	P	P	P

Table 2: Mollusca Remains

Faunal Remains *Vida Rajkovača*

Introduction

Archaeological excavations at Red Lion Hotel resulted in the recovery of 45 assessable fragments of bone weighing 298 g. Sixty-three percent of fragments (28 fragments) were recovered during the normal course of hand-excavation. Further 17 specimens were retrieved from bulk soil samples which were processed using a 4mm mesh.

The assemblage was identified with the aid of Schmid (1972). Each specimen was assessed for species, skeletal element, preservation condition and butchery. Unidentifiable fragments were assigned to general size categories.

Eight test pits and six features yielded faunal material, all of which is quantified in Tables 3 and 4. The majority of animal bone was recovered from stratified contexts. The assemblage is comprised of bones ranging in date from the 12th, 13-14th century and into the 15th century. It also includes features which remained undated. For the purpose of this assessment, the assemblage was considered as a whole.

Test pit	Area	Context	Quantity	Weight (g)
1.4	A	31	1	10
1.4	A	32	3	9
1.6	A	.	1	6
1.8	A	30	1	3
1.11	A	30	1	15
1.11	A	32	2	2
1.12	A	32	2	3
1.13	A	31	3	10
1.15	A	35	1	3
1.17	A	31	2	2
Total			***17***	***63g***

Table 3: Quantities of animal bone by Test Pit

Feature	Context	Area	Quantity	Weight (g)	Comments
16	40	A	11	3	15th c.; sample 11; >4mm
17	46	A	1	16	15th c.
21	100	A	1	7	Undated
33	112	B	2	73	12th, 13-14th, 15th c.
33	114	B	2	22	
33	114	B	1	1	sample 19; >4mm
39	126	B	4	91	Undated
39	129	B	1	13	
39	132	B	1	2	
39	132	B	1	1	sample 18; >4mm
39	138	B	2	3	
40	140	B	1	3	test pit 2.2
		Total	***28***	***235g***	

Table 4: Quantities of animal bone by feature

Faunal material was highly fragmented. Overall preservation of the assemblage ranged from moderate to poor, with *c.*90% of the bones showing surface exfoliation and erosion as well as considerable root etching. Of 45 fragments, only seven (*c.*15%) were identified as sheep/ goat and cattle (Table 5). The slight prevalence of sheep/goat cohort coupled with the predominant sheep-sized mammal category could suggest that ovicaprids had greater economic significance than other species. This tentative conclusion should be taken with caution, as it is based on a small assemblage. Ageing and measuring data was not available from the assemblage.

Taxon	Hand-recovered	Sieved	Total
Ovicaprid	3	2	5
Cow	2		2
Cattle-sized	9		9
Sheep-sized	15	3	18
Rodent-sized	1	1	2
Mammal n.f.i.	1	7	8
Bird n.f.i.		1	1
Total	31	14	45

Table 5: NISP for all species

Site is situated in the landscape of abundant archaeological activities. The Red Lion faunal record is, however, somewhat insignificant both in terms of the variety of species and quantities of bone recovered. This implies that the excavated area was not the main focus of economic activities, such as food processing, consumption or deposition. Further investigations into the area are much needed if we were to understand local economical patterns.

Flint Artefacts *Lawrence Billington*

Introduction

A total of 584 worked flints (4584.2g) and 90 unworked burnt flints (1787.6g) were recovered from the excavations. The bulk of the assemblage was derived from dense concentrations of lithic material within surface deposits sampled by test pit excavation with a smaller but still substantial assemblage recovered from cut features. The bulk of the lithic assemblage was derived from deposits [31] and [32]; identified as made up ground and a buried former plough soil respectively (French: appendix). Only 6 worked flints were recovered from the undisturbed basal buried soil [37]. The flint assemblage from the cut features is effectively indistinguishable from the material derived from the surface deposits and it is clear that the vast majority are residual pieces, inadvertently incorporated into later features. The assemblage is listed by context in Table 7. The very low occurrence of diagnostic retouched forms (just 1.9% of the assemblage is retouched) and the recovery of the assemblage from disturbed contexts makes any appraisal of the date of the flint work largely dependant upon the technological traits of the debitage. Although it is clear that the assemblage does represent a palimpsest of lithic material from throughout prehistory, a major component would appear to be made up of a blade based technology of earlier Neolithic/Mesolithic date.

Raw material and condition

All of the raw material is flint, mostly fine grained but fairly often with thermal flaws and coarse fossil inclusions. The raw material is varied, derived, secondary flint with a weathered cortex dominates the assemblage although a number of pieces retain nodular protuberances and have a fresh, chalky, cortex suggestive of a primary source from the chalk. Small scale flint quarrying directly from the chalk in the

Late Mesolithic/earlier Neolithic has been recorded locally at Heathfields, Duxford (McFadyen 1999). The condition of the assemblage is also very varied. 24% of the assemblage exhibited patination, varying from a light blue clouding to, rarely, a heavy white. Whilst some of the assemblage appeared very fresh, most displayed some edge damage, occasionally severe. Characteristic plough-struck notches (Brown 1996: 202) were observed on the edge of several flakes and it is likely that some of the primary flakes and perhaps some of the tested nodules recorded here have been struck during cultivation, either by the plough itself or by other stones. The condition of the assemblage has generally precluded the confident identification of utilised edges and in some cases may have removed evidence for minimally retouched edges.

		No.	***%***
dorsal cortex coverage	100%	14	*3.5*
	75-99%	27	*6.7*
	25-74%	124	*30.8*
	<25%	74	*18.4*
	none	164	*40.6*
	Total	403	
platform type	shattered	9	*3*
	plain	172	*58.1*
	faceted	12	*4.1*
	cortical	43	*14.5*
	ditch	26	*8.8*
	punctiform	10	*3.4*
	>1 scar	15	*5.1*
	patinated	9	*3*
	Total	287	
platform preparation	trimmed/ abraded	64	*21.7*
	none	231	*78.3*
	Total	295	
removal type	blade/let	54	*13.6*
	flake	343	*86.4*
	Total	397	
hammer mode	soft	45	*15.4*
	hard	216	*73.7*
	unknown	32	*10.9*
	Total	293	
dorsal scar direction	single	246	*66.3*
	single blade	59	*15.9*
	multiple	60	*16.2*
	opposed	6	*1.6*
	Total	371	

Table 6: Selected non-metric traits of the un-retouched flake assemblage

	Context/ Feature	chip	irregular waste	Flake	Blade	bladelet	rejuvenation	micro burin	irregular core	single platform flake core	two platform flake core	multiple platform flake core	single platform blade/narrow flake core	two platform blade/narrow flake core	multiple platform blade/narrow flake core	core fragment	flaked piece	tested nodule	hammerstone	end scraper	side scraper	misc. scraper	transverse arrowhead	retouched flake	**total worked flint**	burnt unworked	Unworked burnt (g)
Test pits (combined by context)	[30]	3	1	15	4												1	2							**26**	5	94.4
	[31]	29	2	54	5		1		1	2		5	1											1	**101**	13	282.5
	[32]	20	2	101	14	6	1	1	4	3								1		1		1		2	**157**	23	452.6
	[35]	7		22	1																				**30**	2	41.4
	[37]	2		3	1																				**6**	2	34.5
	[other]	2	6	43	5	1	1					1	1				1	2			1	1	1		**66**	19	178.5
	Total	**63**	**11**	**238**	**30**	**7**	**3**	**1**	**5**	**5**		**6**	**2**				**2**	**5**		**1**	**1**	**2**	**1**	**3**	**386**	**64**	**1084**
Features	F. 4			1																					**1**		
	F. 16		1	1								1													**3**		
	F.19																								**0**	1	7.5
	F. 21	14		18	3					1			1						1						**38**	10	147.6
	F.22	1	1	1																				2	**5**		
	F.23	6	2	24	1	1	1		1	2				2	1		1	1		1						**44**		
	F.24			1	1																				**2**		
	F. 25	2		6	1							1													**10**		
	F. 26	1	2	16	1				1			1						1							**23**	8	145.6
	F.32			4	1																				**5**		

