Post-Excavation Assessment

A Mid/Late Iron Age ditch and Medieval to modern settlement Coldhams Lane Cambridge

Post-Excavation Assessment

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July 2013

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A Mid/Late Iron Age ditch and medieval to modern settlement at Coldhams Lane, Cambridge

Post-excavation Assessment and Updated Project Design

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HER Event No:	CHER ECB 3873
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Summary

Archaeological excavation by Oxford Archaeology East at Intercell House, Coldhams Lane, Cambridge (TL 4656 5891) was conducted between 17th December 2012 and 25th January 2013 in advance of a proposed new hotel. The excavated took place on the western third of the site following an earlier evaluation (Atkins 2012b).

A Mid/Late Iron Age ditch, at least 20m long, which was re-cut three times was uncovered at the extreme northern part of the site aligned roughly east to west. These ditches were presumably part of a settlement to the north of the site, under the present Newmarket Road. They were filled with a moderate quantity of artefacts and ecofacts. A C14 date from charcoal on a pottery sherd from the latest re-cut produced a date of 201-47BC with 95.4% probability (SUERC-46080 (GU30161).

The site was within the lay settlement of Barnwell Priory, whose precinct wall was opposite the excavation on the other side of Newmarket Road. The excavation found occupation dating from c.AD 1200 to the modern day with a small period of abandonment from c.1550/1600 to c.1650. The excavation itself took place in parts of two or three former medieval house plots, although neither the boundaries nor the houses had survived but these had presumably been next and perpendicular to Newmarket Road respectively. The westernmost plot presumably fronted onto Coldhams Lane, although up to c. AD 1400 there were no evidence of houses fronted onto this road as large pits were found near the frontage.

In the high medieval period (c. AD 1200-1400), up to six wells (only up to four in use at any one time) and over 30 pits of various sizes and types (including quarry pits and two which had been clay lined). Several of these features contained moderate to large quantities of artefacts and ecofacts with good survival in waterlogged deposits from two wells. In the period c. AD 1400-c.1550/1600 there was a decrease in the number of features although there were either possible back plot structures from plots which had fronted Newmarket Road or, less likely, houses fronting onto Coldhams Lane. Other features comprised up to 16 pits including an interesting possible cess pit, partly upstanding with part of its brick floor surviving and walls comprising brick, tiles and a few reused stone including carved examples. These features went out of use possibly in the Dissolution period although a few features may have continued in use just after this time.

After a period of abandonment when the site may have reverted to pastoral farming, the site was reoccupied in c. AD 1650, although occupational evidence initially comprised layers with only small quantities of artefacts/ecofacts from them. There were only a few 18th century features found within the site, but included several post holes from probable houses fronting Coldhams Lane. From the late 18th century/c. AD 1800 there was a large increase in the quantity of features. This corresponds with the cartographic and documentary evidence which records the site owned by three people/organisations with the site comprising houses including cottages of poor houses/workhouses with the latter belonging to the parish of St Andrew The Less. Over this 200 year period to the present day the site was continually rebuilt on with former properties only standing for relatively small time periods before being replaced.

1 INTRODUCTION

1.1 Project Background

1.1.1 An archaeological excavation was conducted at Intercell House, Coldhams Lane, Cambridge (TL 4656 5891; Fig. 1), which this took place after an archaeological evaluation found important remains within the western part of the site (Atkins 2012b). The excavation was undertaken in accordance with a Brief issued by Andy Thomas (Thomas 2012) of Cambridgeshire County Council (CCC; Planning Application 11/0338/FUL), supplemented by a Specification prepared by OA East (Atkins and Connor 2012).

1.1.2 The development proposal comprises the construction of a hotel within the site with access from Henley Way to the south. A method statement for the excavation was prepared prior to excavation by Aileen Connor and dated 12th December 2012. This assessment has been conducted in accordance with the principles identified in English Heritage's guidance documents *Management of Research Projects in the Historic Environment* (1991), specifically *The MoRPHE Project Manager's Guide* (2006) and *PPN3 Archaeological Excavation* (2008).

1.1.3 The client first started physical work within the site in September 2011 when a geo-environmental survey took place when the three storey Intercell House office building was still standing (Warth 2011). The survey comprised two cable percussion boreholes and 11 window sampler boreholes across the site and these found made ground between 0.9m and 2.6m below ground level. The above ground remains of Intercell House was demolished in c. October 2012 by 777 Demolition but foundations were not disturbed. The archaeological evaluation took place during November 2012 and comprised six trenches located across most of the the site, including two (Trenches 2 and 3) between the footings of the former Intercell building and Trench 1 next to a large spoil heap near the Newmarket Rd side (Fig. 2; Atkins 2012b). In the western third of the site adjacent to Coldhams Lane, settlement remains dating from the medieval period were found in the trenches, but elsewhere there were no pre AD 1800 archaeological remains recovered.

1.1.4 Due to the significance of the remains, Andy Thomas, Senior Archaeologist at the County Council proposed an excavation area, *c*.35m by 12m in size. This area did not extend to Newmarket Road as this part of the site had not been evaluated due to the location of a large spoil heap comprising demolition rubble. As a consequence there was a contingency that if archaeological remains continued at the northern end of the excavation area with a further area, *c*.15m by 10m in size, to be opened up along the Newmarket Road frontage. This area was later excavated after important remains were shown to survive in this location (Figs. 2, 3 and 4).

1.1.5 The footings of the former Intercell House and the large spoil heap by Newmarket Road were removed under archaeological supervision before this archaeological excavation took place.

1.2 Geology and Topography

1.2.1 The development area is located partly on drift geology comprising 3rd Terrace Gravels only in the north-western part of the site and solid geology comprising Lower Chalk both underlying these gravels and recorded over the rest of the site (BGS 1981). Terrace gravels and chalk were found during both the borehole survey and the archaeological evaluation within the site (Warth 2011; Atkins 2012b). The borehole

survey also recorded Gault Clay below the West Melbury Marly Chalk and this was located between 3.1m and 6.2m below the ground level.

1.2.2 The River Cam flows close (approximately 290m) to the northern boundary of the development area at a height of *c*.4.9mOD. From the river to the site, there is a gradual rise in ground level towards Newmarket Road, where it is 12.40m OD on the western side of the site within the excavation area falling by a metre in the centre and gradually declining to 11.10m OD within the eastern side.

1.3 Archaeological and Historical Background

Prehistoric

1.3.1 A single residual Early Neolithic flint core was found within the evaluation on the site (Atkins 2012b). The Cambridgeshire Historic Environment Record (CHER) lists a number of prehistoric finds in the vicinity of the proposed development area, although none from the site itself (Fig. 1). They comprise a Palaeolithic abraded hand axe recovered by a gravel digger in 1878, 250m to the west of the development area (CHER 04531). An excavation 0.5km to the north-west found the area had been exploited between the Mesolithic and Bronze Age (Atkins 2012). Here, a background scatter of Mesolithic flint was recovered as well as at least four Early Neolithic pits with evidence of flint-working. An Early Bronze Age type "A" Abercromby Beaker was found 400m to the north-west (CHER 04623). A back ground scatter of worked flint was recovered but no contemporary features were identified at a recent excavation 100m to the west (CAU 2012; Craig Cessford *pers. comm.*). An undated prehistoric object was recovered 150m to the west (CHER 04625). The gravel terraces of the river Cam are thought to have been particularly favoured for prehistoric settlement (Fox 1923), although in heavily built up areas the evidence for this period is often obscured or destroyed.

1.3.2 There is no evidence of Mid Bronze Age to Mid Iron Age activity within the area of the site although an excavation, 0.5km to the north-west, suggested there was agricultural ploughing up to the river edge possibly from the Late Iron Age (Atkins 2012a).

Roman

1.3.3 No Roman material was found in the evaluation in the site, but Roman remains have been found nearby (Atkins 2012a). The excavation 100m to the west of the current site found a scatter of Roman pottery but this is likely to have been the result of manuring (CAU 2012; Craig Cessford *pers. comm.*). Evidence of Roman arable farming was found 0.5km to the north-west represented by a ploughshare, a harness fitting, and a scatter of pottery and coins within a colluvium layer (Atkins 2012a). The Roman town of Cambridge (*Duroliponte*), lies *c*.2.5km to the west of the site.

Saxon

1.3.4 No Saxon material was found in the evaluation (Atkins 2012a). A single Early/Mid Saxon brooch was found in the CAU excavations 100m to the west but it is thought this artefact originally came from elsewhere (Craig Cessford *pers. comm.*). No definite Saxon artefacts have been found within 1km of the site, although Sir Cyril Fox notes stray Anglo-Saxon find(s) from Barnwell now housed in the Ashmolean Museum, but does not record what it was (were) or its exact location (1923, 245). In his map of the area (map G), Fox has recorded a possible Saxon settlement 0.3-0.5km to the west of the site in Barnwell suggesting the artefact(s) was recovered from this location.

Medieval

1.3.5 The site lies within the former lay settlement of medieval Barnwell Priory, which was directly to the north-west of the proposed development area (CHER 04653). Barnwell Priory, was founded by Augustinian Canons, in 1092 at a site near Cambridge Castle and moved to its present site in 1112. Maitland makes the point that by the survey of 1279, the priory would have had an agricultural village which was detached from the main town, with lay houses established to meet the priory's demand for labour on the large quantity of arable land it had acquired (Maitland 1964, 148 and 183). Within the priory there was a parochial church built dedicated to St Andrew the Less (CHER 05043), and this was created for the settlement. St Andrew the Less parish church is not mentioned in the 1279 survey but this is probably a mistake as the present fabric in the building belongs to the early 13th century (Salzman 1967, 126). This suggests the lay settlement outside the priory was significant enough to need a church by the early 13th century. The rentals for 1483-1524 record that Barnwell was the smallest ward for Cambridge and the one which paid the least subsidy, "presumably covering the outlying houses along the Newmarket Road, and the parish of St Andrew the Less" (Salzman 1967, 113).

1.3.6 Barnwell Priory's wealth was partly due to the large number of assets it had been given and in addition to its acquiring many other holdings including houses in Cambridge. Its economic policy was the main reason it was attacked in 1381 during the peasants revolt. The priory was singled out because, "partly to affirm rights of driftway and pasture in meadows which the priory had enclosed" (Lee 2005, 82). This may imply that the priory was acquiring more common land.

1.3.7 The priory's importance can be seen in that it was the main place of residence when royalty visited Cambridge and including king John, Henry III, Edward II, Richard II (and his court), as well as the bishops of Ely in the 15th and early 16th century (Salzman 1967, 244-6). The location of the priory outside but near Cambridge, and the fact that it was very wealthy with many fine buildings, was presumably the reason it often housed visitors of importance. One of the areas of revenue of the priory was St Barnwell's Fair, which was granted to the cannons of Barnwell in 1211.

1.3.8 The evaluation found the site fronted two medieval roads with fields to the east and south (Atkins 2012a). The road on its northern side led from Cambridge to Newmarket and was called Barnwell Cawsey from at least 1574 (Reaney 1973, 46). The second road was Coldhams Lane which was first recorded in 1386 when it was called Coldham lane (*ibid*, 44) on the site's western side which led to Cherry Hinton. An area of pits dating to c. AD 1200-1400, some dense and intercutting, were recorded over a 20m distance near to Coldhams Lane. Six pits were partially excavated and were up to 1m deep. Abraded medieval pottery and animal bones were recovered. Two pits were sampled for environmental remains and produced a moderate to large collection of predominantly charred cereal grains, some weed and herb seeds, small animal bones including fish bone. No evidence of other medieval features were found.

1.3.9 Two other excavations have occurred within/adjacent to medieval Barnwell. Recent work by the Cambridge University Archaeology Unit (CAU) at 180-190 Newmarket Road less than 100m to the west of the site found settlement and industry began in the early medieval period (Craig Cessford pers. Comm.) and continued into the post medieval. There were several long plots fronting onto Barnwell Causeway possibly originating in the early 13th century and continuing throughout the medieval period. Excavations revealed domestic and industrial activity with, for example, many wells (some made of clunch stone) and pits found in the back-plots Some of the pits were

possibly linked to tanning as some were clay lined and horn-cores were common finds. The site was characterised by property divisions, with differences in activities apparent in each plot. Wells were also a common feature. The relationship of the settlement to Barnwell Priory continues to be an important research question. Excavations 0.5km to the north-west found evidence for land reclamation along the edge of the river had started in the medieval period and soil continued to be deposited here for several hundred years (Atkins 2012a). A rich assemblage of artefacts was recovered from this soil including metal work and slag from smithing activities, pottery and building materials, possible originating from the priory and/or the lay settlement.

Post-medieval

1.3.10 There was no definite 16th or early 17th century archaeological remains or artefacts found within the evaluation (Atkins 2012b). The settlement around the former priory and its church of St Andrew the Less continued after the dissolution and there may have been a decline as a result of the removal of its former main employer.

1.3.11 Excavations by CAU directly to the west of the current site found that there may have been a decrease in use on the site in the mid 16th to 18th centuries (Craig Cessford *pers. comm.*). There were a few clunch buildings at the southern end of the plots suggesting there may have been a back lane here in this period. In the excavations 0.5km to the north-west two minor areas of late 16th/early 17th century quarrying were recorded, presumably relating to local use in building construction but for the most part the area was used for agriculture including sheep grazing (Atkins 2012a).

1.3.12 After the priory's dissolution in 1538, Maitland (1964,192) has suggested, most of the lots were bought by John Lacy, a farmer, who leased the former priory lands and tithes for some years, although various lots were purchased by Dr Legh (Danckwerts 1980, 211). The Lacy acquisitions can probably be traced: in 1550 the priory and its lands were granted to Sir Antony Browne and resold twice in three years, the last time to Dr Thomas Wendy of Haslingfield in 1553 (*ibid*, 211-12). It was considered too far out of town to become a college and Thomas' heir removed much of its stone for use in a new chapel at Corpus Christi College (Salzman 1967, 256). The farmland probably became Barnwell Abbey Farm which was owned by Thomas Panton II at the time of the 1807 Act of Enclosure. It was auctioned off in 1809 when the area of the farm roughly corresponded with the 391 acres the Prior of Barnwell is said to have held in 1279, leading to the suggestion that the abbey farm was probably the core of the former Barnwell Priory estate (Danckwerts 1980, 212 and fig. 1).

1.3.13 A later 17th century layer were found within two adjacent trenches in the evaluation but they did not contain a large quantity of artefacts or ecofacts (Atkins 2012b). A clunch wall dating to c. AD 1700 was found running perpendicular from Coldhams Lane for more than 3.4m, and it may have been either a boundary wall or part of a structure. It is possible that it was one of the homesteads documented in plot 44 of the 1812 Enclosure Award Map and labelled as belonging to the overseers to the poor. Only two further 18th century features were found within the evaluation and these were single pits recorded more than 30m apart and located where the 1812 map shows was a courtyard (plot 46).

1.3.14 In 1728 St Andrew the Less had a population of 181, the smallest of the 14 Cambridge parishes (Hampson 1934, 77). There was a large fire in 1731 which destroyed 50 dwellings in the village (Bowtell MSS, Downing College IV/821), presumably the majority of houses. In 1749 there were 48 houses recorded in the parish of St Andrew

the Less, suggesting that there may have been a slight decline after the fire. In contrast by 1801 there were 79 houses recorded showing population was increasing steadily.

Modern

1.3.15 Between 1801 and 1841 the population of the parish of St Andrew the Less grew dramatically from 252 to 9,486 (Salzman 1967, 111). This expansion mainly comprised the 'joining' of Cambridge to the former Barnwell village, 1km to the west of the site and this comprised buildings of mixed industrial and residential character (RCHME 1988, 366). To help build this expansion, further demolition and robbing of the remaining Barnwell Priory structure took place in the early 19th century.

1.3.16 The details of the post-medieval use within the site can be partly traced from late 18th and 19th century records and plans. It was partly within Barnwell Abbey Farm land (extreme southern side) but the majority (northern area) was outside it. This southern side, presently access into the site from Henley Way, is likely to have been used in the medieval period as part of the abbey fields. In 1809 this southern area was sold as part of lot 38 of former Thomas Panton II's land which was described in the sale document as part of Coldhams Close and that the field was used for arable farming and measured 3a 3p 28r (Danckwerts 1980, fig. 1). In the sale, lot 38 was sold to Thomas Hovell but by 1812 the field had been split into smaller units (Fig. 6) with the site within the northern field measuring 1a 1r 33p which Thomas Hovell had exchanged with the Rev. Joseph Staines Banks.

1.3.17 The vast majority of site belong to the land to the north of these fields and were therefore part of the lay settlement of Barnwell Priory. Medieval documents show that Barnwell Priory was a large property owner who rented out its land. It is therefore likely that the site belonged to it up to the Dissolution. It is uncertain who owned the property in the lay settlement. Land ownership can be seen in the Enclosure documents of 1807-1812 which showed the site belonged to three different people/organisations (The parish owned part of the site where it had four cottages which were the parish workhouse/poorhouse of St Andrew the Less, the other two owners were Simon Farrant and Thomas Carter (see below). Unfortunately a quick search on Simon Farrant and Thomas Carter has so far been fruitless.

Poorhouse/workhouse within the site

1.3.18 The four cottages within the site belonged to the parish of St Andrew the Less as a poorhouse/workhouse from at least the early 19th century, but it is uncertain when they were first built here. It is possible they were established early 18th century - a 1723 Parliament Act required that parish workhouses be instituted in all the parishes of Cambridge either separately or jointly (Cam 1967, 122). These parish workhouses says Cam usually consisted of a cottage or several cottages - this bares resemblance to the 19th century description of the workhouse on our site. Unfortunately no documentary reference has been found to determine that the cottages on our site definitely started in this period. A possible reference is dated 1748 when Thomas Bidwell, a farmer of Barnwell, applied to be excused from taking as an apprentice the girl sent to him by the overseers of Barnwell (MS. Q.S.R. cambs 1748), but it is uncertain which St Andrew parish this refers to and no exact location is given. The earliest definite reference recorded for a workhouse in the Parish of St Andrew the Less was when on 14th April 1759 the then overseers of the poor of St. Andrew the Less leased for seven years several messuages called Tibbals Row in the parish, from Mary Chapman of Trumpington (widow) at £8 a year (CRO P24/25/5). The location of this row of messuages was not recorded, but it is not inconceivable they may relate to our site. A

poor house is recorded in the parish as costing the overseers to the poor £1 10 shillings dated 15th February 1773 (CRO P24/18/4-33).

c.1807-1812 Enclosure Map (CRO Q/RDc16) (Fig. 6)

1.3.19 The vast majority of the site was in an area fronting Newmarket Road (called Newmarket Turnpike Road in the Enclosure Awards) and Cherry Hinton Road (usually called Coldhams Lane). This map shows that the site was near the eastern extent of Barnwell with the settlement in this area comprising a ribbon-development along this turnpike road.

1.3.20 The 1807/1812 Enclosure Awards Map record that within the excavation site there were two plots (44 and 45) fronting Cherry Hinton Road, and two sets of houses fronting Newmarket Road with a shared access into a courtyard (plot 46). The details of the plots are listed in the enrolled copy of the award with the Cherry Hinton Road described as having a breadth of 40 feet and commencing at the north-west corner of Coldhams Closes (CRO Q/RD/z6, 180). There is an east to west pathway/route-way at the southern side of the plot between it and the field owned by the Rev. Banks.

Plot 44 and the history of the workhouse/poorhouse

1.3.21 Plot 44 on the south-western corner of the site, has a line adjacent to Coldhams Lane with a little land behind it. The Enclosure map records them as belonging to the overseers of the poor of Barnwell. They were labelled as town houses and premises in an area 0a 0r and 11p. In the accompanied award document the plot is described when it discusses the field directly to the south and it records plot 44 as being homesteads belonging to the overseers of the poor of Barnwell with the overseers named as being Thomas Carter, John Purchas, Richard Foster and Rebecca Holmes (CRO Q/RD/z6, 187). Stokes in the early 20th century wrote that the 'poor house' consisted of four cottages (Stokes 1911, 102). A search on these four people seems to show at least two of these overseers were wealthy people. John Purchas owned a plot within which there were houses directly to the north of the site (see 1813 map). John Purchas was presumably the five times mayor of Cambridge (1817, 1819, 1825, 1827 and 1831), his father (John Purchas), grandfather (John Purchas) and son (William Purchas) were also mayors of Cambridge in 1771, 1760 and 1828/1832 respectively. William was a councillor in 1843 for the East Barnwell ward. Thomas Carter owned property and land including plot 46 partly within the site (see Section 1.3.17-18).

Plots 45 and 46

1.3.22 Plot 45 was described on the 1812 map as belonging to Simon Farrant and comprising cottages and premises in an area measuring 0a 0r and 11p. Plot 46 was recorded as belonging to Thomas Carter and containing cottages and premises in an area 0a 2r and 8p.

1813 map of the parish (CRO 107/P.4; Fig. 7)

1.3.23 The 1813 map of the parish is dated July 1813 and recorded as being made by Joseph Truslove (CRO 107/P.4). It is similar to the 1807/1812 Enclosure Map, although there are some differences. Coldhams Lane is recorded as relatively narrow in front of the site, but broadens to double size to the south. The east to west pathway/route-way fronting the southern side of the plot is not recorded. Thomas Carter's area has not changed except for a new 'Z' shaped building(s) in the south-western corner of the plot. Most of the houses within Simon Farrant's area fronting Coldhams Lane have gone, although a new east to west house now fronted onto Coldhams Lane on the south side

of the plot. The four cottages of the poorhouse/workhouse, were labelled as 'poor' on the map.

1830 Richard Baker map and the 1840 Dewhurst and Nichols map of Cambridge

1.3.24 The 1830 Baker map (not illustrated) and the 1840 Dewhurst and Nichols map (Fig. 8) of Cambridge both show identical buildings within the site (although elsewhere in Cambridge there are many differences between the maps). The maps shows there has been substantial changes within the the site compared with earlier maps. The former three plots within the site had been amalgamated some time between 1813 and 1830 with the area presumably now belonged to a single owner? The 1830 and 1840 maps recorded houses along the George Street frontage with a gap in the middle leading to a courtyard. These two later maps, unlike the earlier maps, shows the western side of the courtyard comprising a north to south row of buildings running down from the George Street frontage to beyond the southern boundary of the site as well as two east to west buildings leading from this row. The southern boundary of the courtyard consisted of buildings fronting an east to west lane directly to the south of the plot and beyond the eastern boundary of the site, the eastern limit of the courtyard comprised another north to south row of buildings. Within the south-western corner of the site, the 'Z' shaped building(s) on the 1813 map, which had a frontage from Coldhams Lane, had gone. The poorhouse/workhouse buildings remain on the map, although unlike earlier maps the site isn't divided into three plots - the reasons for this is uncertain.

The 1832 map of the parish (CRO TR 869/ P10)

1.3.25 This map of the parish, although dated as 1832, the survey of buildings within the site is likely to pre-date the 1830 Baker map (Fig. 9). There are some areas this map is similar with the Baker map - e.g. it confirms the site was recorded as one plot, but it has several features of commonality with the earlier 1807/1812 and 1813 maps which are different that the 1830 and 1840 maps. There is no north to south row of buildings down the centre of the site, which is the same as the earlier 1807/1812 and 1813 maps but different to the 1830 Baker, the 1840 Dewhurst and Nichols and the OS Edition maps. In contrast to the earlier maps it does have a row of structures fronting onto a lane directly to the south of the site.

1841 Census

1.3.26 The 1841 census records that this was a working class neighbourhood with a large number of people on George Street and the area around being brickmakers - presumably from brickworks recorded directly *c.*200m to the south-east of the site on later 19th century maps. A pub, King William IV, lay directly to the north of the site along George Street.

1st Edition OS map and the 1871 and 1891 census

1.3.27 The 1888 1:2500 1st Edition Ordnance Survey Map shows that most of the structures recorded in the 1830 and 1840 maps continued (Fig. 10). The buildings recorded in a courtyard in the 1830 and 1840 maps largely continued although the use of some of the buildings are recorded (the Willam IV pub to the north and the malthouses to the south of the plot side. The main changes were along Coldhams Lane where directly to the south of the building fronting Newmarket Street, there was a row of six terrace houses fronting this lane which were called Coldham Terrace on the 1:500 version of the 1st Edition OS map. This terrace is not recorded on the 1871 census showing it was constructed after this date. The 1891 census lists 29 people living in these six houses, ranging from one person within number 3 to eight people in no. 1. The cottages which were the former 'workhouse' were still recorded on the south side of the plot.

2nd Edition OS map and later use

1.3.28 The 1904 1:2500 2nd Edition Ordnance Survey Map shows that all the buildings fronting onto Coldhams Lane including Coldham Terrace and the 'workhouse' cottages had gone (Fig. 11). Stokes recorded that these went in 1895 as "the ruinous state of the buildings compelled their demolition." (1911, 102). This parish property was then sold under the Act for facilitation of the sale of Workhouses (5 and 6 William IV) and an order of the Local Government Board was issued for the letting of the site of "the St. Andrew's Parish Workhouse" (Stokes 1911, 102).

1.3.29 All the buildings arranged around the courtyard continued seemingly unaltered. To the north of Newmarket Road virtually all of Barnwell Priory former precinct area had been built over with the only surviving feature of the priory being a single vaulted chamber of mid 13th century date (CHER 04653b).

1.3.30 The 1924 3rd Edition Ordnance Survey Map is largely the same as the 2nd edition although a few structures next to Coldhams Lane have been removed (Fig. 12) and brush works are recorded within the site. Around 30 years ago all structures with the site were demolished and a new office structure built containing large amounts of concrete and glass. These offices were demolished just before the archaeological evaluation took place within the site.

1.4 Acknowledgements

1.4.1 The author would like to thank Reef Estates Limited who commissioned and funded the archaeological work and 777 demolition for their help in clearing the site. The project was managed by Aileen Connor. Andy Thomas Senior Archaeologist at Cambridgeshire County Council monitored the excavation on behalf of the planning authority. Cambridgeshire Record Office are thanked for their help in the documentary research. This report was edited by Aileen Connor. The mechanical excavator was provided by Lattenbury Services Ltd who excavated the site to a very high standard.

1.4.2 I am grateful for specialist analysis from Perter Boardman, Chris Faine, Carole Fletcher and Rachel Fosberry and Dr Paul Spoerry. Stuart Ladd carried out the site survey and drew the illustrations. The site work was carried out by Rob Atkins, Peter Boardman, Graeme Clarke, Andrew Greef, Lindsey Kemp, Steven Morgan, Edmund Palka, Helen Stocks-Morgan, Robin Webb and Rob Wiseman. Steven Morgan checked records and imputed the site context data.

2 Project Scope

2.1.1 The Project will comply with the Written Scheme of Investigation (CCCHET Brief and OAE Specification).

2.1.2 Previous evaluation work on the site by OAE will be included with the results of the excavation in the analysis and reporting stage.

2.1.3 Where data from other relevant excavations is publishes or otherwise accessible it will be included within the analysis and reporting stage as comparative material.

2.1.4 Published documentary sources will be consulted and used to place the project in its historical context.

3 Interfaces, Communications and Project Review

3.1.1 A major excavation by the Cambridge Archaeological Unit to the west of Coldhams lane/south of Newmarket Road is relevant to this project and every effort will be made to interface with the CAU with regard to the (as yet) unpublished results.

3.1.2 Project communications will largely be by email/phone, it is not anticipated that general meetings to discuss findings will be needed, although the Project Manager/Project Officer will ensure all members of the team are kept informed of progress and results.

3.1.3 The project will be subject to internal OAE quality control processes throughout its life and will be subject to review/approval by CCCHET at key reporting stages i.e Post-Excavation Assessment and Updated Project Design; Full report; Publication.

4 Research Aims and Objectives

4.1 Regional Research Objectives

4.1.1 The Written Scheme of Investigation (WSI) suggested the relevant research themes for this site based on the evaluation results (Thomas; Atkins and Connor 2012). The research objectives were written with reference to the regional research agenda and strategy for the eastern counties (Brown and Glazebrook (2000) updated by Medlycott (2011)). The WSI noted that the subject site lay close to the medieval priory of Barnwell, within the eastern extent of its lay settlement, adjacent to open fields. The influences on the landscape here it thought were likely to be complex. The relevant research themes for the site included:

- The impact of the development of towns on the surrounding countryside
- Trade and industry
- The influence of monasteries on urban and rural landscapes

4.1.2 It was thought the the excavation had the potential to contribute to research aims relating to: medieval agriculture and industry, rubbish disposal and the influence of religious houses (Barnwell Priory) on the landscape; continuity and change from medieval to post-medieval; economic and social themes by use of environmental evidence; model the landscape and the transformation brought about by the settlement's inhabitants and natural events.

4.1.3 Research questions that were thought relevant to this investigation included:

- Was the site within former medieval plots or was it at the edge of settlement and used for quarrying and later backfilled with rubbish?
- Is it possible to distinguish whether the finds within it were derived from former domestic

plots within the site, other lay areas of the settlement and/or from Barnwell Priory itself?
- Can the artefacts and ecofacts provide information about the activities within or near to the site?
- What was the relationship of the Barnwell settlement to Cambridge and to Barnwell Priory
- In what ways did that relationship change/develop after the dissolution?
- What factors influenced the decline of Barnwell settlement and growth of the Cambridge suburb?
- What was the extent and character of medieval and post-medieval activity in the area and how did it fit in the wider context of Barnwell Priory and the lay settlement?

5 Summary of Results

5.1 Introduction

5.1.1 The phasing of the site is based on both stratigraphic matrix (using computer software *stratify*) and datable finds.

5.1.2 The phases are as follows:

Period 1	Middle/ Late Iron Age
Period 2	Phase 2.1 *c.*1200-1350/1400.
	Phase 2.2 *c.*1350-1400
Period 3	Phase 3 *c.*1400- *c.*1550/1600
Period 4	Phase 4.1 *c.*1650-*c.*1700.
	Phase 4.2 *c.*1700- *c.*1800
Period 5	Phase 5.1 c. early 19th century.
	Phase 5.2 Mid-late 19th and 20th century

5.2 Period 1: Middle / Late Iron Age

5.2.1 Period 1 consisted of a single ditch aligned east to west at the north end of the site, it was at least 20m long with a slight curve towards Newmarket Road (Fig. 3); it continued beyond the edges of the excavation area. The ditch showed evidence for having been re-established (re-cut) on three occasions.

5.2.2 The entire visible length of the ditch was excavated, 47 hand-made Iron Age pottery sherds (0.595kg), 41 identifiable animal bone fragments and a fired clay spindle whorl were recovered from its fills; the majority from the two later re-cuts. Three soil samples (56, 58 and 62) produced a background scatter of barley, rye and wheat cereal seeds.

5.2.3 The original ditch (**680**/**688)** was much truncated and few finds were present. It was re-cut on its northern side (**678**/**686)** and on its southern side (**546**/**663**/**682**), only one pottery sherd was found in the former cut whilst the latter produced more than half the pottery assemblage (26 sherds weighing 287g) as well as most of the animal bone. The latest re-cut (**540**/**560**/**665**/**684**) truncated the earlier ditches on their northern side and contained a moderate quantity of pottery (20 sherds weighing 275g) and some animal bone. A C14 date was obtained using external carbon (sooting) on a pottery vessel from the latest ditch (**540**) and this produced a date of 201-47BC with a 95.4% probability (SUERC-46080 (GU30161) - see Appendix Section B.4 (Fig. 13).

5.3 Period 2 (*c.* AD 1200-1400)

Introduction

5.3.1 This period divides into two Phases (2.1 and 2.2) largely based on stratigraphy as the pottery is not generally more closely datable at the time of writing. Both phases are characterised by pits and wells and these were located across the excavation area (except at the extreme northern part) apparently forming no coherent patterning. It can be inferred that the absence of features at the northern (Newmarket Road) end of the site was due to the presence of dwellings here that have left no trace in the archaeological record.

5.3.2 The artefacts all date from the 12th century or later, with the majority of the pottery belonging to the 13th-14th centuries, implying settlement here certainly began no earlier than the 12th century and more likely coincided with the establishment of Barnwell Priory near this location in AD 1211. A few fragments of early brick were recovered from late 14th century Phase 2.2 contexts.

5.3.3 Environmental samples taken from period 2 deposits produced a large assemblage of charred plant remains dominated by mixed cereal grains (predominantly wheat) along with legumes and weed seeds. The lower fill of Well **190** (Sample 50, Phase 2.1 fill 533) and Well **481** (Sample 55, Phase 2.2) contained significant waterlogged plant remains; Sample 50 also contains well preserved insect remains including beetles.

Phase 2.1

Wells (**579**, **523**, **239** and **190**)

5.3.4 Four wells or probable wells have been assigned to Phase 2.1 (**579**, **523, 239** and **190**), all contained pottery, the majority of which dates to the 13th-14th century. The most northerly well (**579**) was 0.94m in diameter and more than 1.45m deep. Approximately 10m to the south-west of 579 was a larger well (**523**) which was 1.2m in diameter and more than 3.5m deep. Another probable well or very large pit (**239**) lay a further 35m to the south-east and was 2.6m in diameter and 2.9m deep. Well (**190**), near the southern baulk was 1.34m in diameter and 3.64m deep.

Pits (**128**, **195/199**, **168**, **39**, **119**, **483**, **485**, **538**, **241**, **505**, **517**, **220**, **174**, **557**, **461**/**492**, **428**, **430**, **420**, **457** and **274**)

5.3.5 Twenty pits have been assigned to Phase 2.1. They were likely to have had more than one function, for example one very large pit (**461**/**492**) in the centre of the site was probably dug to extract gravel. Whilst a deep 2.4m deep clay lined pit (**168**) may have held liquid, other pits may have been dug to dispose of rubbish, latrine waste or both, whilst others would have been used for storage.

Phase 2.2

Wells (**481** and **603**)

5.3.6 Two wells (**481** and **603**) were assigned to Phase 2.2 and were located within the north-eastern and south-eastern parts of the site. These two wells were similar in appearance starting as wide sub-rounded features, funnelling to become a relatively narrow round base 3.38m and 3.51m deep respectively. Both produced good assemblages of finds, particularly pottery and well **481** has produced a good assemblage of waterlogged environmental materials.

Pits (**103**, **182**, **37**, **204**, **218**, **509**, **451**, **283**, **438**, **440**, **459**, **465**, **526**, **593** and **654**)

5.3.7 Fourteen pits have been assigned to phase 2.2. There is some potential to be able to distinguish different functions to particular areas of the site in this phase for example in the southern half of the site there were five pits that were probably for gravel extraction (**103**, **182**, **204**, **218** and **509**) all between 0.75m and 1.5m deep. Most of the pits had only a small to moderate quantity of artefacts within their backfills, but reasonably large quantities of charred seeds perhaps implying they had lain open whilst crop processing took place nearby. Six small to medium diameter sized pits (**451**, **283**, **440**, **438**, **459**, **465** and **526**), all relatively shallow in depth, and some of which were intercutting, were located to the north of these quarry pits. On the whole only small quantities of artefacts were found in these pits, but as with the quarries some contained large quantities of charred grain. A single clay lined pit (**654**) is likely to have had a very specific function perhaps related to holding water or other liquid.

5.4 Period 3 (*c*. AD 1400-c.1550/1600)

Introduction

5.4.1 Fewer features have been assigned to Period 3 as compared to Period 2. Few intercutting features were present, perhaps implying a single phase of activity although some features were backfilled in the 15th century whilst others may still have been in use into the 16th century. As a result a single phase has been assigned for the purposes of the PXA. Although pits continue to be a major feature type, none have been identified as Wells, implying that the collection of water had perhaps become a more communal (rather than individual household) activity by this time. For the first time evidence for structures was found, again implying a subtle shift in the type of occupation. It is unclear at present whether this activity dated to the period before or after Barnwell Priory was dissolved (AD 1538), or whether the dissolution had no material affect on the settlement here.

Structural features

5.4.2 Twenty post holes (**471**, **432**, **422**, **424**, **426**, **418**, **408**, **410**, **434**, **412**, **416**, **414**, **501**, **503**, **442**, **432**, **453**, **455**, **472** and **474**) were found within a *c.*20m by 10m area on the south-western side of the site and these have tentatively been dated to this phase. Stratigraphically they were sealed by a 17th century layer (Phase 4.1; 200 and 210). and two of the post holes (**455** and **474**) were clearly later than a Phase 2.2 pit (**509).** Small quantities of early brick were found within two of the post holes (**424** and **434**), but no pottery sherds or other artefacts. It is likely the post holes represent the remains of several structures but it is uncertain of their layout. It is possible they were back-plot structures, although they may relate to structures fronting onto Coldhams Lane (rather than Newmarket Road).

Pits

5.4.3 Sixteen pits were assigned to Period 3 (**229**, **152**, **32**, **35**, **133**, **318**, **382**, **313**, **446**, **448**, **308**, **463**, **339**, **561**, **519** and **600**). Most of the pits were isolated, with only a few intercutting, unlike earlier phases the pits appear to have been arranged in a more organised fashion; they formed two lines approximately parallel with Coldhams Lane, and in both lines the pits were relatively evenly spaced at between 7m and 10m apart. It is possible that they are evidence for a row of dwellings fronting onto Coldhams Lane. One unusual feature was a square “tank” (**229**) which lay at the south end of the site. This feature was built from brick and other building materials, the walls comprised a

particularly mixed group: architectural limestone (re-used); pebbles; roof tile; a floor tile fragment and many bricks. Its floor was made from bricks. No mortar had been used in its construction. It seems to have been backfilled in the 15th century with domestic rubbish including pottery and charred seeds.

5.5 Period 4 (*c*. AD 1650-1800)

Phase 4.1

5.5.1 It is likely there was a period of abandonment at the end of Phase 3 and possibly coinciding with the dissolution of Barnwell Priory (mid 16th century). A layer of soil developed across the site and sealed all of the earlier features. It may have developed through cultivation or alternatively the site may simply have been abandoned and become overgrown with weeds. The artefacts within the layer suggest that the site was not re-occupied until the end of the 17th century and then only in a limited way.

Phase 4.2

5.5.2 In the 18th century there were relatively few features found within the site. An east to west ditch (**172**), perpendicular to Coldhams Lane, may have been a property boundary. To the north of this ditch was a row of post holes (**290**, **288**, **258**, **260**, **256**, **262**, **254**, **252**, **250**) including two pairs intercutting which could have been part of a structure fronting Coldhams Lane. Two possible pits **216** and **246**, to the east of the postulated building and a large pit (**645**) in the north-eastern part of the excavation were the only other features dating to this phase.

5.6 Period 5 (*c*. AD 1800-1900)

Introduction

5.6.1 Documentary evidence is key to the interpretation of the Period 5 features and it has been possible to tentatively match the archaeological evidence with known properties and their owners (a large quantity of cartographic and documentary evidence from *c*.1808 provides useful information about the property ownership within the site). The site clearly became more intensively used during this period and this must be partly due to the nature of occupancy - this was a relatively poor densely occupied area with domestic dwellings and industry side by side.

Phase 5.1

5.6.2 The north-western side of the site contained at least two or three structures possibly related to a plot owned by Simon Farrant (No. 45, Fig. 6 etc.) described as having cottages and premises (located along Coldhams lane, close to Newmarket Road), in the Inclosure Awards document. Two parallel east to west clunch walls (22 and 695) may be remnants of one of the buildings at the southern end of Farrant's property, possibly also shown on the 1813 map (Fig. 7). Seven post holes to the north (**328**, **332**, **320**, **292**, **358**, **343** and **310**) may relate to a timber framed building(s) and three further post holes at the northern end (**632**, **599** and **653**) to another. Two post holes (**248** and **161**) within 10m of each other were in the south-central area but may not be related. Several pits were found close to these buildings; eight to the south (**149**, **163**, **165**, **348**, **350**, **154**, **158**, and **160**), with one large pit (**48**) on the northern side. A pig burial (**281**) and three (**324**, **366** and **369**) other pits were located centrally.

