



CAM ARC Report Number 900

Medieval and post-medieval remains at The Common, West Wrating, Cambridgeshire

An Archaeological Evaluation

Liz Muldowney

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Summary

Between the 7th and 11th August 2006 the Cambridgeshire County Council Archaeological Field Unit (CCC AFU) conducted an archaeological evaluation on land at The Common, West Wrattin in advance of the proposed housing development. The work was undertaken in accordance with a brief issued by Cambridgeshire Archaeology, Planning and Countryside Advice team (CAPCA), supplemented by a specification prepared by the CCC AFU (Drummond-Murray 2006).

The evaluation sought to establish the character, date, extent and preservation of any archaeological remains within the proposed development area.

Nine trenches were excavated in the three fields, six of which contained archaeological remains. A high density of medieval features was recorded in the northern half of the eastern field (Fig. 1). Consisting of ditches, pits and postholes, evidence for metalworking in the vicinity was also recovered. The central field was devoid of archaeological remains; the eastern field contained one ditch of probable medieval date, a pond and post-medieval foundation trenches.

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Drawing Conventions

Sections	Plans
Limit of Excavation	Limit of Excavation
Cut	Deposit - Conjectured
Cut-Conjectured	Natural Features
Deposit Horizon	Sondages/Machine Strip
Deposit Horizon - Conjectured	Intrusion/Truncation
Intrusion/Truncation	Illustrated Section S.14
Top Surface/Top of Natural	Archaeological Feature
Break in Section/ Limit of Section Drawing	Archaeological Deposit
Cut Number	Modern Deposit
Deposit Number 117	Excavated Slot
Ordnance Datum $\frac{18.45m}{\lambda}$ OD	Cut Number 118
Inclusions	

1 Introduction

This archaeological evaluation was undertaken in accordance with a Brief issued by Andy Thomas of the Cambridgeshire Archaeology, Planning and Countryside Advice team (CAPCA; Planning Application S/2267/05/O), supplemented by a Specification prepared by Cambridgeshire County Council Archaeological Field Unit (CCC AFU).

The work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, in accordance with the guidelines set out in *Planning and Policy Guidance 16 - Archaeology and Planning* (Department of the Environment 1990). The results will enable decisions to be made by CAPCA, on behalf of the Local Planning Authority, with regard to the treatment of any archaeological remains found.

The site archive is currently held by CCC AFU and will be deposited with the appropriate county stores in due course.

2 Geology and Topography

The site overlies boulder clay (British Geological Survey 2002).

The overall difference in height across the three investigated areas was less than 1m. The western field lies at c. 119.40m OD, the central field is slightly higher at c. 119.85m OD and the eastern field gently slopes to the east and is at c. 119.15m OD. The three fields are generally flat and currently under pasture.

3 Archaeological and Historical Background

The site lies on the conjectured site of a medieval moat. The evidence for this is cartographic and based on a 1737 Estate map where the moat can be seen set back from the village street and marked "barn and dovehouse mead" (Fig. 2). The moat is not visible from aerial photographs and the geophysical survey, whilst showing several potential archaeological targets, did not reveal a moat (Fig. 3).

Prehistoric evidence from the area includes enclosures to the north and south (HER 09150 & 09153) and Romano-British finds to the southeast (MCB17058)

Stray finds include a flint axe found in 1921 near Weston Colville to the north and a Bronze Axe found in 1910 nearby. Bronze Age flint implements were found c. 550m to the north-east (HER10192) during the 1991 fieldwalking exercise on the Golf Course site. An Iron Age gold coin was found (HER 07698) but its exact location is unknown.

The same fieldwalking project revealed a Roman farmstead just to the north of the village (HER10187) and a Saxon pottery scatter (HER 10188) to the northeast.

West Wrattling itself is a medieval village with evidence for a Deserted Medieval Village to the north in the form of earthworks and a hollow way revealed by fieldwalking for West Wrattling golf course (HER 09152).

The medieval moated site at Scarletts Farm, subject to an evaluation and watching brief in 2004, lies c. 500m to the south-west of the site. (HER 01153). Another moat lies c. 1km to the north-east at Manor Farm (HER01152).

Whilst the highest potential is for medieval activity on site, evidence from other periods cannot be ruled out.

4 Methodology

The objective of this evaluation was to determine as far as reasonably possible the presence/absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area.

The Brief required that a 5% sample of the proposed development area should be subject to trial trenching. Nine trenches were excavated to the natural/archaeological horizon.

Machine excavation was carried out under constant archaeological supervision with a wheeled JCB-type excavator using a 1.6m wide toothless ditching bucket. Trench 3 was 10m long, Trench 6 was 15m long, Trenches 1, 4 and 5 were 25m long, Trenches 8 and 9 were 30m long and Trenches 2 and 7 were 40m long. In total 270m were investigated. Trenches 1 to 5 were in the western field, Trenches 6 and 7 were in the central field and Trenches 8 and 9 were in the eastern field. In the western field a number of archaeological layers were encountered immediately below the topsoil, overlying the subsoil. Where these were encountered they were removed by machine to expose the earlier sequence of activity.

All hand-collected finds were retained for inspection, other than those that were obviously modern.

All archaeological features and deposits were recorded using CCC AFU's *pro-forma* sheets. Trench locations, plans and sections were recorded at appropriate scales and colour and monochrome photographs were taken of all relevant features and deposits.

Seven environmental samples were taken from relevant features to investigate possible survival of micro- and macro-botanical remains. Two of the seven samples were also taken to collect evidence for metalworking.

Extreme dry weather conditions in the month preceding the evaluation had desiccated the ground. Subsequent light rainfall was beneficial but the generally dry conditions made discerning differences between the predominantly clay filled features very difficult.

5 Results

Archaeological features were recorded in six of the nine trenches and consisted of ditches, pits, postholes, surfaces, and foundation trenches predominantly. Other features recorded were indicative of craft/industrial processes. The results will be discussed on a trench-by-trench basis; the empty Trenches 4, 6 and 7 will not be described.

The topsoil and subsoil were uniform in appearance across all areas of the site but varied considerably in depth. Full context descriptions are included in Appendix 1, deposit descriptions are only included in the text where appropriate. Unless otherwise stated all features cut into natural deposit (3).

Trench	Topsoil (1)	Subsoil (2)	Depth to archaeology
Trench 1	0.20m to 0.40m	0.06m to 0.22m	0.2m
Trench 2	0.25m	0.17m	0.25m
Trench 3	0.30m	0.12m	0.3m
Trench 4	0.20m	0.30m	None present
Trench 5	0.19m	0.18m	0.37m
Trench 6	0.22m	0.20m	None present
Trench 7	0.20m	0.15m	None present
Trench 8	0.20m	0.10m	0.30m
Trench 9	0.10m	0.12m	0.22m

Table 1: Depth of topsoil and subsoil across the site

5.1 Trench 1

Trench 1 (Fig. 4) was oriented north-north-east to south-south-west and located at the northern end of the western field. It contained three

ditches, three pits and three layers, all of which were medieval in date, some of which were inter-cutting.

5.1.1 Ditches

Ditch **5** (Fig. 5) was a steep-sided flat-based linear feature oriented east to west, located against the northern baulk of the trench. It extended across the trench, was 2m+ in width and 0.96m deep. A single fill (4) was identified which contained some charcoal flecks and 40 sherds of pottery dated between 1200 and 1350. The fill also contained the largest animal bone assemblage including a butchered horse scapula, horse tooth, a sheep phalange and an ulna from a ? crow.

Ditch **9** was u-shaped in profile with gradual sides and a concave base. It was located 2m to the south of ditch **5** and shared its alignment. The ditch measured 1.2m in length running from a western terminal into the eastern baulk. Unlike ditch **5** it was narrow and shallow at 0.6m in width and 0.23m in depth. A single fill was recorded (8) which included occasional charcoal flecks, a single butchered sheep tibia and 13 sherds of early 13th century pottery.

Ditch **34** (Fig. 5) was a steep sided, concave based, u-shaped linear feature oriented north to south. It was located immediately to the south of ditch terminal **9**, truncating layers 44 and 45. Two fills were recorded within the ditch, the lower fill (33) contained a moderate quantity of charcoal flecks, the heavily shattered remains of an adult horse mandible and 10 sherds of pottery dating from 1175 to 1275, the upper fill (32) was paler in colour and contained a moderate quantity of charcoal flecks as well as the humerus of a domestic fowl and a sheep/goat tibia. Both bones showed signs of butchery. Thirty sherds of pottery dating to c. 1250 were recovered.

Ditches **9** and **34** were sealed by subsoil layer (2); ditch **5** was only partially sealed by this deposit.

5.1.2 Pits

Pit **7** was located between ditches **5** and **9** against the eastern baulk. It was ? circular with a u-shaped profile and a flattish base. It measured 0.47m in diameter and 0.08m in depth. Its single fill (6) contained no datable artefacts.

Pit **12** was located at the southern end of the trench and ran into the western baulk. It was sub-circular in plan with steep sides and a flat base. Two fills were recorded within the pit, the upper fill (11) was a mid greyey brown sandy silt clay containing moderate charcoal flecks, frequent crushed daub fragments. Animal bone and pottery were also retrieved. This fill was similar to fill (93) within the unexcavated ? pit **94** located 5m to the south in Trench 2. The lower fill of the pit (38) was

lighter in colour though similar in composition. It contained occasional charcoal flecks and 10 sherds of pottery dated to 1175 to 1275.

Circular pit **16** was located 1m to the south of pit **12** against the eastern bank of the trench. It was truncated almost to its flat base and measured 0.47m in diameter and 0.02m in depth. Its single fill (15) was mid grey brown silty clay, mottled orange with frequent charcoal flecks. Its appearance suggested that it might have been the base of a hearth pit, with the orange patches in the fill indicating scorching of the clay.

This pit was apparently connected to the larger pit (**12**) by a narrow shallow linear ? flue (**14**). It measured 1m in length, 0.3m in depth and 0.52m in width. It was constructed from the southern side of the larger pit and was believed to be a contemporary feature. Its single fill (13) was similar to the upper fill (11) of pit **12** and contained notable quantities of charcoal in the upper part of the fill. No scorching of the flue sides was observed. It is likely that these three associated features had some craft/industrial function.

Pits **9, 12, 16** and flue **14** were all sealed by subsoil layer 2.