	F.33	6		1									1												**8**	2	149.2
	F.39	5		9	2	1											1								**18**	1	3.8
	total	**35**	**6**	**82**	**10**	**2**	**1**		**2**	**3**		**3**	**2**	**2**	**1**		**2**	**2**	**1**	**1**				**2**	**157**	**22**	**453.7**
Other	Topsoil			4	1						1														**6**	1	40.6
	Subsoil	1		6	1		1																		**9**		
	Surface	3	1	13	3		1		1				1			2		1							**26**	3	209.4
	Total	**4**	**1**	**23**	**5**		**2**		**1**		**1**		**1**			**2**		**1**							**41**	**4**	**250**
	grand total	**102**	**18**	**343**	**45**	**9**	**6**	**1**	**8**	**8**	**1**	**9**	**5**	**2**	**1**	**2**	**4**	**8**	**1**	**2**	**1**	**2**	**1**	**5**	**584**	**90**	**1788**

Table 7: Flint Assemblage

Technology

Selected non-metric traits of the un-retouched removals recovered from the site are presented in Table 6. Analysis of these removals indicates that a large proportion of the assemblage is made up of products from a carefully structured approach to core reduction, predominantly geared towards the production of blades and narrow flakes and characteristic of earlier Neolithic and Mesolithic technologies. This is seen most clearly in the relatively high proportion of true blades in the assemblage, 13.6% of removals, although not high by the standards of some uncontaminated Mesolithic sites where the percentage of blades can approach 30% it compares well with many earlier Neolithic assemblages and with mixed assemblages with a heavy Mesolithic component (see Ford 1987: 73, table 4). Many of the non-blade removals, especially non-cortical pieces, also show evidence for carefully structured working, including platform trimming, occasional platform faceting and the use of soft hammers. Judging by the low numbers of multiple direction dorsal flake scars and platforms with multiple flake scars core reduction appears to have taken place from a single dominant platform and a small number of flakes have fine opposed scars suggesting the occasional use of opposed platform cores. Three core rejuvenation flakes, including a large core tablet from [32], reflect the concern with core maintenance that is a characteristic of Mesolithic and earlier Neolithic assemblages. Although the assemblage is dominated by evidence for Mesolithic/earlier Neolithic technologies, a proportion of the less diagnostic flake material is likely to derive from later flint working. Flakes of varied, often irregular morphology and large hard hammer struck platforms, typical of the less structured technologies of the later Neolithic and Bronze Age, are present in some number and it is likely that some relate to activity during this time. The small proportions of flakes struck from multiple platform cores and with natural, cortical platforms also probably relate to later phases of flint working.

All stages of reduction are represented by the flakes, although as suggested above, primary flakes may be somewhat over represented by plough struck pieces. Primary core reduction is not heavily represented and flakes with less than 25% dorsal coverage dominate. Excluding tested nodules, flaked pieces and fragments, 34 cores were recovered from the site. In the assemblage as a whole the core to flake ratio was 1:15.5. Just 8 of these cores bear traces of the highly structured blade based technology so evident in the un-retouched flake component of the assemblage. The remaining 26 were flake cores, some of which had been thoroughly worked down and exhausted, but most of which were crudely and minimally worked before errors or, more commonly, flaws in the raw material, caused them to be discarded. Although some of these pieces relate to later flake based technologies the technological traits of many of the cores should not be seen as strongly chronologically diagnostic, generally reflecting the testing or partial working of poorer quality raw materials.

Tools

As noted above, the retouched proportion of the assemblage was very low, with only 11 retouched tools recovered, 1.9% of the assemblage. Five of these are scrapers, two end scrapers, a side scraper and two miscellaneous forms. None are strongly diagnostic although the end scraper from deposit [32] in Test Pit 1.14 is made on a fine blank struck from a discoidal core, and is probably of Neolithic date. A scraper from Test Pit 1.5 has retouch cutting the patination of a scavenged Mesolithic/earlier Neolithic flake blank and must reflect activity from the later Neolithic or later. Alongside the scrapers are five informally retouched flakes, one is again made on a recycled patinated blank, whilst the remaining pieces are on flakes more suggestive of later Neolithic/Early Bronze Age flint working than of earlier technologies. Certainly later Neolithic is a very fine complete chisel arrowhead from Test Pit 1.5. Although not strictly a retouched tool a proximal microburin, indicating the manufacture of a microlith, was recovered from deposit [32] in Test Pit 1.11 and must reflect the manufacture or maintenance of tools, possibly hunting equipment during the Mesolithic.

Burnt Flint

The distribution of unworked burnt flint recovered from the site effectively mirrors the distribution of worked flint, with the majority coming from the test pits whilst the bulk of the remainder came from features that produced relatively large worked flint assemblages. The average weight of burnt flint chunks was 20g, and the vast majority seem to represent intentionally selected pieces rather than gravels inadvertently caught up in burning episodes, probably relating to water heating or other 'settlement' type activities. Whether the burnt flint assemblage is contemporary with some or any of the worked flint assemblage remains an open question, however burnt flint is often associated with prehistoric activity and is regarded by some as a better indicator of 'settlement' than worked flint (see Edmonds et al 1999, Richards 1990). The ratio of burnt flint weight (g) to worked flint number is 3.1/1, higher than the ratio recorded for selected earlier Neolithic pit sites in the region but considerably lower than at some later Neolithic or Early Bronze Age sites (Edmonds 1999: table 5).

Summary and discussion

The sampling of features and surface deposits at the site recovered a relatively large lithic assemblage, much of it relating to Mesolithic/earlier Neolithic activity but with a significant later Neolithic/Early Bronze Age component. Only two strongly diagnostic pieces were recovered, a later Neolithic arrowhead and a Mesolithic microburin. The paucity of retouched pieces poses some problems of interpretation, especially as in other ways the assemblage is relatively 'balanced' in terms of the representation of waste from all stages of reduction. Very little of the flint work came from what could be described as secure contexts. Aside from six pieces from the *in situ* buried soil [37] all came from mixed deposits, probably ultimately deriving from the now buried ploughsoil identified by French.

Glass Artefacts *Vikki Herring*

A single sherd of glass was recovered from F.15 weighing 3g. It consisted of a single piece of body sherd, natural colour with no inclusions with and had patina on all surfaces. Probably post-Medieval in date.

Medieval Pottery *David Hall*

The relatively small assemblage recovered from the excavations at the Red Lion Hotel consisted of 58 sherds weighing 569g. The pottery was dated from the Middle Saxon to the medieval period with a small quantity of modern material. The majority of the pottery was recovered from the ploughsoil during the excavation of the Test Pits (67%) with the remaining 33% recovered from five features; F.16, F.17 and F.18 (pits) and F.23 and F.33 which were ditches.

Five sherds of Middle Saxon Ipswich ware weighing approximately 25g were recovered. The majority of the sherds were recovered from the plough soil horizon with a single sherd recovered from a feature (F.23) which was probably residual. Ipswich Ware probably began to be used in Cambridgeshire between 725 and 740 AD and continued until the Middle or Late 9th century (Blinkhorn, forthcoming).

There are small quantities of 10th to 12th century St Neot's and Thetford Ware. These were common wares of this period from Cambridgeshire. As with the Ipswich Ware, the majority of the sherds were recovered from the plough soil with only a single sherd from F.33, which was probably residual.

Pottery from the 15th century was recovered from both pit features (F.16, F.17 and F.18) and ditches (F.23 and F.33) and was dominated by grey wares. The small assemblage suggest that

there was activity in the area from the Middle Saxon Period through to the 15th century, however; not enough to suggest a major settlement within the immediate locale.

