

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



Excavation Report



May 2015

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

Archaeological Excavation


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Table of Contents

Summary.....	8
1 Introduction.....	10
1.1 Location, background and scope of work.....	10
1.2 Geology and topography.....	10
1.3 Archaeological and historical background.....	11
1.4 Acknowledgements.....	17
2 Aims and Methodology.....	19
2.1 Aims.....	19
2.2 Regional Research Objectives and Specific Objectives.....	19
2.3 Methodology.....	21
3 Results.....	23
3.1 Introduction.....	23
3.2 Period 1: Middle / Late Iron Age (c.2nd century-1st century BC).....	23
3.3 Period 2: High Medieval (c. AD 1200-1400; Fig. 11).....	24
3.4 Period 3 (c. AD 1400-c.1550/1600).....	30
3.5 Period 4 (c. AD 1650-1800; Fig. 14).....	33
3.6 Period 5 (c. AD 1800- present; Fig. 15).....	34
3.7 Finds Summaries.....	41
3.8 Environmental Summaries.....	42
4 Discussion and Conclusions.....	43
4.1 Introduction.....	43
4.2 Residual earlier prehistoric finds.....	43
4.3 Iron Age.....	43
4.4 Medieval.....	43
4.5 Post-medieval.....	48
4.6 Modern.....	50
4.7 Significance.....	52
Appendix A. Context Summary.....	53
Appendix B. Finds Reports.....	70
B.1 Worked Stone.....	70
B.2 Small Finds.....	73
B.3 Industrial Residues.....	78
B.4 Iron Age Pottery.....	78
B.5 Post-Roman Pottery.....	81

B.6 Ceramic Building Material.....	107
B.7 Other Artefacts.....	116
Appendix C. Environmental Reports.....	118
C.1 Animal Bone.....	118
C.2 Plant Remains.....	123
C.3 Pollen.....	137
C.4 Insects.....	139
C.5 Shell.....	146
Appendix D. Bibliography.....	148
Appendix E. OASIS Report Form.....	156

List of Figures

- Fig. 1 Site Location, surrounding CHER sites and recent excavations mentioned in the text
- Fig. 2 Excavation and evaluation trench layout. Scale 1:500
- Fig. 3 Site in relation to medieval Cambridge (After Maitland 1964, facing p.54). Scale 1:50000
- Fig. 4 c.1807-1812 Enclosure Map (CRO Q/RDc16) showing excavation area and development area
- Fig. 5 1813 map of the St Andrew the Less parish (CRO 107/P.4) showing excavation area and development area, showing excavation and development area
- Fig. 6 1840 Dewhurst and Nichols map of Cambridge
- Fig. 7 1832 map of St. Andrew the Less parish (CRO TR 869/ P10)
- Fig. 8 1st Edition Ordnance Survey Map 1886
- Fig. 9 2nd Edition Ordnance Survey Map 1904
- Fig. 10 3rd Edition Ordnance Survey Map 1924
- Fig. 11 Plan of Periods 1, 2.1, 2.2 and 3 features
- Fig. 12 Selected Period 2.1, 2.2 and 3 sections
- Fig. 13 Selected Period 2.1 and 2.2 sections
- Fig. 14 Plan of Periods 4.1 and 4.2 features and layers
- Fig. 15 Plan of Periods 5.1 and 5.2 features and layers
- Fig. 16 Period 5.1 Features overlaying 1813 map of St Andrew The Less parish (CRO 107/P4)
- Fig. 17 Worked stone
- Fig. 18 Small Finds
- Fig. 19 Iron Age pottery
- Fig.20 Post-Roman pottery and tile

List of Charts

- Chart 1 Radiocarbon date for carbon deposit attached to pottery sherd from context 541
- Chart 2 Vessel form present as a percentage of the whole assemblage by weight
- Chart 3 Vessel form present as a percentage of well assemblage by weight
- Chart 4 Vessel form present as a percentage of well assemblage by weight
- Chart 5 Period as a percentage of quarry pit assemblage by weight
- Chart 6 Break down of fabrics present by plot
- Chart 7 Domestic mammal distribution by period
- Chart 8 Sheep body part distribution (Period 2)
- Chart 9 Mandibular wear stages for Period 2 sheep

- Chart 10 Proportions of the aquatic ecological groups of Coleoptera compared to combined terrestrial species proportions from Contexts 533 and 555
- Chart 11 Proportions of the terrestrial ecological groups of Coleoptera from Contexts 533 and 555

List of Tables

- Table 1 Context list
- Table 2 Catalogue of stone
- Table 3 Table SF1: small finds by function and Period.
- Table 4 Table SF2: Iron nails
- Table 5 Quantity and weight of Iron Age pottery by fabric
- Table 6 Quantity and weight of Iron Age pottery by feature
- Table 7 Medieval pottery fabrics present in the assemblage
- Table 8 Medieval pottery assemblage by stratigraphic period and Period
- Table 9 Medieval to modern pottery catalogue
- Table 10 Brick, floor and roof tile with no. fragments and weight
- Table 11 CBM by number and period
- Table 12 Brick catalogue
- Table 13 Catalogue of medieval floor tile
- Table 14 Catalogue of ceramic peg tile
- Table 15 Catalogue ridge and? stove tile, nib and pantile
- Table 16 Catalogue of floor brick
- Table 17 Clay pipe by context and period
- Table 18 Faunal species distribution for the assemblage
- Table 19 Plant remains from Period 2.1 samples
- Table 20 Plant remains from Period 2.2 samples
- Table 21 Plant remains from Period 3.1 samples
- Table 22 Pollen
- Table 23 Beetles (Coleoptera)
- Table 24 The proportions of the ecological grouping of Coleoptera
- Table 25 Shell

List of Plates

- Plate 1 General view of excavation and Coldhams Lane, looking north-west
- Plate 2 Site looking, north-east
- Plate 3 Period 2.1 well **190** looking north
- Plate 4 Period 2.2 pit **283**, Period 3 pit **313** and Period 5.1 posthole **315** looking west

- Plate 5 Period 3 cess pit **229** and Period 5.2 brick lined feature **136** looking north
- Plate 6 Period 4.1 cultivation soil, Period 4.2 posthole building and Period 5.1 clunch walls **22** and **695** looking north

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 the construction of a proposed new hotel. The excavation took place on the western third of the site following an evaluation (Atkins 2012b) that demonstrated the remainder of the site to be devoid of archaeological remains. This excavation report follows a post-excavation assessment and updated project design issued in 2013 (Atkins 2013).

A ditch along the northern edge of the site was the only feature dated to before the medieval period. A radiocarbon date from charcoal on a pottery sherd from the latest re-cut produced a date of 201-47 Cal BC with 95.4% probability (SUERC-46080 (GU30161)), thus dating the ditch as Middle to Late Iron Age.

The excavation found evidence of occupation dating from c. AD 1200 to the modern day, with a short period of abandonment from c.1550/1600 to c.1650. The excavation appears to have straddled parts of two former house property plots fronting Newmarket Road.

During the medieval period the site was part of the lay settlement of Barnwell Priory, the precinct wall of which was opposite the excavation on the northern side of Newmarket Road. Activity in the High Medieval period (c. AD 1200-1400) was represented by wells and a large number of pits, including two which had been clay lined. Several of these features contained moderate to large quantities of artefacts and ecofacts with waterlogged conditions in two well deposits producing particularly well preserved remains.

Fewer features were thought to belong to the period c. AD 1400-c.1550/1600 but they included structures, possibly workshops or outhouses or, less likely, houses fronting onto Coldhams Lane. Other features comprised pits including a cesspit or tank, with brick, tile and stone lining and part of its brick floor surviving. Amongst the stone were a few reused architectural pieces including carved examples. These features went out of use at around the time of the Dissolution or shortly after.

During a period of abandonment the site may have been converted to pasture and from the mid 17th century for dumping rubbish and/or cultivation. Evidence for 18th century occupation was found in the form of timber structures, possibly houses that would have fronted Coldhams Lane.

After Enclosure in c. AD 1808 there was a rapid increase in activity, represented by the quantity of features found. This corresponds with the cartographic and documentary evidence which record the site being owned by three individuals and/or organisations and comprising several properties/buildings, including cottages associated with poor houses/workhouses (the latter belonging to the parish of St Andrew the Less). Over this 200 year period to the present day the site was continually redeveloped with properties only standing for relatively short time periods before being replaced.

1 INTRODUCTION

1.1 Location, background and scope of work

- 1.1.1 An archaeological excavation was conducted at Intercell House, Coldhams Lane, Cambridge (TL 4656 5891; Fig. 1). This took place after an archaeological evaluation identified important remains of the lay settlement of Barnwell Priory 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 Heritage Environment Team (CCC HET; 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 an underground car park and access from Henley Way to the south. A method statement for the excavation was prepared prior to excavation and dated 12th December 2012 (Connor 2012).
- 1.1.3 The client first started intrusive work within the site in September 2011 when a geo-environmental survey took place while the three storey Intercell House office building was still standing (Warth 2011). The survey comprised two cable percussion boreholes and 11 window sample boreholes across the site: these identified made ground between 0.9m and 2.6m below ground level. The above ground remains of Intercell House were demolished in October 2012 but foundations were not removed. The archaeological evaluation took place during November 2012 and comprised six trenches located across most of the site, including two (Trenches 2 and 3) between the footings of the former Intercell building and one (Trench 1) near the Newmarket Road 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 archaeological remains pre dating AD 1800.
- 1.1.4 Due to the significance of the remains, CCC HET 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, a contingency for a further c.15m by 10m area if archaeological remains were found to continue at the northern end of the excavation area along the Newmarket Road frontage. This area was subsequently excavated after significant remains were shown to survive in this location (Figs 2, 11 and 14).
- 1.1.5 The footings of the former Intercell House and the large spoil heap by Newmarket Road were removed under archaeological supervision before the 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 in the north-western part of the site and partly a solid geology of Lower Chalk that both underlay the gravels and extended over the rest of the site (British Geological Survey 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 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.4.9m OD. From the river to the site, there is a gradual rise in ground level towards Newmarket Road, where it is at 12.40m OD on the

western side of the site falling by a metre in the centre and gradually declining to 11.10m OD within the eastern side. The water level was encountered at c.7.8m OD.

1.3 Archaeological and historical background

Earlier prehistoric to Iron Age

- 1.3.1 A single residual Early Neolithic flint core was found during the evaluation of this current site (Atkins 2012b), while an Early Neolithic flint bade was also recovered during the subsequent excavation, but no contemporary features were identified (CHER ECB 3873; Atkins 2013). A background scatter of 26 worked flints dating from the Mesolithic to Late Bronze Age (or possibly into the Iron Age) as well as 18 unworked burnt flints were recovered in residual contexts at a recent excavation c.100m to the west (CHER ECB 3733; Newman 2013). An undated prehistoric object was recovered directly 100m to the south-west (CHER 04625).
- 1.3.2 A Late Bronze Age/Early Iron Age crouched inhumation radiocarbon dated to 800-546 cal BC ((95.4% probability) Suerc- 53420 (GU34302)) was uncovered in an excavation c.100m to the west (Atkins forthcoming a). Near to this burial were fragments of further human skeletal remains found in Victorian features. Undated probable prehistoric field systems were also revealed by this excavation. Two tree throws in the Cambridge Archaeological Unit (CAU) excavation 30m to the west of the site were tentatively dated as later prehistoric (Newman 2013). Possibly also relevant is a copper Ptolemaic coin dated 323-285BC found in a Barnwell gravel pit, but its location is only recorded vaguely by Fox (1923, 86 and map 3) and also the CHER, which places it perhaps incorrectly at TL 46 58 (CHER 04577; not illustrated).
- 1.3.3 The results of an excavation 0.5km to the north-west suggested that ploughed fields were located close to the riverside possibly from the Late Iron Age onwards (Atkins 2012a).

Roman

- 1.3.4 Excavations c.30m to the west of the current site found a scatter of 12 Roman pottery sherds but this is likely to have been the result of manuring (Newman 2013). 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

- 1.3.5 Two Early to Mid Saxon ditches, a residual cruciform brooch and clay loom weight (Early/Mid Saxon) were found in the CAU excavations c.30m to the west (Newman 2013) and these were interpreted as further evidence for an Anglo-Saxon settlement and/or cemetery in the near vicinity. No other definite Saxon artefacts have been found within 1km of the site, although Fox (1923, 245) notes stray Anglo-Saxon find(s) from Barnwell that are now housed in the Ashmolean Museum, but records no further information. In his map of the area (map G), Fox recorded a possible Saxon settlement in Barnwell, which may suggest the artefact(s) could have been recovered from this location.
- 1.3.6 No Late Saxon remains have been found within the area of the site.

Medieval

Barnwell Priory and its lay settlement

- 1.3.7 The site lies within the former lay settlement of medieval Barnwell Priory, with the priory (CHER 04653a and b) being located on the other side of Newmarket Road to the north of the proposed development area. Barnwell Priory was founded by Augustinian Canons in 1092 at a site near Cambridge Castle and moved to its present site in 1112. The new location was within the fields of Cambridge located c.1km to the east of the historic core of the City of Cambridge (Fig. 7).
- 1.3.8 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 tracts of arable land it had acquired (Maitland 1964, 148 and 183). Within the priory there was a parochial church, dedicated to St Andrew the Less (CHER 05043) that was built for the lay 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 (*ibid*, 113).
- 1.3.9 Barnwell Priory's wealth was partly due to the large number of assets it had been given, along with the acquisition of 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, "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.
- 1.3.10 The Priory grew in size and stature with 30 canons in the 13th century, including 17 officers and the clerical subsidy of 1379 indicates 17 canons including officers and at the time of the Poll Tax of 1512 there were 11 servants (Palmer 1931, 43). The priory's importance can be seen in that it was the main place of residence when royalty visited Cambridge, 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 canons of Barnwell in 1211 (*Ibid*, 236).
- 1.3.11 The site fronted two medieval roads with fields extending to the east and south (Atkins 2012a and 2013). 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 is Coldhams Lane, which was first recorded in 1386 when it was called Coldham Lane (*ibid*, 44), which led to Cherry Hinton.
- 1.3.12 Until recently no archaeological work had occurred within the lay settlement, although some extremely limited investigations had taken place within the priory precinct (e.g. Haigh 1986). In the last five years, however four excavations and an evaluation have been undertaken within the lay settlement and a small excavation adjacent and to the west of it (Atkins 2012a; Atkins 2013a; Atkins forthcoming (a) and (b); Newman 2013; House 2013). The closest to the subject site was c.30m to the west by CAU at Nos 180-190 Newmarket Road (Newman 2013). The site was characterised by regular

medieval property divisions, with different activities being represented such as tanning in each plot.

- 1.3.13 Around 100m to the west of the subject site at least nine medieval plots, including parts of their frontages, were found at Harvest Way (Atkins forthcoming a). Remains of houses next to Newmarket Road were found and these comprised post-built structures, with some containing clay floors. In some of the backplots there were significant quantities of intercutting pits, whilst other plots contained particular feature types such as clay-lined tanks and ovens. Ten medieval wells of different periods were revealed within the excavation. Excavations 200m to the west at Newmarket Road found medieval/late medieval building(s), pits and ditches (Atkins forthcoming b). An evaluation c.250m to south-west at No. 30 Occupation Road found medieval quarry pits suggesting, occupation of the settlement and priory continued here (House 2013).
- 1.3.14 Excavations 0.5km to the north-west found evidence that 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, possibly originating from the priory and/or the lay settlement.

Post-Dissolution/post-medieval

- 1.3.15 Maitland (1964,192) has suggested that after the priory's dissolution in 1538, 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 descent of 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's heir removed much of its stone for use in a new chapel at Corpus Christi College (Salzman 1967, 256). The farmland probably became Barnwell Priory 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).
- 1.3.16 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 the 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 that the population was increasing steadily.

Recent excavations

- 1.3.17 All four excavations within the lay settlement seem to show continuity but a decline in the level of occupation – presumably as a result of the loss of the priory as the main employer. Excavations by CAU directly to the west of the current site at Eastern Gate found that there may have been a decrease in use on the site in the mid 16th to 18th centuries, and an amalgamation of the former medieval plots (Newman 2013). The post-medieval building remains did not survive as well due to modern activity, but included many pits. There were a few clunch buildings at the southern end of the plots, the location of which suggests there may have been a back lane here in this period.

- 1.3.18 Similar evidence was uncovered during excavations 100m to the west at Harvest Way, where at least one of the plots also seemed to have been amalgamated soon after the Dissolution (Atkins forthcoming a). The remains of at least two or more brick buildings/complexes were found dating to the later 16th and 17th centuries, as well as some possible posthole structures. In one plot there were the remains of a possible inn with associated structures: the cellar seems to have been partly burnt down, presumably in the 1731 fire of Barnwell. In the c. mid 18th century the site was redeveloped with a new set of seven regularly spaced boundary plots being laid out, some demarcated by brick walls. These contained buildings with clunch foundations that fronted Newmarket Road with backplots extending to the rear within which were varying number of features (mostly pits).
- 1.3.19 Similarly, in the excavation at Newmarket Road 150m to the west there were 16th century clunch features (latrine and well), which may have been associated with a possible farmhouse owned by the manor which had been part of the Barnwell Priory estate (Atkins forthcoming b). Evidence of increasing activity from the 18th century was found at this site. In the excavations 0.5km to the north-west, at Cambridge Regional College, 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).

Modern

- 1.3.20 Between 1801 and 1841 the population of the parish of St Andrew the Less grew dramatically from 252 to 9,486 (Salzman 1967, 138). This expansion comprised both the 'joining' of Cambridge and Barnwell village as well as infilling plots within the village itself. The resultant buildings in Barnwell were of mixed industrial and residential character (RCHME 1988, 366). To aid this expansion, further demolition and robbing of the remaining Barnwell Priory structures took place in the early 19th century.
- 1.3.21 The details of the post-medieval use of the site can be partly traced from late 18th and 19th century records and plans. It lay partly within Barnwell Priory Farm land (extreme southern side) but the majority (northern area) was outside it. This southern side, currently accessed 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 while 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. 4) with the part of the site within the northern field measuring 1a 1r 33p, which Thomas Hovell had exchanged with the Rev. Joseph Staines Banks.

Poorhouse/workhouse

- 1.3.22 Four cottages within the site belonged to the parish of St Andrew the Less and were used 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 in the 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 usually consisted of a cottage or several cottages (*ibid*): this resembles the 19th century description of the workhouse here. Unfortunately no documentary reference has been found to determine that the cottages here 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. c. 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 from Mary Chapman of Trumpington (widow) for seven years several messuages (called Tibbals Row) in the parish 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 the subject site. In February 1773 a poor house is recorded in the parish as costing the overseers of the poor £1 10 shillings dated (CRO P24/18/4-33).

c.1807-1812 Enclosure Map (CRO Q/RDc16) (Fig. 4)

- 1.3.23 The vast majority of the site encompassed 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 the turnpike road.
- 1.3.24 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

- 1.3.25 Plot 44 at the south-western corner of the site has boundary adjacent to Coldhams Lane with a little land behind it. The Enclosure map records these as belonging to the overseers of the poor of Barnwell. They were labelled as town houses and premises in an area measuring 0a 0r and 11p. In the accompanying award document the plot is described in relation to the field directly to the south and it records the overseers of the poor of Barnwell as being Thomas Carter, John Purchas, Richard Foster and Rebecca Holmes (CRO Q/RD/z6, 187). A search on these four people seems to show at least two of these overseers were wealthy individuals. 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, which partly lay within the site.

Plots 45 and 46

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

1813 map of the parish (CRO 107/P.4; Fig. 5)

- 1.3.27 The 1813 map of the parish is dated July 1813 of that year 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 (Fig. 6)

- 1.3.28 The 1830 Baker map (not illustrated) and the 1840 Dewhurst and Nichols map (Fig. 6) of Cambridge both show identical buildings within the site (although elsewhere in Cambridge there are many differences between the maps). The maps show there have been substantial changes within 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 under a single ownership? The 1830 and 1840 maps record houses along the George Street (now called Newmarket Road) frontage with a gap in the middle leading to a courtyard. These two later maps, unlike the earlier maps, show 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 extending 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 on Coldhams Lane, had disappeared. The poorhouse/workhouse buildings remain, although unlike earlier maps the site isn't divided into three plots.

The 1832 map of the parish (CRO TR 869/ P10) (Fig. 7)

- 1.3.29 The survey of buildings within the site shown on 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. There are some areas of this map that are similar to 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 than 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 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

- 1.3.30 The 1841 census records that this was a working class neighbourhood with a large number of people living on George Street and the area around being colonised by brickmakers – presumably associated with 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 (Fig. 8)

- 1.3.31 The 1886 1:2500 1st Edition Ordnance Survey Map shows that most of the structures recorded in the 1830 and 1840 maps continued. The buildings recorded forming a courtyard in the two earlier maps largely continued with the use of some of the buildings being recorded: the William IV public house to the north and the malshouses 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

terraced houses 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 No. 3 to eight people in No. 1. The cottages which were the former 'workhouse' are still shown on the south side of the plot.

2nd Edition OS map and later use of the site (Fig. 9)

- 1.3.32 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. 9). Stokes recorded that these were demolished 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).
- 1.3.33 All the buildings arranged around the courtyard continued seemingly unaltered. To the north of Newmarket Road the 2nd Edition OS map recorded that virtually all of Barnwell Priory's 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).
- 1.3.34 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. 10) and a Brush Works is recorded within the site. Around 30 years ago all buildings within 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.

Archaeological evidence

- 1.3.35 In the excavation at Coldhams Lane two clunch walls were found for more than 3.4m running perpendicular from Coldhams Lane. There may be one of the cottages documented in Plot 45 of the 1812 Enclosure Award Map. Several other features found in the excavations also relate to this period (Atkins 2013).
- 1.3.36 In the area of CAU excavations at Eastern Gate Hotel to the west of the site the post-medieval and modern building remains did not survive so well but included many pits, a few containing college ceramics (King's, St John's and Trinity), with a notable primary assemblage from Trinity which has resulted in a separate publication in a national journal (Cessford 2014). In contrast, at the Harvest Way hotel site the modern 19th century remains survived well (Atkins forthcoming a). Some of the 18th century clunch buildings continued relatively unaltered into the Victorian era whilst others were amended. From the 1820s the former backplots, as was found with the current development area, were infilled with small terraced houses fronting a new road (Leeke Street) and two passageways (Shamrock Passage and Brown's Yard). In addition there was a large quantity of pits and other features. At the Newmarket Road excavation there was similar good survival of modern structural remains in the eastern half of the site but more truncated in the western side as well as many pits and other features (Atkins forthcoming b).

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2 AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The original aims of the project were set out in the Brief (Thomas 2012) and Written Scheme of Investigation (WSI; Atkins and Connor 2012) and further refined in the Updated Project Design and Post Excavation Assessment (Atkins 2013).

2.1.2 The main aims of this excavation were:

- To preserve the archaeological evidence contained within the excavation area by record and to attempt a reconstruction of the history and land use of the site;
- To mitigate the impact of the development on the surviving archaeological remains. The development would have severely impacted upon these remains and as a result a full excavation was required, targeting the areas of archaeological interest highlighted by the previous phases of evaluation.

2.2 Regional Research Objectives and Specific Objectives

2.2.1 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)).

Iron Age

2.2.2 The excavation uncovered a Middle to Late Iron Age ditch with three re-cuts at the extreme northern part of the site (Atkins 2013). A radiocarbon date from soot attached to a pottery sherd found within the latest re-cut produced a relatively narrow date (201-47calBC with a 95.4% probability (SUERC-46080 (GU30161))). The site will help in answering one regional Iron Age research aim: *Chronology*

Medieval

2.2.3 The WSI noted that the subject site lay close to the medieval priory of Barnwell, within the heart of its lay settlement, adjacent to open fields. It was suggested that the influences on the landscape were likely to have been complex. Since the Coldhams Lane excavation further parts of Barnwell lay settlement have been excavated to the west (Atkins forthcoming (a) and (b)). The research potential has expanded with each subsequent site, and as such it would be beneficial to study all four (including Eastern Gate Hotel) excavation areas together.

Relevant research themes for this 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
- Continuity and change from medieval to post-medieval

2.2.4 The key research aims of this project relate to medieval crafts, trades and industry, rubbish disposal and the influence of religious houses (Barnwell Priory) on the landscape.

2.2.5 Research objectives that may be addressed by these investigations include:

- *The origins, longevity and layout of individual properties*; there is cartographic and documentary evidence that it will be possible to identify individual properties and distinguish them from one another. There is high potential for finding contemporary dating evidence to use as a means of establishing a chronology for the site and individual properties.
- *Inter and intra site comparison between contemporary properties*. There is high potential to make comparisons across a wide range of properties on this and the nearby Easterngate Hotel, Harvest Way and Newmarket Road sites. On the Eastern Gate Hotel site at least 6 individual properties could be identified, it is thought likely that a further 7+ has been identifiable at Harvest Way and these properties can then be compared with those at this Coldhams Lane site
- *The relationship of the properties to Barnwell Priory and the settlement of Barnwell*. Artefacts and features that are likely to have associations with Barnwell Priory have been found on both the adjacent hotel site and Coldhams Lane site, it is likely therefore that there will be similar finds here. In addition it is likely that the influence of the priory on the fortunes of the settlement will be discernible by close analysis of the material remains.
- *Trades, crafts, industries*; there is a clear indication that evidence for specialist trades are likely to be present as represented by an alembic (distillation vessel) found in the evaluation.

Specific questions that might be answered included:

- How many properties can be identified and what is their chronology?
- What trades and crafts were being carried out on the properties?
- Is there any evidence for social organisation, health, wealth and can differences be discerned?
- 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?
- How does the site contribute to an understanding of medieval ceramics in the Cambridge area
- What was the extent and character of medieval and post medieval activity in the area and how did it sit in the wider context of Barnwell Priory and the settlement identified in other archaeological work.
- What is the evidence for the reuse or disposal of architectural masonry from the Priory within the site.
- How does the site develop in the post-medieval period and what is the evidence for its economy and any associated industry
- In what way does the site contribute to an understanding of post-medieval ceramics in the Cambridge area
- What is the nature of the 18th and 19th century development of the site, its economy and industry, and the impact of the encroachment of dense housing with the expansion of Cambridge. Documentary evidence for this period should be considered of particular importance
- By using the spectrum of environmental techniques appropriate for this aspect of investigation, can a model of the landscape and its transformation be brought about by the settlement's inhabitants and due to natural events. Particular interest will be on the presence of blocky charcoal in soil fills, which may be suggestive of the use of charcoal in craft production, hammerscale and other metalworking by-products, waterlogged fills and utilised buried soils.

2.3 Methodology

- 2.3.1 The methodology used followed that outlined in the Brief (Thomas 2012) and detailed in the WSI (Atkins and Connor 2012).
- 2.3.2 Machine excavation was carried out by a 360° type excavator using a 2m wide flat bladed ditching bucket under constant supervision of a suitably qualified and experienced archaeologist.
- 2.3.3 Machining initially only removed later 19th century layers and 20th century deposits, including those relating to the former 1970s building on the site. The above ground levels of this building had been removed prior to the earlier evaluation on the site (Atkins 2012b). The evaluation trenches were located in areas where there were no concrete foundations. The evaluation and this subsequent excavation found that construction of this modern building had not only affected its foot print, but had levelled the area around it, removing later post-medieval remains. The building itself comprised concrete piles in the northern and central areas of the excavation area, with c.0.3m-thick concrete floors in between the piles. The concrete foundation floor was removed by the machine as well as c.0.5m of later 19th century layers on the northern side of the site, revealing foundations of 19th century buildings, 18th century floors and earlier remains. In the eastern and southern half of the excavation area there was c.1m of largely modern hardcore which directly sealed an 18th century layer near Coldhams Lane and 19th century and earlier features elsewhere. The concrete piles of the 1970s building were initially kept *in situ* as their removal would have disturbed earlier remains.
- 2.3.4 Spoil, exposed surfaces and features were scanned with a metal detector at this stage. All metal-detected and hand-collected finds were retained for inspection, other than those which were obviously modern. Excavation then took place on these post-medieval deposits. All archaeological features and deposits were recorded using OA East's *pro-forma* sheets. Plans and sections were recorded at appropriate scales and colour and monochrome photographs were taken of all relevant features and deposits.
- 2.3.5 After the later post-medieval remains were sample excavated and the site monitored by Andy Thomas, Senior Archaeologist (CCC HET), a 360° type excavator was brought back to the site. The remnants of 19th century floors and buildings and 18th century layers were removed to expose medieval and early post-medieval remains in the central and northern parts of the site.
- 2.3.6 Spoil, exposed surfaces and features were again scanned with a metal detector. Excavation took place on exposed features, including the top of several medieval wells. The site was then monitored by Andy Thomas, before the 360° type excavator stepped the areas down around the wells and very deep pits. Wells located away from the site boundaries (including Coldhams Lane and Newmarket Road) were further stepped. During subsequent hand excavation the water table was encountered, which was found to be contaminated by diesel and the client was informed. Those wells close to the site's boundaries, which could not be stepped further through lack of space, were hand augered to natural.
- 2.3.7 The excavation area was located to the Ordnance Survey national grid using a Leica GPS 1200 and *smartnet*.
- 2.3.8 Fifty-three bulk environmental samples were taken during the excavation (not including the three samples from the earlier evaluation). Three samples were taken from the Iron Age ditches, 22 samples from Period 2.1 pits and wells, 16 samples from Periods 2.2

pits and wells, 11 samples from Period 3 pits and a posthole, a Period 4.2 layer and three samples from Period 5.1 postholes. Two of the samples from wells were waterlogged.

- 2.3.9 The excavation took place during the middle of winter, with the conditions often very cold. Rain/sleet was a common factor during the excavation and over a two day period this deteriorated to snow flurries.

3 RESULTS

3.1 Introduction

3.1.1 This report has incorporated the evaluation data into the excavation records. The results section (below) should be read in conjunction with both Appendix A, which is a context summary recorded by Period and the feature/layer (Table 1), and the site plans with selected sections (Figs 11-14) and plates (Plates 1-6).

3.1.2 The site phases are as follows:

Period 1 Middle/ Late Iron Age (c.2nd century-1st century BC)

Period 2 High Medieval (c. AD 1200-1400)

2.1 (c.1200-1350/1400)

2.2 (c.1350-1400)

Period 3 Late medieval (c. AD 1400- c.1550/1600)

Period 4 Post-medieval (c. AD 1650-1800)

4.1 (c. mid-late 17th century)

4.2 (c.18th century)

Period 5 Modern (c.19th-20th century)

5.1 (c. AD 1800 – middle/late 19th century)

5.2 (Middle-late 19th and 20th century)

3.2 Period 1: Middle / Late Iron Age (c.2nd century-1st century BC)

3.2.1 Period 1 consisted of a single ditch aligned roughly east to west at the north end of the site. It was at least 20m long and curves slightly towards Newmarket Road to the north of the excavation (Fig. 11). The ditch continued into the eastern and western baulks of the site. The entire visible length of the ditch was excavated. No other Iron Age features were found to the south of this boundary or enclosure ditch within the excavation area.

3.2.2 The original ditch (**680/688**) was very truncated and largely sterile, containing no pottery, although a small quantity of animal bone was recovered. It survived up to 0.36m wide and was between 0.22m and 0.36m deep. It was filled with a light to medium brown silty sand. Ditch **680/688** was re-cut on its northern side by another ditch (**678/686**). This re-cut had a slack 'U' shaped profile with sides c.45° and a concave base. It was more than 0.6m wide and was between 0.4m to 0.52m deep. The single largely sterile fill comprised a light to mid orangey brown silty sand which contained a single Iron Age pottery sherd (21g; ditch **686**) and a few animal bone fragments. This re-cut ditch was itself cut on its southern side (**546/663/682**). The second re-cut ditch was of moderate size (up to 1.17m wide and 0.62m deep) with a 'V' shaped profile. It had moderate to fairly steep sides at c.50-65° and a narrow slightly rounded base. Its fills (646, 660-662 and 681) varied from light brown, orange brown to mid grey or reddish brown sandy silt or silty sand. More than half of the Iron Age pottery assemblage recovered from the site (26 sherds weighing 294g including Fig. 19, nos 2 and 3) came from this ditch as well as a clay spindle whorl (Fig. 18, no. 1; SF 28; see Nina Crummy, Appendix B2) and most of the animal bone.

- 3.2.3 The latest re-cut (**540/560/665/684**) truncated the earlier ditches on their northern side. The ditch varied in size from between 0.82m and 1.3m wide and between 0.39m to 0.6m deep. Unlike the earlier ditches, its profile varied from moderate to steep sides and its base from fairly flat to concave. Its backfill also was different, ranging from an orange brown sandy silt to light red brown silty sand. It contained a moderate quantity of pottery (19 sherds weighing 281g including Fig. 19, no. 1) and some animal bone. A radiocarbon date was obtained using the external carbon (soot) on a pottery vessel from the latest ditch (**540**) and this produced a date of 201-47Cal BC with a 95.4% probability (SUERC-46080 (GU30161) (Chart 1)).
- 3.2.4 Overall the ditch and its re-cuts produced 46 hand-made Iron Age pottery sherds (0.506kg; see Percival, Appendix B.4), 41 identifiable animal bone fragments (see Faine, Appendix C.1) and a fired clay spindle whorl (see Crummy, Appendix B.2). Three bulk samples (56, 58 and 62) produced a background scatter of barley, rye and wheat cereal seeds (Fosberry 2013, table 27).

3.3 Period 2: High Medieval (c. AD 1200-1400; Fig. 11)

Introduction

- 3.3.1 This period has been divided into two Periods (2.1 and 2.2), largely based on stratigraphy as the pottery was not closely datable. Both phases are characterised by only two feature types: pits and wells. These were located across the excavation area, with the exception of the extreme northern part. It can be inferred that the absence of features in this part of the site, adjacent to Newmarket Road was presumably because medieval buildings had been located here, or just to the north. The CAU Eastern Gate excavations and OA East investigations at Harvest Way have shown that that structures fronted onto Newmarket Road, although their survival was variable (Newman 2013 and Atkins forthcoming a). The lack of postholes at the current site was presumably due to later truncation, although the presence of an apparently blank area in this location is perhaps significant.
- 3.3.2 The excavation revealed only larger negative features within what would have been the backplots of medieval properties. The subtle differences discernible in the type and position of features indicates that two plots might be represented (Fig. 11); although the plots were not distinct enough to warrant detailed comparative analysis. In contrast there is a far clearer case for this division in Period 3 (see below).
- 3.3.3 Extraction pits in both these phases (Pit Groups 1 and 2) were only located at the extreme south-western part of the site. Similarly, in both phases smaller pits of unknown function lay to the north of the extraction pits.
- 3.3.4 All artefacts date from the 12th century or later, with the vast majority of the pottery belonging to the 13th-14th centuries, suggesting that settlement here probably began after c. AD 1200. A few fragments of early brick were recovered from late 14th century Period 2.2 contexts. Collectively nearly two-thirds of all the post-Roman pottery found was recovered from Period 2 features (803 sherds weighing 13.115kg; see Fletcher, Appendix B.5). 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, Period 2.1 fill 533) and well **481** (Sample 55, Period 2.2) contained significant waterlogged plant remains. Sample 50 also contained well preserved insect remains

including beetles. The environmental evidence from two waterlogged wells at the back of the plot, suggests that the land around them was being cultivated for growing crops.