5.1.3 Layers

Layer 44 was brownish grey sandy silt clay measuring 0.16m in depth. Eight sherds of pottery dated between 1200 to 1400 were retrieved. Too little of the deposit was exposed within the trench to define its limits or determine its origin. It was believed to be the same as layer 45, which was identical in appearance and depth. The layers were truncated by the construction of ditch **34**. It is not clear what they were constrained by as the confines of the evaluation trench precluded full investigation.

Layer 57 was light orangey brown sandy silt clay with no recorded inclusions. This deposit extended for 2m from the northern bank of the trench over the filled in ditch **5**. The deposit lapped over subsoil layer (2) and was sealed by topsoil layer (1). The section (Fig. 5) suggests that the layer was dumped over the ditch to level it after subsoil had begun to accumulate.

Layer 58 was composed of medium sized sub-angular flint cobbles within compacted light greyish yellow clayey silt. This layer was above the eroded subsoil layer (2) and measured 4.4m in width and 0.08m in depth. A horseshoe was recovered from the interface between this layer and the overlying topsoil (1). It might have represented a track way or more probably a yard surface.

Layer 59 was similar to layer 58 and was also above the subsoil and below the topsoil. It was located 11m to the south of the other layer and was 5m+ in width and 0.22m deep. The greater depth of layer 59

might suggest that it was less worn, although their similarity would indicate a comparable function.

5.2 Trench 2

Trench 2 (Fig.4) was oriented north-west to south-east and located 5m to the south-east of Trench 1, forming a T-shape with Trench 3. It contained a stratified sequence of archaeological remains including ditches, pits, tree bowls and a posthole. The results will be described in sequence.

5.2.1 Stratified remains

Ditch **51** was the south-eastern terminal of a linear feature oriented north-west to south-east. It measured 1.4m in width and 0.65m in depth and had a flat based v-shaped profile. The full extent of the ditch could not be established within the confines of the evaluation trench. The lower fill (50) was a sticky mid grey silty clay mottled orange, indicating it had accumulated under water. A single butchered cow bone, one pottery sherd dated to 1200 to 1375 and shell were retrieved from the fill. Upper fill (49) was paler in colour and more compacted, it contained 3 sherds of pottery dated to c. 1200. Immediately to the south of the terminal fill 49 merged with the fill of a ? curvilinear uncontexted feature of uncertain form emerging from the southern baulk. No relationship could be discerned in plan.

Ditch **37** (Fig. 5) was the continuation of ditch **51** recorded 2m to the north-west of the terminal. Its full profile was not recorded and the base was not seen. The two fills (36 and 35) were similar to fills 50 and 49. An iron ?knife was recovered from fill 35.

Ditch **56** was recorded in a sondage 2m to the north-west of ditch **37**. Its full form was not clearly seen within the trench but it was believed to be an east to west oriented wide linear ditch, continuing in Trench 3 as ditch **96**. It appeared as a strong linear anomaly on the Gradiometer plot (Fig. 6). Four fills were recorded, the lower fill (55) was a dark orangey grey compact silty clay indicative of water lain silts. No finds were retrieved from this deposit or from the overlying fill 54. Fill 53 contained a cattle jaw bone, 2 sherds of pottery dated between 1250 to 1400 and shell. The latest fill (52) contained no datable artefacts. This latest fill merged with the upper fill (35) of ditch **37**, no relationship between the two could be discerned but their orientation and profiles indicate that they were part of separate features.

Ditch **31** was oriented east to west and was a steep sided u-shaped feature measuring 5m+ in length, 0.2m+ in width and 0.16m in depth.

Its eastern terminal was located but its full extent was unknown. It truncated both ditches **37** and **56**. The single fill (30), a mid orangey grey sandy silt with frequent charcoal inclusions, contained no datable artefacts.

This ditch was in turn truncated by ? sub-rectangular pit **23**. The north-eastern corner of the steep sided, flat based pit was located within the trench. It measured 5.5m+ in length, 1.4m+ in width and 0.7m in depth. Three fills were recorded within the pit. The lower fill (22) was sticky dark bluey grey clayey silt with occasional flint fragments, charcoal flecks and some small ironstone pieces. Fragments of slag and a large ? slag tablet (SF7) of unknown function were retrieved from the deposit. Fill 21 was less sticky than the lower fill, and probably accumulated in drier conditions. It was a mid orangey grey clayey silt and contained similar inclusions to those within fill 22. Two sherds of pottery dated to c. 1200, unidentifiable animal bone, smithing slag and smithing hearth bottom slag were retrieved from the deposit as well as an iron nail (SF2) and an unidentified iron object (SF4). The animal bone consisted of a cow jaw and the leg bone of a dog. This fill was similar in composition to fill 30 within ditch **31**. The upper fill (20) was a firm mid brown silty clay with frequent charcoal flecks, distinct from the lower grey deposits. Two sherds of pottery dated between 1200 and 1400 and smithing slag fragments were retrieved from the deposit as well as non-identifiable animal bone fragments; hammer scale was noted during excavation.

Small sub-circular posthole **19** was cut into the north-east corner of pit **23**. It measured 0.5m in length, 0.35m in width and 0.15m in depth. It had gradual sides and a concave base. The single fill (10) was a dark orangey grey silty clay with frequent charcoal flecks. It was notable for the quantity of smithing slag fragments retrieved, presumably derived from the underlying pit fill. A single iron nail (SF1) was also retrieved from the feature.

Posthole **19** was sealed by subsoil layer (2), as were all other cut features in the trench. After this layer accumulated an irregular flattish based linear construction cut (**95**) was created. It measured approximately 12m in length, 1.6m+ in width and 0.5m deep. It was filled with a series of flint cobble levelling layers (67, 68 and 69) underling an upper fill of packed greyish white chalk (66) irregular in depth. This deposit was believed to form a surface, although no structural remains were found in association with the layer suggesting that it was part of an external surface. This surface was sealed by topsoil (1).

5.2.2 Non-stratified remains

Four large merging sub-circular features were recorded at the south-eastern end of the trench. Three of the features (**17**, **26** and **28**) formed

a merging cluster. All have been interpreted as tree bowls on the evidence of their plans and profile.

Tree bowl **24** was only partially within the trench and was located 1m to the north-west of the main cluster. The location of this feature coincided with a pronounced circular depression in the ground surface.

Tree bowl **17** had undercut upper sides with an irregular base. Large circular root holes were noted in the base and sides. A single mottled mid orangey brown fill (18) was recorded containing a small number of very small pottery sherds and an iron nail. The homogenous fill did not indicate that the tree had been uprooted.

Features **24**, **26** and **28** were unexcavated but are believed to be similar to tree bowl **17** on the basis of their irregular plans and the similarity of their upper fills to the excavated deposit (18).

Unexcavated pit **92** was located at the north-western end of the trench against the northern trench baulk. It was sub-circular in form and measured 0.5m in diameter. Its single fill (93) was a mid brown grey silty clay with frequent crushed daub fragments and moderate charcoal flecks. The deposit was markedly similar to fill (11) within pit **12** lying c. 7m to the north in Trench 1.

5.3 Trench 3

Trench 3 (Fig. 4) was oriented north-east to south-west and formed a T-shape with Trench 2. It contained a single ditch and a construction cut (Fig. 5). No features were excavated in the trench.

Unexcavated ditch **96** was recorded in plan only. Its southern edge was seen within this trench, its northern edge was seen in Trench 2. The plan would suggest that it was oriented east to west and was approximately 6m in width. Three undated fills were recorded in plan; the full fill sequence was not determined. The lower of the three (63) was a loose mid brown grey clayey silt containing a high percentage of small to medium flint cobbles. This deposit was overlain by fill 65 a darker mid brown grey silty clay with only occasional small flint cobble inclusions. The upper fill (64) was paler in colour being a mid yellowy brown silty clay with rare small sub-angular flint fragments included. This upper ditch fill was sealed by subsoil layer (2), which had accumulated over the ditch but was not present in the trench section further to the south.

Construction cut **94** truncated fill 63 at the southern edge of ditch **96**. Its full extent to the south was not recorded within the trench. It measured 5m+ in length, 1.6m+ in width and 0.24m in depth. It had a gradual northern side, a flat base and contained two fills. The lower fill (62) was composed of packed greyish white chalk. This was overlain

on its southern side by a layer of loose flint cobbles within a mid brownish grey silt deposit. The deposit was deepest at the southern end at 0.22m deep and lapped over the chalk as a thin layer 0.04m deep. The two deposits seem to form a level ? external surface, sealed by topsoil layer (1). Construction cut **94** was similar to construction cut **95** in Trench 2, but their fill sequences were not comparable.

5.4 Trench 5

Trench 5 (Fig. 5) was oriented north-east to south-west and was located 7m to the south-east of Trench 2. It contained three large pits.

Sub-circular pit **39** was gradual sided with a u-shaped profile and was located against the western trench baulk. It measured 1.1m in diameter and 0.48m in depth. Its single fill (40) contained no diagnostic inclusions.

Pit **41** truncated fill 40 in pit **39**, and lay mostly beyond the western baulk. It was sub-rectangular in plan with steep sides and a u-shaped profile. It measured 1.1m in length, 0.5m+ in width and 0.34m in depth. Its single fill (42) contained a single pottery sherd of 1150 to 1275 in date, non-identifiable animal bone fragments and slag.

Both pits were sealed by a stony light yellowish brown layer of silty clay (43) that had accumulated in a hollow above the pits. This layer was in turn sealed by the subsoil (2).

Pit **46** was located 0.5m to the south of pit **41** against the western trench baulk. It measured 1.44m in length, 0.44m+ in width and 0.64m in depth. It had steep sides becoming vertical towards the concave base. Although interpreted as a pit its profile might indicate that it was a large posthole or possibly even a ditch terminal. It contained two fills; the lower fill (47) was dark greyish brown silty clay with no diagnostic inclusions. The upper fill (48) was paler in colour though similar in consistency. It contained a shattered sheep/goat mandible, slag and four sherds of pottery dated between 1200 and 1250. The pit was sealed by subsoil (2).

5.5 Trench 8

Trench 8 (Fig. 4) was oriented north-east to north-west and located in the eastern field. It formed a T-shape with Trench 9, and contained a ditch terminal and a foundation trench.