Pottery Type	Date	Quantity from Test Pits	Quantity from Features	Quantity by Date
Ipswich Ware	Mid Saxon	4	1	5
Thetford Ware	12th century	11	1	12
St. Neots Ware	12th century	8		8
Pink Ware	13th/14th century		2	2
Grey Ware	14th century	1		2
Red Ware	14th century	1		
Pink Ware	14th/15th century	1		1
Essex Red	15th century	1		24
Grey Ware	15th century	4	13	
Pink Ware	15th century	2	2	
Red Ware	15th century	2		
GRE	17th century	1		1
Blue Ware	19th century	3		3
Total		39	19	

Table 8: Pottery from Test Pits and features

Metalwork *Andrew Hall and Grahame Appleby*

A total of 92 metal objects, the majority iron nails or similar (76 items, mainly nails), were recovered from archaeological features, test pits and as surface finds and include an arrowhead, silver and copper coins, a brooch, a buckle plate, a lead pistol ball and a large domed stud; two pieces of possible tin or pewter were also found.

Silver and Copper alloy

Seven pieces of copper alloy were recovered from three contexts: [30], [31] and [32]. One piece, <231>, appears to have mineralised textile preserved between the two plates of the buckle/belt fitting and requires conservation. A single 15th century silver penny was also recovered (<228>).

<228> [31] Small finds number 1. Silver Long Cross penny in excellent condition, diameter 17.96mm. Possibly from the reign of Edward IV – 1461-1483.

<229> [31] Small finds no. 27. Damaged, small Charles I farthing, diameter 16.5mm, dated between 1625 and 1649.

<231> [31] Small finds number 32. A two piece composite plate for an oval framed buckle, with two *in situ* rivets; possesses an aperture with angled groove. Mid 14th to 15th century (cf. Egan & Pritchard 1991: 80-81).

<233> [32] Small finds number 36. Small brooch, diameter *c*. 19mm, with surviving pin. Frame is a composed of a wire ring with widely spaced spirals. An almost identical example from London is reported in Egan and Pritchard (1991: no. 1341 and fig. 164), with a citation to a similar example from Denmark (*ibid*.). 14th to 15th century.

<234> [30] Test pit 11. Very thin and bent pin, *c*. 37mm long; undated.

<235> [32] Test pit 13. Broken small bar mount from a belt, length 16.7mm. Late Medieval.

<301> [31] Small finds number 31. Large dome-headed stud, undecorated, with short shank; diameter 28.64mm, height 7mm. Post-Medieval, possibly 16th or 17th century.

<302> [31] Small finds number 80. Triangular sheet of folded copper alloy, possibly a vessel repair (cf. Margeson 1993: 93). Late Medieval/early post-Medieval.

Iron

Of the 76 iron objects recovered, not described further, 66 were nail or nail fragments (max length 72.8mm, average weight 4.97g), seven were unidentified lumps or fragments and one a modern belt slider (possibly military). The following items merited further detailed description.

<287> [31] Fragment from a standard dining knife 42.35mm long, weighing 6g. This form of knife is relatively common and generally post-Medieval in origin; probably originated from the nearby public house.

<291.> [32] Test pit 13. Well preserved socketed iron barbed and tanged arrowhead. The socket is partially damaged with only one surviving rivet hole for fixing the head to the shaft, and one tang has broken off; length 57.6mm, weight 8g. This form of arrowhead dates from the Roman and into the Late Medieval period; this example is almost certainly Medieval in date with parallels known from numerous sites, such as Castle Acre, Norfolk (Coad & Streeten 1982: 236, fig 42) and York (Ottaway & Rogers 2002: 2967).

<299> F.39 [132] Possible, very corroded blade fragment from a small knife or similar object; length 42.29mm, weight 8g.

Tin and lead metals and alloys

Eight objects or fragments within this category were recovered from context [31]; six were scrap or casting spills.

<230> [31] Small finds number. Several small fragments of pewter, degrading and crumbly; total weight 10g. Possibly fragment from a pewter vessel; undated.

<232> [31] Small finds number 33. Irregular, twisted piece of either pewter or tin, *c*. 79mm long and weighing 15g. Possibly related to furnace or railway related detritus.

<303> [31] Small finds number 34. Irregular lump of lead casting spill or melt; weight 16g

<304> [031] Small finds number 35. Small lead pistol shot, weight 6g, diameter 10.6mm. Post-Medieval.

<305> [31] Small finds number 28. Small ‘dumb-bell’ shaped object made from pewter; very corroded weight 11g, length 29.47mm. Unidentified.

This is a relatively high number of finds from such a small area and may reflect the close proximity to the Medieval chapel and route-way. The recovery of a well preserved arrowhead is of interest, but in the absence of further information, it is impossible to determine whether this was accidentally lost or had been loosed.

Miscellaneous Artefacts *Jacqui Hutton*

Clay Pipes

Introduction

A small assemblage of clay pipe fragments was recovered during the test pit sampling strategy; no pipe fragments were recovered from features. In total there were 32 pieces weighing 118g which consisted of 1 bowl fragment and 31 stem fragments. The majority of the pieces were recovered from the southern end of Area A where the plough soil [32] was at its deepest. See Table 9 for breakdown of the assemblage.

Fragments of clay tobacco pipe are generally found on sites that date from the 16th century onwards. The pipes of moulded and fired clay were easily and cheaply manufactured and changes in their typology and size can aid with dating features and contexts. The bowls of earlier pipes were of a form which is known as 'heart-shaped'; the mouth/rim of the bowl being narrower than the maximum diameter. Later, pipes got larger and the shaped changed. The bowl became more upright and the angle between the mouth of the stem and the bowl got flatter as the form developed (Ayto 1994). Studies have demonstrated that the stem bore size generally decreased between c.1620 and c.1760. In addition the inside diameter of the bowl increased from ¼" c.1560 to ½" c.1700. Dating pipes became more unreliable after this date (Atkinson 1969, Oswald 1975).

Pipes with simple embossed decoration occurred from the early 17th century. Complex and more sophisticated decoration became more common in the 18th century. Public houses and other establishments and organisations often commissioned pipes and often were given away free. It has been suggested that the study of tobacco pipes with features such as bite marks, stem lengths and milling can indicate economic or social status (Heard 2000). However, this can be complicated by the fact that tobacco pipes belonged to a wide range of cheap luxury items where poorer groups in society were willing to pay slightly extra for better quality goods (Cessford 2001). The production of clay pipes centred on Bristol and London was widespread throughout the country.

Results

The majority of the clay pipe fragments (primarily stems) were recovered from context [31] which overlay the plough soil horizon [32]. A small number of pipe stems were recovered from the lower context, however this was probably due to disturbance from animal and rooting. There was a date range from the 16th century through to the 17th century with some examples of a later date.

Test Pit No.	Description	Quantity
Surface finds	stems, 1 with part heel	4
1.1	bowl, stem	3
1.3	stem	1
1.4	stem	3
1.9	stem with heel	1
1.15	stem	3
1.16	stem	2
1.17	stem	15

Table 9: Clay Pipe quantities

Two of the fragments had evidence of burning on the exterior surface. This can be indicative of the discarding of a broken pipe into a fire. As the site is adjacent to the public house it is easy to envisage that the fragments of pipes were collected when the hearth was cleaned and discarded outside; they were later incorporated into the upper plough soil and were further dispersed through rooting and animal disturbances. There was no concentration of pipe fragments in any of the contexts.

Brick and Tile

A total of 8 fragments of brick (408g), 8 fragments of tile (272g) and 14 fragments of mortar (506g) were recovered from the ploughsoil during the test pit excavation and from excavated features.