5.6.3 There was no evidence for any structures at the southern end of the excavation area (shown as a poorhouse/workhouse on the Enclosure map; No. 44, Fig. 6 etc.) although a brick culvert (**693**), well (**107**), pits (**114** and **156**) and three post holes (**116**, **118** and **130**) found in this area may have been associated with this property.

5.6.4 Thomas Carter is shown as holding the majority of the land in which the excavation area lay (No. 46 Figs 6, 7), although not the Coldhams lane frontage. Five post holes at the northern end of the site were probably part of a structure (**629**, **659**, **668**, **670** and **672**). Less than 10m to the south of it was another probable structure (**278**, **268**, **270**, **572**, **574**, **578**, **576**, **272**, **341** and **276**). A Well (**697**) and pit (**361**) were located nearby with another Well (**595**) and two pits (**212** and **214**) also likely to be associated with this property.

Phase 5.2

5.6.5 In the mid 19th century the 1840 Dewhurst and Nichols plan (Fig. 8) and the 1886 1st edition Ordnance survey (Fig. 10) show show several new buildings within the site. Some of these structures were found in the excavation area.

5.6.6 At the north-eastern end of the site several walls (691, 365, 359) and an associated chalk floor (360) were found that may be the remains of buildings shown on Dewhurst and Nichols. An adjoining building (walls 355 and 356) and a related cellar (284) were also found. A separate building directly to the south surviving as walls (222 and 392) and floor (399) may also date to this period. A continuous north to south wall (353/354) may have been the eastern wall of Coldhams Terrace which was first recorded on the 1904 2nd edition Ordnance Survey map (Fig. 11). Other features that may be associated with Coldhams Terrace include a cellar (691), a cemented brick feature (**136**), a pit (**146**) and a brick soak-away (**597**).

6 Factual Data and Assessment of Archaeological Potential

6.1 Stratigraphic and Structural Data

The Excavation Record (evaluation and excavation)

6.1.1 All hand written records have been collated and checked for internal consistency, and the site records have been digitally recorded using *MS Access* Database software. The quantification list of excavation records have been recorded in the table below. A preliminary matrix of the site has been digitally compiled using S*tratify* software.

Type	Quantity
Context registers	20
Context numbers	650
Plan registers	2
Section registers	4
Sample registers	12
Object Registers	2
Plans	43
Sections	102
Black and white films	6
Colour slide films	1
Digital photographs	408

Table 1: *Quantification of excavation records*

Finds and Environmental Quantification

6.1.2 All finds have been washed, quantified, catalogues and stored in archival quality bags and boxes. Total quantities of the finds and ecofact categories are listed in Table 2. Environmental samples were collected from 56 contexts (three Phase 1, 14 Phase 2.1, 16 Phase 2.2, 11 Phase 3, one Phase 4.2 and three Phase 5.1 fills).

Artefacts	Number and/or weight
Lithics	2
Copper alloy objects	8 objects
Iron objects	65 objects
Metalworking residues	0.754kg
Bone objects	3
Fired clay objects	1
Glass object ?bead	1
Stone objects	2
Worked architectural stone and quern	27 pieces including 2 quern
Vessel and window glass	7 (0.169kg)
Iron Age pottery	47 sherds (0.595kg)

Artefacts	Number and/or weight
Medieval to modern pottery	Evaluation 86 sherds (0.899kg); Excavation 957 sherds (18.026kg)
Medieval to modern brick	130 bricks (48.93kg)
Post-medieval floor brick	2 floor bricks (3.832kg)
Medieval floor tiles	2 floor tiles (0.42kg)
Ceramic peg tile	561 fragments (40.12kg)
Ridge, nib, pantile and ?stove tile	10 fragments (2.61kg)
Clay pipe stem fragments	20
Fired Clay	3 fragments (0.155kg)
Wall plaster	10 fragments (0.07kg). Paint survives on several.
Animal remains	390 fragments
Environmental samples	56 bulk samples taken
Shells (marine)	91 shells (0.719kg)

Table 2: *Quantification of artefacts and ecofacts*

Range and Variety

6.1.3 Features and layers on the site included 1 Middle Iron Age ditch, six medieval wells, 50 medieval pits, 19 late medieval post holes, an early post-medieval cultivation layer, ditch, post holes and pits, walls of post medieval to modern period.

Condition

6.1.4 Preservation of features varied but some severe truncation was caused by 20th century building foundations (concrete piles and rafts). Preservation on the western side of the site near Coldhams Lane was poor but truncation progressively lessened eastwards.

6.1.5 Any evidence for medieval domestic structures fronting Newmarket Road did not survive, although some late medieval post holes near Coldhams Lane were found. Large pits and wells were found in reasonable conditions across the site, albeit with up to *c.*1m of the top removed (eastern side).

6.1.6 The ground-water was locally contaminated by oil from a brick soak-away although waterlogged material from two well deposits survived in reasonable condition.

6.2 Documentary and Cartographic Research

Primary and Published Sources

6.2.1 A documentary search has been carried out at the Cambridgeshire Record Office (CRO) (see Section 1). There are few primary records concerning Barnwell Priory, for example no cartulary survives and virtually nothing is recorded of the lay settlement of Barnwell. Using secondary sources such as Markham's 1898 book and Danckwerts 1980 PCAS article, a general view of the priory and its associated settlement has been accomplished (see Section 1).

6.2.2 The CRO holds a modest quantity of records for the parish of St Andrew the Less. The Record Office itself states that the relatively few documents surviving from the Overseers to the Poor have been greatly damaged by damp in antiquity. Dr Stokes in

his 1911 article wrote of the parish of St Andrew the Less; "the old parochial books of this parish are unfortunately lost (with the exception of a few certificates and magistrates orders) or mislaid (Stokes 1911, 100).

6.2.3 The search showed that there are no surviving conveyances which directly relate to the site. There are several conveyances on plots within Coldhams Lane, but they all relate to fields to the south. The CRO search found no further records relating to the brick works adjacent to the site which date from at least the beginning of the 19th century (and probably some time before), and which continued till after 1924.

6.2.4 Cartographic maps of the site have been studied at the CRO and other maps have been studied in books and articles. The research has informed us that there are no pre-Enclosure (*c.*1808-1812) maps of the site. This has seriously handicapped us in understanding the pre-19th century remains within the site. In contrast, the cartographic evidence for the 19th and early 20th century is extremely good. Eight maps dating from 1807/1812 to 1924 has been studied as part of the evaluation and this PXA and this has allowed us to understand how this site evolved in the 'modern' era.

Statement of Potential

6.2.5 There is some potential that additional documents available at the University Library will add details to pertinent to the site.

6.3 Artefact Summaries

Worked stone

Summary

6.3.1 Twenty-seven worked stone, mostly architectural fragments but including two quern fragments were recovered from the excavations (see Appendix B.1). The architectural stone was all re-used, and was possibly taken from Barnwell Priory. The stone seems to have originated from both Weldon (Northamptonshire) and Portland (Dorset). Two pieces were found in a disturbed layer overlying a medieval well, the remaining fragments all came from medieval/late medieval contexts (Phases 2.2 and 3).

Statement of Potential

6.3.2 Analysis of this stone will help to address questions concerning the connection between the lay settlement and the priory of Barnwell.

Small finds

Summary

6.3.3 Eighty small find objects were recovered comprising eight copper-alloy, 65 iron (mostly nails), three bone, one fired clay, one glass and two stone (see Appendix B.2). Only 14 artefacts are datable (although most were found in medieval or late medieval contexts). The datable artefacts comprise one Iron Age, six medieval, four late medieval or post-medieval and three post-medieval or modern. Medieval artefacts comprise objects used in textile, pin-making and iron-working industries.

Statement of Potential

6.3.4 The research potential of the assemblage is limited to the objects that can be dated, such as the dress accessories, and those providing evidence of trade and industry.

Industrial residue

Summary

6.3.5 A single probable smithy hearth bottom was found in Phase 2.2 well **603** (Appendix B.3). This is added evidence (see small finds above) to iron-working occurring nearby.

Statement of Potential

Further work will not add any more information.

Mid and/or Late Iron Age

Summary

6.3.6 A small assemblage of Mid and/or Late Iron Age pottery comprised 47 sherds (weighing 0.595kg) was recovered from a single ditch and re-cuts (see Appendix B.4). The pottery was relatively unabraded and a C14 date from the soot on one of these sherds has provided a date 201-47BC with a 95.4% probability.

Statement of Potential

6.3.7 The Iron Age pottery has been dated by C14 and descriptions of form and fabric will add significant detail to the corpus of locally made Iron Age pottery types.

Saxo-Norman to modern pottery

Summary

6.3.8 A moderate assemblage of 957 sherds (18.026kg) was found in the excavation in addition to a small number of sherds recovered from samples and 86 sherds from the evaluation (see Appendix B.5). The assemblage is predominantly medieval, dating to the mid 12th to mid 14th century with the majority of vessels used in the processing of food and drink.

Statement of Potential

6.3.9 The assemblage has the potential to contirbute local, regional and national pottery research priorities and can contribute to understanding pottery consumption and usage within the settlement of Barnwell.

CBM

Summary

6.3.10 A moderate assemblage of CBM was recovered (comprising 130 medieval to modern bricks (48.93kg), 2 post medieval floor brick (3.832), two medieval floor tiles (0.42kg), 561 ceramic peg tile (40.12kg) and 10 ridge, nib, pantile and ?stove tile (2.61kg) (see Appendix B.6). Most of the artefacts are medieval in date.

Statement of Potential

6.3.11 It is likely that the medieval brick, floor tile and stove tile originated from the priory (?as well as some of the the peg tile). The study of the assemblage will contribute to the regional research frameworks of possible links between the Priory and the lay settlement.

Other artefacts

Summary

6.3.12 A small assemblage of other artefacts was found comprising 10 clay pipe stems, a wig-curler, two Early Neolithic flints, seven vessel and window glass fragments (0.169kg), three fired clay/daub fragments (0.155kg) and three plaster fragments. Only the fired clay/daub is of medieval date and includes a possible object and part of the lining from a feature. Apart from the residual flints, and a possible Roman glass fragment, all the other objects are post-medieval in date (see Appendix B.7).

Statement of Potential

6.3.13 There is limited potential for these objects.

6.4 Environmental Summaries

Faunal Remains

Summary

6.4.1 A small assemblage of three hundred and ninety fragments of animal bone were recovered from the evaluation and excavation with 258 of these identifiable to species (65.8% of the total sample; See Appendix C.1). The relative small nature is emphasised when looked at by Phase. Cattle were the main source of animal products in the Middle-Late Iron Age being largely raised for meat. In the high-late medieval period (Period 2) sheep were the most common species being raised largely for wool and to a lesser extent mutton. There were also evidence for some cattle, pigs and domestic birds. This pattern of husbandry continued after the dissolution of the priory.

Statement of Potential

6.4.2 This assemblage holds no additional potential.

Environmental Remains

Summary

6.4.3 Fifty-six bulk samples were taken mostly from medieval pits and wells dating largely to medieval Phases 2.1, 2.2 and 3 (see Appendix C.2). Many of the samples had up to moderate plant remains preserved by carbonisation although a few of all three main phases had moderate or good remains. Evidence points to crops being imported into the site. Waterlogged samples from two medieval wells provided good waterlogged plant materials.

Statement of Potential

6.4.4 Samples will provide valuable evidence of diet and food supplies and contribute toward regional research aims concerning the connections between the settlement of Barnwell and the priory (see Section 4).

Insects

Summary

6.4.5 Two waterlogged samples from medieval wells were assessed and were found to be relatively rich in invertebrate remains (see Appendix C.3). The bulk of the assemblage

is made up or terrestrial groups associated with open landscapes, detritus and dung, plant litter and those phytophageous on vegetation.

Statement of potential

6.4.6 There is potential for a small amount of additional work on this assemblage to contribute towards establishing the types of environment on and round the settlement during the medieval period.

Shells

Summary

6.4.7 Just 91 shells (0.719kg) were recovered mostly from medieval contexts comprising 74 oyster, 16 mussel and a single whelk (see Appendix C. 4).

Statement of Potential

6.4.8 There is little potential from these remains although they will provide marginal evidence towards understanding diet and food supplies.

7 Updated Research Aims and Objectives

7.1 Introduction

7.1.1 The original research aims of the project recorded in the WSI (an copied in Section 4 above), were based on the evaluation results which had found significant archaeological remains only from the medieval and post-medieval periods. The excavation found Iron Age, medieval and post-medieval archaeological remains - indeed even for the latter two periods, the excavation found more than the evaluation suggested would be found (Atkins 2012b). As a consequence this section adds Iron Age regional research objectives (Bryant 2000; Medlycott 2011) and examines the medieval and post-medieval research agendas in greater depth and assesses how much they may be answered.

7.2 Regional Research Objectives

Iron Age

7.2.1 The excavation uncovered a Middle to Late Iron Age ditch with three re-cuts at the extreme northern part of the site, in an area which was not looked at in the evaluation stage as there had been a large spoil heap located here. The Iron Age remains found were limited, with vast majority of this settlement presumably to the north of the site. The Iron Age ditches produced a moderate assemblage of artefacts and ecofacts and a C14 date from the latest re-cut produced a relatively narrow date (201-47BC with a 95.4% probability). The site will help in answering one regional research aim:

Chronology

7.2.2 In the former regional frameworks (Bryant, 2000, 14 and 16) recorded that providing a means to date Iron Age sites was a research priority. He emphasised that, "the dating of Iron Age sites and artefact assemblages is currently problematic and it is not possible to date most to within 200 years, and for many this figure rises to 500 years or more (Bryant 1995; Davies 1996; Sealey 1996, 47)." Bryant 2000, 16 suggested that, "priority should be given to the investigation and analysis of pottery assemblages which have a low proportion of residual forms and which can be dated by means of artefacts or absolute dating techniques." In the most recent regional frameworks dating and chronology of the Iron Age was, "still a central concern" (Medlycott 2011, 29).

7.2.3 The latest re-cut ditch produced the largest quantity of artefacts and ecofacts from this period (check). C14 analysis of a large relatively unabraded pottery sherd from this re-cut is likely not to be residual from the earlier ditches and it has therefore probably dated this re-cut to within *c*.150 years, far fewer than most Iron Age sites (see above). The lack of Belgic type pottery from the pottery assemblage shows these ditches are likely to have been in use before this pottery type was being used in the area.

Medieval

7.2.4 The interesting medieval and post-medieval remains within the site can answer several regional research aims and have been amalgamated into two main sub-headings:

1) What were the reasons for formation of the medieval settlement?

7.2.5 All the regional research agendas emphasise how little we know when, how and why medieval settlements were formed. In the case for the Coldhams Lane site there are

three or so research questions which can be substantially answered. For ease in this PXA these three have been linked:

"the origins and and development of the different rural settlement types need further research ...more data will add to our understanding of the way places appear, grow, shift and disappear" (Medlycott 2011, 70).

"what is the relationship between rural and urban sites?...there is scope for significant development in our understanding between towns and their hinterlands" (*ibid*, 70).

The role of monasteries on settlements is seen as needing more study (Ayres 2000, 29 and 31).

7.2.6 These research questions are helped by several medieval documents surviving concerning Barnwell as well as three archaeological excavations which have recently taken place within the former Barnwell settlement (the present site, CAU excavations 100m to the west and a site 0.5km to the west (Atkins 2012a).

7.2.7 There are documents which show that the original founding of Barnwell Priory took place near to Cambridge Castle in 1092, but it proved too small an area and this led to the priory being re-sited within 20 years of this date. Barnwell is an interesting and relatively rare case of a priory growing wealthy enough to found a whole 'village' on its own probably from scratch. Documentary evidence reports that the priory was re-established in AD 1112 on a green field site where previously there had been just a hermitage (see Maitland 1964). This historical fact that there was no previous significant settlement at Barnwell seems to have been confirmed by the three excavations as no definite pre-12th century occupation features were found in these three locations. Sir Cyril Fox's suggestion of a possible Saxon settlement *c*. 300m to the west of the Coldhams Lane site (Fox 1923, map G) is now shown as unlikely and had been based on relatively thin evidence of stray find(s).

7.2.8 The positioning of the priory and its lay settlement may have been significant to why this priory and settlement was successful. Over its 400 year history the priory became one of the most powerful and richest monastery in the East Anglian area. The possible reasons of location needs to be examined - it was a separate settlement to Cambridge, more than 1km outside the town itself but within its hinterland (its eastern field) and therefore very close to this prosperous town, on the main road to Newmarket and adjacent to the navigable River Cam. This lay settlement was formed to meet the needs of the priory for labour, both within the priory precinct itself and in the fields belonging it. The latter was important as the priory by the late medieval period controlled most of the agricultural land in the vicinity of the settlement. For this reason the former Cambridge East Field was later also referred as Barnwell Field in some documents. The settlement therefore allowed easy access for the labourers to farm it. The location of the priory outside, but very near Cambridge, and the fact that it was very wealthy with many fine buildings, was presumably the reason it often housed visitors of importance. It was, for example, the main place of residence when royalty visited Cambridge from at least the early 13th century with king John, Henry III, Edward II, Richard II (and his court), as well as the bishops of Ely in the 15th and early 16th century recorded (Salzman 1967, 244-6). These guests needed to be looked after by the priory and its servants - the lay people. The priory could afford a lot of lay helpers due to its wealth which was substantial by at least the early 13th century - one of the areas of revenue of the priory was St Barnwell's Fair, which was granted to the cannons of Barnwell in 1211 but it was already important by this date (see above). The

location next to this main road and importantly the River Cam, also allowed the priory to export and import commodities easily and cheaply (see below).

7.2.9 The building of the Priory and lay settlement on a large open greenfield site, unlike the former site near the castle, allowed this settlement to be "planned". The substantial amount of fields around it meant it was free to expand or change how it wanted without any restrictions and as there no neighbours or other industries around it, there was no complaints or interferences etc.

7.2.10 The layout of the Barnwell settlement is beginning to become better understood. The priory itself within its precinct directly on the northern side of the main road running from Cambridge to Newmarket. Excavations 0.5km to the north-west, directly beyond the precinct wall on the north side of the road, seems to suggest that fields were located here (Atkins 2012a). It is therefore likely the entire lay settlement was established directly opposite the priory, along the southern side of this road. The evidence from the site and from the CAU excavations are that this lay settlement comprised plots fronting Newmarket Rd (Craig Cessford *pers. comm.*). The excavation within the present site informs us that this settlement continued eastwards, at least past the Coldhams Lane junction with Newmarket Road. It may have been just a linear settlement as there is no evidence that houses fronted Coldhams Lane indeed both archaeologically, documentary and cartographic evidence suggest the settlement did not continue to the south of the site along Coldhams Lane and this route-way was therefore used only as a connecting road to other settlements etc. including Cherry Hinton and the fields. This archaeological evidence consisted of large medieval pits located near the frontage of the lane with no post holes within this area. The documentary and cartographic land directly to the south of the site including along Coldhams Lane was recorded as being part of the 1809 Barnwell Abbey Farm which has been suggested was all probably part of the Priory fields (Danckwerts 1980, 212 and fig. 1).

7.2.11 It is likely that this settlement was planned in stages. Several plots must have been built immediately in AD 1112 as the priory would have been of moderate size (priory was too small for the castle area). It is likely the settlement expanded as the priory became more wealthy by the early 13th century? The lay settlement church of St Andrew the Less was not seemingly founded at the start but the settlement was large enough to have its own church by at least the early 13th century (*ibid* 1967, 126). The incremental increase in the size of the Barnwell site may also be postulated from the fact that at first the figures for Barnwell (*e.g.* the 1279 survey) had been combined with the Saxon Barnwell suburb located just outside the town next to King's Ditch more than 1km to the west, with its own church of St Andrew the Great (Taylor 1999, fig. 22). In contrast, by the late medieval period Barnwell was important enough to form a ward in its own right, albeit the smallest in Cambridge (see Section X above). After the dissolution the settlement continued the post-medieval records suggest there were at least 50 houses in 1731.

7.2.12 In terms of activity and artefacts within the excavation area it may be possible to distinguish whether some of the finds within it were derived from former domestic plots within the site, other lay areas of the settlement and/or from Barnwell Priory itself? In the late medieval phase there seems there may be a direct link to some of the artefacts recovered and Barnwell Priory. Reused carved stones, floor tiles and many new unused bricks were recovered from upstanding remains of a 14/15th cess pit and these would have come from the priory. Similarly from many features bricks and other

artefacts from the priory were found deposited within them after they had gone into disuse.

2) Can the artefacts and ecofacts provide information about the activities within or near to settlement?

7.2.13 Environmental remains from the evaluation were well represented, particularly charred plant remains with some fish bones. This seems to suggest that the environmental assemblage from the site may be very informative. There was therefore scope that these remains may answer some regional framework questions. In this eastern region it has long been noted there was few excavations on rural medieval sites and this has been accompanied by the lack of environmental evidence (Wade 1997, 52). In the 2000 research framework it was stipulated under research topics that, "Priority should be given to the detailed examination of good animal bone and charred cereal deposits" (Wade 2000, 25). This analysis would be useful as it may determine whether there was specialisation and surplus production in a rural community with the remainder presumably being sold off (*ibid*, 25). The need for more environmental data was emphasised by Murphy, "there are very few published rural medieval bone assemblages from the region" (1997, 54).

7.2.14 "The production and processing of food for urban markets is a key element in understanding the relationship between towns and their hinterlands...the interchange between rural food supplies and urban industrial and craft products was essential for both town and village or hamlet." (Medlycott 2011, 71).

- What factors influenced the decline of Barnwell settlement and growth of the Cambridge suburb?
- To investigate the extent and character of medieval and post medieval activity in the area and place it in the wider context of Barnwell Priory and the settlement identified to the west.
- Using the spectrum of environmental techniques appropriate for this aspect of investigation, an attempt will be made to model the landscape and its transformation brought about by the settlement's inhabitants and due to natural events.

7.3 Local Research Objectives

7.3.1 The key research aims of this project will relate to medieval agriculture and industry, rubbish disposal and the influence of religious houses (Barnwell Priory) on the landscape. Research objectives (including some already listed in Section 4 above as well as new ones) that may be addressed by this investigation include:

- This will include looking at what ways if any that relationship change/develop after the dissolution?
- Was the site within former medieval plots or was it at the edge of settlement and used for quarrying and later backfilled with rubbish?
- In addition the site will contribute to themes of research into the change from medieval to post medieval since there is clearly evidence for change/continuity of use from pitting, through reinstatement/cultivation? To the construction of buildings in the early post medieval period.
- How far can we trace back the history of the site between the Dissolution and enclosures? We know the site in 1807-12 belonged to three owners the parish (workhouse), Simon Farrant and Thomas Carter. The role of this workhouse is interesting and merits further study. We know from Dr Stokes that it consisted of four cottages - but this is usual. "Parish poorhouses from the 16th to 19th centuries usually consisted of a cottage or several cottages, used indiscriminately as free lodgings for some of the parish pensioners, as an occasional receptacle for the disabled and sick, and as a temporary

shelter for tramps and for paupers awaiting removal to other parishes " (Webb quoting poor law report 1832, 212). Others give a different interpretation of their uses and claim that "the parish poorhouse was, in some cases, partly an institutional workhouse even in the 16th century".

7.3.2 St Andrews the Less had a workhouse as there are documentary records of one possibly as far back as 1748 but certainly in 1759 and 1773 (see Section 1.3.18 above). We should be able to find out more as "In 1776, of the 13 parishes of the town which sent a return to the parliamentary enquiry, nine had a workhouse, the number of inmates varying from eight in St Peters to 24 in Holy Trinity. Although the parliamentary returns for the year 1785 do not give particulars concerning workhouses, they do specify the amount expended in each parish in setting the poor to work (Hampson 1934, 100). In 1785 the seven parishes which professed - according to the parliamentary returns to be setting the poor to work, expended between them only 16s 5d per year.

7.3.3 The 1807-12 Enclosure Map and Awards and the 1813 map also gives some detail of this workhouse (see Section 1.3.23+; Figs 6 and 7). We know in 1836 this parish workhouse went from parish control to City of Cambridge control. In 1836 the town of Cambridge created what was known as the Cambridge Poor Law Union which essentially looked after the poor and destitute in the town. Dr. Stokes in his 1911 article shows that this institution had records on this property till its destruction in 1895 and then the land was sold.

7.3.4 The use of these four cottages may have been affected by the expansion of St Andrew the Less's population, as in the early 19th century a further workhouse was built within the parish of St Andrew the Less in *c*.1823 at 8 and 9 Staffordshire Gardens (Stokes 1911, 102). The 1807/1812 Enclosure map shows this site was fields at that time and this workhouse was therefore a late example. This workhouse was then sold in 1838 after a new larger workhouse had been built in Mill Road (*ibid*, 101).

8 Methods Statements for Analysis

8.1 Stratigraphic Analysis

8.1.1 The basic stratigraphic analysis has been done. Dates provided by finds (particularly pottery) will be checked, refined and altered where necessary to provide final phasing. This will take place after receipt of full reports on the artefacts.

8.2 Illustration

8.2.1 Illustrations will include phase plans including detailed areas. Section drawings and photographs of key features, particularly Wells will be included in the report. It is recommended that a maximum of nine small finds, three stone artefacts, graffiti on one of the should be drawn .

8.3 Documentary Research

8.3.1 A considerable amount of documentary research has already been done, but it would be useful to visit the University Library, Cambridge which holds an 18th century tithe roll of the parish (Doc. 1375) a Terrier dated 1591 (Add Mss 6919) and records related to Inclosure 1779, 1801-1819 (Doc 621 and doc 127-31).

8.4 Artefactual Analysis

8.4.1 All the artefacts have been assessed (Appendices B.1 -B.7). Further analysis is recommended as follows:

- Architectural Stone: It is recommended that a description of the stone be included in the publication. The three more decorative items (SFs 17, 24 and 44) should be recorded by a specialist in monastic architecture (Julian Munby). Illustrations of three items are recommended.
- Small Finds: Four objects should X-rayed to enable accurate identification and illustration. Similarly, a minimum of 6 objects should be illustrated; a further 3 items from pit 519 that are presently encrusted in iron-impregnated mud may also require illustration depending on the X-ray results.
- Iron Age Pottery: The Iron Age pottery should be sent to a period pottery specialist for identification and cataloguing of fabric types and vessel forms.
- Medieval and post-medieval pottery: Proposed further work for full report comprises: integration and full recording of the evaluation assemblage alongside the main assemblage, targeted analysis of the assemblage on various field criteria, based on major stratigraphic units. Macroscopic inspection (based on x20 magnification) and description of all new fabric types. Identification and illustration of new forms and traits especially relating to local fabric types which are otherwise unpublished to date. Tabular statistics of fabric and vessel data. A report on the results of the above. In addition the pottery from nearby excavation undertaken by the Cambridge Archaeology Unit should be considered if the information is available.

- CBM: Comparison with other locally excavated material of similar date is recommended if available. The possible stove tile is especially unusual and the grafitti warrants further examination. It is recommended that this piece is illustrated.
- A possible fired clay object from Mid/Late Iron Age ditch needs specialist identification.
- The catalogue and reports on the remaining artefact types (industrial residues and other artefacts) have been completed and no further work is recommended.

8.5 Ecofactual Analysis

8.5.1 All ecofactual remains have been assessed (Appendices C1-C4) and further work Is recommended on selected samples for charred plant remains, pollen and insects. Full reports have been carried out on the animal bone and shells and no further work is recommended on these.

9 Report Writing, Archiving and Publication

9.1 Report Writing

Tasks associated with report writing are identified in Table 4

9.2 Storage and Curation

9.2.1 Excavated material and records will be deposited with, and curated by, Cambridgeshire County Council in appropriate county stores under the Site Code CAMCOL 12 and the county HER code ECB 3873. A digital archive will be deposited with OA Library/ADS. CCC requires transfer of ownership prior to deposition (see Section 11). During analysis and report preparation, OA East will hold all material and reserves the right to send material for specialist analysis.

9.2.2 The archive will be prepared in accordance with current OA East guidelines, which are based on current national guidelines

9.3 Publication

9.3.1 It is proposed that the results of the project should be submitted for publication in Proceedings of Cambridge Antiquarian Society, under the title The Settlement and Priory of Barnwell: Excavations at Coldhams lane, Cambridge by Rob Atkins.

Structure of reports

9.3.2 The Grey litereature report will follow the standard format of OAE reports

9.3.3 An article summarising and synthesising the results presented in the “grey” report will be prepared and will include: summary, introduction, geology and topography and archaeological and historical background (*c.1* text pages, c. 2 figures, c. 1 plate)

The results from the the excavation and artefacts/ecofacts will be presented together by by period (*c*.8 text pages, c. 6 figures, c. 6 tables, c.2 plates).

Discussion (c. 1 text pages, c.1 figure, c. 2 tables)

Bibliography (*c*. 1 page)

9.3.4 Article Summary

Sub-total	**No. pages**
Total text pages	10
Total figures	9
Total plates	3
Total tables	8
Bibliography	1
Volume Total	20

10 Resources and Programming

10.1 Project Team Structure

Name	Initials	Project Role	Establishment
Aileen Connor	AC	Project manager/content editor	OA East
Rob Atkins	RA	Author	OA East
Elizabeth Popescu	EP	Editor	OA East
Nina Crummy	NC	Small finds	Freelance
Carole Fletcher	CF	Medieval pottery and archive	OA East
Rachel Fosberry	RF	Environmental samples	OA East
Julian Munby	JM	Worked stone	OA South
Ruth Shaffrey	RS	Worked stone	OA South
TBA	TBA	Iron Age pottery	Freelance
Steve boreham	TBA	Pollen	Freelance
Dr Kim Vickers	KV	Insects	Freelance
Illustratora	ILL	Illustrations/report formatting	OAE

Table 3: *Project Team*

10.2 Stages, Products and Tasks

Task No.	Task	Staff
Project Management		
1	Project management	AC +EP
2	Liaison with relevant staff and specialists, distribution of relevant information and materials	RA
Stage 1: Stratigraphic analysis		
3	Final pottery dating	CF
4	Finalise site phasing	RA
5	Compile group and phase text	RA
6	Compile overall stratigraphic text and site narrative to form the basis of the full/archive report	RA
7	Review, collate and standardise results of all final specialist reports and integrate with stratigraphic text and project results	RA
Illustration		
8	Digitise selected sections	Ill
9	Prepare draft phase plans, sections and other report figures	RA
10	Select photographs for inclusion in the report	RA
Documentary research		

Task No.	Task	Staff
11	Research at University Library	RA
Artefact studies		
12	Worked stone - Further study especially decorative pieces	JM + RS
13	Small finds- Further study after X-ray 4 objects	NC
14	Prehistoric pottery- full report	TBA
15	Saxo-Norman to modern pottery - full report with further work on evaluation and excavation material	CF
16	CBM - Further work for full report	RA
Environmental Remains		
17	Environmental samples- Analysis of two waterlogged and six charred grain assemblages	RF
18	Pollen - assessment of pollen from the two waterlogged samples (potentially a full report if results are 'good')	SB
Stage 2: Report Writing		
19	Integrate further documentary research	RA
20	Write historical and archaeological background text	RA
21	Edit phase and group text	RA
22	Compile list of illustrations/liaise with illustrators	RA + Ill
23	Write discussion and conclusions	RA
24	Prepare report figures	Ill
25	Collate/edit captions, bibliography, appendices etc.	RA
26	Produce draft report	RA
27	Internal edit	AC + EP
28	Incorporate internal edits	RA
29	Final edit	EP
30	Send to publisher for refereeing	EP
31	Post-refereeing revisions	RA/EP
32	Copy edit queries	RA/EP
33	Proof-reading	RA/EP
Stage 3: Archiving		
34	Compile paper archive	RA
35	Archive/delete digital photographs	CF/RA
36	Compile/check material archive	CF/RA

Table 4: *Task list*

10.3 Project Timetable

10.3.1 It is anticipated that once this PXA has been approved, the full report will be ready for submission within 9 months and the publication text will be ready for submission within 15 months.

11 OWNERSHIP

11.1.1 The ownership of the archive (paper and artefacts) will pass to Cambridgeshire County Council after the project has been published.

Appendix A. Context Summary with Provisional Phasing

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
1	5	3	fill	pit	build-up			0.48	dark blueish grey, soft and loose clayey silty sand with frequent brick and stone fragments	4.2
2	5	3	fill	pit	dump		0.11	0.38	light yellow grey, soft sand	4.2
3	5	3	fill	pit	dump		0.12	0.46	mid brown orange, soft silty sand with frequent fine gravel	4.2
4	5	3	fill	pit	dump		1.26	0.56	dark brownish grey, firm silty sandy clay with occasional stones and brick fragments	4.2
5	5	3	cut	pit	?quarry			0.9		4.2
6	10	3	fill	pit / post hole	disuse		0.28	0.1	dark grey, firm silty clay with occasional stone and frequent charcoal	5.1
7	10	3	fill	pit / post hole	disuse		0.46	0.16	mid reddish, soft silty sandy clay with occasional small stones	5.1
8	10	3	fill	pit / post hole	disuse		0.42	0.04	mid yellow brown, soft sand	5.1
9	10	3	fill	pit / post hole	disuse		0.4	0.09	mid greenish brown, soft silty sand	5.1
10	10	3	cut	pit / post hole		0.46	0.35	0.27		5.1
11	14	3	fill	pit	disuse		1.16	0.36	mid light yellowy grey, moderately compact silty sandy clay with occasional small stones and charcoal	2.2
12	14	3	fill	pit	?quarry		1	0.17	mid yellowish grey, firm silty clay with frequent small stones and charcoal	2.2
13	14	3	fill	pit	disuse		0.98	0.18	mid dark grey, firm silty clay with occasional stone and charcoal	2.2
14	14	3	cut	pit	?quarry			0.68		2.2
15		5	layer		make-up			0.4	mid brown, sandy silt with lenses of crushed brick and gravel	5.2
16		5		wall					Concrete and brick wall	5.2
17		5	fill/cut	service?			1.7	0.7		5.2
18	18	2	cut	pit	?quarry			0.22		2.1
19	18	2	fill	pit	?quarry			0.22	dark brown grey, firm sandy silt with moderate small sub-rounded and sub-angular stones and occasional charcoal flecks	2.1
20		2	layer					0.4	mid brown grey, firm sandy silt with reddish lenses, moderate pebbles and occasional sub-rounded stones and flints	4.1
21	21	2	cut	foundation trench	?structure		0.82	0.28		5.1
22	21	2	fill	foundation trench	?structure			0.28	mid greyish brown, firm sandy silt with occasional gravel and small stones	5.1
23	21	2	fill	wall	?structure		0.47	0.23	White, compact chalk clunch	5.1
24		2		wall	?structure		0.2	0.07	orangey yellow, sandy gravel	5.2
25		2	layer					0.16	pale yelloish grey, loose silty sand with frequent rubble	5.2
26		2	layer						mid whitish grey, loose silty sand with occasional gravel	5.2
27		2	layer					0.2	mid yellowish red brown, loose sand with moderate gravel	5.2
28		2	fill	wall	?structure			0.12	chalk wall	5.2
29		2	fill	?wall	?structure	0		0.05	mortar and brick	5.2
30		2	layer						dark brown grey, loose silt with rubble	5.2
31	32	4	fill	pit	backfill		1.14	1	very dark orage and black, soft clayey sandy silt with occadional small stones	3
32	32	4	cut	pit	quarry			1		3
33		2	fill	?wall	?structure	0.4	0.26	0.12	chalk lumps packed with mid yellowy grey clay with chalky flecks	3
34	35	4	fill	pit	backfill		1.6	0.52	very dark black, soft clayey silty sand with occasional small stone	3
35	35	4	cut	pit	quarry		1.6	0.52		3

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
36	37	4	fill	pit	infill			0.78	mottled dark grey and orange, soft clayey silty sand with occasional small stones	2.2
37	37	4	cut	pit	quarry			0.78		2.2
38	39	4	fill	pit	backfill			0.94	mottled dark grey and orange, soft clayey silty sand with occasional small stones	2.1
39	39	4	cut	pit	quarry			0.94		2.1
40	40	6	cut	pit		2.3		0.6		4.2
41	40	6	fill	pit		0			dark reddish grey brown, firm sandy silt with occasional stones	4.2
42	42	6	cut	wall	?structure	1.1	0.7	0.1		5.1
43	42	6	masonry	wall	?structure	1.1	0.7		stone and orange sandy mortar wall	5.1
44	44	6	cut	? posthole			0.55	0.23		5.2
45	44	6	fill	? posthole				0.13	dark grey brown, firm sandy silt with moderate chalk and mortar	5.2
46	44	6	fill	? posthole				0.1	white and brown, compact silty chalk	5.2
47	48	1	fill	?pit or ditch		0				5.1
48	48	1	cut			1.1	1	1.1		5.1
49		1	layer			0		0.2		4.2
50		1	layer					0.35	dark grey brown, sandy silt	4.1
51		1		wall	structure				Red brick	5.2
52		1		wall	structure				brick wall	5.2
53		1		wall	structure				brick wall	5.2
54		1	layer					1		5.2
100	101		fill	pit	disuse	1.27	0.65		mid brownish grey loose silt with gravel	5.2
101	101		cut	pit	use	1.27	0.65			5.2
102	103		fill	pit	disuse	2.18	1.3	0.42	dark grey, clayey friable silt with occasional charcoal and sub-angular stones	2.2
103	103		cut	pit	use	2.18	1.3	1		2.2
104	107		fill	well	modern					5.1
105	107		fill	well	well lining				pinkish yellow bricks	5.1
106	107		fill	well	structure packing				dark blueish grey, firm silty clayey sand with occasional small gravel	5.1
107	107		cut	well	well					5.1
108	114		fill	pit	disuse	0.83	0.66	0.5	mid greenish brown, soft clayey silty sand with occasional very fine gravel	5.1
109	114		fill	pit			0.48	0.03	very dark black, firm clay	5.1
110	114		fill	pit	slump / dump		0.37	0.44	mid brownish grey, soft clayey sand with occasional gravel	5.1
111	114		fill	pit	capping / dump		0.91	0.49	light whitish grey, firm to hard clay and chalk with frequent grit	5.1
112	114		fill	pit	disuse		0.67	0.02	very dark blue, firm clay	5.1
113	114		fill	pit	disuse		0.82	0.47	mid orangey grey brown, moderately compact to soft clayey silty sand with occasional gravel	5.1
114	114		cut	pit		0.83	0.91	1.2		5.1
115	116		fill	post hole			0.25	0.1	dark grey, moderately compact clayey sand with occasional gravel	5.1
116	116		cut	post hole			0.35	0.1		5.1
117	118		fill	post hole			0.22	0.08	dark grey, moderately compact clayey sand with occasional gravel	5.1
118	118		cut	post hole			0.22	0.08		5.1
119	119		cut	pit	extraction	2.24	2.2	1.12		2.1