Ditch **72** was oriented east to west and ran from its eastern terminal for 1.7m before heading into the western baulk. It was 2.1m wide and 0.6m deep with gradual sides and a u-shaped profile. It had two fills; the lower mid orangey brown silty sandy clay fill (71) contained a

higher percentage of redeposited natural than the upper fill (70) that was a mid grey silty sandy clay. Fill 71 contained a single cattle rib and 15 sherds of pottery dating from between 1200 and 1400.

Foundation trench **74** was located 6m to the south of ditch **72** and was oriented east to west. It ran from its western terminal for 0.9m before passing into the baulk. It was 0.5m in width and 0.03m in depth. Its single fill (73) was notable for large quantities of crushed chalk and stones within the mid orangey brown silty clay. No datable artefacts were retrieved from the fill.

5.6 Trench 9

Trench 9 (Fig. 4) was oriented north-west to south east and formed a T shape with Trench 8. It contained a ditch, a posthole, two foundation trenches and a pond.

5.6.1 Ditch and posthole

?Ditch **85** was the same as ditch **91** and was located towards the north-western end of the trench. It was a linear feature oriented north-east to south-west, with gradual sides and a flattish base. It measured 1.1m+ in width and 0.42m in depth. Although recorded on site a ditch it might have been a large pit. It had three fills, (84) was the lower fill and contained shell and 2 sherds of pottery dating from between 1200 and 1400. Fill (83) contained non-identifiable animal bone fragments, shell and worked flint. Upper fill (82) contained no datable artefacts.

?Ditch **91** was investigated for finds retrieval. Its fill (90) contained smithing hearth bottom slag and 3 sherds of pottery dating to c. 1600. This fill was sealed by layer (89), which was probably the same as layer (81).

?Posthole **80** was cut into fill (83) on the south-eastern edge of ?ditch **85**. It was circular in plan with near vertical sides and concave base, measuring 0.6m in diameter and 0.3m in depth. Its single fill (79) contained some large flint nodules, frequent stone fragments and some brick pieces. These might have been the remains of packing material for a removed post. The posthole was sealed by the upper fill of the ?ditch (82) and both features were sealed by a layer of dark brownish grey silty clay (81) which had accumulated in a slight hollow.

5.6.2 Foundation trenches

Foundation trench **76** was located 0.8m to the south-east of posthole **80**. It was a linear feature oriented south-west to north-east running for 1.1m from its southern terminal into the northern baulk. It measured

0.7m in width and 0.27m in depth. Its single fill (75) consisted of compacted orangey brown silty clay with frequent stone and brick fragments and some crushed chalk.

Foundation trench **78** was on a similar orientation and lay 4.5m to the south-east of similar feature **76**. It was 1.6m+ in length, 0.7m wide and 0.32m in depth; and was steep sided with a flat based u-shaped profile. Its single fill (77) similar to (75) and also contained a high percentage of large stone fragments and crushed chalk pieces. No datable artefacts were retrieved from the deposit.

5.6.3 Pond

The western edge of a circular pond **86** was located at the eastern end of the trench. It measured 5.4m+ in width and 0.3m in depth. It contained two fills, the lower fill (87) consisted of a large number of irregular small to medium flint nodules within a loose mid brown grey clayey silt. This was overlain by fill (88), which was very dark brown friable grey clayey silt with no inclusions. Neither fill contained any datable artefacts. It was sealed by disturbed subsoil (2) and truncated by a modern drain. The presence of the drain meant it was not possible to fully excavate the pond and retrieve its full profile.

6 Discussion

The results of this evaluation provide evidence for activity spanning the medieval to post-medieval period. Dense 12th to 14th century activity was encountered in the north-western part of the western field, petering out to the east. The central field contained no archaeological remains and scattered medieval and post-medieval remains were located in the eastern field.

6.1 The west field

In the north-western part of the west field, Trenches 1 to 3 revealed a sequence of well dated ditches, some stratified, dating to between the early 13th to 14th century. Ditch **56=96** apparently forms a substantial 6m+ wide boundary ditch at the southern limits of the main occupation area. It was not possible within the confines of the evaluation to establish a relationship between this feature and the terminating ditch **37=51**. However, it is possible that both form part of the same boundary sequence.

To the north of these ditches in Trench 1 was evidence for some craft activity with the presence of the daub filled pit **12** associated with the possible flue channel **14** and the hearth pit **16**. Together these might

have functioned as a small furnace or kiln. It is possible that this feature was contemporary with the ditches to the south. The unexcavated pit **92** in Trench 2, although only just within the evaluation trench, was very similar in appearance to pit **12** just a few metres to the north, indicating that their use may have been associated. It is not known how the spread of material (44=45) in Trench 1 developed nor what it was constrained by but it is possible that it represents an occupation layer, probably dating to the early 13th century. The concentration of features in Trench 1 would seem to indicate that this area was a focus of settlement activity within the development area. The substantial ? early to mid 13th century ditch **5** at its northern limit was on a similar alignment with the wide shallow ditch terminus **72** in the eastern field and might have been associated with it. Pottery retrieved from the ditch terminal had a wider date range between the 13th and 14th centuries, but despite the 100m distance between the two it is feasible that they were part of the same boundary.

Large sub-rectangular pit **23**, and ditch **31** are associated with ? later 13th to 14th century metalworking somewhere in the vicinity. The presence of hammerscale and slag within these features strongly suggests smithing was taking place close by, although no direct evidence for the location of a forge was uncovered in the evaluation. The coincidence of the position of posthole **19** with the corner of the pit suggests that it was related to the pit as it passed out of use. The position of the pit above and slightly to the south of the intercutting boundary ditches in Trench 2 might indicate some encroachment in the 14th century onto the open land to the south.

The subsoil accumulation over these features was variable in depth suggesting a slight hiatus in occupation in this area after the 14th century before the chalk and flint cobble surfaces seen in Trenches 2 and 3 were laid down. Their function is uncertain but shallow wide trenches (**94** and **95**) were constructed to contain them presumably to create a level surface possibly building platforms. These surfaces might have been broadly contemporary with the cobble spreads (58 and 59) in Trench 1 all of which were directly sealed by the modern topsoil. The exact date for their deposition is uncertain.

Further to the east were a small number of large late 12th to mid 13th century pits that were probably associated with the activity to the west. The tree bowls in Trench 2 were probably post-medieval; the dip in the modern land surface over tree bowl **24** suggests that it was removed relatively recently.

6.2 The central field

No archaeological features were encountered here or in Trench 4 in the southern half of the western field. Study of the 1737 Estate map suggests that these areas might have been part of the open common

land dating from the medieval period. However, the schematic nature of the map means that it is difficult to locate features accurately.

6.3 The east field

Archaeology in this area was sparse in comparison to the west field. Ditch **72** might have been the continuation of ditch **5** in Trench 1 but the distance between the two is too great for certainty. The large ditch/pit (**85=91**) is of uncertain function but believed to date to the 17th century. The presence of the brick filled posthole **80** cut into its edge and sealed by its upper fills support a 17th to 18th century date on the basis of the brick fragments in the posthole. These were all hand made examples with large inclusions, most had been reasonably well squared off, but some were not well compressed suggesting a date in the 17th to 18th century (Rob Atkins pers. comm.).

The posthole was probably associated with the two north-east to south-west aligned undated foundation trenches (**76** and **78**), which contained similar brick fragments. These probably formed part of a single 17th to 18th century structure, possibly one of the linear scatter of cottages seen on the 18th century estate map (Fig. 2). The shallow foundation trench (**74**) might have been of a similar date, as it also contained a high percentage of crushed chalk in its fill, but it was isolated and therefore impossible to interpret further.

The pond (**86**) might be one of the two similar features marked on the 1737 map. The southern pond still exists and the location of this feature just to the north compares well with the map. It was probably backfilled in the 19th or 20th century during modifications to the land held by the West Wrattling Park Estate.

7 Conclusions

The evaluation has provided a well-preserved sequence of 12th to 13th century boundaries and domestic/craft activity in the western part of the development area, primarily although not exclusively in the north-west part of this western field. This activity was probably sited on the northern edge of open, common land in this period.

The metalworking associated with the large pit (**23**) and the chalk/cobble surfaces or building platforms extend this sequence into the 14th century. Their location suggests some slight encroachment onto this previously open land perhaps following a change to its boundaries. The absence of archaeological features further to the south suggests that this encroachment was not extensive. The blank areas here and further to the east in the central field indicate that this space was never used for domestic occupation.

Although there is some evidence for continuation of the medieval features in the east field the majority of the evidence here was of 17th or 18th century date. This suggests that the focus of the medieval activity was to the west, close to the eastern limits of the modern linear settlement.

Although the site was believed to be on the site of a medieval moat, no conclusive evidence for it was found during the evaluation. The northern, eastern and western sides of a moat were recorded on the 1737 estate map. However, it is difficult to relate this map to the modern landscape. On the map the extant elements of the moat appear to have been incorporated into an east to west boundary, the southern side is missing. A pronounced east to west aligned depression in the field immediately to the north of the development area might mark the location of part of the feature seen on the 1737 map. It is possible that the wide ditch **56/91** in Trench 2 was the southern side of this moated enclosure, but it is more likely to represent part of a boundary ditch sequence to the north of the common land.

No evidence for occupation predating the medieval period was recovered. Occupation appears to have started in approximately the 12th century and continued to a lesser extent into the post-medieval period, probably until the 17th to 18th century. No structures were recorded at the green on the first edition OS map of 1885 to 1891. The redevelopment of this area was presumably related to the late 18th to 19th century development of the manor at West Wratting Park Estate.

Preservation of the archaeological remains is generally very good, although the latest elements of the sequence are close to the modern ground surface. In the western field the latest archaeological layers were between 0.2 and 0.4m below the surface. All features in the eastern field had very shallow topsoil and subsoil coverage, which was between 0.2 and 0.3m in depth. The finds assemblages retrieved were also good, with some well-dated contexts within the sequence. The reasonably small faunal assemblage was for the most part in good condition and appears to represent domestic butchery remains. The combination of the animal bone and pottery assemblages indicates domestic activity in the vicinity that was not readily apparent from the recorded features (Appendices 2-4).

Recommendations for any future work based upon this report will be made by the County Archaeology Office.

Acknowledgements

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The brief for archaeological works was written by Andy Thomas, Kasia Gdaneic visited the site on his behalf and monitored the evaluation.