Material	Test Pit No.	Feature No.	Quantity	Weight (g)	Notes
Brick/Tile	1.1		1	23	Fragment, orange/buff in colour, 1 surface, shell & organic inclusions, possible evidence or burning on surface
Tile	1.9		1	31	Fragment, orange in colour, 2 flat surfaces, one smoother than other, evidence of 1 edge, grog inclusions, 14mm thick
Tile	1.15		4	152	Fragment, orange in colour, 2 flat surfaces, one smoother than other, 14mm thick
					Fragment, orange in colour, 2 flat surfaces, possible evidence of mortar on rougher side, other side smooth, 14mm thick, evidence of part of tapered perforation at least 13mm wide
					Fragment, red in colour, mortar on 1 side, grog inclusions, evidence of 1 edge with attached mortar, 14mm thick
					Fragment, red in colour, mortar on both sides, grog inclusions, 14mm thick
Tile	1.16		1	5	Fragment, orange in colour, 2 surfaces, hand made, flint and organic inclusions with voids, 48mm thick 16th/17th C?
Brick	1.17		5	46g	Fragments, rounded, orange in colour, flint and grog inclusions
Mortar	1.17		1	3	Fragment, cream in colour, flint inclusions <1mm
Brick		15	1	3	Fragment, rounded, orange in colour, flint inclusions <1mm
Brick		38	1	336	Fragment, orange in colour, 2 surfaces, hand made, flint and organic inclusions with voids, 48mm thick 16th/17th C?
Mortar		38	13	503	Fragments, majority with 2 flat surfaces (smooth and rough), buff in colour with brick and flint inclusions, 2 with evidence of edges
Tile		40	2	84	Fragment, 2 flat surfaces, orange in colour, evidence of 1 edge, 15mm thick, no glaze
					Fragment, 2 flat surfaces, red in colour, slight curve, smooth on 1 side with burning on other, 14mm thick, no glaze

Table 10: Brick and tile quantities

The majority of the artefacts were non-diagnostic but can be relatively dated to the later medieval period and later. Some of the fragment of bricks were hand made and due to their size and dimensions then can be tentatively dated to the 16th/17th century, although there provenance is unknown.

Prehistoric and Roman Pottery *Katie Anderson*

A small assemblage of later Prehistoric and Roman pottery, totalling five sherds weighing 38g was recovered from the excavation. All of the material was analysed and details of fabric, form and date were recorded along with any other information deemed significant.

Context [030] contained two reduced sandy sherds (12g), dating Late Iron Age/early Roman. Both of the sherds were non-diagnostic. Context [031] contained one micaceous sandy base sherd (13g). Two sandy sherds were recovered from context [032], comprising one sand and vegetable tempered sherd, dating Middle/Late Iron Age and one sandy Late Iron Age/Early Roman sherd.

The pottery was recovered from plough soil and made up ground, thus is most likely to be residual, but does suggest a background presence of Late Iron Age/early Roman activity.

Soil Assessment *Charles French*

The site stratigraphy comprised a sandy gravel subsoil on Lower Chalk geology, gently sloping eastwards to the River Cam, on which a thick soil profile had developed. This comprised about 0.40-0.50m of a dark brown gravelly sandy loam containing a mixed range (in date and type) of artefactual material, over 0.30-0.50m of dark reddish brown sandy loam containing abundant prehistoric lithic material, and irregularly in places over a 0.05-0.15m light yellowish brown calcitic sandy loam.

It is suggested that the upper horizon is some kind of made up ground comprising soil and subsoil material, for some reason deposited on the southern part of the site. This overlies the in situ buried soil which exhibits two soil horizons which are indicative if a worm-sorted brown earth. The basal soil horizon was infrequently present and probably represented the weathered natural subsoil/soil transition or a B/C horizon, in which cut features defined well.

The completely mixed nature of the buried soil indicates that it is a former ploughsoil, and the presence of artefacts throughout the profile corroborates this. Indeed, there is a suggestion in the cross-section at the southern end of the site that this soil profile had been affected by medieval ridge and furrow cultivation with a ridge width of about 5.00m. As it was impossible to trace this possibility along the exposed length of the site, this is not a definitive interpretation. It is also possible that this profile represented some kind of headland-like feature.

Given the severely mixed nature of the buried soil and the suggested field interpretation, it was deemed unnecessary to sample for geoarchaeological analysis.

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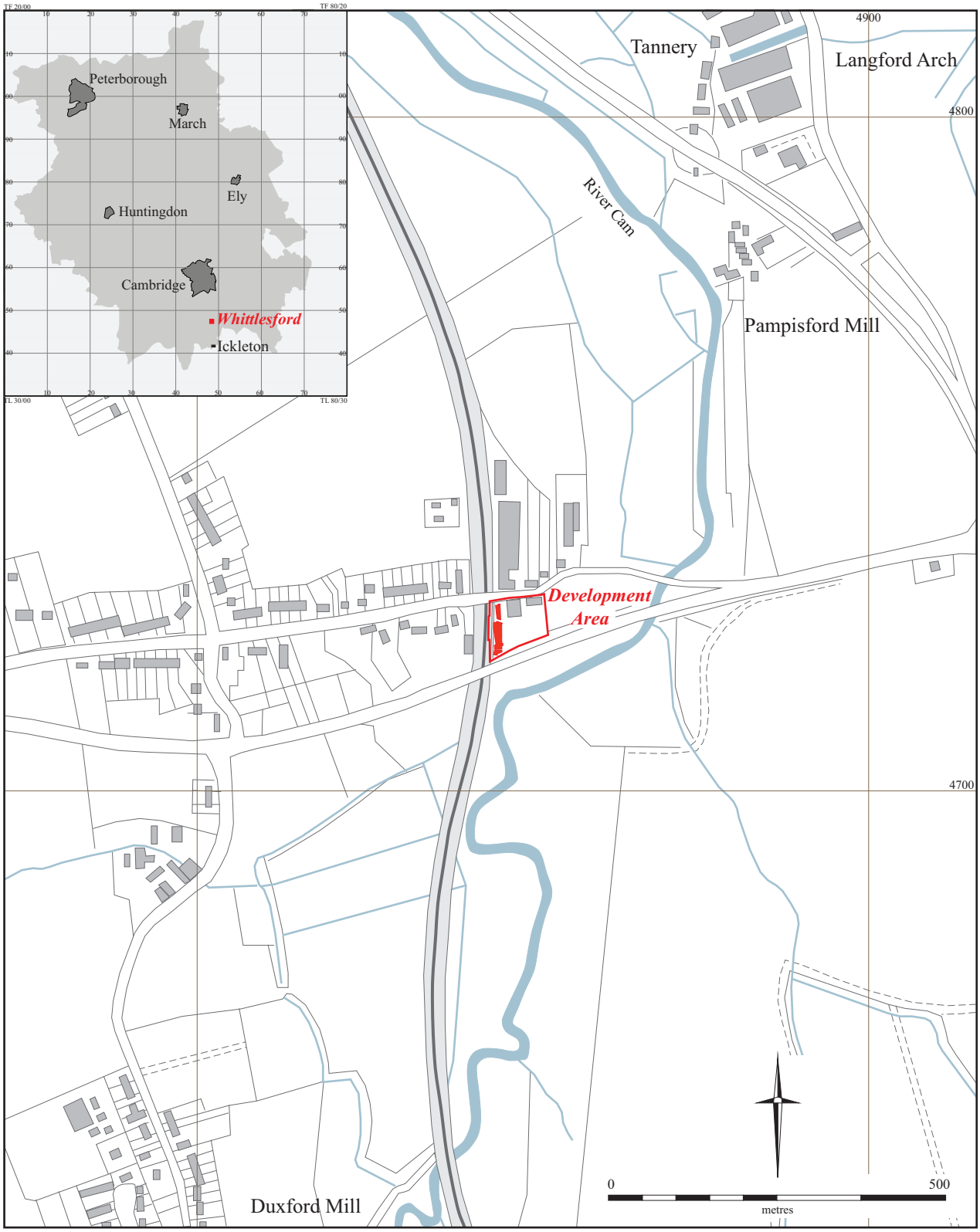


Figure 1. Site Location.