Period 2.1(c.1200-1350/1400)

- 3.3.5 Four wells (**190**, **239**, **523** and **579**) and 21 pits (**18**, **39**, **119**, **128**, **168**, **174**, **195/199**, **220**, **241**, **274**, **420**, **428**, **430**, **457**, **461/492**, **483**, **485**, **505**, **517**, **538** and **557**) have been assigned to this phase. All the wells contained varying quantities of pottery, but none produced any ceramic building material (CBM).

Wells (190, 239, 523 and 579)

- 3.3.6 Two of the wells (**523** and **579**) were within the northern part of the site, whilst the others were in the southern area (**190** and **239**). The most northerly well (**579**) was 0.94m in diameter and more than 1.45m deep (not bottomed). The small diameter and its vertical sides strongly suggests that this was a well which presumably had originally been wooden-lined. Four deposits (580-2 and 602) ranging from light grey to dark grey sandy silt were recorded in the excavated part. Only a small quantity of artefacts were recovered, including nine pottery sherds dating to the 13th to mid/end of 14th centuries.
- 3.3.7 Approximately 5m to the south-west of **579** was a larger well (**523**) which was 1.2m in diameter and more than 3.5m deep (Fig. 13, S.104). The well was stepped once, but due to the close proximity to Coldhams Lane it could not be further stepped. It was hand dug to a depth of 2.1m below machined excavated level. Using a hand auger, the well was established to be at least a further 1.4m deep. Although attempted, the fine sand of this lowest deposit (562) did not stay in the auger and therefore the well base was not found (level reached was 7.86m OD). From the eight backfill deposits 15 pottery sherds were recovered, all were jug sherds that dated to the 13th to mid 14th centuries.
- 3.3.8 Another probable well or a very large pit (**239**) lay a further 35m to the south-east, near the Coldhams Lane frontage. It was possibly sub-square in plan, 2.6m by more than 2m with slightly rounded corners and was 2.9m deep (7.3m OD). It had largely vertical sides but was slightly undercut in places with a slightly concave base. Part of a clay lining survived in two areas in the north and southern parts and were 0.32m and 0.4m thick respectively, thinning slightly out before stopping c.0.3m from the base of the well. The lining was a light blueish white clay with occasional chalk pieces. Presumably the lack of clay lining at the bottom of the well was to allow water to accumulate (showing that the present water level is now lower than in medieval times). The lining would have been held by an internal wooden lining, but this was removed or did not survive after disuse. The lowest backfill deposit, 0.3m thick comprised a mid grey compact fine silty clay. This may have been partly a slump deposit from former parts of the well lining. The rest of the well seems to have been backfilled relatively quickly as at least half of the clay lining survived. Thirty pottery sherds were recovered including a few later medieval sherds, the latter presumably intrusive from pits **204** and **318** which cut it.
- 3.3.9 Well **190**, near the southern baulk, was 1.34m in diameter and 3.64m deep (Fig. 12, S.36; Plate 3). This well was vertically sided with a flat base at 7.64m OD. The water level was encountered near the base of the well at c.7.8m OD (Plate 3). The well was backfilled with 28 deposits, with some of the middle and upper fills having been tipped in, suggesting the well had at least in part been backfilled quickly. The primary deposit (533) comprised a waterlogged dark mid brown soft sandy silt with rare small stones. An environmental sample (50) was taken and produced good quantities of waterlogged seeds and insect remains. The plant remains included moderate quantities of weed seeds which indicate a disturbed over-grown area around this well with dead-nettle

seeds recovered as well as fat-hen and henbane (see Fosberry, Appendix C.2, Table 19). The insect remains indicate decomposing plant waste, dung and phytophages (see Hill, Appendix C.4). Small to moderate quantities of charred cereals were recovered from this sample and from four other samples (34-6 and 49) from other deposits in the well (Fig. 12, S.36; see Fosberry 2013, table 27). A notable assemblage of 132 sherds (2.282kg) was recovered from 14 of the fills (see Fletcher, Appendix B.5). The lower five contexts, collectively more than 0.6m thick, were sterile and contained only a single pottery sherd. Over 85% of the pottery was recovered from the top half of the well deposits including parts of a possibly complete/near complete late medieval jug from Ely in context 370 dating from the mid 14th century. A possible copper alloy hinge piece (SF 15) was also found. Well **190** was cut by Period 2.2 pit **282**, which suggests it was in use in Period 2.1 and disused by end of 2.2.

Pits (18, 39, 119, 128, 168, 174, 195/199, 220, 241, 274, 420, 428, 430, 457, 461/492, 483, 485, 505, 517, 538 and 557)

- 3.3.10 Twenty-one pits have been assigned to this phase. These are likely to have had more than one function as their sizes greatly varied and they were located in different parts of the site, although little survived to aid interpretation. The main exception to this was a group of similar pits within one part of the site (Pit Group 1).

Pit Group 1

- 3.3.11 Pit Group 1 comprised five large pits, probably initially dug for gravel extraction (**39, 119, 128, 195/199** and **505**) located over a c.20m by c.12m area in the far south-western extent of the site. All these pits were sub-rounded or sub-square, and those that were fully within the excavation area and could be measured were between 2.24m and 2.45m in length and 0.8m to 1.38m deep. The pits had near vertical or vertical to slightly undercutting sides and fairly flat bases. The pits were backfilled with between one and four backfill deposits mostly comprising a dark brown or dark grey brown sandy silt. Very few pottery sherds were found in any of these deposits, with the pits generally producing less than 11 sherds, the majority dating up to the 14th century although pit **195/199** had a single intrusive post-medieval sherd. Two of the pits (**39** and **119**) had good environmental remains comprising moderate to large quantities of charred seeds (Samples 2 and 10). These largely consisted of free-threshing wheat grain with 102 and 983 examples found respectively in these pits (see Fosberry, Appendix C.2, Table 19).

Pit 168

- 3.3.12 A very large clay-lined pit (**168**), possibly a cistern, lay at the far southern-eastern extent of the site with no other medieval features within more than 2m of it. It was sub-square and measured 1.8m x 1.75m in plan and 2.4m deep (Fig. 12, S.35). This pit was vertically-sided for the upper 1.4m before becoming slightly undercutting to a slightly irregular, concave base. It was not a well, as it stopped at 8.62mOD, c.0.8m above the water table and it was not a quarry pit as the upper 1.5m of the pit, where it was vertical, had a thick clay lining around the sides. This lining (169/205 and possibly 443) had been placed there for a specific function, perhaps to hold liquid? The lining was of regular thickness throughout (c.0.3m) and comprised a cream/off-white compacted fine clay with occasional angled flint. The clay lining would have presumably have been held in place by a wattle or wooden lining, which has not survived. The lining at the base of the pit seems to have slumped in after disuse (443). Sealing this were two deposits (444 and 445), collectively 0.7m thick: the lower of these produced two sherds of pottery and a nail (SF 193). A bulk soil sample (20) was taken, but it produced few plant

remains and did not indicate what the pit had been used for (see Fosberry 2013, table 27). A 0.7m-thick layer (207) was then deposited and this comprised a dark greyish brown silt. Although this layer produced no artefacts from it there was a notable environmental sample (20) with nearly 89 cereal grains, as well as Darnel, sedges and other seeds (see Fosberry, Appendix C.2, Table 19). Analysis of these remains may suggest burning of thatch or flooring material. Fill 207 was sealed by four deposits which produced very few artefacts, although one from the uppermost context (170) was of interest and comprised copper alloy pin making wire (SF 174; Fig. 18, no.5), possibly derived from industrial workings (see Crummy, Appendix B.2). From this context a soil sample (19) also contained some charred cereals including free-threshing wheat and barley (see Fosberry 2013, table 27).

Pit 461/492

- 3.3.13 In the middle of the plot was a possible quarry pit **461/492**. This pit was sub-rounded, with a diameter of c.2.9m and was 1.4m deep. it had very steep near vertical sides and a slightly uneven base. Three excavation slots were dug into this pit and collectively produced 16 deposits (460, 486-491 and 493-500) infilling this pit after disuse. Relatively few artefacts were recovered with the pottery, for example, collectively comprising 25 abraded sherds (0.264kg) from six deposits dating to the 13th or 14th centuries).

Other pits

- 3.3.14 The remaining 15 pits (**18, 174, 220, 241, 274, 420, 428, 430, 457, 461, 483, 485, 517, 538** and **557**) were not found in any concentrations, were between 0.6m and 2m in size and between 0.1m and 0.65m deep (Fig. 13, S.100), apart from one pit (**274**) at 0.83m deep (Appendix A). The relative shallowness may suggest they had not been dug for quarrying. Only one pit (**428**) produced unabraded pottery sherds with two large parts of medieval vessels recovered (Fig. 20, no. 2 and 3; see Fletcher, Appendix B.5). The lack of artefacts (from no finds to 26 sherds only) recovered from them discount (apart from pit **428**) their being used for rubbish disposal and none had significant environmental remains or evidence of being used as a latrine, for storage or some other function.

Period 2.2 (c.1350-1400)

Wells (481 and 603)

- 3.3.15 Two wells (**603** and **481**) were located within the extreme north-eastern and south-eastern parts of the site respectively (Fig. 11). Well **603** was located 2m of the site's north-eastern baulk and as a consequence was hand excavated to 1.6m below the excavated ground level, a hand auger was used to establish its depth which was 3.51m in total (7.5m OD; Fig. 13, S. 113). The top of the well was sub-rounded, measuring 2.2m by 1.9m in plan. From the top its sides start to slightly undercut for a depth of c.1m giving a slight increase of 0.3m in diameter. The well shelved at this point, reducing its diameter to nearly half its original size (c.1.3m) and from that point to the limits of the hand excavation level the sides became near-vertical.
- 3.3.16 In the top hand-excavated 1.6m of the well there were 22 backfill contexts and these mostly comprised thin lenses tipped in from the southern side after disuse. These lenses ranged mostly around mid brown orange silty sand to dark brown sandy silt, but there were also possible cesspit deposits (green tinted soil) in three (611, 625 and 652) as well as a black ashy lens (621). The three cesspit deposits (611, 625 and 652) incorporated domestic waste including moderate to large pottery assemblages (72, 34 and 19 sherds respectively, collectively weighing 2.29kg) with the former including three

part vessels (see Fletcher, Appendix B5, Table 9). Context 611 had a worked architectural stone fragment (Fig. 17, SF 44), a probable smithy hearth base (0.754kg), an iron strip and nail (SF 63) and a tile fragment, while fill 625 produced five medieval brick fragments (0.255kg) and three tile pieces (73g). Two deposits (611 and 621) were environmentally sampled (60 and 59), but produced extremely small levels of charred remains (see Fosberry 2013, table 28). Fill 652 was a deposit which was initially assigned as the top backfill of the well but may have been a layer sealing the well and thus post-dating its backfill (Period 4.2). From it there was an iron harness buckle (SF 45), eight brick fragments (1.874kg), but four of these were post-medieval and four tile (0.087kg). The other deposits in the well were sterile with only two contexts producing small single sherds.

- 3.3.17 Well **481** was stepped twice to allow it to be hand excavated to natural. At the top it was sub-rounded with a diameter of 3m (Fig. 13, S.100). In the top c.1.1m of the well its sides were moderately sloped reducing its overall diameter to c.1.7m. At this point the classic 'funnel' shaped profile sides became near vertical though the diameter slowly diminished with the base (at 3.38m below the excavated level) being 0.76m wide (at 7.38m OD). Well **481** was backfilled with a total of 11 deposits. The primary deposit (556) was fairly sterile, but the layer above it (555) comprised a dark brown grey silty clay. A soil sample (55) from it produced a good assemblage of waterlogged plant remains with numerous weed seeds especially stinging nettles, but also docks, mallows, thistles and henbane indicating disturbed soils and an over-grown open landscape around the well (see Fosberry, Appendix C.2, Table 20). The insect remains indicate decomposing plant waste, dung and phytophages (See Hill, Appendix C.4). The deposits in the upper half of the well seemed to have been tipped in from the east and western sides, suggesting rapid backfilling of at least this part of the well. The deposits were largely sterile except the last two which produced 30 and 24 pottery sherds respectively (collectively 73 sherds (0.779kg) were found in seven of the well deposits). Other artefacts comprise a copper alloy bar mount from deposit 479 (SF 173) and a whetstone (SF 47) from context 477 (Fig. 18, no.3; see Nina Crummy, Appendix B2). There were two medieval bricks in context 476 (0.861kg) and seven tile fragments (0.364kg). Three tile fragments were found in other fills.

Pits 14, 37, 103, 182, 204, 218/346, 283, 438, 440, 451, 459, 465, 509, 526, 593 and 654

- 3.3.18 Sixteen pits have been assigned to Period 2.2, which display distinct characteristics.

Pit Group 2

- 3.3.19 Pit Group 2 consisted of seven probable quarry pits for gravel extraction **14** (not on plan), **37, 103, 182, 204, 218/346** and **509**. They were all fairly large and formed a relatively tight group in the south-western corner of the site within an area measuring 22m by 10m. This is the same specific area as the earlier Period 2.1 extraction pits (Pit Group 1). The other nine pits were all to the north of this group and were smaller in size. The seven pits were sub-rounded, between 1.7m and 2.6m in length and were between 0.68m and 1.45m deep (e.g. Fig. 12, S. 36) except pit **509** which was 5m in diameter and 1.5m deep. Two pits (**14** and **37**) contained no datable finds but are included in this phase based on their stratigraphy, the others varied from producing small (pit **509**) to moderate/large quantities and types of artefacts from within their backfills. A few of the samples contained reasonably large quantities of charred seeds, perhaps indicating that the pits had lain open whilst crop processing took place nearby.

- 3.3.20 Six of the pits had mostly vertical/near vertical sides with four being undercut in places (Fig. 12, S. 36). Five of these pits had relatively flat bases (**37**, **103**, **182**, **218/346** and **509**) and two (**14** and **204**) were slightly concave. The number of deposits within the pits varied from one (pit **37**) to nine (pit **218/346**). Pit **103** contained two backfill deposits with a varied quantity of artefacts comprising an off-cut of iron bloomery (SF 188), four nails and a strip fragment (SFs 36 and 187-8). A considerable quantity of pottery was recovered from **103** (102 sherds; 0.827kg) that dates to the mid 14th to end of the 15th century, with most deriving from the upper deposit (102). Environmental results from both backfill deposits (Samples 13 and 16) produced only a few charred cereals (see Fosberry 2013, table 28).
- 3.3.21 Pit **182** contained an iron strip fragment (SF 189) and a nail (SF 183). Collectively there were 138 pottery sherds (1.582kg) from six of its fills that date from the mid 14th to end of the 15th century. One environmental sample (33) from its primary context 380 (Fig. 12, S. 36) produced more than 50 charred cereal grains as well as a few other seeds including clover (see Fosberry 2013, table 28).
- 3.3.22 Pit **204** contained two nails (SF 176 and 178). Eighty-one pottery sherds (1.418kg) came from four contexts in no concentration and dated from the mid 14th century to end of the 15th century. Two environmental samples (30 and 31) produced moderate to large quantities of charred seeds. The former (context 201) contained more than 100 charred cereals with wheat being common (see Fosberry 2013, table 28). Sample 31 (context 230) produced an even larger assemblage and was analysed further with several hundred barley, free-threshing wheat, oats and other seeds being recovered (see Fosberry, Appendix C.2, Table 20).
- 3.3.23 Pit **218/346** may have had a stakehole (**346**) within it but its function is uncertain. The pit contained a large and varied assemblage of metal artefacts that were probably deliberately disposed of within the pit (see Nina Crummy, Appendix B.2). The metal objects comprised two copper alloy dress pins (SF 25), a copper alloy fragment (SF 61), a large iron rotary key (SF 26; Fig. 18, no. 4), a possible lock back-plate (SF 62) and parts of seven nails (SFs 39, 40, 64 and 190). A bone pin-beater (SF 22; Fig 17, no. 2) was also recovered. In contrast, there were only three pottery sherds from this pit (0.099kg). Pit **509** produced nine pottery sherds (0.234kg), two brick fragments (107g) and eight pieces of tile (0.483kg) in addition to the two lava rotary quern stone fragments (SF 46).

Pits in northern part of the site

- 3.3.24 Eight small to medium-diameter sized pits (**283**, **438**, **440**, **451**, **459**, **526**, **593** and **654**) extended over a c.17m by 12m area in the northern part of the site, some of which were intercutting. They were all were between 0.7m and 1.9m in diameter and 0.03m and 0.6m deep (Fig. 13, S.104). Six of the pits had single backfill deposit with the others contained two or three fills. Four pits were undated while the remaining pits containing between one and nine sherds. The pottery from four of these pits dates to the mid 14th to 15th century. The functions of seven of these pits were uncertain and the few artefacts recovered do not help with interpretation.
- 3.3.25 In contrast, some interpretation of the two deepest pits (**283** and **654**) can be suggested based on their form and contents respectively. Pit **654** was located at the north-eastern side of the site and is likely to have had a very specific function such as a cistern or tank; perhaps related to holding water or other liquid. It was truncated but appeared sub-square or sub-rectangular in plan and measured 1.4m long and 0.6m deep with steep sides and a flat base. It had a thin (50mm) clay lining comprising a mid

grey clay. The lowest two backfill deposits were sterile comprising similar deposits to the lining, but slightly dirtier. The upper fill was a brown to grey silt which contained four sherds of 13th/14th century pottery and four brick fragments (0.192kg). A soil sample (61) was not informative as it produced only a very few seeds (see Fosberry 2013, table 28). Pit **283** was at least 0.8m long, 0.45m wide and 0.6m deep with steep sides. Its single backfill was a dark grey brown sandy silt containing a single sherd of mid 14th/15th century pottery. An environmental sample (29) contained a notable quantity of plant remains including 732 charred cereal seeds with oats (224 grains) being the most common, but also evidence that it had been backfilled with fodder and animal waste (see Fosberry, Appendix C.2, Table 20).

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

Introduction

3.4.1 Fewer features have been assigned to Period 3 compared to Period 2 and only a handful of these were intercutting (Fig. 11). It is likely some features were backfilled in the 15th century whilst others may still have been in use into the 16th century. Although pits continued 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. Evidence from the linear lay out of eighteen pits were assigned to Period 3. Unlike earlier phases the pits appear to have been arranged in a more organised fashion; they formed two north to south lines approximately parallel with Coldhams Lane with the pits roughly evenly spaced out. It is therefore likely that there were two plots within the excavation area with Plot 1 laying on the western side of the excavation area and Plot 2 the eastern side. Although no plot boundary ditch was identified, there presumably would have been a fence which have left no archaeological trace. As a result features are described by plot area.

Plot 1

Structures 1 and 2

3.4.2 The remains of two probable structures were found (Structures 1 and 2). They were located within a c.17m by 5m area on the north-western side of the site and these have tentatively been assigned to this phase as they were sealed by a 17th century layer (Period 4.1; 50/200/210 (see below)). These structures consisted of twenty post holes (**408, 410, 412, 414, 416, 418, 422, 424, 426, 432, 434, 436, 442, 453, 455, 471, 472, 474, 501** and **503**). It is possible they were the remains of back-plot structures, although alternatively they may relate to domestic buildings fronting onto Coldhams Lane (rather than Newmarket Road).

Structure 1 comprised sixteen of the post holes (**408, 410, 412, 414, 416, 418, 422, 424, 426, 432, 434, 436, 442, 471, 501** and **503**) which lay within a c.9m by 5m area. It is likely the post holes represent the remains of more than one structure, but their layout plan is not discernible. There are some possible linear alignments (north to south and east to west), but none which are definite or even probable. Two post holes (**426** and **436**) cut Period 2.2 pits. The post holes largely survived as small and shallow features (from 0.2m to 0.5m diameter and 0.05m to 0.29m deep). Their backfills were largely sterile with none of the post holes producing any pottery, although three contained medieval CBM. Two brick fragments and a tile fragment (0.468kg and

0.034kg respectively) were found in **424**, a complete brick in this group was presumably used as packing in **426**, while **434** produced two brick fragments (0.339kg).

A group of four post holes (Structure 2; **453**, **455**, **472** and **474**) lay in a c.3m x 2m area adjacent to the site's western baulk, 7m to the south of the main cluster of post holes. All four post holes cut Period 2.1 and 2.2 pits and were sealed by the Period 4.1 layer. The post holes were all similar in size (between 0.3m and 0.48m in diameter and 0.03m to 0.1m deep). Their single backfills were mostly dark grey or dark red brown silty clays. The only artefact found within this group was a single small (6g) medieval 13th or 14th century pottery sherd from post hole **455**. The very shallow nature of the post holes suggests that there may have been other post holes within the excavation area, that have not survived later truncation.

Pits

- 3.4.3 Thirteen pits were uncovered in Plot 1 and these comprised five possible quarry pits (**32/152**, **308**, **318**, **519**, and **561**), a possible cesspit (**229**) and seven other pits (**446**, **448**, **463**, **465**, **467**, **469** and **600**). Three of these pits (**463**, **467** and **308**) were in the same location as some of the post holes on the southern side of Structure 1, but it is uncertain the chronology of their use.
- 3.4.4 The possible quarry pits (**32/152**, **308**, **318**, **519**, and **561**) were spread over a 35m distance from the northern side (pits **519** and **561**), the centre (pit **308**) and the southern (**32/152**, and **318**). The pits were between 1.4m and 1.99m in diameter and 0.9m and 1.5m deep. Where discerned they were vertical to slightly undercutting (pits **32/152**, **318** and **519**) or very steep sided (pit **308**).
- 3.4.5 The number of deposits within these pits varied from one to 11 (pit **519**). The quantity of artefacts and ecofacts also varied, with pits **32/152** and **519** producing moderate quantities of materials, to only small quantities from pits **308** and **318**, whilst pit **561** produced no finds despite containing seven different deposits. Pit **32/152** had five nails (SFs 12, 184, 186 and 194), an iron ferrule or cap (SF 191), 54 medieval pottery sherds including some dating to the 15th century (0.383kg), one tile (61g). Good environmental remains (sample 1) were recovered from the pit with 365 charred wheat grains recovered (See Fosberry, Appendix C.2, Table 21). A second sample (11) produced more than 50 cereal grains, but was not a sufficient quantity to be fully analysed. Pit **308** produced a single nail, one pottery sherd, two late medieval part bricks (2.017kg) and six tile fragments (0.274kg). Pit **318** had 26 sherds (0.184kg), a brick fragment (14g) and some charred cereals from sample 44. Pit **519** produced a range of iron objects that were probably deliberately disposed of within the pit (see Nina Crummy, Appendix B.2). These comprised 11 nails, a ring possibly from a harness (SF 32), an iron strip (SF 181) and part of a knife blade (SF 29). Other finds comprised a fragment of iron slag (SF 68), 28 pottery sherds (0.431kg), five brick fragments (0.167kg) and a large quantity of tiles (67 fragments; 3.335kg). An environmental sample (48) from context 520 produced very good results: 1171 charred cereal grains including more than 764 of rye. Sample (51) from context 539 also produced 581 cereal grains with 286 free-threshing wheat grains (see Fosberry, Appendix C.2 Table 21).
- 3.4.6 One unusual feature was a sub-rectangular possible cesspit (**229**), which lay at the far southern end of the site. It measured 2.13m by 1.63m and 0.56m deep (Fig. 12. S. 36 and 57; Plate 5). The construction cut had vertical sides (**229**), with its 60mm thick side wall lining (**228**) and a part of its brick floor (**227**) partially surviving. The side walls were constructed from approximately seven 'rough courses' and survived to a height of 0.56m. This wall was built using a variety of building materials including a single

architectural limestone fragment (presumably from the priory) with two decorative scrolls (Fig. 17, SF 24) had been deliberately placed at the top north-western corner of the feature by the builder. Latrine pits were generally covered/had a superstructure and not designed to be seen (except people emptying the toilet), so this placing seems to have been done by the builder (Plate 5). The different building materials were not placed together by group type, but seemingly located randomly in an *ad hoc* fashion. These building materials comprised five limestone blocks (SFs 53, 56, 57, 59 and 60), some pebbles/flint nodules, chalk (clunch), a notable quantity of ceramic roof tiles (111 fragments; 12.182kg), a few stone roofing tiles, one medieval pottery sherd (0.053kg) and many bricks. All these materials were bonded together by white clay (see Fig. 12, sections 36 and 57). Between this wall (228) and the cut (**229**) there was a construction packing (279), which comprised a mottled dark orangey grey clayey silty sand with occasional stone inclusions. There were three medieval pottery sherds (0.028kg) and seven roof tile fragments (0.892kg). Internal and butting up the base wall 228 was a thin white white clay/chalk upon which a well laid brick floor was placed largely in north to south rows with eight bricks to a row, although one brick was laid east to west (Plate 5). 19 bricks were found, all but one in the same late medieval fabric (see Atkins, Appendix B.6 Table 12). At some point more than half the brick floor was removed was filled in.

- 3.4.7 After disuse and partial robbing, part of the base of the feature was sealed by a deposit extending over an area of c.1.5m by 1.19m. This was 0.09m thick and consisted of a dark greenish grey clayey silt (227). The colour suggests that it may have been a cesspit deposit, which may give some credence to its interpretation as a latrine. The only finds comprise a nail (SF 179), three small brick fragments (0.19kg) and eight ceramic roof tiles (0.482kg); a soil sample (22) produced few seeds. This fill was sealed by a 0.38m thick mid orange greenish grey clayey silty sand with frequent fine gravel (226), which had been tipped into the feature from the west. Only one tile fragment (0.066kg) and some animal bone was recovered from this deposit. Overlying 226 was a dark brownish grey clayey silty sand (225), 0.47m thick. This formed most of the backfill of the feature and contained a notable quantity of artefacts. This included a number of pieces of limestone including an architectural fragment (Fig 16, SF 24), some blocks (SFs 50-52 and 54-5), a hammerstone, an iron strip (SF 19), 22 sherds (0.703kg) of medieval pottery including 15th century examples, 20 late medieval part brick/fragments of brick (9.362kg), a very large assemblage of roof tiles (152 fragments; 13.903kg), a late medieval floor tile fragment (0.413kg) and some animal bones. The range of artefacts are very similar to the lining of the cesspit (wall 228) – it is therefore likely that this backfill comprised, at least in part, the rubble from the demolished part and/or superstructure this feature, presumably to level the area.
- 3.4.8 Seven other pits (**446, 448, 463, 465, 467, 469** and **600**) were uncovered, but were of uncertain function. All lay within the middle of the plot and were largely intercutting except pit **600** which was near the site's northern baulk. All the pits were sub-rounded, mostly between 1.6m and 4.4m in diameter and were all shallow between 0.12m and 0.36m deep. All were backfilled with a single deposit which mostly consisted of a dark grey brown sandy silt. Collectively there were 26 small late medieval pottery sherds recovered from the pits and these largely dated from the mid 14th to end of 15th century except from the four sherds from pit **600** which dated mid 15th to mid 16th century.

Plot 2

- 3.4.9 The only features within Plot 2 comprised a linear north to south line of five probable quarry pits (**35**, **133**, **313**, **339** and **382**) were spread over a 27m distance. They varied from 1.6m to 2.2m in diameter and were between 0.84m and 1.5m deep (Plate 4), except pit **35** which was 0.52m deep. The pits were backfill after disuse with between one and six deposits. There was a considerable difference in the number of artefacts found in Plot 2 compared with Plot 1 with relatively few artefacts. The exception was pit **339** where a moderate pottery group and an interesting CBM assemblage were recovered. A single nail came from pit **133** (SF 66). Collectively only 57 pottery sherds (0.771kg) were found in their group, varying from three sherds (0.02kg) in pit **313** to 19 sherds (0.267kg) in pit **339**. Pit **339** also produced a complete brick and five part bricks (4.392kg) dating from the late medieval period and one possible Tudor example in addition to 19 tile fragments (1.289kg). A single tile fragment was also found in pit **313**, an iron strip with a stud (SF 181) and a possible bone awl or stylus (Fig. 18, no. 6; SF 34) were recovered from pit **382**.

3.5 Period 4 (c. AD 1650-1800; Fig. 14)

- 3.5.1 There appears to have been a period of abandonment at the end of Period 3 that possibly coincide with the dissolution of Barnwell Priory in the mid 16th century. The site was possibly re-used in the mid 17th century, perhaps for agriculture, although increased evidence for re-occupation of the site from c. AD 1700 was found. The former plot division late medieval plot division (Plot 1 and 2) stopped at some point and by Enclosure the site were part of three plots (No. 44, 45 and 46; Fig. 14).

Period 4.1 (c. AD 1650-1700)

- 3.5.2 This phase of activity is represented by a number of layers (20 (evaluation Trench 2), 49, 50, 137, 200, 210, 675 and 676). that extended across at least one fifth of the site. At least two separate layers were identified, although these could have originally formed a single deposit that only survived in certain parts of the site. The main areas of survival were in the middle to western (c.20m by more than 5m) and northern (c.6m by 3m) parts of the site. The layers may have developed through accumulation of cultivation and levelling up. The layers varied from a mid brown grey to dark grey brown sandy silt and were between 0.05m and 0.4m thick. Artefacts within the layers suggest that the site was not re-occupied until the end of the 17th century and then only in a limited way. They were not artefact-rich with finds comprising a late medieval/early post-medieval horseshoe from layer 210 (SF65); a total of 41 pottery sherds (0.605kg); one brick (0.105kg) and 17 tile fragments (0.841kg).

Period 4.2 (c. AD 1700-1800)

- 3.5.3 Relatively few 18th century features were found within the site. An east-to-west aligned ditch (**172**), cut Period 4.1 layer 200. It was perpendicular to Coldhams Lane and may have been a property boundary. The ditch was more than 5m long (truncated to the east), 1.2m wide and 0.26m deep. This boundary ditch location ties exactly with the boundary shown between Simon Farrant's property and the poor house on the slightly later 1812 and 1813 maps (Figs. 4 and 5).

Building 1

- 3.5.4 A probable building (Building 1) lay adjacent to Coldhams Lane and was 3m metres to the north of ditch **172**. It comprised a north -west to south-east aligned row of ten post holes (**290**, **288**, **258**, **260**, **256**, **262**, **254**, **252**, **250** and **165**) including two pairs that

were intercutting (**258** cuts **260** and **254** cuts **252**). This line of post holes was parallel to Coldhams Lane and could have been the back wall of a building fronting this lane with the front wall presumably within the site baulk. The post holes were recorded over a c.10m distance. The probable building(s) in this location would tie in with the evidence of the earliest maps and documentary evidence recording 'cottages' located within Farrant's property (Fig. 5; see Section 1.3.26). Eight of the earliest postholes (**290**, **288**, **260**, **256**, **262**, **252**, **250** and **165**) were for the most part fairly uniformly spaced apart especially those in the middle of the line. They varied in size from between 0.22m and 0.59m in diameter and 0.05m to 0.38m deep. Post hole **250** seems to contain three stake holes of unknown purpose at its base (**264-6**). All post holes were backfilled with a single fairly sterile deposits, with four (**256**, **260**, **288** and **290**) collectively producing just seven medieval and post-medieval pottery sherds dating up to the 18th century although post hole 290 had a large part of the top of a medieval vessel (Fig.20, no. 1). Six medieval brick fragments were found in two post holes (**252** and **288**) and seven roof tile fragments (from **253**, **288** and **290**). Two later post holes (from **254** and **258**) were 0.36 and 0.5m in diameter and 0.06m and 0.3m deep respectively. It is possible the re-cuts represent later repairs to the building. These post holes produced two 16th century pottery sherds.

- 3.5.5 Four features (**5**, **214**, **216** and **246**) lay directly c.5m to the east of the postulated building, a large pit (**645**) in the north-eastern part of the excavation and pit **40** (evaluation Trench 6) were the only other features dating to this phase. Pit **5** (Trench 3) was more than 2m long and 0.9m deep and within its lower fill were five mid 18th to early 19th century bricks which were lime-mortared together. A roof tile fragment and a sheep bone were also recovered from the pit. Possible pits (or post holes) **214**, **216** and **246** were c.4m apart and measured 0.4m in diameter and 0.14m deep. Pit **214** had brick datable to the late 17th to 18th century in its backfill whilst the other two were both undated but have been assigned to the phase based on stratification. Pit **40** was partly revealed within the north-western extent of evaluation Trench 6, c.30m to the east of the excavation area (Fig. 2). This was the earliest feature in this trench and was 2.3m long and 0.6m deep with steep sides and a concave base. Pottery from its fill (41) included a sherd of industrial slipware (not retained). Pit **645** may have been a quarry pit: it was very large, more than 2.7m in diameter and 0.92m deep, with vertical slightly undercutting sides and a slightly concave base. Very few artefacts were present within its backfill, comprising four pottery sherds, one dating to mid 16th to 18th century, two brick fragments, a worn floor brick and two tile fragments. Both tile fragments are unusual with a peg tile having an 'H' or a tally mark scratched on pre-firing (Fig.20, no. 4) and a possible stove tile which had a cross carved on its surface as well as incised lines (Fig.20, no. 5; see Atkins, Appendix B.6).

3.6 Period 5 (c. AD 1800- present; Figs 15, 16)

Introduction

- 3.6.1 Features dating to the early 19th century can be tentatively matched to the archaeological evidence with three known property owners recorded on maps and documents within the site (Figs 4 and 5; c.1808-1813). The maps record the boundaries of these properties and the excavation area can be overlaid onto these to show the distribution of features within these three properties. These comprised poorhouse cottages (No. 44); Farrant (No. 45) and Carter (No. 46). The poorhouse cottages (No. 44) which are shown on all maps until their demolition in 1895; evidence shows no other development within this plot between c.1808 and this date. In contrast, on

Farrant's (No. 45) and Carter's (No. 46) plots there were significant changes throughout the century. The changes in occupation/use within these two plots can be clearly seen to have occurred between the 1820s parish map (Fig. 7) and the 1830 Baker map (not illustrated) when new properties were built. These properties were recorded on the 1840 Dewhurst and Nichols map (Fig. 6)). By the 1886 1st Edition Ordnance Survey map (Fig. 8) there had been further significant rebuilding within these two plots.