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
120	119		fill	pit	backfill?	2.24		0.6	dark brown, fine slightly compacted sandy silt with occasional clunch fragments and sub-angular stones	2.1
121	119		fill	pit	backfill?	2.2		0.62	dark greyish brown, slghtly compacted fine sandy silt with occasional sub-angular stones	2.1
122	122		cut	modern service	drain	0	0.85	0.5		5.2
123	122		fill	modern service	backfill		0.85	0.5	Beige / yellow, compact crushed mortar and coarse sand with occasional brick fragments	5.2
124	128		fill	pit	disuse	2.45	0.76	0.26	dark grey, firm clayey silt with occasional 10-20mm sub-rounded stones	2.1
125	128		fill	pit	disuse	1.8	0.78	0.7	dark brownish grey, firm clayey silt with frequent pockets of sand / pea grit 100mm in diameter	2.1
126	128		fill	pit		1	1.1	0.8	yellow, loose grit, pea grit and sand with occasional sub-rounded gravel and 50mm thick bands of silty sand	2.1
127	128		fill	pit		0.23	0.45	0.08	mid yellowish brown, loose silty sand with frequent <10mm diameter rounded stone / grit	2.1
128	128		cut	pit	use	2.45	1.6	0.88		2.1
129	130		fill	post hole	disuse	0.38	0.2	0.18	light grey, firm clay with occasional angular stone 10mm diameter	5.1
130	130		cut	post hole	use	0.38	0.2	0.18		5.1
131	133		fill	pit	?quarry	2.2	0.65	0.57	mid dark grey, friable sandy silt with lense of sands and gravels	3
132	133		fill	pit	quarry	1.8	1.25	0.84	light yellow orange dirty brown, friable to loose sand, gravels and silt with occasional small grey brown silty sand patches	3
133	133		cut	pit	quarry	2.2	1.65	0.84		3
134	136		fill	pit	backfill	2.8	1.8	0.1	dark blackish grey, moderately compact silty clay with frequent charcoal, CBM, wood and occasional plastic	5.2
135	135		cut	brick feature	?malting		0.95			5.2
136	136		cut	pit	demolition	2.8	1.8	0.1		5.2
137			layer	build up / make up		1.4	2.4	0.05	dark brownish moderately compact grey, silty clay with moderate charcoal, frequent CBM and moderate mortar	4.1
138	140		fill	pit				0.35	mid orange and mid yellow, moderately compact sandy clay	0
139	140		fill	pit				0.4	dark blackish grey, moderately compact sandy gravel with occasional chalk and charcoal	0
140	140		cut	pit			0.7	0.4		0
141	142		fill	post hole	backfill	0.6	0.35	0.05	mid grey, moderately compact silty clay with frequent chalk and occasional charcoal	0
142	142		cut	post hole		0.6	0.35	0.05		0
143	144		fill	post hole	backfill	0.7	0.6	0.05	dark brownish grey, moderately compact silty clay with occasional mortar	0
144	144		cut	post hole		0.7	0.6	0.05		0
145	146		fill	pit	backfill	1.1	1.2	0.55	mid dark grey, loose clayey sand with occasional charcoal and concrete and lots of roots	5.2
146	146		cut	pit	demolition	1.1	1.2	0.53		5.2
147	148		fill	service trench	backfill		0.7		dark brownish grey, moderately compact silty clay with frequent mortar	5.1
148	148		cut	drain / service			0.7			5.2
149	149		cut	pit	?extraction					5.1
150	149		fill	pit	secondary				mid grey, loose fine sandy silt with occasional sub-angular stones <60mm	5.1
151	152		fill	pit	dump		1.99	0.91	very dark, slightly greenish soft to moderately compact grey clayey sandy silt with occasional fine gravel and charcoal	3
152	152		cut	pit	quarry		1.99	0.91		3
153	154		fill	pit / post hole		0.78	0.6	0.08	very dark grey brown, friable sandy silt	5.1
154	154		cut	pit / post		0.78	0.6	0.08		5.1

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
				hole						
155	156		fill	pit	disuse	1.5	0.73	0.75	dark greenish grey, loose clayey silt with 30-100mm diameter sub-angular brick inclusions	5.1
156	156		cut	pit	use	1.5	0.73	0.75		5.1
157	158		fill	pit / post hole		0.92	0.6	0.17	very dark grey brown, friable sandy silt with brick and roof tile	5.1
158	158		cut	pit / post hole		0.92	0.6	0.17		5.1
159	160		fill	pit		0.94	0.4	0.15	very dark grey brown, friable sandy silt with frequent china pottery	5.1
160	160		cut	pit		0.94	0.4	0.15		5.1
161	161		cut	pit		1	0.6	0.34		5.1
162	161		fill	pit	secondary	1	0.6	0.34	mid brownish grey, slightly compacted fine sandy clayey grey with occasional sub-angular stones <30mm	5.1
163	163		cut	post hole	unknown	0.4	0.4	0.12		5.1
164	163		fill	post hole	secondary	0.4	0.4	0.12	mid grey, compacted fine sandy clayey silt with moderate sub-rounded and sub-angular stones <40mm	5.1
165	165		cut	post hole	unknown	0.35	0.38	0.2		5.1
166	165		fill	post hole	secondary	0.32		0.15	mid grey, fine compacted sandy silt with occasional sub-angular stones <30mm	5.1
167	165		fill	post hole	backfill	0.35	0.38	0.07	Off-white, compacted mortar with moderate angular stones <40mm	5.1
168	168		cut	pit	quarry	1.8	1.75	2.4		2.1
169	168		fill	pit	lining		0.3		cream / off-white, very compact chalk with occasional angular flints	2.1
170	168		fill	pit	secondary		1.4	0.46	mid grey, slightly compacted fine sandy silt with occasional sub-angular stones	2.1
171	172		fill	ditch	boundary		1.2	0.26	mid grey brown, friable sandy silt with very rare small stones	4.2
172	172		cut	ditch	boundary		1.2	0.26		4.2
173	174		fill	pit / post hole		0.6	0.5	0.83	mid dark grey brown, friable sandy silt with rare gravel	2.1
174	174		cut	pit / post hole		0.6	0.5	0.83		2.1
175	182		fill	pit	disuse		1.92	0.3	dark brownish grey, soft clayey silty sand with occasional small stones	2.2
176	182		fill	pit	disuse		1.84	0.06	mid brownish orange, firm silty sand with occasional gravel	2.2
177	182		fill	pit	disuse		2.02	0.56	dark greysish brown, moderately compact clayey silty sand with occasional stones	2.2
178	182		fill	pit	disuse		1.75	0.55	mid orangey greyish brown, moderately compact clayey silty sand with occasional gravel	2.2
179	182		fill	pit	disuse		1.33		very dark black, soft silty sand with rare stones	2.2
180	182		fill	pit			1.39	0.06	mid yellow orange, soft sand	2.2
181	182		fill	pit	disuse		0.59	0.08	mid / light brown grey, soft sand	2.2
182	182		cut	pit	?quarry		2.15	1.45		2.2
183	190		fill	well	disuse		1.02	0.34	mid orangey brown, moderately compact silty sand with occasional stone	2.1
184	190		fill	pit	disuse		1.09	0.62	mid dark orangish brownish grey, moderately compact clayey silty sand with occasional stone	2.1
185	190		fill	pit	disuse		0.31	0.76	mid whitish orangy brown, moderately compact clayey sand	2.1
186	190		fill	pit	disuse		0.38	0.3	mid light whitish brown, moderately compact clayey sand with occasional gravel	2.1
187	190		fill	pit	disuse		0.84	0.44	mid yellowish brown, moderately compact clayey silty sand with occasional gravel	2.1
188	190		fill	pit	disuse		1.19	0.28	mid brownish grey, soft clayey silty sand with occasional stones	2.1
189	190		fill	pit	disuse		1.1	0.37	mid yellowish brownish grey, soft silty clayey sand with occasional chalk flecks	2.1

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
190	190		cut	well	well		1.34	3.64		2.1
191	103		fill	pit / quarry	disuse	1.15	1.4	0.58	dark brownish grey, friable clayey silt with occasional 10-20mm angular gravel and 10mm charcoal	2.2
192			layer	levelling / hardcore	use			0.12	mid brownish yellow, clayey silt with frequent limestone, 50-150mm in diameter	5.1
193	195		fill	pit / levelling	disuse	1.9	0.62	0.2	dark greenish grey, soft clayey silt with occasional 10mm diameter charcoal and frequent 10mm diameter gravel	2.2
194	195		fill	pit / levelling	?disuse	1.9	0.62	0.05	dark greyish brown, loose silt with frequent <10mm iron fragments and occasional brick fragment	2.2
195	195		cut	pit / levelling		1.91	0.62	0.4		2.2
196	199		fill	pit	disuse / quarrying	0.8		0.5	dark greyish brown, friable silt with occasional 10mm diameter rounded gravel	2.1
197	199		fill	pit	disusse	0.8	0.26	0.2	white, clay with concrete	2.1
198	199		fill	pit		0.8	0.6	0.46	mid orange, loose sand with moderate <10mm gravel	2.1
199	199		cut	pit		0.8	0.62	0.8		2.1
200			layer	layer	build up / make up			0.2	mid orange brown, moderately compact silty sand with occasional charcoal flecks, occasional chalk flecks and lumps	4.1
201	204		fill	pit			1.1	0.4	dark brownish grey, moderately compact silty sand with occasional charcoal flecks	2.2
202	204		fill	pit	backfill		0.7	0.3	mid greyish orange, moderately compact silty sand	2.2
203	239		fill	pit	lining		0.4		light blueish white, clay with occasional chalk	2.1
204	204		cut	pit	cess		1.7	0.8		2.2
205	168		fill	pit	lining		0.3		cream / off-white, compacted fine clay with occasional angular flints	2.1
206	168		fill	pit	secondary		0.23		mid brownish grey, compacted fine sandy silt with moderate clay lenses and occasional sub-angular stones <40mm	2.1
207	168		fill	pit	?backfill		1.15		dark brownish grey, compacted fine sandy silt with silty clay lenses and occasional angular stons <40mm	2.1
208	168		fill	pit	secondary		1.1	0.45	cream / mid grey mix, compact chalk / fine sandy chalky silt mix with occasional sub-angular stones <40mm	2.1
209	168		fill	pit	secondary		1.3	0.25	mid grey, firm fine sandy silt with moderate sub-angular stones	2.1
210			layer					0.4	mid dark grey brown, friable sandy silt	4.1
211	204		fill	pit				0.8	dark black, moderately compact silty charcoal	2.2
212	212		cut	pit		0.45	0.45	0.15		5.1
213	212		fill	pit					mid reddish brown, loose sand with rare light grey clay inclusions	5.1
214	214		cut	pit			0.75	0.14		5.1
215	214		fill	pit					mid brown grey, firm sandy clay with moderate broken brick and occasional light grey chalky clay	5.1
216	216		cut	pit		0.4	0.4	0.15		4.2
217	216		fill	pit					dark grey, firm sandy silt with rare inclusions of light grey clay, 10mm diameter	4.2
218	218		cut	pit		2.6		0.75		2.2
219	218		fill	pit					mid brown, loose clay sand	2.2
220	220		cut	pit		2.3	0.35	0.22		2.1
221	220		fill	pit					mid brown, loose silty sand	2.1
222	222		cut	construction trench	construction of wall	1	0.6	0.08		5.1
223	222		fill	structure	wall				light yellow, brick	5.1
224	222		fill	structure	wall				mid brown, firm clay sand	5.1
225	229		fill	cess pit	backfill	1.5	1.42	0.47	dark brownish grey, soft clayey sitly sand with frequent small stones and CBM	3
226	229		fill	cess-pit	dump	1.29	1.06	0.38	mid orange greenish grey, soft clayey silty sand with frequent fine gravel	3

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
227	229		fill	cess-pit	remenants of cess	1.5	1.19	0.09	dark greenish grey, firm clayey silt with rare small stones	3
228	229		masonry	cess-pit	cess-pit	2	1.48	0.56	Walls constructed of brick, tile, chalk, clunch, stone tile, worked stone and lumps of old mortar and flint nodules and uncut stone, held together by white clay	3
229	229		cut	pit	construction cut for cess pit	2.13	1.63	0.56		3
230	204		fill	pit	disuse			0.8	dark black, moderately compact silty charcoal	2.2
231	239		fill	?well	disuse			0.25	dark brownish grey, moderately compact silty sand with occasional charcoal and clay inclusions	2.1
232	218		fill	pit	Extraction and refuse				mid grey yellow, loose sand	2.2
233	218		fill	pit	Extraction and refuse		0.85	0.15	mid brown grey, firm sandy clay	2.2
234	218		fill	pit	Exctaction and refuse	0		0.3	mid yellow brown, loose silty sand	2.2
235	218		fill	pit	Extraction and refuse		0.16	0.6	mid greyish yellow, loose sand with occasional rounded stones of <5mm	2.2
236	218		fill	pit	Extraction and refuse		1.28	0.28	dark greyish brown, firm silt with occasional rounded stone of <5mm	2.2
237	218		fill	pit				0.15	mid brown grey, firm silty sand with rare <5mm stones	2.2
238	218		fill	pit	Extraction and refuse				dark grey brown, firm sandy silt with occasional rounded stone of <10mm	2.2
239	239		cut	?well			2.6	2.9		2.1
240	239		fill	?well	backfill		1.2		mixed white and grey, moderately compact clay and clayey sand	2.1
241	241		cut	pit	extraction?		1.45	0.45		2.1
242	241		fill	pit	secondary		1.35	0.27	mid grey / orange mix, firm fine sandy silt / sandy gravel mix with occasional sub-angular stones of <40mm	2.1
243	241		fill	pit	secondary		1.45	0.14	mid brownish grey, firm fine sandy silt with occasional sub-angular stones of <40mm	2.1
244	222		layer	construction	wall				light grey, indurate lime mortar	5.1
245	222		fill	construction trench	structure				mid brown, firm clay sand	5.1
246	246		cut	post hole	structure		0.4	0.3		4.2
247	246		fill	post hole			0.4	0.3	mid greenish brown, loose sand, occasional stone angularof <10mm	4.2
248	248		cut	post hole	structural?	0.4	0.3	0.14		5.1
249	248		fill	post hole	backfill	0.4	0.3	0.14	mid greyish brown, compacted fine sandy silt, frequent mortar of <40mm	5.1
250	250		cut	post hole	post hole		0.22	0.05		4.2
251	250		fill	post hole	post hole		0.22	0.05	mid whitish-yellow, soft frequent clay, moderate silt with occasional flints of <30mm	4.2
252	252		cut	post hole	post hole		0.4	0.3		4.2
253	252		fill	post hole	post hole		0.4	0.3	mid whitish-yellow, soft frequent clay, moderate silt with small flints of <30mm, broken brick up to 120mm long, pieces of clunch up to 150mm	4.2
254	254		cut	post hole	post hole		0.36	0.06		4.2
255	254		fill	post hole	post hole		0.36	0.06	mix of mid whitish-yellow and mid brownish-grey, soft frequent clay, moderate silt with occasional small flints <1cm	4.2
256	256		cut	post hole	post hole		0.25	0.11		4.2
257	256		fill	post hole	post hole		0.25	0.11	mid whitish yellow, soft frequent clay, moderate silt with occasional flints of <10mm	4.2
258	258		cut	post hole	post hole		0.5	0.3		4.2
259	258		fill	post hole	post hole		0.5	0.3	mid whitish-yellow, soft frequent clay, moderate silt with	4.2

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
									occasional small flints of <10mm - some fine grit / ash	
260	260		cut	?post hole	?post hole		0.4	0.14		4.2
261	260		fill	?post hole	?post hole		0.4	0.14	mid purplish brown, soft silty clay with small flints of <10mm	4.2
262	262		cut	?post hole	?post hole		0.3	0.1		4.2
263	262		fill	?post hole	?post hole		0.3	0.1	mid purplish brown, soft silty clay with some small flints of <10mm - some fine grit / ash	4.2
264	264		cut	stake hole	stake hole		0.06			5.1
265	265		cut	stake hole	stake hole		0.06			5.1
266	266		cut	stake hole	stake hole		0.06			5.1
267	268		fill	post hole	disuse				olive brown, loose sandy silt with frequent flint gravel, oyster and mussel shell frags	5.1
268	268		cut	pit	structure	0.28	0.28	0.12		5.1
269	270		fill	post hole	disuse	0			olive brown, loose sandy silt with frequent flint gravel, oyster and mussel shell frags	5.1
270	270		cut	post hole	post hole	0.3	0.3	0.2		5.1
271	272		fill	post hole	disuse	0			olive brown, loose sandy silt with frequent flint gravel, oyster and mussel shell frags	5.1
272	272		cut	post hole	structure	0.35	0.35	0.15		5.1
273	274		fill	post hole	disuse	0			brown, loose sandy silt with frequent flint gravel and some charcoal frags	2.1
274	274		cut	post hole	structure	0.4	0.4	0.1		2.1
275	276		fill	post hole	disuse				dark grey, loose silty sand with frequent flint gravel	5.1
276	276		cut	pit	structure	0.25	0.25	0.05		5.1
277	278		fill	post hole	post pad	0			2 bricks at base of heavily truncated post to form a post pad	5.1
278	278		cut	post hole	stucture	0.25	0.25	0.07		5.1
279	229		fill	pit		2.13	1.68	0.56	mottled dark orangey grey, moderately compact to firm clayey silty sand with occasional small stones	3
280	281		fill	pit / animal grave	disuse	1.56	0.8	0.51	dark greenish brown, friable clayey silt with occasional 20-50mm sandstone, rare 20-30mm sub-angular gravel	5.1
281	281		cut	pit / animal burial	use	1.56	0.8	0.51		5.1
282	283		fill	pit or post-hole				0.6	mixed friable dark grey brown sandy silt fequent and orange brown silty sand with patches of orange sand rare and very small stones	2.2
283	283		cut	pit				0.6		2.2
284	285		fill	cellar	building	0			mid orange brown, friable sandy silt	5.2
285	285		cut	cellar	building			0.4		5.2
286	288		fill	post hole	disuse	0.4	0.53	0.18	light grey and light yellowish white, loose silt with frequent red brick and sandstone, sub-angular 40-80mm diameter	4.2
287	288		fill	post hole	disuse	0.4	0.33	0.33	mid brownish grey friable clayey silt with frequent sub-rounded gravel 20-50mm diameter	4.2
288	288		cut	post hole	use	0.57	0.6	0.38		4.2
289	290		fill	post hole	disuse	0.59	0.47	0.3	dark greenish grey, friable clayey silt with occ charcoal fragments of <10mm, mortar fragments of 10-20mm and rounded gravel of 10-20mm	4.2
290	290		cut	post hole	use	0.59	0.47	0.3		4.2
291	292		fill	post hole	disuse		0.4	0.3	dark grey brown, firm clay silt with frequent mortar flecks	5.1
292	292		cut	post hole			0.4	0.3		5.1

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
293	294		fill	pit / post hole	disuse		0.58	0.5	light grey brown, loose slit sand with frequent mortar flecks and small stones	5.2
294	294		cut	pit / post hole			0.58	0.5		5.2
295	296		fill	pit			0.56	0.16	light grey brown, firm silt sand with very frequent patches of mortar rubble	5.1
296	296		cut	natural		0.6	0.56	0.16		5.1
297	298		fill	pit	disuse	0.6	0.4	0.1	dark grey brown, firm sand silt with frequent charcoal flecks, rubble, small stones	5.1
298	298		cut	pit		0.6	0.4	0.1		5.1
299	308		fill	pit			1.04	0.16	light white grey, firm sand silt with frequent chalk lumps, mortar	3
300	308		fill	pit			1.56	0.2	light grey brown, firm sand sit with moderate small stones	3
301	308		fill	pit			1.6	0.06	dark grey black, loose mainly degraded wood with very frequent burnt wood and occasional mortar patches	3
302	308		fill	pit			0.8	0.08	light grey brown, firm sand silt with occasional small stones	3
303	308		fill	pit			1.2	0.08	light orange yellow, loose slightly silty sand with frequent small stones	3
304	308		fill	pit			1.4	0.3	ight grey brown, firm sand sit with moderate small stones	3
305	308		fill	pit				0.1	light orange brown, firm silt sand with frequent small stones	3
306	308		fill	pit				0.15	dark grey brown, firm sand silt with freqent small stones	3
307	308		fill	pit				0.1	light white grey, firm silt sand with occasional small stones	3
308	308		cut	pit			1.4			3
309	310		fill	post hole	disuse		0.42	0.18	light grey brown, firm clay silt with very frequnt motar and rubble fragments	5.1
310	310		cut	post hole			0.42	0.18		5.1
311			layer			0				2.1
312	313		fill	pit				1.04	Mix of several lenses of dark grey chalk and silt, orange gravels, dark grey brown silt and charcoal, grey silt and sand	3
313	313		cut	pit				1.04		3
314	315		fill	post hole			0.3	0.47	frequent chalk with moderate dark orange brown, friable sandy silt and rare brick and stones	5.1
315	315		cut	post hole			0.3	0.47		5.1
316	318		fill	pit	disuse			0.4	mid / dark brownish grey, moderately compact silty sand with very occasional chalk	3
317	318		fill	pit	disuse			0.25	frequent yellow, loose sandy gravel, occasional white clay and occasional loose grey, silty sand	3
318	318		cut	pit	cess		1.8	0.9		3
319	320		fill	post hole	disuse	0.3	0.31	0.12	mid blueish grey, firm silty clay with occasional red brick fragments of 20-50mm diameter	5.1
320	320		cut	post hole	post hole	0.3	0.31	0.12		5.1
321	322		fill	wall / levelling	use	2.2		0.4	mid yellow, friable frequent sub-angular sandstone fragments of 50-150mm diameter and moderate clayey silt	5.1
322	322		cut	wall / levelling	use	2.2		0.4		5.1
323	324		fill	pit		1.2		0.56	mid grey, friable clayey silt with frequent tiles and brick rubble of 30-150mm in diameter	5.1
324	324		cut	pit		1.2		0.56		5.1
325	328		fill	post hole		0.42	0.37	0.1	mid blueish grey, plastic silty clay with occasional 20-50mm red brick fragmants	5.1
326	328		fill	post hole	use	0.19	0.22	0.09	light yellowish white, firm clay with rare silty clay flecks	5.1
327	328		fill	post hole	disuse	0.33	0.23	0.26	dark grey, friable clayey silt with occasional 20mm diamenter mortar inclusions	5.1
328	328		cut	post hole	use	0.42	0.37	0.38		5.1
329	332		fill	post hole		0.31	0.26	0.08	mid blueish grey, plastic silty clay with occasional 10mm diameter sub-rounded gravel	5.1

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
330	332		fill	post hole	use	0.18		0.03	light yellowish white, firm clay with rare silty clay flecks	5.1
331	332		fill	post hole	disuse	0.31		0.22	dark greenish grey, friable clayey silt with rare brick fragments of 10-20mm diameter	5.1
332	332		cut	post hole	use	0.31	0.27	0.32		5.1
333	339		fill	pit	disuse				lenses of grey sandy silt, silty sand and yellow sand and gravel with frequent flint gravel	3
334	339		fill	pit	disuse				lenses of light grey and orange brown, sandy silt and silty sand with frequent flint gravel	3
335	339		fill	pit	disuse				lenses of brown, grey brown and orange brown sandy silt with frequent flint gravel	3
336	339		fill	pit	disuse				yellow brown, loose sand with frequent flint gravel	3
337	339		fill	pit					brown, loose silty sand with frequent flint gravel	3
338	339		fill	pit	cess				greenish olive brown, loose silt with occasional gravel	3
339	339		cut	pit	?cess	1.8	1.5	1.5		3
340	341		fill	post hole	disuse				orange brown, loose silty sand with frequent flint gravel and medieval and post-medieval bricks	5.1
341	341		cut	post hole	structure	0.6	0.6	0.18		5.1
342	343		fill	post hole	disuse		0.43	0.2	light grey brown, firm clay silt with moderate mortar flecks and rubble	5.1
343	343		cut	post hole			0.43	0.2		5.1
345	218		fill	pit					dark grey, firm silt with charred material, burnt clay and occasional 20mm diameter sub-angular stones	2.2
346	346		cut	post hole	structure		0.16	0.4		2.2
347	346		fill	post hole	structure				mid grey brown, loose sand	2.2
348	348		cut	pit	?rubbish	1.1	0.85	0.18		5.1
349	348		fill	pit	?backfill	1.1	0.85	0.18	mid greyish brown, compact fine sandy silt with moderate charcoal fragments and mortar fragments	5.1
350	350		cut	pit		1	0.7	0.28		5.1
351	350		fill	pit	backfill	1	0.7	0.28	mid grey, compacted fine sandy silt with frequent mortar and brick fragments	5.1
352	281		fill	pit	disuse	1.2	0.8	0.3	mottled mid brownish orange and mid brownish grey, firm clayey silt with occasional sub-angulr 10-30mm diameter gravel	5.1
353			fill	wall	building				c. 19th century brick wall	5.1
354			fill	floor	building				white chalk floor	5.2
355			fill	wall	building	0				5.2
356			fill	wall	building	0				5.2
357	358		fill	post hole	disuse		0.55	0.25	light grey brown, firm clay silt with frequent mortar patches	5.1
358	358		cut	post hole			0.55	0.25		5.1
359			fill	wall	building		0.25		white, friable chalk	5.2
360			fill	floor	building				white, friable chalk	5.2
361	361		cut	post hole	post hole	0.55	0.7	0.3		5.1
362	361		fill	post hole		0.55	0.7	0.3	mid greyish brown, firm silty sandy clay with frequent 50-60mm chalk fragments	5.1
363	363		cut	post hole	post hole	0.25	0.25	0.23		5.1
364	363		fill	post hole		0.25	0.25	0.23	mid greyish brown, firm silty sandy clay with frequent 50-60mm chalk fragments	5.1
365	366		fill	pit	disuse	0.67	0.57	0.09	light greyish blue, soft clay with rare chalk flecks	5.1
366	366		cut	pit		0.67	0.57	0.09		5.1
367	369		fill	pit	disuse	0.76	0.66	0.1	light greyish white, friable clayey silt with frequent chalk flecks and occasional 10mm diameter gravel	5.1
368	369		fill	pit	disuse	1.4	0.32	0.12	mid greyish brown, friable clayey silt with occasional 10mm gravel / stone rounded rare charcoal flecks	5.1
369	369		cut	pit	use	1.46	0.66	0.25		5.1
370	190		fill	well	backfill		0.42	0.74	mid whitish brown, moderate sandy clay with occasional chalk	2.1

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
									fragments	
371	190		fill	well	disuse		0.68	0.26	mid brownish orange, soft clayey silty sand with rare small stones	2.1
372	190		fill	well	disuse		1.1	0.12	mid grey, clayey silty sand with occasional small stones and charcoal	2.1
373	190		fill	well	disuse		0.76	0.14	light orange, soft sand	2.1
374	190		fill	well	disuse		0.58	0.06	mid grey brown, moderatley compact sand	2.1
375	190		fill	well	disuse		1.26	0.43	light white yellow, soft sand	2.1
376	190		fill	well	disuse		0.74	0.09	light orange, moderately compact sand	2.1
377	190		fill	well	disuse		0.45	0.04	mid purple grey, firm sand	2.1
378	190		fill	well	disuse		0.4	0.12	mid orange, soft and loose sand	2.1
379	190		fill	well	alluvial deposit		1.33	0.06	mid greenish brownish grey, moderate clayey silty sand with occasional stones and gravel	2.1
380	182		fill	pit	disuse		0.59	0.11	very dark grey, soft clay silty sand with occasional fine gravel	2.2
381	190		fill	well	dump	0.36	0.6	0.04	mid dark grey, firm clayey sand with occasional stones	2.1
382	382		cut	pit	extraction	1.7	1.8	1.05		3
383	382		fill	pit					mid brown, firm clay with occasional small angular stones	3
384	190		fill	well	disuse		1.34	0.17	mid yellowish brown grey, soft clayey sandy silt with rare small stones	2.1
385	190		fill	well	disuse		1.25	0.15	dark brownish grey, soft silty clayey sand with rare small stones	2.1
386	190		fill	well	disuse		0.65	0.23	mid orangey brown, soft silty clay with occasional chalk	2.1
387	190		fill	well	disuse		1.34	0.23	mid greyish greenish brown, soft silty sandy clay with occasional small stones	2.1
388	382		fill	pit				0.25	mid brown, firm clay with occasional sub-rounded stone	3
389	382		fill	pit				0.4	mid green grey and mid yellow fine sand with occasional rounded stone <4mm	3
390	382		fill	pit				0.1	mid yellow and mid grey green, firm sand with occasional sub-angular stone <20mm	3
391	382		fill	pit	disuse			0.3	mid gree grey, firm clay with rare rounded and sub-angular stones	3
392	392		cut	construct ion	structure					5.2
393	392								dark red brown, indurate mortar	5.2
394	400								light yellow bricks	5.2
395	392		fill	structure	structure	0.5	0.06	0.18	mid red yellow, loose sand with moderate angular stones	5.2
396			layer					0.09	mid brownish grey, fine sandy silt with rare sub-angular stones >1mm	5.2
397	392		layer	floor	structure			0.14	light grey, firm clay	5.2
398			maso nry	floor					red and yellow CBM tile	5.2
399	392		maso nry	floor		0.23	0.23	0.04	light yellow CBM flooring tile	5.2
400			layer						mid grey, firm clay with occasional rounded stones	5.2
401			maso nry	structure					lime mortar	5.2
402	239		fill	?well	secondary		1.37	0.3	mid grey, compact fine silty clay with occasional angular flints <30mm	2.1
403	239		fill	?well	secondary		1.68	0.45	light grey / off white, compact fine chalk with occasional sub-angular stones <30mm	2.1
404	239		fill	pit	lining		0.32		light grey off-white, compact fine chalk with occasional angular flint <30mm	2.1
405	281		fill	animal skeleton	?use	1.37	0.66	0.1	articulated animal skeleton	5.1
406	408		fill	post hole	disuse				brown, loose sandy silt with occasional gravel	3
407	408		fill	post hole	post packing				white and brown mix, loose sandy silt with frequent chalk gravel	3

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
408	408		cut	post hole	structure	0.35	0.35	0.4		3
409	410		fill	post hole	disuse	0.25	0.25	0.08	white and brown mix, loose sandy silt with frequent chalk gravel	3
410	410		cut	post hole	structure	0.25	0.25	0.08		3
411	412		fill	post hole	disuse	0.25	0.25	0.08	brown, loose sandy silt with frequent chalk gravel	3
412	412		cut	post hole	structure	0.25	0.25	0.08		3
413	414		fill	post hole	disuse	0.22	0.22	0.1	greyish brown, loose sandy silt with occasional gravel and charcoal fragments	3
414	414		cut	post hole	structure	0.22	0.22	0.1		3
415	416		fill	post hole	disuse	0.33	0.33	0.15	brown, loose sandy silt with occasional gravel	3
416	416		cut	post hole	structure	0.33	0.33	0.15		3
417	418		fill	post hole	disuse	0.25	0.25	0.15	brown, loose sandy silt with occasional gravel and chalk	3
418	418		cut	post hole	structure	0.25	0.25	0.15		3
419	420		fill	post hole	disuse	0.4	0.4	0.12	brown, loose sandy silt with occasional gravel	2.1
420	420		cut	post hole	structure	0.4	0.4	0.12		2.1
421	422		fill	post hole	disuse	0.4	0.4	0.09	greyish brown, loose sandy silt with frequent gravel, charcoal, mortar and brick fragments	3
422	422		cut	post hole	structure	0.4	0.4	0.09		3
423	424		fill	post hole	disuse	0.4	0.4	0.07	greyish brown, loose sandy silt with frequent gravel, brick and tile fragments	3
424	424		cut	post hole	structure	0.4	0.4	0.07		3
425	426		fill	post hole	disuse	0.5	0.5	0.17	white and blueish grey, loose chalky silt with chalk gravel	3
426	426		cut	post hole	structure	0.5	0.5	0.17		3
427	428		fill	pit		1.5		0.51	mid greyish brown, loose sandy silt with occasional charcoal flecks	2.1
428	428		cut	pit		1.5		0.51		2.1
429	430		fill	pit		1.42		0.16	very dark grey brown, sandy silt	2.1
430	430		cut	pit		1.42		0.16		2.1
431	432		fill	post hole	structure	0.29	0.26	0.25	mid dark grey brown, soft sandy silt	3
432	432		cut	post hole	structure	0.29	0.26	0.25		3
433	434		fill	post hole	disuse	0.3	0.3	0.05	brown, loose sandy silt with frequent chalk gravel	3
434	434		cut	post hole	structure	0.3	0.3	0.05		3
435	436		fill	stake hole	disuse	0.1	0.1	0.29	dark brownish grey, fine clayey silt with rare chalk flecks	3
436	436		cut	stake hole	use	0.1	0.1	0.29		3
437	438		fill	pit	disuse	0.98	0.92	0.34	dark brownish grey, friable clayey silt with occasional charcoal flecks and 10mm diameter lumps of charcoal	2.2
438	438		cut	pit	use	0.98	0.92	0.34		2.2
439	440		fill	pit	disuse	0.7	0.73	0.19	dark greenish brown, friable clayey silt with occasional 10-20mm diameter rounded chalk	2.2
440	440		cut	pit	use	0.7	0.73	0.19		2.2
441	442		fill	post hole	disuse	0.3	0.34	0.1	dark brownish grey, friable clayey silt with rare 10mm diameter rounded stone and charcoal flecks	3
442	442		cut	post hole	use	0.3	0.3	0.1		3
443	168		fill	pit	secondary		1.43	0.27	off white, compact fine clayey chalk with occasional angular flints <40mm	2.1
444	168		fill	pit	secondary		1.6	0.45	mixed mid grey and mid yellow, compact fine sandy silt and gravel mix with moderate sub-angular gravel	2.1
445	168		fill	pit	secondary		1.7	0.27	mid grey and white lenses, compact fine sandy silt with chalk lenses and occasional sub-angular stones <40mm	2.1
446	446		cut	pit	extraction		1.1	0.2		3
447	446		fill	pit	disuse				dark greenish grey, firm sandy clay with sub-angular stones	3
448	448		cut	pit	extraction	2.4	1.3	0.36		3

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
449	448		fill	pit	disuse				dark green grey, firm sandy clay with occasional rounded stones and rare small sub-sngular stones	3
450	451		fill	pit	disuse	0.9	0.49	0.03	dark brownish grey, moderatly compact silty sand	2.2
451	451		cut	pit		0.9	0.49	0.03		2.2
452	453		fill	post hole	disuse	0.4	0.25	0.03	dark grey, moderately compact silty clay with occasional charcoal flecks	3
453	453		cut	post hole		0.4	0.25	0.03		3
454	455		fill	post hole	back fill	0.48	0.29	0.1	dark grey, moderately compact silty clay with occasional chalk flecks and one clunch stone	3
455	455		cut	post hole		0.48	0.29	0.1		3
456	457		fill	pit	disuse	0.95	0.9	0.35	brown, loose sandy silt with moderate gravel	2.1
457	457		cut	pit		0.95	0.9	0.35		2.1
458	459		fill	pit	disuse	1.78	1.35	0.18	mid brownish grey, friable silt with occasional 20-40mm diameter fragments of charcoal and 10mm diameter fragments of chalk	2.2
459	459		cut	pit	use	1.78	1.35	0.18		2.2
460	461		fill	pit	disuse			0.61	dark greenish, firm silty clay with rare 10mm fragments of chalk	2.1
461	461		cut	pit	use			0.61		2.1
462	463		fill	pit			1.6	0.32	dark grey brown, soft clayey silt with rare stones	3
463	463		cut	pit			1.6	0.32		3
464	465		fill	pit			1.9	0.29	dark grey brown, sandy silt with very occasional small stones	2.2
465	465		cut	pit			1.9	0.29		2.2
466	467		fill	pit				0.12	dark grey brown, soft sandy silt	3
467	467		cut	pit				0.12		3
468	469		fill	pit				0.17	dark grey brown, soft sandy silt with occasional charcoal flecks and small stones	3
469	469		cut					0.17		3
470	471		fill	post hole	structure	0.4	0.35	0.15	mid grey brown, soft sandy silt	3
471	471		cut	post hole	structure	0.4	0.35	0.15		3
472	472		cut	post hole	structure		0.4	0.1		3
473	472		fill	post hole	structure		0.4	0.1	dark red brown, firm sandy clay with occasional sub-angular stones <10mm	3
474	474		cut	post hole	structure		0.3	0.1		3
475	474		fill	post hole	structure		0.3	0.1	dark grey brown sandy silt with rare angular stones <10mm	3
476	481		fill	well	disuse	1.8	2.2	1.2	light grey brown, very frim sandy silt with moderate small stones	2.2
477	481		fill	well	disuse		1.2	0.8	light white grey brown, very firm sandy silt with frequent small stones and mortar flecks	2.2
478	481		fill	well			1.2	0.2	dark grey brown, firm clay silt with occasional small stones	2.2
479	481		fill	well				0.2	dark grey brown, firm clayey silt with occasional small stones	2.2
480	481		fill	well			1.7	0.8	dark grey brown, firm clay silt with occasional small stones	2.2
481	481		cut	well		3	2.9	3.38		2.2
482	483		fill	pit			0.9	0.6	dark grey brown, firm silt sand with occasional small stones	2.1
483	483		cut	pit	quarry		0.9	0.6		2.1
484	485		fill	pit	disuse		1.1	0.3	dark grey brown, firm sandy silt with occasional small stones	2.1
485	485		cut	pit	quarry		1.1	0.6		2.1
486	492		fill	pit				0.45	dark grey brown, soft sandy silt	2.1
487	492		fill	pit			1.7	0.3	mixed lenses of orange and dark greyish brown sand and sandy silt with rare small stones	2.1
488	492		fill	pit			1.3	0.15	ligth mid grey sandy silt	2.1
489	492		fill	pit			0.93	0.14	dark grey, friable sandy silt with verry rare small stones	2.1
490	492		fill	pit			0.62	0.26	orange, loose sand	2.1
491	492		fill	pit			1.31	0.2	very dark grey, friable sandy silt with rare small stones	2.1
492	492		cut	pit	quarry	2.9	2.9	1.4		2.1

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
493	492		fill	pit		0.5		0.1	light mid grey and red, loose sandy silt with occasional small stones	2.1
494	492		fill	pit		1.2		0.2	dark grey, loose silt with charcoal inclusions	2.1
495	492		fill	pit		1.3		0.2	light grey, loose silt with moderate gravel inclusions	2.1
496	492		fill	pit		1.2		0.4	dark grey, fine compact clayey silt with moderate gravel	2.1
497	492		fill	pit		1.1		1.2	dark grey and black, loose silt	2.1
498	492		fill	pit		1.5		1.1	dark grey, loose silt	2.1
499	492		fill	pit		1.5		1.3	light red brown, loose fine sandy silt with occasional gravel	2.1
500	492		fill	pit	quarry	0.8		1.2	dark red brown, loose very fine sand and clay	2.1
501	501		cut	post hole	?structure	0.2		0.07		3
502	501		fill	post hole	secondary	0.2		0.07	dark brownish grey, fine sandy silt with occasional sub-angular stones <20mm	3
503	503		cut	post hole	?stucture	0.2		0.08		3
504	503		fill	post hole	secondary	0.2		0.08	dark brownish grey, loose fine sandy silt with occ sub-angular stones <20mm	3
505	505		cut	pit	extraction		1.2	138		2.1
506	505		fill	pit	disuse				dark brownish grey, firm sandy clay with rare angular and rounded stones	2.1
507	505		fill	pit	disuse				dark grey brown, firm sandy clay with occasional angular stone	2.1
508	505		fill	pit	disuse				light yellow, mid red brown and dark brown grey, firm clay sand with rare angular stones <20mm	2.1
509	509		cut	pit	extraction		5	1.5		2.2
510	509		fill	pit	disuse				dark brown grey, firm sandy clay with occasional angular stones <10mm	2.2
511	509					0			dark grey, firm sandy clay with occasional angular stone <10mm	2.2
512	509		fill	pit	disuse				md red brown, firm sandy clay	2.2
513	509		fill	pit	disuse				dark brown grey, firm sandy clay with occasional small stones <40mm	2.2
514	509		fill	pit	disuse				mid red brown and dark grey, firm sandy clay with occasional sub-angualar stones <20mm	2.2
515	509		fill	pit	disuse				mid grey, firm sandy clay with sub-angular stones <20mm	2.2
516	509		fill	pit	disuse				dark grey, firm sandy clay with rare angular stones <10mm	2.2
517	517		cut	pit	extraction		0.8	0.5		2.1
518	517		fill	pit		0			dark grey brown, firm sandy silt with occasional sub-angular stone <20mm	2.1
519	519		cut	pit		1.8	1.2	1.4		3
520	519		fill	pit		1.4		0.21	black, loose silt with charcoal inclusions	3
521	519		fill	pit		1.3		0.3	light yellow grey, loose sandy silt with gravel inclusions	3
523	523		cut	well		1.2	1.2	3.5+		2.1
524	523		fill	well			1.1	0.53	mid grey, loose fine sandy silt with moderate sub-angular gravel	2.1
525	523		fill	well	secondary	1.2		0.42	mid brownish grey, loose fine sandy silt with occasional sub-angular stones <30mm	2.1
526	526		cut	pit	?extraction		1.3	0.45		2.2
527	526		fill	pit	secondary	1		0.2	dark grey, loose fine sandy silt with occasional sub-angular stones <20mm	2.2
528	190		fill	well	collapse		1.32	0.07	mid greyish white, firm clay	2.1
529	190		fill	well	disuse		1.29	0.32	mid dark brownish grey, firm silty clay with occasional small stones	2.1
530	190		fill	well	disuse		1.25	0.15	white with black lenses, firm clay with rare large stones	2.1
531	190		fill	well	disuse		1.2	0.04	mid / dark greenish brown, soft silty sand	2.1
532	190		fill	well	disuse		1.2	0.36	mid greyish borwn, soft clayey silty sand	2.1
533	190		fill	well	disuse		1.12	0.17	dark mid brown, soft sandy silt with rare small stones	2.1
534	526		fill	pit	secondary	0			mid brownish grey, loose fine sandy silt with occasional sub-angular stones <30mm	2.2