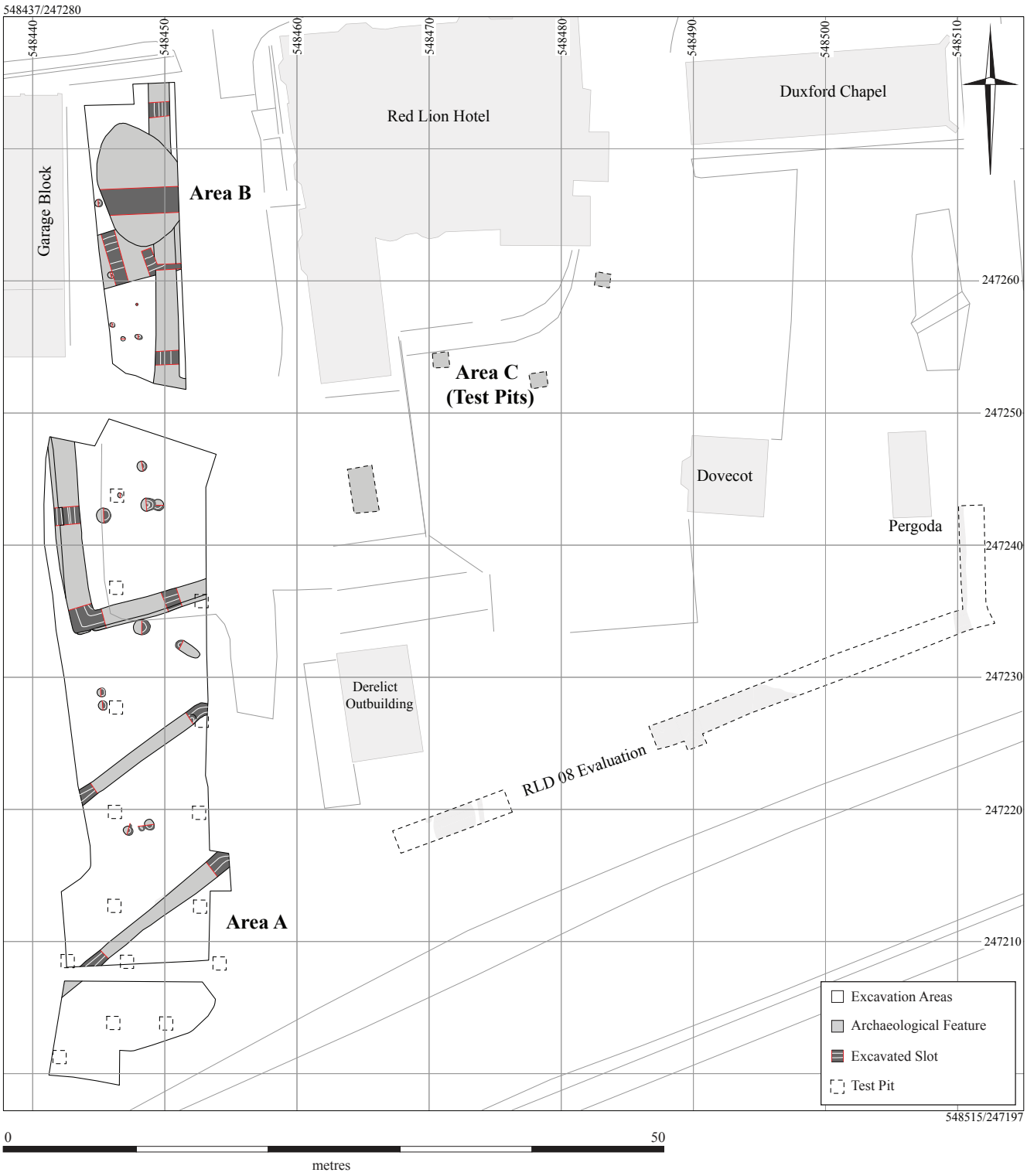


Figure 2. Excavation Areas.