Period 5.1 (Early to mid/late 19th century)

- 3.6.2 The earlier buildings which may date from the later 18th century in this phase were of clunch or post hole construction. These remains correspond with buildings shown on the earliest maps (e.g. Fig. 4). By 1830 new buildings recorded on site were being built in yellow brick, presumably from brickworks recorded a few hundred metres directly to the north-east and east of the site on the Enclosure and later maps (see Atkins, Appendix B.6.14).

Poorhouse plot – Overseers to the poor of St Andrew the Less (No. 44)

- 3.6.3 The poorhouse comprised cottages that fronted directly onto Coldhams Lane. On the early 19th century maps they are recorded as a single linear line, but the 1886 map shows five separate cottages (Fig. 8), although Stokes (sixteen years after their destruction) noted that in 1911 there had been four. The extreme south-western part of the excavation area seems to lie partly within the northern four cottages. Plot 44's boundaries extended c.5m to the east of these former cottages and continued c.5m to the south beyond the excavation area.
- 3.6.4 Very few features were revealed within the area of the former poorhouses. Within the postulated area of the cottages there was only a single very small post hole (**130**) found near the Coldhams Lane frontage at the very far southern part of the site. Post hole **130** was 0.38m in diameter and 0.18m deep but contained no artefacts. A brick water culvert (**693**) directly to the north of post hole **130** may have been drainage from one of the poorhouse cottages and this leads towards Coldhams Lane. It was aligned north-west to south-east and was seen over a c.3m distance and had a diameter of 0.4m. To the north-east of the culvert were two undated intercutting pits/postholes (**161** and **163**) which lay close to the northern boundary of the poorhouse plot: this appears to have been directly to the east of the former northern most cottage.

Structure 3

- 3.6.5 Well (**107**) and possible associated structure (post holes (**116** and **118**) and pit or post hole (**114**); Structure 3) lay on the eastern side of the plot, c.5m to the east of **130**. The well consisted of a cut 1.54m in diameter and was lined with yellow bricks. The upper two backfill deposits within the well were excavated and produced seven pottery sherds dating between the late 18th and mid 19th century and three clay pipe stems. Adjacent c.1m to the north-west of the well were two undated and shallow post holes (**116** and **118**), which survived up to 0.1m deep. A deep pit or post hole (**114**) lay between these post holes and the well and could also have been part of this well structure, containing a large post. Pit/post hole (**114**) was sub-rectangular in shape measuring 0.91m by 0.83m in plan but was very deep at 1.2m with a fairly flat base. It had vertical to slightly undercutting sides and was filled with six deposits collectively containing 14 pottery sherds dating from the late 18th to 19th centuries. There was no post-pipe or packing to indicate this pit contained a large post, but if it was a pit it is uncertain what its function may have been. Its location adjacent to a well, which was presumably the water supply for the poor house cottages, and the contemporary date of its backfill strongly suggests they were related.

Simon Farrant's (No.45) plot

- 3.6.6 The north western side of the site contained at least two or three structures within the plot owned by Simon Farrant. This plot was described in the Enclosure Awards document as having cottages and premises located along Coldhams Lane, close to Newmarket Road.
- 3.6.7 The Period 4.2 southern boundary ditch (**172**) had gone out of use and was cut by two adjacent probable post holes (**154** and **158**). It is possible one or both had been part of a fence line here – the early 19th century maps show there was still an east to west plot boundary in this location. Both post holes were of similar size and shallow depth (up to 0.17m deep) and both were undated.

Clunch-walled building (Building 2)

- 3.6.8 The remains of two parallel construction cuts (**22** and **695**) for building lay 4.5m to the north of this southern plot boundary and these cut two of the post holes of the Period 4.2 (Building 1) on this part of the site. The two parallel construction cuts (**22** and **695**) spaced 3.9m apart, were perpendicular to Coldhams Lane, aligned east to west, and ran from the excavation baulk for 3.4m and 4m respectively (Plate 6). The cuts for the construction trench were 0.47m and 0.46m wide, both had near vertical sides and were up to 0.28m deep. Infilling construction cut **22** was a mid greyish brown sandy silt, only 0.05m thick. Within the fill was a late Georgian or Victorian copper-alloy knob or ferrule with discoid head (SF 3), a probable iron handle (SF 2) and a nail (SF 1), a glass bottle fragment dated to the late 17th to 18th century and two pottery sherds dating between the mid 16th and late 18th centuries. Above the fill, clunch wall (**23**) was laid it whereas in cut **695** the clunch wall (**694**) lay at the base of the cut. No mortar between the blocks was apparent. Both walls survived to just a single course. The position of these walls corresponds with a building shown on the 1813 map (Fig. 5), but were not apparent on the 1832 parish map (Fig. 7).

Associated pits and other features

- 3.6.9 To the south of Building 2 were four pits (**149**, **160**, **348** and **350**) and an undated post hole (**248**). Pit **149** was more than 2.7m in diameter; it was only very partially excavated. The three pits (**160**, **348** and **350**) were of a similar shape and depth, measuring between 0.85m and 1m in diameter and 0.15m to 0.28m deep. Only pit **350** had dating evidence, comprising three pottery sherds dated to the late 18th to mid 19th century.

Building 3

- 3.6.10 Possible timber building (Building 3) comprised seven post holes (**292**, **310**, **320**, **328**, **332**, **343** and **358**) and it lay directly to the north of Building 2. The post holes were within a c.5m² area, and although they do not form any coherent structural plan, they may have been part of former structure(s) that fronted onto Coldhams Lane. The seven post holes were between 0.31m and 0.55m in diameter and 0.12m and 0.38m deep. An early 19th century demise for Building 3 is suggested by the date of artefacts found in the post holes. Two of the post holes (**292** and **332**) contained pottery, with seven sherds dating to the mid to late 18th in **292** and one mid 16th to end 18th century sherd in **332**. Brick fragments of 17th to 18th century date were found in post holes **320** and **328**. Not closely dated green vessel glass was found in **320** and a clay pipe stem came from **328**. The Enclosure document and related map record buildings fronting Coldhams Lane, in around this location with the map showing houses along the whole of the western side of Farrant's plot (Fig. 4). In contrast there are no buildings located

here on the 1813, 1832 or 1840 map (Figs 5-7), possibly suggesting that these buildings had gone by c.1813.

Structure 4

- 3.6.11 Directly to the east of Building 3 were the remains of well **697** and associated post holes **361** and **363** that these formed a probable structure (Structure 4). Well **697** was 1.86m in diameter and was lined with brick dating to the 18th or 19th century. Post holes **361** and **363** were directly to the north of well **697** and may have been part of a structure associated with it. The postholes were both sub-rectangular in shape and 0.3m and 0.23m deep respectively. The former contained three pottery sherds dated to the late 18th to 19th centuries. In the mid/late 19th century Structure 4 were overlaid by terrace buildings recorded on the 1886 1st Edition OS map (Fig. 8).

Structure 5

- 3.6.12 More than 5m to the north of well **697** were two undated post holes (**599** and **632**) which were positioned 2m apart at the far northern end of the site. It is possible that these post holes related to structures formerly fronting Newmarket Road. They may date to Period 4.2, but no earlier as post hole **632** cut Period 3 pit **561** and no later than Period 5.1 as the mid-late 19th century terrace houses overlay this area.

Other features overlaid by terrace buildings

- 3.6.13 Two metres to the south of well **697** were three intercutting pits **294**, **296** and **298**. Both were very shallow at 0.16m and 0.1m deep respectively with the latest pit containing a late 19th century pottery sherd. Post hole **315** on the eastern extent of the plot and its function remains uncertain. Pit **48**, partly within the excavation area in the north-western corner of the site was at least 1.15m long with near vertical sides and was more than 1.1m deep. It was not excavated to natural due to its depth. It was cut by a very late 19th century brick wall associated with the terraced houses, but did not pre-date them by a long time. Pit **48** was filled with a number of lenses all containing pottery dating from the late 19th to early 20th century. A representative sample of the pottery (18 sherds weighing 0.442kg) was retained but none of the large amount of CBM, glass and animal bone which clearly indicated that it had been backfilled with a large quantity of domestic waste.
- 3.6.14 Two pits (**281** and **324**) lay on the southern side of Building 3 and two intercutting pits (**366** and **369**) on the northern area. These four features date to some time after c.AD 1812, but before the late 19th century terraced buildings were built immediately to the east of them. A pit (**281**) containing a pig burial pit was sub-rectangular in shape measuring 1.56m by 0.8m and was 0.51m deep with vertical sides and a flat base. A 1-2½ year old pig had been placed at the base of the pit, which was then backfill with a dark greenish brown clayey silt. This contained 14 pottery sherds weighing 0.135kg and dating to the 19th century; a further 19th century sherd was recovered from the upper fill. Pit **324** was 1.2m in diameter and 0.56m deep with vertical sides and a flat base. A single late 18th to mid 19th century pottery sherd was found in its backfill. Intercutting pits **366** and **369** were respectively 0.67m and 1.46m in diameter and both were very shallow at 0.09m and 0.25m. Both contained few artefacts, but from the earlier feature (**369**) there were four pottery sherds dating to between the late 18th and mid 19th century.

Thomas Carter (No. 46) plot

- 3.6.15 Thomas Carter is shown as holding the majority of the land in which the development area lay (No. 46, Figs 4 and 5), although not the Coldhams Lane frontage. The

excavation area itself only extended within the western part of his plot. Within this area parts of at least two structures (Structures 6 and 7) appeared to have survived near the northern end and three features within the middle/southern part of the plot. The former two may have been the remains of a building fronting Newmarket Road and a backplot structure.

Structure 6

- 3.6.16 Structure 6 lay at the furthest northern part of the plot within a c.6m by 3m area and comprised six post holes (**629, 653, 659, 668, 670 and 672**) cutting Period 4.1 layer 676. The post holes did not form a coherent plan, were between 0.3m and 0.55m in diameter and 0.2m to 0.45m deep. Two 18th-19th century pottery sherds was found in post hole **629** with the others being undated.

Structure 7

- 3.6.17 Four metres to the south of Structure 6 was part of at least one probable structure comprising eleven post holes (**268, 270, 272, 276, 278, 341, 570, 572, 574, 576 and 578**) over a c.4m by c.2m area. Two of the post holes were intercutting whilst others were very close together suggesting either there had been more than one structure and/or repairs had been carried out. All the post holes were shallow, surviving to between 0.05m and 0.22m deep: no pottery was recovered from them. It is likely this structure went out of use in the early 19th century. No building was shown in this location on the 1820s parish map (Fig. 7).

Building 4

- 3.6.18 Overlaying former Building 7 were two brick buildings (Buildings 4 and 5). Part of Building's 4 western wall (355) and two internal rooms of a long rectangular building aligned north-west to south-east were uncovered. The western wall (355) was revealed in two sections over a c.11.5m distance. The southern extent of the building was found where wall 355 butted up to wall 356, but the western wall (355) was truncated on its northern side so the full extent is unknown. Wall 355 was 0.23m wide and survived up to two courses high. The lower course comprised yellow bricks (230mm x 110mm x 65mm) dated to the mid 18th to mid 19th century. The bricks were laid along the wall two deep (as stretchers) and lime mortared in. The bricks in the upper course were laid perpendicular to the lower course, head on. The internal dividing wall (359) of the building butted up to wall 355. It was aligned north-east to south-west, was 0.25m wide and comprised the same yellow brick. The northern room had a 0.4m thick chalk floor (360) abutting walls 355 and 359. The southern room was a cellar and backfilled with a rubble deposit (284) more than 0.4m deep (not bottomed) containing frequent yellow brick fragments (presumably rubble from the demolition of this building) and a mid 16th to late 18th century pottery sherd. The southern wall (356) of this building was also part of a separate sub-rectangular building aligned north-east to south-west. Wall 356 is possibly the only part of this building to survive, although a parallel wall (222), c.4m to the south may have been part part of it. Both walls (356 and 222) comprised yellow brick which measured 225mm (8¾"), 110mm (4¼") wide and 65mm (2½") thick) and these date to mid 18th to the mid 19th century. The building is shown vaguely in small detail on both the 1830 Baker map and the 1840 map (Fig. 6).

Building 5

- 3.6.19 Less than 2m to the south of Building's 4 wall 356 were fragments of Building 5 which comprised wall (392/394) and an internal floor (398) which was sealed by a later floor (399), both abutting it on its northern side. The wall was aligned north-east to south-

west and comprised yellow brick which had been lime mortared together. The floor (399) comprised large yellow square floor bricks (230mm²) which were 40mm thick.

- 3.6.20 More than 5m to the south of these buildings was an undated post hole (**10**) and a brick lined well (**595**) which included a large quantity of modern artefacts within its backfill (not retained but recorded on context sheets).

J. Purchas plot

- 3.6.21 Evaluation Trench 6 appears to have been located at the boundaries between the land of Thomas Carter and J. Purchas (Fig. 5). Wall **42** within the Trench was c.30m to the east of the excavation area, seems to correspond with a line of buildings through Purchas's land and two further property owners to the north (Foster and Holmes; Fig. 5). This late 18th/early 19th century date is likely as the wall cut Period 4.2 pit **40**. It was aligned north-east to south-west, was 0.7m wide and survived to only 0.1m in height. The wall was substantially made of clunch, but also contained a brick fragment.

Period 5.2

- 3.6.22 In the mid/late 19th century there was evidence for a major rebuilding and infilling of most of the site. This occurred sometime between the production of the Dewhurst and Nichols 1840 map (Fig. 6) and the 1886 1st edition Ordnance survey (Fig. 8), which shows several new buildings within the site. Buildings in this period used red brick and these bricks were cement mortared. Over the next 20 years there were several changes to the site with the 1904 2nd OS map showing some new building(s) in the northern part of the excavation area but also several buildings were demolished on the western side, including the poor cottages (Fig. 9). The fragmentary remains of a few of the mid/late 19th and early 20th century structures were found in the excavation area, but the vast majority have been removed by later development. In the 1970s there was major disturbance to the site when a new office block was built. This development seems to have been built using pile and raft technology, clearing a lot of the Victorian and later remains and also driving down several deep concrete piles. It was in this modern sub-phase that the site was contaminated with diesel; possibly leakage from a large metal tank found during machining.

Remains of buildings including Coldham Terrace on the 1886 map (Fig. 8)

- 3.6.23 Within the excavation area and in evaluation trenches, fragments of at least two separate buildings shown on the 1886 map were found (Fig. 8). These comprised two cemented red brick walls (52 and 53), nearly 5m apart, in Trench 1 and a brick wall (29) lying on a possible clunch foundation (28) in Trench 2. They were aligned north-east to south-west and were likely to have been dividing walls of a houses in Coldham Terrace. These buildings were demolished before the 2nd edition OS map in 1904 (Fig. 9).
- 3.6.24 Partly within the southern baulk of Trench 5, to the east of the excavation area, was a red brick wall (16) mortared with cement, which was aligned roughly east to west. This was the northern wall of an east to west building range recorded in the 1886, 1904 and 1924 maps fronting onto a lane to the south of the site (Figs 8-10).
- 3.6.25 Possibly related to these buildings were part of a probable single chalk floor layers/surfaces (360, 656 and 657) which were recorded as patches over a c.4m by 2m area in the extreme north-eastern part of the site. This surface was up to 4mm thick and over lay Period 4.2 pit **646**.

Remains of buildings on the 1904 map (Fig. 9)

- 3.6.26 Buildings recorded on the 1904 map were found within the site. The most complete of these buildings was within the north western part of the excavation area. Wall 24/51/353 was examined in both the evaluation (Trenches 1 and 2) and the excavation. It was aligned north-west to south-east and was recorded over a 13m distance and is clearly corresponds with the western wall of building(s) on the 1904 map. This wall was c.0.25m wide and comprised red brick which had been cement mortared. Remnants of a chalk internal floor (354) butted up to the wall on its western side.
- 3.6.27 Cellar **691** at the far northern part of the site seems to have been recorded for the first time on the 1904 and 1924 maps (Figs 9 and 10). Construction truncated a Period 5.1 post hole (**653**). The cellar itself was sub-rectangular (2.8m by 1.8m) and probably lay within the southern or more likely the south-west corner of a much a larger building, although in the excavation the whole complex was given a single number. The western and southern wall of the cellar was also the external wall of the larger building, with the former continuing into the north baulk and surviving as a single course but not surviving to the east of the cellar. The cellar continued in use into modern times and rubble in its backfill included slate and sewer pipe fragments. Possibly relating to the cellar and brick buildings to the east were two small brick plinths (689 and 690) of unknown function, but that was presumably placed as a support. The former was roughly square (0.42m by 0.38m), whilst the other was sub-rectangular, measuring 0.6m by 0.42m.
- 3.6.28 Four features (**101**, **136**, **146** and **156**) within a 5m² area in the far south-western corner of the site were where the former poorhouses had been located. A red brick sub-rectangular feature (**136**), 2.8m by 1.8m, may have been the base of a structure such as a shed. Directly to south of it was a sub-rectangular pit (**156**), which measured 1.5m by 0.73m and 0.75m deep. This had vertical sides and a flat base and within its single backfill deposit contained a moderate quantity of pottery (42 sherds; 1.448kg) dating to the late 19th century. Pit **146** was 1.2m by 1.1m and 0.53m and contained 42 pottery sherds (1.473kg) dating to the 19th century. Pit **101** measured 1.27m by 0.65m and was more than 0.41m deep: it contained 19 sherds (0.148kg) dating between the late 18th and 19th century.
- 3.6.29 A brick soakaway (**597**) located c.15m to the north-west of pit **146** is likely to have been 19th or 20th century in date. Pipes feeding into the soakaway were 20th century in date. Successive ceramic drains (**148** and **122**) at the south-western corner of the site were aligned east to west. They were probably 20th century in date as they post -date the poorhouse cottages and are likely to have run from large buildings recorded on the 2nd and 3rd Edition Ordnance Survey maps, to Coldhams Lane.
- 3.6.30 A series of eight levelling layers/garden soil (15, 25, 26, 27, 30, 54, 396 and 400) date to the later 19th century and at least one (192) may be 20th century in date. Most were recorded in the two evaluation trenches (1 and 2) sealing Period 5.1 features including former walls of houses fronting Coldhams Lane. In this location the 2nd Edition OS map (Fig. 9) records new houses had been built back from the road frontage.
- 3.6.31 Other features which post-date Period 5.1 include a post hole (**44**) from evaluation Trench 6, which cut Period 5.1 wall (**42**) and a modern 20th service pipe trench in Trench 5.

3.7 Finds Summaries

3.7.1 Seven artefact categories were recovered from the site including a catch-all 'other artefacts'. These all produced small or moderate assemblages which comprise the following:

Worked stone

3.7.2 Twenty-seven worked, mostly architectural stone fragments but including two quern fragments were recovered (see Shaffrey, 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 (Periods 2.2 and 3).

Small finds

3.7.3 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 Crummy, 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 objects. Medieval artefacts comprise objects used in textile, pin-making and iron-working industries.

Industrial residues

3.7.4 A single probable smithy hearth bottom was found in Period 2.2 well **603** (see Boardman, Appendix B.3). This is added evidence (see off-cuts in small finds report) for iron-working having occurred nearby or possibly within the priory itself.

Mid and/or Late Iron Age pottery

3.7.5 A small assemblage of Mid and/or Late Iron Age pottery comprising 46 sherds (weighing 0.506kg) was recovered from a single ditch and its re-cuts (see Percival, Appendix B.4). The pottery is relatively unabraded and a radiocarbon sample from the soot on one of these sherds from the latest re-cut has provided a date of 201-47CalBC with a 95.4% probability (SUERC-46080).

Saxo-Norman to modern pottery

3.7.6 A moderate assemblage of 1285 sherds (22.356kg) was found in the excavation and evaluation (see Fletcher, Appendix B.5). The assemblage is predominantly medieval, dating to the mid 12th to mid 14th century with the majority of vessels having been used in the processing of food and drink.

Ceramic Building Material

3.7.7 A moderate assemblage of CBM was recovered (comprising 130 medieval to modern bricks (48.93kg), two post-medieval floor bricks (3.832kg), two medieval floor tiles (0.42kg), 489 ceramic peg tiles (40.12kg) and 10 ridge, nib, pantile and possible stove tiles (2.61kg) (see Atkins, Appendix B.6). Most of these artefacts are medieval in date.

Other artefacts

3.7.8 A small assemblage of other artefacts was found, comprising 10 clay pipe stems, a wig-curler, two Early Neolithic flints, eight vessel and window glass fragments (0.218kg), 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 Atkins, Appendix B.7).

3.8 Environmental Summaries

3.8.1 The environmental remains comprise ecofacts in five categories:

Faunal Remains

3.8.2 A small assemblage of 399 fragments of animal bone was recovered from the evaluation and excavation, with 258 of these identifiable to species (65.8% of the total sample; see Faine, Appendix C.1). 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. Some evidence in this period for cattle, pigs and domestic birds was also found. This pattern of husbandry continued after the dissolution of the priory.

Plant remains

3.8.3 Fifty-six bulk samples were taken mostly from medieval pits and wells dating largely to Periods 2.1, 2.2 and 3 (Fosberry 2013; see Fosberry, Appendix C.2). Many of the samples had low 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. Ten samples were fully analysed, two from the waterlogged wells and eight from pits, comprising four from Period 2.1 and three each from Periods 2.2 and 3.

Pollen

3.8.4 Two bulk environmental sub-samples from waterlogged wells were sent for assessment. Both samples contained some pollen, but neither yielded rich enough pollen assemblages to merit further work (see Rutherford, Appendix C.3).

Insects

3.8.5 Two waterlogged samples from medieval wells were found to be relatively rich in invertebrate remains (see Hill, Appendix C.4). The bulk of the assemblage is made up of terrestrial groups associated with open landscapes, detritus and dung, plant litter and those phytophagous on vegetation. Evidence also suggest the area had been cultivated.

Shells

3.8.6 Just 91 shells (0.719kg) were recovered mostly from medieval contexts, comprising 74 oyster, 16 mussel and a single whelk (see Atkins, Appendix C. 5).

4 DISCUSSION AND CONCLUSIONS

4.1 Introduction

4.1.1 The Coldhams Lane excavation is one of a number of excavations carried out over the last three years on the south side of Newmarket Road and within the former lay settlement associated with Barnwell Priory (Newman 2013; Atkins forthcoming (a) and (b)).

4.2 Residual earlier prehistoric finds

4.2.1 Two residual Early Neolithic flints comprising a core and blade were found within the evaluation and subsequent excavation (Atkins 2012b; Atkins 2013). It is possible there had been small scale flint working in this period on the site or near to it. This seems to have happened at other nearby sites in a similar location at Brunswick near to the River Cam (0.5km to the north-west), where at least four small Early Neolithic pits with evidence of flintworking in their backfills were found (Atkins 2012a). The CAU excavation on the west corner of Coldhams lane and Newmarket Road also found 26 residual worked flints, but these spanned a broader time period: the Mesolithic to the Late Bronze Age/Iron Age (Billington 2013, 93).

4.3 Iron Age

4.3.1 The excavation revealed a section of an Iron Age settlement boundary; a probable Mid to Late Iron Age ditch with three re-cuts was uncovered at the extreme northern part of the excavation with no other features (or artefacts) from this period found to the south of it. These ditches presumably continued beyond the area under the present Newmarket Road heading towards the River Cam.

4.3.2 A radiocarbon date obtained from soot attached to a pottery sherd in the latest ditch re-cut produced a relatively narrow date of 201-47 BC (SUERC-46080 with a 95.4% probability). The diagnostic pottery sherds only comprise later Iron Age types, but these only derived from the second and third recuts (see Percival, Appendix B4). The original ditch was undated and the first re-cut only contained a small Iron Age sherd not closely datable. It is therefore likely the original ditch was cut in the Middle Iron Age period. The lack of Belgic type pottery from the assemblage shows these ditches are likely to have been in use before this pottery type was being used in the area.

4.3.3 Nearby domestic occupation contemporary with the second and third re-cuts is suggested by the type of artefact and ecofacts found. Pottery included cooking and storage jars (see Percival, Appendix B4) and there is a spindle-whorl was also found (see Crummy, Appendix B2). The animal bone assemblage was dominated by cattle bones (over 60% of the assemblage) indicating that they had probably been raised for meat (see Faine, Appendix C1).

4.3.4 These ditches may relate to other settlement in the vicinity. At the Harvest Way excavation (Atkins forthcoming a), a Late Bronze Age/Early Iron Age crouched inhumation was found which was radiocarbon dated to 800-546 cal BC (95.4% probability) Suerc 53420 (GU34302). This site also produced truncated 'early' but undated field systems which were cut by medieval features.

4.4 Medieval

Date and extent of settlement

4.4.1 Medieval settlement on the Coldhams Lane site seems to have started around AD 1200, a comparable date to other excavated sites within Barnwell Priory lay settlement

(Newman 2013; Atkins forthcoming (a) and (b)). Excavations to date seem to suggest a long linear settlement to the south of and fronting Newmarket Road. The extent of the settlement is uncertain, but seems to have initially been at least c.300m long, although the western and eastern limits have not been found. The Coldhams Lane excavation suggests that the settlement may have continued to the east.

- 4.4.2 No Late Saxon occupation evidence has been found by excavation in the vicinity to date, the earliest features being dated to the 13th century. Documentary evidence provides a date for the founding of the priory at this location as AD 1112 (it was moved to Barnwell from its original site near Cambridge Castle). Barnwell was at that time a greenfield site occupied only by a hermit (Maitland 1964). Based on current evidence the archaeological investigations appear to support this statement.
- 4.4.3 The lay settlement seems to have been established as a new foundation on the southern side of Newmarket road c.90 years after the priory was founded here. Indeed excavations at Harvest Way and Newmarket Road suggest that there may have been medieval enclosures fronting Newmarket Road prior to the establishment of domestic settlement here (Atkins forthcoming (a) and (b)). If there was an attached lay settlement for the priory at this time, its position is therefore unknown. It is possible that the lay helpers were living either in Cambridge, or possibly in part of the precinct of the priory.
- 4.4.4 The pottery recovered is the key dating tool for the establishment of the lay settlement of Barnwell Priory in this location. Late Saxon/Saxo-Norman pottery was minimal, with the Coldhams Lane assemblage having only 42 sherds of St Neots ware and most of these are the later developed type, three Thetford ware sherds and no Stamford types (see Fletcher, Appendix B5). The CAU excavation (Newman 2013, 66) had just 43 Saxo-Norman sherds (0.4%/0.2% of their assemblage by number/weight). Similar quantities were found at the Harvest Way and Newmarket Road sites (Fletcher pers. comm.). In contrast at the Grand Arcade site in the centre of Cambridge 3558 Saxo-Norman pottery sherds were found and 240 sherds came from Neath Farm, Cherry Hinton (Newman 2013, table 63).
- 4.4.5 Barnwell is therefore an interesting and relatively rare case of a priory growing wealthy enough to need support from a whole 'village' probably from its beginning, albeit nearly a century after it had been re-founded. Newman (2013, 121-2) gives a few other comparable examples such as at that at a site on the outskirts of medieval Royston, where a lay settlement was founded by Augustinian canons on a similar greenfield site only occupied by a hermitage (Munby 1977; Semmelman 1998, 15). Overall, Barnwell was different from most settlements with the regional research agendas emphasising how little we know when, how and why medieval settlements were formed and emphasising the need for more research into these areas (e.g. Medlycott 2011, 70). Indeed, this can be linked to another regional research area – the role of monasteries on settlements is seen as needing more study (Ayres 2000, 29 and 31).
- 4.4.6 A non-monastic comparison to Barnwell settlement is Howes, a hamlet/village settlement which was established in c. AD 1150-1210 on a greenfield site along the Huntingdon Road, c.1km to the north of Cambridge town and partly within Cambridge fields (Cessford 2014). It was thought that Howes may have been a settlement which catered for travellers and hunting (*ibid*, 53).
- 4.4.7 It is likely that the Barnwell lay settlement was planned in c. AD 1200. It may also be significant that the lay church (St Andrew the Less) appears to have been built at the same date with fabric dating from the early 13th century (Salzman 1967, 126; CHER 05043). The building of the priory and subsequently the lay settlement on a large open

greenfield site, unlike the former site near the castle, allowed a new settlement to grow up. With open fields all around the settlement was free to expand and change without major restrictions or hindrances from neighbours.

- 4.4.8 Its location opposite the precinct wall presumably allowed the priory to control and organise its workers. The lay church was within the precinct wall which meant that the monks would be able to oversee the lay settlement without having to travel any distance. It is interesting to note that Barnwell Priory had a reputation as a 'harsh landowner' (Salzman 1967, 91 point 74). The houses being located directly opposite the priory meant the workers did not have to travel far either to their work in the priory itself or in the fields directly to the south. The latter was important as by the late medieval period the priory controlled most of the agricultural land in the vicinity of the settlement. For this reason the former medieval Cambridge East Field was later also referred to as Barnwell Field in some documents.
- 4.4.9 The location for Barnwell's lay settlement therefore makes economic sense. Similar examples of this prudent policy can be seen in other nearby monasteries at this date, both in terms of efficiency and the need for direct control. Bury St Edmunds Abbey, under Abbot Samson (1182-1211), took all but two of the manors back into direct control: 'since most of the abbey's income came from its landed property, to manage it directly and efficiently was obviously the wiser policy rather than farming it out to tenants, some of whom were in any case inefficient, at fixed uneconomic rents' (Gransden 2007, 24-25).
- 4.4.10 The location of both the priory and its later lay settlement may have been instrumental in their success. Over its 400 year history the priory became one of the most powerful and richest religious houses' in the East Anglian area. This was a favourable location: 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.
- 4.4.11 The siting 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 and even parliament had been held here (Salzman 1967, 244-6). These guests needed to be looked after by the priory and its servants – the lay people. The priory had acquired substantial wealth by at least the early 13th century – one of its areas of revenue was St Barnwell's Fair, which was granted to the cannons of Barnwell in 1211 but was already important by this date. 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).
- 4.4.12 Barnwell Priory and its lay settlement success may have led to an increase in its size, or at least its power. Originally Barnwell 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 the 1279 survey both areas were counted as one (Newman 2013). In contrast, by the late medieval period Barnwell was important enough to form a ward in its own right, albeit the smallest in Cambridge (Maitland 1964). It is interesting to note that whilst Barnwell village progressed, the hamlet of Howes located on Huntingdon Road in the northern Cambridge fields did not - it declined from the early/mid 15th century and ceased by the early/mid 16th century (Cessford 2014).

Evidence for medieval property division within Coldhams Lane site

- 4.4.13 Remains of at least two properties were revealed in the excavation (Fig. 11), with the evidence being clearest in Period 3 (late medieval period). In this period pits formed two north to south lines approximately parallel with Coldhams Lane that were relatively evenly spaced at between 5m and 10m apart. The plots would have respected/ been parallel to Coldhams Lane which is first recorded in 1386 (Reaney 1973, 44). It was unlikely that Coldhams Lane itself had buildings fronting onto it in Period 2 (AD 1200-1400) as there were large medieval pits located close to the lane and no evidence for buildings here. If this is correct, then this track was used only as a connecting route to the fields beyond and perhaps to other settlements, such as Cherry Hinton. In Period 3 (AD 1400-1600) there was a possible timber structure close to Coldhams Lane (in Plot 1), but it was more likely to be an outbuilding at the back of a property rather than a separate dwelling fronting Coldhams Lane.
- 4.4.14 Although identification of these properties is tentative, other much more definite evidence has been found in excavations to the west. Properties fronting Newmarket Road were revealed in the CAU excavations, at Harvest Way and the Newmarket Road site (Newman 2013, 112; Atkins forthcoming (a) and (b)). The remains of houses fronting Newmarket Road were also found at the CAU excavation directly to the west, where there were up to six plots between 6.9m and 7.8m wide (excluding Plot 6 which was up to 13.5m wide; Newman 2013, 15 and fig. 29). No linear boundaries defining the plots were found within any of the excavated sites, but at the CAU's site and at Harvest Way, buildings, pits and wells were positioned in such a way as to suggest their presence. That plot boundaries themselves have not survived as archaeological features is not surprising as Burgage plots boundaries from the 13th and 14th centuries in the main comprised stake and wattle fences (Hall and Hunter-Mann 2002, 807-10) and hedges (Bowsher *et al* 2007, 23).
- 4.4.15 The Coldhams Lane layout is similar in form (although not in scale) to the Grand Arcade excavations within Cambridge (Newman 2013, fig. 29). It is therefore likely that the Barnwell settlement may have been based on Burgage plots. Burgage plots were a property-type that occurred almost ubiquitously in urban and suburban contexts across England during the Middle Ages (Conzen 1960; Slater 1981).
- 4.4.16 Whilst the extent of the properties to the south was not established, it is likely that it did not extend far beyond the excavation area since the 1808 enclosure map shows fields immediately to the south of the excavation area. These fields are recorded as being part of the 1809 Barnwell Priory Farm which it has been suggested, was probably part of the Priory fields (Danckwerts 1980, 212 and fig. 1).

Activity within the plots

- 4.4.17 In the medieval period (AD 1200-1400) pits and wells were ubiquitous indicating water extraction and rubbish disposal were important domestic activities. In the late medieval period (AD 1400-1600) small outbuildings were constructed as well as more formalised means of disposing of human waste in the form of a cesspit, the digging and use of pits for rubbish disposal continued to a lesser extent. Two clay lined pits may have held water and perhaps indicate a new approach to the collection of water. It is possible that by this time ground water had become fouled due to the large number of rubbish pits on the site, and cisterns for rain water may have been considered a better option.
- 4.4.18 Other domestic or small scale craft activities included weaving of cloth as indicated by pin beater found in medieval pit **218**. Although no features directly associated with ovens or hearths were located within the site, it can be assumed that domestic activities

requiring a heat source (such as cooking and craft activities) were taking place nearby. A small number of items were recovered that suggest craft activities for example, a small quantity of pin making debris from medieval pit **168** and two artefacts from iron working were found in two different features: a smithy hearth base was found in well **603** and an offcut of bloomery iron from pit **103**. The range of metal artefacts found in pit **519** (a knife, several nails, slag and a ring from a horse harness) are likely to have come from work-related not domestic waste (see Crummy Section B.2). A probable late medieval stove tile found in Period 4.2 pit had a cross cut into it and this high status tile would have originated from or been destined for the priory (Fig.20, no.5).