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
535	519		fill	pit		1.2		0.15	dark grey, loose silt with rare gravel	3
536	538		fill	pit			0.8	0.3	dark orange brown, friable silt sand with occasional small stones	2.1
537	538		fill	pit			0.9	0.35	light brown orange, friable silty sand with moderate small stones	2.1
538	538		cut	pit	quarry	2	1.25	0.65		2.1
539	519		fill	pit		1.1		0.1	black, loose silt	3
540	540		cut	ditch	boundary		1.3	0.6		1
541	540		fill	ditch	disuse		0.96	0.45	mid red brown, loose sandy clay with moderate angular stones <30mm	1
542	540		fill	ditch			1.3	0.16	mid red brown, loose sandy clay	1
543	523		fill	well	secondary	0.9		0.25	mid grey, fine sandy silt with occasional sub-angular gravel <20mm	2.1
544	523		fill	well	secondary		0.9	0.11	mid orangey brown, loose fine sandy silt with frequent sub-angular gravel <30mm	2.1
545	546		fill	ditch			1.17	0.62	mixed orange brown sandy silt and mid grey brown silt with occasional gravel	1
546	546		cut	ditch			1.17	0.62		1
547	519		fill	pit		0.4		0.3	light yellow, loose silt with gravel	3
548	523		fill	well	secondary	0			mid brown and off white, compacted fine sandy silt with moderate clay inclusions	2.1
549	523		fill	well	secondary	0.88		0.1	mid brownish orange, fine loose silty gravel <30mm	2.1
550	519		fill	pit		1.1		0.2	mid grey, firm silt with clay inclusions	3
551	481		fill	pit / well			0.6	0.4	dark grey brown, firm sand silt with occasional small stones	2.2
552	481		fill	pit / well			1.1	0.3	light grey orange yellow, friable silty sand with frequent gravel	2.2
553	481		fill	well			0.3	0.5	dark grey brown orange, firm sand silt with occasional small stones	2.2
554	481		fill	well			1.3	0.64	light brown grey, firm silt clay with very occasional small stones	2.2
555	481		fill	well			1	0.2	dark brown grey, soft silt clay with occasional small stones	2.2
556	481		fill	well			0.85	0.4	light brown grey, soft silt clay with occasional small stones	2.2
557	557		cut	well / pit	well / pit	1.7	1.7	0.4		2.1
558	557		fill	well / pit	disuse	1.7	1.7	0.4	dark orangey brown, friable silty sand with occasional flints	2.1
559	560		fill	ditch				0.43	orange brown, friable sandy silt with moderate gravel	1
560	560		cut	ditch				0.43		1
561	561		cut	pit		1.5	1.3	1.5		3
562	523		fill	well	secondary				light brown, compact fine silty sand with occasional sub-angular stones	2.1
563	523		fill	well	secondary	1.08			mid brownish grey, fine compact sandy silt with frequent clay inclusions <40mm	2.1
564	519		fill	pit		1.1		0.1	mid grey brown, loose silt	3
565	519		fill	pit		1.3		0.25	mid grey, loose silt with clay inclusions	3
566	519		fill	pit		1.4		0.25	light grey brown, loose silt	3
567	519		fill	pit		1.4		0.8	dark grey, firm silt	3
568	519		fill	pit		1.4		0.5	very dark grey, firm silt	3
569	570		fill	?post hole	?structure	0.26	0.18	0.07	mid grey, friable sand silt with rare small stones	5.1
570	570		cut	?post hole	?structure	0.26	0.18	0.07		5.1
571	572		fill	post hole	structure	0.42	0.38	0.15	mixed black charcoal and mid grey brown silt with brick inclusions	5.1
572	572		cut	post hole	structure	0.42	0.38	0.15		5.1
573	574		fill	post hole	?structure	0.5	0.16	0.14	mid brown, friable sandy silt with very rare charcoal flecks and small stones	5.1
574	574		cut	post hole	structure	0.5	0.16	0.14		5.1
575	576		fill	post hole	structure	0.5	0.38	0.22		5.1

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
576	576		cut	post hole	structure	0.5	0.38	0.22		5.1
577	578		fill	post hole	structure	0.66	0.48	0.15	mid brown, friable sandy silt	5.1
578	578		cut	post hole	structure	0.66	0.48	0.15		5.1
579	579		cut	?well			0.94	1.45++		2.1
580	579		fill	?well	secondary		0.94	0.6	mid brown and light grey, compact fine sandy silt and chalk mix with occasional sub-angular stones <30mm	2.1
581	579		fill	?well	secondary	0.9		0.4	light grey chalk and light brown sandy silt with occasional sub-angular stones <40mm	2.1
582	579		fill	?well	secondary		0.9	0.25	light grey, compact fine silty chalk with occasional sub-angular stones <40mm	2.1
583	561		fill	pit		0.6		0.25	dark grey, firm silt with rare gravel inclusions	3
584	561		fill	pit		0.6		0.2	dark grey, firm silt with rare stone inclusions	3
585	501		fill	pit		0.6		0.3	1970's pile	3
586	561		fill	pit		0.6		0.2	mid grey, firm silt	3
587	561		fill	pit		0.6		0.45	dark grey, loose silt with rare chalk inclusions	3
588	561		fill	pit		0.6		0.35	dark orange brown, loose silt with sand inclusions	3
589	561		fill	pit		0.45		0.1	mid grey, firm silt with clay inclusions	3
590	561		fill	pit		0.45		0.2	dark grey, very firm silt with clay and stone inclusions	3
591	593		fill	pit	disuse		1.22	0.45	mid dark orangey grey, moderate clayey silty sand with occasional small gravel	2.2
592	593		fill	pit	disuse		1	0.03	mid orange, soft sand	2.2
593	593		cut	pit	quarry		1.22	0.47		2.2
594	595		fill	well					mixed rubble backfill in centre, blue grey clay around the edges	5.1
595	595		cut	well						5.1
596	597		fill	soakaway		0			blue grey clay	5.2
597	597		cut							5.2
598	599		fill	post hole		0.25		0.15	light brown, firm silt with chalk inclusions	5.1
599	599		cut	post hole		0.25	0.25	0.15		5.1
600	600		cut	pit		0.7		0.25		3
601	600		fill	pit		0.7		0.25	light brown, firm silt with rare stone and chalk inclusions	3
602	579		fill	?well	secondary		0.95		dark brownish grey, fine compact sandy silt	2.1
603	603		cut	well	well		2.2	3.51		2.2
604	603		fill	well	secondary dumping	0.6		0.1	mid brownish orange, soft silty sand with moderate gravels <10mm	2.2
605	603		fill	well	disuse		1	0.3	dark brown, plastic sandy silt with moderate gravels <10mm	2.2
606	603		fill	well	disuse / dumping	0.6		0.06	mid brownish orange, soft silty sand with moderate gravels <10mm	2.2
607	603		fill	well	disuse / dumping		0.5	0.4	mid brownish orange, soft silty sand with moderate gravels <10mm	2.2
608	603		fill	well	dumping		0.4	0.05	dark brown, plastic sandy silt with moderate gravels <10mm	2.2
609	603		fill	well	dumping		1.7	1	mid brownish orange, soft silty sand with moderate gravels <10mm	2.2
610	603		fill	well	dumping		0.8	0.45	mid greyish brown, plastic sandy silt with moderate fine gravels	2.2
611	603		fill	well	cess pit and domestic waste	0			mid greenish grey, plastic clay with occasional gravels <20mm	2.2
612	603		fill	well	dump		1.1	0.2	mid brownish orange, soft silty sand with moderate gravels <10mm	2.2
613	603		fill	well	dumping		1.1	0.4	dark brown, plastic sandy silt with moderate gravels <10mm	2.2
614	603		fill	well	dump		0.6	0.15	mid brownish orange, soft silty sand with moderate gravels <10mm	2.2

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
615	603		fill	well	dump		0.45	0.15	dark brown, plastic sandy silt with moderate gravels <10mm	2.2
616	603		fill	well	dump		0.35	0.1	mid brownish orange, soft silty sand with moderate gravels <10mm	2.2
617	603		fill		dump		0.2	0.6	mid brownish grey, plastic sandy clay with occasional gravel <10mm	2.2
618	603		fill	well	dump		0.9	0.16	mid greyish brown, plastic silty clay with gravel and large flints	2.2
619	603		fill	well	dump		0.75	0.18	dark greyish brown, plastic silty clay with occasional gravels <10mm	2.2
620	603		fill	well	dump		0.44	0.1	mid orangish brown, soft sandy clay	2.2
621	603		fill	well	dump		1	0.16	black, friable ash and sand, with charcoal, burnt bone and coal	2.2
622	603		fill	well	dump		0.36	0.08	mid brownish orange, soft silty sand with moderate gravels <10mm	2.2
623	603		fill	well	dump	0			dark brown, plastic sandy silt with moderate gravels <10mm	2.2
624	603		fill	well	cess pit dump	1.45		0.7	mid greenish grey, plastic silty clay with chalk and gravels	2.2
625	603		fill	well	cess and rubbish dump		2.1	0.7	mid greenish grey, soft silty clay with chalk and gravel	2.2
626	626		cut	post hole	post hole		0.3	0.4		4.2
627	626		fill	post hole	disuse		0.3	0.4	mid orangey brown, plastic silty sand with moderate gravel <20mm	4.2
628	629		fill	post hole			0.3	0.26	light yellow brown, friable silt sand with frequent rubble and stones	5.1
629	629		cut	post hole			0.3	0.26		5.1
630	630		cut	post hole		0.45	0.5	0.15		0
631	630		fill	post hole		0.45		0.15	white and grey, firm grey silt with frequent chalk	0
632	632		cut	post hole		0.45	0.5	0.35		5.1
633	632		fill	post hole		0.45		0.35	mid grey, firm silt with white chalk	5.1
634	634		cut	post hole		0.5	0.4	0.28		0
635	634		fill	post hole		0.5		0.28	dark orange, firm silt with frequent chalk	0
636	645		fill	pit	disuse			0.3	mid yellowish orange grey, soft clayey sand	4.1
637	645		fill	pit				0.27	mid light grey, soft clayey sand with occasional small grit	4.1
638	645		fill	pit	disuse		0.71	0.08	mid reddish brown, firm sand with frequent coarse gravel	4.1
639	645		fill	pit	disuse			0.35	mid orangey grey, soft silty clayey sand with occasional small stones	4.1
640	645		fill	pit	disuse		0.57	0.11	mid dark, firm sandy clay with frequent coarse gravel	4.1
641	645		fill	pit	disuse		2.15	0.58	mid light yellowish brown, soft silty clayey sand with occasional fine grit	4.1
642	645		fill	pit	disuse		1.93	0.17	mid grey, soft clayey sand	4.1
643	645		fill	pit	disuse		1.17	0.09	mid orangey brown, firm silty sand with occasional gravel	4.1
644	645		fill	pit	disuse			0.11	mottled brownish yellow, firm silty clayey sand with occasional gravel	4.1
645	645		cut	pit	?quarry			0.92		4.1
646	546		fill	ditch					dark grey brown, friable sandy silt with occasional charcoal	1
647	648		fill	post hole	?structure	0.26	0.25	0.11	green brown, friable sandy silt with occasional small stones	0
648	648		cut	post hole	?structure	0.26	0.25	0.11		0
649	650		fill	post hole	?structure	0.22	0.17	0.05	light mid grey brown, friable sandy silt with frequent white chalk fragments	0
650	650		cut	post hole	?structure	0.22	0.17	0.05		0
651	653		fill	post hole	structure	0.46		0.2	mid grey brown, friable sandy silt with frequent chalk fragments and rare stones	5.1
652	0		fill	well			1.9	0.15	mid greenish grey, plastic silty clay with gravels and chalk fragements	4.2
653	653		cut	post hole	strucure	0.46		0.2		5.1

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
654	654		cut	pit		1.4		0.6		2.2
655	654		fill	pit		1.4		0.25	brownish grey silt, firm silt with clay inclusions	2.2
656	657		fill	floor				0.04	light grey white, hard chalk	5.2
657	657		cut	floor	floor			0.04		5.2
658	659		fill	post hole			0.4	0.45	dark grey brown, friable clay sand with frequent small stones and rubble	5.1
659	659		cut	post hole			0.4	0.45		5.1
660	663		fill	ditch		2	0.9	0.56	dark red brown, firm silt sand with moderate small stones	1
661	663		fill	ditch			0.8	0.2	light brown red, firm silty sand with occasional small stones	1
662	663		fill	ditch			0.65	0.2	light brown yellow, loose silt sand with frequent gravel	1
663	663		cut	ditch	boundary	2	0.9	0.6		1
664	665		fill	ditch		2	0.82	0.4	light red brown, firm silt sand occasional small stones	1
665	665		cut	ditch	boundary		0.82	0.4		1
666	654		fill	pit		0.05		0.55	mid grey, firm clay	2.2
667	654		fill	pit		1.4		0.4	grey, firm clay with small stone and silt inclusions	2.2
668	668		cut	post hole	?structure	0.55	0.35	0.2		5.1
669	668		fill	post hole	backfill	0.55	0.35	0.2	mixed white and light brown, compact mortar and fine sand with occasional sub-angular stones <20mm	5.1
670	670		cut	post hole	?structure	0.35	0.3	0.2		5.1
671	670		fill	post hole	backfill	0.35	0.3	0.2	mixed light brown and white, compact fine slightly silty sand with occasional mortar and sub-angular stones <20mm	5.1
672	672		cut	post hole	?structure	0.5	0.5	0.35		5.1
673	672		fill	post hole	backfill	0.45		0.2	mid grey, compact fine sandy silt with occasional sub-angular stones <20mm	5.1
674	672		fill	post hole		0.5	0.5	0.15	white and light brown, compact fine sandy silt with frequent mortar and occasional sub-angular stoenes <20mm	5.1
675			layer	layer	?leveling			0.2	light grey, compact fine sandy silt with occasional sub-angular stones <20mm	4.1
676			layer	layer	?leveling			0.17	light brown, compact fine slightly silty sand with occasional sub-angular stones <20mm	4.1
677	678		fill	ditch		2	0.25	0.4	light brown red, friable silt sand with occasional small stones	1
678	678		cut	ditch	boundary	2	0.25	0.4		1
679	680		fill	ditch			0.2	0.22	light brown red, friable silty sand with occasional small stones	1
680	680		cut	ditch	boundary		0.2	0.22		1
681	682		fill	ditch	disuse		1.02	0.55	mid reddish brown, moderately compact silty sand with frequent fine gravel	1
682	682		cut	ditch	boundary		1.02	0.55		1
683	684		fill	ditch	disuse			0.39	mid greyish orange, firm silty sand with frequent coarse gravel	1
684	684		cut	ditch	boundary			0.39		1
685	686		fill	ditch	disuse		0.6	0.52	mid orangey brown, soft silty sand with occasional gravel	1
686	686		cut	ditch	boundary		0.6	0.52		1
687	688		fill	ditch	disuse		0.36	0.34	mid brownish orange, soft sand with rare small stones	1
688	688		cut	ditch	boundary		0.36	0.34		1
689			masonry	Brick plinth		0.42	0.38		Sub-square brick plinth	5.2
690			masonry	Brick plinth		0.6	0.52		Brick plinth	5.2
691			masonry	cellar		2	2	0.56	Sub-square brick cellar	5.2
692	693		fill	culvert	drain			0.4		5.1
693	693		cut	culvert	drain	0				5.1
694	695		fill	wall	building	0				5.1
695	695		cut	wall	building	0				5.1

Ctxt	Cut	Tr	Cut	Type	Function	Lgth	Brdth	Dpth	Other Comments	Ph
696	697		fill	well						5.1
697	697		cut	well						5.1

Table 5 : Context list

APPENDIX B. FINDS REPORTS

B.1 Worked Stone

By Ruth Shaffrey

Summary and Quantification

B.1.1 Twenty seven pieces of stone were recorded as part of the post-excavation assessment. These mostly comprise architectural / building stone in contexts of reuse along with two quern fragments. Twenty-five fragments were recovered from medieval Phase 2.2 and 3 contexts and just two were from Phase 4.2 contexts.

Methodology

B.1.2 The stone was examined with the aid of a x10 magnification hand lens.

Description

B.1.3 The majority (17) of the worked stone was recovered from Phase 3 cess pit **229**. At the base of the pit overlying the brick floor was a primary backfill formed of a mixture of brick, tile, stones and other materials (228). Within this were seven pieces of worked stone comprising two roof stones (plus four non diagnostic fragments also probably from roofing). These are the only fragments of roofing from the site. The floor surface also incorporated three blocks of stone with no diagnostic features or tooling, but of shapes suggesting their structural use and two blocks with some very faint tool marks (SF 53, 60). Block 60 and another less obviously used example (SF 57) are made of a Lincolnshire Limestone, possibly Weldon stone, while the other blocks are made of clunch and Portland stone.

B.1.4 The upper fill of this pit contained a further eight blocks of stone. With the exception of a single slab of Lincolnshire limestone which is worn but not obviously worked, all the stone from this context is of a more obviously architectural form. They include a fragment of an octagonal ornamental feature (SF 17) and another piece of indeterminate form bearing two decorative scrolls (SF 24). Both of these are made of a spar-prominent oolitic limestone, probably Portland stone. A further five pieces, all blocks or slabs, retain tool marks on one or more faces; one also has a shallow U-shaped channel cut into one face. Three of these blocks are also of Portland stone, whilst the remaining two are of a grain dominant oolitic limestone, certainly of Lincolnshire Limestone type, probably Weldon stone. This fill also contained a quartzite hammerstone and various other unworked cobbles.

B.1.5 Structural stone of a comparable nature to that from pit **229** was also produced from other contexts on site including tooled blocks from context 477 (Phase 2.2 well **481**) (SF 43, 58, Portland stone). Other blocks are not tooled but were presumably employed structurally including a slightly curved piece (625), a slab of Portland stone from Phase 2.2 well 611 (**603**) (SF 72) and slabs of Lincolnshire Limestone from disturbed layer (652) overlying well **603** (SF 42) and 553. One fragment of stone with a curved inner surface, possibly originally architectural or from a square sided mortar, was recovered from context 611 (SF 44). It had been deliberately cut into a neat triangle shape, presumably for use as a floor tile (in a form similar to opus sectile). This is notable for its use of a different stone type, (Purbeck limestone), to everything else recorded on site, suggesting a quite different original function, perhaps as a mortar, is likely.

B.1.6 Two lava rotary quern fragments were found in contexts 516 (Phase 2.2 pit **509**) (SF 46) and disturbed layer 652 overlying well **603** (SF 71).

Discussion

B.1.7 The assemblage of worked stone from Barnwell Lay settlement mostly consists of structural /architectural stone in contexts of reuse (the floor) or discard. Most of these are non-diagnostic, although one or two decorative pieces have survived (notably the octagonal feature and that with decorative scroll work. A third piece may be from a mortar or from another decorative feature. The stonework is interesting because of its use of a mixture of lithologies, mainly Portland limestone from Dorset and Lincolnshire limestone types. It was not uncommon to use a mixture of different stone types in a single structure, due to their varying weathering properties and in this case because the difference in their appearance is obvious only on quite close inspection. However, Portland stone is not thought to have been much used until the 18th century – its use prior to this was mainly for prestigious buildings such as cathedrals. The use of Weldon stone may date to the 15th century when it started to be used after Barnack stone was exhausted. There are no other likely sources for the reused architectural stone than the priory and if the cess pit is confidently dated to the late medieval/early post-medieval period, it seems likely that all this stone was originally in use at Barnwell Priory. The wealth of the priory is already well established, but the use of Portland stone there would be further evidence of this. Reference to any known texts on the stones used at Barnwell Priory, if that is known, would be useful.

Catalogue of worked stone

Ctxt	SF	Type	Description	Stone
225 (**229**)	17	Architectural	p/o octagonal feature with circular inside. Moulded external profile (see recording sheet). Internal circle measures approx 200mm diameter	Spar prominent oolitic limestone probably Portland
225 (**229**)	24	Decorated architectural stone	Block, damaged but with two adjacent sides decorated with scrolls	Spar prominent oolitic limestone probably Portland
225 (**229**)		Hammerstone	Cobble with some pecussion wear at one end and with feeling of hand held processor. This context contained another unworked cobble and two bits of worn stones, probably building stones	Quartzite
225 (**229**)	54	Tooled block	Block with two tooled faces . The other faces are damaged so it is not possible to determine the original function but it was clearly structural stone	Shelly oolitic limestone, fine grained but grain prominent. Lincolnshire limestone possibly Weldon
225 (**229**)		Fragment	worn but presumably building stone originally	Weldon? Fine grained grain prominent oolitic limestone
225 (**229**)	51	Block	Block with tool marks surviving on one face but with other faces probably original. However, not enough survives to be clear of function other than to say it is structural	Very shelly slightly oolitic limestone, Portland
225 (**229**)	50	Block with channel	Slab without tool marks. Roughly square with crude channel across one face U-profile	Coarse very shelly oolitic limestone, Portland
225 (**229**)	52	Ashlar	Block, dressed on two adjacent faces. Roughly cuboid (rectangular)	Coarse very shelly oolitic limestone, Portland

Ctxt	SF	Type	Description	Stone
225 (**229**)	55	Ashlar slab	Slab with single dressed edge and adjoining flat(ish) face	Coarse very shelly oolitic limestone, Portland
228 (**229**)		Probable roofing stones	None of these fragments retain suspension holes or definite evidence that they were stone roofing, but they are of the same material	Fine grained sandy limestone
228 (**229**)		Stone roofing	with neat circular suspension hole measuring 11mm. Of narrow rectangular form	Fine grained sandy limestone
228 (**229**)		Stone roofing	with neat circular suspension hole measuring 7mm. Of indeterminate form	Fine grained sandy limestone
228 (**229**)	56	Possible block	Lump of stone with no obvious working but with mortar attached, so presumably used as building stone	
228 (**229**)	60	Block	Damaged with three original sides remaining. Sme very faint evidence of tooling but the whole block is very worn	Fine grained slightly shelly grain prominent oolitic limestone. Lincolnshire limestone
228 (**229**)	57	Block	No obvious tool marks. Slab shaped and worm all over	Fine grained slightly shelly grain prominent oolitic limestone. Lincolnshire limestone
228 (**229**)	59	Block fragment	with one very worn surface but no other diagnostic details	Portland limestone
228 (**229**)	53	Block	Mostly unshaped (or damaged) with one angled face retaining 35mm tool marks	chalk/clunch
477 (**481**)	43	Tooled block fragment	Has one obviously worked side with tool marks but is only a small fragment, so we can't determine function. However, it was presumably architectural	
477 (**481**)	58	Tooled ashlar fragment	fragment with remains of one tooled flat face. No other faces or edges survive	spar prominent oolitic limestone. Fine grained but probably Portland
516 (**509**)	46	Rotary quern fragment, probably lower stone	Disc type with flat faces. Probably lower stone as base is only roughly worked. The grinding surface is grooved in short straight grooves. Possibly segmented but no other segments survive. No edges or centre survives	Lava
553 (**481**)		Building stone fragment	small fragment with flat face	Lincolnshire limestone
611 (**603**)	72	Slab shaped block	No tool marks but has clearly been deliberately shaped. It is a flat block with three original faces	Very shelly spar prominent oolitic limestone, possibly Portland limestone
611 (**603**)	44	Opus sectile but reused and original use unknown	Fragment, apparently deliberately broken into a triangle, possibly for use as opus sectile. However it has the remains of a moulded lip and a cuved inner surface. It has a straight flat outer surface so is unlikely to be from a mortar unless it was a squa	Shelly oolitic limestone, probably Purbeck limestone
625 (**603**)		Block fragment	Small fragment with remains of one possibly curved surface. Too small to determine function but presumably structural	Shelly spar prominent oolitic limestone, possibly Portland limestone
652	42	Large slab	Worn on both faces. No original edges	Grain dominant oolitic limnestone, definitely Lincolnshire, possibly Weldon
652	71	Rotary quern	Small fragment of lava, presumably from a rotary quern	Lava

Ctxt	SF	Type	Description	Stone
		fragment	although it is not diagnostic	

Table 6: *Catalogue of stone*

Statement of Potential

B.1.8 The worked stone has some limited potential to add to our understanding of what may have happened to the stone from Barnwell Priory.

Recommendations for further work

B.1.9 It is recommended that a description of the stone be included in the publication. The three more decorative items (SFs 17, 24 and 44) should be recorded by a specialist in monastic architecture (Julian Munby). Illustrations of three items are recommended.

B.2 Small Finds

By Nina Crummy

Summary

B.2.1 The assemblage mainly consists of ironwork, with nails the predominant artefact type. Other materials are only sparsely represented. The earliest object is a fired clay spindlewhorl which was found in an Iron Age ditch. Most of the objects belong to the post-conquest medieval period, but there are a few later objects.

Discussion

B.2.2 A total of 80 objects were examined from 67 bags. Most of the objects (Table 7) are of iron.

Material	No
copper-alloy	8
iron	65
bone	3
fired clay	1
glass	1
stone	2
Total	**80**

Table 7: small find assemblage by material

B.2.3 In Tables 9-14 (catalogue) each object is assigned to one of the functional categories defined in Crummy 1988. In Table 8 the assemblage can be seen to consist principally of fittings (category 11), most of which are iron nails. A wide range of other categories are represented.

Category	Function	No
1	dress accessories	4
2	toilet equipment	1
3	textile production	2

Category	Function	No
8	transport	3
9	architectural	1
10	tools	2
11	fittings	50
15	metal-working	2
18	miscellaneous	15
	Total	**80**

Table 8: Small find assemblage by function

B.2.4 Three industries are represented: textile production, pin-making and iron-working. A fired clay spindlewhorl came from an Iron Age ditch while a single-ended pin-beater is of a type used in the late Saxon and early Norman periods. A length of wire with short pieces of wire wound around each end to form heads is debris from pin-making, matching similar pieces from Winchester (Rees *et al.* 2008, 358). Two pins of this type are present in the assemblage. A small fragment of bloomery iron is debris from a smithy; similar fragments came from the nearby Cambridge Regional College site (Atkins 2012, 15-16). The only tools present are a knife blade and a whetstone. The whetstone is of purple phyllite from Norway, providing evidence of contact with major medieval trade networks.

B.2.5 Most of the objects come from pit fill. Only one or two pieces were recovered from most of them, suggesting that they were scraped up from the topsoil when the features were backfilled. The exceptions are pits **218** and **519,** which seem to have been used to some degree for rubbish disposal.

Research potential and Recommendations

B.2.6 The research potential of the assemblage is limited to the objects that can be dated, such as the dress accessories, and those providing evidence of trade and industry. None need necessarily relate directly to the use of the site, but they are representative of wider urban occupations and trade.

B.2.7 Should a publication level report be commissioned, 4 objects should X-rayed to enable accurate identification and illustration.

B.2.8 Similarly, a minimum of 6 objects should be illustrated; a further 3 items from pit **519** that are presently encrusted in iron-impregnated mud may also require illustration depending on the X-ray results.

Catalogue of objects by material

SF	Ctxt	Context description	Phase	Identification	Draw	Conservation	Category	Spot-date
174	170	fill of pit 168	2.1	pin-making wire	y	-	15	medieval
25	235	fill of pit 218	2.2	2 small dress pins	-	-	1	medieval
61	238	fill of pit 218	2.2	fragment	-	-	18	-
173	479	fill of pit 481	2.2	bar-mount fragment	-	-	1	medieval
3	20	layer	4.1	fitting	-	-	11	late Georgian-Victorian
10	-	-	-	mount	-	-	11	post-medieval
11	-	-	-	buckle	-	-	1	post-medieval

Table 9: *catalogue of copper-alloy objects*

SF	Ctxt	Context description	Phase	Identification	Draw	X-ray	Category	Spot-date
195	38	fill of pit 39	2.1	nail shank fragment	-	-	11	-
185	120	fill of pit 119	2.1	nail shank fragment	-	-	11	-
177	170	fill of pit 168	2.1	nail shank fragment	-	-	11	-
193	444	fill of pit 168	2.1	nail shank fragment	-	-	11	-
175	173	fill of pit/posthole 174	2.1	nail head	-	-	11	-
15	184	fill of pit 190	2.1	hinge piece?	-	-	11	-
182	602	fill of pit/well 579	2.1	nail head	-	-	11	-
37	427	fill of pit 428	2.1	nail	-	-	11	-
36	102	fill of pit 103	2.2	a) strip fragment; b) nail shank fragment	-	-	18; 11	-
187	102	fill of pit 103	2.2	nail; 2 nail shank fragments	-	-	11	-
188	102	fill of pit 103	2.2	offcut of bloomery iron	-	-	15	-
189	178	fill of pit 182	2.2	strip fragment	-	-	18	-
183	380	fill of pit 182	2.2	nail shank fragment	-	-	11	-
178	201	fill of pit 204	2.2	nail	-	-	11	-
176	230	fill of pit 204	2.2	nail	-	-	11	-
26	232	fill of pit 218	2.2	large rotary key	y	y	11	late medieval-post-medieval
62	232	fill of pit 218	2.2	two sheet fragments, ?lock-plate	-	-	18	-
64	236	fill of pit 218	2.2	2 nails, 1 nail shank fragment	-	-	11	-
39	238	fill of pit 218	2.2	nail?	-	-	11	-
40	238	fill of pit 218	2.2	nail shank fragment	-	-	11	-
190	345	fill of pit 218	2.2	nail; nail shank fragment	-	-	11	-
63	611	fill of well 603	2.2	a) strip; b) nail	-	-	18; 11	-
194	31	fill of pit 32	3	nail; nail shank fragment	-	-	11	-
66	131	fill of pit 133	3	nail	-	-	11	-
12	151	fill of pit 152	3	nail	-	-	11	-
184	151	fill of pit 152	3	nail shank fragment	-	-	11	-
186	151	fill of pit 152	3	nail shank fragment	-	-	11	-
191	151	fill of pit 152	3	fragment	-	-	18	-
19	225	fill of cess-pit 229	3	strip	-	-	18	-
179	227	fill of cess-pit 229	3	nail	-	-	11	-
48	301	fill of pit 308	3	nail	-	-	11	-
35	383	fill of pit 382	3	nail; nail shank fragment	-	-	11	-
38	383	fill of pit 382	3	sheet fragment	-	-	18	-
33	391	fill of pit 382	3	nail	-	-	11	-
27	520	fill of pit 519	3	nail	-	-	11	-
29	520	fill of pit 519	3	tanged blade fragment	-	-	10	-
192	520	fill of pit 519	3	nail shank fragment	-	-	11	-
30	539	fill of pit 519	3	nail	-	-	11	-
49	539	fill of pit 519	3	fragments (?nail)	-	-	11	-
67	539	fill of pit 519	3	nail	-	-	11	-
68	539	fill of pit 519	3	object, heavily encrusted with	?	y	18 (15?)	-

SF	Ctxt	Context description	Phase	Identification	Draw	X-ray	Category	Spot-date
				clay (?slag)				
69	539	fill of pit 519	3	object, heavily encrusted with clay (possibly iron-stained clay only)	?	y	18	-
70	539	fill of pit 519	3	object, heavily encrusted with clay	?	y	18	-
180	539	fill of pit 519	3	nail; 2 nail shank fragments	-	-	11	-
181	539	fill of pit 519	3	strip fragment	-	-	18	-
31	547	fill of pit 519	3	nail	-	-	11	-
32	550	fill of pit 519	3	ring (from harness?)	-	-	8?	-
196	20	layer	4.1	nail; nail shank fragment	-	-	11	-
65	210	layer	4.1	horseshoe branch	-	-	8	late medieval-post-medieval
45	652	fill of well	4.2	harness buckle	-	-	8	medieval-post-medieval
41	292	posthole cut	5.1	rod fragment	-	-	18	-
1	22	foundation 21	5.1	nail	-	-	11	-
2	22	foundation 21	5.1	fitting	-	-	11	-

Table 10: *catalogue of iron objects*

SF	Ctxt	Context description	Phase	Identification	Draw	Conser-vation	Category	Spot-date
22	238	fill of pit 218; unphased	2.2	pin-beater, single-ended	y	-	3	medieval
34	383	fill of pit 382	3	pin or peg	y	-	18	medieval
21	9999 9	unstratified	-	toothbrush handle, with graffito XI	-	-	2	late post-medieval to modern

Table 11: catalogue of bone objects

SF	Context no	Context description	Phase	Identification	Draw	Conser-vation	Category	Spot-date
28	545	ditch fill	1	spindlewhorl	y	-		Saxon

Table 12: *catalogue of fired clay objects*

SF	Context no	Context description	Phase	Identification	Draw	Conser-vation	Category	Spot-date
14	153	fill of pit/posthole 154	5.1	globule, opaque blue (bead blank?)	-	-		-

Table 13: catalogue of glass object

SF	Ctxt	Context description	Phase	Identification	Draw	Conser-vation	Category	Spot-date
47	477	fill of pit 481	2.2	whetstone, purple phyllite?	y	-		medieval
18	225	fill of cess-pit 229	3	veneer, gritstone	-	-		-

Table 14: catalogue of stone objects

B.3 Industrial residue

By Peter Boardman

Results

B.3.1 The industrial residue material (0.754kg) was recovered from context 611 in Phase 2.2 well **603** and comprised a conglomerate mass of fire clay, burnt sand and iron slag waste. The weight of it suggests that it has a high iron content. Despite this, the shape of the artefact suggests that it is a fragment of a smithy hearth base. It has flat faces on two sides and is heavily burnt, but not particularly well compacted. A smelt base would be expected to be more compact, while this one is not. It is a small fragment of a much larger object and could have been deposited as debris from a near by forge but this is not unusual as material is spread over wide area.

Recommendations

B.3.2 No further work or study is required.

B.4 Prehistoric pottery

By Dr Paul Spoerry and Rob Atkins

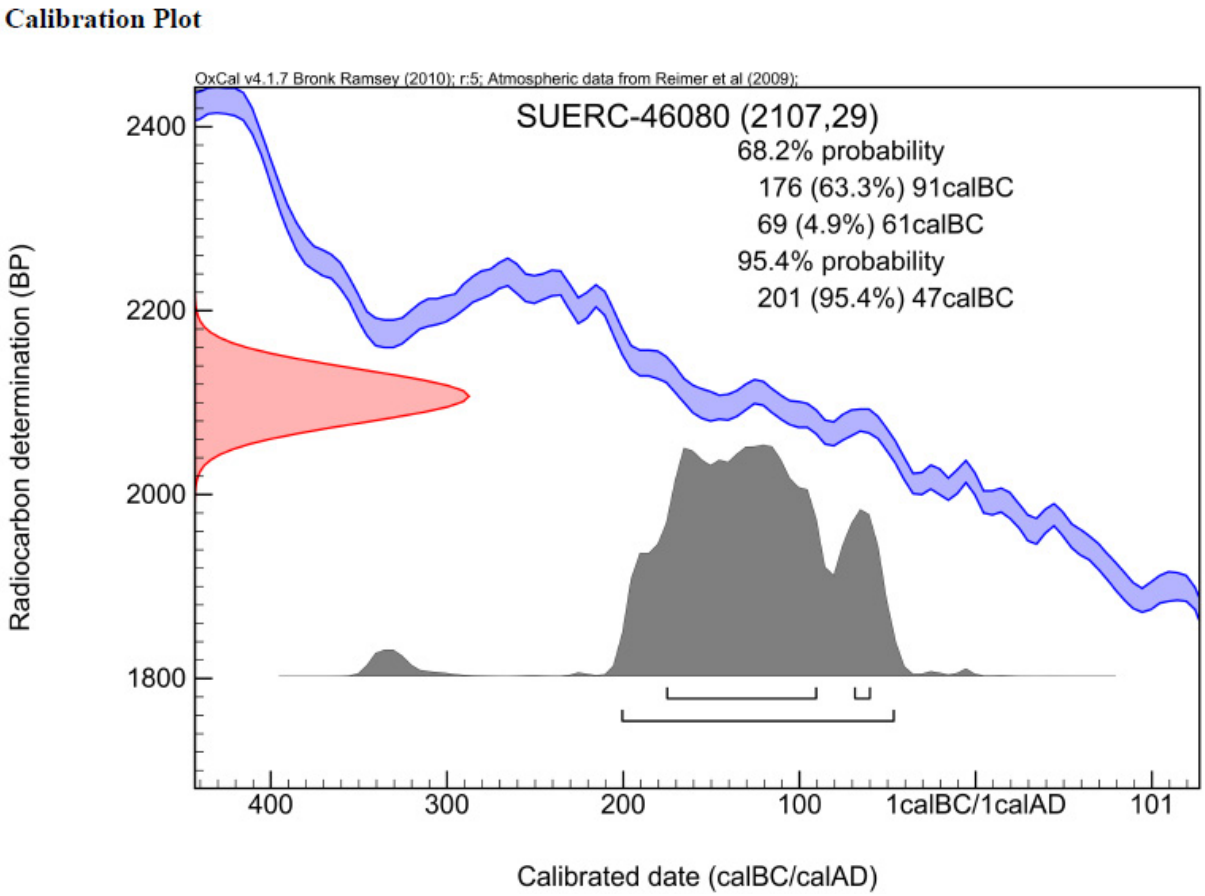
Introduction and methodology

B.4.1 An assemblage of hand made pottery (47 sherds weighing 0.595kg) was recovered from a ditch (Table 15). The pottery was subject to visual assessment and Radiocarbon dating analysis

Context	Cut	Ditch	No. sherds	Weight of sherds (g)
541	**540**	3rd recut ditch	6	120
545	**546**	2nd recut ditch	12	136
646	**546**	2nd recut ditch	2	14
660	**663**	2nd recut ditch	1	5
664	**665**	3rd recut ditch	3	47
681	**682**	2nd recut ditch	11	134
683	**684**	3rd recut ditch	11	118
685	**686**	1st recut ditch	1	21
Total			**47**	**595**

Table 15: *Handmade Iron Age pottery*

Radiocarbon date for charcoal on pottery sherd from context 541



B.4.2 To ascertain an accurate date for this assemblage Carbon residue attached to a pottery sherd from context 541 was dated at the radiocarbon dating laboratory, Scottish Universities Environmental Research Centre (SUERC), Glasgow. The results follow the calibrated age ranges determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OXCal 4.17 (Bronk Ramsey 2010). Atmospheric data derived from Reimer et al 2009 and the samples were calculated using the IntCa109 curve. The result of this dating (SUERC-46080 (GU30161), 2107 +- 29 BP) produced at 68.2% probability a date of 176-61BC and at 95.4% probability a date of 201-47BC (Fig. 13). These dates therefore suggest that the charcoal dated sometime in the Middle or Late Iron Age. Fig. 13 *Radiocarbon date for carbon deposit attached to pottery sherd from context 541*

Recommendations

The Iron Age pottery should be sent to a period pottery specialist for identification and cataloguing of fabric types and vessel forms.