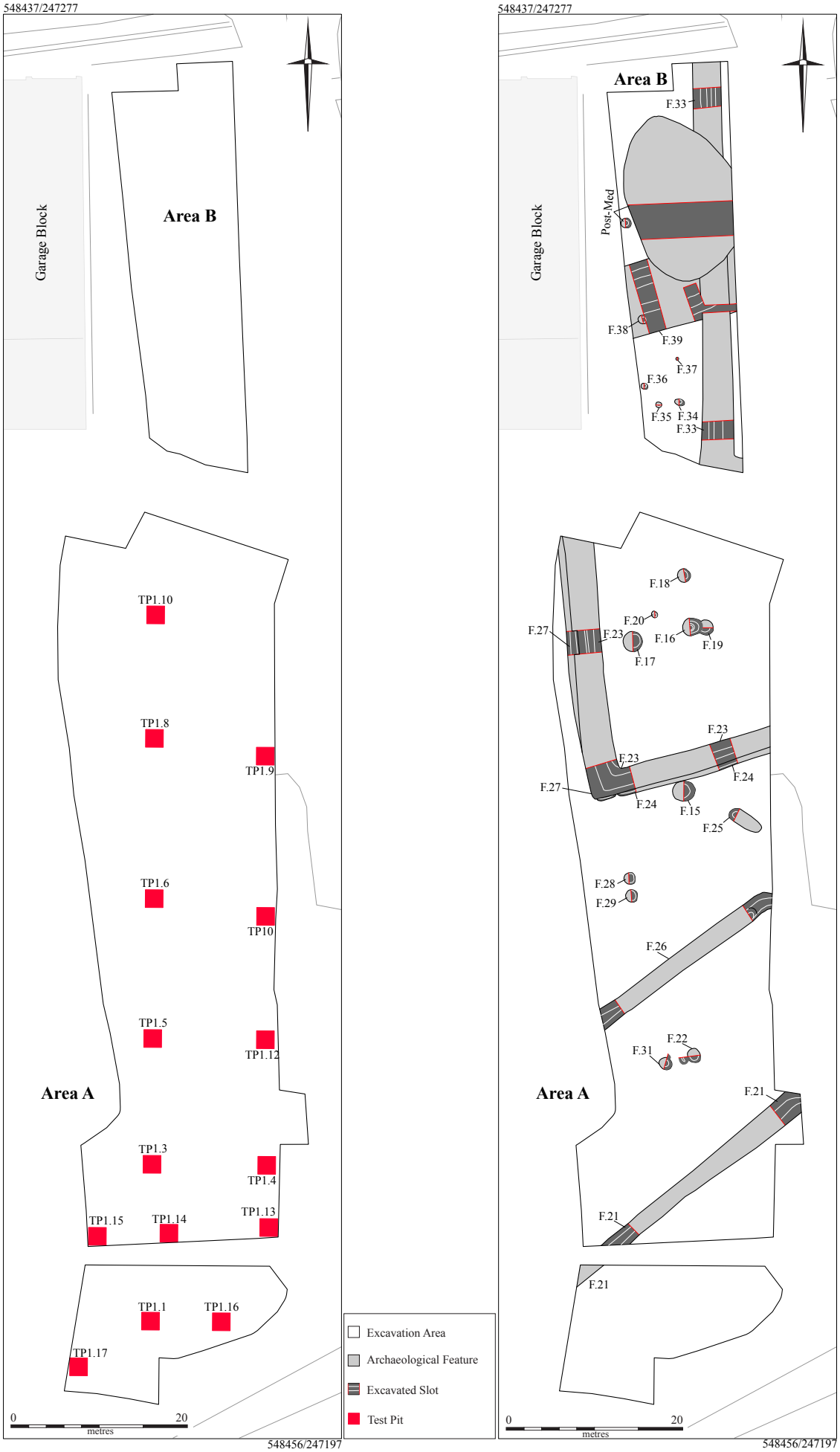


Figure 3. Areas of Investigation

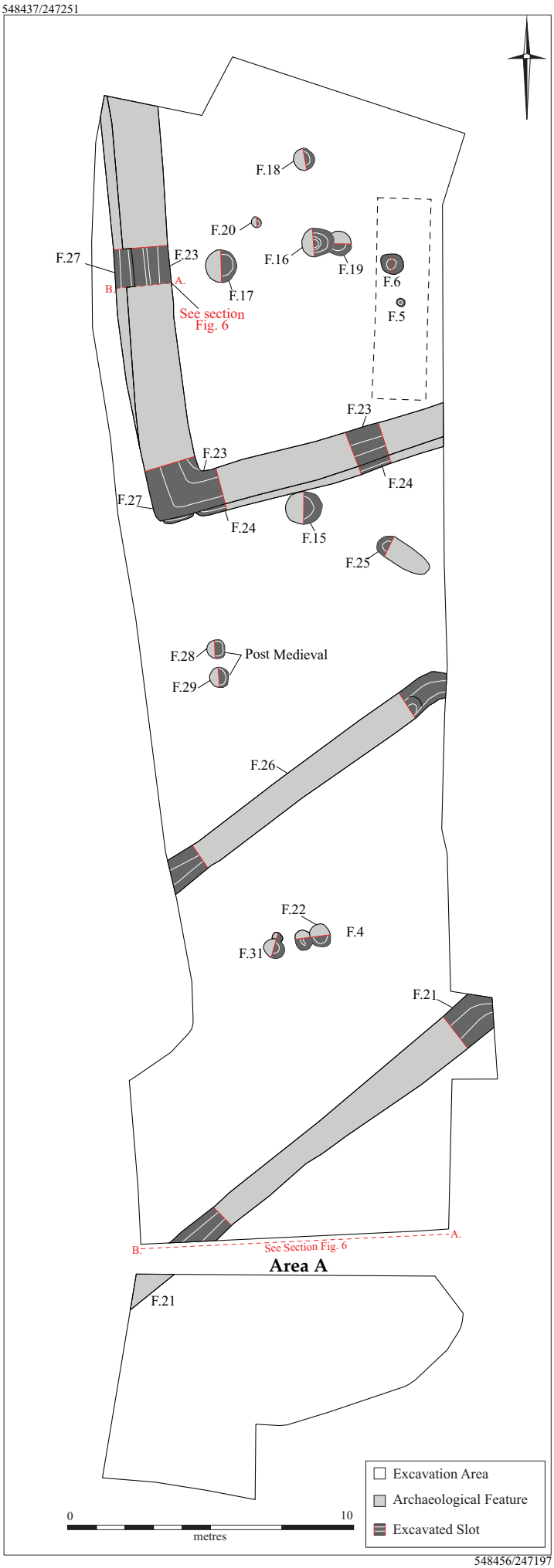


Figure 4. Plan of Area A

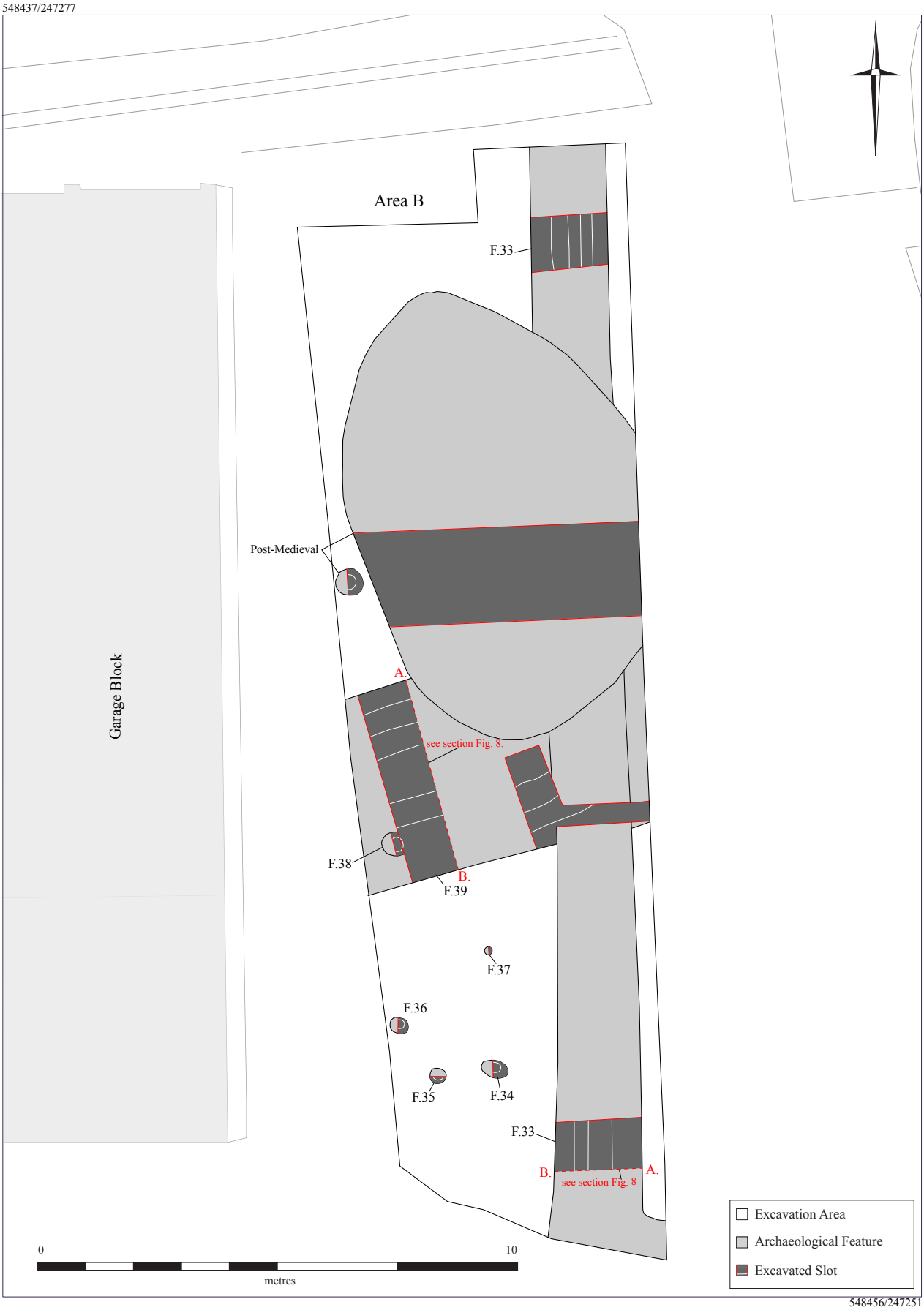
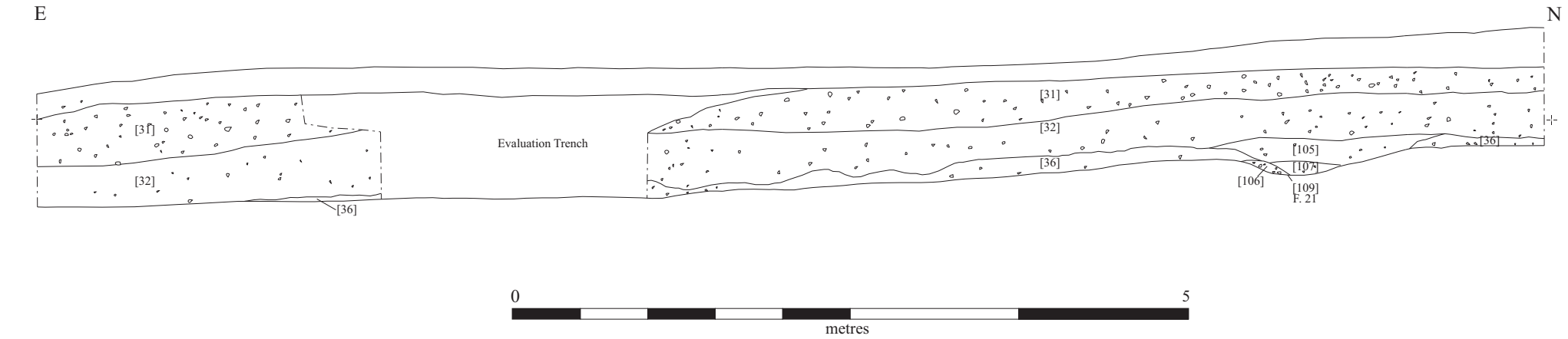