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Ordnance Survey Map	1891	
Estate Map	1737	<i>Cambridge University Library</i>

Appendix 1: Context Information

Context Number	Fill of	Same as	Tr	Category	Feature Type	Function	Date
1				layer	accumulation	topsoil	Modern
2				layer	accumulation	subsoil	? 15th/16th c.
3				layer	natural deposit		
4	5		1	fill	ditch	boundary	13th c.
5			1	cut	ditch	boundary	13th c.
6	7		1	fill	pit		Undated
7			1	cut	pit		Undated
8	9		1	fill	ditch		Early 13th c.
9			1	cut	ditch		Early 13th c.
10	19		2	fill	posthole	structural	?Late 13th to 14th c.
11	12		1	fill	pit	craft/ industrial	12th to 13th c.
12			1	cut	pit	craft/ industrial	12th to 13th c.
13	14		1	fill	flue	craft/ industrial	12th to 13th c.
14			1	cut	flue	craft/ industrial	12th to 13th c.
15	16		1	fill	pit	craft/ industrial	12th to 13th c.
16			1	cut	pit	craft/ industrial	12th to 13th c.
17			2	cut	natural (feature)	tree bowl	Post Medieval
18	17		2	fill	natural (feature)	tree bowl	Post Medieval
19			2	cut	post hole	structural	?Late 13th to 14th c.
20	23		2	fill	pit	craft/ industrial	13th to 14th c.
21	23		2	fill	pit	craft/ industrial	13th c.
22	23		2	fill	pit	craft/ industrial	undated
23			2	cut	pit	craft/ industrial	?Late 13th to 14th c.
24			2	cut	natural (feature)	tree bowl	Post Medieval
25	24		2	fill	natural (feature)	tree bowl	Post Medieval
26			2	cut	natural (feature)	tree bowl	Post Medieval
27	26		2	fill	natural (feature)	tree bowl	Post Medieval
28			2	cut	natural (feature)	tree bowl	Post Medieval
29	28		2	fill	natural (feature)	tree bowl	Post Medieval
30	31		2	fill	ditch		?Late 13th to 14th c.
31			2	cut	ditch		?Late 13th to 14th c.
32	34		1	fill	ditch		Mid 13th c.
33	34		1	fill	ditch		Late 12th to mid 13th c.
34			1	cut	ditch		?Mid 13th c.
35	37		2	fill	ditch		Undated
36	37		2	fill	ditch		Undated
37		51	2	cut	ditch		?Early 13th c.

Context Number	Fill of	Same as	Tr	Category	Feature Type	Function	Date
38	12		1	fill	pit	craft/ industrial	12th to 13th c.
39			5	cut	pit		? pre 13th c.
40	39		5	fill	pit		Undated
41			5	cut	pit		Late 12th to mid 13th c.
42	41		5	fill	pit		Late 12th to mid 13th c.
43			5	layer	accumulation		Undated
44		45	1	layer	accumulation		13th to 14th c.
45		44	1	layer	accumulation		Undated
46			5	cut	pit		Early 13th c.
47	46		5	fill	pit		Undated
48	46		5	fill	pit		Early 13th c.
49	51		2	fill	ditch		Early 13th c.
50	51		2	fill	ditch		13th to 14th c.
51		37	2	cut	ditch		Early 13th c.
52			2	fill	ditch		Undated
53	56		2	fill	ditch		Mid 13th to 14th c.
54	56		2	fill	ditch		Undated
55	56		2	fill	ditch		Undated
56		96	2	cut	ditch		Mid 13th to 14th c.
57			1	layer	accumulation		Undated
58			1	layer	surface (external)		12th to 13th c.
59			1	layer	surface (external)		Undated
60			7	layer	accumulation		Undated
61	94		3	fill	surface (external)		Undated
62	94		3	fill	surface (external)		Undated
63	96		3	fill	ditch		Undated
64	96		3	fill	ditch		Undated
65	96		3	fill	ditch		Undated
66	95		2	fill	surface (external)		Undated
67	95		2	fill	surface (external)		Undated
68	95		2	fill	levelling		Undated
69	95		2	fill	levelling		Undated
70	72		8	fill	ditch		Undated
71	72		8	fill	ditch		13th to 14th c.
72			8	cut	ditch		13th to 14th c.
73	74		8	fill	foundation		Post Medieval
74			8	cut	foundation trench		Post Medieval
75	76		9	fill	foundation		Post Medieval
76			9	cut	foundation trench		Post Medieval

Context Number	Fill of	Same as	Tr	Category	Feature Type	Function	Date
77	78		9	fill	foundation		Post Medieval
78			9	cut	foundation trench		Post Medieval
79	80		9	fill	posthole	structural	Post Medieval
80			9	cut	posthole	structural	Post Medieval
81			9	layer	accumulation		Undated
82	85		9	fill	ditch		Undated
83	85		9	fill	ditch		Undated
84	85		9	fill	ditch		13th to 14th c.
85		91	9	cut	ditch		17th c.
86			9	cut	pond		?Post Medieval
87			9	fill	pond		?Post Medieval
88	86		9	fill	pond		?Post Medieval
89	91		9	fill	ditch		Undated
90	91		9	fill	ditch		17th c.
91		85	9	cut	ditch		17th c.
92			2	cut	pit		Undated
93	92		2	fill			Undated
94			3	cut	construction cut		?15th c +
95			2	cut	construction cut		?15th c +
96		56	3	cut	ditch		?Mid 13th to 14th c.

Table 2: Context type with preliminary dates

Context Number	Category	Colour	Compaction	Fine Component	Coarse component
1	layer	mid grey brown	friable	silty clay	rare small angular flint fragments, frequent chalk flecks
2	layer	mid yellowy brown	firm	silty clay	moderate angular flint fragments, occasional chalk pebbles, occasional charcoal flecks
3	layer	mid orangey yellow	firm	silty clay	occasional gravel lenses
4	fill	mid brown		silty clay	occasional charcoal
6	fill	light brown	firm	silty clay	rare charcoal flecks
8	fill	mid brown	firm	silt clay	rare charcoal flecks
10	fill	dark orangey grey	moderately loose	silty clay	frequent charcoal flecks
11	fill	mid greyey brown	loose	sandy silt clay	occasional chalk
13	fill	light greyey brown	firm	sandy clay	occasional small stone fragments, frequent charcoal flecks
15	fill	mid greyey	loose	silty clay	moderate charcoal flecks

Context Number	Category	Colour	Compaction	Fine Component	Coarse component
		brown,, mottled orange			
18	fill	mid brown grey mottled orange	firm	silty clay	moderate small flint fragments, occasional medium sandstone cobbles, frequent charcoal flecks
20	fill	mid brown	firm	silty clay	frequent charcoal
21	fill	mid orangey grey	friable	clayey silt	frequent flint fragments, frequent charcoal flecks, frequent small iron ore fragments
21	fill	mid orangey grey	friable	clayey silt	frequent flint fragments, frequent charcoal flecks, frequent small iron ore fragments
22	fill	dark bluey grey	sticky	clayey silt	occasional iron ore, occasional charcoal, occasional flint
25	fill				
27	fill				
29	fill				
30	fill	mid orangey grey		sandy silt	frequent charcoal
32	fill	mid brown	firm	silty clay	occasional charcoal fragments, occasional small stones
33	fill	dark brown	firm	silty clay	moderate charcoal
35	fill	mid orangey brown	friable	clayey silt	rare flint, rare charcoal
36	fill	mid orangey grey	compact	silty clay	occasional charcoal
38	fill	mid brown orange	firm	sandy silt clay	occasional chalk, occasional small stones, rare charcoal flecks
40	fill	mid yellowy brown	firm	silty clay	moderate small angular flint fragments, occasional charcoal flecks
42	fill	mid greyey brown	friable	silty clay	moderate small angular flint fragments, frequent charcoal flecks and fragments, occasional crushed chalk fragment
43	layer	light yellowy brown	compacted	silty clay	frequent small angular flint fragments, moderate charcoal flecks
44	layer	brown grey		sandy silt clay	pebbles
45	layer	brown grey		sandy silt clay	pebbles, flints
47	fill	dark greyey	firm	silty clay	occasional small angular

Context Number	Category	Colour	Compaction	Fine Component	Coarse component
		brown			flint fragments, occasional chalk pebbles, moderate charcoal flecks
48	fill	mid yellowy brown	firm	silty clay	moderate small angular flint fragments, occasional chalk pebbles, moderate charcoal flecks
49	fill	mid orangey brown	compacted	silty clay	occasional chalk, occasional charcoal
50	fill	mid orangey grey	friable	silty clay	occasional charcoal
52	fill	mid brownish grey	friable	silty clay	occasional flints
53	fill	dark orangey grey	moderately loose	clayey silt	occasional pebbles
54	fill	mid orangey brown	moderately compact	silty clay	
55	fill	dark orangey grey	moderately compact	silty clay	some flint
57	layer	light orangey brown	firm	sandy silt clay	
58	layer	light greyish yellow	compact	clayey silt	abundant medium subangular flint cobbles
59	layer	light yellowish grey	compact	silty clay	abundant medium subangular flint cobbles
60	layer	mid orangey brown	friable	clayey silt	rare chalk flecks
61	fill	mid greyish brown	loose	clayey silt	abundant small to medium flint cobbles, abundant small subangular flint fragments
62	fill	greyish white	compact	chalk	
63	fill	mid brownish grey	loose	clayey silt	abundant small to medium flint cobbles, abundant small subangular flint fragments
64	fill	mid yellowish brown	firm	silty clay	rare small subangular flint fragments
65	fill	mid brownish grey	firm	silty clay	occasional small flint cobbles, occasional small subangular flint fragments
66	fill	light whitish grey	compact	chalk	
67	fill	dark orangey grey	moderately compact	sandy silt	frequent small subangular flint gravels
68	fill	mid greyish	compact	sandy silt	occasional flint pebbles

Context Number	Category	Colour	Compaction	Fine Component	Coarse component
		orange			
69	fill	mid orangey brown	compact	silty sand	abundant flint cobbles
70	fill	mid grey	compact	silty sandy clay	occasional chalk flecks
71	fill	mid orangey brown	loose	silty sandy clay	rare small stones
73	fill	mid orangey brown		silty clay	frequent stones, frequent chalk
75	fill	orangey brown	very compact	silty clay	frequent stones, frequent brick fragments
77	fill	orange brown	compact	silty clay	frequent large stones, frequent crushed chalk fragments
79	fill	orangey brown		silty clay	frequent large stones and flint nodules
81	layer	dark grey brown	firm	silty clay	frequent medium stones
82	fill				
83	fill	mid grey brown		silty clay	charcoal flecks, moderate small stones
84	fill	mid orangey brown	friable	silty clay	rare small stones, charcoal flecks
87	fill	mid brownish grey	loose	clayey silt	abundant flint cobbles, abundant small to medium subangular flint fragments
88	fill	dark brownish grey	friable	clay silt	
89	fill				
90	fill	mid orangey brown		silty clay	moderate large stones
93	fill	mid brownish grey		silty clay	frequent crushed daub fragments, moderate charcoal flecks

Table 3: Detailed deposit descriptions

Appendix 2: Pottery

By Carole Fletcher BA

1 Factual Data

1.1 Introduction

This assessment considers pottery from the evaluation of the Land at the Common site, West Wrattling in 2006.