B.5 Medieval to modern pottery

By Carole Fletcher

Introduction

B.5.1 Archaeological excavation on land at Coldhams Lane, Cambridge, Cambridgeshire produced a moderate pottery assemblage of 957 sherds, weighing 18.026kg. A small number of sherds were recovered from samples, however these were small, abraded, many are undiagnostic and have not been included in this assessment. A further 86 sherds were recovered from the evaluation, the material being similar to that recovered from the excavation. The evaluation material has not been included in this assessment having been previously examined. This will need integrating into the main assemblage at the next stage of work.

The assemblage is predominantly medieval, dating to the mid 12th to mid 14th century. Also present are a small number of Late Saxon-early medieval sherds, a quantity of early medieval pottery and a small but significant assemblage of late medieval fabrics. The condition of the overall assemblage is moderately abraded, with a significant number of unabraded sherds (225 of the total assemblage). The average sherd weight is moderate at approximately 19g.

Methodology

B.5.2 The Medieval Pottery Research Group (MPRG) 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) act as a standard.

B.5.3 Rapid recording was carried out using OA East's in-house system based on that previously used at the Museum of London. Fabric classification has been carried out for all previously described medieval and post-medieval types. All sherds have been counted, classified and weighed on a context-by-context basis. The assemblage is recorded in the summary catalogue. The pottery and archive are curated by Oxford Archaeology East until formal deposition.

Sampling Bias

B.5.4 The open area excavation was carried out by hand and selection made through standard sampling strategies 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 small quantities of abraded sherds and have not been quantified at this time, and serious bias is not likely to result.

The Assemblage

B.5.5 Ceramic fabric abbreviations used in the summary catalogue and the total sherd count and weight of all fabrics are given in Table 16.

Fabric Name	Fabric Code	No. Sherds	Weight (kg)	% by weight
Bone china	BCHIN	4	0.012	0.1
Bourne D	BOUD	4	0.054	0.3
Brill	BRILL	7	0.061	0.3
Brill (Coarse)	BRILL(C)	1	0.013	0.1
Cistercian ware	CSTN	3	0.007	< 0.1

Fabric Name	Fabric Code	No. Sherds	Weight (kg)	% by weight
Colne-Caxton ware	CONCAX	6	0.068	0.4
Developed St Neots	DNEOT	34	0.767	4.3
Early Medieval Essex Micaceous Sandy ware	EMEMS	75	1.206	6.7
Early Medieval Essex Micaceous Sandy ware/ Medieval Essex Micaceous Sandy ware	EMEMS/MEMS	54	0.807	4.5
Early Medieval ware	EMW	1	0.004	< 0.1
East Anglian Redware	EAR	115	1.522	8.4
East Anglian Redware/Transitional Redware	EAR/TRAN	11	0.193	1.1
English Stoneware	ENGS	5	0.052	0.3
Grimston-type ware	GRIM	25	0.172	1.0
Grimston-type ware/Late Grimston type ware	GRIM/GRIL	1	0.015	0.1
Hertfordshire Glazed ware	HERTG	6	0.110	0.6
Late Colchester type ware	LCOLS	1	0.004	< 0.1
Late Medieval Ely ware	LMEL	20	0.521	2.9
Late Medieval reduced ware	LMR	22	0.503	2.8
Lyveden A ware	LYVA	4	0.037	0.2
Lyveden-Stanion ware	LYST	2	0.027	0.1
Medieval Ely ware	MEL	43	1.071	5.9
Medieval Ely ware/late Medieval Ely ware	MEL/LMEL	19	0.253	1.4
Medieval Essex Micaceous Sandy ware	MEMS	146	2.241	12.4
Medieval Sandy ware	MSW	81	1.793	9.9
Mill Green	MGF	27	1.228	6.8
Modern Red ware	MODR	6	1.029	5.7
Nottinghamshire-Derbyshire Stoneware	NOTTS	5	0.337	1.9
Pearl ware	PEARL	20	0.132	0.7
Porcelain	PORC	2	0.006	< 0.1
Post-Medieval Redware	PMR	20	1.252	6.9
Raeren	RAER	2	0.018	0.1
Refined White Earthenware	RFWE	67	0.865	4.8
Sible Hedingham Coarseware	HEDIC	3	0.018	0.1
Sible Hedingham	HEDI	48	0.614	3.4
Southeast Fenland Calcareous Buff ware	SEFEN	47	0.702	3.9
St Neots	NEOT	3	0.021	0.1
St Neots/Developed St Neots	NEOT/DNEOT	2	0.039	0.2
Staffordshire White Salt Glazed	SWSG	1	0.023	0.1
Thetford ware	THET	3	0.072	0.4
Tin Glazed Earthenware	TGW	1	0.005	< 0.1
Tudor Green	TUDG	2	0.002	< 0.1
Unglazed Grimston-Blackbrough End ware	UGBB	3	0.081	0.4
Unprovenanced glazed ware	UPG	3	0.046	0.2
Yellow Ware	YELL	2	0.023	0.1

Table 16*: Pottery fabrics present in the assemblage*

Pottery by period

B.5.6 A small amount of Late Saxon-Early medieval pottery, Thetford ware and St Neots ware was recovered during the excavation, comprising less than 1% of the total assemblage by weight, and suggesting some low levels of late Saxon activity in the vicinity of the site. It is unusual that no Stamford ware was recovered. No features of this date were identified.

B.5.7 Early medieval wares were also present, comprising approximately 11% of the total assemblage (by weight). The majority of these are Early Medieval Essex Micaceous Sandy ware. There were a number of sherds that in this preliminary analysis it is unclear if these are early medieval or medieval Essex fabrics; these comprise approximately 4% of the assemblage.

B.5.8 Medieval fabrics comprise the bulk of the assemblage (*c*. 55%, by weight), with coarse wares including Ely ware, the most common. Coarsewares present here are similar to those from Cambridge Regional College, Brunswick (Fletcher 2011) and from the Grand Arcade. The Grand Arcade coarseware assemblage was initially subdivided by colour with Ely Ware being easily recognised and therefore separated (Cessford and Hall, 2007, 301-302). In the Brunswick assemblage and at Coldhams Lane some of these coarsewares are micaceous and may be Hedingham Coarsewares. Others are medieval grey wares, some from Essex (Fabric 20), which Cotter describes as having dark grey surfaces, and commonly a dark red-brown core or a lighter grey or sandwich-effect core. Dull brown surfaces are not uncommon (Cotter 2000, 91).

B.5.9 Some early medieval sandy wares are also present in the assemblage as previously discussed. There is, suggests Cotter, a gradual transition between Fabric 13 and Fabric 20 (Fabric 13t) beginning *c.*1150-1200 with production of Fabric 13 having ceased by *c.*1225. (Cotter 2000, 41). Helen Walker in her report on the Stansted Airport assemblage describes Fabric 13t as buff-brown to red fabric with a grey core and darker surfaces (Walker 2004, 408). This report has tried to identify these coarsewares where possible. Those that could not initially be assigned a group have for the purpose of this report been recorded as Medieval Sandy Wares with the possibility of some of these being local fabrics.

B.5.10 The redwares present in the assemblage have, unless a specific fabric identification can be made, been grouped together as East Anglian Redwares. These redwares form part of a medieval tradition across East Anglia that continues into the late medieval and post-medieval period and includes the various redwares produced over much of Essex. At Coldhams Lane, East Anglian Redwares form *c*.8% of the total assemblage by weight with Mill Green at *c*.7% including large fragments from a number of semi complete jugs. Also present are Sible Hedingham, Grimston ware, Brill and two sherds of Lyveden-Stanion. This fabric is relatively common in the Cambridge Grand Arcade assemblage in comparison to the other fine wares (Cessford and Hall, 2007, 307 table 19), however it is unclear why the ware is uncommon here and also in the Brunswick assemblage which also only produced two sherds of the fabric (Fletcher 2011).

B.5.11 Late medieval ceramics are present in relatively small numbers, 58 sherds weighing 1.299kg (*c*.7% of the total assemblage by weight). These include Late Medieval Ely ware, Late Medieval Reduced ware and Hertfordshire Glazed ware.

B.5.12 Post-medieval fabrics comprise approximately 7% of the assemblage by weight, the majority of which are Post-medieval Redwares. The East Anglian redwares tradition continues and some of the redwares identified as Post-medieval Redwares are likely to be the 15th-16th century products of the kilns in Ely, described by Cessford and Hall as Broad Street Glazed Red Earthenware (Cessford, Alexander, and Dickens, 2006 51-58). The late 18th-19th century material is relatively well represented with approximately 14% of the assemblage, comprising a small number of large heavy Modern Redware sherds and large number of Refined White Earthenware sherds many of which are transfer-printed alongside other fabrics including pearlware and Bone China.

Provenance

B.5.13 There is a wide range of fabrics of local and non-local origin present in the assemblage from a broad range of sources with one obvious exception - there are almost no imported wares. Two sherds of ?Raeren are the only non-English fabrics, although the single sherd of Tin-glazed Earthenware may be from the Netherlands and three sherds of Dutch Redware were identified in the evaluation assemblage. The majority of the assemblage originated in Essex including the Mill Green fineware vessels. Some of the Essex coarsewares possibly originated on as yet unidentified sites close to the border of modern Cambridgeshire. Cambridgeshire fabrics form the second largest group with Ely wares the single largest group within the Cambridgeshire fabrics. East Anglian redwares form an important group, as discussed earlier this is a grouping of redwares produced throughout the East Anglian region and covers wares from the medieval and early post-medieval period.

B.5.14 Fabrics from the industrial Midlands are common although these are mainly the Refined White Earthenwares and a number of Nottinghamshire-Derbyshire Stonewares. All other fabrics are present in restricted numbers: St Neots and Developed St Neots are present, produced in Bedfordshire-Huntingdonshire, Brill vessels produced in Buckinghamshire and from Norfolk mainly Grimston jug sherds.

Form

B.5.15 The vessels present in the assemblage are primarily domestic in nature comprised mainly of jars, followed closely by jugs. Bowls are well represented, however the majority of these and the drinking vessels are post-medieval and later. Sherds from three curfews were identified, a Medieval Ely ware vessel from pit **204**, a sherd from an East Anglian Redware curfew from pit **492** and from well **603** a Medieval Essex micaceous Sandy vessel. No specialist forms were recovered.

Discussion

B.5.16 Being domestic in nature, the assemblage suggests that there was Late Saxon-early medieval occupation on or close to the area of excavation. The main period of pottery deposition is the mid 12th/13th-mid 14th century with a predominance of vessels present used in the processing of food and drink.

B.5.17 Wells **603** and **190** produced the largest assemblages with *c*.13% and *c*.9% of the total assemblage (by weight) respectively pits **146**, **204** and pit/well **239** also produced large assemblages. With a number of other features producing assemblages of 0.500kg or more, the majority of the assemblage (C.61% of the total assemblage by weight) was recovered from 10 features.

B.5.18 The late medieval period is poorly represented in the assemblage suggesting that the focus of occupation lay elsewhere, and that after this date the area may have been in decline. Most assemblages from sites that are active during the late 15th through to the end of the 16th century produce an assemblage containing sherds of Raeren (1480-1550) and more commonly Frechen (1550-1700). The lack of German stonewares and the small number of post-medieval sherds suggest a change of land use by the mid 15th century and possibly earlier reinforcing the possibility that the area was in decline. There is a resurgence of ceramic deposition in the 19th century.

B.5.19 The unabraded to moderately abraded nature of the majority of the assemblage is not uncommon where there is a significant post-medieval element within the assemblage, since the sherds of 18th-19th century pottery have suffered little reworking. The

medieval sherds originating from occupation close to the area of excavation have undergone reworking and represents rubbish disposal on the site.

Statement of Research Potential

B.5.20 Domestic in nature, the assemblage has the potential to aid local, regional and national priorities and can contribute to understanding pottery consumption and usage within Barnwell.

Further Work and Methods Statement

B.5.21 Proposed further work for full report comprises: integration and full recording of the evaluation assemblage alongside the main assemblage, targeted analysis of the assemblage on various field criteria, based on major stratigraphic units. Macroscopic inspection (based on x20 magnification) and description of all new fabric types. Identification and illustration of new forms and traits especially relating to local fabric types which are otherwise unpublished to date. Tabular statistics of fabric and vessel data. A textural report on the results of the above. In addition the pottery from nearby excavation undertaken by the Cambridge Archaeology Unit should be considered if the information is available.

The pottery catalogue

Context	*Fabric*	*Form*	*Sherd Count*	*Sherd Weight*	*Context Date Range*
100	BCHIN		1	0.003	Late 18th-19th century
	PEARL	Bowl	5	0.025	
	PEARL	Jug	1	0.006	
	PMR	Bowl	1	0.066	
	PORC		1	0.002	
	RFWE		3	0.008	
	RFWE	Bowl	5	0.014	
	TGW		1	0.005	
106	EAR		1	0.014	Late 18th-19th century
	PEARL	Bowl/Plate	2	0.012	
	PMR	Bowl	1	0.017	
	RFWE	Bowl/Plate	2	0.017	
	RFWE	Drinking Vessel	1	0.002	
108	NOTTS	Jug	1	0.062	Late 18th-19th century
	PEARL	Bowl	9	0.054	
	RFWE	Bowl	1	0.001	
113	BCHIN	Bowl/Plate (saucer)	1	0.002	Late 18th-19th century
	PMR	Bowl	1	0.084	
	RFWE	Bowl/Plate (saucer)	1	0.003	
120	EMEMS	Bowl	1	0.039	13th to end of 14th century
	EMEMS/MEMS	Jar	1	0.015	
124	EMEMS/MEMS	Jar	8	0.072	13th-mid 15th century
	SEFEN	Jar	1	0.021	
131	BRILL	Jug	1	0.007	15th-mid 16th century
	EAR	Jug	3	0.085	
	EMEMS	Jar	1	0.002	
	HEDI	Jug	2	0.008	
	HERTG	Jug	1	0.037	
	LMR		1	0.059	
	LMR	Jug	1	0.004	

Context	Fabric	Form	Sherd Count	Sherd Weight	Context Date Range
	MSW		1	0.002	
	TUDG		1	0.001	
145	BCHIN	Bowl/Plate (saucer).	1	0.004	19th+
	MODR	Bowl	5	0.997	
	NOTTS	Jar	2	0.103	
	PMR	Bowl	1	0.110	
	PORC	Bowl/Plate	1	0.004	
	RFWE		1	0.002	
	RFWE	Bowl	1	0.100	
	RFWE	Bowl/Plate	30	0.153	
151	BRILL	Jug	1	0.007	15th century+
	GRIM	Jug	1	0.003	
	HEDI	Jug	3	0.014	
	MEL	Jar	2	0.030	
	MEL	Jug	1	0.013	
	MEMS		0	0.000	
	MEMS	Jar	1	0.018	
	MGF	Jug	1	0.002	
	PMR		1	0.015	
	SEFEN		4	0.020	
	SEFEN	Jar	3	0.016	
169	HEDI	Jug	3	0.090	Mid 12th-mid 14th century
173	MSW	Jar	1	0.003	13th to end of 14th century
175	DNEOT		5	0.072	13th to end of 14th century
	EAR	Jug	1	0.003	
	EMEMS		5	0.050	
	HEDI	Jug	1	0.019	
	MEL/LMEL	Jug	10	0.124	
	MEMS	Jar	22	0.232	
	MEMS	Jug	1	0.042	
	MSW	Jar	5	0.043	
	SEFEN	Jar	5	0.093	
183	DNEOT		3	0.023	13th to end of 14th century
	DNEOT	Jug	11	0.433	
	EMEMS	Jar	1	0.011	
	HEDI	Jug	3	0.016	
	MEL/LMEL	Jug	2	0.012	
	MEMS	Jar	5	0.044	
	MEMS	Jug	1	0.039	
	MSW	Jar	1	0.016	
	SEFEN		1	0.011	
	SEFEN	Jar	1	0.011	
	UGBB	Jar	3	0.081	
184	EMEMS		2	0.008	13th to end of 14th century
	HEDI	Jug	1	0.011	
	MEL	Jug	1	0.019	
	MEMS		1	0.018	
	MEMS	Jar	13	0.341	
	MSW	Jar	2	0.013	
	SEFEN	Jar	6	0.155	
185	SEFEN	Jar	2	0.029	Mid 12th-mid 15th century
187	DNEOT		1	0.007	13th to end of 14th century
	DNEOT	Jar	1	0.022	

Context	Fabric	Form	Sherd Count	Sherd Weight	Context Date Range
	DNEOT	Jug	1	0.025	
	MEMS	Jar	4	0.101	
	MSW	Jar	1	0.016	
	SEFEN	Jar	4	0.047	
188	DNEOT	Jug	7	0.088	13th to end of 14th century
	MEL	Jug	1	0.046	
	MEL/LMEL		1	0.031	
	MEMS		1	0.007	
	MEMS	Jar	2	0.014	
	MSW	Jar	1	0.008	
189	MSW	Jar	1	0.014	13th to end of 14th century
196	ENGS		1	0.001	13th to end of 14th century (If stoneware intrusive)
	MEMS	Jar	1	0.017	
	MSW		2	0.016	
201	EAR	Jug	4	0.013	Mid-13th to end of 14th century
	EMEMS	Jar	1	0.008	
	EMEMS/MEMS	Jar	8	0.068	
	GRIM	Jug	1	0.001	
	HEDIC	Jug	1	0.004	
	LYST	Jug	1	0.013	
	MEL	Bowl	2	0.078	
	MEL/LMEL	Jug	1	0.006	
	MEL/LMEL	Jug/jar	1	0.005	
	MEMS	Jar	1	0.019	
	MSW		1	0.007	
	MSW	Bowl	3	0.037	
	MSW	Jar	1	0.013	
202	EAR	Jug/jar	1	0.019	13th to end of 14th century
	EMEMS		1	0.010	
	MEL		1	0.007	
	MEMS	Jar	2	0.010	
	MSW	Bowl	3	0.211	
	MSW	Jar	1	0.024	
	SEFEN		1	0.010	
204	EMEMS/MEMS	Bowl	1	0.014	13th to end of 14th century
	MEL	Bowl	1	0.166	
	MEMS		2	0.047	
	SEFEN	Jar	1	0.056	
210	BOUD		1	0.004	Mid 16th to end of 18th century
	EAR		9	0.076	
	EAR	Jug	3	0.028	
	EAR/TRAN	Bowl	3	0.044	
	EMEMS/MEMS		2	0.006	
	HEDIC		1	0.007	
	MEL		1	0.007	
	MEMS		1	0.009	
	MSW		3	0.039	
	PMR	Bowl	1	0.168	
	PMR	Jar	1	0.030	
	PMR	Jug	1	0.072	
	TUDG		1	0.001	
	UPG		1	0.011	
225	BRILL	Jug	1	0.001	15th century

Context	Fabric	Form	Sherd Count	Sherd Weight	Context Date Range
	EAR		4	0.170	
	EAR/TRAN	Jug	1	0.058	
	EMEMS	Jar	1	0.006	
	LMEL		1	0.052	
	LMR		2	0.037	
	LMR	Bowl	6	0.286	
	LMR	Jar	1	0.004	
	MEMS		1	0.005	
	MEMS	Jug	1	0.042	
	MSW		2	0.038	
	MSW	Jug	1	0.004	
228	MSW		1	0.053	Mid 12th to end of 14th century
230	EAR	Jug	1	0.007	Mid-13th to end of 14th century
	EMEMS		2	0.032	
	EMEMS/MEMS	Jar	7	0.101	
	GRIM	Jug	10	0.004	
	HEDI	Jug	1	0.060	
	MEL	Jug	1	0.013	
	MEL	Curfew	3	0.206	
	MEMS	Jar	4	0.023	
	MEMS	Jug	2	0.018	
	MSW	Bowl	2	0.044	
	MSW	Jar	7	0.065	
231	BRILL	Jug	1	0.026	13th to end of 14th century
	EMEMS		1	0.013	
	EMEMS/MEMS	Jar	5	0.270	
	MEMS	Jar	2	0.032	
	MSW		1	0.005	
	MSW	Bowl	8	0.347	
	MSW	Jar	2	0.195	
238	EAR	Jug	2	0.076	
	EMEMS	Bowl	1	0.023	
242	EAR	Jug	1	0.076	Mid-13th to end of 14th century
	GRIM		1	0.007	
243	MSW	Jar	1	0.011	Mid 12th to end of 14th century
255	CSTN	Drinking Vessel	1	0.001	16th century
	MSW	Jar	1	0.005	
257	MEL		1	0.003	Mid 12th-mid 14th century
261	PMR	Bowl	1	0.037	Mid 16th to end of 18th century
273	EMW		1	0.004	Mid 11th to end of 12th century
279	EMEMS		1	0.006	Mid 12th-mid 15th century
	MEL	Jar	1	0.014	
	SEFEN		1	0.008	
280	BCHIN	Bowl/Plate	1	0.003	19th century
	ENGS	Bowl	3	0.031	
	PMR	Bowl	1	0.023	
	RFWE	Bowl/Plate	7	0.055	
	YEL		1	0.014	
	YEL	Drinking Vessel	1	0.009	
282	LMR	Jar	1	0.025	Mid 14th to end of 15th century
284	PMR	Bowl	1	0.364	Mid 16th to end of 18th century
287	MSW		1	0.021	Mid 12th to end of 14th century
289	CSTN	Drinking Vessel	2	0.006	18th century

Context	Fabric	Form	Sherd Count	Sherd Weight	Context Date Range
	MSW	Jar	2	0.193	
	SWSG	Jar	1	0.023	
291	RFWE	Jar	7	0.244	Late 18th-19th century
293	PMR	Bowl	3	0.155	Mid 16th to end of 18th century
295	ENGS	Jar	1	0.020	Late 17th-end of 19th century
297	MODR	Bowl	1	0.032	19th century+
301	MEL	Bowl	1	0.038	Mid 12th-mid 14th century
312	EMEMS/MEMS	Jar	1	0.002	Late 14th to mid 16th century
	RAER	Jug	2	0.018	
316	EAR	Jug	5	0.028	Mid 14th to end of 15th century
	EMEMS/MEMS	Jar	3	0.050	
	HEDI	Jug	8	0.047	
	LMEL		1	0.002	
	LMEL	Jar	1	0.005	
	MEMS		1	0.012	
	MEMS	Jar	2	0.016	
	SEFEN	Jar	1	0.003	
317	EMEMS		1	0.006	13th to end of 14th century
	HEDI	Jug	1	0.006	
	MEMS	Jar	1	0.004	
	NEOT		1	0.005	
323	RFWE	Bowl/Plate	1	0.006	Late 18th-19th century
333	BOUD		1	0.009	Mid 16th-mid 17th century
	EAR		2	0.017	
	EAR/TRAN	Jug	2	0.012	
	LCOLS		1	0.004	
	PMR	Drinking Vessel	2	0.030	
334	EAR	Jar	2	0.032	13th to end of 14th century
	MEMS	Jar	6	0.126	
335	BOUD		1	0.006	Mid 15th to the end of 16th century
	EAR	Jug	1	0.004	
	MSW		1	0.027	
351	PEARL	Drinking Vessel	1	0.028	Late 18th-19th century
	RFWE	Jar	1	0.044	
	RFWE	Lid	1	0.200	
361	EAR		1	0.005	Late 18th-19th century
	RFWE	Drinking Vessel	2	0.004	
367	PEARL	Jar	2	0.007	Late 18th-19th century
	RFWE	Bowl	2	0.006	
370	EMEMS	Jar	2	0.016	Mid 14th to end of 15th century
	LMEL	Jar	15	0.455	
	LYVA		1	0.012	
	MEMS	Jar	1	0.004	
	MSW	Jar	3	0.036	
	NEOT/DNEOT	Bowl	1	0.012	
372	HEDI	Jug	1	0.003	13th to end of 14th century
	MEL	Jug	1	0.025	
	MEMS		2	0.031	
	MSW	Jar	1	0.012	
374	HEDI	Jug	1	0.038	Mid 12th-mid 14th century
	MEL		1	0.011	
380	EMEMS	Jar	1	0.015	Mid 12th-mid 15th century
	HEDI	Jug	1	0.021	

Context	Fabric	Form	Sherd Count	Sherd Weight	Context Date Range
	SEFEN		1	0.036	
381	HEDI	Jug	1	0.002	Mid 12th-mid 15th century
	HEDIC		1	0.007	
	LYVA		1	0.005	
	SEFEN		1	0.012	
385	DNEOT	Bowl	2	0.060	Mid 12th to end of 14th century
	EMEMS	Jar	1	0.039	
	MSW		2	0.016	
387	EMEMS/MEMS	Jar	1	0.039	13th to end of 14th century
	MEMS		1	0.007	
391	EAR/TRAN	Jug	1	0.005	15th to end of 16th century
	EMEMS		1	0.017	
	HEDI	Jug	1	0.006	
	MEL		1	0.007	
	MEMS		1	0.005	
	SEFEN		1	0.010	
405	RFWE	Bowl/Plate	1	0.006	Late 18th-19th century
419	GRIM	Jug	3	0.033	Mid-13th-end of 15th century
427	MGF	Jug	11	0.665	Mid-13th to end of 14th century
429	BRILL	Jug	1	0.006	13th to end of 14th century
	MEMS		1	0.006	
	MEMS	Jar	2	0.027	
444	HEDI	Bowl	1	0.021	13th to end of 15th century
	MEMS	Jug	1	0.088	
449	EAR	Jug	1	0.004	13th to end of 14th century
454	EAR		1	0.006	13th to end of 14th century
458	MSW		1	0.004	Mid 12th to end of 15th century
	MSW	Jug	1	0.060	
460	HEDI	Jug	1	0.010	Mid-13th to end of 14th century
	MEL		1	0.007	
	MEMS	Jar	2	0.027	
	MGF	Jug	1	0.002	
462	EAR		1	0.006	Mid-14th-mid 15th century
	HERTG	Jug	1	0.012	
	LMR	Bowl	1	0.011	
	MEL	Bowl	2	0.007	
464	EMEMS/MEMS		4	0.009	Mid-14th-mid 15th century
	HERTG	Jug	4	0.061	
	MEL	Bowl	1	0.009	
466	LMR	Jar	3	0.028	Mid 14th to end of 15th century
468	LMR	Jar	3	0.027	Mid 14th to end of 15th century
	MEMS		1	0.004	
476	BRILL(C)	Jug	1	0.013	13th to end of 14th century
	DNEOT		1	0.012	
	EAR		1	0.010	
	EAR	Jug	6	0.040	
	EMEMS	Jar	1	0.019	
	HEDI	Jug	3	0.016	
	MEL	Bowl	2	0.040	
	MEL	Jar	2	0.005	
	MEL/LMEL	Jug	1	0.011	
	MEMS		1	0.010	
	MEMS	Jar	3	0.034	

Context	Fabric	Form	Sherd Count	Sherd Weight	Context Date Range
	NEOT		2	0.016	
477	BRILL		1	0.004	13th to end of 14th century
	EAR	Jug	11	0.113	
	EMEMS	Jar	3	0.015	
	EMEMS/MEMS	Jar	1	0.009	
	HEDI	Jug	2	0.017	
	LYVA		1	0.012	
	MEL		3	0.030	
	MEL	Jar	3	0.046	
	MEL	Jug	1	0.071	
	MEMS		1	0.006	
	MSW		2	0.012	
	SEFEN		1	0.004	
479	EAR	Jug	1	0.002	13th to end of 14th century
	EMEMS	Jar	1	0.004	13th to end of 14th century
	MSW	Jar	1	0.015	
	SEFEN		2	0.012	
480	MEL/LMEL	Jug	1	0.005	Mid 12th to end of 15th century
	SEFEN	Jar	1	0.008	
482	EMEMS		1	0.002	13th to end of 14th century
	MEMS	Jar	1	0.003	
	MSW		1	0.007	
486	EAR	Curfew?	1	0.097	13th-end of 14th century
	EMEMS	Jar	1	0.003	
	EMEMS/MEMS		1	0.002	
	MEL	Jug	1	0.002	
	MEMS		1	0.004	
	MEMS	Jar	2	0.009	
	SEFEN		1	0.006	
487	EAR	Jug	1	0.006	13th-end of the 14th century
	MEMS	Jar	1	0.005	
	SEFEN		1	0.007	
489	DNEOT	Jar	1	0.007	13th-end of the 14th century
	EMEMS/MEMS		1	0.005	
	HEDI	Jug	2	0.011	
491	SEFEN		1	0.006	Mid 12th-mid 15th century
496	DNEOT	Bowl	1	0.018	13th to end of 14th century
	EMEMS		1	0.005	
	EMEMS/MEMS		1	0.013	
	HEDI	Jug	1	0.008	
	MSW		1	0.004	
508	MEMS	Jar	1	0.006	13th to end of 14th century
515	EAR	Jug	2	0.082	13th to end of 14th century
	MEL	Jug	1	0.029	
	MEMS	Jar	1	0.006	
	MEMS	Jug	1	0.005	
	MSW		2	0.064	
516	EAR	Jug	1	0.015	13th to end of 14th century
	MSW		1	0.033	
520	EAR		3	0.036	13th to end of 14th century
	EAR	Bowl	1	0.011	
	EMEMS/MEMS	Jug	1	0.049	
	MEMS		2	0.006	

Context	Fabric	Form	Sherd Count	Sherd Weight	Context Date Range
	MSW		1	0.007	
521	EAR		2	0.027	13th to end of 14th century
524	GRIM	Jug	1	0.004	Mid 13th-mid 14th century
	HEDI	Jug	1	0.101	
	MEL		1	0.045	
525	HEDI	Jug	1	0.006	Mid 12th-mid 14th century
529	NEOT/DNEOT	Bowl	1	0.027	Mid 12th-mid 15th century
	SEFEN		3	0.079	
531	EMEMS/MEMS		1	0.017	13th-end of 14th century
535	MSW		1	0.025	13th to end of 14th century
	THET		3	0.072	
539	EAR		1	0.016	13th to end of 14th century
	EAR	Jug	1	0.012	
547	EAR	Jug	1	0.016	15th to end of 16th century
	EAR/TRAN		1	0.034	
	EAR/TRAN	Jug	1	0.026	
548	EAR	Jug	2	0.014	Mid 13th-mid 14th century
	GRIM	Jug	1	0.014	
	HEDI	Jug	2	0.050	
	MEMS		1	0.010	
	SEFEN		1	0.012	
	UPG	Jug	2	0.035	
550	EAR		3	0.031	15th to end of 16th century
	EAR	Jug	1	0.020	
	EAR/TRAN	Jar	1	0.009	
	EAR/TRAN	Jug	1	0.005	
	LMR		2	0.016	
	MEL		1	0.013	
552	MGF	Jug	1	0.002	Mid-13th to end of 14th century
	MSW	Jar	3	0.018	
553	EAR	Jug	1	0.009	13th to end of 14th century
554	MEL/LMEL	Jug	1	0.054	Mid 12th to end of 15th century
556	GRIM	Jug	1	0.008	Mid 13th-mid 14th century
	LYST	Jug	1	0.014	
	LYVA		1	0.008	
	MEL	Jug	2	0.031	
	MEMS	Jar	1	0.024	
557	MEMS		1	0.002	13th to end of 14th century
558	MSW		1	0.003	13th to end of 14th century
562	HEDI	Jug	2	0.004	Mid 12th-mid 14th century
580	GRIM	Jug	1	0.054	Mid 13th-mid 14th century
581	EAR		1	0.002	Mid-13th to end of 14th century
	EMEMS	Jar	1	0.019	
	EMEMS/MEMS	Bowl	1	0.022	
	EMEMS/MEMS	Jar	2	0.004	
	GRIM	Jug	1	0.014	
	GRIM/GRIL	Bowl	1	0.015	
	MEMS	Jug/Jar	1	0.133	
591	EMEMS		1	0.006	Mid 14th to end of 15th century
	LMEL	Jug	2	0.007	
	MEL	Jug	1	0.026	
	MEL/LMEL		1	0.005	
	MEMS	Jar	2	0.017	

Context	Fabric	Form	Sherd Count	Sherd Weight	Context Date Range
	MSW	Jar	2	0.007	
598	EAR		8	0.033	13th to end of 14th century
601	BOUD	Bowl	1	0.035	Mid 15th to mid 16th century
	EAR	Jug	1	0.008	
	GRIM	Jug	1	0.006	
	LMR		1	0.006	
610	EAR	Jug	2	0.018	13th to end of 14th century
611	CONCAX	Jar	1	0.006	14th century
	EAR	Jug	15	0.161	
	EMEMS	Jar	38	0.819	
	HEDI	Jug	1	0.005	
	MEMS	Jar	10	0.228	
	MEMS	Jug	2	0.104	
	MGF	Jug	4	0.295	
	MSW	Jug	0	0.000	
625	BRILL	Jug	1	0.010	14th century if PMR is intrusive
	CONCAX	Jar	5	0.062	
	EAR		1	0.004	
	EAR	Jug	1	0.062	
	EMEMS		2	0.009	
	EMEMS/MEMS		1	0.009	
	GRIM	Jug	2	0.017	
	HEDI	Bowl	2	0.018	
	HEDI	Jug	1	0.006	
	MEMS	Jar	11	0.102	
	MEMS	Curfew	1	0.021	
	MGF	Jug	4	0.166	
	PMR	Bowl	1	0.003	
	SEFEN		1	0.008	
629	NOTTS	Bowl	1	0.005	18th-19th century
	NOTTS	Jar	1	0.167	
633	MGF	Jug	1	0.062	Mid-13th to end of 14th century
639	PMR	Bowl	3	0.078	Mid 16th -18th century
652	EAR	Jug	2	0.008	Mid-13th to end of 14th century
	EMEMS	Jar	1	0.004	
	EMEMS/MEMS	Jar	3	0.031	
	MEL		1	0.027	
	MEMS		2	0.022	
	MEMS	Jar	5	0.020	
	MEMS	Jug	1	0.013	
	MGF	Jug	4	0.034	
655	GRIM	Jug	1	0.007	Mid-13th to end of 14th century
	MEMS	Jar	2	0.006	
	SEFEN		1	0.022	
666	MEMS		1	0.010	13th to end of 14th century

Table 17: *Pottery catalogue*

B.6 CBM

By Rob Atkins

Introduction and methodology

B.6.1 A moderate assemblage of CBM (brick, medieval floor tiles, post-medieval floor brick, peg, ridge, pantile and possible a stove tile) comprising 705 fragments weighing 95.921kg; Table 18) was recorded. In the case of large quantities of medieval and post-medieval brick and floor brick (including brick wells and walls) a representative sample was assessed. The assemblage from the evaluation has been included within the results.

Type	No. of contexts	No. Fragments	Weight (kg)
Brick (medieval to modern)	48	130	48.93
Post-medieval floor brick	2	2	3.832
Medieval floor tiles	2	2	0.420
Ceramic peg tile	69	561	40.12
Ridge, nib, pantile and ?stove tile	6	10	2.61
Total		**705**	**95.92**

Table 18: *Brick, floor and roof tile with no. fragments and weight*

B.6.2 All complete lengths, widths and thickness of bricks and tiles were recorded. The exception was ceramic tiles where the thickness was not measured. Peg tiles were classified as either one or two peg hole types.

B.6.3 The bricks and tile were recorded by colour. Difference in colour is affected by how much lime there is in the clay. In Ely, Kimmeridge Clay, Gault Clay and alluvium clay was used with the three different clays respectively producing reddish-brown, white (yellow), and a range of brindled and mottled hues (Lucas 1993, 158).

Results

B.6.4 The artefacts are listed below by type, number and Phase (Table 19).

Material	No. of contexts	No. fragments	Weight of artefacts (kg)	Phase
Peg tile	7	12	0.53	2.1
Brick	4	13	1.42	2.2
Peg tile	10	24	1.24	2.2
Brick	15	45	18.85	3
Med floor tile	1	1	0.413	3
Peg tile	20	448	32.61	3
Ridge tile	2	2	0.32	3
Brick	3	3	0.42	4.1
Med floor tile	1	1	0.007	4.1
Peg tile	4	18	0.99	4.1

Material	No. of contexts	No. fragments	Weight of artefacts (kg)	Phase
Post-med floor brick	1	1	0.264	4.1
?Stove tile	1	1	0.28	4.1
Brick	6	24	4.27	4.2
Peg tile	8	21	1.1	4.2
Brick	18	38	19.72	5.1
Peg tile	16	32	2.22	5.1
Pantile and tile with nibb	4	7	2.01	5.1
Brick	2	7	4.25	5.2
Peg tile	3	4	1.38	5.2
Post-med floor brick	1	1	3.568	5.2
Peg tile	1	2	0.06	Unphased
Total		705	95.92	

Table 19: *CBM by number and phase*

Brick

B.6.5 130 brick fragments were found in 48 contexts (Tables 18, 19 and 20), the brick has been recorded in detail by context (Table 20). There was a considerable quantity of medieval brick from the site in both vegetative and sanded bases.

Fabric

B.6.6 An unusual medieval purple fabric dominates the Coldhams Lane bricks, some in a vegetative form whilst others are sanded, nor is the fabric exclusive to any particular size of brick. The fabric does not appear in comparative assemblages at Ramsey Abbey (Ryan 2009), Wisbech Castle (Atkins 2010) or Bury St Edmunds (Atkins forthcoming B). It would therefore seem likely that these bricks were being produced elsewhere. Several of the bricks are made from an orange sandy fabric. Similar bricks have been found at Brunswick 0.5km to the north-west (Atkins 2012) and are noticeably similar to bricks found in Wisbech although the late medieval bricks here (and the medieval palace at Ely) had a far larger width (5") than those from Coldhams Lane (Atkins 2009).

Date

B.6.7 Bricks were found in small numbers in Phase 2.2 (c. AD 1350-1400) with a significant quantity found in Phase 3.1 features (c.AD 1400-c.1500/1550) (Table 19). From c AD 1800 brick was found in much larger quantities.

Condition

B.6.8 The Coldhams Lane excavations produced several complete and partial medieval and post-medieval bricks (Table 20). These are in good condition and sufficiently complete to allow measurements (Table 20).

Discussion

B.6.9 No early medieval brick (pre-13th century) types were found at Coldhams lane. One-handed bricks were first used in the eastern counties in the late 13th century (Ryan

1996). One-handed Flemish and also home-made bricks were used in towns on the east coast far earlier than the Coldhams Lane bricks- *e.g.* the first documented use for brick in Norwich was 1268-70 (Shepherd Popescu 2009, 463) and "Norwich is remarkable for the scale on which Flemish type bricks were used during the Middle Ages."(Drury 1993, 164). Interestingly these early bricks were not meant to be on show, they were "generally used as an ingredient of rubble walling, or where they offered constructional convenience, in the construction of vaults, which often show signs of originally being plastered." (Drury 1993, 164). The bricks used in the construction of the phase 3.1 “tank” (**229**) at Coldhams lane should perhaps be seen in this light.

B.6.10 The earliest contexts in which bricks were found at Coldhams lanes (*c*.AD 1350-1400) have a similar date to some other Cambridgeshire towns. At Huntingdon, Walden House, for example, the earliest bricks found in the excavations were from Period 2.4 contexts and probably date to around the mid 14th century (Atkins forthcoming A). A slightly earlier date (1334/5) is recorded for brick-making in Ely but this may have been a one-off job as there is no reference to any further firings in subsequent records and brick was being imported into Ely a few years later (see above; Sherlock 1998, 65). Documentary evidence shows that by the middle of the 14th century (1333-4, 1347-8 and 1355-6), a brickworks in Wisbech was being run on land owned by the abbot of Ely (Sherlock 1998).