Figure 5. Plan of Area B



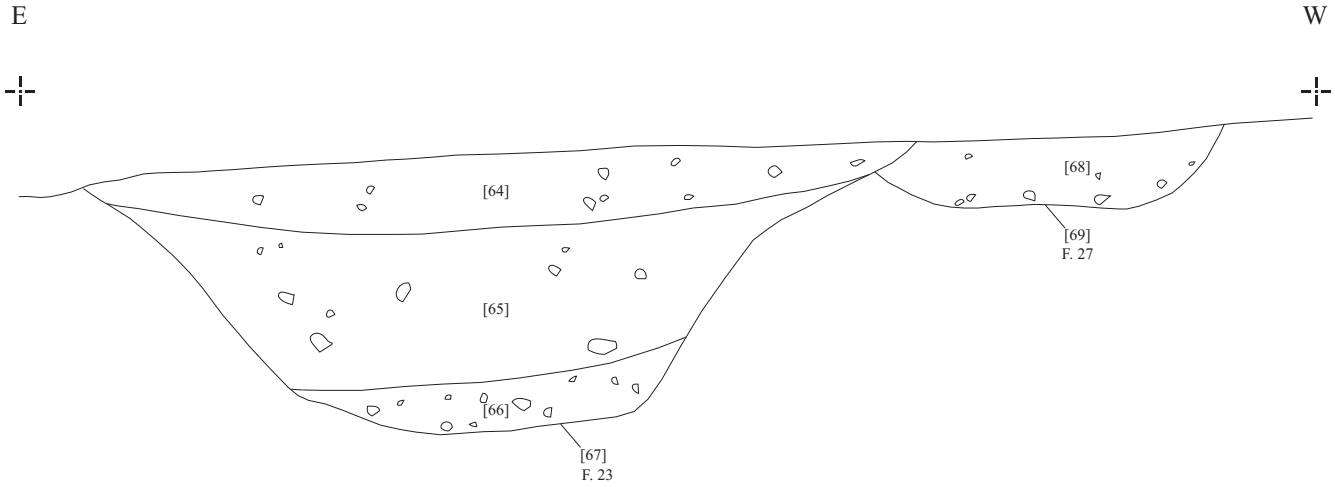


Figure 6. Features from Area A.

Photograph of F. 26 (West facing)

Photograph of F. 16 and F. 19 (West facing)

Figure 7. Features from Area A

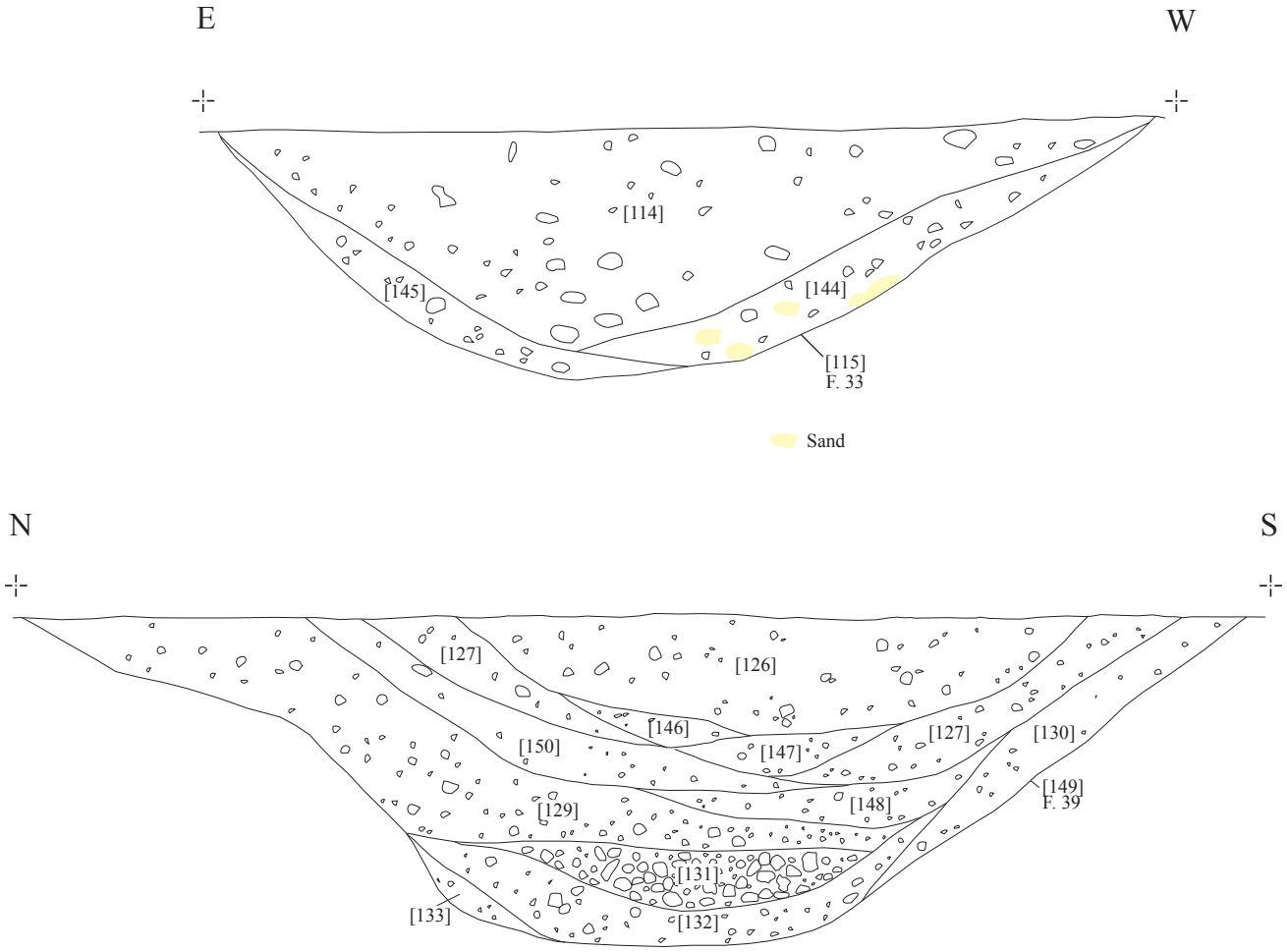


Figure 8. Features from Area B.