1.2 Methodology

The basic guidance in the Management of Archaeological Projects (MAP2) has been adhered to (English Heritage 1991). In addition the following documents act as a standard: Medieval Pottery Research Group (MPRG) documents 'Guidance for the processing and publication of medieval pottery from excavations' (Blake and Davey, 1983), 'A guide to the classification of medieval ceramic forms' (MPRG, 1998) and 'Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics' (MPRG, 2001).

Spot dating was carried out using CCC AFU's in-house system based on that used at the Museum of London. Fabric classification has been carried out for all previously described types. New types have been given descriptive identifiers. All sherds have been counted, classified and weighed. Sherds warranting possible illustration have been flagged, as have possible cross-fits.

All the pottery has been spot dated on a context-by-context basis (see this Appendix); this information was entered directly onto a full quantification database (Access 2000), which allows for the appending of quantification data.

The pottery and archive are curated by the CCC AFU until formal deposition.

Ceramic fabric abbreviations used in the following text are:

Colchester Type ware	COLST
Early Medieval Essex Micaceous Sandy ware	EMEMS
Sible Heddingham ware	HEDI
Medieval Ely type ware	MELT
Medieval Essex Micaceous Sandy ware	MEMS

Metropolitan Slip ware	METS
Mill Green Fine ware	MGF
Shelly ware	SHW
St Neots type ware	NEOTT
Stamford ware	STAM

1.3 Assemblage Including The Functional Assemblage

The fieldwork generated a small assemblage of 146 sherds of pottery, weighing in total 1.175 kg. This material consists of moderately abraded sherds. The majority of the assemblage is medieval with 1.160kg, 143 sherds of pottery dating from the mid 12th to mid 14th century. Within this are 17 sherds of earlier residual material weighing 0.085kg. Only a single context falls outside this date range with context 90 producing three sherds of late medieval and post-medieval pottery, consisting of two sherds of METS and a single sherd of late medieval COLST.

The residual sherds are Late Saxon and early medieval fabrics including NEOTT, which is produced at various sites around the Huntingdonshire-Bedfordshire boarder, early Essex fabrics and a single sherd of STAM a fine white ware from Lincolnshire.

The relatively tight dating of large parts of the assemblage indicate a concentration of activity on the site over a relatively limited period of time from the middle of the 12th century to the middle of the 14th century. Activity continues in the later medieval period and early post-medieval period but at a much less significant level. The small amount of earlier material indicates some activity around the site in the Late Saxon period or early medieval period; however the important focus of this site is the pitting and ditches that represents the medieval activity.

Major medieval fabric types present in the assemblage include those from Essex, EMEMS, MEMS and COLST; a small number of HEDI sherds were also identified. These fabrics make up 84.25% of the assemblage by sherd count and 86.64% by weight. In addition five sherds of MELT from Cambridgeshire and a single sherd of SHW most likely from Northamptonshire were also identified.

The normal range of vessel types is present within the assemblage; the medieval assemblage produced a number of jug and jar sherds. The character of the assemblage suggests it derives from a domestic context and the dominance of what appear to be fabrics originating from production centres in Essex, mirrors that of excavations in nearby Fulbourn 11.5 km to the north-west and Duxford 14km to the south-west. Suggesting that some villages in the southern part of Cambridgeshire are being supplied by production centres to the south of the county rather than production centres within Cambridgeshire itself such as Ely (author's own observations).

This assemblage though small is important in dating the activity on the site and in providing information about the supply of pottery to medieval settlement of West Wrattling.

1.4 Sampling bias

The excavation was carried out by hand and selection made through standard sampling procedures on a feature by feature basis. There are not expected to be any inherent biases. Where bulk samples have been processed for environmental remains, there has also been some recovery of pottery. These are however only small amounts and have not yet been added to the database. It is not expected that the examination of this material will effect the broad dating of the site.

2 Conclusion

The assemblage is small and has no complete vessels, however a partial vessel from context 32 has close parallels to a MEMS jar illustrated in Cotter (Cotter 2000 95 fig 58.4) This jar demonstrates the composite manufacture of hand built body with wheel turned rim and shoulder common on EMEMS jars and on some early MEMS jars. The majority of the medieval material was manufactured in the surrounding counties, mainly Essex. The material is moderately abraded, suggesting some reworking after initial deposition. The small size of the assemblage makes it difficult to generalise about activity on the site however the character of the assemblage suggests the medieval assemblage is domestic in nature with the majority of the vessels represented possibly used in the storage, serving and cooking of food.

While full statistical analysis is not viable at this stage, it is a close grouped assemblage and should further excavation follow, full quantification and analysis of the main period groups would be desirable.

No preservation bias has been recognised and no long-term storage problems are likely.

Context	Fabric	Number of Sherds	Weight in Kg	Spot dating Date Range
2	EMEMS/MEMS	1	0.003	1200-1350
	MEMS	1	0.016	
4	Chalk tempered ware	1	0.006	1200 to 1275
	COLST	4	0.013	
	EMEMS	20	0.103	
	EMEMS/MEMS	1	0.011	
	HEDI	1	0.002	
	MEMS	8	0.1	
	?MEMS	1	0.008	

Context	Fabric	Number of Sherds	Weight in Kg	Spot dating Date Range
	NEOTT	2	0.005	
	SHW	1	0.01	
	STAM	1	0.002	
8	EMEMS (Grey)	4	0.02	early 13th
	MEMS	9	0.011	
20	COLST	1	0.05	1200-1400
	OSW	1	0.007	
21	EMEMS (Grey)	1	0.02	c1200
	MEMS	1	0.115	
32	EMEMS	8	0.063	c1250
	EMEMS (Grey)	4	0.013	
	EMEMS/MEMS	10	0.126	
	HEDI	3	0.048	
	MELT	2	0.07	
	MGF	1	0.001	
	NEOTT	2	0.004	
33	EMEMS	1	0.009	1175-1275
	EMEMS/MEMS	1	0.006	
	MELT	2	0.007	
	MEMS	1	0.011	
38	EMEMS	6	0.035	
	EMEMS (Grey)	2	0.007	
	MELT	1	0.001	
	MEMS	1	0.008	
42	EMEMS	1	0.002	1150-1275
44	COLST	1	0.005	1200-1400
	EMEMS/MEMS	1	0.006	
	EMEMS?	1	0.015	
	NEOTT	5	0.019	
48	COLST	2	0.003	1200-1250
	EMEMS	2	0.003	
49	COLST	1	0.006	c1200
	EMEMS (Grey)	1	0.012	
	EMEMS	1	0.024	c1200
50	?MEMS	1	0.008	1200-1350
53	COLST	1	0.009	1250-1400
	COLST	1	0.037	
58	EMEMS?	1	0.013	1150-1200
	NEOTT	2	0.013	
71	MEMS	15	0.046	1200-1400
84	COLST	2	0.028	
90	Late COLST	1	0.009	c1600
	METS	2	0.006	

Table 5: Pottery fabrics by context plus spot-dating

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English Heritage	1991	Management of Archaeological Projects English Heritage
Medieval Pottery Research Group	1998	A Guide to the Classification of Medieval Ceramic Forms Medieval Pottery Research Group Occasional Paper 1
Medieval Pottery Research Group	2001	Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics Medieval Pottery Research Group Occasional Paper 2

Appendix 3: Other Finds

3.1 Fired Clay

Context	Material	Object Name	Weight in Kg	Comments
4	Ceramic	Fired clay	0.013	Non-dagnostic fragments
32	Ceramic	Fired clay	0.003	Non-dagnostic fragments
53	Ceramic	Fired clay	0.001	Brick fragment

Table 6: Fired clay by context

Small quantities of non-diagnostic fired clay were retrieved. No wattle impressions or surfaces were noted. The fragment in context 53 is actually a small chip from a brick.

3.2 Ceramic building material

Context	Material	Object Name	Weight in Kg	Comments
20	Ceramic	Ceramic Building Material	0.039	Two tile fragments (one with peghole)
50	Ceramic	Ceramic Building Material	0.102	3 tile fragments (two from a single tile in unusual fabric)
75	Ceramic	Ceramic Building Material	0.755	Brick and tile fragments (some with mortar adhering)
77	Ceramic	Ceramic Building Material	1.963	Brick fragments
79	Ceramic	Ceramic Building Material	1.610	Brick fragments (some mortar adhesion)

Table 7: Ceramic building material by context

Tile fragments only from medieval contexts (20 and 50), brick and tile fragments were recovered from 17th to 18th century contexts.

3.2 Glass

Context	Material	Object Name	Weight in Kg	Comments
77	Glass	Window glass	0.020	
81	Glass	Window glass	0.002	

Table 8: Glass by context

3.3 Flint

Context	Material	Object Name	Weight in Kg	Comments
83	Flint		0.003	? unworked flake

Table 9: Flint by context

3.4 Metal Objects

Context	Small Find Number	Material	Object Name	Comments
4	10	Iron	Artefact	? blade or strap

Context	Small Find Number	Material	Object Name	Comments
4	11	Iron	Nail	Nail head fragment
10	1	Iron	Nail	Heavily corroded
10	8	Iron	Nail	Heavily corroded
21	2	Iron	Nail	Heavily corroded
21	4	Iron	Artefact	? Chisel or punch
35	3	Iron	Artefact	Knife blade (variable corrosion)
35	5	Iron	Nail	
35	6	Iron	Artefact	Heavily corroded
48	9	Iron	Nail	
58	12	Iron	Horseshoe	

Table 10: Metal finds by context

3.5 Shell

Context	Material	Object Name	Weight in Kg	Comments
48	Shell		0.001	Small mussel shell fragment
50	Shell		0.057	Oyster shell
53	Shell		0.055	Oyster and mussel shell
71	Shell		0.017	Oyster shell
83	Shell		0.004	Oyster shell
84	Shell		0.002	Mussel shell
90	Shell		0.009	Oyster shell

Table 11: Shell by context

3.6 Slag

By Tom Eley

3.6.1 Introduction

A total of 6.5kg+ of iron working slag was recovered from the evaluation. This assessment aims to characterise the recovered slag and evaluate the potential for uncovering further material.