- 4.4.19 Quarrying for river terrace gravel throughout the medieval period (AD 1200-1600) was represented by extraction pits located in the southern part of the site. The gravel and sand extracted was presumably used for surfacing roads and in building, possibly for the Priory, but also for houses fronting Newmarket Road.
- 4.4.20 The consumption of food is indicated by the pottery assemblage along with butchered animal bones and environmental samples indicating a wide range of food plants were being grown and presumably consumed here.
- 4.4.21 Large unabraded pottery sherds were found in several features and as these are unlikely to have travelled far they probably represent the domestic pots of the people living here. Period 2.1 well **523** produced a moderate amount of pottery, but only jug sherds were found and these are likely to have been lost whilst retrieving water. Wells **190** (Period 2.1) and **603** (Period 2.2) and cesspit or tank **229** (Period 3) produced large assemblages of pottery: vessels represented were mainly jars, bowls and jugs, indicative of the primarily domestic nature of the assemblage,
- 4.4.22 The environmental samples from the medieval phases suggest that cereals were being brought into the site as batches of cleaned grain either as animal feed or to be ground into flour for use in cooking. The more informative environmental samples were nearly all from features located at the back of the plots suggesting that it was here that this activity was occurring (see Fosberry, Appendix C.2). It is interesting to note that the two clay lined features, the cesspit or tank and the majority of the wells were also in this part of the site. Parts of two lava querns were found in well **603** and quarry pit **509**, both dating to Period 2.2, and these would be used for grinding grain.
- 4.4.23 Pollen, insect and waterlogged environmental seeds from two medieval wells (**190** and **481**) at the southern part of the site suggest this part of the backplot was a largely cleared landscape, with some weeds but had been primarily used as agricultural land with areas of probable composting and farm waste (see Fosberry, Rutherford and Hill, Appendices C.2-4). The type of beetle present may suggest a local cultivation of strawberries, cabbage, and possibly carrots and parsnip. The large numbers of the cabbage flea beetle is a strong indicator that this crop was being grown. Animal byres and pens may have been situated in the locality, but the insect evidence suggest animals were not set to pasture or housed nearby (See Hill, Appendix C.4). The evidence from the animal bones is inconclusive although stock may have been kept, especially as common land was nearby (see Faine, Appendix C.1).
- 4.4.24 If stock and crops were being grown/produced in these backplots, it is interesting to speculate whether this activity was only for their own consumption or was in part for sale at market and/or the Priory itself. Charred cereal remains from the Harvest Way excavation, suggest that there is the possibility that there had been a commercial aspect in the production and processing of food at that site (Fosberry forthcoming). When all the environmental analysis has taken place for all the Barnwell excavation

sites it may determine whether there was specialisation and surplus production in this community with the remainder presumably being sold off. Wade (2000, 25), in the regional research frameworks, speculated whether this had occurred on some rural sites, but the lack of environmental survival on the few published rural sites in the region has meant this question has not yet been answered. The tentative suggestion that this could have been occurring at Barnwell lay settlement is important as "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).

Links between the plots and Barnwell Priory

- 4.4.25 In the late medieval phase it seems there may have been a direct link between some of the artefacts recovered and Barnwell Priory itself. Reused carved stones, floor tiles and many new unused bricks were recovered from a 14/15th century cesspit or tank (**229**) and these would have originated from the Priory. After disuse the cesspit was backfilled with a notable collection of medieval objects dating into the 15th century, strongly suggesting its demise pre-dated the Dissolution. Medieval brick would have been relatively expensive with only the relatively well-off being able to afford it and these were presumably derived from the Priory.
- 4.4.26 Building materials, either derived from or destined for the Priory were found in several of the large pits. Bricks were found in several Period 2.2 and Period 3 contexts. Brick seems to have been first used at Barnwell Priory in the mid 14th century. Only 36 peg tile fragments were found in the Period AD 1200-1400 and it is likely this background scatter derived from the Priory. Most of the tile came from the late medieval period features, some were recovered *in situ* within pit **229**, but most were in backfill contexts. It is suggested that the tiles did not derive from buildings within the plots as tiles were costly items, but that they may have originated from the priory. Other artefacts probably derived from the Priory were found in medieval features, including Portland stone and limestone fragments from a late medieval (AD1400-1600) well **603**.
- 4.4.27 It is possible that some of the artefacts were brought onto the site as waste from elsewhere, possibly the Priory. Rather than indicating small scale local crafts, the pin making waste, iron working debris and iron objects may all have made their way onto the site as rubbish from further afield, the bloomery slag in particular is similar to off-cuts found 0.5km to the north-west (Atkins 2012a) which may have come from the same forge/furnace.
- 4.4.28 Whilst the evidence is not clear cut there are indications that there was a direct relationship between the Priory and the settlement.

4.5 Post-medieval

Introduction

- 4.5.1 The post-medieval period benefits from a few documentary records which indicate that settlement continued after the Dissolution, albeit with only 67 properties recorded in c. AD 1625 (Newman 2013, table 66). In AD 1731 the great fire of Barnwell is recorded as having destroyed at least 50 houses. The population was only 181 in AD 1728 (Hampson 1934, 77), there were 48 properties in AD 1749 (Newman 2013, table 66) and population rose to 252 people (79 houses) in 1801 (Salzman 1967, 138). It is worth noting that Cambridge itself rose only from 1636 properties in AD 1749 to 1691 in 1801 – and was therefore 'stagnant', whereas Barnwell seems to have grown slightly more rapidly. Cambridge was well below the national growth in population from 1750-1801

which was around 50% (Hopkins 1989, 31). The reasons for this stagnation in Cambridge are uncertain.

Post-Dissolution: c.1538-1700

- 4.5.2 The Priory would have directly employed lay people within its precinct as well as probably purchased produce and goods produced by them. The Dissolution must have had a great impact on the village, although it did have a nearby market in Cambridge (1km) away. This would have been compounded by immediate instability of the manor of Barnwell (comprising former priory land) which was sold three times between 1538 and 1553 (see Section 1.3.15). Dr Wendy who took over the manor in 1553 was an absentee landlord (living at Haslingfield) and physician to Henry VIII. He is likely to have had little knowledge of farming and owned other land and property elsewhere. It is likely, therefore that he saw the Barnwell land as providing a useful income but had had little interest in the village.
- 4.5.3 Excavations at Coldhams Lane have shown there is likely to have been a period of abandonment coinciding with the Dissolution of Barnwell Priory in the mid 16th century until c.1650. when the site was probably given over to pasture. The 're-occupation' in c.1650-1700 was represented by a few layers with a handful of artefacts, which may suggest activity and possible occupation near by but more likely represents rubbish imported from elsewhere. In contrast to Coldhams Lane more westerly parts of Barnwell appear to have continued to be occupied in this period. Showing that, whilst the settlement did not disappear completely it did become smaller. It is likely that the margins of the settlement were less attractive and elsewhere former properties were amalgamated or reduced in size suggesting a decrease in population in this period.
- 4.5.4 On the site to the west of Coldhams Lane, six medieval plots were gradually amalgamated into three larger units, one becoming a farmstead, and another a brewery and/or public house (Newman 2013). Further west still (at Harvest Way) the properites combined to make a probable manor at the far western extent, and at least three other timber buildings along with an inn complex (Atkins forthcoming a). Further west again (at the Newmarket Road excavation), two early post-medieval clunch structures (a possible latrine and a well) were presumably part of a notable nearby domestic structure, possibly a farmhouse located on former Barnwell Priory estate land (Atkins forthcoming b). In the area between the Newmarket Road and the Harvest Way excavations, documentary evidence records an early post-medieval inn complex, the Bird Bolt, which dates from at least 1603. Abbey House, a manor house dating to the late 16th century, survives within the former priory area. Excavations 0.5km to the north-west of the site found relatively few artefacts dating to the late 16th and early 17th century and it is likely this area was used as a meeting place for carriers before selling their wool in Cambridge (Atkins 2012a, 21).
- 4.5.5 Honour Ridout in her book on Cambridge and Stourbridge Fair notes that early post-medieval writers recorded their journeys to the fair. One noted that Borough Officials started in Cambridge and when they went through Barnwell they passed the abbey farmhouse and a little cluster of houses and pubs (Ridout 2011, 15). These observations may relate to the farmhouse suggested at the Newmarket Road excavations, whereas the pubs would presumably have included those found in the excavations at Eastern Gate and Harvest Way and documented Bird Bolt Inn. The houses were presumably the post-medieval manor house found at the Harvest Way excavations and the four domestic buildings found in the various excavations. Taken together, the archaeological work has identified c.10 buildings, out of c.50 buildings recorded in population figures for the whole settlement in this period.

4.5.6 The evidence points to a high percentage of pubs/inns alongside some relatively wealthy occupants/buildings. Entertainment was obviously a major industry for post-medieval Barnwell. The reasons for so many inns probably lies in the holding of two nearby major medieval markets: at Midsummer Common and at the former leper hospital (Stourbridge Fair). Both continued into the post-medieval period and were regionally or even of national importance. The latter lasted up to a month and brought in traders and buyers from all over England and beyond. Barnwell was also adjacent to a major road and river and therefore was an extremely important location for travelling (including wool carriers). It is thus not surprising that in the 18th century Barnwell was known as 'Bawdy-Barnwel' in a poem written by Edward Ward in 1700 (and quoted by Newman 2013, 128-9).

c.1700 to Enclosure (c.1807)

4.5.7 Relatively few features at the current site date from c.1700. An east to west aligned ditch was found perpendicular to Coldhams Lane and may have been a property boundary. This boundary ditch corresponds exactly with the boundary shown between Farrant's property and the parish poorhouse on slightly later documents and maps (e.g. 1812 and 1813 maps (Figs 4 and 5). The building fronting Coldhams Lane is within the later Farrant area, although Fletcher (Appendix B.5) suggests that this is more likely to have been a workshop than a dwelling. A scatter of pits including two for possible quarrying were found across the excavation area and in the evaluation. Very few artefacts (or ecofacts) were found dating to this period.

4.5.8 At Enclosure (c.1807) the Coldhams Lane site is recorded as having houses in the plots belonging to the poorhouse (No. 44), Farrant (No. 45) and Carter (No. 46). These allotments (see below) seem to have started in the early 18th century, but in the excavation no buildings were found within the area of the poorhouse or in the Carter's plot. The former may not be significant as this part of the site was the worst affected by 1970s truncation that may have removed evidence for buildings here. It is possible the buildings recorded on Carter's plot in 1807 had only just been built in the early 19th century, or have simply not survived.

4.5.9 It is likely the parish had a workhouse from 1723 as in this year a Parliament Act required that parish workhouses be instituted in all the parishes of Cambridge either separately or jointly. Documents record that St Andrews the Less parish had a workhouse possibly as far back as 1748 but certainly in 1759 and 1773 (see Section 1.3.25 above), but its location was not recorded and it was possible it was located in a different part of the settlement. It is worth noting that when the poor houses were destroyed in 1895 they were described as old (Stokes 1911) - this may suggest the buildings were 18th century in date rather than early 19th century.

4.5.10 The 1731 fire in Barnwell purported to have destroyed 50 houses, but no evidence for a fire was found by the Coldhams Lane excavation. This fire seems to have resulted in at least one of the inns burning down (located on the Harvest Way site) suggesting it affected the more central part of the village (Atkins forthcoming a).

4.6 Modern

4.6.1 A small population is recorded for Barnwell (St Andrew the Less parish) in 1801, just 252 people (79 houses) - the lowest of 14 parishes which made up Cambridge. It grew to 411 in 1811; 2211 in 1821; 6651 in 1831; 9486 people (1953 properties) in 1841 and 11776 in 1851 (Salzman 1967, 138). By the 1830s the former village of Barnwell had become a suburb of Cambridge. Cambridge Borough (and university) expanded from 10087 people in 1801 to 24453 in 1841, a rise of 242% (*ibid*, 138). The expansion of

Cambridge between 1801 and 1841 took place largely in St Andrew the Less parish where there was a rise in population of 9234 whereas in the other 13 parishes (and university) combined saw a rise of just 5132 people.

- 4.6.2 Measuring and trying to understand increase in population is important as towns in Britain expand (or contract) depending on different local circumstances. In the first four decades of the 19th century the national increase in population was about two-thirds (Hopkins 1989, 78). Cambridge therefore expanded by four times the national average. This is especially marked considering the stagnation in population in the town between 1750 and 1801. If the population growth in St Andrew the Less parish is taken out of the equation, the Cambridge growth in population was below the national average. The population rise in St Andrew the less parish was a rise of more than 50 times the national average This extraordinary increase in population needs to be considered – indeed there may have been several factors (some interlinked) which led to this growth.
- 4.6.3 Up to the end of the 18th century Cambridge was encircled by fields and commons, including the Barnwell Field extending from the river below Jesus College to Coe Fen and the Western Fields (RCHM(E) 1988: lviii). The open fields were subject to rights of common which rendered it necessary that they be cultivated as arable land (CUL MS Doc 621/30). After Enclosure this changed. At the same time in c.1808, Panton land (former Barnwell Priory estate) went from being in the ownership (since 1763) of a single family to being sold off in many plots to several people, some of whom at least were buying as a means of generating profit.
- 4.6.4 The two great fairs which Barnwell relied on diminished in size from at least the mid 18th century. After problems in 1802 at Stourbridge Fair, Ridout (2011, 86) states that it continued, but was a shadow of its former self. Barnwell had benefited greatly from these fairs and therefore with money reduced there was presumably an incentive to look elsewhere to compensate. There was therefore less incentive to keep open land for the production of food.
- 4.6.5 It has been long recognised by economic and social historians than an active building trade can boost the trade (and population) of a town. "the building trades were active in all areas of expansion, it is often possible to correlate regional bursts of industrial growth with new housing. Moreover the output of the builders represented a very high proportion of new capital" (Checkland 1979, 165). It was therefore no coincidence that in Barnwell a brickworks was located (from at least c.1800) less than 200m to the east of the Coldhams Lane site (recorded on the 1807-12 Enclosure Map). Two or three separate brickworks are recorded on the 1830s and 1840s maps around the area to the north-east and east of the site. The brickworks were located there because there were good clay beds for brick making, proximity to the river and a major road for transportation. Significantly the brickworks were very close to an area of future growth in population/housing. The bricks were relatively cheap to produce and did not need to be transported far to their market. These economic factors related directly to the brick/building industry and were a major reason for expansion in this part of Cambridge. This concentration of brick making is well-known from elsewhere e.g. at Northampton four adjacent brick kilns were recorded in the far northern segment of the town and these accounted for over half of Northampton's brick makers. This location was an area of good clay beds, next to the turnpike road in an area which saw the greatest housing expansion within the town in the 19th century (Atkins 2002, 97).
- 4.6.6 There was a need for working class houses and labour to meet the overall increase in Cambridge. Such accommodation and industry could not be placed in the centre of Cambridge which comprised the colleges, their staff and students who wanted the area

maintained to a high standard (for example the new railway was located well away from the town centre). The net effect was that the land between Cambridge and into Barnwell became the slum and lesser industrial area of the new greater Cambridge in the 19th century (RCHME 1988, 366). Instead of infilling Cambridge centre itself, the backplots of Barnwell were rapidly congested with houses across the whole village. All of the excavations to date have demonstrated this, showing rapidly built terrace houses alongside small industries such as glass making at Harvest Way (Newman 2013; Atkins forthcoming (a) and (b)).

Later occupation within Coldhams Lane site

- 4.6.7 The large quantity of documentary and map evidence for the site in the 19th and 20th centuries means that for the first time detailed changes to the site could be plotted (see sections 1.2.22-1.3.37). It is unfortunate that the extensive destruction by the 1970s redevelopment largely removed features of this period. Indeed this is in contrast to excavations at Harvest Way and Newmarket Road where remains of this period survived relatively well (Atkins forthcoming (a) and (b)). There were fragmentary remains of 19th century terraced houses within Farrant's and Carter's plots, but the poorhouse area remained unchanged until 1895. The quantity of artefacts recovered belonging to this period (pottery, clay pipe, glass etc.) was minimal. This limits what can be said about the site in this period. The only surviving evidence being documentary, particularly in relation to the poorhouse.
- 4.6.8 Dr Stokes wrote a paragraph on some of the history of the poorhouse in his article published in Proceeding of Cambridge Archaeological Society in 1911. Dr Stokes noted 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 1832 quoting poor law report, 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".
- 4.6.9 The 1807-12 Enclosure Map and Awards and the 1813 map also gives some detail of this workhouse (see Section 1.3.21; Figs 6 and 7). In 1836 this parish workhouse went from parish control to City of Cambridge control. This year 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 Coldhams Lane property until its destruction in 1895 when the land was sold.
- 4.6.10 As the population of St Andrew the Less expanded (in the early 19th century) a further workhouse was built within the same parish in c.1823 at Nos. 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).

4.7 Significance

- 4.7.1 The Coldhams Lane site's importance lies in its contribution to evidence for the changing fortunes of the village of Barnwell from its origins as a lay settlement in the early 13th century closely linked to Barnwell Priory to its absorption into the City of Cambridge in the 19th century. Whilst this single excavation does not answer all of the research questions related to the village it has a particular contribution to make in terms of its location on the edge of the settlement.

APPENDIX A. CONTEXT SUMMARY

Period	Type	Cut	Ctxt	Tr	Function	Lgth	Bdth	Dpth	Other Comments
1	ditch	540	542		?boundary		1.3	0.16	mid red brown, loose sandy clay
1	ditch	540	540		?boundary		1.3	0.6	
1	ditch	540	541		?boundary		0.96	0.45	mid red brown, loose sandy clay with moderate angular stones <30mm
1	ditch	545	545		?boundary		1.17	0.62	mixed orange brown sandy silt and mid grey brown silt with occasional gravel
1	ditch	546	546		?boundary		1.17	0.62	
1	ditch	546	646		?boundary				dark grey brown, friable sandy silt with occasional charcoal
1	ditch	560	559		?boundary			0.43	orange brown, friable sandy silt with moderate gravel
1	ditch	560	560		?boundary			0.43	
1	ditch	663	660		?boundary	2	0.9	0.56	dark red brown, firm silt sand with moderate small stones
1	ditch	663	661		?boundary		0.8	0.2	light brown red, firm silty sand with occasional small stones
1	ditch	663	662		?boundary		0.65	0.2	light brown yellow, loose silt sand with frequent gravel
1	ditch	663	663		?boundary	2	0.9	0.6	
1	ditch	665	664		?boundary	2	0.82	0.4	light red brown, firm silt sand occasional small stones
1	ditch	665	665		?boundary		0.82	0.4	
1	ditch	678	677		?boundary	2	0.25	0.4	light brown red, friable silt sand with occasional small stones
1	ditch	678	678		?boundary	2	0.25	0.4	
1	ditch	680	679		?boundary		0.2	0.22	light brown red, friable silty sand with occasional small stones
1	ditch	680	680		?boundary		0.2	0.22	
1	ditch	682	681		?boundary		1.02	0.55	mid reddish brown, moderately compact silty sand with frequent fine gravel
1	ditch	682	682		?boundary		1.02	0.55	
1	ditch	684	683		?boundary			0.39	mid greyish orange, firm silty sand with frequent coarse gravel
1	ditch	684	684		?boundary			0.39	
1	ditch	686	685		?boundary		0.6	0.52	mid orangey brown, soft silty sand with occasional gravel
1	ditch	686	686		?boundary		0.6	0.52	
1	ditch	688	687		?boundary		0.36	0.34	mid brownish orange, soft sand with rare small stones
1	ditch	688	688		?boundary		0.36	0.34	
2.1			311			0			
2.1	?well	579	579				0.94		
2.1	?well	579	580				0.94	0.6	mid brown and light grey, compact fine sandy silt and chalk mix with occasional sub-angular stones <30mm
2.1	?well	579	581			0.9		0.4	light grey chalk and light brown sandy silt with occasional sub-angular stones <40mm
2.1	?well	579	582				0.9	0.25	light grey, compact fine silty chalk with occasional sub-angular stones <40mm
2.1	?well	579	602				0.95		dark brownish grey, fine compact sandy silt
2.1	?well ?pit	239	203				0.4		light blueish white, clay with occasional chalk
2.1	?well ?pi	239	239				2.6	2.9	
2.1	?well ?pit	239	231					0.25	dark brownish grey, moderately compact silty sand with occasional charcoal and clay inclusions
2.1	?well ?pit	239	240				1.2		mixed white and grey, moderately compact clay and clayey sand
2.1	?well ?pit	239	402				1.37	0.3	mid grey, compact fine silty clay with occasional angular flints <30mm
2.1	?well ?pit	239	403				1.68	0.45	light grey / off white, compact fine chalk with occasional sub-angular stones <30mm
2.1	?well ?pit	239	404				0.32		light grey off-white, compact fine chalk with occasional angular flint <30mm
2.1	pit	18	18 2					0.22	
2.1	pit	18	19 2					0.22	dark brown grey, firm sandy silt with moderate small sub-rounded and sub-angular stones and occasional charcoal flecks

Period	Type	Cut	Ctxt	Tr	Function	Lgth	Bdth	Dpth	Other Comments
2.1	pit	39	38	4	quarry, Pit Group 1			0.94	mottled dark grey and orange, soft clayey silty sand with occasional small stones
2.1	pit	39	39	4	quarry, Pit Group 1			0.94	
2.1	pit	119	119		quarry, Pit Group 1	2.24	2.2	1.12	
2.1	pit	119	120		quarry, Pit Group 1	2.24		0.6	dark brown, fine slightly compacted sandy silt with occasional clunch fragments and sub-angular stones
2.1	pit	119	121		quarry, Pit Group 1	2.2		0.62	dark greyish brown, slightly compacted fine sandy silt with occasional sub-angular stones
2.1	pit	128	124		quarry, Pit Group 1	2.45	0.76	0.26	dark grey, firm clayey silt with occasional 10-20mm sub-rounded stones
2.1	pit	128	125		quarry, Pit Group 1	1.8	0.78	0.7	dark brownish grey, firm clayey silt with frequent pockets of sand / pea grit 100mm in diameter
2.1	pit	128	126		quarry, Pit Group 1	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	pit	128	127		quarry, Pit Group 1	0.23	0.45	0.08	mid yellowish brown, loose silty sand with frequent <10mm diameter rounded stone / grit
2.1	pit	128	128		quarry, Pit Group 1	2.45	1.6	0.88	
2.1	pit	168	168		?cistern	1.8	1.75	2.4	
2.1	pit	168	169		?cistern		0.3		lining- cream / off-white, very compact chalk with occasional angular flints
2.1	pit	168	170		?cistern		1.4	0.46	mid grey, slightly compacted fine sandy silt with occasional sub-angular stones
2.1	pit	168	205		?cistern		0.3		lining-cream / off-white, compacted fine clay with occasional angular flints
2.1	pit	168	206		?cistern		0.23		mid brownish grey, compacted fine sandy silt with moderate clay lenses and occasional sub-angular stones <40mm
2.1	pit	168	207		?cistern		1.15		dark brownish grey, compacted fine sandy silt with silty clay lenses and occasional angular stons <40mm
2.1	pit	168	208		?cistern		1.1	0.45	cream / mid grey mix, compact chalk / fine sandy chalky silt mix with occasional sub-angular stones <40mm
2.1	pit	168	209		?cistern		1.3	0.25	mid grey, firm fine sandy silt with moderate sub-angular stones
2.1	pit	168	443		?cistern		1.43	0.27	?lining-off white, compact fine clayey chalk with occasional angular flints <40mm
2.1	pit	168	444		?cistern		1.6	0.45	mixed mid grey and mid yellow, compact fine sandy silt and gravel mix with moderate sub-angular gravel
2.1	pit	168	445		?cistern		1.7	0.27	mid grey and white lenses, compact fine sandy silt with chalk lenses and occasional sub-angular stones <40mm
2.1	pit	174	173			0.6	0.5	0.83	mid dark grey brown, friable sandy silt with rare gravel
2.1	pit	174	174			0.6	0.5	0.83	
2.1	pit	195	193		quarry, Pit Group 1	1.9	0.62	0.2	dark greenish grey, soft clayey silt with occasional 10mm diameter charcoal and frequent 10mm diameter gravel
2.1	pit	195	194		quarry, Pit Group 1	1.9	0.62	0.05	dark greyish brown, loose silt with frequent <10mm iron fragments and occasional brick fragment
2.1	pit	195	195		quarry, Pit Group 1	1.91	0.62	0.4+	
2.1	pit	199	196		quarry, Pit Group 1	0.8		0.5	dark greyish brown, friable silt with occasional 10mm diameter rounded gravel
2.1	pit	199	197		quarry, Pit Group 1	0.8	0.26	0.2	white, clay with concrete
2.1	pit	199	198		quarry, Pit Group 1	0.8	0.6	0.46	mid orange, loose sand with moderate <10mm gravel
2.1	pit	199	199		quarry, Pit Group 1	0.8	0.62	0.8	
2.1	pit	220	220			2.3	0.35	0.22	
2.1	pit	220	221						mid brown, loose silty sand
2.1	pit	241	241				1.45	0.45	

Period	Type	Cut	Ctxt	Tr	Function	Lgth	Bdth	Dpth	Other Comments
2.1	pit	241	242				1.35	0.27	mid grey / orange mix, firm fine sandy silt / sandy gravel mix with occasional sub-angular stones of <40mm
2.1	pit	241	243				1.45	0.14	mid brownish grey, firm fine sandy silt with occasional sub-angular stones of <40mm
2.1	pit	274	273			0			brown, loose sandy silt with frequent flint gravel and some charcoal frags
2.1	pit	274	274			0.4	0.4	0.1	
2.1	pit	420	419			0.4	0.4	0.12	brown, loose sandy silt with occasional gravel
2.1	pit	420	420			0.4	0.4	0.12	
2.1	pit	428	427			1.5		0.51	mid greyish brown, loose sandy silt with occasional charcoal flecks
2.1	pit	428	428			1.5		0.51	
2.1	pit	430	429			1.42		0.16	very dark grey brown, sandy silt
2.1	pit	430	430			1.42		0.16	
2.1	pit	457	456			0.95	0.9	0.35	brown, loose sandy silt with moderate gravel
2.1	pit	457	457			0.95	0.9	0.35	
2.1	pit	461	460		?quarry			0.61	dark greenish, firm silty clay with rare 10mm fragments of chalk
2.1	pit	461	461		?quarry			0.61	
2.1	pit	483	482				0.9	0.6	dark grey brown, firm silt sand with occasional small stones
2.1	pit	483	483				0.9	0.6	
2.1	pit	485	484				1.1	0.3	dark grey brown, firm sandy silt with occasional small stones
2.1	pit	485	485				1.1	0.6	
2.1	pit	492	486		?quarry			0.45	dark grey brown, soft sandy silt
2.1	pit	492	487		?quarry		1.7	0.3	mixed lenses of orange and dark greyish brown sand and sandy silt with rare small stones
2.1	pit	492	488		?quarry		1.3	0.15	ligh mid grey sandy silt
2.1	pit	492	489		?quarry		0.93	0.14	dark grey, friable sandy silt with verry rare small stones
2.1	pit	492	490		?quarry		0.62	0.26	orange, loose sand
2.1	pit	492	491		?quarry		1.31	0.2	very dark grey, friable sandy silt with rare small stones
2.1	pit	492	492		?quarry	2.9	2.9	1.4	
2.1	pit	492	493		?quarry	0.5		0.1	light mid grey and red, loose sandy silt with occasional small stones
2.1	pit	492	494		?quarry	1.2		0.2	dark grey, loose silt with charcoal inclusions
2.1	pit	492	495		?quarry	1.3		0.2	light grey, loose silt with moderate gravel inclusions
2.1	pit	492	496		?quarry	1.2		0.4	dark grey, fine compact clayey silt with moderate gravel
2.1	pit	492	497		?quarry	1.1		1.2	dark grey and black, loose silt
2.1	pit	492	498		?quarry	1.5		1.1	dark grey, loose silt
2.1	pit	492	499		?quarry	1.5		1.3	light red brown, loose fine sandy silt with occasional gravel
2.1	pit	492	500		quarry	0.8		1.2	dark red brown, loose very fine sand and clay
2.1	pit	505	505		quarry, Pit Group 1		1.2	138	
2.1	pit	505	506		quarry, Pit Group 1				dark brownish grey, firm sandy clay with rare angular and rounded stones
2.1	pit	505	507		quarry, Pit Group 1				dark grey brown, firm sandy clay with occasional angular stone
2.1	pit	505	508		quarry, Pit Group 1				light yellow, mid red brown and dark brown grey, firm clay sand with rare angular stones <20mm
2.1	pit	517	517				0.8	0.5	
2.1	pit	517	518			0			dark grey brown, firm sandy silt with occasional sub-angular stone <20mm
2.1	pit	538	536				0.8	0.3	dark orange brown, friable silt sand with occasional small stones
2.1	pit	538	537				0.9	0.35	light brown orange, friable silty sand with moderate small stones
2.1	pit	538	538			2	1.25	0.65	
2.1	pit	557	557			1.7	1.7	0.4	

Period	Type	Cut	Ctxt	Tr	Function	Lgth	Bdth	Dpth	Other Comments
2.1	pit	557	558			1.7	1.7	0.4	dark orangey brown, friable silty sand with occasional flints
2.1	well	190	183					1.02	0.34 mid orangey brown, moderately compact silty sand with occasional stone
2.1	well	190	184					1.09	0.62 mid dark orangish brownish grey, moderately compact clayey silty sand with occasional stone
2.1	well	190	185					0.31	0.76 mid whitish orangy brown, moderately compact clayey sand
2.1	well	190	186					0.38	0.3 mid light whitish brown, moderately compact clayey sand with occasional gravel
2.1	well	190	187					0.84	0.44 mid yellowish brown, moderately compact clayey silty sand with occasional gravel
2.1	well	190	188					1.19	0.28 mid brownish grey, soft clayey silty sand with occasional stones
2.1	well	190	189					1.1	0.37 mid yellowish brownish grey, soft silty clayey sand with occasional chalk flecks
2.1	well	190	190					1.34	3.64
2.1	well	190	370					0.42	0.74 mid whitish brown, moderate sandy clay with occasional chalk fragments
2.1	well	190	371					0.68	0.26 mid brownish orange, soft clayey silty sand with rare small stones
2.1	well	190	372					1.1	0.12 mid grey, clayey silty sand with occasional small stones and charcoal
2.1	well	190	373					0.76	0.14 light orange, soft sand
2.1	well	190	374					0.58	0.06 mid grey brown, moderately compact sand
2.1	well	190	375					1.26	0.43 light white yellow, soft sand
2.1	well	190	376					0.74	0.09 light orange, moderately compact sand
2.1	well	190	377					0.45	0.04 mid purple grey, firm sand
2.1	well	190	378					0.4	0.12 mid orange, soft and loose sand
2.1	well	190	379					1.33	0.06 mid greenish brownish grey, moderate clayey silty sand with occasional stones and gravel
2.1	well	190	381			0.36		0.6	0.04 mid dark grey, firm clayey sand with occasional stones
2.1	well	190	384					1.34	0.17 mid yellowish brown grey, soft clayey sandy silt with rare small stones
2.1	well	190	385					1.25	0.15 dark brownish grey, soft silty clayey sand with rare small stones
2.1	well	190	386					0.65	0.23 mid orangey brown, soft silty clay with occasional chalk
2.1	well	190	387					1.34	0.23 mid greyish greenish brown, soft silty sandy clay with occasional small stones
2.1	well	190	528					1.32	0.07 mid greyish white, firm clay
2.1	well	190	529					1.29	0.32 mid dark brownish grey, firm silty clay with occasional small stones
2.1	well	190	530					1.25	0.15 white with black lenses, firm clay with rare large stones
2.1	well	190	531					1.2	0.04 mid / dark greenish brown, soft silty sand
2.1	well	190	532					1.2	0.36 mid greyish brown, soft clayey silty sand
2.1	well	190	533					1.12	0.17 dark mid brown, soft sandy silt with rare small stones
2.1	well	523	523			1.2		1.2	3.5
2.1	well	523	524					1.1	0.53 mid grey, loose fine sandy silt with moderate sub-angular gravel
2.1	well	523	525			1.2			0.42 mid brownish grey, loose fine sandy silt with occasional sub-angular stones <30mm
2.1	well	523	543			0.9			0.25 mid grey, fine sandy silt with occasional sub-angular gravel <20mm
2.1	well	523	544					0.9	0.11 mid orangey brown, loose fine sandy silt with frequent sub-angular gravel <30mm
2.1	well	523	548			0			mid brown and off white, compacted fine sandy silt with moderate clay inclusions
2.1	well	523	549			0.88			0.1 mid brownish orange, fine loose silty gravel <30mm
2.1	well	523	562						light brown, compact fine silty sand with occasional sub-angular stones
2.1	well	523	563			1.08			mid brownish grey, fine compact sandy silt with frequent clay