FEATURE DESCRIPTIONS

Area A							
General Description						**Orientation**	N-S
Area contained seventeen features that included; seven pits (two intercutting), four postholes, four ditches (one L-shaped, two parallel to each other) and two gullies truncated by L-shaped ditch. The natural was brown/red and yellow sand with patches of frequent gravel inclusions. This was overlain by a ploughsoil (medieval ridge) which overlay in part an original land surface.						**Avg. Topsoil Depth (m)**	0.13
						Avg. Subsoil Depth (m)	0.33
						Avg. Ploughsoil Depth (m)	0.32
						Approx. Width (m)	12.20
						Approx. Length (m)	47.30
						Area (m²)	577.06
Contexts							
Feature No.	**Feature Type**	**Context No.**	**Cut/Fill/ Layer**	**Width (m)**	**Depth (m)**	**Artefacts**	**Comments**
15	pit	33	f			glass, brick	Post-Med
		34	c	1.15	0.09		
16	pit	40	f			pottery, flint, shell	15th Century
		41	f				
		42	c	0.95	0.25		
17	pit	45	f			pottery, shell	15th Century
		46	f			bone	
		47	c	1.15	0.25		
18	pit	38	f			pottery	15th Century
		39	c	0.73	0.10		
19	pit	43	f			burnt flint, stone	Undated
		44	c	0.90	0.16		
20	posthole	48	f				Undated
		49	c	0.35	0.05	Fe	
21	ditch	100	f			bone, flint	Parallel to F.26 Undated
		101	f				
		102	f			burnt flint, flint	
		103	f			burnt stone, flint	
		104	c	1.42	0.43		
		105	f			burnt stone, flint	
		106	f			burnt stone, flint	
		107	f			flint	
		108	f				
		109	c	0.72	0.2		
22	pit	92	f			flint	Undated
		93	f			burnt clay, flint	
		94	f			flint	

		110	f			burnt stone, flint	
		95	c	0.7	0.25		
23	ditch	52	f			flint	trunc's F.24 & F.27 15th Century
		53	f			flint	
		54	c	1.45	0.5		
	ditch corner	57	f			pottery, flint	
		58	f			pottery, flint	
		59	c	1.6	0.6		
	ditch	64	f			pottery, flint	
		65	f				
		66	f				
		67	c	1.35	0.45		
24	gully	55	f				trunc'd by F.23 Undated
		56	c	0.27+	0.07		
	gully terminus	60	f			flint	
		61	c	0.28+	0.05		
25	pit	50	f			flint	Undated
		51	c	0.7	0.23		
26	ditch	74	f				Parallel to F.21 Undated
		75	f				
		76	c	1.17	0.33		
		77	f				
		78	f				
		79	c	1.08	0.31		
		82	f				
		83	f				
		84	f				
		85	f				
		86	f				
		87	c	1.22	0.48		
		88	f			burnt flint, flint	
		89	c	0.87	0.31	burnt flint, flint	
27	gully terminus	62	f				trunc'd by F.23
		63	c	x	0.05		
	gully	68	f			pottery	
		69	c	0.56+	0.12		
28	posthole	70	f			brick	Post-Med
		71	c	0.45	0.2		
29	posthole	72	f				Post-Med
		73	c	0.45	0.15		
30	ditch	80	f				Undated
		81	c	1.7	0.47		
31	pit	96	f				Undated
		97	f				
		98	f				
		99	c	0.7	0.13		

Area B							
General Description						**Orientation**	N-S
Area contained eight features that included; four postholes, two ditches, one of which could possibly be a large boundary ditch that was cut by a medieval ditch and one very large post-medieval pit. The natural was brown/red and yellow sand with moderate gravel inclusions that was overlain by subsoil that contained post-medieval rubble.						**Avg. Tarmac Depth (m)**	0.11-0.23
						Avg. Topsoil Depth (m)	0.13-0.40
						Avg. Subsoil Depth (m)	0.06-0.17
						Approx. Width (m)	6.75
						Length (m)	23.30
						Area (m²)	155.25
Contexts							
Feature No.	**Feature Type**	**Context No.**	**Cut/Fill/ Layer**	**Width (m)**	**Depth (m)**	**Artefacts**	**Comments**
33	ditch	124	f			pottery, burnt flint, flint	Medieval, cuts F.39 12th, 13/14th & 15th century
		125	c				
		112	f			pottery, bone, flint	
		141	f				
		142	f				
		143	c	1.57	0.46		
		114	f			pottery, bone	
		144	f				
		145	f				
		115	c	2.00	0.55		
34	posthole	116	f				Undated
		117	c	0.39	0.14		
35	posthole	118	f				Undated
		119	c	0.24	0.23		
36	posthole	120	f				Undated
		121	c	0.29	0.07		
37	stakehole	122	f				Undated
		123	c	0.10	0.14		
38	pit	138	f			Bone, flint, tile, brick	Post-Med, trunc's F.39
		139	c	0.50	0.15		
39	ditch E-W	126	f			bone, burnt flint, flint	trunc'd by F.33 & F.38 Undated
		127	f			flint	
		128	f				
		129	f			bone, flint	
		130	f				
		131	f				

		132	f			bone, burnt stone	
		133	f				
		134	f				
		135	f				
		136	f				
		137	c	x	1.10		
		126	f			pottery	
		146	f				
		147	f				
		127	f				
		130	f				
		150	f				
		148	f				
		129	f			flint	
		131	f				
		132	f				
		133	f				
		149	c	4.00	1.08		

OASIS DATA COLLECTION FORM: England

OASIS ID: cambridg3-86132

Project details

Project name	The Red Lion Hotel, Whittlesford; An Archaeological Excavation
Short description of the project	An archaeological excavation was undertaken within the grounds of the Red Lion Hotel, Whittlesford Bridge, Cambridgeshire, (NGR TL 4848 4725), in two phases from 7th December to 21st December 2009 and 11th January to 19th January 2010 in preparation of a proposed development. The excavation revealed linear and pit features; the majority were undated with the exception of two linears that contained 15th century pottery. The features were overlain by a buried plough soil that contained material culture from the later prehistoric period through to the 19th century.
Project dates	Start: 07-12-2009 End: 19-01-2010
Previous/future work	Yes / Not known
Any associated project reference codes	RLD 09 - Sitecode
Type of project	Field evaluation
Site status	Listed Building
Site status	Scheduled Monument (SM)
Current Land use	Other 5 - Garden
Monument type	LINEARS Medieval
Monument type	PITS Medieval
Monument type	LINEARS Uncertain
Monument type	PITS Uncertain
Significant Finds	POTTERY Medieval
Significant Finds	FLINT Late Mesolithic
Significant Finds	FLINT Early Neolithic
Significant Finds	CLAY PIPES Post Medieval

Significant Finds	ANIMAL BONES Uncertain
Significant Finds	METALWORK Uncertain
Methods & techniques	'Environmental Sampling','Metal Detectors','Sample Trenches','Test Pits'
Development type	Building hotel within public house gardens
Prompt	Direction from Local Planning Authority - PPG16
Position in the planning process	After full determination (eg. As a condition)

Project location

Country	England
Site location	CAMBRIDGESHIRE SOUTH CAMBRIDGESHIRE WHITTLESFORD The Red Lion Hotel
Postcode	CB22 4WL
Study area	0.50 Hectares
Site coordinates	TL 54843 24733 51.8991666667 0.250833333333 51 53 57 N 000 15 03 E Point
Lat/Long Datum	Unknown
Height OD / Depth	Min: 24.85m Max: 25.80m

Project creators

Name of Organisation	Cambridge Archaeological Unit
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Emma Beadsmoore
Project director/ manager	Emma Beadsmoore
Project supervisor	Jacqui Hutton
Type of sponsor/ funding body	Developer

Project archives

Physical Archive recipient	Cambridge Archaeological Unit

Physical Archive ID	RLD 09
Physical Contents	'Animal Bones','Ceramics','Environmental','Glass','Metal','Worked stone/lithics'
Digital Archive recipient	Cambridge Archaeological Unit
Digital Archive ID	RLD 09
Digital Contents	'Animal Bones','Ceramics','Environmental','Glass','Metal','Stratigraphic','Survey','Worked stone/lithics'
Digital Media available	'Images raster / digital photography','Images vector','Spreadsheets','Survey','Text'
Paper Archive recipient	Cambridge Archaeological Unit
Paper Archive ID	RLD 09
Paper Contents	'Stratigraphic','Survey'
Paper Media available	'Context sheet','Drawing','Map','Miscellaneous Material','Photograph','Plan','Report','Section','Survey ','Unpublished Text','Unspecified Archive'

Project bibliography 1

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