3.6.2 Methodology

A visual assessment of the morphological characteristics was undertaken to assign the slag by-product to a metallurgical process, either iron smelting or smithing. Also recorded was mass and magnet response. Testing with a magnet was used to identify slag with a high iron or magnetite content. Magnetite is a product of reducing conditions in a smelting furnace whilst the presence of iron would distinguish the type of iron being utilised; but it is not possible to differentiate between iron and magnetite without further analysis.

Slag with a metallic smooth, ropery, flowed surface is considered to derive from the bloomery smelting process whereby iron ore is converted direct into wrought iron, but contained within a 'spongy' mass of slag called a bloom. This type of slag is called tap slag

because it would have been ‘tapped’ out of the furnace as a molten liquid. To obtain a usable iron the bloom needs to be worked to remove the slag termed ‘primary smithing’.

The secondary smithing process converts bar iron into tools, equipment and utensils and repairs damaged items. Slags with no characteristic shape and a rough, coarse exterior are thought to derive from this process, but they can sometimes be formed in the smelting furnace. Smithing hearth bottoms are an exception; they have a distinctive plano-convex shape, created by the shape of smithing hearth’s base from a heated agglomeration of iron, slag, hearth lining, flux and charcoal. Iron smithing slag is rarely found in primary smithing contexts because the hearths were regularly cleaned out and more importantly were built above ground at about waist height, so are susceptible to being destroyed by later activity. Hammer-scale is small flakes and droplets of slag and iron emitted as showers of sparks during smithing. Sampling for hammerscale from post-holes and pits could locate the smithy building. Hammerscale is small and tends to stay near to the place where it was created, i.e. smithing hearth, unlike larger slag fragments that can be dumped further away.

3.6.3 Results

Context	Type	Weight (kg)	Magnetic?	Comments
10	slagged lining	0.128	No	
10	smithing slag	0.957	Yes	1 fragment in 18 magnetic
20	smithing slag	0.618	No	
21	S.H.B	0.61	No	plano-convex large depression in top
21	smithing slag	1.024	Yes	
22	?	2.996	Yes	sf 7 Large flat stone/slag?
42	undiagnostic	0.014	No	
53	undiagnostic	0.013	Yes	4 fragments
90	S.H.B	0.196	No	
90	smithing slag	0.102	No	
Total		6.658		

Table 12: Assessment of slag according to context

Feature	Weight (kg)	%
19	1.085	16.3
23	5.248	78.8
41	0.014	0.2
56	0.013	0.2
91	0.298	4.5
Total	6.658	100

Table 13: Percentage of slag from each feature

3.6.4 Discussion

The slag recovered was all characteristic of iron smithing, no definitive evidence for iron smelting was recovered. It is common on many sites to find slag scattered in low levels but at WWR LTC 06 the slag was concentrated in two features: a posthole (19); and a rubbish pit (23). The largest dump of slag (over 78%) came from (23), a rubbish pit thought to relate to metalworking. A large smithing hearth bottom and an enigmatic block of magnetic rock or slag are of particular note. Importantly for indicating the presence of iron smithing hammerscale was recovered, unlike slag that can be transported away from its source hammerscale is small and tends to stay close to its point of origin.

3.6.5 Potential for further work

The concentration of slag within features (19) and (23) along with the presence of hammerscale indicates that iron smithing may have taken place within the general locality. There is potential for further archaeometallurgical debris to be uncovered during subsequent excavation, most likely further iron smithing slag dumps but the presence of a smithy should also be considered. If large quantities of slag were recovered further analysis could be undertaken to characterise the type of smithing activities being practised, an area of research still imprecisely understood.

Appendix 4: Faunal Remains

By Chris Faine

4.1 Introduction

The small assemblage consists of 71 fragments, with 15 elements identifiable to species (21% of the sample). All unidentifiable elements were classed as medium/large mammals. Ageing of individuals (where possible), was carried out using mandibular tooth wear stages following Grant (1982) and Hambelton (2000). Preservation of the sample is fair, albeit extremely fragmented in some cases.

4.2 Results

Faunal remains were recovered from 10 contexts dating to the medieval period. The largest number of identifiable elements was recovered from context 4, consisting of a single horse 1st/2nd molar, a sheep 2nd phalange, a portion of horse scapula and an ulna of a large corvid, most likely a crow. The horse scapula came from an adult individual and showed signs of butchery above the proximal articulation. In addition, there is evidence of pathology in the form of a large (1.4cm), blastic lesion on the glenoid process. However, it is not possible in this instance to ascertain the cause of this lesion, be it disease or injury.

Context 21 contained a shattered cattle mandible, identified from wear on the 3rd molar as coming from an adult individual, although an exact age is not possible in this instance. In addition a single dog femur was also recovered from an animal with an estimated withers height of around 56.7 cm: around the height of modern Alsatian (Harcourt 1974). A left cattle mandible was also recovered from context 53, from an individual of around 3 ½ to 4 years old. Context 33 also contained a heavily shattered mandible, this time from adult horse.

The remaining contexts contained only very small numbers of identifiable elements. Context 32 contained a single domestic fowl humerus and sheep/goat tibia, both of which showed signs of butchery. A single butchered cattle axis was recovered from context 50. Context 8 contained a single butchered sheep tibia. Contexts 48 and 71 contained a shattered sheep/goat mandible and cattle rib respectively. Contexts 20, 42, 81 and 83 contained no identifiable elements.

4.3 Conclusions

It is likely, given the range of elements, the approximate ages of the individuals and the pattern of butchery, that the assemblage represents

small-scale domestic waste. However, given the extremely small sample size few definite conclusions can be drawn.

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Appendix 5: Environmental Remains

by Rachel Fosberry

1 Introduction and Methods

Seven bulk samples were taken from features within the evaluated areas of the site in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations.

The plant remains were dominated by the grains of crop plants, namely cereals (barley, wheat and rye) along with legumes (peas and beans). Cereal chaff (culm nodes and rachis internode fragments) and numerous seeds of wild taxa are also present. Large quantities of hammerscale were recovered indicating metalworking activity in the vicinity.

Up to 30 litres of each sample were processed by tank flotation using extra fine meshes specifically to recover any metalworking residues that may be present. The flot was collected in a 0.3mm nylon mesh and the residue was washed through a 0.5 mm mesh. Both flot and residue were allowed to air dry. The dried residue was passed through 5mm and 2mm sieves and a magnet was dragged through each resulting fraction prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds. The flot was examined under a binocular microscope at x16 magnification and the presence of any plant remains or other artefacts is noted in Table 14. All of the samples produced metalworking residues which have been recorded separately in Table 15.

2 Results

Sample Number	Context Number	Cut number	Legumes	Cereals	Weed seeds	Charcoal	Bone	Daub	Pot
1	10	19				++			
2	33	34	++	++	+	++			+
3	11	12	+	+++	++	++	+	++	+
4	21	23				++	+		+
5	22	23				++			
6	13	14		++	+	++			
7	53	56				+			

Table 14: Environmental Samples from WWR LTC 06

2.1 Plant macrofossils

Preservation is by charring and is generally moderate. Charcoal fragments are present in all of the samples in varying quantities. Samples 1,4 and 5 all contained fine fragments of heavily vitrified charcoal. Samples 2, 3 and to a lesser extent, Sample 6, all contain seeds of common crop weeds including *Lithospermum arvense* (gromwell), *Bromus* sp. (brome), *Rumex* sp. (docks), *Ranunculus* sp. (buttercup), *Gallium* sp. (cleavers).

Cereals

Cereal grains, predominantly *Triticum* sp. (wheat) and *Hordeum vulgare* (barley) with some *Secale cereale* (rye), were present in Samples 2,3 and 6.

Legumes

Pisum sativum (peas) and *Vicia faba* (beans) are present in small quantities in Sample 2.

2.2 Other finds

Mussel and oyster shells were recovered from Sample 4.

Industrial activity

Metal working residues in the form of slag and hammerscale were recovered from the majority of residues.

Sample Number	Context Number	Cut number	Slag weight (g)	Weight of magnetic residue (g)
1	10	19	175	135
2	33	34	0	0.5
3	11	12	0	1
4	21	23	1583 *	240
5	22	23	449	63
6	13	14	0	0.5
7	53	56	0	0.5

Table 15: Metalworking residues from WWR LTC 06. * Only larger lumps were removed and weighed

3 Conclusions and Recommendations

The range of foodstuffs recovered strongly suggests domestic activity on this site. The charred cereal grains and other dietary remains recovered are probably derived from the deposition of small quantities

of burnt domestic refuse. The grains may have been accidentally burnt while being dried prior to storage or during cooking over open fires. Barley was often used for animal fodder but may have been used for human consumption in the form of bread and soup and was also used for the brewing of beer, although no germinated grains were recovered to suggest brewing activities.

The presence of beans and peas are significant and indicate that they are an important food resource. Pulses are less likely to be burnt accidentally than grain, as they do not need to be exposed to heat as cereals do, and they are less likely to be recovered from archaeological deposits. The other dietary remains of fragments of animal bone and remains of shell fish along with the charred grain are derived from the deposition of domestic, culinary refuse particularly in Samples 2,3 and 6.

Cereal chaff in the form of culms nodes and rachis internode fragments and seeds of arable weeds are present in low numbers and would have originally been associated with the crops when harvested. Their presence is an important indication that part of the crop processing took place on site, such as sieving and picking impurities out by hand.

All the residues contain evidence of iron metalworking in the form of flake hammerscale, spheroidal hammerslag or small clumps of iron oxide. Hammerscale is indicative of general smithing activities but spheroids are only produced during high temperature welding. The quantity of magnetic residues recovered along with the presence of significant amounts of slag indicate that Samples 1, 4 and 5 were all from features associated with disposal of smithing waste. The presence of hammerscale in the other samples probably represents a background scatter caused by wind or other transport across the site.