Period	Type	Cut	Ctxt	Tr	Function	Lgth	Bdth	Dpth	Other Comments
									inclusions <40mm
2.2	pit	14	11	3	quarry, Pit Group 2		1.16	0.36	mid light yellowy grey, moderately compact silty sandy clay with occasional small stones and charcoal
2.2	pit	14	12	3	quarry, Pit Group 2			1	mid yellowish grey, firm silty clay with frequent small stones and charcoal
2.2	pit	14	13	3	quarry, Pit Group 2		0.98	0.18	mid dark grey, firm silty clay with occasional stone and charcoal
2.2	pit	14	14	3	quarry, Pit Group 2			0.68	
2.2	pit	37	36	4	quarry, Pit Group 2			0.78	mottled dark grey and orange, soft clayey silty sand with occasional small stones
2.2	pit	37	37	4	quarry, Pit Group 2			0.78	
2.2	pit	103	102		quarry, Pit Group 2	2.18	1.3	0.42	dark grey, clayey friable silt with occasional charcoal and sub-angular stones
2.2	pit	103	103		quarry, Pit Group 2	2.18	1.3	1	
2.2	pit	103	191		quarry, Pit Group 2	1.15	1.4	0.58	dark brownish grey, friable clayey silt with occasional 10-20mm angular gravel and 10mm charcoal
2.2	pit	182	175		quarry, Pit Group 2		1.92	0.3	dark brownish grey, soft clayey silty sand with occasional small stones
2.2	pit	182	176		quarry, Pit Group 2		1.84	0.06	mid brownish orange, firm silty sand with occasional gravel
2.2	pit	182	177		quarry, Pit Group 2		2.02	0.56	dark greysish brown, moderately compact clayey silty sand with occasional stones
2.2	pit	182	178		quarry, Pit Group 2		1.75	0.55	mid orangey greyish brown, moderately compact clayey silty sand with occasional gravel
2.2	pit	182	179		quarry, Pit Group 2		1.33		very dark black, soft silty sand with rare stones
2.2	pit	182	180		quarry, Pit Group 2		1.39	0.06	mid yellow orange, soft sand
2.2	pit	182	181		quarry, Pit Group 2		0.59	0.08	mid / light brown grey, soft sand
2.2	pit	182	182		quarry, Pit Group 2		2.15	1.45	
2.2	pit	182	380		quarry, Pit Group 2		0.59	0.11	very dark grey, soft clay silty sand with occasional fine gravel
2.2	pit	204	201		quarry, Pit Group 2		1.1	0.4	dark brownish grey, moderately compact silty sand with occasional charcoal flecks
2.2	pit	204	202		quarry, Pit Group 2		0.7	0.3	mid greyish orange, moderately compact silty sand
2.2	pit	204	204		quarry, Pit Group 2		1.7	0.8	
2.2	pit	204	211		quarry, Pit Group 2			0.8	dark black, moderately compact silty charcoal
2.2	pit	204	230		quarry, Pit Group 2			0.8	dark black, moderately compact silty charcoal
2.2	pit	218	218		quarry, Pit Group 2	2.6		0.75	
2.2	pit	218	219		quarry, Pit Group 2				mid brown, loose clay sand
2.2	pit	218	232		quarry, Pit Group 2				mid grey yellow, loose sand
2.2	pit	218	233		quarry, Pit Group 2		0.85	0.15	mid brown grey, firm sandy clay
2.2	pit	218	234		quarry, Pit Group 2	0		0.3	mid yellow brown, loose silty sand
2.2	pit	218	235		quarry, Pit Group 2		0.16	0.6	mid greyish yellow, loose sand with occasional rounded stones of <5mm
2.2	pit	218	236		quarry, Pit Group 2		1.28	0.28	dark greyish brown, firm silt with occasional rounded stone of <5mm

Period	Type	Cut	Ctxt	Tr	Function	Lgth	Bdth	Dpth	Other Comments
2.2	pit	218	237		quarry, Pit Group 2			0.15	mid brown grey, firm silty sand with rare <5mm stones
2.2	pit	218	238		quarry, Pit Group 2				dark grey brown, firm sandy silt with occasional rounded stone of <10mm
2.2	pit	218	345		quarry, Pit Group 2				dark grey, firm silt with charred material, burnt clay and occasional 20mm diameter sub-angular stones
2.2	pit	283	282					0.6	mixed friable dark grey brown sandy silt frequent and orange brown silty sand with patches of orange sand rare and very small stones
2.2	pit	283	283					0.6	
2.2	pit	346	346		quarry, Pit Group 2		0.16	0.4	
2.2	pit	346	347		quarry, Pit Group 2				mid grey brown, loose sand
2.2	pit	438	437			0.98	0.92	0.34	dark brownish grey, friable clayey silt with occasional charcoal flecks and 10mm diameter lumps of charcoal
2.2	pit	438	438			0.98	0.92	0.34	
2.2	pit	440	439			0.7	0.73	0.19	dark greenish brown, friable clayey silt with occasional 10-20mm diameter rounded chalk
2.2	pit	440	440			0.7	0.73	0.19	
2.2	pit	451	450			0.9	0.49	0.03	dark brownish grey, moderately compact silty sand
2.2	pit	451	451			0.9	0.49	0.03	
2.2	pit	459	458			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	pit	459	459			1.78	1.35	0.18	
2.2	pit	509	509		quarry, Pit Group 2			5	1.5
2.2	pit	509	510		quarry, Pit Group 2				dark brown grey, firm sandy clay with occasional angular stones <10mm
2.2	pit	509	511		quarry, Pit Group 2	0			dark grey, firm sandy clay with occasional angular stone <10mm
2.2	pit	509	512		quarry, Pit Group 2				md red brown, firm sandy clay
2.2	pit	509	513		quarry, Pit Group 2				dark brown grey, firm sandy clay with occasional small stones <40mm
2.2	pit	509	514		quarry, Pit Group 2				mid red brown and dark grey, firm sandy clay with occasional sub-angular stones <20mm
2.2	pit	509	515		quarry, Pit Group 2				mid grey, firm sandy clay with sub-angular stones <20mm
2.2	pit	509	516		quarry, Pit Group 2				dark grey, firm sandy clay with rare angular stones <10mm
2.2	pit	526	526				1.3	0.45	
2.2	pit	526	527			1		0.2	dark grey, loose fine sandy silt with occasional sub-angular stones <20mm
2.2	pit	526	534			0			mid brownish grey, loose fine sandy silt with occasional sub-angular stones <30mm
2.2	pit	593	591				1.22	0.45	mid dark orangey grey, moderate clayey silty sand with occasional small gravel
2.2	pit	593	592				1	0.03	mid orange, soft sand
2.2	pit	593	593				1.22	0.47	
2.2	pit	654	654		?tank	1.4		0.6	
2.2	pit	654	655		?tank	1.4		0.25	brownish grey silt, firm silt with clay inclusions
2.2	pit	654	666		?tank	0.05		0.55	mid grey, firm clay
2.2	pit	654	667		?tank	1.4		0.4	grey, firm clay with small stone and silt inclusions
2.2	well	481	476			1.8	2.2	1.2	light grey brown, very firm sandy silt with moderate small stones
2.2	well	481	477				1.2	0.8	light white grey brown, very firm sandy silt with frequent small stones and mortar flecks
2.2	well	481	478				1.2	0.2	dark grey brown, firm clay silt with occasional small stones

Period	Type	Cut	Ctxt	Tr	Function	Lgth	Bdth	Dpth	Other Comments
2.2	well	481	479					0.2	dark grey brown, firm clayey silt with occasional small stones
2.2	well	481	480					1.7 0.8	dark grey brown, firm clay silt with occasional small stones
2.2	well	481	481			3		2.9 3.38	
2.2	well	481	551					0.6 0.4	dark grey brown, firm sand silt with occasional small stones
2.2	well	481	552					1.1 0.3	light grey orange yellow, friable silty sand with frequent gravel
2.2	well	481	553					0.3 0.5	dark grey brown orange, firm sand silt with occasional small stones
2.2	well	481	554					1.3 0.64	light brown grey, firm silt clay with very occasional small stones
2.2	well	481	555					1 0.2	dark brown grey, soft silt clay with occasional small stones
2.2	well	481	556					0.85 0.4	light brown grey, soft silt clay with occasional small stones
2.2	well	603	603					2.2	
2.2	well	603	604			0.6		0.1	mid brownish orange, soft silty sand with moderate gravels <10mm
2.2	well	603	605					1 0.3	dark brown, plastic sandy silt with moderate gravels <10mm
2.2	well	603	606			0.6		0.06	mid brownish orange, soft silty sand with moderate gravels <10mm
2.2	well	603	607					0.5 0.4	mid brownish orange, soft silty sand with moderate gravels <10mm
2.2	well	603	608					0.4 0.05	dark brown, plastic sandy silt with moderate gravels <10mm
2.2	well	603	609					1.7 1	mid brownish orange, soft silty sand with moderate gravels <10mm
2.2	well	603	610					0.8 0.45	mid greyish brown, plastic sandy silt with moderate fine gravels
2.2	well	603	611			0			mid greenish grey, plastic clay with occasional gravels <20mm
2.2	well	603	612					1.1 0.2	mid brownish orange, soft silty sand with moderate gravels <10mm
2.2	well	603	613					1.1 0.4	dark brown, plastic sandy silt with moderate gravels <10mm
2.2	well	603	614					0.6 0.15	mid brownish orange, soft silty sand with moderate gravels <10mm
2.2	well	603	615					0.45 0.15	dark brown, plastic sandy silt with moderate gravels <10mm
2.2	well	603	616					0.35 0.1	mid brownish orange, soft silty sand with moderate gravels <10mm
2.2	well	603	617					0.2 0.6	mid brownish grey, plastic sandy clay with occasional gravel <10mm
2.2	well	603	618					0.9 0.16	mid greyish brown, plastic silty clay with gravel and large flints
2.2	well	603	619					0.75 0.18	dark greyish brown, plastic silty clay with occasional gravels <10mm
2.2	well	603	620					0.44 0.1	mid orangish brown, soft sandy clay
2.2	well	603	621					1 0.16	black, friable ash and sand, with charcoal, burnt bone and coal
2.2	well	603	622					0.36 0.08	mid brownish orange, soft silty sand with moderate gravels <10mm
2.2	well	603	623			0			dark brown, plastic sandy silt with moderate gravels <10mm
2.2	well	603	624			1.45		0.7	mid greenish grey, plastic silty clay with chalk and gravels
2.2	well	603	625					2.1 0.7	mid greenish grey, soft silty clay with chalk and gravel
3	cess-pit	229	225		?toilet, Plot 1	1.5	1.42	0.47	dark brownish grey, soft clayey silty sand with frequent small stones and CBM
3	cess-pit	229	226		?toilet, Plot 1	1.29	1.06	0.38	mid orange greenish grey, soft clayey silty sand with frequent fine gravel
3	cess-pit	229	227		?toilet, Plot 1	1.5	1.19	0.09	dark greenish grey, firm clayey silt with rare small stones
3	cess-pit	229	228		?toilet, Plot 1	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	cess-pit	229	229		?toilet, Plot 1	2.13	1.63	0.56	
3	cess-pit	229	279		?toilet, Plot 1	2.13	1.68	0.56	mottled dark orangey grey, moderately compact to firm clayey silty sand with occasional small stones
3	pit	32	31	4	quarry, Plot 1		1.14	1	very dark orange and black, soft clayey sandy silt with occasional small stones

Period	Type	Cut	Ctxt	Tr	Function	Lgth	Bdth	Dpth	Other Comments
3	pit	32	32	4	quarry, Plot 1			1	
3	pit	35	34	4	quarry, Plot 2		1.6	0.52	very dark black, soft clayey silty sand with occasional small stone
3	pit	35	35	4	quarry, Plot 2		1.6	0.52	
3	pit	133	131		quarry, Plot 2	2.2	0.65	0.57	mid dark grey, friable sandy silt with lense of sands and gravels
3	pit	133	132		quarry, Plot 2	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	pit	133	133		quarry, Plot 2	2.2	1.65	0.84	
3	pit	152	151		quarry, Plot 1		1.99	0.91	very dark, slightly greenish soft to moderately compact grey clayey sandy silt with occasional fine gravel and charcoal
3	pit	152	152		quarry, Plot 1		1.99	0.91	
3	pit	308	299		quarry, Plot 1		1.04	0.16	light white grey, firm sand silt with frequent chalk lumps, mortar
3	pit	308	300		quarry, Plot 1		1.56	0.2	light grey brown, firm sand sit with moderate small stones
3	pit	308	301		quarry, Plot 1		1.6	0.06	dark grey black, loose mainly degraded wood with very frequent burnt wood and occasional mortar patches
3	pit	308	302		quarry, Plot 1		0.8	0.08	light grey brown, firm sand silt with occasional small stones
3	pit	308	303		quarry, Plot 1		1.2	0.08	light orange yellow, loose slightly silty sand with frequent small stones
3	pit	308	304		quarry, Plot 1		1.4	0.3	light grey brown, firm sand sit with moderate small stones
3	pit	308	305		quarry, Plot 1			0.1	light orange brown, firm silt sand with frequent small stones
3	pit	308	306		quarry, Plot 1			0.15	dark grey brown, firm sand silt with frequent small stones
3	pit	308	307		quarry, Plot 1			0.1	light white grey, firm silt sand with occasional small stones
3	pit	308	308		quarry, Plot 1		1.4		
3	pit	313	312		quarry, Plot 2			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	pit	313	313		quarry, Plot 2			1.04	
3	pit	318	316		quarry, Plot 1			0.4	mid / dark brownish grey, moderately compact silty sand with very occasional chalk
3	pit	318	317		quarry, Plot 1			0.25	frequent yellow, loose sandy gravel, occasional white clay and occasional loose grey, silty sand
3	pit	318	318		quarry, Plot 1		1.8	0.9	
3	pit	339	333		quarry, Plot 2				lenses of grey sandy silt, silty sand and yellow sand and gravel with frequent flint gravel
3	pit	339	334		quarry, Plot 2				lenses of light grey and orange brown, sandy silt and silty sand with frequent flint gravel
3	pit	339	335		quarry, Plot 2				lenses of brown, grey brown and orange brown sandy silt with frequent flint gravel
3	pit	339	336		quarry, Plot 2				yellow brown, loose sand with frequent flint gravel
3	pit	339	337		quarry, Plot 2				brown, loose silty sand with frequent flint gravel
3	pit	339	338		quarry, Plot 2				greenish olive brown, loose silt with occasional gravel
3	pit	339	339		quarry, Plot 2	1.8	1.5	1.5	
3	pit	382	382		quarry, Plot 2	1.7	1.8	1.05	
3	pit	382	383		quarry, Plot 2				mid brown, firm clay with occasional small angular stones
3	pit	382	388		quarry, Plot 2			0.25	mid brown, firm clay with occasional sub-rounded stone
3	pit	382	389		quarry, Plot 2			0.4	mid green grey and mid yellow fine sand with occasional rounded stone <4mm
3	pit	382	390		quarry, Plot 2			0.1	mid yellow and mid grey green, firm sand with occasional sub-angular stone <20mm
3	pit	382	391		quarry, Plot 2			0.3	mid gree grey, firm clay with rare rounded and sub-angular stones
3	pit	446	446				1.1	0.2	
3	pit	446	447						dark greenish grey, firm sandy clay with sub-angular stones
3	pit	448	448			2.4	1.3	0.36	
3	pit	448	449						dark green grey, firm sandy clay with occasional rounded stones and rare small sub-singular stones
3	pit	463	462				1.6	0.32	dark grey brown, soft clayey silt with rare stones

Period	Type	Cut	Ctxt	Tr	Function	Lgth	Bdth	Dpth	Other Comments
3	pit	463	463				1.6	0.32	
3	pit	465	464				1.9	0.29	dark grey brown, sandy silt with very occasional small stones
3	pit	465	465				1.9	0.29	
3	pit	467	466					0.12	dark grey brown, soft sandy silt
3	pit	467	467					0.12	
3	pit	469	468					0.17	dark grey brown, soft sandy silt with occasional charcoal flecks and small stones
3	pit	469	469					0.17	
3	pit	519	519		quarry, Plot 1	1.8	1.2	1.4	
3	pit	519	520		quarry, Plot 1	1.4		0.21	black, loose silt with charcoal inclusions
3	pit	519	521		quarry, Plot 1	1.3		0.3	light yellow grey, loose sandy silt with gravel inclusions
3	pit	519	535		quarry, Plot 1	1.2		0.15	dark grey, loose silt with rare gravel
3	pit	519	539		quarry, Plot 1	1.1		0.1	black, loose silt
3	pit	519	547		quarry, Plot 1	0.4		0.3	light yellow, loose silt with gravel
3	pit	519	550		quarry, Plot 1	1.1		0.2	mid grey, firm silt with clay inclusions
3	pit	519	564		quarry, Plot 1	1.1		0.1	mid grey brown, loose silt
3	pit	519	565		quarry, Plot 1	1.3		0.25	mid grey, loose silt with clay inclusions
3	pit	519	566		quarry, Plot 1	1.4		0.25	light grey brown, loose silt
3	pit	519	567		quarry, Plot 1	1.4		0.8	dark grey, firm silt
3	pit	519	568		quarry, Plot 1	1.4		0.5	very dark grey, firm silt
3	pit	561	561		quarry, Plot 1	1.5	1.3	1.5	
3	pit	561	583		quarry, Plot 1	0.6		0.25	dark grey, firm silt with rare gravel inclusions
3	pit	561	584		quarry, Plot 1	0.6		0.2	dark grey, firm silt with rare stone inclusions
3	pit	561	585		quarry, Plot 1	0.6		0.3	1970's pile
3	pit	561	586		quarry, Plot 1	0.6		0.2	mid grey, firm silt
3	pit	561	587		quarry, Plot 1	0.6		0.45	dark grey, loose silt with rare chalk inclusions
3	pit	561	588		quarry, Plot 1	0.6		0.35	dark orange brown, loose silt with sand inclusions
3	pit	561	589		quarry, Plot 1	0.45		0.1	mid grey, firm silt with clay inclusions
3	pit	561	590		quarry, Plot 1	0.45		0.2	dark grey, very firm silt with clay and stone inclusions
3	pit	600	600				0.7	0.25	
3	pit	600	601				0.7	0.25	light brown, firm silt with rare stone and chalk inclusions
3	posthole	408	406		Structure 1				brown, loose sandy silt with occasional gravel
3	posthole	408	407		Structure 1				white and brown mix, loose sandy silt with frequent chalk gravel
3	posthole	408	408		Structure 1	0.35	0.35	0.4	
3	posthole	410	409		Structure 1	0.25	0.25	0.08	white and brown mix, loose sandy silt with frequent chalk gravel
3	posthole	410	410		Structure 1	0.25	0.25	0.08	
3	posthole	412	411		Structure 1	0.25	0.25	0.08	brown, loose sandy silt with frequent chalk gravel
3	posthole	412	412		Structure 1	0.25	0.25	0.08	
3	posthole	414	413		Structure 1	0.22	0.22	0.1	greyish brown, loose sandy silt with occasional gravel and charcoal fragments
3	posthole	414	414		Structure 1	0.22	0.22	0.1	
3	posthole	416	415		Structure 1	0.33	0.33	0.15	brown, loose sandy silt with occasional gravel
3	posthole	416	416		Structure 1	0.33	0.33	0.15	
3	posthole	418	417		Structure 1	0.25	0.25	0.15	brown, loose sandy silt with occasional gravel and chalk
3	posthole	418	418		Structure 1	0.25	0.25	0.15	
3	posthole	422	421		Structure 1	0.4	0.4	0.09	greyish brown, loose sandy silt with frequent gravel, charcoal, mortar and brick fragments
3	posthole	422	422		Structure 1	0.4	0.4	0.09	
3	posthole	424	423		Structure 1	0.4	0.4	0.07	greyish brown, loose sandy silt with frequent gravel, brick and tile fragments
3	posthole	424	424		Structure 1	0.4	0.4	0.07	
3	posthole	426	425		Structure 1	0.5	0.5	0.17	white and blueish grey, loose chalky silt with chalk gravel
3	posthole	426	426		Structure 1	0.5	0.5	0.17	

Period	Type	Cut	Ctxt	Tr	Function	Lgth	Bdth	Dpth	Other Comments
3	posthole	432	431		Structure 1	0.29	0.26	0.25	mid dark grey brown, soft sandy silt
3	posthole	432	432		Structure 1	0.29	0.26	0.25	
3	posthole	434	433		Structure 1	0.3	0.3	0.05	brown, loose sandy silt with frequent chalk gravel
3	posthole	434	434		Structure 1	0.3	0.3	0.05	
3	posthole	436	435		Structure 1	0.4		0.29	dark brownish grey, fine clayey silt with rare chalk flecks
3	posthole	436	436		Structure 1	0.4		0.29	
3	posthole	442	441		Structure 1	0.3	0.34	0.1	dark brownish grey, friable clayey silt with rare 10mm diameter rounded stone and charcoal flecks
3	posthole	442	442		Structure 1	0.3	0.3	0.1	
3	posthole	453	452		Structure 2	0.4	0.25	0.03	dark grey, moderately compact silty clay with occasional charcoal flecks
3	posthole	453	453		Structure 2	0.4	0.25	0.03	
3	posthole	455	454		Structure 2	0.48	0.29	0.1	dark grey, moderately compact silty clay with occasional chalk flecks and one clunch stone
3	posthole	455	455		Structure 2	0.48	0.29	0.1	
3	posthole	471	470		Structure 1	0.4	0.35	0.15	mid grey brown, soft sandy silt
3	posthole	471	471		Structure 1	0.4	0.35	0.15	
3	posthole	472	472		Structure 2		0.4	0.1	
3	posthole	472	473		Structure 2		0.4	0.1	dark red brown, firm sandy clay with occasional sub-angular stones <10mm
3	posthole	474	474		Structure 2		0.3	0.1	
3	posthole	474	475		Structure 2		0.3	0.1	dark grey brown sandy silt with rare angular stones <10mm
3	posthole	501	501		Structure 1	0.2		0.07	
3	posthole	501	502		Structure 1	0.2		0.07	dark brownish grey, fine sandy silt with occasional sub-angular stones <20mm
3	posthole	503	503		Structure 1	0.2		0.08	
3	posthole	503	504		Structure 1	0.2		0.08	dark brownish grey, loose fine sandy silt with occ sub-angular stones <20mm
4.1	layer		20	2				0.4	mid brown grey, firm sandy silt with reddish lenses, moderate pebbles and occasional sub-rounded stones and flints
4.2	layer		49	1			0	0.2	
4.1	layer		50	1				0.35	dark grey brown, sandy silt
4.1	layer		137			1.4	2.4	0.05	dark brownish moderately compact grey, silty clay with moderate charcoal, frequent CBM and moderate mortar
4.1	layer		200					0.2	mid orange brown, moderately compact silty sand with occasional charcoal flecks, occasional chalk flecks and lumps
4.1	layer		210					0.4	mid dark grey brown, friable sandy silt
4.1	layer		675					0.2	light grey, compact fine sandy silt with occasional sub-angular stones <20mm
4.1	layer		676					0.17	light brown, compact fine slightly silty sand with occasional sub-angular stones <20mm
4.2	ditch	172	171		boundary		1.2	0.26	mid grey brown, friable sandy silt with very rare small stones
4.2	ditch	172	172		boundary		1.2	0.26	
4.2	pit	5	1	3	?quarry			0.48	dark blueish grey, soft and loose clayey silty sand with frequent brick and stone fragments
4.2	pit	5	2	3	?quarry		0.11	0.38	light yellow grey, soft sand
4.2	pit	5	3	3	?quarry		0.12	0.46	mid brown orange, soft silty sand with frequent fine gravel
4.2	pit	5	4	3	?quarry		1.26	0.56	dark brownish grey, firm silty sandy clay with occasional stones and brick fragments
4.2	pit	5	5	3	?quarry			0.9	
4.2	pit	40	40	6			2.3	0.6	
4.2	pit	40	41	6			0		dark reddish grey brown, firm sandy silt with occasional stones
4.2	pit	214	214				0.75	0.14	
4.2	pit	214	215						mid brown grey, firm sandy clay with moderate broken brick and occasional light grey chalky clay
4.2	pit	216	216			0.4	0.4	0.15	
4.2	pit	216	217						dark grey, firm sandy silt with rare inclusions of light grey clay,

Period	Type	Cut	Ctxt	Tr	Function	Lgth	Bdth	Dpth	Other Comments
									10mm diameter
4.2	pit	645	636		?quarry			0.3	mid yellowish orange grey, soft clayey sand
4.2	pit	645	637		?quarry			0.27	mid light grey, soft clayey sand with occasional small grit
4.2	pit	645	638		?quarry		0.71	0.08	mid reddish brown, firm sand with frequent coarse gravel
4.2	pit	645	639		?quarry			0.35	mid orangey grey, soft silty clayey sand with occasional small stones
4.2	pit	645	640		?quarry		0.57	0.11	mid dark, firm sandy clay with frequent coarse gravel
4.2	pit	645	641		?quarry		2.15	0.58	mid light yellowish brown, soft silty clayey sand with occasional fine grit
4.2	pit	645	642		?quarry		1.93	0.17	mid grey, soft clayey sand
4.2	pit	645	643		?quarry		1.17	0.09	mid orangey brown, firm silty sand with occasional gravel
4.2	pit	645	644		?quarry			0.11	mottled brownish yellow, firm silty clayey sand with occasional gravel
4.2	pit	645	645		?quarry			0.92	
4.2	posthole	165	165		Building 1	0.35	0.38	0.2	
4.2	posthole	165	166		Building 1	0.32		0.15	mid grey, fine compacted sandy silt with occasional sub-angular stones <30mm
4.2	posthole	165	167		Building 1	0.35	0.38	0.07	Off-white, compacted mortar with moderate angular stones <40mm
4.2	posthole	246	246				0.4	0.3	
4.2	posthole	246	247				0.4	0.3	mid greenish brown, loose sand, occasional stone angular of <10mm
4.2	posthole	250	250		Building 1		0.22	0.05	
4.2	posthole	250	251		Building 1		0.22	0.05	mid whitish-yellow, soft frequent clay, moderate silt with occasional flints of <30mm
4.2	posthole	252	252		Building 1		0.4	0.3	
4.2	posthole	252	253		Building 1		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	posthole	254	254		Building 1		0.36	0.06	
4.2	posthole	254	255		Building 1		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	posthole	256	256		Building 1		0.25	0.11	
4.2	posthole	256	257		Building 1		0.25	0.11	mid whitish yellow, soft frequent clay, moderate silt with occasional flints of <10mm
4.2	posthole	258	258		Building 1		0.5	0.3	
4.2	posthole	258	259		Building 1		0.5	0.3	mid whitish-yellow, soft frequent clay, moderate silt with occasional small flints of <10mm - some fine grit / ash
4.2	posthole	260	260		Building 1		0.4	0.14	
4.2	posthole	260	261		Building 1		0.4	0.14	mid purplish brown, soft silty clay with small flints of <10mm
4.2	posthole	262	262		Building 1		0.3	0.1	
4.2	posthole	262	263		Building 1		0.3	0.1	mid purplish brown, soft silty clay with some small flints of <10mm - some fine grit / ash
4.2	posthole	288	286		Building 1	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	posthole	288	287		Building 1	0.4	0.33	0.33	mid brownish grey friable clayey silt with frequent sub-rounded gravel 20-50mm diameter
4.2	posthole	288	288		Building 1	0.57	0.6	0.38	
4.2	posthole	290	289		Building 1	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	posthole	290	290		Building 1	0.59	0.47	0.3	
4.2	posthole	626	626				0.3	0.4	
4.2	posthole	626	627				0.3	0.4	mid orangey brown, plastic silty sand with moderate gravel <20mm
4.2	stake hole	264	264		Building 1		0.06		
4.2	stake hole	265	265		Building 1		0.06		
4.2	stake hole	266	266		Building 1		0.06		

Period	Type	Cut	Ctxt	Tr	Function	Lgth	Bdth	Dpth	Other Comments
4.2	well	0	652		?Disturbed layer over 2.2 well		1.9	0.15	mid greenish grey, plastic silty clay with gravels and chalk fragements
5.1	pit	48	47	1		0			
5.1	pit	48	48	1		1.1	1	1.1	
5.1	cellar	285	284		Building 4	0			mid orange brown, friable sandy silt
5.1	cellar	285	285		Building 4			0.4	
5.1	construction	222	244		?Building 4				light grey, indurate lime mortar
5.1	construction trench	222	222		?Building 4	1	0.6	0.08	
5.1	construction trench	222	245		?Building 4				mid brown, firm clay sand
5.1	culvert	693	692		drain			0.4	
5.1	culvert	693	693		drain	0			
5.1	floor	392	397		Building 5			0.14	light grey, firm clay
5.1	floor		398		Building 5				red and yellow CBM tile
5.1	floor	392	399		Building 5	0.23	0.23	0.04	light yellow CBM flooring tile
5.1	pit	10	6	3			0.28	0.1	dark grey, firm silty clay with occasional stone and frequent charcoal
5.1	pit	10	7	3			0.46	0.16	mid reddish, soft silty sandy clay with occasional small stones
5.1	pit	10	8	3			0.42	0.04	mid yellow brown, soft sand
5.1	pit	10	9	3			0.4	0.09	mid greenish brown, soft silty sand
5.1	pit	10	10	3		0.46	0.35	0.27	
5.1	pit	114	108		Structure 3	0.83	0.66	0.5	mid greenish brown, soft clayey silty sand with occasional very fine gravel
5.1	pit	114	109		Structure 3		0.48	0.03	very dark black, firm clay
5.1	pit	114	110		Structure 3		0.37	0.44	mid brownish grey, soft clayey sand with occasional gravel
5.1	pit	114	111		Structure 3		0.91	0.49	light whitish grey, firm to hard clay and chalk with frequent grit
5.1	pit	114	112		Structure 3		0.67	0.02	very dark blue, firm clay
5.1	pit	114	113		Structure 3		0.82	0.47	mid orangey grey brown, moderately compact to soft clayey silty sand with occasional gravel
5.1	pit	114	114		Structure 3	0.83	0.91	1.2	
5.1	pit	149	149						
5.1	pit	149	150						mid grey, loose fine sandy silt with occasional sub-angular stones <60mm
5.1	pit	160	159			0.94	0.4	0.15	very dark grey brown, friable sandy silt with frequent china pottery
5.1	pit	160	160			0.94	0.4	0.15	
5.1	pit	161	161			1	0.6	0.34	
5.1	pit	161	162			1	0.6	0.34	mid brownish grey, slightly compacted fine sandy clayey grey with occasional sub-angular stones <30mm
5.1	pit	212	212			0.45	0.45	0.15	
5.1	pit	212	213						mid reddish brown, loose sand with rare light grey clay inclusions
5.1	pit	276	276			0.25	0.25	0.05	
5.1	pit	281	280		Pig burial	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	pit	281	281		Pig burial	1.56	0.8	0.51	
5.1	pit	281	352		Pig burial	1.2	0.8	0.3	mottled mid brownish orange and mid brownish grey, firm clayey silt with occasional sub-angular 10-30mm diameter gravel
5.1	pit	281	405		Pig burial	1.37	0.66	0.1	articulated animal skeleton
5.1	?pit	294	293				0.58	0.5	light grey brown, loose slit sand with frequent mortar flecks and small stones
5.1	?pit	294	294				0.58	0.5	
5.1	pit	296	295				0.56	0.16	light grey brown, firm silt sand with very frequent patches of mortar rubble

Period	Type	Cut	Ctxt	Tr	Function	Lgth	Bdth	Dpth	Other Comments	
5.1	pit	298	297			0.6	0.4	0.1	dark grey brown, firm sand silt with frequent charcoal flecks, rubble, small stones	
5.1	pit	298	298			0.6	0.4	0.1		
5.1	pit	324	323			1.2		0.56	mid grey, friable clayey silt with frequent tiles and brick rubble of 30-150mm in diameter	
5.1	pit	324	324			1.2		0.56		
5.1	pit	348	348			1.1	0.85	0.18		
5.1	pit	348	349			1.1	0.85	0.18	mid greyish brown, compact fine sandy silt with moderate charcoal fragments and mortar fragments	
5.1	pit	350	350			1	0.7	0.28		
5.1	pit	350	351			1	0.7	0.28	mid grey, compacted fine sandy silt with frequent mortar and brick fragments	
5.1	pit	366	365			0.67	0.57	0.09	light greyish blue, soft clay with rare chalk flecks	
5.1	pit	366	366			0.67	0.57	0.09		
5.1	pit	369	367			0.76	0.66	0.1	light greyish white, friable clayey silt with frequent chalk flecks and occasional 10mm diameter gravel	
5.1	pit	369	368			1.4	0.32	0.12	mid greyish brown, friable clayey silt with occasional 10mm gravel / stone rounded rare charcoal flecks	
5.1	pit	369	369			1.46	0.66	0.25		
5.1	posthole	116	115		Structure 3			0.25	0.1	dark grey, moderately compact clayey sand with occasional gravel
5.1	posthole	116	116		Structure 3			0.35	0.1	
5.1	posthole	118	117		Structure 3			0.22	0.08	dark grey, moderately compact clayey sand with occasional gravel
5.1	posthole	118	118		Structure 3			0.22	0.08	
5.1	posthole	130	129			0.38	0.2	0.18	light grey, firm clay with occasional angular stone 10mm diameter	
5.1	posthole	130	130			0.38	0.2	0.18		
5.1	posthole	154	153		?fence line	0.78	0.6	0.08	very dark grey brown, friable sandy silt	
5.1	posthole	154	154		?fence line	0.78	0.6	0.08		
5.1	posthole	158	157		?fence line	0.92	0.6	0.17	very dark grey brown, friable sandy silt with brick and roof tile	
5.1	posthole	158	158		?fence line	0.92	0.6	0.17		
5.1	posthole	163	163			0.4	0.4	0.12		
5.1	posthole	163	164			0.4	0.4	0.12	mid grey, compacted fine sandy clayey silt with moderate sub-rounded and sub-angular stones <40mm	
5.1	posthole	248	248			0.4	0.3	0.14		
5.1	posthole	248	249			0.4	0.3	0.14	mid greyish brown, compacted fine sandy silt, frequent mortar of <40mm	
5.1	posthole	268	267		Structure 7					olive brown, loose sandy silt with frequent flint gravel, oyster and mussel shell frags
5.1	posthole	268	268		Structure 7	0.28	0.28	0.12		
5.1	posthole	270	269		Structure 7	0				olive brown, loose sandy silt with frequent flint gravel, oyster and mussel shell frags
5.1	posthole	270	270		Structure 7	0.3	0.3	0.2		
5.1	posthole	272	271		Structure 7	0				olive brown, loose sandy silt with frequent flint gravel, oyster and mussel shell frags
5.1	posthole	272	272		Structure 7	0.35	0.35	0.15		
5.1	posthole	276	275		Structure 7					dark grey, loose silty sand with frequent flint gravel
5.1	posthole	278	277		Structure 7	0				2 bricks at base of heavily truncated post to form a post pad
5.1	posthole	278	278		Structure 7	0.25	0.25	0.07		
5.1	posthole	292	291		Building 3		0.4	0.3		dark grey brown, firm clay silt with frequent mortar flecks
5.1	posthole	292	292		Building 3		0.4	0.3		
5.1	posthole	310	309		Building 3		0.42	0.18		light grey brown, firm clay silt with very frequent mortar and rubble fragments
5.1	posthole	310	310		Building 3		0.42	0.18		
5.1	posthole	315	314				0.3	0.47		frequent chalk with moderate dark orange brown, friable sandy silt and rare brick and stones
5.1	posthole	315	315				0.3	0.47		