B.6.11 Queen's was the first Cambridge College to use exposed brickwork extensively in its front court of 1448-9 and this use of exposed brickwork was quickly followed by Jesus, Christ's and St. John's (Lee 2005, 189). There is only one known documented late medieval brick making area in Cambridge; St John's College organised the production of its own bricks by an indenture of 1511 and a brick-maker spent several days locating an area in Cambridge to produce bricks (Lee 2005, 189). The location of this brickworks is unknown although only a few locations have gault clay including directly to the east of the Coldhams Lane site.

B.6.12 The presence of bricks in mid 14th century contexts at Coldhams lane is therefore very interesting and may help to establish a date at which bricks first began to be used in Cambridge.

B.6.13 Elsewhere in Cambridgeshire archaeological and documentary evidence suggests there may have been an increase in very late medieval bricks making; in the late 15th and early 16th century bricks were commercially produced at Ely, Ramsey and Wisbech (Lucas 1993; Sherlock 1998; DeWindt and DeWindt 2006, appendix 8). The Ely and Wisbech brickworks were both on Ely Cathedral land and these workings would have used the river network to transport the bricks. Ely had a wide distribution market for its bricks and tiles, including Cambridge (Lucas 1993, fig 1) with for example, Ely brick purchased by Trinity College in 1528/9 (ibid, 158). Ramsey Abbey may have offered an alternative supply since there there are many records of bricks and brick moulds being produced by the abbey employees in the early sixteenth century and this abbey used its own boats for commercial transactions (DeWindt and DeWindt 2006, appendix 8).

B.6.14 A brickworks was located from at least c.1800, just to the south-east of the site (recorded on the 1807-12 Enclosure Map) and bricks would have been taken up Brick Kiln road directly north of the site to be transported along the River Cam. The large quantity of bricks recovered from features or layers dating to around *c*. AD 1800 may have originated at these nearby brickworks.

Ctxt	Cut	No	Weight	Comments	Feature	Phase
43	42	1	0.018	Orange sandy	Wall	5.1
50	-	1	0.105	Mixed yellow/red clay mixed. 50mm (2") thick. 17-18th century	Layer	4.1
100	101	5	1.833	In four fabrics: A) 2 yellow sandy (1027g) 57mm (2¼") and 60mm (2½") thick. Arrises ok. Mortar on 1. ?late 17th-18th century. B) 1 light orange/yellow mixed tile (14g). Sooted on exterior. C) 1 orange sandy (399g) Mortar. 50mm (2") thick. Late 17th-18th century. D) 1 purple (393g). Mortar. 46mm (<2") thick ? Tudor?17th century	Pit	5.2
155	156	2	1.434	In two fabrics: A) yellow sandy (449g). Mortar. V. well made brick. Vertical arrises. Late 18th-mid 19th century. B) Orange sandy (985g). 105mm (4") wide and 59mm (2½") thick. Mortar. V. well made. N. vertical arrises. Late 18th-mid 19th century.	Pit	5.1
215	214	8	3.181	In four fabrics: A) 5 yellow bricks (2.108kg). All sanded. All 2" thick (48-50mm, 50mm, 51mm, 51mm and 54mm). One width survives (99mm (c.4"). The latter is heavily overfired nearly vitrified. Creased face. One has a few small vegetative impressions. Reasonably well made - near vertical arrises. Drag marks on two. B) 1 purple (279g) brick (similar fabric to Wisbech). Poorly made - extremely poor arrises, some voids etc. ?thickness 38mm (1½"). ?late medieval. C) Orange red sandy (424g). 61mm thick (2½"). Pebble inclusion 25mm long, also v. small flints. Near vertical arrises -Late 17th-18th. D) 1 puddled yellow/red brick (370g). 105mm (4") wide, 38mm (1½") thick. Arisses poor. Late 17th-18th century	Pit	5.1
223	222	1	3.567	Yellow brick. Includes large quantity of lime mortar. 225mm (8¾"), 110mm (4¼") wide and 65mm (2½" thick). Arrises near vertical. Well made brick c.mid 18th-mid 19th century.	Wall	5.1
225	229	20	9.362	In 4 fabrics: A) Seven purple (2108g). Vegetative base. One fragment has marks showing excess clay has been scraped off. One is overfired 116mm (4½") wide and 48mm (2") thick. Poorly made including arrises. Cracked sides. Two other thicknesses survive 45mm (1¾") and 54mm (2"+) Late 13th-15th century. B) 6 orange sandy (4138g) with some small stone inclusions. Sanded. 2 have mould impression on top of brick as well as a few vegetative impressions on top and side of brick. 1 mortar. One complete brick (1905g) is 230mm (9") long 106mm (4") wide and 48mm (2" thick).Vegetative - it has frequent vegetative impressions on base and some on sides. Four part bricks (105mm (4¼") and 50mm(2") thick, 112mm (4½") and 41mm (1½") thick), 38mm (1½") thick and 40mm (1½") thick. 14th-15th century. One has had a stick 6mm in diameter pressed into brick. C) 6 light orange sandy fabric (1007g). Sanded. 1 has some shell inclusions. Sanded. One survives 120mm (4¼") wide and 47mm (1¾") thick. Late medieval. D) Complete yellow sandy brick (2109g) with some flint inclusions. Arrises poor. Not well made. Sanded. Excess clay scraped off top. 216mm (8½") long 110mm (4¼") wide and 51-54mm (2") thick. Late medieval - unusual for brick of this period in this fabric.	Pit	3
227	229	3	0.19	In two fabrics: A) 2 light orange sandy (132g). B) 1 purple (58g). 48mm (2") thick. Medieval	Pit	3
228	229	2	4.5*	19 complete bricks were recovered the remaining floor of the structure. The bricks were laid unmortared (they were unused) on a thin white chalk base. 18 were in predominantly one fabric - a mostly orange sandy fabric. Sanded. Excess clay scraped from the top. Occasional vegetative impressions. The exterior colour ranged from a buff orange sandy colour to orange red sandy to a slightly pinky colour. Overall these were similar with all reasonable arrises, no real cracks etc. They were between 220mm and 230mm (8¾"-9") long, 114mm-120mm (4½") wide and 50mm-53mm (2") thick. Two were slightly damaged but 16 were weighed and were between 2386g and 2798g (2386, 2396, 2454, 2625, 2632, 2641, 2653, 2670, 2677, 2678, 2715, 2716, 2717, 2735, 2745 and 2798). Late medieval One complete brick was in a purple fabric (1948g). Sanded? has some vegetative impressions. Cracks in fabric. Arrises ok. It was 221mm (8¾") long, 106mm (4½") wide and 45mm (1¾") thick. Late medieval	Pit	3
253	252	5	0.591	Purple with some small clay lump inclusions. Probably all one brick. Vegetative. Mould impression on top of brick. 112mm (4½") thick. 48mm (2") thick. Late 13th-15th century.	Post hole	4.2
259	258	6	0.355	Purple. Medieval	Post hole	4.2
275	276	2	0.065	In two fabrics: A) 1 purple (47g). B) 1 orange sandy (18g)	Post hole	5.1
277	278	2	1.153	Orange sandy. Sanded. 51mm and 5mm (2") thick. Sanded. Mortar on both. ? medieval	Post hole	5.1
280	281	2	1.236	1n 2 fabrics: A) 1 poorly puddled yellow/red brick. Cracks etc.(25g). B) 1 purple (1211g). Very overfired near vitrification point. Cracked. c.108mm (4") wide and c.2" thick. Mortar attached.. Medieval (similar to 286/287/627/629...)	Pit	5.1

Ctxt	Cut	No	Weight	Comments	Feature	Phase
284	285	2	2.421	In two fabrics: A)1 Yellow brick (277g). Near vertical arrises. 68mm (2½") thick. ?late 18th/early 19th century B) most of an orange sandy brick (2144g). Near vertical arrises. Brick has some cracks but was well made. Mortar attached. 105mm (4") wide and 68mm (2½") thick. Mid 18th to mid 19th century.	Cellar	5.2
286	288	3	0.659	In 2 fabrics: A) 2 purple (557g). Extremely overfired - partly vitrified. 2" thick. Mortar attached .Medieval B) Orange sandy (102g) Late med?	Post hole	4.2
287	288	1	0.560	Purple (560g). Slightly overfired. Cracked poorly made. 101mm wide (4") c.2" thick. Medieval	Post hole	4.2
299	308	2	2.017	In two fabrics: A) 1 purple (1051g). 110mm (4¼") wide and 44mm ((1¾") thick. Sanded. Arrises poor. Mortar attached Late medieval. B) Orange sandy (966g). Sanded but has a few vegetative impressions. Mortar attached. 116mm (4½") wide and 60mm (2½") thick.	Pit	3
314	315	1	0.725	Poorly puddle yellow/red clay. Sanded. Excess clay removed. Arrises ok. 106mm (4¼") wide and 48mm (2") thick. Mortar attached. ?17th-early 18th century.	Post hole	5.1
316	318	1	0.014	Orange sandy	Pit	3
319	320	1	1.142	Orange sandy. Some flint inclusions up to 18mm in length. 98mm (4") wide and 60mm (2½") thick. Late 17th-18th century.	Post hole	5.1
325	328	2	0.187	Yellow brick. Has frequent large internal cracks. 55mm (2¼") thick. 17th-18th century	Post hole	5.1
329	322	1	0.048	Yellow sandy	Post hole	5.1
333	339	4	3.206	1 Complete brick in purple sandy fabric (1552g). 211mm (8½") long, 110 (4½") wide and 40mm (1½") thick. There are a few vegetative impressions. Arrises ok. Late 13th/15th century. 1 part brick in purple fabric (609g). Vegetative- frequent impressions. 115mm (4½") wide. 41mm (1½") thick. Mortar attached. Late 13th-15th century. 1 purple part brick (770g). Sanded. Some voids etc. Arrisses ok. Mould impression on top. Medieval 1 overfired orange/purple sanded (275g). Vitrified surface. Some vegetative impressions. 49mm (2") thick. Medieval.	Pit	3
334	339	1	0.598	Purple. Sanded. Arrises ok. 110mm (4¼") wide and 45mm (1¾") this. Late med? Tudor?	Pit	3
335	339	1	0.588	orange sandy. Sanded. Mould impression. 118mm (4½") wide and 44mm (1¾") thick. Medieval	Pit	3
340	341	2	1.187	In two fabrics: A) A 1 yellow sandy (428g). Well made, arrises near vertical. 40mm (1½") thick. 18th-mid 19th century. B) Purple (759g). Overfired. Sanded. Cracks in brick. 101mm (4") wide and 52mm (2") thick. ?Late medieval	Post hole	5.1
361	363	2	0.831	1 Orange sandy (492g). Decorative brick - possibly from window moulding? survives 110mm long and 63mm (2½") wide. Has curved surface near side. Very uncertain on date. 1 orange sandy brick (339g). 52mm (2" thick). Sanded. Mortar attach. Late medieval	Post hole	5.1
363	363	5	0.093	5 yellow/red puddled	Post hole	5.1
423	424	2	0.468	Purple. Sanded. 95mm (4") wide and 48mm (2") thick. Arises ok. Mortar on 1.	Post hole	3
425	426	1	1.807	Complete brick. 223mm (8¾") long, 99mm (4") wide and 49mm (2") thick	Post hole	3
433	434	2	0.339	In two fabrics: A) Orange sandy (158g). 50mm (2") thick. Medieval B) Orange sandy with reduced grey core (181g) ?medieval	Post hole	3
476	481	2	0.861	1 purple (525g). Founded on vegetative surface. Heavily overfired has become nearly vitrified. Very poorly made, arrisses extremely bad. Brick has cracks etc. 46mm (<2"). I orange sandy brick (336g). Sanded. Arrises good. 51mm (2") thick. Late medieval	Pit	2.2
515	509	2	0.107	Purple. Medieval	Pit	2.2
520	519	2	0.035	2 purple ?late med	Pit	3
547	519	1	0.057	Purple	Pit	3
550	519	2	0.075	2 purple vegetative impression ?med	Pit	3
571	572	1	0.53	Yellow sandy. 67mm (2½") thick. Well made Late 18th-19th century	Post hole	5.1
575	576	1	1.472	Yellow . Near complete 185+mm (7"+), 101mm (4") wide and 60mm (2½") thick. Creased face. some voids Late 17th-18th century	Post hole	5.1
601	600	1	0.1	Purple with grey core. Overfired - nearly vitrified. Very poorly made ?late medieval	Pit	3
625	603	5	0.255	In 3 fabrics: A) 3 yellow (54g) B) 1 orange sandy (173g). Poorly made. C) 1 purple (28g)	Well	2.2

Ctxt	Cut	No	Weight	Comments	Feature	Phase
627	626	1	0.227	Purple (227g). A few yellow chalk lump inclusions. Vegetative impressions. Poorly made. inc. arrises. Brick has cracks etc. Medieval	Post hole	4.2
629	629	2	1.463	In 2 fabrics: A) 1 light orange sandy (591g). Well made near vertical arises. 104mm (4") wide 40mm (1½") thick. Drag marks. (similar fabric to 636 and 639) Although looks post med is it Late med????? B) 1 purple (872g). Heavily overfired - partly vitrified. Poorly made. c.4" wide and 2" thick. Mortar attached. Med	Post hole	5.1
636	645	1	0.286	Light Orange sandy (286g). Well made . c.38mm (1½") thick.	Pit	4.1
639	645	1	0.028	Purple. Some chalk inclusions. Vegetative impressions. Medieval	Pit	4.1
652	-	8	1.874	In 3 fabrics: A) 3 purple (543g). c.2" thick. Overfired. Vegetative impresions Med. B) 4 yellow (525g). c.54-56mm (2-2¼") thick. Heavily overfired. Not well made. C) 1 orange sandy (806g). Overfired. 100mm (4") width 57mm (2½") thick. Not well made Motar attached. ??c.17th (= 658)	Layer over well	4.2
655	654	4	0.192	In 2 fabrics: A) 1 orange sandy (22g). B) 3 purple (170g) Extremely overfired - severe vitrification. Some flint inclusions up to 27mm in length.	Pit	2.2
658	659	2	1.389	In two fabrics: A) 1 orange sandy. (352g). Crudely made. 99mm (4") wide and 58mm (2½") thick. same as 652 ??17th century. B) 1 purple (1037g). Overfired . very poorly made. c.4" wide and c.2" thick. Mortar attached. Medieval.	Post hole	5.1

Table 20: *Brick catalogue*

Medieval floor tile

B.6.15 Only two medieval floor tiles were found, one in a contemporary pit (**229**) and the other residual (Table 21).

Ctxt	Cut	No.	Weight	Comments	Feature	Ph
210	-	1	0.007	Orange sandy fabric. Green glaze across top of fragment. Very likely to be a medieval floor tile	Layer	4.1
225	**229**	1	0.413	Hard orange sandy. Unglazed. A thick tile (35mm -1½"). Sanded. Slightly chamfered sides. Mid 14th-15th centuries	Pit	3

Table 21: *Catalogue of medieval floor tile*

Ceramic roof tile (peg tile, ridge, nib, pantile and ?stove tile)

B.6.16 The ceramic roof tile assemblage from Coldhams Lane comprises a moderately large collection of 571 fragments (42.73kg) with an average tile fragment weight of 74.83g (Tables 18, 22, 23 and 24). The vast majority are peg tiles with only 10 fragments of other types comprising 3 probable ridge, 1 with a nib, and six or seven pantile. If these 10 fragments are not counted, the average tile fragment weight is 71.5g.

B.6.17 The roof tile was found in low numbers in pre AD 1400 contexts (Table 19). The vast majority of the assemblage was found in Phase 3 contexts (*c*.AD 1400-1550/1600) with a very interesting primary assemblage recovered from pit **229**. Relatively few tiles were found in post-medieval and modern contexts.

B.6.18 The size per tile fragment at Coldhams Lane is very similar to other medieval sites such as Huntingdon Town centre where there were 485 pieces of ceramic roof tile weighing 40.259kg or 83g per sherd (Atkins and Fletcher 2009). It is far larger than nearby Brunswick which comprised a larger number (735) of fragments (22.339kg) but a much smaller average weigh (30.39g) per fragment; the smaller fragment size here suggests the tiles had been discarded in middens that had then been used to infill and level the land near the river (Atkins 2012b).

B.6.19 The lack of ridge tiles at Coldhams Lane is common to several sites including Wisbech Castle where there were just four ridge tiles out of 836 ceramic roof tile sherds (Atkins

2010), Huntingdon Town Centre with only two ridge tile fragments out of 485 sherds (Atkins and Fletcher 2009) and Brunswick where there was only a single sherd of ridge tile out of 735.

B.6.20 A possible stove brick has been identified in the assemblage, if the identification is correct then it is relatively rare with few examples found in Cambridgeshire. A medieval decorated glazed tile from Wisbech Castle excavations (context 201), was probably locally made but copying continental Flemish stove tiles (pers comm Paul Spoerry). Pantile and floor brick were only found in post-medieval and modern contexts (Tables 23 and 24).

Ctxt	Cut	No.	Wt	Comments	Feature	Ph
1	5	1	0.027	Hard orange sandy with grey core	Pit	4.2
19	18	1	0.064	Light orange sandy with rare small flint inclusions up to 20mm in size	Pit	2.1
20	-	4	0.044	in two fabrics: A) Hard orange sandy (17g). Three in a hard orange sandy fabric with internal grey core (27g). Mortar attached to one.	Layer	4.1
41	40	1	0.034	hard orange sandy wth reduced grey core (34g)	Pit	4.2
50	-	1	0.082	Hard red fabric with reduced grey core. Mortar attached. A sub-rounded peg hole was 72mm from the side of the tile - 1 peg hole type.	Layer	4.1
100	101	2	0.167	In two fabrics: A) 1 yellow sandy (80g). B) 1 mixed yellow/orange sandy fabric (87g). Well made. Mortar. Sub-rounded peg hole 46mm from side.	Pit	5.2
106	107	1	0.049	Orange sandy	Well	5.1
108	114	1	0.033	Yellow sandy. Sub-square peg hole ??	Pit	5.1
113	114	1	0.026	Hard orange sandy with grey core	Pit	5.1
155	156	2	0.473	In two fabrics: A) Orange sandy (75g). Mortar. B) Yellow sandy (398g). Mortar attached. 150mm (6").	Pit	5.1
210	-	12	0.715	In four fabrics: A) 2 hard orange (110g) Sub-rounded peg hole 47mm from side (2 peg hole type tile). B) 5 hard orange with reduced grey core (246g). C) 2 poorly mixed yellow/red tile with grey core (234g). Mortar attached. D) 3 yellow sandy (125g)	Layer	4.1
225	229	152	13.903	In seven fabrics: A) 57 hard orange with reduced grey core (4992g). A few have some small yellow clay lump inclusions. One has soot on most of tile. Sooted black on most of 1 tile fragment. Three have sub-rounded peg holes with a 1 peg hole type tile (67mm from side) and two of unknown type. Some with mortar attached. B)70 hard orange sandy (6211g). 31 with mortar attached. One heavily burnt/sooted black on one half. 1 with three finger prints. 20 tiles with peg holes. 10 tiles of 2 sub-rounded peg hole type (one with 2 peg holes, one 14mm, 18mm, 23mm, 24mm, 26mm, 27mm, 32mm, 35mm and 37mm from side)). Two 1 sub-rounded peg hole type (74mm and 76mm from side). Six sub-rounded peg holes - uncertain type. Two sub-square peg holes - uncertain type. C) 12 yellow (980g). 2 burnt. 5mortar attached. D) 1 yellow with small burnt organic inclusions (43g). E) 1 orange sandy with some flint inclusions (57g). F) 1 purple with some flint inclusions up to 12mm in length (29g). G) Eight poorly mixed yellow/red clay (1155g). Grey reduced core in some. A few yellow clay lump inclusions. Not well made. 1 mortar attached. One has black sooting on half of fragment. 1 width (157mm (6"). Sub-rounded peg hole is 70mm from side (1 peg hole type. 1 sub-rounded peg hole ?type. H) 2 hard orange sandy with reduced grey core (489g). Frequent very small crushed ?shell inclusions.	Pit	3
226	229	1	0.066	1 poorly mixed yellow/red sandy fabric with reduced grey core (66g). Overfired. 1 sub-rounded peg hole ??	Pit	3
227	229	8	0.482	In 3 fabrics: A) 1orange sandy with reduced grey core (3g). B) 1 light orange sandy (11g). C) 6 hard orange sandy (468g). 2 mortared.`	Pit	3
228	229	111	12.182	In 7 fabrics: A) 12 very hard red/purple (1543g). Occasional flint inclusion up to 12mm in length. Mortar on five. Two tiles with a sub-rounded peg hole (37mm+ 42mm and ?? from side- two are 2 peg tile types) One sub-square peg hole of uncertain type. B) 28 Hard orange sandy with reduced grey core (3.109kg). Some small yellow clay lump inclusions. Mortar on 14. Sub-rounded peg holes 65mm, 71 mm, 75mm and ?? from side- three are 1 peg hole types. 1 sub-rounded peg hole unknown type. C) 5 medium orange sandy (917g). One has 2 sub-rounded peg holes 30mm + from side. D) 9 yellow sandy (824g). Mortar on 2. E) 53 hard orange (6.553kg). 13 with sub-rounded peg holes. Two were 1 peg hole types - 80mm and 105mm from side. Four were 2 peg hole type (23mm, 32mm, 35mm ad 45mm from side) and seven uncertain (sides did not survive). Mortar on c.35. F) 1	Pit	3

Ctxt	Cut	No.	Wt	Comments	Feature	Ph
				hard orange sandy with frequent yellow clay lump inclusions (119g) G) Five poorly mixed yellow/red clay with a few pebble inclusions up to 29mm in length. Grey reduced core. Not well made. Mortar on 4. 1 sub-rounded peg hole 62mm from side ?1 peg hole type.		
253	252	1	0.061	1 hard orange sandy	Post hole	4.2
275	276	5	0.268	In two fabrics: A) 2 hard orange with grey reduced core (69g). Mortar attached to 1. B) 3 orange with yellow clay mixed (217g). Well made. 1 sub-rounded peg hole 40mm from side (2 peg hole type). 2 mortar.	Post hole	5.1
279	229	7	0.892	in two fabrics: A) 4 hard orange sandy (647g). 2 mortared. Sub-rounded peg hole 35mm from tile side - 2 peg hole type. B) 3 hard orange sandy with reduced grey core (245g)	Pit	3
280	281	5	0.361	In three fabrics: A) 1 Yellow (166g). Sub-rounded peg hole 78mm from side -1 peg hole type. B) light orange sandy (34g). C) 2 yellow/red poorly mixed (161g)	Pit	5.1
282	283	1	0.007	Orange sandy with frequent small crushed shell inclusions	?Pit	2.2
284	285	1	0.38	Mostly orange sandy fabric but includes some yellow clay. Well made.	Cellar	5.2
286	288	6	0.301	In four fabrics: A) 1 poorly mixed yellow/red tile (113g) medieval. B) 2 yellow sandy (90g). C) 1 hard orange sandy (40g).D) 2 soft/medium orange sandy (58g)	Post hole	4.2
287	288	4	0.491	All yellow sandy fabric. One sub-square peg hole 18mm from side. One tile with 2 sub-rounded peg holes.	Post hole	4.2
289	290	2	0.067	2 Orange sandy	Post hole	4.2
295	296	2	0.085	In two fabrics: A) 1 yellow sandy (67g). B) 1 orange sandy (18g)	Pit	5.1
297	298	1	0.029	Orange sandy	Pit	5.1
300	308	5	0.21	In two fabrics: A) 1 hard orange sandy (30g). B) Four hard orange with reduced grey core (180g). Mortar attached.	Pit	3
302	308	1	0.064	Orange sandy with reduced grey core	Pit	3
311	-	2	0.101	Light orange sandy	Layer	2.1
312	313	1	0.109	Hard orange sandy	Pit	3
319	320	2	0.052	Yellow sandy. Mortar attached to 1	Post hole	5.1
329	322	2	0.094	Orange/yellow mixed clay tile. Well made. Mortar on one	Post hole	5.1
333	339	9	0.489	In two fabrics: A) 4 hard orange (335g) 2 with mortar attached. 1 has sub-rounded peg hole of unknown type. B) Five hard orange with reduced grey core (154g).	Pit	3
334	339	7	0.456	In two fabrics: A 3 hard orange sandy (238g). Sub-rounded peg hole 32mm from side (2 peg hole type). B) Four hard orange sandy with reduced grey core (218g), Two with mortar attached	Pit	3
335	339	3	0.344	In two fabrics: A) 1 orange sandy (22g). Could be a fragment of med brick? B) 2 hard orange with reduced grey core (322g)	Pit	3
340	341	1	0.059	Yellow sandy	Post hole	5.1
361	363	2	0.139	Two poor mixed yellow/red clay fabric. Mortar attached to both	Post hole	5.1
398	-	1	0.832	Mixed yellow/orange sandy. Well made. Large quantities of mortar attached. 162mm (6½") wide	Floor	5.2
405	281	1	0.03	Yellow/orange clay mixed	Animal B	5.1
423	424	1	0.034	Poorly mixed yellow/red clay, some yellow clay inclusions	Post hole	3
444	169	2	0.035	Yellow sandy	Pit	3
447	446	1	0.003	Orange sandy with grey core	Pit	3
476	481	7	0.364	In two fabrics: A) 4 yellow/red poorly mixed tile. Extremely overfired - vitrified and distorted. Probably from one tile. Still used as mortar attached. B) 3 in a light orange sandy fabric (47g). 1 mortar	Pit	2.2
477	481	1	0.122	Orange sandy with grey reduced core (122g). Sub-rouned peg hole 79mm from side (1 peg hole tile)	Pit	2.2
479	481	1	0.029	Orange sandy reduced grey core	Pit	2.2
480	481	1	0.093	Orange sandy. Sub-rounded peg hole 26mm from side - 2 peg hole type.	Pit	2.2
486	492	2	0.087	Yellow sandy	Pit	2.1
487	492	1	0.017	Hard orange sandy	Pit	2.1

Ctxt	Cut	No.	Wt	Comments	Feature	Ph
506	505	3	0.16	Poorly mixed yellow/red tile. Medieval	Pit	2.1
508	505	1	0.041	Hard orange reduced grey core	Pit	2.1
513	509	3	0.239	In 3 fabrics: A) Poorly mixed yellow red tile (153g) B) Orange sandy with reduced grey core (18g). C) very hard red/purple (68g). Had reduced grey core.	Pit	2.2
515	509	5	0.244	In three fabrics: A) 2 hard orange with grey reduced core (103g). B) 1 yellow sandy. (12g). C) 2 yellow/red poorly mixed tile (129g)	Pit	2.2
520	519	8	0.655	In 3 fabrics: A) 2 yellow sandy (76g). B) 3 Orange sandy (59g). C) 3 orange sandy with reduced grey core (520g)	Pit	3
521	519	26	1.499	In four fabrics: A) 7 hard orange sandy (205g). B) 1 yellow sandy (171g). C) 1 red/purple (240g). D) 17 hard orange with grey reduced core (883g) 1 mortar attached. A small patch of green glaze on the side of one tile which was accidental.	Pit	3
535	519	1	0.045	Hard orange sandy	Pit	3
539	519	8	0.398	In two fabrics: A) 3 orange sandy (68g). B) 5 orange sandy with grey core (330g)	Pit	3
547	519	81	0.164	In three fabrics: A) Light orange sandy. Burnt black on corner (23g). B) 6 hard orange with grey reduced core (112g). C) 1 purple (29g) with rare small flint inclusions. Mortar attached	Pit	3
550	519	15	0.574	In 3 fabrics: A) 10 hard orange sandy with grey core. 2 mortar B) 3 Hard orange (28g). C) 2medium orange sandy (182g)	Pit	3
558	557	2	0.061	In 2 fabrics: A) Hard orange sandy with reduced grey core (31g). B) medium orange sandy - some yellow clay mixed in (30g)	Well	2.1
575	576	1	0.042	Medium orange/yellow clay mixed	Post hole	5.1
577	578	4	0.319	In 2 fabrics: A) 3 yellow sandy (243g) Well made. B) Well made predominantly yellow with a little red clay.	Post hole	5.1
611	603	1	0.047	One orange sandy with pink core and white chalk lump inclusions..Finger print on reverse.	Well	2.2
625	603	3	0.073	In three fabrics: A) One hard orange sandy (34g). B) One orange sandy with clay lump inclusions (7g). One orange sanded (32g) with small flint and stones up to 6mm in size.	Well	2.2
627	626	2	0.029	In two fabrics: A) 1 yellow sanded (23g). B) 1 hard orange with grey core (6g).	Post hole	4.2
629	629	1	0.165	Orange sandy with some yellow clay mix including lumps. Mortar. One sub-square peg hole 53mm from side.	Post hole	5.1
631	630	2	0.058	Two hard orange with grey reduced core (58g)	Post hole	-
639	645	1	0.151	Hard orange sandy. Sub-rounded peg hole 32mm from side - 2 peg hole type	Pit	4.1
652	-	4	0.087	In two fabrics: A) 1 hard orange with grey core (43g). B) 3 orange sandy with pink core and yellow clay lump inclusions (44g)	Layer	4.2
655	657	1	0.02	orange sandy with pink core and yellow clay lump inclusions (20g)	Floor	2.2

Table 22: *Catalogue of ceramic peg tile*

Ctxt	Cut	No.	Wt	Comments	Feature	Ph
155	156	1	0.618	Pantile. Orange sandy (618g). Sooted on exterior. Well made. 18th/19th century	Pit	5.1
228	229	1	0.242	Yellow ridge or pantile	Pit	3
280	281	4	1.23	Pantile. A) 3 hard red sandy (796g) B) 1 yellow (434g). Both 18th century.	Pit	5.1
280	281	1	0.140	Yellow tile with large nibb (70mm by 25mm by 15mm thick.	Pit	5.1
291	292	1	0.021	Pantile. Yellow sandy. Pronounced curve. May be a ridge tile?	Post hole	5.1
333	339	1	0.076	Ridge tile. One fragment in an orange sandy fabric with reduced grey core. Glazed orange/brown on top of tile. Pronounced curvre on tile	Pit	3
639	645	1	0.278	?stove tile. Light orange sandy ?stove tile? Occasional small pebble inclusion. Originally the tile had been double size i.e square. Now a rough right angular triangle shape 4" by 4" and hypot not measured. c.1½" thick. Fabric similar to Bourn D (Carole Fletcher pers. comm.). Before firing incised marks on outside and inside of tile. On both sides the line scored created a boxed cross shape line along outside of tile and from edge to edge. A small cross has also been carved into the outside of tile. Internally some of the clay within the two triangles drawn by the insided lines has been carved out by knife. Frequent knife marks are visible. Broken in half before firing. Late medieval ??? Photograph/draw. Stove tiles are always glazed??	Pit	4.1

Table 23: *Catalogue ridge and ?stove tile, nib and pantile*

Ctxt	Cut	No.	Wt	Comments	Feature	Ph
399	392	1	3.568	Yellow sandy. 222mm (8¾"), 172 (6¾") wide and 38mm (1¼") thick. Mortar ..is it concrete? etc. 18th/19th century. Will be mid 19th+ if concrete.	Floor	5.2
639	645	1	0.264	Yellow. 40mm (1½") thick, Drag marks on base. Top marks have been worn smooth by ware. Some soot marks also on top. Mortar along side. ??17th century	Pit	4.1

Table 24: *Catalogue of floor brick*

Research potential and Recommendations

B.6.21 The research potential of the CBM assemblage is moderate. It is likely that the medieval brick, floor tile and stove tile originated from the priory (and possibly some of the peg tile), and may be evidence for links between the Priory and the lay settlement.

B.6.22 This relatively large assemblage of medieval bricks, including from part of an *in situ* floor is of importance to the dating and understanding of the use of brick in buildings for the region in this period. Comparison with other locally excavated material of similar date is recommended if available.

B.6.23 A comparison of locally excavated examples (if available) of medieval peg tile should be made.

B.6.24 The possible stove tile is especially unusual and the grafitti warrants further examination. It is recommended that this piece is illustrated.

B.7 Other artefacts

By Rob Atkins

Clay pipes

B.7.1 There was a small collection of clay pipes recovered from the excavations. Twenty clay pipe stems weighing 46g from 8 contexts and these were all in 19th and 20th century contexts (Table 25).

Context	Cut	Feature	No.	weight (g)	Phase
100	**101**	Pit	2	6	5.2
106	**107**	Well	3	4	5.1
108	**114**	Pit	5	8	5.1
155	**156**	Pit	5	12	5.1
280	**281**	Pit	2	6	5.1
284	**285**	Cellar	1	4	5.2
325	**328**	Post hole	1	4	5.1
573	**574**	Post hole	1	2	5.1
Total			**20**	**46**	

Table 25: *Clay pipe by context and phase*

Wig curler

B.7.2 An 18th/19th century wig curler was recovered from context 100

Fired Clay/daub

B.7.3 A small collection of 3 fired clay pieces (0.155kg) was found in 3 contexts. A single daub fragment (51g) was recovered from medieval pit **39**. It is in a buff fabric and on its external side there is a withy impression, 5mm in diameter as well as vegetative impressions on the inside of the fragment. A fired clay fragment (pit **103**) is made from a buff sandy fabric with one smoothed side (37g) and withy impressions on the internal surface. part of a fired clay object (67g) in a buff sandy fabric with internal grey core was found in an Iron Age ditch (**540**). It is sub-rounded, *c*.46mm diameter and 5cm high with smoothed exterior sides and no sign of piercing.

Plaster

Three plaster fragments (38g) were found in an early to mid 19th century pit (**48**). They are all approximately 10mm thick with an internal white lime-wash slip.

Flint

B.7.4 Two residual Early Neolithic flints were recovered. An Early Neolithic flint core for blade reduction was found in a medieval pit **37** and part of a broken patinated blade from pit **204.**

Glass

B.7.5 Seven vessel and window glass fragments (169g) were found in six different features. A fragment (3g) of possible Roman green bottle glass (with some internal air bubbles) was found in medieval Phase 2.2 pit **204**. A post-medieval onion bottle fragment (28g) was possibly intrusive in Phase 3 pit **229**. An intrusive clear 19th/20th century window glass fragment (2g) was recovered from medieval Phase 2.1 well **557**. The majority of the glass came from three 19th century (Phase 5.1) contexts and comprise a clear window glass and a vessel fragment from pit **114** (collectively 4g), a light green bottle glass fragment (129g) from pit **324** and a green vessel glass fragment (3g) from post hole **320**.

Recommendations

B.7.6 Only the possible fired clay object from Mid/Late Iron Age ditch needs further work. It will be sent to Nina Crummy at full report stage.

APPENDIX C. ENVIRONMENTAL REPORTS

C.1 Animal Bone

By Chris Faine

Introduction

C.1.1 Three hundred and ninety fragments of animal bone were recovered from the evaluation and excavation at Intercell House with 258 of these identifiable to species (65.8% of the total sample). All bones were collected by hand apart from those recovered from environmental samples; hence a bias towards smaller fragments is to be expected. Residuality appears not be an issue and there is no evidence of later contamination of any context. Faunal material was recovered from a variety of features largely dating from the following phases: 1) Middle/Late Iron Age, 2) 1200-1400 A.D, 3) 1400-1600 A.D, 4) 1650-1800 A.D and 5) modern.

Methodology

C.1.2 All data was initially recorded using a specially written MS Access database. Bones were recorded using a version of the criteria described in Davis (1992) and Albarella and Davis (1994). In brief, all teeth (lower and upper) and a restricted suite of parts of the skeleton was recorded and used in counts. These are: horncores with a complete transverse section, skull (zygomaticus), atlas, axis, scapula (glenoid articulation), distal humerus, distal radius, proximal ulna, radial carpal, carpal 2+3, distal metacarpal, pelvis (ischial part of acetabulum), distal femur, distal tibia, calcaneum (sustenaculum), astragalus (lateral side), centrotarsale, distal metatarsal, proximal parts of the 1st, 2nd and 3rd phalanges. At least 25% of a given part had to be present for it to be counted. The presence of large (cattle/horse size) and medium (sheep/pig size) vertebrae and ribs was recorded for each context but not used in counts. Where practicable, these elements have been attributed to taxon and numbers present estimated on the basis of vertebra centra and the heads of ribs. This information is retained on the animal bone database. Each element was identified to species where possible using comparative collections and reference manuals. Siding was be noted for the purposes of calculating MNI's. Where applicable the number of diagnostic zones was noted for each element (after Serjeantson, 1996). Epiphyseal fusion data was also noted (after Silver 1969). Tooth wear data for domestic mammal loose molars and mandibles (after Grant 1982) was recorded to provide further ageing data. In addition to adult molars the presence of any other teeth i.e. deciduous was also noted. Where possible sexing was carried out via morphological criteria (e.g. Hatting 1995, Armitage and Clutton-Brock 1976), or metrical analysis (e.g. Grigson 1982, Ruscillo 2006, Greenfield, 2005). Metrical analysis followed Von Den Driesch (1976), Grigson (1982) and Payne and Bull, (1988). Metrical data is shown in table 8. This information was used to aid in species differentiation e.g. between sheep and goat (after Boessneck 1969, Halstead *et al* 2002). No goats were identified therefore all ovid remains will be referred to as sheep for the remainder of this report. Identification of horse vs other equids was carried via morphological criteria after Baxter (1998), Davis (1980) and Eisenmann (1986).

Quantification

C.1.3 Table 26 shows the species distribution for the assemblage in terms of fragment count (NISP). As one can see the majority of identifiable fragments were recovered from

phases 2 and 3 along with smaller amounts from both late post-medieval and Middle/Late Iron Age phases.

Period/phase	Mid/late IA	1200-1400	1400-1600	1600-1800	Modern	Total
Cattle (Bos)	24	20	14	3	8	69
Sheep/Goat (Ovis/Capra)	11	40	25	6	3	85
Pig (Sus scrofa)	4	19	5	2	31*	61
Horse (Equus)	0	5	3	0	0	7
Dog (Canis familaris)	2	0	0	0	0	2
Cat (Felis sylvestris)	0	9	0	0	0	9
Rabbit (Oryctolagus cuniculus)	0	0	1	0	0	1
Domestic Fowl (Gallus sp.)	0	9	0	0	1	10
Domestic Goose (Anser sp.)	0	3	0	0	0	3
Duck (Anas sp.)	0	0	1	0	0	1
Frog/Toad (Rana/Bufo)	0	6	1	0	0	7
Cod (Gadus morhua)	0	1	0	0	0	1
Eel (Anguilla anguilla)	0	1	0	0	0	1
Total	41	113	50	11	43	258

Table 26 *Animal bone species distribution for the assemblage*

C.1.4 The Iron Age material is almost exclusively from recovered from fills of a boundary ditch represented by contexts 541 (**540**), 545 (**546**), 660-662 (**663**) and 681 (**682**). The majority of identifiable material from later phases was recovered from pits and well fills rather than linear features. In terms of the species distribution the assemblage is dominated by the main domesticates (Fig. 14), with only a single wild mammal elements being recovered in the form of a rabbit femur from period 3 pit fill 225 (**229**). Sheep/goat remains are the dominant taxon in all phases apart from period 1 (see figure 1). Pig is always a minor taxon. Commensal mammal remains are limited to 2 fragments of dog from period 1 ditch fill 662 and cat remains from period 2 pit fill 444 (**168**). Bird remains are limited to periods 2 and 3, with the majority recovered from period 2 contexts, as are anuran amphibian and fish remains. Single portions of cod and eel remains were recovered from period 2 well and pit fills 621 (**603**) and 201 (**204**) respectively. The species proportion in the Iron Age sample is similar to other sites regionally in as much as it is dominated by cattle and sheep. However the proportions of these two species within assemblages varies greatly in East Anglia during this period (Hambelton, 2009). In the medieval and post-medieval periods sheep dominate the assemblage, with similar proportions being seen at the nearby Cambridge Regional College site, Brunswick (Atkins 2011).