Should this site go to excavation as mitigation, additional samples should be taken to supplement these assemblages as they clearly show that they contain valuable evidence of the utilisation of local plant resources and both agricultural and industrial activity.

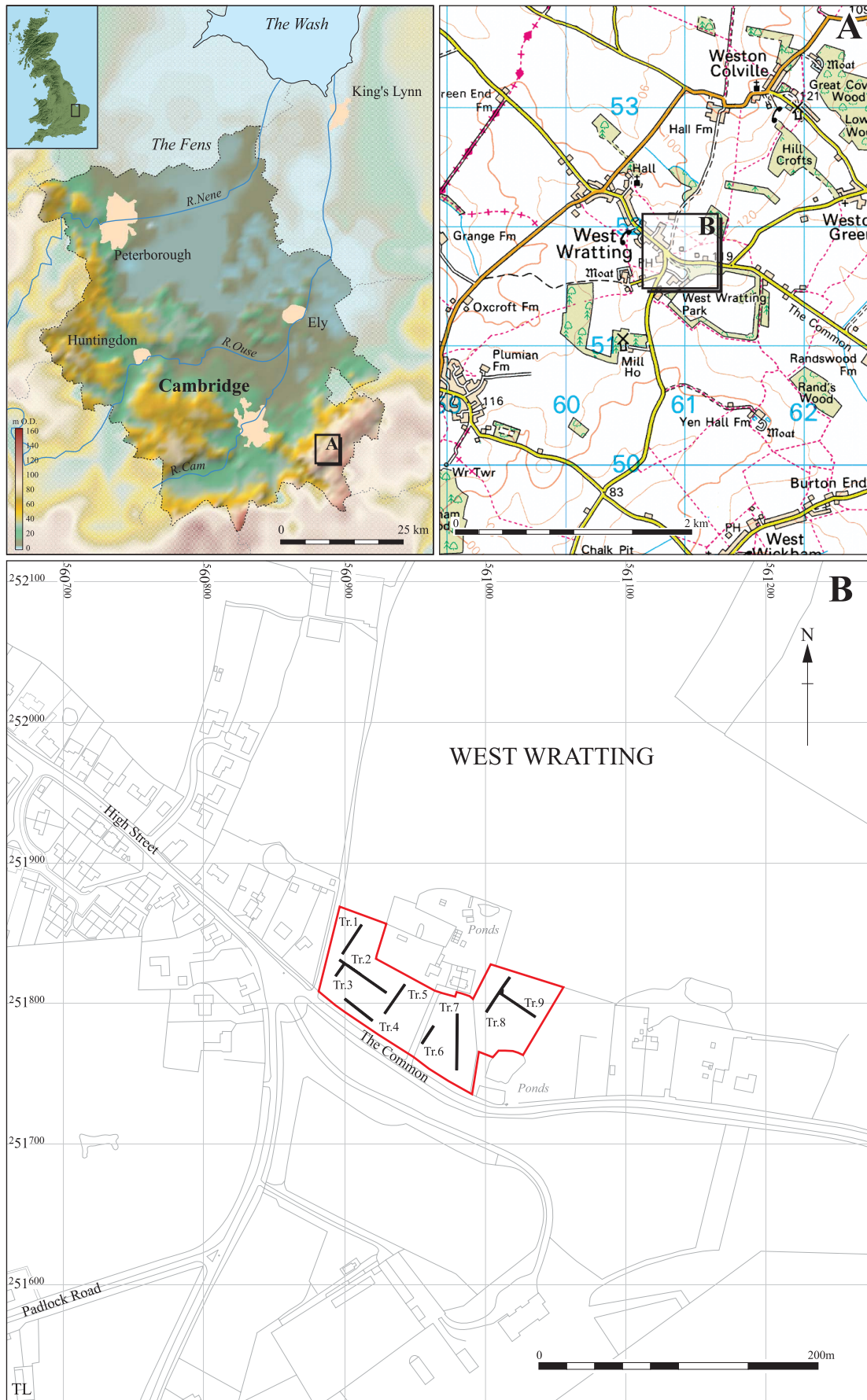
A comprehensive sampling strategy should be planned to include the following:

Additional samples of up to 20 litres in volume should be taken from dated features including pits, post-holes and ditches.

A specific sampling strategy should be employed to recover evidence of industrial activity. All samples should be checked with a magnet for evidence of metalworking. If there is a possibility of a smithy structure any postholes from this area should be 100% sampled and processed using fine meshes of 0.5mm for the residue and 0.3mm for the flot. If a structure were identified with a remaining floor surface, a grid-sampling strategy would be essential.

Key to Tables

+ = 1 – 10 specimens ++ = 10 – 100 specimens +++ = 100+ specimens



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Figure 1: Location of trenches (black) with the development area outlined (red)

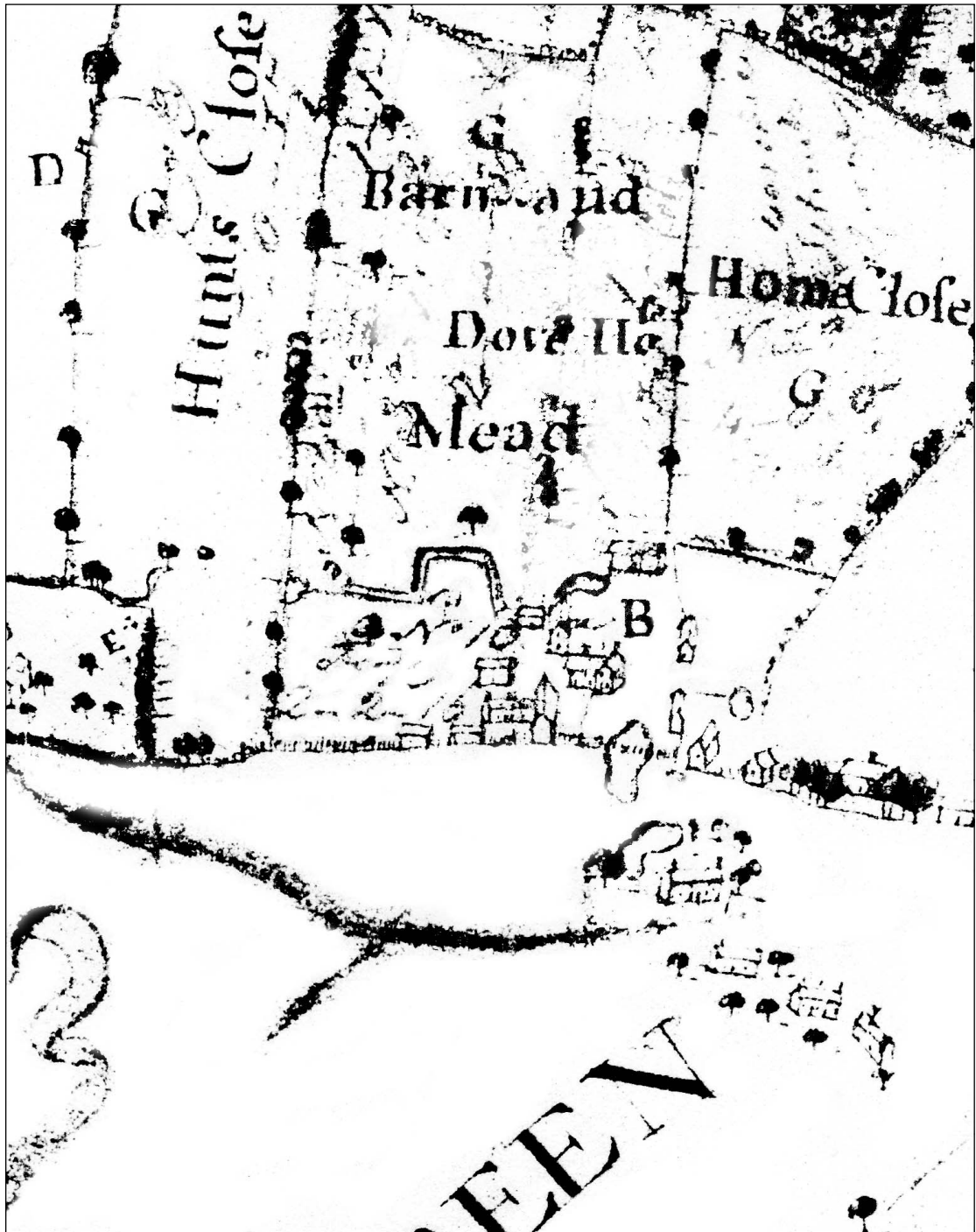


Figure 2: Estate map, 1737 (Cambridge University Library)