Period	Type	Cut	Ctxt	Tr	Function	Lgth	Bdth	Dpth	Other Comments
5.1	posthole	320	319		Building 3	0.3	0.31	0.12	mid blueish grey, firm silty clay with occasional red brick fragments of 20-50mm diameter
5.1	posthole	320	320		Building 3	0.3	0.31	0.12	
5.1	posthole	328	325		Building 3	0.42	0.37	0.1	mid blueish grey, plastic silty clay with occasional 20-50mm red brick fragments
5.1	posthole	328	326		Building 3	0.19	0.22	0.09	light yellowish white, firm clay with rare silty clay flecks
5.1	posthole	328	327		Building 3	0.33	0.23	0.26	dark grey, friable clayey silt with occasional 20mm diameter mortar inclusions
5.1	posthole	328	328		Building 3	0.42	0.37	0.38	
5.1	posthole	332	329		Building 3	0.31	0.26	0.08	mid blueish grey, plastic silty clay with occasional 10mm diameter sub-rounded gravel
5.1	posthole	332	330		Building 3	0.18		0.03	light yellowish white, firm clay with rare silty clay flecks
5.1	posthole	332	331		Building 3	0.31		0.22	dark greenish grey, friable clayey silt with rare brick fragments of 10-20mm diameter
5.1	posthole	332	332		Building 3	0.31	0.27	0.32	
5.1	posthole	341	340		Structure 7				orange brown, loose silty sand with frequent flint gravel and medieval and post-medieval bricks
5.1	posthole	341	341		Structure 7	0.6	0.6	0.18	
5.1	posthole	343	342		Building 3		0.43	0.2	light grey brown, firm clay silt with moderate mortar flecks and rubble
5.1	posthole	343	343		Building 3		0.43	0.2	
5.1	posthole	358	357		Building 3		0.55	0.25	light grey brown, firm clay silt with frequent mortar patches
5.1	posthole	358	358		Building 3		0.55	0.25	
5.1	posthole	361	361		Structure 4	0.55	0.7	0.3	
5.1	posthole	361	362		Structure 4	0.55	0.7	0.3	mid greyish brown, firm silty sandy clay with frequent 50-60mm chalk fragments
5.1	posthole	363	363		Structure 4	0.25	0.25	0.23	
5.1	posthole	363	364		Structure 4	0.25	0.25	0.23	mid greyish brown, firm silty sandy clay with frequent 50-60mm chalk fragments
5.1	posthole	570	569		Structure 7	0.26	0.18	0.07	mid grey, friable sand silt with rare small stones
5.1	posthole	570	570		Structure 7	0.26	0.18	0.07	
5.1	posthole	572	571		Structure 7	0.42	0.38	0.15	mixed black charcoal and mid grey brown silt with brick inclusions
5.1	posthole	572	572		Structure 7	0.42	0.38	0.15	
5.1	posthole	574	573		Structure 7	0.5	0.16	0.14	mid brown, friable sandy silt with very rare charcoal flecks and small stones
5.1	posthole	574	574		Structure 7	0.5	0.16	0.14	
5.1	posthole	576	575		Structure 7	0.5	0.38	0.22	
5.1	posthole	576	576		Structure 7	0.5	0.38	0.22	
5.1	posthole	578	577		Structure 7	0.66	0.48	0.15	mid brown, friable sandy silt
5.1	posthole	578	578		Structure 7	0.66	0.48	0.15	
5.1	posthole	599	598		Structure 5	0.25		0.15	light brown, firm silt with chalk inclusions
5.1	posthole	599	599		Structure 5	0.25	0.25	0.15	
5.1	posthole	629	628		Structure 6		0.3	0.26	light yellow brown, friable silt sand with frequent rubble and stones
5.1	posthole	629	629		Structure 6		0.3	0.26	
5.1	posthole	632	632		Structure 5	0.45	0.5	0.35	
5.1	posthole	632	633		Structure 5	0.45		0.35	mid grey, firm silt with white chalk
5.1	posthole	653	651		Structure 6	0.46		0.2	mid grey brown, friable sandy silt with frequent chalk fragments and rare stones
5.1	posthole	653	653		Structure 6	0.46		0.2	
5.1	posthole	659	658		Structure 6		0.4	0.45	dark grey brown, friable clay sand with frequent small stones and rubble
5.1	posthole	659	659		Structure 6		0.4	0.45	
5.1	posthole	668	668		Structure 6	0.55	0.35	0.2	
5.1	posthole	668	669		Structure 6	0.55	0.35	0.2	mixed white and light brown, compact mortar and fine sand with occasional sub-angular stones <20mm
5.1	posthole	670	670		Structure 6	0.35	0.3	0.2	

Period	Type	Cut	Ctxt	Tr	Function	Lgth	Bdth	Dpth	Other Comments
5.1	posthole	670	671		Structure 6	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	posthole	672	672		Structure 6	0.5	0.5	0.35	
5.1	posthole	672	673		Structure 6	0.45		0.2	mid grey, compact fine sandy silt with occasional sub-angular stones <20mm
5.1	posthole	672	674		Structure 6	0.5	0.5	0.15	white and light brown, compact fine sandy silt with frequent mortar and occasional sub-angular stones <20mm
5.1	service trench	148	147		backfill		0.7		dark brownish grey, moderately compact silty clay with frequent mortar
5.1	structure	222	223		?Building 4				light yellow, brick
5.1	structure	222	224		?Building 4				mid brown, firm clay sand
5.1	foundation trench	21	21	2	Building 2		0.82	0.28	
5.1	foundation trench	21	22	2	Building 2			0.28	mid greyish brown, firm sandy silt with occasional gravel and small stones
5.1	wall	21	23	2	Building 2		0.47	0.23	White, compact chalk clunch
5.1	?wall		33	2	Building 2	0.4	0.26	0.12	chalk lumps packed with mid yellowy grey clay with chalky flecks
5.1	wall	42	42	6		1.1	0.7	0.1	
5.1	wall	42	43	6		1.1	0.7		stone and orange sandy mortar wall
5.1	wall	695	694		Building 2	0			
5.1	wall	695	695		Building 2	0			
5.1	wall		355		Building 4	0			
5.1	wall		356		Building 4	0			
5.1	wall		359		Building 4		0.25		white, friable chalk
5.1	wall	392	392		Building 5				
5.1	wall	392	393		Building 5				dark red brown, indurate mortar
5.1	wall	392	395		Building 5	0.5	0.06	0.18	mid red yellow, loose sand with moderate angular stones
5.1	Wall	400	394		Building 5				light yellow bricks
5.1	mortar		401		Building 5				lime mortar used to bond brick wall
5.1	well	107	104		Structure 3				
5.1	well	107	105		Structure 3				pinkish yellow bricks
5.1	well	107	106		Structure 3				dark blueish grey, firm silty clayey sand with occasional small gravel
5.1	well	107	107		Structure 3				
5.1	well	595	594						mixed rubble backfill in centre, blue grey clay around the edges
5.1	well	595	595						
5.1	well	697	697		Structure 4	1.86			Yellow brick 18th or 19th century
5.2	layer		15	5	levelling			0.4	mid brown, sandy silt with lenses of crushed brick and gravel
5.2	layer		25	2	?garden soil			0.16	pale yellowish grey, loose silty sand with frequent rubble
5.2	layer		26	2	?garden soil				mid whitish grey, loose silty sand with occasional gravel
5.2	layer		27	2	?garden soil			0.2	mid yellowish red brown, loose sand with moderate gravel
5.2	layer		30	2	?garden soil				dark brown grey, loose silt with rubble
5.2	layer		54	1	?garden soil			1	
5.2	layer		192		?garden soil			0.12	mid brownish yellow, clayey silt with frequent limestone, 50-150mm in diameter
5.2	layer		396		?garden soil			0.09	mid brownish grey, fine sandy silt with rare sub-angular stones >1mm
5.2	layer		400		?garden soil				mid grey, firm clay with occasional rounded stones
5.2	?posthole	44	44	6			0.55	0.23	
5.2	?posthole	44	45	6				0.13	dark grey brown, firm sandy silt with moderate chalk and mortar
5.2	?posthole	44	46	6				0.1	white and brown, compact silty chalk
5.2	brick feature	135	135		?shed		0.95		Brick is mortared with concrete- mid 19th +
5.2	Brick		689			0.42	0.38		Sub-square brick plinth

Period	Type	Cut	Ctxt	Tr	Function	Lgth	Bdth	Dpth	Other Comments
	plinth								
5.2	Brick plinth		690			0.6	0.52		Brick plinth
5.2	cellar		691		on 1904 map	2	2	0.56	Sub-square brick cellar
5.2	Drain	122	122			0	0.85	0.5	
5.2	Drain	122	123				0.85	0.5	Beige / yellow, compact crushed mortar and coarse sand with occasional brick fragments
5.2	drain	148	148				0.7		
5.2	floor		354		on 1904 map				white chalk floor
5.2	floor		360						white, friable chalk
5.2	floor	657	656					0.04	light grey white, hard chalk
5.2	floor	657	657					0.04	
5.2	pit	101	100			1.27	0.65		mid brownish grey loose silt with gravel
5.2	pit	101	101			1.27	0.65		
5.2	pit	136	134			2.8	1.8	0.1	dark blackish grey, moderately compact silty clay with frequent charcoal, CBM, wood and occasional plastic
5.2	pit	136	136			2.8	1.8	0.1	
5.2	pit	146	145			1.1	1.2	0.55	mid dark grey, loose clayey sand with occasional charcoal and concrete and lots of roots
5.2	pit	146	146			1.1	1.2	0.53	
5.2	pit	156	155			1.5	0.73	0.75	dark greenish grey, loose clayey silt with 30-100mm diameter sub-angular brick inclusions
5.2	pit	156	156			1.5	0.73	0.75	
5.2	service		17 5				1.7	0.7	
5.2	soakaway	597	596			0			blue grey clay
5.2	soakaway	597	597						
5.2	wall		16 5		on 1886 map				Concrete and brick wall
5.2	wall		24 2		on 1904 map		0.2	0.07	orangey yellow, sandy gravel
5.2	wall		28 2		?Coldham Terrace			0.12	chalk used as foundation wall?
5.2	?wall		29 2		?Coldham Terrace	0		0.05	brick ?wall
5.2	wall		51 1		on 1904 map				Red brick
5.2	wall		52 1		Coldham Terrace				brick wall
5.2	wall		53 1		Coldham Terrace				brick wall
5.2	wall / levelling	322	321			2.2		0.4	mid yellow, friable frequent sub-angular sandstone fragments of 50-150mm diameter and moderate clayey silt
5.2	wall / levelling	322	322			2.2		0.4	
5.2	wall		353		on 1904 map				c. 19th century brick wall
0	natural	296	296			0.6	0.56	0.16	
0	pit	140	138					0.35	mid orange and mid yellow, moderately compact sandy clay
0	pit	140	139					0.4	dark blackish grey, moderately compact sandy gravel with occasional chalk and charcoal
0	pit	140	140				0.7	0.4	
0	posthole	142	141		backfill	0.6	0.35	0.05	mid grey, moderately compact silty clay with frequent chalk and occasional charcoal
0	posthole	142	142			0.6	0.35	0.05	
0	posthole	144	143		backfill	0.7	0.6	0.05	dark brownish grey, moderately compact silty clay with occasional mortar
0	posthole	144	144			0.7	0.6	0.05	
0	posthole	630	630			0.45	0.5	0.15	
0	posthole	630	631			0.45		0.15	white and grey, firm grey silt with frequent chalk
0	posthole	634	634			0.5	0.4	0.28	
0	posthole	634	635			0.5		0.28	dark orange, firm silt with frequent chalk

Period	Type	Cut	Ctxt	Tr	Function	Lgth	Bdth	Dpth	Other Comments
0	posthole	648	647		?structure	0.26	0.25	0.11	green brown, friable sandy silt with occasional small stones
0	posthole	648	648		?structure	0.26	0.25	0.11	
0	posthole	650	649		?structure	0.22	0.17	0.05	light mid grey brown, friable sandy silt with frequent white chalk fragments
0	posthole	650	650		?structure	0.22	0.17	0.05	

Table 1: *Context list by period and feature type*

APPENDIX B. FINDS REPORTS

B.1 Worked Stone

By Ruth Shaffrey

Summary and Quantification

- B.1.1 Twenty-seven pieces of stone were recorded and mostly comprise architectural / building stone in contexts of reuse, along with two quern fragments. Twenty-five fragments were recovered from medieval Periods 2.2 and 3 contexts and just two were from Period 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 Period 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 stone roofing from the site. The side walls of this feature 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 Sf 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 (Fig. 17, SF 17) and another piece of indeterminate form bearing two decorative scrolls (Fig. 17, 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 (Period 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 Period 2.2 well fill 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 (Fig. 17, 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 (Period 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 cesspit 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.

Catalogue of worked stone

Ctxt	SF	Type	Fig/Description	Stone
225 (229)	17	Architectural	Fig 16; 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
228 (229)	24	Decorated architectural stone	Fig 16; Block, damaged but with two adjacent sides decorated with scrolls	Spar prominent oolitic limestone probably Portland
225 (229)		Hammerstone	Cobble with some percussion 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
225 (229)	55	Ashlar slab	Slab with single dressed edge and adjoining flat(ish) face	Coarse very shelly oolitic limestone, Portland

Ctxt	SF	Type	Fig/Description	Stone
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	Fig 16; Fragment, apparently deliberately broken into a triangle, possibly for use as opus sectile. However it has the remains of a moulded lip and a curved 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 limestone, definitely Lincolnshire, possibly Weldon
652	71	Rotary quern fragment	Small fragment of lava, presumably from a rotary quern although it is not diagnostic	Lava

Table 2: *Catalogue of stone*

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.

Results

- B.2.2 The earliest item in the assemblage is an Iron Age ceramic spindlewhorl from ditch fill (545), but it cannot be more closely dated (Fig. 18, no.1; SF 28). Most purpose-made Iron Age whorls are idiosyncratic in terms of fabric and firing, and often also of form (e.g. Wainwright 1979, fig. 76, 4033, fig. 77, 4013, fig. 78, 4001, 4008, 4030), and this example is no exception. Quite roughly formed, it would nevertheless have operated well on its wooden spindle. As with loomweights, in terms of occupation and land-use in the area it represents the keeping of sheep or goats for wool as well as meat, the production of thread, and the weaving of fabric on an upright warp-weighted loom (Crummy *et al.* 2007, 43).
- B.2.3 The remaining objects all come from medieval or later contexts, with most coming from Periods 2.2 or 3; objects from Period 5.1 are listed in archive. In terms of function they are quite varied, but the assemblage is dominated by iron nails (Table 3). Most objects come from pit fills, with only one or two pieces recovered from the features, suggesting that they were scraped up with topsoil when the pits were backfilled. The exceptions are pits **218** (Period 2.2) and **519** (Period 3), which seem to have been used to some degree for deliberate rubbish disposal.
- B.2.4 Only nine objects come from Period 2.1: seven nails (Table 4), a hinge strap and a piece of copper-alloy wire from making pins with wound-wire heads (Fig. 18, no. 5; SF 174). The nails and hinge strap probably derive from earlier buildings in the vicinity. The small quantity of pin-making debris suggests that the focus of this craft activity may have been nearby rather than on the Coldhams Lane site itself. A similar piece of pin-making debris from Winchester came from a context unlikely to be earlier than the 13th century (Rees *et al.* 2008, 358, fig. 197). Both the Cambridge and Winchester fragments were found on suburban sites, suggesting that they may have been taken out of the towns in midden waste.
- B.2.5 Over a third of the assemblage came from Period 2.2 (39 %). Again the bulk of the items are iron nails (Table 4), but there are also three dress accessories (two pins and a small bar-mount), a pin-beater, a hone, a key and probably lock fragments, and a fragment of blacksmithing waste, as well as four small pieces of metal scrap. Many of these pieces came from pit **218**, and the contextual association of a key (Fig. 18, no. 4; SF 26) and lock fragments (SF 62) suggest that the feature was used for the disposal of domestic rubbish. The long curved pin-beater is also from pit **218** (Fig. 18, no. 2; SF 22) and was used in weaving, probably on a two-beam vertical loom. Its form and rough upper face conform to Walton Rogers's observation that this type of beater was gripped mid-shank and used to beat downwards; the form probably stopped being used in the 13th or 14th century (Walton Rogers 1997, 1755-7). The piece of blacksmithing debris is from pit **103** and residual. A small offcut of bloomery iron (SF 188), it is similar to

offcuts found on the nearby former Cambridge Regional College site and may be waste from the same smithy (Atkins 2012a, 15-16). In general the Periods 2.2 objects are typical of medieval urban occupation but their low numbers and scattered find-spots do not imply either intensive or wealthy domestic activity. The hone fragment, however, is an import from Norway and represents access to trade networks (Fig. 18, no. 3; SF 47). Of blue (purple) phyllite, probably from a source on the south-east of Norway (Tweddle 1986, 185), it is an unusually large example for this stone type, which was generally used for small hones that were often pierced for suspension (Rees *et al.* 2008, 325-6; Ottway and Rogers 2002, 2794-6).

- B.2.6 The objects from Period 3 also represent over a third of the assemblage (43 %). They are in general character not markedly different from those in the Period 2.2 group, but there is a drop in the number of pieces of personal and domestic equipment, here reduced to a single knife blade (SF 29). Nails and small pieces of scrap again predominate, with the only evidence for craft activity being a small piece of iron-working debris (SF 68), undoubtedly residual in its context. A piece of gritstone architectural veneer points to a building of some quality nearby (SF 18), and a large iron ring probably derives from horse harness (SF 32). The only feature that may have been used for the deliberate disposal of rubbish is pit **519**, although its contents – the knife, ring, several nails, and the slag fragment – point to a working rather than domestic environment.
- B.2.7 The only objects from Period 4 are a single nail, a harness buckle and part of a horseshoe (Table 4; SFs 45 and 65), suggesting only very low level activity in the area over this period, perhaps merely passing traffic or some agricultural use of the land.

Period	Dress	Textile	Transport	Architect ural stone	Tools	Fittings	Nails	Metal- working	Miscellaneous	Total
2.1	-	-	-	-	-	1	7	1	-	9
2.2	3	1	-	-	1	2	14	1	4	26
3	-	-	1	1	1	-	20	1	5	29
3.2	-	-	-	-	-	-	-	-	-	0
4.1	-	-	1	-	-	-	1	-	-	2
4.2	-	-	1	-	-	-	-	-	-	1
Total	3	1	3	1	2	3	42	3	9	67

Table 3: *Small finds by function and Period*

Catalogue

Iron Age

B.2.8 *Textile production*

Fig. 18, no. 1; SF 28. (**545**), Period 1 ditch fill. Large crudely-formed spindlewhorl made of well-puddled clay with no inclusions and fired to buff apart from a patch of black on one side. One face is gently convex and the other is more or less flat, with a short, slightly chamfered, wall between the two. The spindle hole was made by pushing a stick through the clay from the convex side. Extra clay has been applied around and inside the hole to reduce it to a more even diameter. There are partial finger-prints on each face and half of the flat face is missing. Diameter 59 mm, height 20 mm; diameter of spindle hole 10 mm.

Medieval and later

B.2.9 Dress accessories

SF 173. (479), fill of Period 2.2 pit **481**. Fragment of a small copper-alloy bar-mount, with a rivet in the surviving end and broken across the rivet hole at the other end. Length 12 mm, width 3.5 mm; length of rivet 4 mm. Mounts of this type were used on both belts and horse harness; several from London are from contexts dated to the late 13th to early 14th century (Egan and Pritchard 1991, 209-13).

SF 25. (235), fill of Period 2.2 pit **218**. Two small copper-alloy dress pins with wound-wire heads. a) Type 1; length 44 mm. b) Type 2, the head worked into globular form; length 45 mm.

B.2.10 Textile production

Fig. 18, no. 2; SF 22. (238), fill of Period 2.2 pit **218**. Single-ended bone pin-beater, slightly curved along its length and varying from round in section at the tip to rectangular at the top. The surface is well-polished at the lower end and for the full length of the underside, but the upper side has been scorched along about half its length and rough tissue is exposed at the top. Length 118 mm, maximum width 7 mm.

B.2.11 Transport

SF 32. (550), fill of Period 3 pit **519**. Large iron ring, possibly from harness. Diameter 54 mm.

SF 65. (210), layer, Period 4.1. Branch from an iron horseshoe of Clark's late medieval to early post-medieval Type 4 (1995, 88-91, 96-7), with plain heel and wear at the toe. Length 94 mm, maximum width of web 30 mm.

SF 45. (652), fill of Period 4.2 well. Rectangular iron harness buckle, the tongue slid to one corner and fixed in the open position. Length 33 mm, width 42 mm.

B.2.12 Architectural stonework

SF 18. (225), fill of Period 3 cess pit or tank **229**. Fragment of a veneer strip of grey gritstone. Length 51 mm, width 31 mm, 12 mm thick.

B.2.13 Tools

Fig. 18, no. 3; SF 47. (477), fill of Period 2.2 pit **481**. Fragment of a large rectangular-section hone of blue phyllite, with wear on all surfaces and reduced in width at one end. Length 73 mm, section varies from 45 by 23 mm to 37 by 18 mm.

SF 29. (520), fill of Period 3 pit **519**. Fragment of an iron blade with whittle tang offset from both the edge and back. Both back and edge angle gently towards the tip. Length 82 mm, maximum width 17 mm.

B.2.14 Fittings

SF 15. (184), fill of Period 2.1 pit **190**. Tongue-ended iron hinge strap with part of a small loop at the inner end. Length 103 mm, width 31 mm.

Fig. 18, no. 4; SF 26. (232), fill of Period 2.2 pit **218**. Large iron rotary key from a mounted lock, with kidney-shaped bow and solid shank that does not extend beyond the bit. The bit is complex, with three clefts and six rectangular teeth on the outer edge. Length 135 mm, width at bit 31 mm, bow diameter 43 mm. At London and York several similar keys with oval bows and solid shanks ending level with the bit come from contexts dated to the later 14th to 15th century, contemporary with Period 2.2 at Coldhams Lane (Egan 1998, 113; Ottaway and Rogers 2002, 2872).

B.2.15 SF 62. (232), fill of Period 2.2 pit **218**. Two fitting fragments of iron sheet, probably the back-plate of a mounted lock. 109 by 76 mm.

SF	Context no	Context description	Period	Identification	Length
195	38	fill of pit 39	2.1	shank fragment	18
185	120	fill of pit 119	2.1	shank fragment	20
177	170	fill of pit 168	2.1	nail shank fragment	40
193	444	fill of pit 168	2.1	shank fragment	50
175	173	fill of pit/post hole 174	2.1	flat round head	-
182	602	fill of pit/well 579	2.1	flat square head	-
37	427	fill of pit 428	2.1	nail with convex round head	31
36b	102	fill of pit 103	2.2	nail shank fragment	27
187	102	fill of pit 103	2.2	3 shank fragments	41, 32, 23
183	380	fill of pit 182	2.2	shank fragment	29
178	201	fill of pit 204	2.2	nail with round convex head	58
176	230	fill of pit 204	2.2	complete T-shaped nail	82
64	236	fill of pit 218	2.2	2 nails with flat round head (1 complete); 1 shank fragment	59, 50; 20
39	238	fill of pit 218	2.2	shank fragment?	43
40	238	fill of pit 218	2.2	shank fragment	26
190	345	fill of pit 218	2.2	nail with flat round head; shank fragment	41; 30
63b	611	fill of well 603	2.2	shank fragment	27
194	31	fill of pit 32	3	nail with flat square head; shank fragment	29; 17
66	131	fill of pit 133	3	nail with convex round head	28
12	151	fill of pit 152	3	nail with flat square head	46
184	151	fill of pit 152	3	shank fragment	15
186	151	fill of pit 152	3	shank fragment	18
179	227	fill of cess pit 229	3	nail with convex round head	33
48	301	fill of pit 308	3	nail with small convex round head	55
35	383	fill of pit 382	3	nail with large flat oval head; shank fragment	50; 35
33	391	fill of pit 382	3	nail with convex round head	65
27	520	fill of pit 519	3	nail with convex round head	47
192	520	fill of pit 519	3	shank fragment	42
30	539	fill of pit 519	3	nail with flat square head	30
49	539	fill of pit 519	3	small fragments (?nail)	-
67	539	fill of pit 519	3	shank fragment	58
69	539	fill of pit 519	3	shank fragment	31
70	539	fill of pit 519	3	nail with small flat round head	99
180	539	fill of pit 519	3	complete nail with convex round head; 2 shank fragments	20; 39, 26

SF	Context no	Context description	Period	Identification	Length
31	547	fill of pit 519	3	nail with flat round head, shank bent into an S-shape	52
196	20	layer	4.1	complete nail with flat square head; shank fragment	46; 26

Table 4: *Iron nails*

B.2.16 *Metal-working*

Fig. 18, no. 5; SF 174. (170), fill of Period 2.1 pit **168**. Fragment of copper-alloy wire with short pieces of wire wrapped around each end, from the manufacture of small Type 1 dress pins. Length 45 mm.

SF 188. (102), fill of Period 2.2 pit **103**. Small offcut of dense bloomery iron, square in section at one end and tapering to a point. Length 32 mm, section 12 by 12 mm.

SF 68. (539), fill of Period 3 pit **519**. Small fragment of slag, with much soil embedded in the corrosion products. Weight 15 g.

B.2.17 *Miscellaneous*

Fig. 18, no. 6; SF 34. (383), fill of Period 3 pit **382**. Bone point roughly reduced at the top and with damaged tip; possibly a crude awl or stylus. Length 99 mm, maximum diameter 8 mm.

SF 61. (238), fill of Period 2.2 pit **218**. Small fragment of a copper-alloy shank. Length 10 mm.

SF 36a. (102), fill of Period 2.2 pit **103**. Iron strip fragment. Length 44 mm, width 20 mm.

SF 189. (178), fill of Period 2.2 pit **182**. Fragment of a narrow iron strip, probably part of a strap-mount. Length 19 mm, width 8 mm.

SF 63a. (611), fill of Period 2.2 well **603**. Iron strip fragment. Length 47 mm, width 15 mm.

SF 191. (151), fill of Period 3 pit **152**. Square iron fragment with a corner projection, possibly part of a ferrule or cap. 23 by 23 mm, length 18 mm.

SF 19. (225), fill of Period 3 cess pit **229**. Iron strip fragment. Length 49 mm, width 16 mm.

SF 38. (383), fill of Period 3 pit **382**. Iron sheet fragment with part of an attachment stud. 51 by 39 mm.

SF 181. (539), fill of Period 3 pit **519**. Iron strip fragment. Length 30 mm, width 12 mm

B.2.18 *Archived objects*

SF 21. (99999), unstratified. Curved bone toothbrush handle, with XI scratched on one side. Length 107 mm, width 12 mm.

SF 10. (-). Post-medieval hinged strap-mount with repoussé decoration and a scalloped edged on the front plate. Length 25 mm, width 54 mm.

SF 11. (-). Post-medieval rectangular copper-alloy buckle with the remains of an iron tongue. The outer bars of the frame are decorated with transverse mouldings. Length 39 mm, width 27 mm.

SF 3. Period 5.1 fill (22). Late Georgian or Victorian copper-alloy knob or ferrule with discoid head and thin shank, probably from a light fitting. Length 41 mm, diameter 17 mm.

SF 2. (22), Period 5.1 foundation 21. Curved tapering iron fitting fragment, offset at the wider end; probably a handle. Length 80 mm, maximum width 19 mm.

SF 41. (292), Period 5.1 posthole. Curved fragment of iron wire. Length 88 mm, diameter 3 mm

SF 1. (22), Period 5.1 foundation 21. Iron nail with flat round head. Length 68 mm.

SF 14. (153), fill of Period 5.1 pit/posthole **154**. Irregular globule of opaque blue glass, possibly the blank for a bead. Length 9 mm, diameter 6 mm.

B.3 Industrial Residues

By Peter Boardman

Results

- B.3.1 The industrial residue material (0.754kg) was recovered from context 611 in Period 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 nearby forge but this is not unusual as material is often spread over wide area.

B.4 Iron Age Pottery

By Sarah Percival

Introduction and methodology

- B.4.1 A total of 46 sherds weighing 506g was collected from seven ditch sections, largely from the same two recuts (Table 6). One sherd have been radiocarbon dated from burnt residue beneath the rim of a jar from ditch (**540**) (Fig.18, P1). This indicates that the jar was in use in the later Iron Age around 201-47BC (95.4% SUERC-46080 GU30161 176-61BC).
- B.4.2 The assemblage was analysed in accordance with the guidelines for analysis and publication laid down by the Prehistoric Ceramic Research Group (PCRG 1997, 2010). The total assemblage was studied and a full catalogue prepared. The sherds were examined using a hand lens (x10 magnification) and were divided into fabric groups defined on the basis of inclusion types. Fabric codes were prefixed by a letter code representing the main inclusion type: F representing flint, G representing grog and Q representing quartz. Vessel form was recorded: R representing rim sherds, B representing base sherds, D representing decorated sherds and U representing undecorated body sherds. The sherds were counted and weighed to the nearest whole gram. Decoration, condition, food residues and sooting were also noted. The catalogue was recorded using Microsoft Excel 2010. The pottery and archive are curated by OAE

Fabric

- B.4.3 Four fabrics were identified (Table 5). These include two sandy fabrics with organic inclusions, visible as elongated voids within the fabric body (Q1 and Q2). A third sandy fabric contains moderate shell pieces (QS). A single sherd in shell-rich fabric was also found (S1).

Fabric Code	Fabric Description	Quantity	Weight (g)
Q1	Moderate quartz sand; common elongated organic voids up to 2mm	9	97
Q2	Common quartz sand; moderate elongated organic voids up to 2mm; occasional angular quartzite	32	435
QS	Common quartz sand; moderate shell	4	58
S1	Common fine shell	1	6
Total		46	596

Table 5: *Quantity and weight of Iron Age pottery by fabric*

B.4.4 The fabrics are typical of those used during the later Iron Age in southern Cambridgeshire, with predominantly sandy assemblages being found locally at contemporary sites at Trumpington Park and Ride (Brudenell forthcoming), Duxford (Percival 2011), Greenhouse Farm (Hill and Braddock forthcoming) and Wardy Hill (Hill and Horne 2003). Smaller quantities of shell-tempered sherds almost always form a component of these assemblages suggesting that whilst most pottery was made locally at least some vessels were imports, perhaps from sources exploiting Jurassic shell-rich clays of the fenland.

Form and Decoration

B.4.5 Rims are present from three vessels. These include the partial profile of a slack-shouldered jar with short everted neck and rounded rim (P1), a small neckless ovoid vessel with simple flat rim (P2) and a small jar with short upright neck. These types of vessel are commonly found within domestic assemblages of the later Iron Age, the presence of burnt residues indicating that several had been used for cooking. One chunky sherd with thick vessel wall suggests that substantial storage jars were also present. Of interest is a sherd from a possible lid (P3). Lids are less commonly found within later Iron Age assemblages. The presence of a lid also suggests food storage or cooking.

Deposition

B.4.6 All of the pottery is redeposited, being solely recovered from fills from recuts of ditches (Table 6).

Ditch	Quantity	Weight (g)
540 3rd recut	6	117
546 2nd recut	14	158
663 2nd recut	1	5
665 3rd recut	3	47
682 2nd recut	11	131
684 3rd recut	10	117
686 1st recut	1	21
Total	46	596

Table 6: *Quantity and weight of Iron Age pottery by feature*

Discussion

B.4.7 The assemblage is typical of pottery of the later Iron Age in southern Cambridgeshire, and this date is confirmed by the radiocarbon determination. The presence of cooking and storage jars indicates a domestic origin for the pottery.

Catalogue of Illustrated Sherds

Fig. 19, no.1. Jar rim, fabric Q2, context 541, third recut of ditch **540**

Fig. 19, no.2. Lid, fabric Q2, context 545, 2nd recut of ditch **546**

Fig. 19, no.3. Jar rim, fabric S1, context 545, 2nd recut of ditch **546**

Radiocarbon date for charcoal on pottery sherd from context 541

Calibration Plot

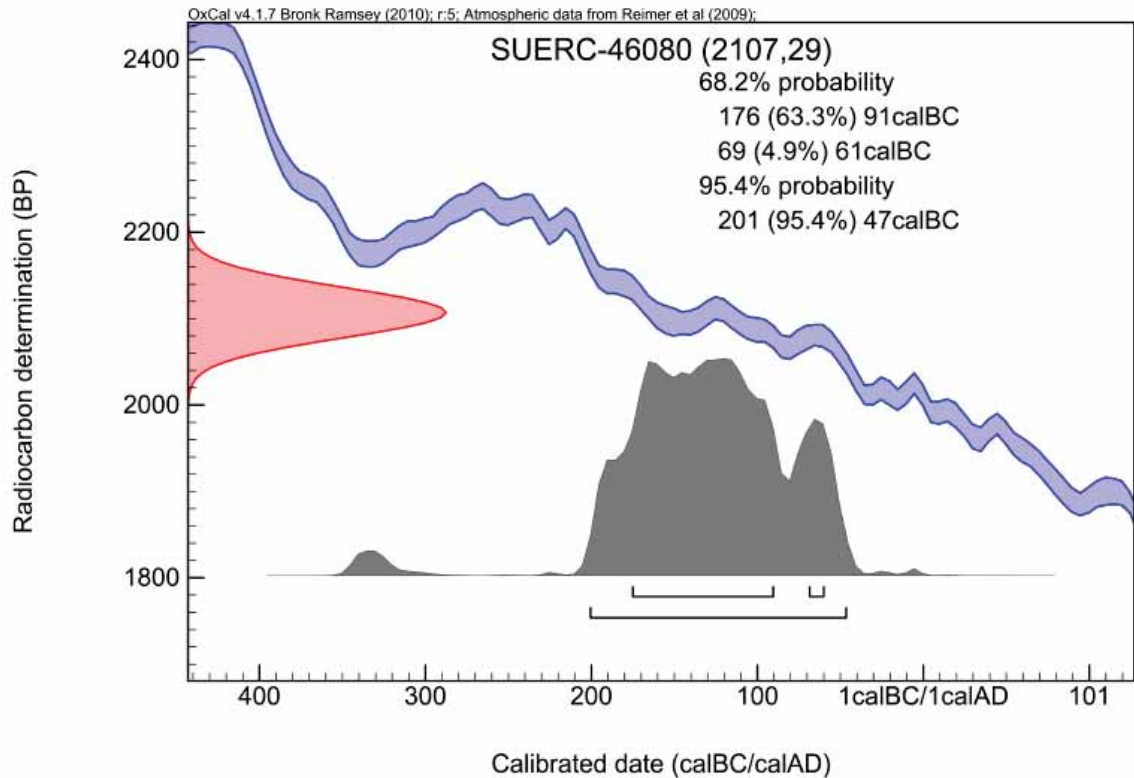


Chart 1: Radiocarbon date for carbon deposit attached to pottery sherd from context 541

- B.4.8 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 IntCal109 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 (Chart 1). These dates therefore suggest that the charcoal dated sometime in the Middle or Late Iron Age.