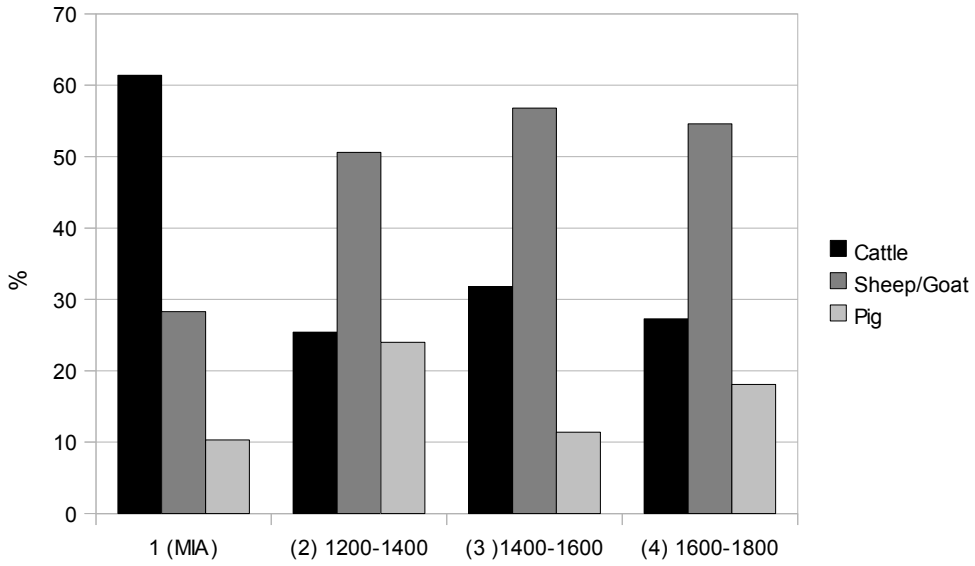


Fig. 14: Domestic mammal distribution by period

Species Present

C.1.5 Cattle

C.1.6 As mentioned above cattle is the most prevalent taxon in the Middle to Late Iron Age period. Cattle remains from this period consist largely of lower limb elements, along with smaller amounts of mandible and scapula fragments. Few butchery marks were noted (however it is worth noting the material is quite poorly preserved. This poor preservation has also led to few ageable epiphyses being excavated. A single ageable mandible was recovered from ditch fill 545 (**546**) from an very old individual (at least 8-9 years old). Context 545 **(546)** also contained a single adult radius from an animal around 1.07m at the shoulder. A similar body part distribution can be seen in period 2, albeit with a slightly larger number of meat bearing upper limb elements. A larger number of ageable epiphyses were recovered but still not a statically significant sample. Two neonatal elements were recovered from pit fill 236 (**218**) and layer 311.

C.1.7 Cattle remains from period 3 consisted largely of distal limb fragments (phalanges and astragali) along with mandibular fragments. Little butchery was observed although this is to be expected as these element types are often removed in the first instance and not usually subject to further processing. Ageable mandibles were recovered from pit fills 170 (**168**), 226 (**229**) and 462 (**463**), all from old adult animals (7+ years of age). The mandible from context 462 displayed a non-metric trait in the form of a missing hypoconulid (3rd molar pilar). Late post medieval/early modern material consisted of two adult cattle mandibles from ditch fill 171 (**172**) and post-hole 253 (**252**) along with a fragmentary tibia. The body part distribution for all period is indicative of initial processing of complete carcasses, with further processing of meat bearing elements being carried out elsewhere.

Sheep/goat

C.1.8 Sheep remains are scarce in the Iron Age, consisting of fragmentary crania, mandibles and tibiae. A single mandible was recovered from ditch fill 660 (**663**) from an animal round 6-12 months of age at death. No butchery was noted on any specimen. Figure 15 shows the body part distribution for period 2 sheep. As with the Iron Age sample the assemblage is dominated by mandibles and tibia fragments.

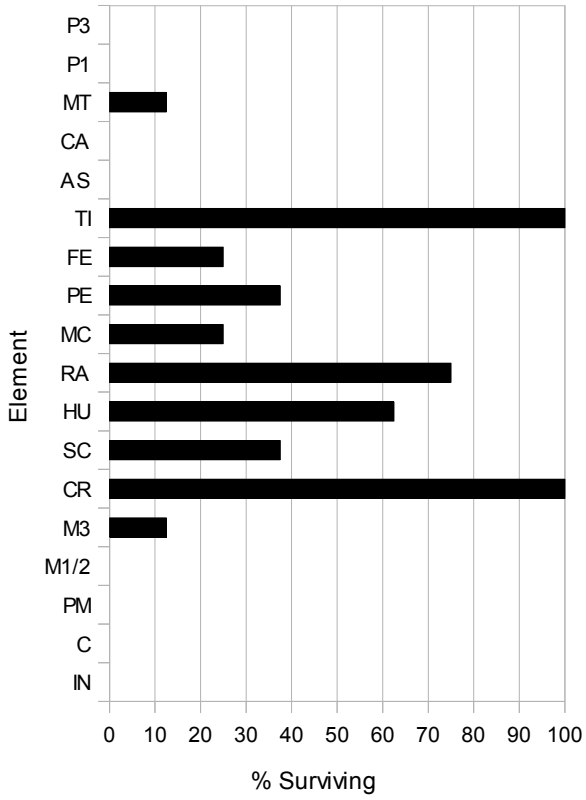


Fig. 15: *Sheep body part distribution (Period 2)*

C.1.9 However the period 2 sample also contains a larger number of front limb elements. Lower hind limb elements are almost completely absent. There is no evidence for breeding on site, with the number of animal over 4 years of age suggesting the focus was on wool and to a lesser extent mutton production (see Figure 16). Little butchery was seen on any element but as with period 3 cattle these element types are not usually subject to further processing after removal. No measurable bones were recovered.

C.1.10 Sheep goat remains from period 3 contexts are again show a similar body part distribution to those from period 2, consisting largely of mandible and lower limb fragments (most notably tibiae and radii) along with a few upper limb and scapula fragments. Six ageable mandibles were recovered, with all but one coming from animal aged around 2-3 years of age at death (four of these came from pit fill 539 (**519**). The other came from an animal around 4-6 years of age. A complete humerus and metatarsal were recovered from pit fill 225 (**229**) from animals with withers heights of 57 and 58cm respectively. As with the cattle assemblage the body part distribution for sheep most likely represents initial processing of complete carcasses.

C.1.11 Only two identifiable sheep fragments were recovered from period 4 contexts in the form of an adult sacrum and radius from pit fill 171 (**172**) and layer 210.

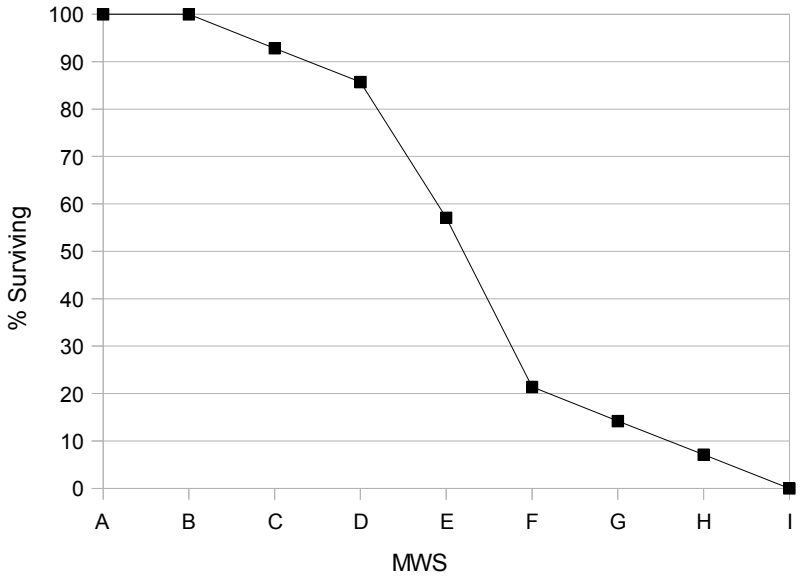


Fig. 16: *Mandibular wear stages for Period 2 sheep*

Pig

C.1.12 Only two fragments of pig were recovered from period 1 contexts in the form of an adult partial scapula and neonatal mandible from ditch fill 545 (**546**) and pit fill 513 (**509**) respectively. Pig remains from period 2 consist of cranial and lower limb elements along with a partial neonatal skeleton from pit fill 444 (**168**). Only two elements from period 2 out of 20 came from physically mature animals (over 3 ½ years of age). Period 3 pig remains were scarce,(NISP: 5) consisting of adult humerus and mandible fragments, as did the material from period 4 contexts (NISP: 2). A semi articulated burial was recovered from modern context 405 (**281**), from animal around 1-2 ½ years of age.

Horse

C.1.13 Only eight fragments of horse were recovered from assemblage, 6 of these coming from period 2 contexts. These consisted of radial fragments from three separate individuals, as well as phalanges. A single complete radius was recovered from well fill 611 (**603)** from animal around 1.3m at the shoulder (12 ½ hands high). A portion of scapula and 2nd phalanx were recovered from period 3 pit fills 226 (**229**) and 520 (**519**) respectively.

Dog

C.1.14 Only two dog fragments were recovered; a partial adult mandible and radius from period 1 ditch fill 662 (**663**).

Cat

C.1.15 A partial cat skeleton was recovered from period 2 pit fill 444 (**168**). This consisted of the cranium, upper limb bones, ribs and metatarsi from an adult animal. Several instances of pathology were observed on the skeleton. Two metatarsi showed evidence of partially healed mid shaft breaks with extensive subsequent infection. A fully healed rib fracture was also observed.

Wild mammals

C.1.16 A single rabbit femur was recovered from period 3 pit fill 225 (**229**).

Birds

C.1.17 The majority of bird remains were recovered from period 2 contexts. Domestic fowl remains (NISP: 10) consist largely of adult limb bones (humeri and tarsometarsi). Metrical analysis indicates animals larger than those seen at other sites (Albarella *et al* 2009). Whilst evidence of post-medieval improvement of fowl has been noted (Davis, 1997), it is likely that the assemblage is too early to represent these larger birds. No medullary bone was observed (indicating females in lay) and it may be that the majority of birds in this assemblage were males, indicating meat rather than eggs was the main focus here.

C.1.18 Goose remains were almost entirely recovered from phase 2 contexts, again consisting of adult lower elements. No measurable or sexable elements were recovered. A single duck tarsometarsus was recovered from period 3 pit fill 539 (**519**).

Others

C.1.19 Frog remains were recovered from a number of environmental samples, most notably from period 2 pit 207 (**168**) (NISP: 20) and and well fill 611 (**603**) (NISP: 25). Frog remains most likely represent pit fall or flood deposits. Unusually a tibia from pit 380 (**182**) showed a healed midshaft fracture, possibly due to predation. Two large cod vertebrae were recovered from period 2 well fill 621 (**603**) and probably came from salted fish. A number of eel vertebra were recovered from period 2 pit fill 201 (**204**) and were most likely locally caught food fish.

Conclusions

C.1.20 Although small the assemblage in all phases represents initial processing of complete carcasses if not live animals. Cattle were the main source of animal products in the Middle-Late Iron Age being largely raised for meat. In the high-late medieval period (Period 2) sheep were the most common species being raised largely for wool and to a lesser extent mutton, as is seen frequently during this period elsewhere. Meat was supplied by cattle and pigs (the latter being bred in the surrounding area). Stock may have been kept under the auspices of Barnwell Priory or simply may have been kept on land adjacent to it as the site is close to several areas of common land and associated drove ways (Atkins 2012a). Domestic birds were raised primarily for meat and eggs. This pattern of husbandry continued after the dissolution of the priory, with sheep again being the primary source of meat and wool, with cattle and pigs being raised largely for meat alone.

C.2 Plant Remains

By Rachel Fosberry

C.2.1 Introduction

A total of fifty-six bulk samples were taken during excavations at Coldhams Lane, Cambridge. The purpose of this assessment is to determine whether plant remains are present, their mode of preservation and whether they are of interpretable value with regard to domestic, agricultural and industrial activities, diet, economy and rubbish

disposal. The initial results showed that preservation of plant remains was good with carbonised (charred), mineralised and waterlogged plant remains present. Waterlogged plant remains are of particular value for providing information on the surrounding environment of a site whereas carbonised plant remains relate to agriculture and domestic, culinary activities and mineralised remains usually indicate cess.

C.2.2 Methodology

The total volume of each standard bulk sample (up to twenty-eight litres) was processed by tank flotation for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. Three samples taken from wells 190 (Samples 49, 50) and 481 (Sample 55) were contaminated with modern hydrocarbons. One bucket of each of the samples was treated with a solution of Decon-90 in order to decontaminate the samples prior to processing through the flotation tanks.

The floating component (flot) of the samples was collected in a 0.3mm nylon mesh and the residue was washed through 10mm, 5mm, 2mm and a 0.5mm sieve. Both flot and residues were allowed to air dry. A magnet was dragged through each residue 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 and the presence of any plant remains or other artefacts are noted on Tables 27 and 28. Identification of plant remains is with reference to the Digital Seed Atlas of the Netherlands (Cappers *et al* 2006) and the authors' own reference collection. Nomenclature is according to Stace (1997).

C.2.3 Quantification

For the purpose of this assessment, items such as seeds, cereal grains and small animal bones have been scanned and recorded qualitatively according to the following categories

= 1-10, ## = 11-50, ### = 51+ specimens #### = 100+ specimens

Items that cannot be easily quantified such as charcoal, magnetic residues and fragmented bone have been scored for abundance

+ = rare, ++ = moderate, +++ = abundant

C.2.4 Results

Plant remains are predominantly preserved by carbonization. The carbonized material is comprised of cereal grains and weed seeds in addition to charcoal and a moderate inclusion of charred saw-sedge (*Cladium mariscus*) leaflets. The waterlogged plant remains include seeds, roots and leaves. Seeds preserved by waterlogging often retain their outer surface (testa) enabling more accurate identification in contrast to carbonized seeds which, by the process of burning and burial, become blackened and often distort and fragment. Mineralised remains are less common. Mineralised seeds and insect remains may be an indication of cess.

Cereal grains are abundant within the majority of the samples. Bread/club wheat (*Triticum aestivum/compactum*) and barley (*Hordeum* sp.) predominate along with significant quantities of rye (*Secale cereale*) and oats (*Avena* sp.). Chaff elements are comparatively rare and only occasional cereal culm nodes (indicating straw) and a few rachis fragments of wheat, rye and barley were observed.

Charred weed seeds are fairly common within the assemblage with good species diversity although individual numbers are generally low. The most frequent charred

seeds are those of weeds that have a broad habitat including disturbed and waste ground and include dock (*Rumex* sp.), clover/medick (*Trifolium* sp.) and stinging nettles (*Urtica dioica*). Clover can also represent pasture and other grassland plants such as plantain (*Plantago lanceolata*) and grasses (Poaceae) were also noted in the assemblage, although not in great abundance.

Many of the charred weed seeds in the assemblage are from plants that are commonly found growing on cultivated soils and include stinking mayweed *(Anthemis cotula)*corncockle, *(Agrostemma githago),* bromes (*Bromus* sp.)*,* rye grass/darnell *(Lolium temulentum*), field gromwell (*Lithospermum arvense*), mustard *(Brassica/Sinapis sp.),* cornflower *(Centaurea cyanus),* cleavers *(Galium aparine),* vetches *(Vicia* sp.*)* and *goosefoot (Chenopodium* sp.*).*

Seeds preserved by waterlogging are abundant in the lower deposits of the two well features **190** (Sample 50, fill 533) and **481** (Sample 55, fill 555). Species include nettles, burdock (*Arctium lappa*), chervil (*Chaerophyllum* sp.), fool's parsley (*Aethusa cynapium*), henbane (*Hyoscyamus niger*), corn spurrey (*Spergula arvensis*) and dead-nettle (Lamium sp.) and members of the Pinks family (Caryophyllaceae) including campions (*Silene* sp.) and chickweed (*Stellaria* sp.).

Mineralised remains are relatively rare and occur in approximately 10% of the samples. Mineralised milliped segments are most common along with occasional fly pupal cases and seeds of goosefoot, dead-nettles, mustard (*Sinapis* sp.) and a single sunflower seed (*Helianthus* sp.)

Exploitation of local resources is indicated by the presence of nutlets and leaf fragments of Great Fen sedge (*Cladium mariscus*) which was one of the major vegetation types of the Fen and was commonly used for thatching and fuel. Other wetland plants include sedges (*Carex* sp.) and spike-rush (*Eleocharis palustris*) which had similar uses. Burnt snail shells are mostly of wetland species and are most likely to have been burnt whilst still attached to plants brought in from wetlands for use as fuel.

Charred peas (*Pisum sativum*) were noted in many of the cereal-rich samples. Beans (Fabaceae) occur rarely and only as cotyledon fragments.

C.2.5 Results by Period

Three samples taken from Period 1 ditches produced insignificant quantities of charred cereals, weed seeds and wetland seeds that may be intrusive from later deposits.

Twenty-four samples taken from Phase 2.1 and sixteen samples from Phase 2.2 pit deposits and produced a large assemblage of charred plant remains that is dominated by mixed cereal grains (predominantly wheat) along with legumes and weed seeds such as stinking mayweed and clover. Sparse mineralised remains were recovered from Sample 40, Phase 2.1 fill 419 of post hole **420** and also from Sample 29, Phase 2.2 fill 282 of post hole **283.**

A number of features were thought to be wells. Only the lower fill of Well **190** (Sample 50, Phase 2.1 fill 533) contains significant waterlogged plant remains; the higher fill (Sample 49, Phase 2.1 fill 529) contains only a few untransformed seeds which may be contemporary or could be modern contaminants. Sample 50 also contains well preserved insect remains including beetles. Phase 2.2 fill of Well **481** (Sample 55) also contains abundant waterlogged seeds with a slightly different plant assemblage to Sample 50. The other possible wells did not contain waterlogged remains as evidence of this function.

The eleven samples from Period 3 deposits have produced a very similar charred plant assemblage to the Period 2 samples.

A single sample (Sample 3) was taken from a possible layer (20) and contains sparse charred plant remains.

Three samples from Period 5 post-holes produced small flot volumes containing insignificant numbers of charred cereal grains.

C.2.6 Discussion

The charred plant assemblage from excavations at Coldhams Lane is dominated by cereal grains. This is largely to be expected as cereal grains are the most likely material to become carbonised (and thus preserved) due to the necessity to expose the grains to fire either during parching, brewing or cooking. All four of the main cereal types are represented but it is interesting to note that the cereal assemblages within individual deposits generally include more than one cereal type which could suggest either a mixing of material prior to deposition, several depositional events within the same deposit or mixed crops.
Wheat would have been the preferred grain for making bread although the cheaper rye bread may have been more common among the peasant class. Barley was the preferred malting grain of this period and oats were most probably a fodder crop. The scarcity of chaff elements in this assemblage may be significant as it may suggest that cleaned grain was being imported into the site having been processed elsewhere. During the early medieval period it is likely that rural communities would have been producing excess grain for sale or for taxation and the cleaned grains would have been sent to administrative towns such as Cambridge.

The quantity of legumes recovered suggests that they were a significant dietary constituent as these items are less likely to be burnt accidentally than grain as they do not need to be exposed to heat as cereals do. Clover is a leguminous plant that could be a crop contaminant or was possibly grown as a fodder or nitrogen-fixing crop to improve soil conditions.

The charred seed assemblage is consistent with what one would generally expect to find growing amongst cereal crops. The inclusion of small clover seeds in most of the samples suggests that this plant was harvested with the cereal crop which would suggest that the cereals were reaped close to the ground as clover is a low-growing plant. Another species of particular note is stinking mayweed which is an ecologically specific species that favours heavy clay soils in cultivated ground. Bromes are common crop contaminants that grow to the same height as the cereal crop, the grains are edible and so may not necessarily have been removed as a contaminant of the prepared grain especially if used for animal fodder. Rye grass/Darnell , field gromwell, and corncockle are plants that grow in cultivated fields as crop contaminants. Larger seeds such as these are of a similar size to cereal grains so could not be removed by sieving and so they would have had to be picked out by hand prior prior to grinding/cooking grain. Corncockle seeds are large, black and rough and are a similar size to cereal grains. They are extremely poisonous to both humans and livestock, even if cooked, so any contaminating seeds have to picked out by hand prior to consumption.

The mineralised plant remains were recovered from post-holes which is somewhat unusual as this type of preserved remains are usually encountered in the lower fills of cess pits. The disposal of latrine waste often produces mineralised plant and insect

remains because the phosphates in the sewage replace the organic components leading to a form of semi-fossilization. The three samples from brick-lined latrine pit 299 did not contain any evidence of cess deposits.

The waterlogged plant remains recovered from Wells **190** and **481** contain numerous weed seeds. Both wells are situated in the south of the site close to the medieval field boundary. Plants such as henbane, burdock and nettles are commonly found growing on disturbed soils that have a high nitrogen content associated with human occupation. These plants along with dead-nettle and members of the pink family such as chickweed and campions suggest an over-grown area around the wells. Chervil is often a cultivated plant and, along with burdock and nettles, has culinary and medicinal uses, which may be of relevance.

C.2.7 Statement of Potential

It would appear that the majority of the features sampled were rubbish pits used to dispose of accidentally-burnt food products and other domestic refuse. There is very little variation between the main periods of occupation of this site.

A range of crops are represented including the full range of cereals; wheat, barley, rye and oats along with pulses including peas and beans. These findings are typical of Medieval towns in the East of England as described in a review of excavated sites in this area (De Moulins and Murphy 2001). The lack of chaff suggests that crop plants were imported into this site and the full significance of this is yet to be fully ascertained. The plant remains are well preserved and have excellent archaeobotanical potential to *yield* valuable data about diet and urban food supplies during the early medieval period in this region with reference to the East Anglian Archaeology Research Agenda (Medlycott 2011). The waterlogged plant remains have the potential to provide information about the types of vegetation that were growing around the site. Such deposits that have remained wet also have the potential for good pollen preservation.

C.2.8 Recommendations for further work

Several of the samples contain sufficient quantity and diversity of plant and insect species for full analysis. Many of the charred cereal assemblages have the potential for further archaeobotanical study with the aim of characterising the cereals and the associated crop weeds in view of the research aims and objectives for this site. These include establishing the nature of the occupation of the site and to explore the evidence for the medieval urban economy.

Both waterlogged samples (Samples 50 and 55) are worthy of further work. It is recommended that the plant remains are fully analysed. Normally this would require the processing of a 1-litre sub-sample and the plant remains identified whilst wet. Both samples retain an odour of hydrocarbons despite decontamination efforts and it recommended that only the dried material is quantified.

A number of different fuels have been tentatively identified. Charcoal is abundant in many samples and is an obvious indicator of wood being burnt as fuel. There is the potential for species identification of charcoal to determine the types of wood used. Sedge-beds in the fens were intensively managed during the medieval period for use in thatching and flooring material but also as a favoured fuel in bread ovens (Rowell 1986).

Sample No.		56	58	62	2	10	19	20	42	34	35	36	49	50	17	18	41	32
Context No.		545	646	664	38	120	170	207	444	372	381	379	529	533	196	197	203	243
Feature No.		546	546	665	39	119	168	168	168	190	190	190	190	190	199	199	239	241
Feature type		ditch	ditch	ditch	Pit	pit	pit	pit	pit	well	well	well	well	well	pit	pit	well	pit
Sample volume processed (L)		23	5	26	18	24	24	27	14	8	24	8	8	8	24	7	7	24
Preliminary Phasing		1	1	1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Cereals																		
Avena sp. caryopsis	Oats [wild or cultivated]				#	##	#				#	#		#		#		#
Hordeum vulgare L. caryopsis	domesticated Barley grain	#		#	##	#	#	#			##	#	#	#	#	#		
Hordeum vulgare L. rachis internode	domesticated Barley chaff				#	#								#				#
Secale cereale L. caryopsis	Rye grain			#		#	#	#		#	#			#	#			#
free-threshing Triticum sp. caryopsis	free-threshing Wheat grain	#	#	#	###	###	##	##	#	#	##	##	##		##	##	#	#
free-threshing Triticum sp. rachis internode	free-threshing Wheat chaff		#									#						
cereal indet. caryopsis	indeterminate	#			##	###	##	###		##	##	##	##	##	##			##
cf. cereal indet. culm node	Cereal stem-joint [indicates straw]					#					#			#				#
cereal indet detached sprout	cereal sprout							#										
Other food plants																		
Pisum sativum L. seed	Garden Pea				#	##		#		#								#
Fabaceae	Bean					#												
Dry land herbs																		
Aethusa cynapium L. kernel	Fool's Parsley																	
Agrostemma githago L. seed	Corncockle																	
Anthemis cotula L. seed	Stinking Chamomile					#		#	#		#							#
Arctium lappa L. seed	Greater burdock													##w				
Apiaceae indet. kernel	Carrot Family													#w				
Atriplex prostrata Boucher ex DC./ patula L. seed	Spear-leaved/Common Orache					#					#							
Brassica nigra type seed	Black Mustard [coarse-textured seed]							#						#w				
Bromus spp. caryopsis	Bromes						#	#										
Caryophyllaceae indet. [1-3mm] seed	medium-seeded Pink Family						#							##w				
Centaurea sp. achene	Knapweeds					#				#		#						
Chenopodiaceae indet. seed	Goosefoot Family	#	#	#		#				#	#			##w	#			#
Galium sp. L. nutlet (small seed)	small-seeded Goosegrasses																	
Helianthus annuus L. seed	sunflower																	
Hyoscyamus niger L. seed	Henbane																	
Lamium sp. nutlet	Dead-nettles										#		#u	###w				
Lapsana communis L. achene	Nipplewort																	
Lithospermum arvense L. nutlet	Field Gromwell									#								
Malva sp. nutlet	Mallows													#w				
Papaveraceae indet. Seed	Poppy family						#											

Plantago lanceolata L. seed	Ribwort Plantain																		
medium Poaceae indet. [3-4mm]	medium-seeded Grass Family						#	#			#								
Polygonaceae indet. achene	Dock Family				#	#		#											
Polygonum aviculare L. achene	Knotgrass													##w					
Potentilla sp. seed	Cinquefoils																		
Ranunculus cf. acris L./repens L./bulbosus L. achene	cf. Meadow/Creeping/Bulbous Buttercup																		
Rumex sp. achene	small-seeded Docks					#	#			#	#	#							#
Sinapis sp. seed kernel	Mustard																		
Spergula arvensis L. seed	Corn Spurrey													##w					
Thalictrum flavum L. achene	Common Meadow-rue							#											
small Trifolium spp. [<1mm] seed	small-seeded Clovers	#			#	##	#	#		#	#	##			#				#
largeTrifolium/Medicago spp. [2-3mm] seed	large-seeded Clovers/Medicks					#													
Urtica sp. seed	Common Nettle					#	#	#		#			#u	#w	#				#
Wetland/aquatic plants																			
Carex spp. nut	medium triangular-seeded Sedges		#							#	#	#							
medium trigonous Carex spp. [2-3mm] nut	Common / Slender Spike-rush									#									
elongate lenticular Carex spp. nut	elongate and flat-seeded Sedges	#				#		#											
Charophyte oogonia	Stonewort					#b					#b	#b		#					
Cladium mariscus (L.) Pohl leaf	Great Fen-sedge				#			#											
Cladium mariscus (L.) Pohl nut	Great Fen-sedge						#	##		##	#								#
Eleocharis palustris (L.) Roem. and Schult./ uniglumis (Link) Schult. nut	Rushes	#	#				#	#				#							
Juncus sp. seed	Rushes seed-head														#				
Juncus sp. seed head	Gypsywort										#								
Schoenus nigricans L. nut	Black bog rush			#															
Sambucus nigra L. seed	Elderberry					#u			##u	#			#u						
Other plant macrofossils																			
Charcoal <2mm		+	+	++	+++	+++	++	+++	+	++	++	++	++	++	++	+	+	++	
Charcoal >2mm		+	+	+	++	++	+	++		+	+	+	++	++	++			+	
Charcoal >10mm			+					+			+	+	+						
Indet.culm nodes								##								#			
Waterlogged plant remains														###					
molluscs					#b	# #b	#	#b	###	## #b	## #b	#b			#b	#b			
Bone								#	##										
mineralised arthropod remains						#													
Magnetic spheroid											#								
Fish bone							#										#		
Volume of flot (litres)		2	1	1	100	80	15	80	1	20	15	25	100	80	30	10	1	15	
% flot sorted		100	100	100	100	75	100	100	100	100	100	100	100	50	100	100	100	100	

Table 27: *Environmental samples Period 1 and Phase 2.1*

Sample No.		13	16	14	15	33	30	31	24	29	43	45	46	55	59	60	61	1	11	12	21	22	23	44	37	48	51	39	3	25	26	27
Context No.		102	191	175	178	380	201	230	236	282	458	476	479	555	621	611	655	31	151	151	225	227	228	316	391	520	539	406	20	267	269	271
Feature No.		103	103	182	182	182	204	204	218	283	459	481	481	481	603	603	654	32	152	152	229	229	229	318	382	519	519	408		268	270	272
Feature type		pit	pit	pit	pit	pit	pit	pit	pit	pit	pit	pit	pit	well	well	well	pit	Pit	pit	pit	pit	pit	pit	pit	pit	pit	pit	post hole	Layer	post hole	post hole	post hole
Sample volume processed (L)		27	27	16	24	24	16	21	24	24	8	24	24	8	6	15	10	18	15	24	22	26	23	24	25	9	28	14	18	3	5	7
Preliminary Phasing		2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3	3	3	3	3	3	3	3	3	3	3	4.2	5.1	5.1	5.1
Cereals																																
Avena sp. caryopsis	Oats [wild or cultivated]	#			#	#	#	##		##								##	#	#	#						#		#			
Avena sativa L. floret	Wild-oat seed-head																										#					
Avena sp./Poaceae caryopsis	oat/grass							#		#																					#	
Hordeum vulgare L. caryopsis	domesticated Barley grain		##	#	#	#	#	###	#	#					##	#		#		#	#	#	#		#	##	##					
Hordeum vulgare L. rachis internode	domesticated Barley chaff					#		#																		#						
Secale cereale L. caryopsis	Rye grain	#			#	#		##							##	#		#		#				#		##		#	#			
free-threshing Triticum sp. caryopsis	free-threshing Wheat grain	##	##	##	##	##	###	### #	#	###	#	#	#	#	##	#	#	####		##	#	#	#	#	#	####	###		##			#
free-threshing Triticum sp. rachis internode	free-threshing Wheat chaff							#																		#	#		#			
cereal indet. caryopsis	indeterminate	##	##	#	##	###	###	###	#	###	#	##	##	#	##	#	#	##	###	##	##	#	#	##	#	###	##					#
cf. cereal indet. culm node	Cereal stem-joint [indicates straw]				#		#			#																###						
cereal indet detached sprout	cereal sprout																									#	#					
Other food plants																																
Pisum sativum L. seed	Garden Pea	#		#	#	#	#			#	#f		#f	#			#f		#	##	#				#f	#	#					
Fabaceae	Bean	#																			#f		#f						#			
Vicia faba L. seed							#																									
Dry land herbs																																
Aethusa cynapium L. kernel	Fool's Parsley													##w																		
Agrostemma githago L. seed	Corncockle						#	##																		#						
Anthemis cotula L. seed	Stinking Chamomile		#			#	#	#		#	#		#			#				#				#		#						
Atriplex prostrata Boucher ex DC./ patula L. seed	Spear-leaved/Common Orache						#			#																						
Brassica nigra type seed	Black Mustard [coarse-textured seed]						#	#		#																						
Bromus spp. caryopsis	Bromes		#				#	#		#								#	#													
Carduus/Cirsium sp. achene	Thistles								#				#																			
Caryophyllaceae indet. [1-3mm] seed	medium-seeded Pink Family					#	#			#				####w												#						
Centaurea sp. achene	Knapweeds						#	#																	#	#						
Chaerophyllum sp. Seed	Chervil													###w																		

Sample No.		13	16	14	15	33	30	31	24	29	43	45	46	55	59	60	61	1	11	12	21	22	23	44	37	48	51	39	3	25	26	27
Context No.		102	191	175	178	380	201	230	236	282	458	476	479	555	621	611	655	31	151	151	225	227	228	316	391	520	539	406	20	267	269	271
Feature No.		103	103	182	182	182	204	204	218	283	459	481	481	481	603	603	654	32	152	152	229	229	229	318	382	519	519	408		268	270	272
Feature type		pit	pit	pit	pit	pit	pit	pit	pit	pit	pit	pit	pit	well	well	well	pit	Pit	pit	pit	pit	pit	pit	pit	pit	pit	pit	post hole	Layer	post hole	post hole	post hole
Sample volume processed (L)		27	27	16	24	24	16	21	24	24	8	24	24	8	6	15	10	18	15	24	22	26	23	24	25	9	28	14	18	3	5	7
Preliminary Phasing		2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3	3	3	3	3	3	3	3	3	3	3	4.2	5.1	5.1	5.1
Chenopodiaceae indet. seed	Goosefoot Family		#			#			#	##m		#			#											#						
Galium aparine L. nutlet	Cleavers				#				#			#																				
Helianthus annuus L. seed	sunflower									#m																						
Hyoscyamus niger L. seed	Henbane									#u				##w							#u	##u			#u			#u				
Lamium sp. nutlet	Dead-nettles									#m				###w									#m									
Lithospermum arvense L. nutlet	Field Gromwell																									#	#					
Lolium cf. temulentum L. caryopsis	Darnel		#			#														#												
Malva sp. nutlet	Mallows							#	#					##w																		
Papaveraceae indet. Seed	Poppy family																			#												
Picris echioides L. seed	Bristly ox-tongue																									#						
Plantago lanceolata L. seed	Ribwort Plantain									#																						
small Poaceae indet. [< 2mm] caryopsis	small-seeded Grass Family																	#														
medium Poaceae indet. [3-4mm]	medium-seeded Grass Family		#					#																		#						
Polygonum aviculare L. achene	Knotgrass													#w																		
Ranunculus cf. acris L./repens L./bulbosus L. achene	cf. Meadow/Creeping/Bulbous Buttercup								#																							
Rumex sp. achene	small-seeded Docks	#			#		#	##			#	#						#	#				#	#	#f		#					
Sinapis sp. seed kernel	Mustard										#	#	#											#		##	#					
Spergula arvensis L. seed	Corn Spurrey													##w																		
Thalictrum flavum L. achene	Common Meadow-rue																			#			#		#							
small Trifolium spp. [<1mm] seed	small-seeded Clovers	#	#	#		##	#	##	#	#					#			#	#	##	#		#		#							
largeTrifolium/Medicago spp. [2-3mm] seed	large-seeded Clovers/Medicks				#																											
Urtica sp. seed	Common Nettle			#	#					#			#	####w				#								#			#			
Vicia/Lathyrus sp. seed	Vetches/Peas				#			#				#						#	#													
Wetland/aquatic plants																																
Carex spp. nut	medium triangular-seeded Sedges						#			#			#								#			#		#	#					
medium trigonous Carex spp. [2-3mm] nut	Common / Slender Spike-rush									#																						
elongate lenticular Carex spp.	elongate and flat-		#																	#	#											

Sample No.		13	16	14	15	33	30	31	24	29	43	45	46	55	59	60	61	1	11	12	21	22	23	44	37	48	51	39	3	25	26	27
Context No.		102	191	175	178	380	201	230	236	282	458	476	479	555	621	611	655	31	151	151	225	227	228	316	391	520	539	406	20	267	269	271
Feature No.		103	103	182	182	182	204	204	218	283	459	481	481	481	603	603	654	32	152	152	229	229	229	318	382	519	519	408		268	270	272
Feature type		pit	pit	pit	pit	pit	pit	pit	pit	pit	pit	pit	pit	well	well	well	pit	Pit	pit	pit	pit	pit	pit	pit	pit	pit	pit	post hole	Layer	post hole	post hole	post hole
Sample volume processed (L)		27	27	16	24	24	16	21	24	24	8	24	24	8	6	15	10	18	15	24	22	26	23	24	25	9	28	14	18	3	5	7
Preliminary Phasing		2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3	3	3	3	3	3	3	3	3	3	3	4.2	5.1	5.1	5.1
nut	seeded Sedges																															
Charophyte oogonia	Stonewort		#b		#b		#b	#b		#b																						
Cladium mariscus (L.) Pohl leaf	Great Fen-sedge		#	#				#		#											#											
Cladium mariscus (L.) Pohl nut	Great Fen-sedge						#			#	#					#		#			#				#f	#			#			
Eleocharis palustris (L.) Roem. and Schult./ uniglumis (Link) Schult. nut	Rushes							#							#	#		#		#					#	#	#					
Juncus sp. seed	Rushes seed-head			#																						#						
Juncus sp. seed head	Gypsywort						#			#																						
Schoenus nigricans L. nut	Black bog rush								#	#																						
Sambucus nigra L. seed	Elderberry									#u									##u						#u			#u				
Other plant macrofossils																																
Charcoal <2mm		++	++	++	+++	++	++	++	++++	+	+++	++	+	+++	++	+	++	+++	++	++	+	+	++	+	+	+++	+++	+	++	+	+	+
Charcoal >2mm		++	++	++	++	+	++	++	++++	+	++	++	+	++	++	+	+	++	++	++	+	+	+	+	+	++	++	+	++	+		
Charcoal >10mm				+	+			+	+	+		+			++			+				+		+	+	+	++		+			
Indet.culm nodes										+					+			+														
Waterlogged plant remains														###																		
Indet.seeds															+					#												
vitrified charcoal											#				++									#								
Other remains																																
molluscs		#b	#b	#b	#b	#b		##b		#b	#	#						##b	##b	#b	#			#b			#b					
Bone						#					#												#									
mineralised arthropod remains										#	#														#							
Magnetic spheroid																	#															
Fish bone							#																#					#				
Volume of flot (litres)		35	20	5	55	400	30	25	120	30	15	5	10	80	40	1	1	160	40	60	60	80	20	20	1	110	100	10	60	1	1	1
% flot sorted		100	100	100	100	40	100	100	50	50	100	100	100	10	100	100	100	100	100	100	100	100	100	100	100	75	75	100	100	100	100	100

Table 28: *Environmental Samples Phase 2.2-5.1*

C.3 Insects

By Dr Kim Vickers

Methods

C.3.1 Dry flots from 2 samples previously processed for plant macrofossils were submitted for assessment for their potential to provide palaeo-environmental information on the basis of invertebrate remains. Residues from these flots were not available for study due to issues of contamination.

C.3.2 These were sorted under a low power binocular microscope and insect fragments removed and stored in 70% ethanol. For the purposes of assessment no attempt was made to identify sclerites to species, but material has been ascribed to family/genus where possible given the time constraints in order to give an overview of the sample content. Beetle specimens were identified using relevant identification keys and a reference collection of modern Coleoptera, housed in the Manchester Museum, University of Manchester. Preservation was recorded according to the system of Kenward and Large (1998). Habitat data for the list of taxa is discussed with reference to BUGS CEP (Buckland and Buckland 2006) and the publications detailed therein.

Results and discussion

C.3.3 Both of the samples were relatively rich in invertebrate remains. An estimate of the contents of each sample can be found in Table 29.

Context (555) Sample <55>

C.3.4 This sample was rich in coleopteran sclerites, which were all well preserved. The bulk of the assemblage is made up of terrestrial groups associated with open landscapes, detritus and dung, plant litter and those phytophageous on vegetation. Many of these phytophage beetles are specific to host plants and identification of these taxa may provide additional information about the vegetation at the site. Small numbers of water beetles are also present, but may not be autochthonous. There was no indication of material from anthropogenic sources in the beetle assemblage and it accumulated in an outdoor context. Analysis at species level may potentially provide information regarding nature of the surrounding terrestrial environment and depositional processes.