Figure 3: Geophysics plot, supplied by PreConstruct Geophysics

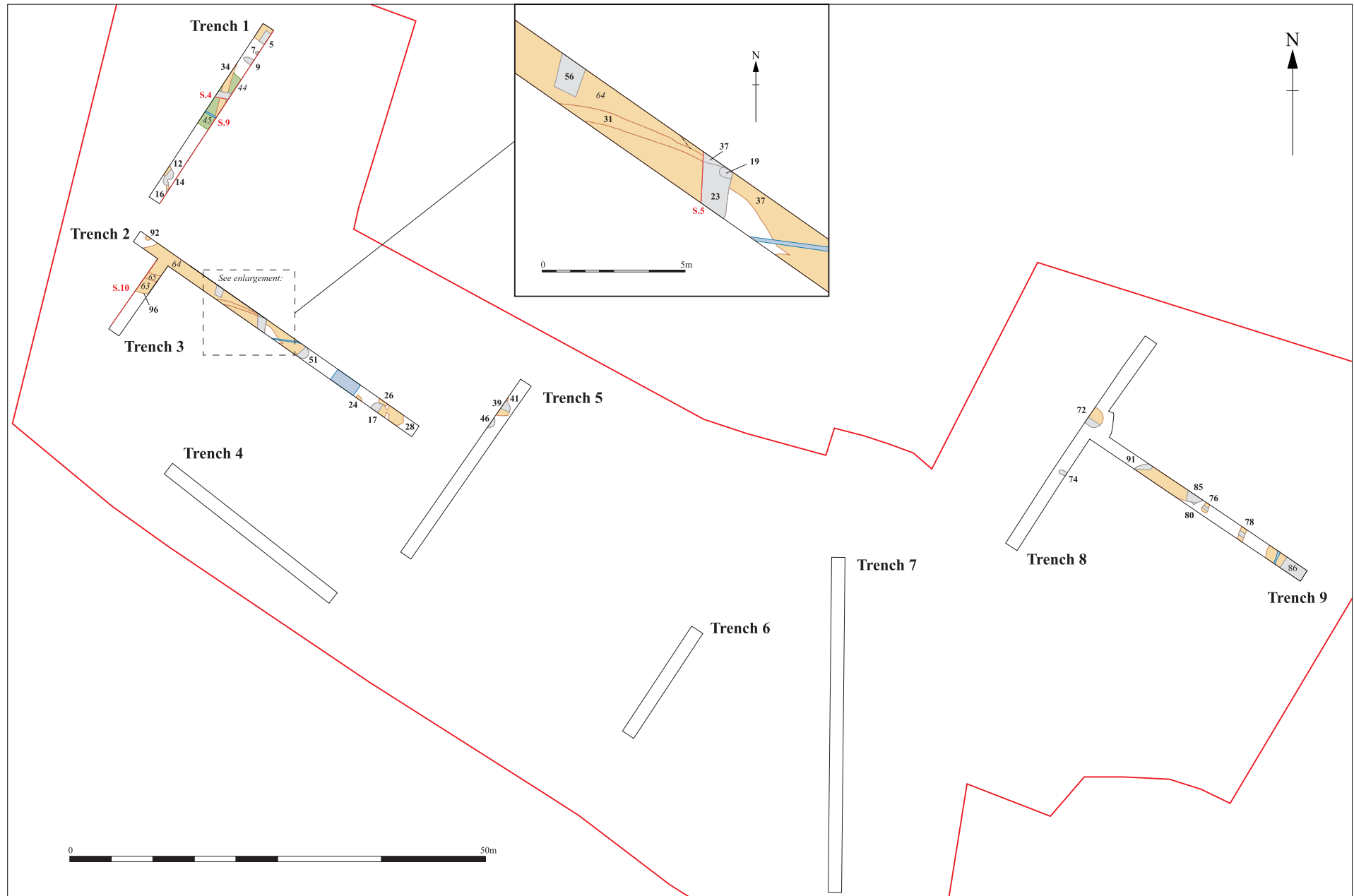


Figure 4: Trench plans

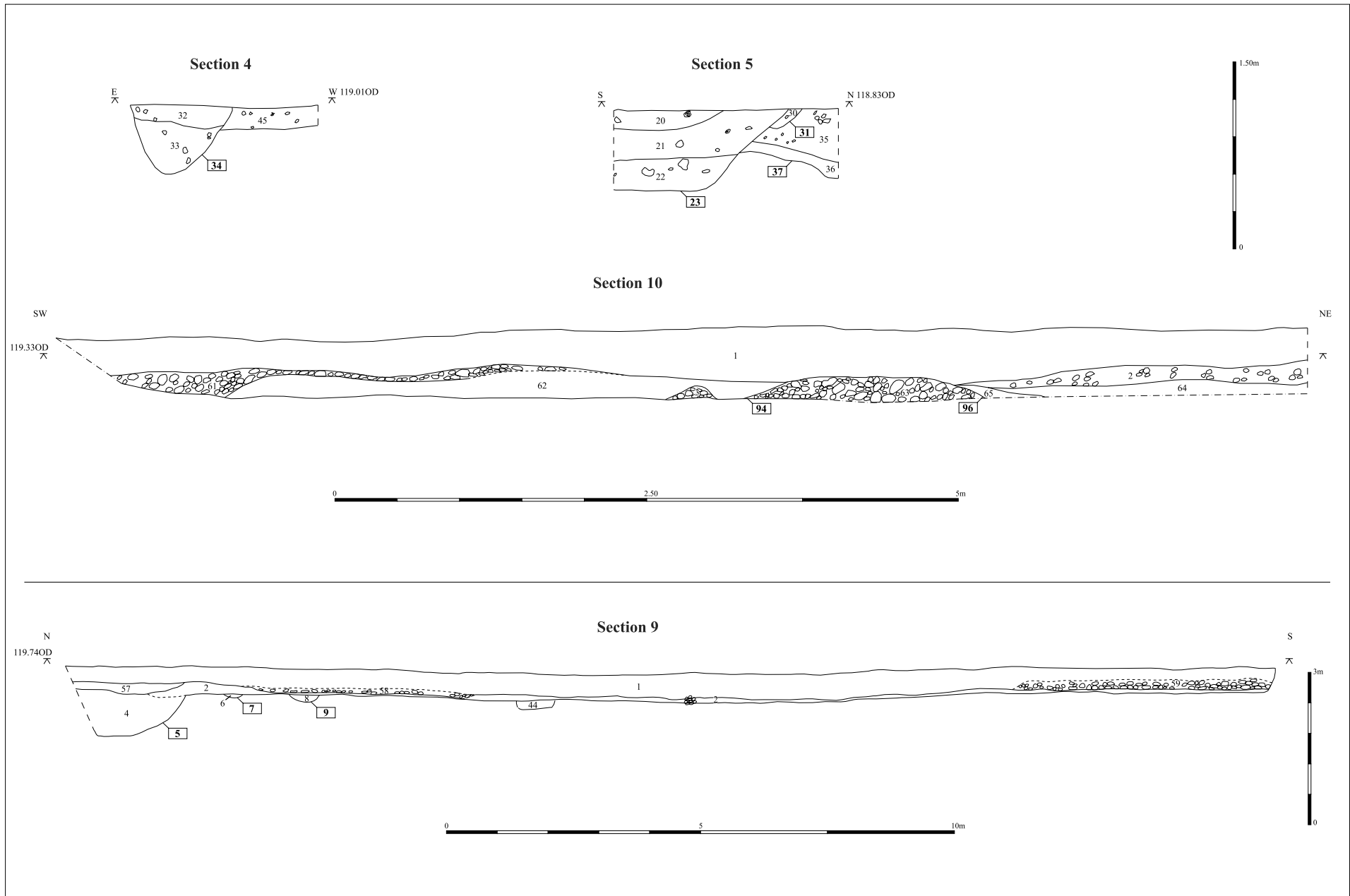


Figure 5: Section drawings

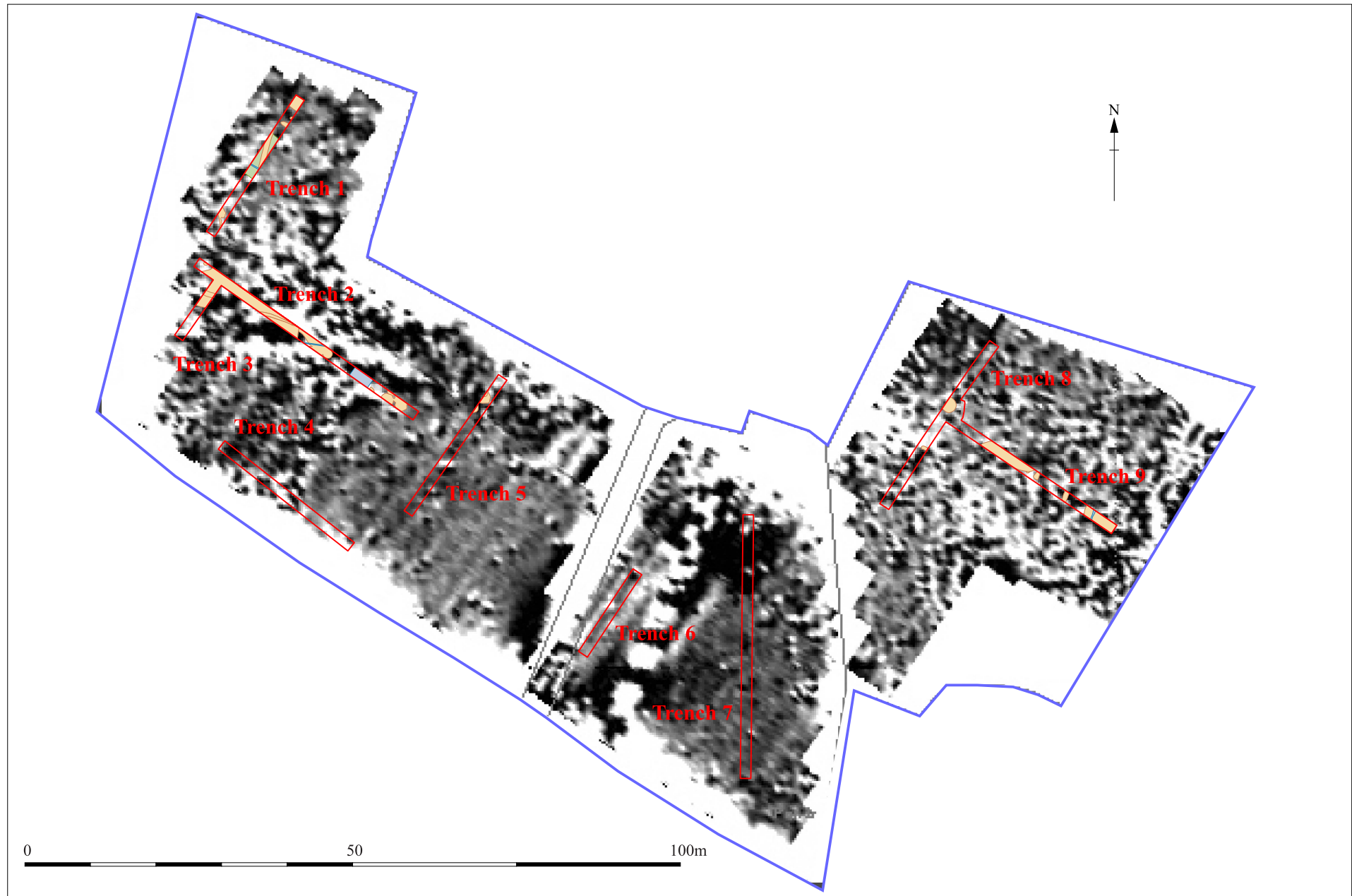
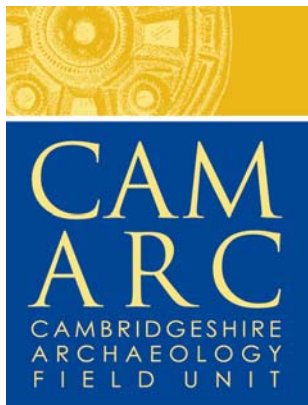


Figure 6: Gradiometer survey with trench plans overlaid



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