B.5 Post-Roman Pottery

By Carole Fletcher

Introduction

- B.5.1 Archaeological works on land at Coldhams Lane produced a moderate pottery assemblage of 1285 sherds, weighing 22.356kg. This total includes material from the evaluation contexts. The assemblage is predominantly medieval, dating from the 13th to the end of the 14th century. Also present are a small number of Late Saxon-early medieval sherds, a quantity of early medieval pottery and a small assemblage of late medieval fabrics. A small number of post-medieval and early modern fabrics were also recovered.
- B.5.2 The condition of the overall assemblage is moderately abraded, with a significant number of unabraded sherds (161 of the total assemblage). The unabraded nature of some 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 represent rubbish disposal on the site. The average sherd weight is moderate at approximately 17g. For the purpose of this report the total Periodd and stratified assemblage is 1285 sherds, weighing 22.356kg

Methodology

- B.5.3 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.5.4 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 using where appropriate Cambridgeshire's type series (Spoerry forthcoming). 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.5.5 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 small quantities of sherds are abraded, undiagnostic, not closely datable and are therefore not considered in this report.

The Assemblage

- B.5.6 Ceramic fabric abbreviations used in the summary catalogue (Table 9) and the total sherd count and weight of all fabrics are given in Table 7.

Fabric Name	Fabric Code	No. Sherds	Weight (kg)	% by weight
Bone China	BCHIN	5	0.016	0.1
Bourne 'D' ware	BOND	6	0.196	0.9
Brill/Boarstall ware	BRILL	10	0.077	0.3

Fabric Name	Fabric Code	No. Sherds	Weight (kg)	% by weight
Brill/Boarstall ware (Coarse)	BRILL(C)	1	0.013	0.1
Cistercian ware	CSTN	3	0.011	<0.1
Colchester-type ware (Late medieval)	COLS L	4	0.054	0.2
Colne type ware from Caxton and Bourn	CONCAX	6	0.068	0.3
Creamware	CREA	24	0.234	1.0
Creamware with slip decoration	CREA SLIP	1	0.004	<0.1
Developed St Neots	DNEOT	35	0.784	3.5
Dutch Redware	DUTR	3	0.024	0.1
Early Medieval Essex Micaceous Sandy ware	EMEMS	90	1.328	5.9
Early Medieval Essex micaceous Sandy ware/Medieval Essex-type Micaceous Grey Sandy wares	EMEMS/MEMS	46	0.499	2.2
Early Medieval ware	EMW	1	0.004	<0.1
East Anglian Redwares	EAR	120	1.570	7.0
East Anglian Redwares/Transitional Redware	EAR/TRAN	11	0.193	0.9
Ely 'Babylon' ware	BABEL	1	0.003	<0.1
English Porcelain	PORC	3	0.010	<0.1
English Stoneware	ENGS	5	0.052	0.2
Grimston Glazed ware	GRIM	34	0.209	0.9
Grimston Glazed ware/Late Grimston Glazed ware	GRIM/GRIL	1	0.015	0.1
Heddingham Coarseware	HEDIC	2	0.014	0.1
Heddingham Fineware	HEDI	58	0.688	3.1
Huntingdonshire Fen Sandy ware	HUNFSW	6	0.220	1.0
Late Medieval Ely ware	LMEL	38	0.694	3.1
Late Medieval Hertfordshire Glazed ware	HERTG	8	0.122	0.5
Late Medieval Reduced ware	LMR	67	1.172	5.2
Lyveden A ware	LYVA	20	0.252	1.1
Lyveden-Stanion ware	LYST	2	0.027	0.1
Medieval Ely ware	MEL	59	1.235	5.5
Medieval Ely ware/Late Medieval Ely ware	MEL/LMEL	19	0.253	1.1
Medieval Essex-type Micaceous Grey Sandy wares	MEMS	215	2.840	12.7
Metropolitan-type Slipware	METS	1	0.016	0.1
Mill Green Fineware	MGF	27	1.228	5.5
Modern Red Earthenware	MODR	12	2.103	9.4
Modern Red Earthenware-late slipped kitchen ware	MODR SLIP	3	0.092	0.4
Nottinghamshire-Derbyshire Stoneware	NOTTS	7	0.440	2.0
Pearlware	PEARL	20	0.335	1.5
Pearlware (with slip decoration)	PEARL SLIP	7	0.080	0.4
Pearlware (with transfer-printed decoration)	PEARL TR	22	0.116	0.5
Pearlware (with underglaze brown or black transfer-printed decoration)	PEARL TR3	7	0.244	1.1
Post-Medieval Redware	PMR	26	1.306	5.8
Raeren Stoneware	RAER	2	0.018	0.1

Fabric Name	Fabric Code	No. Sherds	Weight (kg)	% by weight
Refined White Earthenware	RFWE	36	0.290	1.3
Refined White Earthenware (with transfer-printed decoration)	RFWE TP	7	0.016	0.1
South Cambridgeshire Smooth Sandy ware	SCASS	3	0.037	0.2
South-east Fenland Calcareous Buff ware	SEFEN	62	1.093	4.9
St Neots	NEOT	3	0.012	0.1
St Neots/Developed St Neots	NEOT/DNEOT	4	0.055	0.2
Staffordshire Mottled ware	STMO	1	0.019	0.1
Staffordshire White Salt-Dipped ware	SWSD	1	0.023	0.1
Staffordshire White Salt-Glazed	SWSG	3	0.031	0.1
Staffordshire-type Slipware	STSL	3	0.094	0.4
Thetford ware	THET	3	0.072	0.3
Tin Glazed Earthenware	TGW	1	0.005	<0.1
Tudor Green	TUDG	2	0.002	<0.1
Unglazed Reduced Sandy wares, of Blackborough End type	UGBB	6	0.097	0.4
Unprovenanced Glazed ware	UPG	5	0.126	0.6
Unprovenanced Medieval Coarseware	MCW	99	1.412	6.3
West Cambridgeshire Sandy ware	WCAMSW	6	0.090	0.4
Yellow ware	YELL	2	0.023	0.1
Total		1285	22.356	

Table 7: *Medieval to modern pottery fabrics present in the assemblage*

Pottery By Ceramic Period

- B.5.7** A small amount of Late Saxon-early medieval pottery, undiagnostic Thetford ware and St Neots ware sherds were recovered during the excavation, comprising less than 1% of the total assemblage by weight. It is unusual that no Stamford ware was recovered as this fabric is a normal part of the triumvirate of Thetford ware, St Neots and Stamford ware that are found across much of Cambridgeshire in the 10th-12th centuries. Similar low levels of Late Saxon-early medieval pottery were recovered from the Eastern Gate Hotel site (Newman 2013) and initial scanning of the Harvest Way assemblage (author's own observations) suggests this is the case there also. The majority of these sherds were recovered in association with early medieval fabrics or medieval fabrics. These sherds may indicate some low levels of Late Saxon activity in the vicinity of the site. However it is possible that the St Neots and Thetford wares are post-conquest and date from the mid 11th century. No features of Late Saxon date were identified at the Coldhams Lane site.
- B.5.8** Early medieval wares are also present, comprising approximately 10% of the total assemblage (by weight). The majority of these are Early Medieval Essex Micaceous Sandy ware. Some Cambridgeshire early medieval sandy wares are present, including three sherds of South Cambridgeshire Smooth Sandy Ware. This fabric is “characteristically smooth [...] surfaces of the fabric are usually red-brown where oxidised and dark brown to dark grey when reduced, and the core is almost always a reduced mid-grey [...] this pottery type clearly sits in the early medieval ware tradition” (Spoerry forthcoming). A number of body sherds could not be clearly assigned to either the Early Medieval Essex Micaceous Sandy ware or the Medieval Essex-type Micaceous Grey Sandy wares group. Cotter suggests a gradual transition between

[early medieval] 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 a buff-brown to red fabric with a grey core and darker surfaces (Walker 2004, 408). Some fabrics 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** There has been an attempt to identify the coarsewares present in the assemblage to specific production centres whenever possible. Those that could not initially be assigned a group have for the purpose of this report been recorded as medieval coarsewares rather than grouped by colour, with the possibility of some of these being as yet unidentified local fabrics.
- B.5.10** The presence of early medieval fabrics indicates some level of pre-12th century occupation close to the area of excavation and, although no early medieval features were identified, the amount of pottery recovered suggests either middening scatters or rubbish deposition within features that were disturbed and destroyed by 13th century activity.
- B.5.11** Medieval fabrics comprise the bulk of the assemblage (c. 50%, by weight), with coarsewares including Ely ware and South-east Fenland Calcareous Buff ware present in significant numbers (c.6% and 5% respectively of the total assemblage by weight). Coarsewares present here are similar to those from Cambridge Regional College, Brunswick (Fletcher 2011), the Grand Arcade (Cessford 2007) and The Eastern Gate Hotel site assemblages (Newman 2013).
- B.5.12** 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). It would appear that The Eastern Gate Hotel site assemblage was similarly divided with Ely ware again easily recognised (Hall, Cessford and Newman 2013, 69). This report has tried to identify these coarsewares where possible.
- B.5.13** In the Brunswick assemblage (Fletcher 2011), the Harvest Way site and at Coldhams Lane, some of these medieval coarsewares have been identified as Southeast Fenland Calcareous Buff ware. "A mainly light-firing quartz-tempered fabric. The surfaces are usually buff, and even off-white, in colouration, but are sometimes light brown, and the core is usually light grey and reduced. The fabric is sandy to the touch [...] its origins possibly in the parishes of Soham or Wicken" (Spoerry forthcoming).
- B.5.14** The redwares present in the assemblage have, unless a specific fabric identification was 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.7% of the total assemblage by weight with Mill Green fineware at c.6% including large fragments from a number of semi complete jugs. Also present are Heddingham finewares (c.3%), Grimston Glazed ware and Brill. Only two sherds of Lyveden-Stanion ware were recovered, Lyveden-Stanion is relatively common in the Cambridge Grand Arcade assemblage in comparison to the other finewares (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). Lyveden-Stanion also appears to be a minor component of the Eastern Gate Hotel assemblage (Hall, Cessford and Newman 2013, 70 table 18), however the fabric is more common on the Harvest Way site.

Although numbers of sherds are currently not available for the Harvest Way assemblage, observation suggests Lyveden-Stanion is still relatively uncommon, with a significant find being several fragmentary jugs from the fill of well **2554** context (3269). The population of Barnwell appear to have preferred Essex and Ely ware jugs to those of the Lyveden-Stanion potters.

- B.5.15 Definitively late medieval ceramics are present in moderate numbers, 10% of the total assemblage by weight. These include Late Medieval Ely ware, Late Medieval Reduced ware and Late Medieval Hertfordshire Glazed ware.
- B.5.16 Imported pottery is rare in the assemblage with only two sherds of Raeren stoneware recovered from a Period pit **313**, three sherds of Dutch redware from the evaluation assemblage and a single sherd of Tin-glazed earthenware that may be from the Netherlands.
- B.5.17 Post-medieval fabrics comprise approximately 7% of the assemblage by weight, the majority of which are post-medieval redwares. The East Anglian redwares tradition continued 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).
- B.5.18 The late 18th-early 20th century material is relatively well represented at approximately 19% of the assemblage, comprising a small number of large heavy Modern redware or Late Slipped Kitchen wares as described by Cotter (Cotter 2000, 254-6) sherds and large number of pearlware sherds many of which are transfer-printed and creamware alongside other fabrics including English Porcelain and Bone China.

Provenance

- B.5.19 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 few imported wares. Two sherds of Raeren, a single sherd of Tin-glazed earthenware that may be from the Netherlands, and three sherds of Dutch redware form the imported assemblage.
- B.5.20 The majority of the assemblage originated in Essex, including the Mill Green fineware and Sible Hedingham 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 component within the group, followed by South-east Fenland Calcareous Buff ware. 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.5.21 Late 17th century and Early modern fabrics from Staffordshire and the industrial Midlands are common, although the former are few in number and the latter, pearlwares, creamwares and a number of Nottinghamshire-Derbyshire stonewares, are more prevalent. All other fabrics are present in restricted numbers, including examples from Buckinghamshire, Hertfordshire and Norfolk.

Form

- B.5.22 The vessels present in the assemblage are primarily domestic in nature comprising mainly jars (31%), followed closely by bowls which include South-east Fenland Calcareous Buff ware and Medieval Ely ware. However, the majority of these vessels by weight are post-medieval and later redwares, and by count there are a large number of creamware and pearlware vessels present.

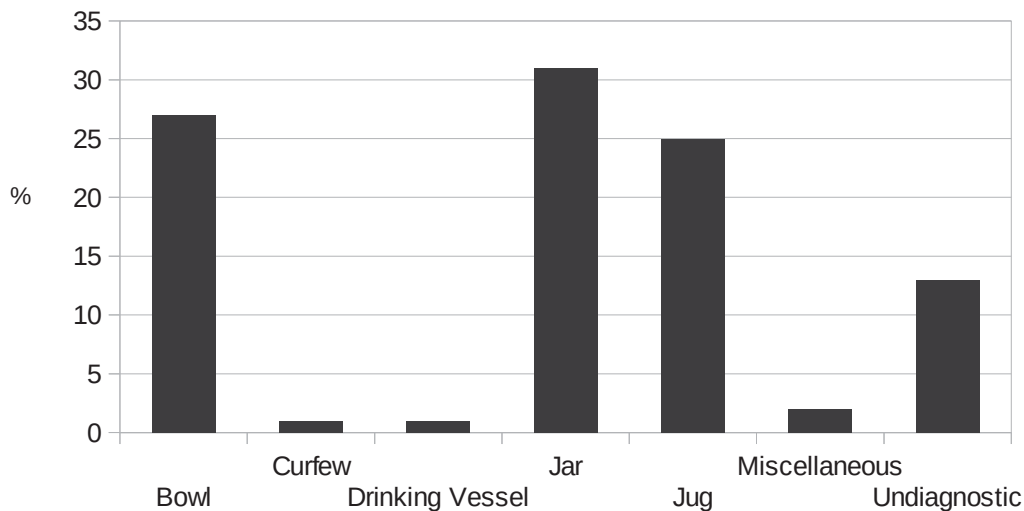


Chart 2: Vessel form present as a percentage of the whole assemblage by weight

B.5.23 Jugs form the third largest group and although Ely ware and Grimston ware vessels are present in the assemblage, the majority of the vessels present are Mill Green finewares, Hedingham finewares and East Anglian redwares. 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-type Micaceous Grey Sandy ware curfew. No specialist forms were recovered.

The Assemblage In Relation to Archaeological Features

B.5.24 The site was divided into five main periods (of which only Periods 2-5 are the concern of this report) and within these periods sub-divided into phases. Table 8 indicates the size of the assemblage within each period and phase. Period 2 and 3 are suitable for limited statistical analysis.

Period	Period	No. Sherds	Weight (kg)	% of Assemblage by weight (kg)
Period 2	Period 2.1 (c.13th-mid/end of 14th century)	263	5.734	26
	Period 2.2 (c. mid-end 14th century)	540	7.381	33
Period 3	Period 3 (c. 15th-mid/end 16th century)	208	2.705	12
Period 4	Period 4.1 (c. mid-end 17th century)	44	0.681	3
	Period 4.2 (c.18th century)	33	0.528	2
Period 5	Period 5.1 (c. early 19th century)	130	3.172	14
	Period 5.2 (c. mid/late 19th-20th century)	67	2.155	10

Table 8: Medieval to modern pottery assemblage by stratigraphic period and Period

B.5.25 The levels of residuality are difficult to address, in particular as Period 2.1 and 2.2 are of similar date, although all early medieval pottery would be considered residual in both phases. Period 2 in total produced 59% of the excavation assemblage. The production dates of some pottery present in Period 3 overlap with that of those Period 2.2. Period 4 has the highest levels of residuality with few fabrics present dated to the period, the majority being earlier material reworked possibly by cultivation. Residuality will be mentioned in the main text where appropriate.

- B.5.26 The bulk of the material in Period 5.1 is domestic table and kitchen wares, which must relate to the cottages owned by Simon Farrant. The fabrics are similar to those found on the Harvest Way and Eastern Gate Hotel sites. with the exception of the presence of collegiate ceramics. which are present only on the Harvest Way and Eastern Gate sites. This suggests that these plots and their occupants had few or no links with the colleges and indicate that the colleges are using their land for deposition of rubbish.
- B.5.27 The large weight of sherds present in relation to number of sherds in Period 5.2 is mainly due to sherds from large post-medieval and modern redware bowls.

Period 2.1 Assemblage (c.13th-mid/end of 14th century)

- B.5.28 This phase produced more than a quarter of the total assemblage for the excavation.

Wells

- B.5.29 Four possible wells were identified in this phase. Of these, three, **239**, **523** and **579**, produced small to moderate amounts of pottery, with **523** producing almost exclusively jug sherds, while **239** and **579** produced more mixed assemblages, suggesting that these wells were periodically cleaned out or were perhaps short-lived. Well **190** by comparison produced a large assemblage of 132 sherds weighing 2.282kg, from 14 contexts, forming c.12% of the total assemblage by weight. The pottery recovered was of varying dates and includes 19 sherds from a Developed St Neots ware jug, alongside an Early Medieval Essex Micaceous Sandy Ware jar. Later pottery includes Medieval Essex-type Micaceous Grey Sandy ware jars, South-east Fenland Medieval Calcareous Buff ware jars, Hedingham fineware jugs and both Medieval Ely ware and Late Medieval Ely ware jugs.

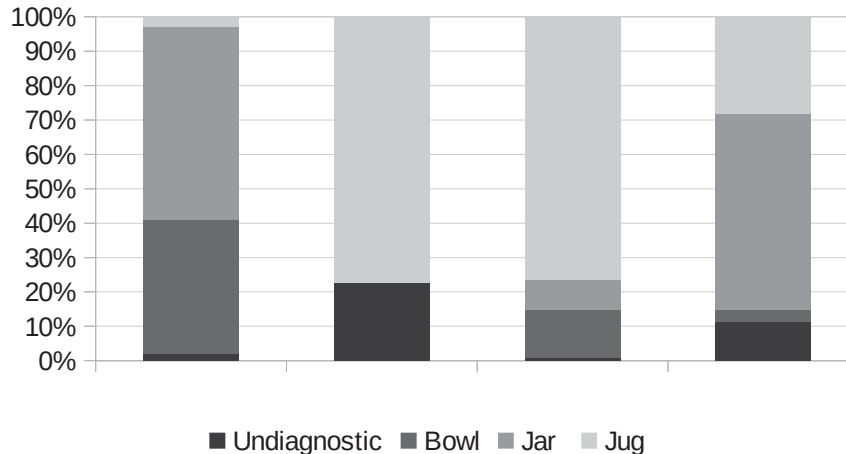


Chart 3: *Vessel form present as a percentage of well assemblage by weight*

- B.5.30 The earliest contexts produced Developed St Neots sherds, transitional Early Medieval Essex micaceous Sandy ware/Medieval Essex-type Micaceous Grey Sandy wares and medieval wares such as South-east Fenland Medieval Calcareous Buff ware, suggesting that the well may have been in use or constructed in the latter part of the 12th or early part of the 13th century. A number of sherds from a Late Medieval Ely ware jar were recovered from context 370, this may represent a loss of a single vessel when the well was in use towards the end of its life, as the sherds are relatively unabraded.

Pits

- B.5.31 A total of 22 pits are placed within this phase of the excavation, of these five (**220, 457, 485, 517** and **538**) produced no pottery. A further eleven pits (**39, 119, 168, 174, 241, 274, 420, 430, 483, 505** and **557**) produced fewer than ten sherds. Of these, pit **39** produced one of only three sherds of South Cambridgeshire Smooth Sandy ware recovered from the excavation. The final five pits produced 79 sherds weighing 2.026kg, c.9% of the total assemblage by weight. Pit **128** produced both residual Early Medieval Essex Micaceous Sandy Ware and transitional Early Medieval Essex micaceous Sandy ware/Medieval Essex-type Micaceous Grey Sandy wares alongside a single sherd from a South-east Fenland Medieval Calcareous Buff ware jar. Pit **195/199** contained jar sherds from transitional fabrics, alongside Huntingdonshire Fen Sandy ware, South-east Fenland Medieval Calcareous Buff ware, Medieval Essex-type Micaceous Grey Sandy wares, East Anglian redwares and an intrusive sherd of English stoneware.
- B.5.32 Pit **239** produced the largest assemblage (20 sherds, 0.888kg) from the Pit Group, which included eight sherds from a large South-east Fenland Medieval Calcareous Buff ware bowl. The pit also contained material from the latter part of this phase in the form of a Late Medieval Reduced ware jar, indicating the difficulty in separating the pits between Period 2.1 and 2.2. Pit **428** produced only sherds from a Mill Green fineware jug.
- B.5.33 Pit or quarry **461/492** produced 26 sherds including both Hedingham fineware and Mill Green fineware jugs, Medieval Essex-type Micaceous Grey Sandy wares and a large sherd from an East Anglian redware curfew that indicates the management of domestic hearths. The curfew, coupled with the jugs and jars, shows the pottery represents the storage and cooking of food alongside the serving of liquids in one or more domestic property of the 13th-14th century. This material was later deposited in the quarry, the levels of abrasion suggesting that this was not primary deposition and may represent clearance and dumping of rubbish at the end of the 14th century.

Period 2.2 Assemblage (c. mid-end 14th century)

- B.5.34 Ceramically it is difficult to separate this group of features from the previous phase and the excavator has divided these based on stratigraphy. This smaller group of features produced 33% of the total assemblage recovered from the excavation.

Wells

- B.5.35 Two wells (**481** and **603**) were assigned to this phase. The fills of the two wells varied in the ceramic forms they contained, as shown in Chart 4. The north-eastern well **481**, produced a moderate assemblage of 73 sherds weighing 0.779kg, from seven contexts. The pottery recovered included a number of jug sherds in a mix of fabrics, the greatest number being East Anglian redwares followed by Medieval Ely ware vessels. Also present were Grimston Glazed ware, Hedingham fineware, Mill Green fineware and a single sherd from a Lyveden-Stanion ware jug. Jars are also common in the assemblage, however only one bowl sherd was identified, from a Medieval Ely ware vessel.

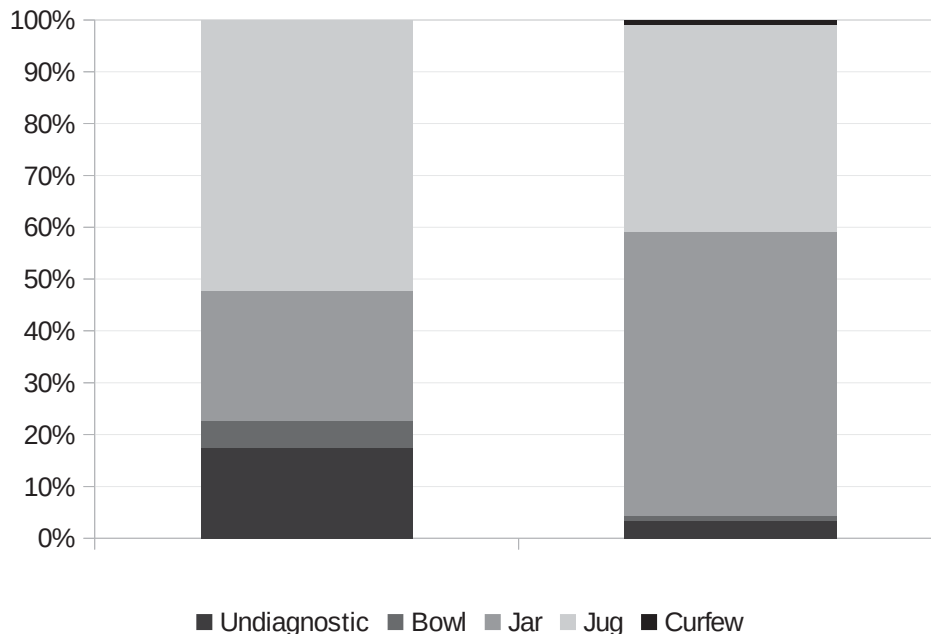


Chart 4: *Vessel form present as a percentage of well assemblage by weight*

- B.5.36 The south-eastern well **603**, produced 127 sherds, weighing 2.319g, from five contexts which form c.10% of the total site assemblage (by weight). The well contained a large number of jar sherds, including residual Early Medieval Essex Micaceous Sandy ware vessels which make up a large proportion of the jar assemblage, also present were Medieval Essex-type Micaceous Grey Sandy wares and six sherds of 14th century Colne-type ware from Caxton and Bourn, a hard, dense fabric with a well-sorted fine-medium quartz temper and very few other visible inclusions except for very occasional calcareous grains (Spoerry forthcoming) Jugs are well represented with Mill Green fineware, Hedingham fineware, and Grimston Glazed ware vessels present along with East Anglian Redwares. The well also produced a curfew sherd in a Medieval Essex-type Micaceous Grey Sandy ware fabric.

Pits

- B.5.37 The excavator divided the pits within this phase into two possible groups. Those in the southern half of the site, **103**, **182**, **204**, **218** and **509**, it is suggested, are quarry pits for the extraction of gravel. Pits **218** and **509** produced fewer than 10 sherds of pottery, suggesting that if these were quarry pits they were excavated and either backfilled relatively quickly or, if left open as the excavator suggested, they were not used for domestic rubbish deposition.
- B.5.38 Pits **103**, **182** and **204** produced moderate assemblages of pottery with **182** and **204** each producing approximately 1.5kg of pottery.
- B.5.39 Pit **103** produced a mixture of fabrics including a number of Cambridgeshire coarseware fabrics such as a single residual sherd of West Cambridgeshire Sandy ware (mid 11th-mid 13th century) Huntingdonshire Fen Sandy ware and South-east Fenland Medieval Calcareous Buff ware alongside Medieval Ely ware. Jugs are common and include an unglazed Medieval Essex-type Micaceous Grey Sandy ware vessel. Late medieval fabrics present include Late Medieval Ely ware and Late Medieval Reduced ware.

- B.5.40 Pit **182** contained Cambridgeshire sherds including from a residual St Neots ware vessel and West Cambridgeshire Sandy ware jar, alongside sherds from a South-east Fenland Medieval Calcareous Buff ware, Huntingdonshire Fen Sandy ware and Medieval Ely ware. Also present are Medieval Essex-type Micaceous Grey Sandy wares, Unglazed Reduced Sandy wares, of Blackborough End-type and East Anglian Redware jugs, Late Medieval Ely ware and Late Medieval Hertfordshire Glazed ware vessels.
- B.5.41 Pit **204** produced the second largest assemblage derived from the quarries and contains a similar range of early medieval and medieval fabrics, with the addition of a sherd from a Lyveden-Stanion ware jug. Late medieval fabrics are also present in the form of Late Medieval Reduced ware jars.

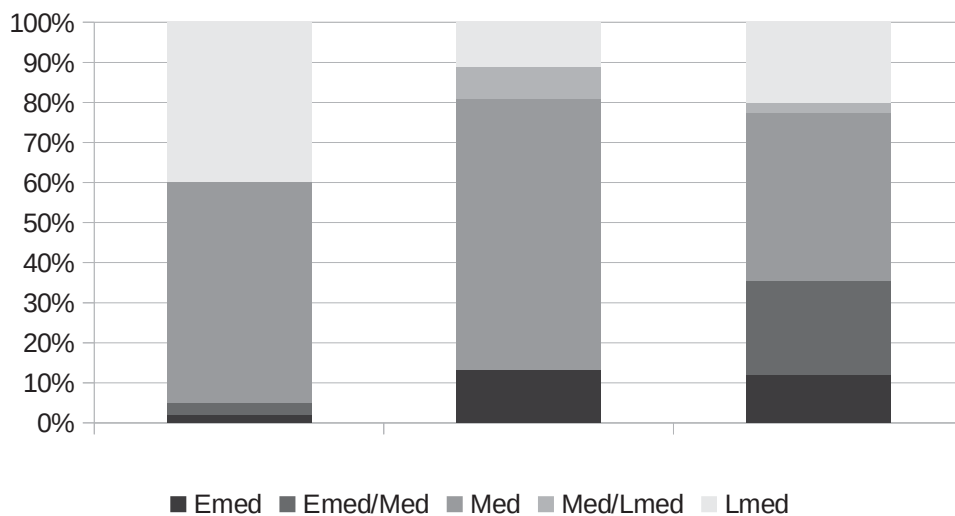


Chart 5: *Period as a percentage of quarry pit assemblage by weight*

- B.5.42 All three pits contained late medieval pottery, indicating a post mid 14th century date for their backfilling, which incorporated a significant number of residual earlier sherds, suggesting a low level of medieval and early medieval activity as has been proposed elsewhere.
- B.5.43 Of the pits located to the north of the quarries, **438**, **440**, **451** and **526** produced no pottery and **283**, **459** and **465** all produced less than ten sherds of pottery with **283** containing a single moderately abraded sherd of Late Medieval Reduced ware and **465** producing both medieval fabrics and four sherds from a Late Medieval Hertfordshire Glazed jug. This indicates the features were backfilled after the mid 14th century, with material incorporated into the backfill by non-selective methods rather than as the deliberate deposition of rubbish.
- B.5.44 Pit **593** also contained a mix of medieval and late medieval pottery, although only eight sherds, and **654** contained only two sherds of medieval pottery, while evaluation pit **37** produced no pottery.

Period 3 (c. 15th-mid/end 16th century)

Postholes

- B.5.45 Structure 1 comprised nineteen post holes (**408**, **410**, **412**, **414**, **416**, **418**, **422**, **424**, **426**, **432**, **434**, **442**, **453**, **455**, **471**, **472**, **474**, **501**, and **503**), and these were located within the south-western side of the site and dated to this phase by the excavator, only

a single posthole **455** produced any pottery, a single sherd from an East Anglian redware vessel. This posthole cut pit **509** (Period 2.2), which contained medieval East Anglian redware fabrics and the sherd recovered from posthole **455** may originate from the fill of **509**. The postholes were sealed by layer 200, which produced no pottery, and 210 which produced post-medieval redware sherds that can be dated from the mid 16th to end of the 18th century. The single sherd of pottery recovered from these postholes gives no indication of dating for these features.

Pits

- B.5.46 A small number of pits (**339**, **446** and **561**) identified within this phase contained no pottery, while the remaining features contained small assemblages of pottery. Pits **308**, **313**, **382**, **448**, **463** and **600** each produced fewer than ten sherds of pottery. The majority of the pottery recovered from these pits is medieval in date with a number of residual early medieval sherds. Only pits **313**, **463** and **600** produced pottery of late medieval or later date, including Late Medieval Reduced ware or Late Medieval Hertfordshire and Glazed ware and from pit **313** two sherds from an imported Raeren Stoneware drinking jug (c.15th-16th century).
- B.5.47 Pits **32**, **35**, **133**, **152**, **318**, **519** and possible cesspit **229** produced slightly larger assemblages of pottery, between 11 and 36 sherds each. The majority of the sherds recovered from these pits were also medieval and include a number of residual sherds, in particular from pit **35** a sherd of South Cambridgeshire Smooth Sandy ware (c.1050-1225). Pits **133**, **152**, **318** and **519** produced late Medieval or later pottery within their assemblages, including from pit **133** late Medieval reduced ware and late Medieval Hertfordshire glazed ware, from pit **152** sherds of post-medieval redware (c.1550-1800), and from **318** late Medieval Ely ware. The possible cesspit **229** and pit **519** also produced medieval/post-medieval transitional pottery.
- B.5.48 The possible cesspit **229** produced one of the larger assemblages of pottery within this group (96 sherds, weighing 0.784kg). The majority of the pottery recovered dates to between the 13th and end of the 14th century, however, a significant number of Late Medieval Reduced ware sherds were also recovered, including sherds from a large bowl and a thickened strap handle from an East Anglian redware/Transitional redware jug. This material dates from the beginning of the 15th to end of the 16th century and was recovered from one of the upper fills, context 225. All the pottery recovered is moderately abraded to abraded and none of the material appears to be primary deposits. The latter fills of the feature date from the 15th century, so material may have been deposited at the end of the period and the backfilling is perhaps late 15th or early 16th century.

Period 4

Period 4.1 (c. mid-end 17th century)

- B.5.49 This phase consists entirely of layers that sealed the medieval features and is described by the excavator as a possible cultivation layer and recorded as seven separate context numbers across the site. Of these 137, 200, 675 and 676 produced no pottery. The remaining contexts produced in total 41 sherds weighing 0.603 kg, the including material produced from the evaluation. Context 20 contained residual Medieval sherds alongside a single fragment from a Cistercian ware drinking vessel (16th century), two sherds from an imported Dutch redware bowl and two sherds of post-medieval reduced ware. Context 50, also part of the evaluation, produced a single sherd of Bourne 'D' ware alongside a sherd of West Cambridgeshire Sandy ware, while context 210 produced residual Medieval sherds alongside a number of East Anglia

redware/transitional redware sherds along with a single sherd of Bourne 'D' ware (1430-1650), and three sherds of post-medieval redware single sherds from a jar, bowl and a jug. The material, with the exception of a single sherd of post-medieval redware, is moderately abraded to abraded. If this is a cultivation layer there is little manuring taking place and few sherds dating to the period suggested for this phase. It is more likely at this area was used as rough pasture rather than actively cultivated throughout this period.

- B.5.50 There appears to be a long period of relative inactivity between the end of Period 3 and the beginning of Period 4.2, during which time little pottery was deposited on the site either as rubbish deposition or manuring scatters and the site ceramically appears unoccupied throughout this period.
- B.5.51 This contrasts strongly with the material recovered from the Harvest Way excavation where large amounts of 17th century pottery were recovered. This is particularly true for Staffordshire-type combed slipwares, as a considerable number of slipware chamber pots and other vessels were recovered from a number of features on the Harvest Way site. Some of these features can be dated to the 17th century, while in other features the Staffordshire slipwares were recovered alongside 18th century creamware.