C.3.5 This sample was also relatively rich in land snail shells. Analysis of this assemblage would complement the beetle analysis in providing information about the nature of the nearby environment.

C.3.6 A small number of amphibian bones were also noted in the sample flot.

Context (533) Sample <80>

C.3.7 Preservation in this sample is on the whole good, although some sclerites are thinned and paled suggesting that the samples have been subject to taphonomic degradation since deposition – probably as a result of periodic drying of the deposit. The sample is relatively rich in coleopteran sclerites, but further processing of bulk samples is recommended in order to recover an assemblage of suitable size for environmental interpretation. The sample is dominated by terrestrial fauna and the assemblage is made up of taxa associated with decomposing plant waste and dung and phytophages. There was no indication of material from anthropogenic sources in the beetle assemblage. Further analysis of this assemblage at species level will provide

information regarding the nature of the surrounding terrestrial environment and depositional processes.

C.3.8 This sample was also relatively rich in land snail shells. Analysis of this assemblage would complement the beetle analysis in providing information about the nature of the nearby environment.

C.3.9 A small number of amphibian bones were also noted in the sample flot.

CONTEXT NUMBER	**555**	**533**
SAMPLE NUMBER	**55**	**80**
BULK SAMPLE VOLUME (litres)	10	10
% flot sorted	100	100
Taxa	Estimated frequency	Estimated frequency
Carabidae indet.	++	++
Ochthebius spp.	+	
Helophorus spp.	++	+
Cercyon/Megasternum	+	+
Scydmaenidae indet.	+	+
Staphylinidae indet.	+++	+++
Anotylus spp.	++	+
Platystethus spp.	+++	+
Gyrohypnus spp.	+	+
Quedius spp.	+	+
Tachyporinae indet.	+	+
Aleocharinae indet.	+	+
Elateridae indet.	+	
Aphodius spp.	++	+
Chrysomelidae indet.	+++	++
Curculionidae indet.	+++	++
Coleoptera indet.	+++	+++
TOTAL NO. SCLERITES	**223**	**96**
Land snails	**136**	**74**

Table 29: *Assessment of the insect assemblage*

Potential and recommendations

C.3.10 The relatively large number of insect and land snail fragments available in the samples from CAMCOL12 mean that further analysis has the potential to provide information about the nature of the contexts they are recovered from and the habitats available in the surrounding environment. It is recommended that full analysis should be undertaken on insect and land snail assemblages from both of the samples. It is recommended that additional bulk samples from both contexts are processed in addition to the residues from the assessed sub samples in order to maximise the information available for environmental reconstruction.

C.3.11 It is therefore suggested that a further 9L bulk samples and the residues from the assessed sub samples are processed for invertebrates from both contexts. Any un-

processed bulk samples should also be retained as they are likely to contain useful coleopteran and land snail assemblages.

C.3.12 It is estimated that completion of processing, analysis and production of a full report on the resulting insect assemblage will take around 3.5 weeks to complete.

C.4 Shell

By Rob Atkins

Results

C.4.1 There was a very small collection of 91 shells (0.719kg) from 40 contexts (Table 30). This comprises 74 (0.676kg) oyster (Ostrea edulis), 16 (0.038kg) mussel (Mytilus edulis) and a single whelk (0.005kg). The vast majority of the shell was found within 33 medieval contexts and the remaining seven in post-medieval and modern. The assemblage is not large enough to enable any statistical analysis

C.4.2 Only three features contained more than 10 shells; three mussel and seven oyster from pit **103** (Phase 2.2),12 oyster from pit **481** (Phase 2.2) and four mussel and 12 oyster from pit **519** (Phase 3).

Context	Cut	Feature	No	Weight of shell (g)	Type	Phase
31	32	pit	1	5	oyster	3
31	32	pit	1	3	mussel	3
38	39	pit	1	3	mussel	2.1
102	103	pit	6	46	oyster	2.2
102	103	pit	1	1	mussel	2.2
120	119	pit	1	10	oyster	2.1
124	128	pit	1	4	mussel	2.1
131	133	pit	2	7	oyster	3
151	152	pit	1	3	mussel	3
151	152	pit	1	5	whelk	3
178	182	pit	1	5	mussel	2.2
191	103	pit	1	7	oyster	2.2
191	103	pit	2	3	mussel	2.2
196	199	pit	1	3	mussel	2.1
196	199	pit	1	5	oyster	2.1
201	204	pit	1	3	mussel	2.2
210	-	layer	8	50	oyster	4.1
227	229	pit	1	5	oyster	3
230	204	pit	1	6	oyster	2.2
238	218	pit	3	29	oyster	2.2
255	254	post hole	1	8	oyster	4.2
263	262	post hole	1	7	oyster	4.2
280	281	animal burial	6	41	oyster	5.1

Context	Cut	Feature	No	Weight of shell (g)	Type	Phase
286	288	post hole	1	5	oyster	4.2
287	288	post hole	2	21	oyster	4.2
311	-	layer	1	4	oyster	2.1
319	320	post hole	1	40	oyster	5.1
333	339	pit	2	65	oyster	3.1
379	190	well	1	3	mussel	2.1
383	382	pit	1	41	oyster	3
427	428	pit	2	6	oyster	2.1
444	168	pit	1	11	oyster	2.1
456	457	pit	1	11	oyster	2.1
462	463	pit	1	2	oyster	3
468	469	pit	1	1	mussel	3
476	481	pit	10	87	oyster	2.2
477	481	pit	2	29	oyster	2.2
489	492	pit	1	12	oyster	2.1
496	492	pit	1	12	oyster	2.1
520	519	pit	6	33	oyster	3
520	519	pit	1	1	mussel	3
521	519	pit	2	13	oyster	3
521	519	pit	2	4	mussel	3
535	519	pit	1	12	oyster	3
535	519	pit	1	1	mussel	3
539	519	pit	1	15	oyster	3
550	519	pit	2	12	oyster	3
601	600	pit	2	26	oyster	3
Total						

Table 30: *Shell by context and phase*

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APPENDIX E. OASIS REPORT FORM

All fields are required unless they are not applicable.

Project Details

OASIS Number	Oxfordar3-154352		
Project Name	Mid/Late Iron Age and medieval to modern settlement remains at the former Intercell House, Coldhams		
Project Dates (fieldwork) Start	17-12-2012	Finish	25-01-2013
Previous Work (by OA East)	Yes	Future Work	No

Project Reference Codes

Site Code	CAMCOL12	Planning App. No.	11/0338/FUL
HER No.		Related HER/OASIS No.	CHER ECB3873

Type of Project/Techniques Used

Prompt: Direction from Local Planning Authority - PPS 5

Please select all techniques used:

☐ Field Observation (periodic visits)	☐ Part Excavation	☐ Salvage Record
☐ Full Excavation (100%)	☐ Part Survey	☐ Systematic Field Walking
☐ Full Survey	☐ Recorded Observation	☐ Systematic Metal Detector Survey
☐ Geophysical Survey	☐ Remote Operated Vehicle Survey	☐ Test Pit Survey
☒ Open-Area Excavation	☐ Salvage Excavation	☐ Watching Brief

Monument Types/Significant Finds & Their Periods

List feature types using the NMR Monument Type Thesaurus and significant finds using the MDA Object type Thesaurus together with their respective periods. If no features/finds were found, please state "none".

Monument	Period	Object	Period
Ditches	Iron Age -800 to 43	Pottery, bone, spind	Iron Age -800 to 43
Settlement remains	Medieval 1066 to 1540	Domestic	Medieval 1066 to 1540
Settlement remains	Post Medieval 1540 to 1901	Domestic	Uncertain

Project Location

County	Cambridgeshire	Site Address (including postcode if possible)	
District	Cambridge City	Intercell House Coldhams Lane Cambridge CB1	
Parish	St Andrew The Less		
HER	Cambridgeshire		
Study Area	0.23ha	National Grid Reference	TL 4656 5891

Project Originators

Organisation	OA EAST
Project Brief Originator	Andy Thomas, CCC
Project Design Originator	Rob Atkins and Aileen Connor, OA East
Project Manager	Aileen Connor
Supervisor	Rob Atkins

Project Archives

Physical Archive	Digital Archive	Paper Archive
CCC Stores	OA East	CCC Stores
CAMCOL12	CAMCOL12	CAMCOL12

Archive Contents/Media

	Physical Contents	Digital Contents	Paper Contents
Animal Bones	☒	☒	☒
Ceramics	☒	☒	☒
Environmental	☒	☒	☒
Glass	☐	☒	☒
Human Bones	☐	☐	☐
Industrial	☒	☒	☒
Leather	☐	☐	☐
Metal	☒	☒	☒
Stratigraphic		☐	☐
Survey		☒	☒
Textiles	☐	☐	☐
Wood	☐	☐	☐
Worked Bone	☒	☒	☒
Worked Stone/Lithic	☒	☒	☒
None	☐	☐	☐
Other	☐	☐	☐

Digital Media	Paper Media
☒ Database	☐ Aerial Photos
☒ GIS	☒ Context Sheet
☐ Geophysics	☒ Correspondence
☒ Images	☐ Diary
☒ Illustrations	☒ Drawing
☐ Moving Image	☐ Manuscript
☒ Spreadsheets	☒ Map
☒ Survey	☒ Matrices
☒ Text	☐ Microfilm
☐ Virtual Reality	☐ Misc.
	☒ Research/Notes
	☒ Photos
	☒ Plans
	☒ Report
	☒ Sections
	☒ Survey

Notes:

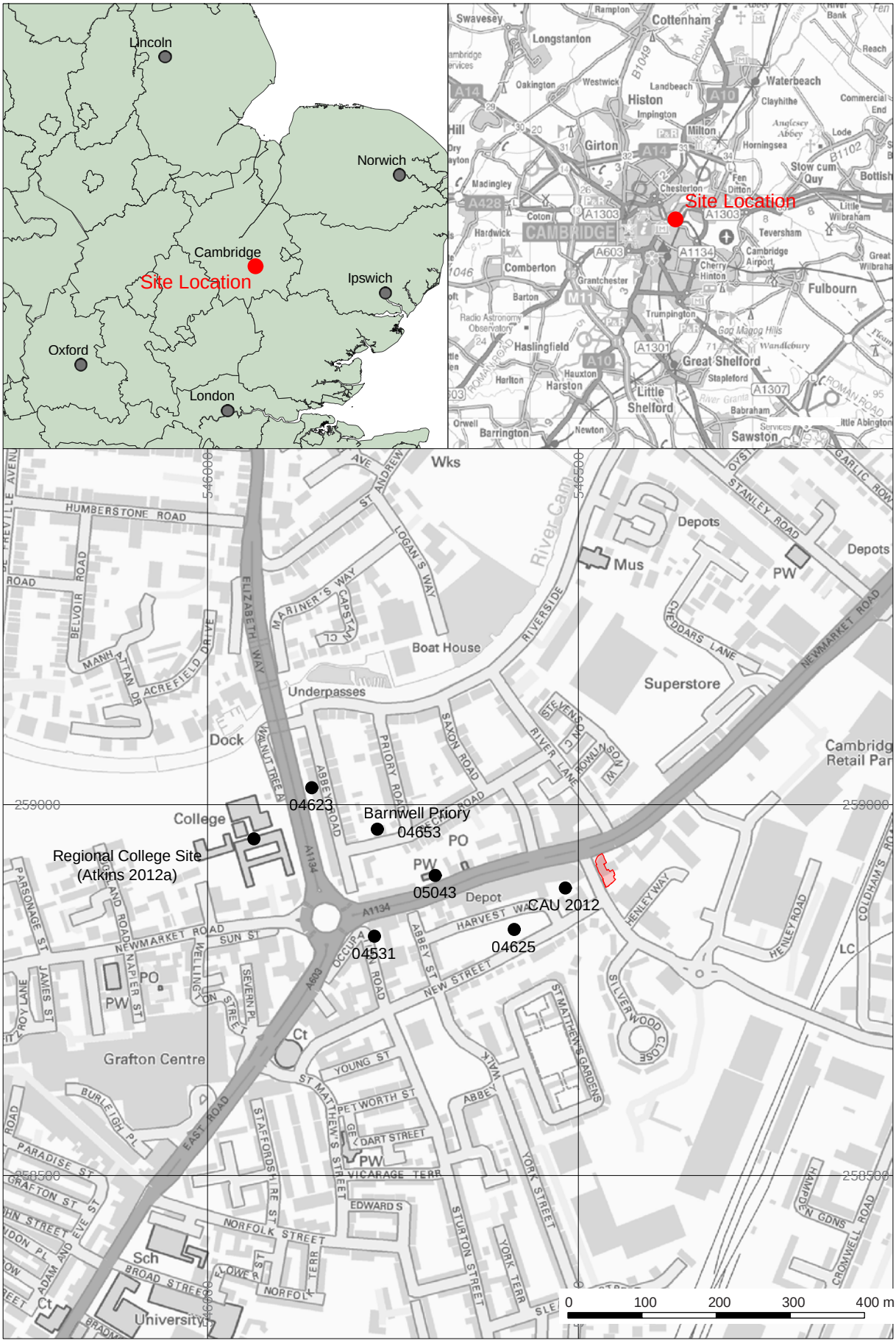

Figure 1: Site location, surrounding CHER sites and recent excavations mentioned in the text

Fig 2: Excavation and evaluation trench layout. Scale 1:500

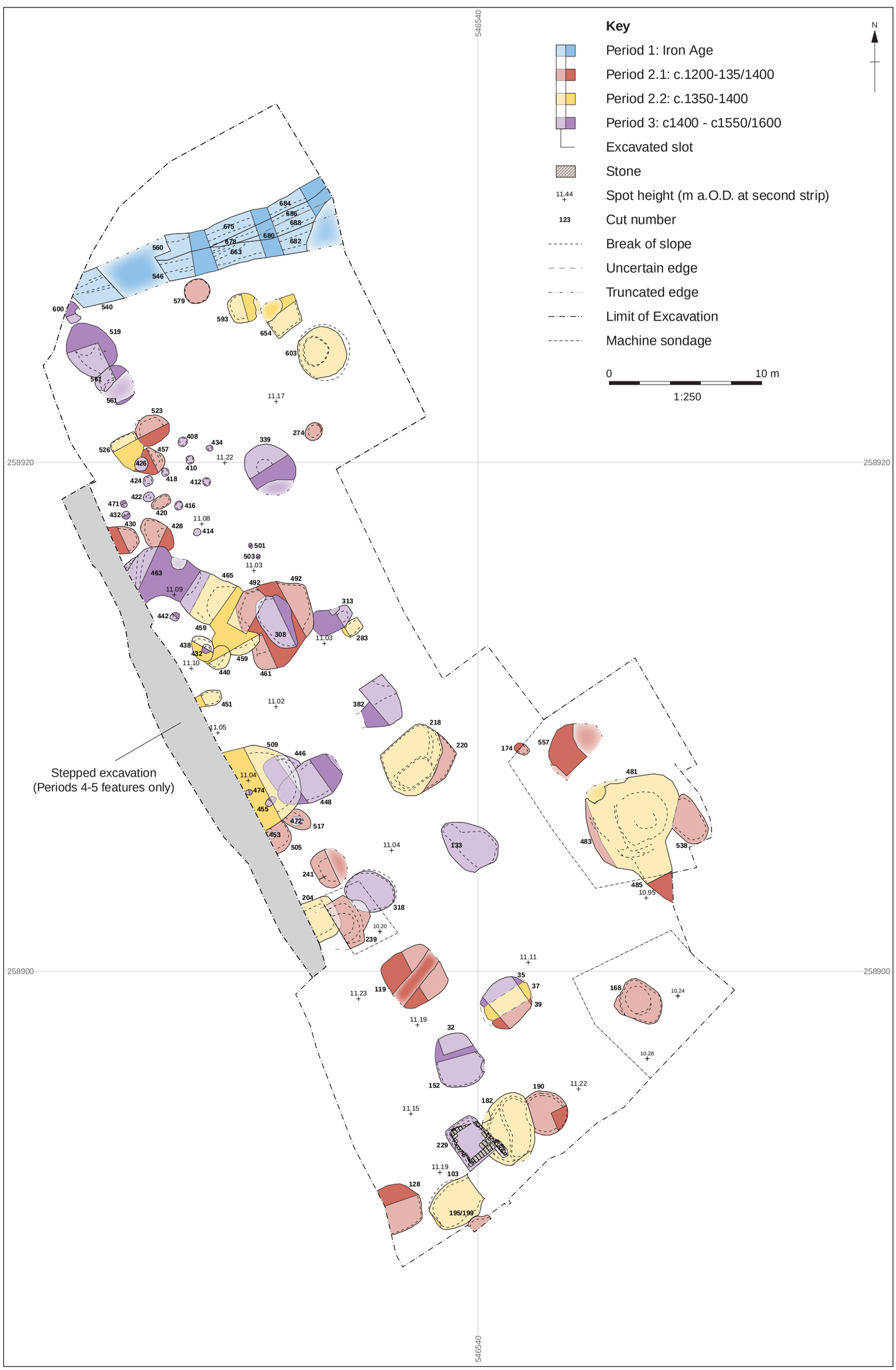

Figure 3: Plan of features from periods 1, 2.1, 2.2 and 3

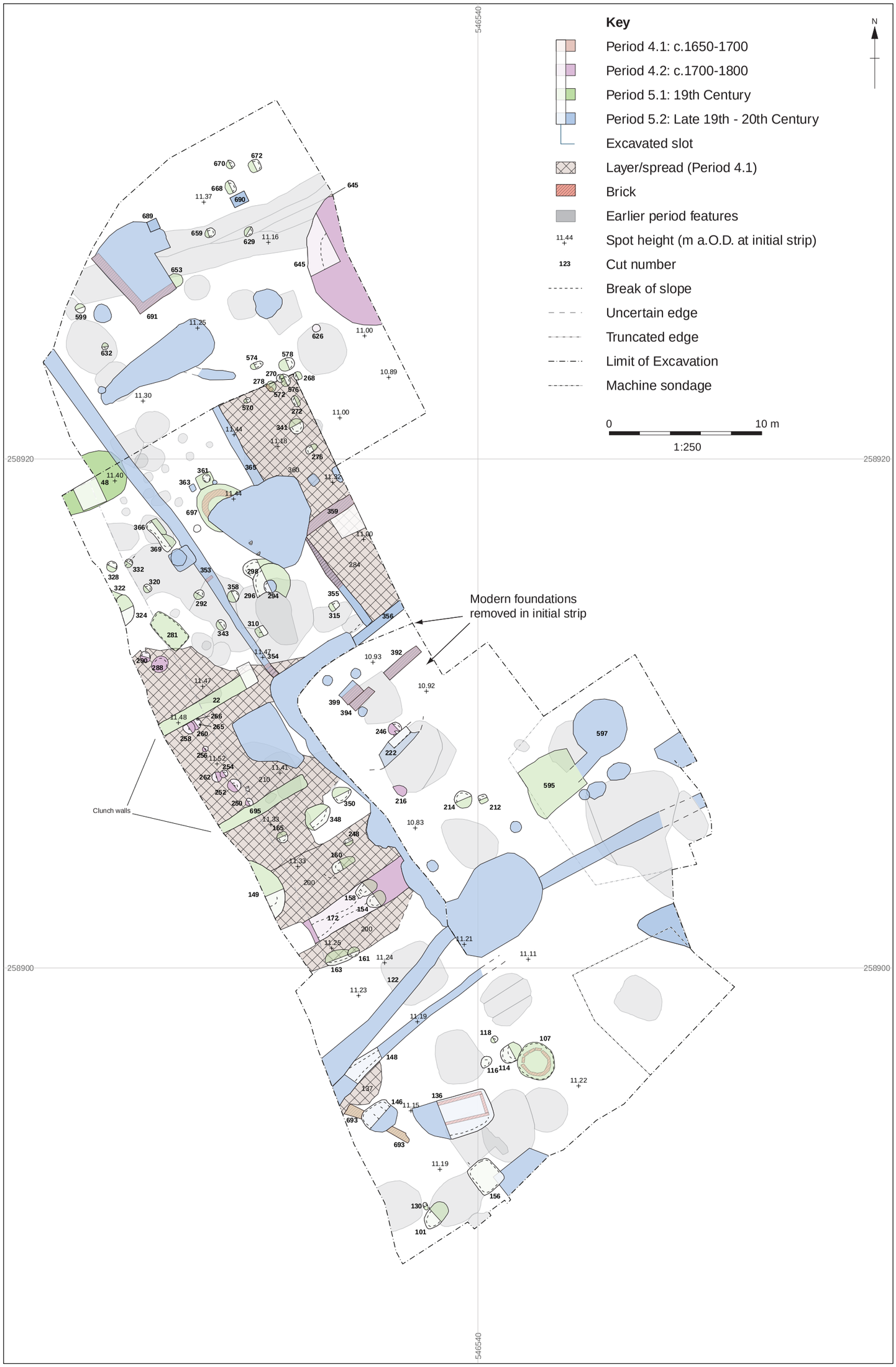

Figure 4: Plan of features from periods 4.1, 4.2, 5.1 and 5.2

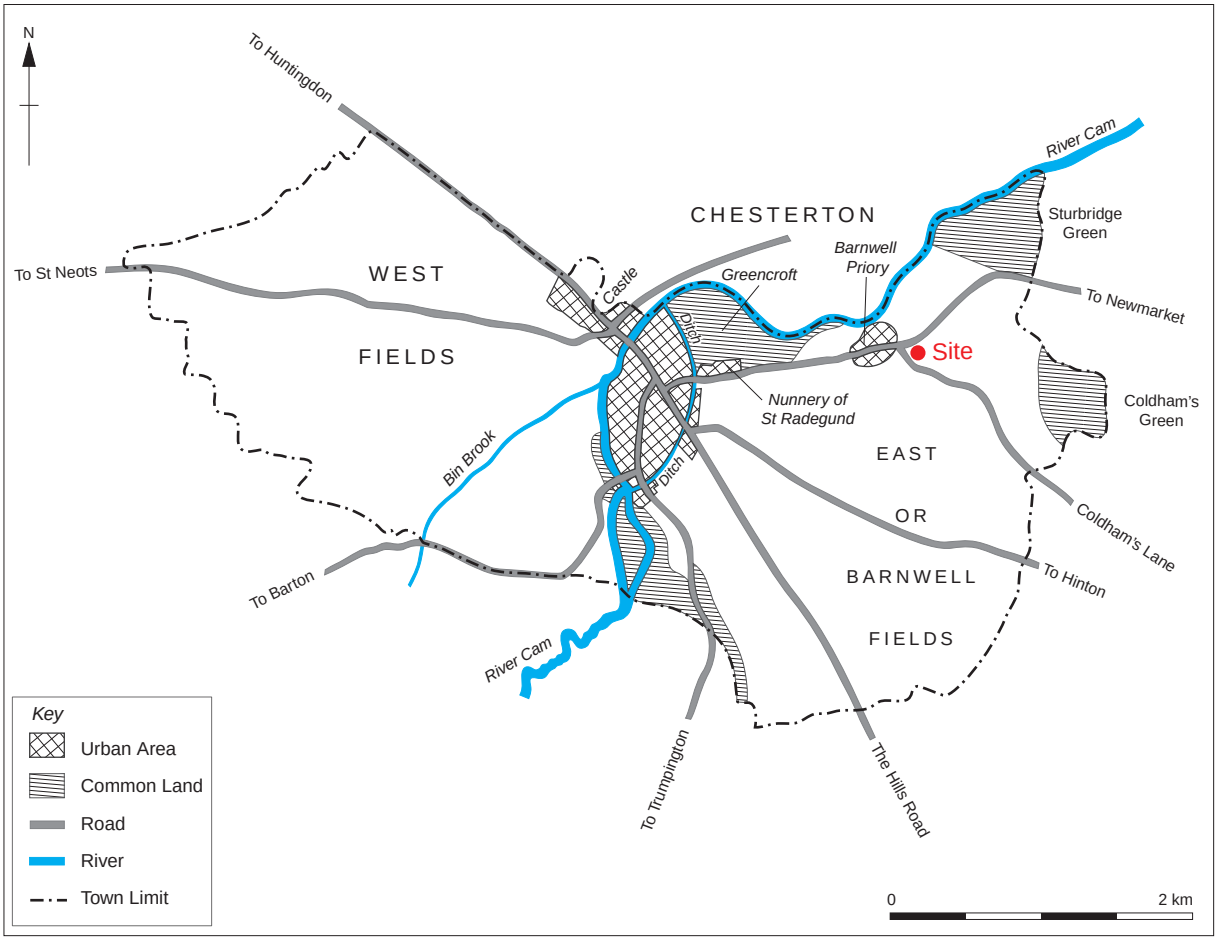

Figure 5: Site in relation to medieval Cambridge (after Maitland 1964 facing p.54). Scale 1:50000

Figure 6: Enclosure Map 1812 (CRO Q/RDc16) showing excavation area and development area

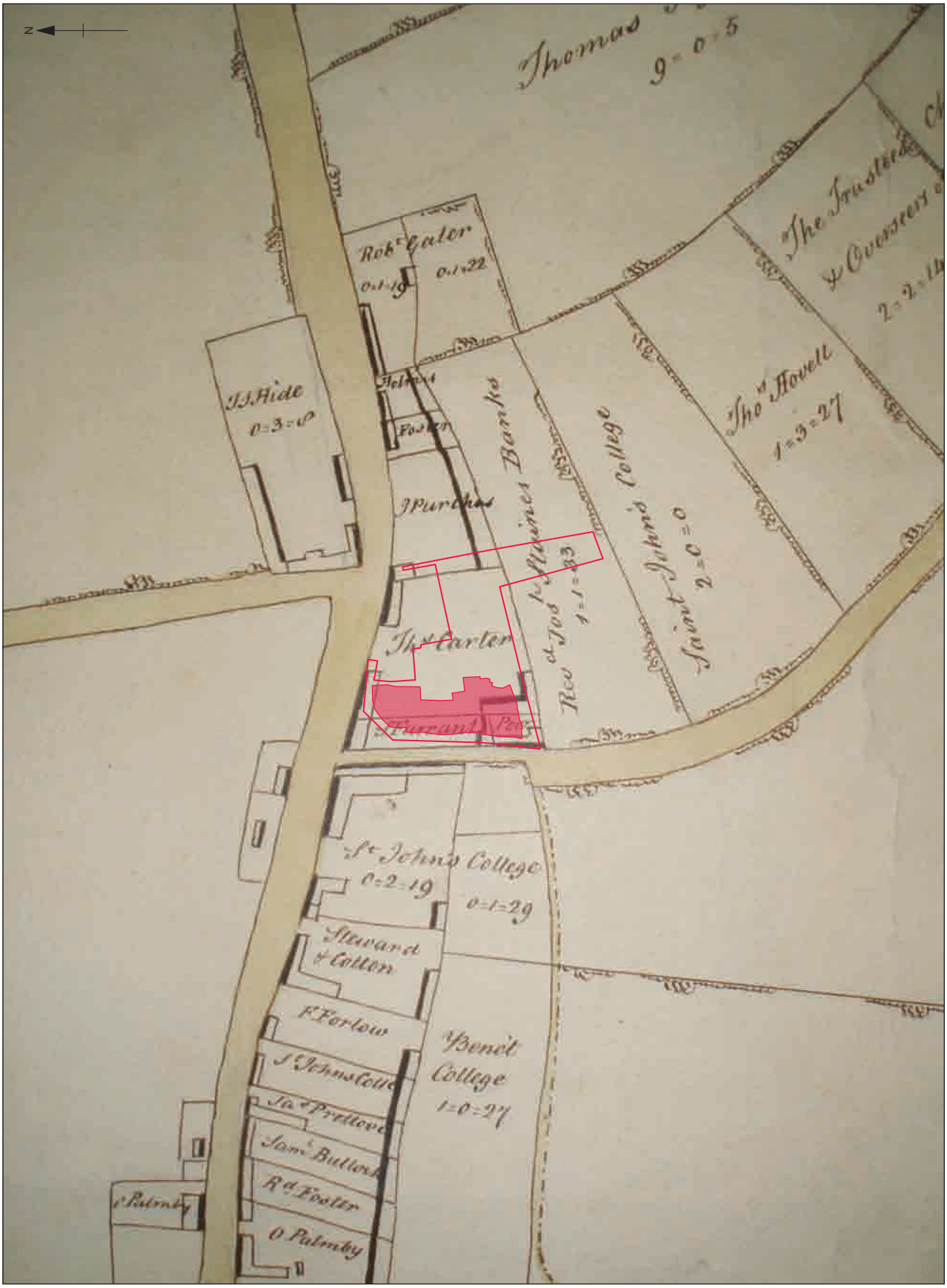

Figure 7: 1813 map of St Andrew the Less parish (CRO 107/P4) showing excavation area and development area

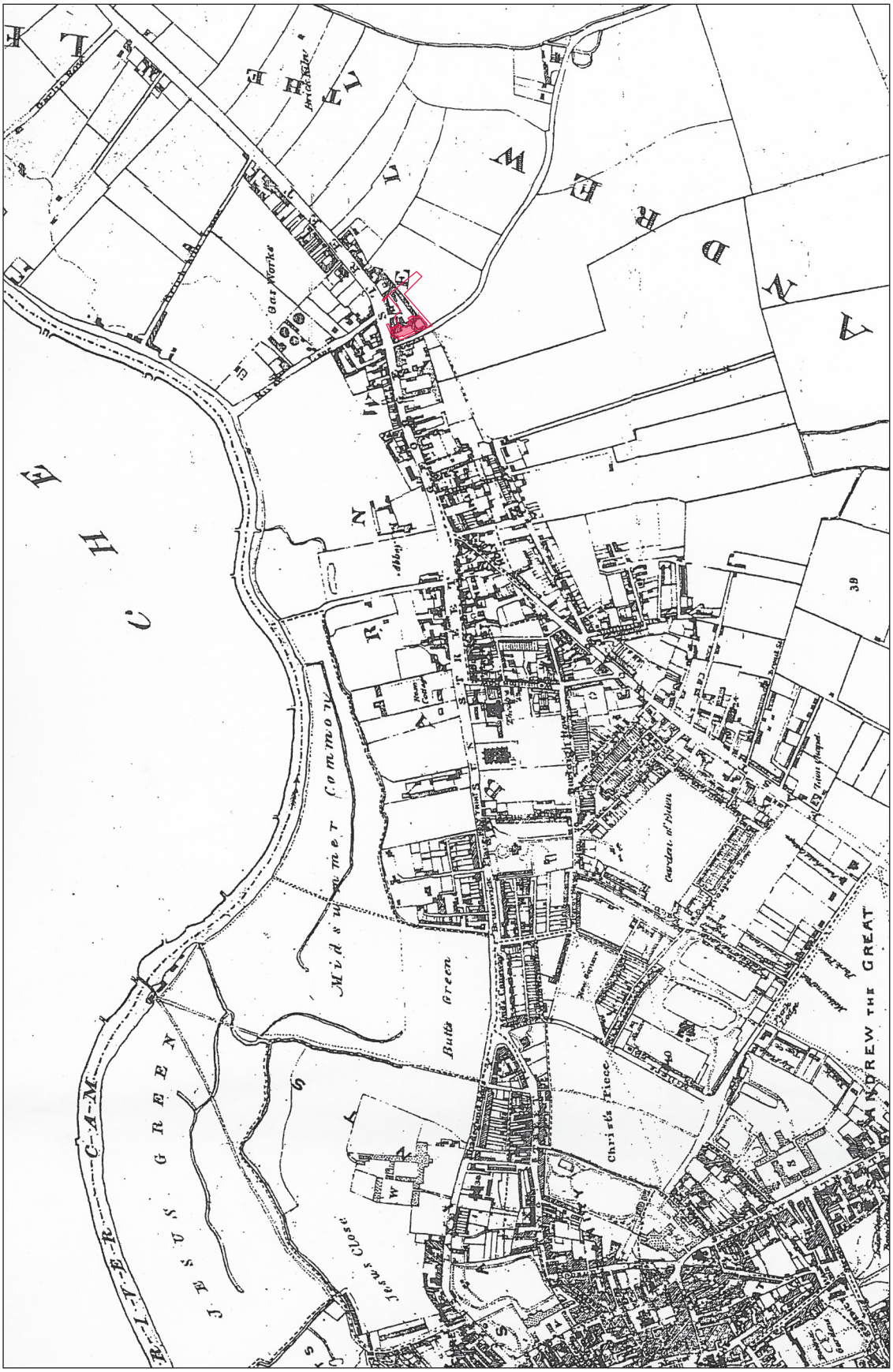

Figure 8: 1840 Dewhurst and Nichols map of Cambridge, showing excavation area and development area

Figure 9: 1832 map of St Andrew the Less parish (CRO TR 869/P10) showing excavation area and development area

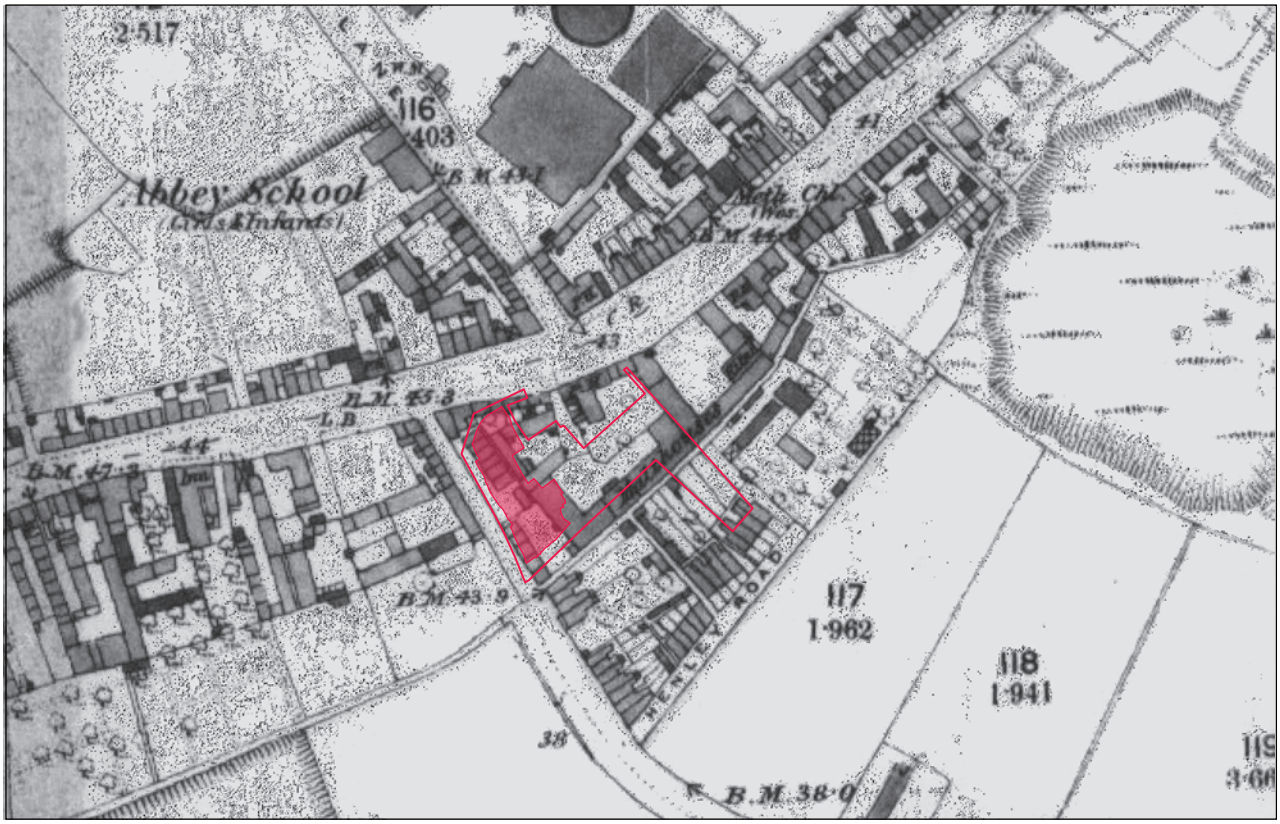

Figure 10: 1st Edition Ordnance Survey Map 1886

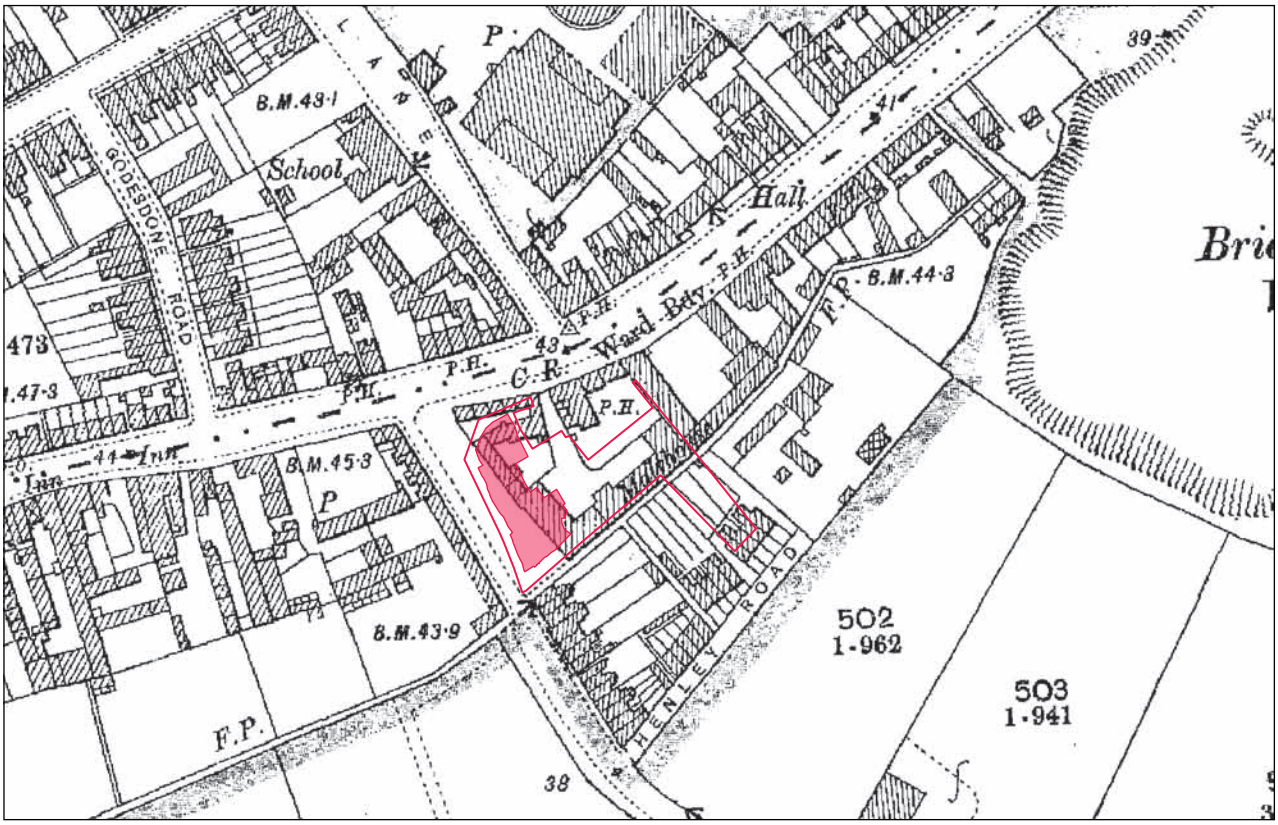

Figure 11: 2nd Edition Ordnance Survey Map 1904

Figure 12: 3rd Edition Ordnance Survey Map 1924

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