Period 4.2 (c.18th century)

Ditch

- B.5.52 Some activity on the site is attributed to the 18th century by the excavator, an east-west ditch **172**, it is suggested, may have been the plot boundary. The ditch produced five sherds of pottery, four of which are medieval coarsewares, the fifth sherd being a piece of Late Medieval Colchester-type ware.

Postholes

- B.5.53 To the North of ditch **172** lay a row of nine postholes which it is suggested may have formed part of the structure fronting Coldhams Lane. Postholes **250**, **252**, **258** and **262** produced no pottery, the remaining five postholes produced in total nine sherds of pottery (0.287kg). **254** produced a sherd of medieval coarseware and a small fragment from a 16th century Cistercian ware drinking vessel, **256** and **288** both produced medieval sherds and **260** a sherd from a Post-medieval redware bowl. Only posthole **290** produced definitively 18th century pottery, a base sherd from a Staffordshire White Salt-Dipped ware jar. It seems unlikely that this structure was an 18th century dwelling although it may have been a workshop of some description.

Pits

- B.5.54 Three pits are also identified in this phase, **216** and **246** having contained no pottery, while pit **645** in the north-eastern part of the site produced only a single sherd from a Post-medieval redware bowl.

Period 5.

Period 5.1 (c. early 19th century)

- B.5.55 A number of features dating to this period can be placed into known ownership plots.

Simon Farrant's plot

- B.5.56 The excavator suggests two or three structures were likely to be found on this plot and two clunch walls were uncovered during the excavation. The fill of the foundation trench **21** for one of the clunch walls contained two sherds of pottery both jug sherds one from

a Heddingham fineware vessel, the other from a post-medieval redware vessel. The second foundation trench **695** produced no pottery.

- B.5.57 Twelve postholes, which may relate to various timber framed buildings were recorded, of which ten produced no pottery (**28, 161, 248, 332, 320, 292, 358, 343, 310, 653**). Posthole **599** contained eight small sherds from one or more East Anglian redware vessels, while posthole **632** produced a strap handle from a Mill Green fineware jug. The fill of both postholes would appear to be residual.
- B.5.58 A number of pits were identified and excavated within this plot, of these **149, 154, 158, 160, 163, 165, 348** and **366** produced no pottery. A large pit **48**, identified in the evaluation on the northern side of the plot produced a moderate 18th-19th century assemblage containing Staffordshire-type slipware and Staffordshire Mottled ware alongside Staffordshire White Salt-Glazed ware and pearlwares with slip decoration. The latest pottery recovered from the feature was two sherds of Modern Red earthenware or late slipped kitchen ware with mottled manganese decoration dating to the late 19th or possibly the early 20th century.
- B.5.59 Pit **324** produced a single sherd from a pearlware bowl or plate with transfer-printed decoration (c.1770-1840), pit **350** also contained pearlware sherds, a near complete lid from a jar, the complete profile of an upright jar and the base from a slip decorated drinking vessel (c.1775-1840). The final pit **369** contained four sherds two from a creamware bowl or plate and two from a pearlware jar with painted decoration (c.1770-1840).
- B.5.60 A pig burial **281**, found in the central area of the plot, produced a sherd of Post-medieval redware alongside transfer-printed pearlwares, English stonewares and Refined White earthenwares and Yellow wares of early to mid 19th century date.

Poorhouse/workhouse plot

- B.5.61 The excavator did not identify structures associated with the poorhouse or workhouse within the excavated area, although other features perhaps associated with the buildings were located. Of these, three postholes (**116, 118** and **130**), a culvert **693** and pit **114**, produced no pottery. Well **107** produced an assemblage that included Pearlwares some with transfer-printed decoration and creamwares while pit **156** produced a moderate assemblage of pottery (42 sherds, 1.448kg). This group of sherds includes a residual sherd of Bourne 'D' ware, alongside both creamware and pearlware bowls and plates. Two large sherds from a Nottinghamshire-Derbyshire stoneware bowl and five sherds from several Modern Red earthenware bowls, suggesting a date of late 19th or possibly earlier 20th century for the deposit. If this is the case, the majority of the pottery within the assemblage was already 30 years old by the time it was deposited, suggesting that it had been deliberately curated.

Thomas Carter's plot

- B.5.62 The excavator identified five postholes within this plot which may form part of the structure (**629, 659, 668, 670** and **672**). Of these, only posthole **629** produced pottery, two sherds of Nottinghamshire-Derbyshire stoneware from an engine turned bowl, the other from a jar. A further 10 postholes (**268, 270, 272, 276, 278, 341, 572, 574, 576** and **578**) were associated with the second structure, unfortunately none produced any pottery. The wells **595** and **697** and pits **212, 214** and **361** also produced no pottery.
- B.5.63 Chart 6 illustrates the total of fabrics present by plot excluding Thomas Carters area as this only produced the two sherds of Nottinghamshire-Derbyshire stoneware which skew the results. The chart clearly shows the differences in fabrics in each plot and

suggests differences in date. The Modern Red earthenware dominates the Poor house/workhouse assemblage, however, this aside the chart shows a greater weight of pearlware recovered from Simon Farrant's plot and a prevalence of creamware from the Poor house/workhouse assemblage, suggesting subtle differences in the date of some features within the plots.

Period 5.2 (c. mid/late 19th-20th century)

- B.5.64 The excavator indicates that the 1840 Dewhurst and Nichols plan (Atkins 2013, Figure 8) and the 1st Edition Ordnance survey (Atkins 2012b, Figure 9; Atkins, 2013, Figure 10) show new buildings on the site and believes that parts of the structures were found within the excavation area. The majority of these features, being mainly walls and floors, produced no pottery. However, a small posthole **294**, to the east of wall 353/354, produced three sherds of post-medieval redware bowl or bowls and pit **146** produced 42 sherds of pottery weighing 1.473kg which included two sherds from a Nottinghamshire-Derbyshire stoneware jar, 31 sherds of 19th-century refined white earthenware and five shards from a late 19th or early 20th century Modern Red earthenware bowl.

Discussion

- B.5.65 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 was the 13th-end 14th century, with a predominance of vessels present used in the processing of food and drink.
- B.5.66 The levels of medieval pottery recovered from the site are less than those recovered from the Eastern Gate Hotel and those of the Harvest Way excavation, however both excavations were undertaken over much larger areas and the levels of pottery may be comparable if this is taken into consideration.

The late medieval period is not well 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 imported stonewares and the small number of post-medieval sherds suggest a change of land reinforcing the possibility that the area was in decline. This is in contrast to the other areas excavated within the lay settlement at Barnwell as both the Eastern Gate Hotel site (Hall, Cessford and Newman 2013, 70, Table 18 and p.72 Table 19) and the Harvest Way site have moderate to large later medieval and post-medieval assemblages.

- B.5.67 There is a resurgence of ceramic deposition in the 18th/19th/20th century, (c.19 % of the total assemblage by weight), however this is a relatively low level of deposition by comparison with the Eastern Gate Hotel site in the later periods, where the 18th-20th century pottery assemblage comprised 76.5% of the total assemblage recovered (Cessford, Hall and Newman 2013, 66 table 13). This smaller percentage of 18th-20th century pottery supports the documentary evidence that this area was poor [and] densely occupied with industry [which produces little pottery] and domestic dwellings side by side (Atkins 2013, p.21). The most obvious difference between the Coldhams Lane site and both Eastern Gate Hotel and Harvest Way is the lack of collegiate pottery found on the former, suggesting that this area had few or no ties to the Cambridge colleges, either by occupant, occupation or ownership.

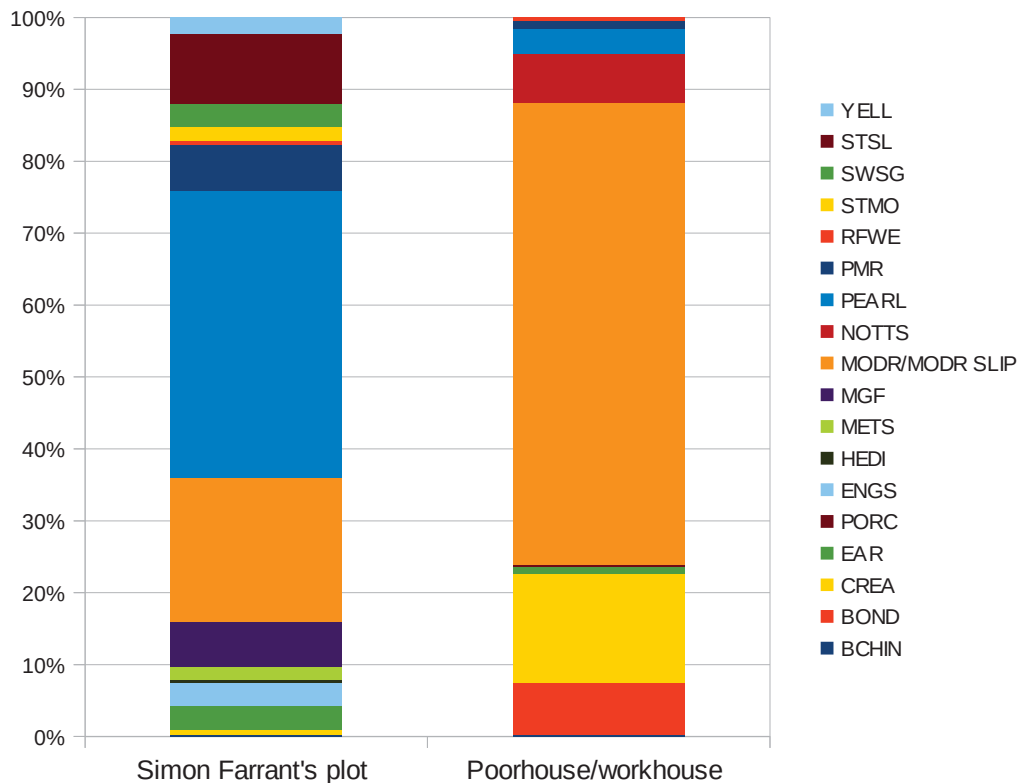


Chart 6: *Break down of fabrics present by plot.*

B.5.68 The site is important in helping to understand the development of the Barnwell area from the early medieval period through to the 19th century where documentary evidence can help to identify the 19th century owners of plots long hidden by later industrial development.

Pottery illustrated

- B.5.69 Fig.20, no.1. Ginger jar. The fabric is comparatively coarse for HUNFSW, and the inturned 'ginger jar' form is known in Thetford-type ware and Early Medieval ware in Norfolk. With these traits in mind, this vessel might be most correctly defined as transitional from HUNEMW to HUNFSW. The hand-made and turntable-finished vessel is decorated with an external incised line. Hard-fired, oxidised dull red-brown external surface and margin, pale grey core with red-brown internal margin, the internal surface is covered with limescale. Common fine quartz, occasional medium quartz and occasional medium calcareous inclusions and rare very coarse calcareous inclusions. Period 4.2 posthole **290** (289).
- B.5.70 Fig.20, no. 2. Baluster jug with tall, rilled neck. Externally thickened and bevelled rim with narrow, pulled or pinpressed groove, springs from the neck slightly below the rim, with small finger impressions or 'ears' either side of the handle where it joins the neck. The rim and rilled neck is covered in slip below and around the handle and patchily slipped where glazed with clear lead glaze with copper green mottles on the front and surviving portions of the body of the jug. The vessel is similar to a Colchester-type baluster jug illustrated by Cotter (Cotter 2000, p116, fig 73, No 12) and the handle to a second vessel (*ibid*, p117, fig 74, No 18). Dull brick-red surfaces and margins with mid grey core, smooth micaceous fabric. Period 2.1 pit **428** (427).
- B.5.71 Fig.20, no. 3. HM277 Metal copy baluster jug base. The base is recessed, slightly convex and continually 'thumbbed' or tool-impressed. The narrow base is poorly finished internally and there is a hole in the base, it is unclear if this hole was deliberately made or is the result of accidental damage, although the

edges of the hole do appear slightly worn. There are traces of slip and clear glaze with green mottles on part of the body and a glaze run on the 'thumbed' foot, which indicates the jug was fired inverted and there are small spots of clear glaze on the base. Dull brick-red surfaces and margins with mid grey core, smooth micaceous fabric. Period 2.1 pit **428** (427).

The pottery catalogue

Context	Fabric	Form	Sherd Count	Sherd Weight	Context Date Range
19	SEFEN		1	0.008	Mid 12th-mid 15th century
20	CSTN	Drinking vessel	1	0.006	Mid 16th-end of 18th century
	DUTR	Bowl	2	0.014	
	EAR	Jar	1	0.011	
	EMEMS		1	0.005	
	LMR		1	0.006	
	PMR	Drinking vessel	2	0.007	
	SCASS		1	0.002	
	SEFEN		1	0.006	
22	HEDI	Jug	1	0.005	Mid 16th-end 18th century
	PMR	Jug	1	0.002	
31	BRILL	Jug	1	0.008	13th-end of 14th century
	EMEMS	Jar	4	0.036	
	GRIM	Jug	4	0.014	
	HEDI	Jug	3	0.017	
	LYVA		4	0.042	
	MEL		2	0.007	
	MEL	Jar	1	0.008	
	MEMS		5	0.021	
	MEMS	Jar	7	0.066	
	NEOT		1	0.001	
	SEFEN		2	0.007	
	MCW		2	0.018	
34	EMEMS		1	0.002	13th-end of 14th century
	EMEMS	Jar	1	0.006	
	GRIM	Jug	1	0.004	
	HEDI		1	0.007	
	HEDI	Jug	1	0.009	
	LYVA		1	0.022	
	LYVA	Jar	1	0.012	
	LYVA	Jug	1	0.057	
	MEL		1	0.006	
	MEMS		3	0.018	
	SCASS		1	0.030	
	MCW		1	0.005	
	MCW	Jar	1	0.005	
38	SCASS	Jar	1	0.005	Mid 11th-early 13th century
46	DUTR	Bowl	1	0.010	Mid 16th-end of 18th century
	PMR	Jar	1	0.005	
47	METS	Bowl	1	0.016	Late 19th-early 20th century
	MODR	Plant pot	2	0.135	
	MODR SLIP	Bowl	2	0.060	
	PEARL SLIP	Bowl	1	0.006	
	PEARL SLIP	Drinking vessel	4	0.044	
	PMR	Bowl	1	0.037	
	STMO	Drinking vessel	1	0.019	

<i>Context</i>	<i>Fabric</i>	<i>Form</i>	<i>Sherd Count</i>	<i>Sherd Weight</i>	<i>Context Date Range</i>
	STSL	Bowl	3	0.094	
	SWSG	Bowl	1	0.010	
	SWSG	Jar	2	0.021	
50	BOND		1	0.032	Mid 15th-mid 17th century
	WCAMSW	Jug	1	0.012	
100	BABEL	Drinking vessel	1	0.003	Late 18th-19th century
	BCHIN	Drinking vessel	1	0.003	
	CREA SLIP		1	0.004	
	PEARL		2	0.005	
	PEARL TR	Bowl/plate	3	0.020	
	PEARL TR	Jug	1	0.006	
	PMR	bowl	1	0.066	
	PORC		1	0.002	
	RFWE		1	0.002	
	RFWE	Jar	1	0.020	
	RFWE TP	Bowl	4	0.006	
	RFWE TP	Bowl	1	0.006	
	TGW		1	0.005	
102	BRILL	Jug	2	0.008	Mid 14th-end of 15th century
	DNEOT	Bowl	1	0.017	
	LMR	Bowl	1	0.020	
	LMR	Jar	32	0.289	
	GRIM	Bowl	2	0.009	
	GRIM	Jug	2	0.01	
	HEDI		1	0.007	
	HEDI	Jug	2	0.025	
	LMEL	Jug	1	0.015	
	LYVA		1	0.007	
	MCW		9	0.066	
	MEL	Jar	5	0.034	
	MEL	Jug	1	0.021	
	MEMS		2	0.010	
	MEMS	Jar	22	0.173	
	SEFEN		1	0.005	
	WCAMSW		1	0.003	
106	CREA	Bowl/plate	2	0.017	Late 18th-mid 19th century
	EAR		1	0.014	
	PEARL SLIP	Drinking vessel	1	0.002	
	PEARL TR	Bowl/plate	2	0.012	
	PMR	Bowl	1	0.017	
108	NOTTS	Jug	1	0.062	Late 18th-mid 19th century
	PEARL	Bowl	9	0.054	
	PEARL TR	Bowl	1	0.001	
113	BCHIN	Bowl/plate (saucer)	1	0.002	Late 18th-19th century
	PEARL	Bowl/plate (saucer)	1	0.003	
	PMR	Bowl	1	0.084	
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 to end of 14th century
	SEFEN	Jar	1	0.021	
126	EMEMS		2	0.006	Mid 11th-early 13th century
131	BRILL	Jug	1	0.007	Late 14th-end of 16th century
	EAR	Jug	3	0.085	

<i>Context</i>	<i>Fabric</i>	<i>Form</i>	<i>Sherd Count</i>	<i>Sherd Weight</i>	<i>Context Date Range</i>
	EMEMS	Jar	1	0.002	
	HEDI	Jug	2	0.008	
	HERTG	Jug	1	0.037	
	LMR		1	0.059	
	LMR	Jug	1	0.004	
	MCW		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	Jar	1	0.018	
	MGF	Jug	1	0.002	
	PMR		1	0.015	
	SEFEN		4	0.020	
	SEFEN	Jar	3	0.016	
155	BCHIN	Bowl	1	0.004	Late 19th century
	BOND	Bowl	1	0.110	
	CREA		2	0.006	
	CREA	Bowl/plate	8	0.069	
	CREA	Bowl	10	0.136	
	MODR	Bowl	5	0.971	
	NOTTS	Bowl	2	0.103	
	PEARL		1	0.005	
	PEARL	Bowl	2	0.015	
	PEARL	Plate	1	0.002	
	PEARL TR	Drinking vessel	2	0.002	
	PEARL TR	Bowl/plate	5	0.014	
	PORC	Bowl/plate	1	0.004	
	RFWE	Bowl/plate	1	0.007	
169	HEDI	Jug	3	0.090	Mid 12th-mid 14th century
171	COLS L		1	0.030	15th-mid 16th century
	MEMS	Jar	2	0.030	
	MCW		1	0.013	
	MCW	Jar	1	0.009	
173	MCW	Jar	1	0.003	Mid 12th 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	
	MCW	Jar	5	0.043	

<i>Context</i>	<i>Fabric</i>	<i>Form</i>	<i>Sherd Count</i>	<i>Sherd Weight</i>	<i>Context Date Range</i>
176	SEFEN	Jar	5	0.093	Mid 14th-end of 15th century
	EMEMS	Jar	1	0.003	
	LMEL	Jar	1	0.008	
	MCW		1	0.003	
	MEL	Jug	2	0.014	
177	MEMS	Jar	1	0.007	Mid 14th-mid15th century
	HERTG	Jug	1	0.001	
	HUNFSW		1	0.004	
	LMEL	Jug	1	0.008	
	LYVA	Jar	1	0.003	
	MCW	Jar	1	0.007	
	MCW	Bowl	2	0.017	
	MEL		1	0.010	
	MEL	Jug	2	0.039	
178	MEMS	Jar	7	0.083	Mid 14th-end of 15th century
	COLS L	Jar	2	0.020	
	EMEMS	Jar	4	0.036	
	EMEMS	Bowl	1	0.028	
	HUNFSW		1	0.013	
	HERTG	Jug	1	0.011	
	LMEL	Jug	14	0.137	
	LYVA		3	0.015	
	LYVA		3	0.053	
	MCW		7	0.050	
	MCW	Jug	1	0.010	
	MEL		1	0.025	
	MEMS	Jar	9	0.103	
	NEOT		1	0.006	
	UGBB	Jar	2	0.010	
	UPG	Jug	1	0.020	
179	WCAMSW		1	0.010	Late 13th-end of 14th century
	WCAMSW	Jar	2	0.050	
	MCW		1	0.007	
183	UGBB	Jar	1	0.006	13th to end of 14th century
	WCAMSW	Jar	1	0.015	
	DNEOT		3	0.023	
	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	
	MCW	Jar	1	0.016	
	SEFEN		1	0.011	
184	SEFEN	Jar	1	0.011	13th to end of 14th century
	UGBB	Jar	3	0.081	
	EMEMS		2	0.008	
	HEDI	Jug	1	0.011	
	MEL	Jug	1	0.019	
	MEMS		1	0.018	
	MEMS	Jar	13	0.341	
MCW	Jar	2	0.013		
SEFEN	Jar	6	0.155		

Context	Fabric	Form	Sherd Count	Sherd Weight	Context Date Range
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	
	DNEOT	Jug	1	0.025	
	MEMS	Jar	4	0.101	
	MCW	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	
	MCW	Jar	1	0.008	
189	MCW	Jar	1	0.014	Mid 12th to end of 14th century
191	EMEMS/MEMS	Jar	2	0.024	Mid 14th-mid 15th century
	HUNFSW		1	0.002	
	LMEL	Jug	1	0.005	
	LYVA	Jar	1	0.004	
	MEMS	Jug	10	0.061	
	SEFEN	Jar	1	0.012	
196	ENGS		1	0.001	13th to end of 14th century (stoneware intrusive)
	MEMS	Jar	1	0.017	
	MCW		2	0.016	
199	EAR	Jar	3	0.031	13th to end of 14th century
	EMEMS/MEMS	Jar	1	0.022	
	HUNFSW	Jar	1	0.008	
	MCW		1	0.009	
	SEFEN	Jar	1	0.006	
201	EAR	Jug	4	0.013	14th century
	EMEMS	Jar	1	0.008	
	EMEMS/MEMS	Jar	8	0.068	
	GRIM	Jug	1	0.001	
	HEDI	Jug	1	0.004	
	LYST	Jug	1	0.013	
	MEL	Bowl	2	0.078	
	MEL/LMEL	Jug	2	0.011	
	MEMS	Jar	1	0.019	
	MCW		1	0.007	
	MCW	Bowl	3	0.037	
	MCW	Jar	1	0.013	
	202	EAR	Jug/jar	1	
EMEMS			1	0.010	
MEL			1	0.007	
MEMS		Jar	2	0.010	
MCW		Bowl	3	0.211	
MCW		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	BOND		1	0.004	Mid 16th to end of 18th century
	EAR		9	0.076	

<i>Context</i>	<i>Fabric</i>	<i>Form</i>	<i>Sherd Count</i>	<i>Sherd Weight</i>	<i>Context Date Range</i>
	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	
	MCW		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
	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	
	MCW		2	0.038	
	MCW	Jug	1	0.004	
228	MCW		1	0.053	Mid 12th to end of 14th century
230	EAR	Jug	1	0.007	Mid 14th-end of 15th century
	EMEMS		2	0.032	
	EMEMS/MEMS	Jar	1	0.017	
	GRIM	Jug	10	0.004	
	HEDI	Jug	1	0.06	
	LMR	Jar	6	0.084	
	MCW	Bowl	2	0.044	
	MCW	Jar	7	0.065	
	MEL	Jug	1	0.013	
	MEL	Curfew	3	0.206	
	MEMS	Jar	4	0.023	
	MEMS	Jug	2	0.018	
231	BRILL	Jug	1	0.026	Mid 14th-end of 15th century
	EMEMS		1	0.013	
	LMR	Jar	5	0.27	
	MCW		1	0.005	
	MCW	Jar	2	0.195	
	MEMS	Jar	2	0.032	
	SEFEN	Bowl	8	0.347	
238	EAR	Jug	2	0.076	13th to end of 14th century
	EMEMS	Bowl	1	0.023	
242	EAR	Jug	1	0.076	13th to end of 14th century
	GRIM		1	0.007	
243	MCW	Jar	1	0.011	Mid 12th to end of 14th century
255	CSTN	Drinking vessel	1	0.001	16th century
	MCW	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

Context	Fabric	Form	Sherd Count	Sherd Weight	Context Date Range
273	EMW		1	0.004	Mid 11th to end of 12th century
279	EMEMS		1	0.006	Mid 12th-mid 14th century
	MEL	Jar	1	0.014	
	SEFEN		1	0.008	
280	BCHIN	Bowl/plate	1	0.003	19th century
	ENGS	Bowl	3	0.031	
	PEARL TR	Bowl/plate	7	0.055	
	PMR	Bowl	1	0.023	
	YELL	Bowl	2	0.023	
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	MCW		1	0.021	Mid 12th to end of 14th century
289	CSTN	Drinking vessel	1	0.004	18th century
	HUNFSW	Jar	2	0.193	
	SWSD	Jar	1	0.023	
291	PEARL TR3	Jar	7	0.244	Mid-late 18th 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 SLIP	Bowl	1	0.032	Late 19th-early 20th century
301	MEL	Bowl	1	0.038	Mid 12th-mid 14th century
311	EAR		1	0.006	13th-end of 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 mid 14th century
	HEDI	Jug	1	0.006	
	MEMS	Jar	1	0.004	
	NEOT		1	0.005	
323	PEARL TR	Bowl/plate	1	0.006	Late 18th-mid 19th century
329	PMR	Jar	1	0.003	Mid 16th-end of 18th century
333	BOND		1	0.009	Mid 16th-mid 17th century
	COLS L		1	0.004	
	EAR		2	0.017	
	EAR/TRAN	Jug	2	0.012	
	PMR	Drinking vessel	2	0.030	
334	EAR	Jar	2	0.032	13th to end of 14th century
	MEMS	Jar	6	0.126	
335	BOND		1	0.006	Mid 15th-end of 16th century
	EAR	Jug	1	0.004	
	MCW		1	0.027	
351	PEARL SLIP	Drinking vessel	1	0.028	Late 18th-mid 19th century
	PEARL	Jar	1	0.044	
	PEARL	Lid	1	0.200	
361	EAR		1	0.005	Late 18th-19th century
	RFWE TP	Drinking vessel	2	0.004	
367	CREA	Bowl/plate	2	0.006	Late 18th-mid 19th century

<i>Context</i>	<i>Fabric</i>	<i>Form</i>	<i>Sherd Count</i>	<i>Sherd Weight</i>	<i>Context Date Range</i>
	PEARL	Jar	2	0.007	
370	EMEMS	Jar	2	0.016	Mid 14th-end of 15th century
	LMEL	Jar	15	0.455	
	LYVA		1	0.012	
	MEMS	Jar	1	0.004	
	MCW	Jar	3	0.036	
	NEOT/DNEOT	Bowl	1	0.012	
372	HEDI	Jug	1	0.003	13th-end of 14th century
	MEL	Jug	1	0.025	
	MEMS		2	0.031	
	MCW	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	
	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 -mid 13th century
	EMEMS	Jar	1	0.039	
	MCW		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 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	19th century
419	GRIM	Jug	3	0.033	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-end of 15th century
	MEMS	Jug	1	0.088	
449	EAR	Jug	1	0.004	13th-end of 14th century
454	EAR		1	0.006	13th-end of 14th century
458	MCW		1	0.004	14th-end of 15th century
	UPG	Jug	1	0.060	
460	HEDI	Jug	1	0.010	Mid-13th-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	

<i>Context</i>	<i>Fabric</i>	<i>Form</i>	<i>Sherd Count</i>	<i>Sherd Weight</i>	<i>Context Date Range</i>
	MEL	Bowl	1	0.009	
466	LMR	Jar	3	0.028	Mid 14th-end of 15th century
468	LMR	Jar	3	0.027	Mid 14th-end of 15th century
	MEMS		1	0.004	
476	BRILL	Jug	1	0.013	13th-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	
	NEOT/DNEOT		2	0.016	
477	BRILL		1	0.004	13th-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	
	MCW		2	0.012	
	SEFEN		1	0.004	
479	EAR	Jug	1	0.002	13th-end of 14th century
	EMEMS	Jar	1	0.004	
	MCW	Jar	1	0.015	
	SEFEN		2	0.012	
480	MEL/LMEL	Jug	1	0.005	Mid 12th-end of 15th century
	SEFEN	Jar	1	0.008	
482	EMEMS		1	0.002	13th-end of 14th century
	MEMS	Jar	1	0.003	
	MCW		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	

<i>Context</i>	<i>Fabric</i>	<i>Form</i>	<i>Sherd Count</i>	<i>Sherd Weight</i>	<i>Context Date Range</i>
	EMEMS/MEMS		1	0.013	
	HEDI	Jug	1	0.008	
	MCW		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	
	MCW		2	0.064	
516	EAR	Jug	1	0.015	13th to end of 14th century
	MCW		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	
	MCW		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	13th-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	MCW		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	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
	MCW	Jar	3	0.018	
553	EAR	Jug	1	0.009	13th-end of 14th century
554	MEL/LMEL	Jug	1	0.054	Mid 12th to end of 15th century
556	GRIM	Jug	1	0.008	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-end of 14th century

<i>Context</i>	<i>Fabric</i>	<i>Form</i>	<i>Sherd Count</i>	<i>Sherd Weight</i>	<i>Context Date Range</i>
558	MCW		1	0.003	13th-end of 14th century
562	HEDI	Jug	2	0.004	13th-mid 14th century
580	GRIM	Jug	1	0.054	13th-mid 14th century
581	EAR		1	0.002	13th-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-end of 15th century
	LMEL	Jug	2	0.007	
	MEL	Jug	1	0.026	
	MEL/LMEL		1	0.005	
	MEMS	Jar	2	0.017	
	MCW	Jar	2	0.007	
598	EAR		8	0.033	13th-end of 14th century
601	BOUD	Bowl	1	0.035	Mid 15th-mid 16th century
	EAR	Jug	1	0.008	
	GRIM	Jug	1	0.006	
	LMR		1	0.006	
610	EAR	Jug	2	0.018	13th-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	3	0.131	
	MGF	Jug	4	0.295	
625	BRILL	Jug	1	0.010	14th century (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-end of 14th century
639	PMR	Bowl	3	0.078	Mid 16th -18th century
652	EAR	Jug	2	0.008	Mid-13th-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	

Context	Fabric	Form	Sherd Count	Sherd Weight	Context Date Range
	MEMS	Jug	1	0.013	
	MGF	Jug	4	0.034	
655	GRIM	Jug	1	0.007	13th-end of 14th century
	MEMS	Jar	2	0.006	
	SEFEN		1	0.022	
666	MEMS		1	0.010	13th-end of 14th century
Total			1285	22.356	

Table 9: *Medieval to modern pottery catalogue*

B.6 Ceramic Building Material

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 a possible stove tile) comprising 633 fragments weighing 95.921kg (Table 10) was recorded. Due to the large quantities of medieval and post-medieval brick and floor brick (including brick wells and walls) a representative sample was analysed. 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	489	40.12
Ridge, nib, pantile and ?stove tile	6	10	2.61
Total		633	95.92

Table 10: *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 Period (Table 11).

Material	No. of contexts	No. fragments	Weight of artefacts (kg)	Period
Peg tile	7	12	0.53	2.1
Brick	4	13	1.42	2.2
Peg tile	10	24	1.24	2.2

Material	No. of contexts	No. fragments	Weight of artefacts (kg)	Period
Brick	15	45	18.85	3
Med floor tile	1	1	0.413	3
Peg tile	20	376	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
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		633	95.92	

Table 11: *CBM by count and Period*

Brick

- B.6.5 A total of 130 brick fragments was found in 48 contexts (Tables 10, 11 and 12), the brick has been recorded in detail by context (Table 12). 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 2014). 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 2012a) 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 2010).

Date

- B.6.7 Bricks were found in small numbers in Period 2.2 (c. AD 1350-1400) with a significant quantity found in Period 3 features (c.AD 1400-c.1500/1550) (Table 19). Brick was found in much larger quantities in contexts dating from 1800.

Condition

B.6.8 The Coldhams Lane excavations produced several complete and partial medieval and post-medieval bricks (Table 12). These are in good condition and sufficiently complete to allow measurements.

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 hand-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 Period 3 cess-pit (229) at Coldhams Lane should perhaps be seen in this light.
- B.6.10 The earliest contexts in which bricks were found at Coldhams Lane (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 C). 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 relatively large assemblage of medieval bricks at Coldhams Lane, 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. The presence of bricks in mid 14th century contexts at Coldhams Lane takes the known history of brick use in this area. This recovery helps to establish a date at which bricks first began to be used in Cambridge. Late medieval brick (all from deposits dating to the mid 14th century at their earliest) were also recovered from Harvest Way, Newmarket Road and Brunswick excavations in at least two fabrics (Atkins 2012a; Athins forthcoming a and b). As most of these bricks probably originated from the priory indicating that it is likely that brick was probably a relatively common building material for late medieval buildings here. Brick may have been fairly common in around Barnwell as the Town at least partly enclosed Midsummer Green with a brick wall before 1501. Treasurers' Rolls record that the town sold to the Prior a parcel of "the common of the town, called Midsomer-green" for £2 0s 0d 35 and this land was enclosed with a "brike wall" (quoted in Baxter 2013, 4-5). Brick was functional and used in many different areas including several high status late medieval brick buildings in other important religious houses in the region such as the Priors House at Thetford Priory.
- 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 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 All three excavations (Coldhams Lane, Harvest Way and Newmarket Road) where CBM was kept and recorded in the Barnwell suggest there were few new bricks being use in the village from the immediate post-Dissolution period to the very late 18th century. Barnwell settlement declined in size after the Dissolution and most building work in this periods salvages medieval brick (and stone) from the former priory. Mixed yellow red/yellow brick dating to the late 17th to mid 18th century was found at Coldhams Lane, but only in moderate quantities.
- B.6.15 A large increase in brick in a gault yellow brick fabric was found at Coldhams Lane dating in features dating from c.AD 1800. These bricks are extremely likely to have been made at a brickworks located from at least c.1800, just to the south-east of the site (recorded on the 1807-12 Enclosure Map). This factory also would have exported bricks along the River Cam - Brick Kiln road lay directly north of the site running to the river. Two and three separate brickworks are recorded on the 1830's and 1840's maps around this area.

Ctxt	Cut	No	Weight	Comments	Feature	Period
43	42	1	0.018	Orange sandy	Wall	5.1
50	-	1	0.105	Mixed yellow/red clay mixed. 50mm (2") thick. 17-mid18th 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. Arrises poor. Late 17th-18th century	Pit	4.2
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	Pit	3

Ctxt	Cut	No	Weight	Comments	Feature	Period
				(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.		
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.	Posthole	4.2
259	258	6	0.355	Purple. Medieval	Posthole	4.2
275	276	2	0.065	In two fabrics: A) 1 purple (47g). B) 1 orange sandy (18g)	Posthole	5.1
277	278	2	1.153	Orange sandy. Sanded. 51mm and 5mm (2") thick. Sanded. Mortar on both.? medieval	Posthole	5.1
280	281	2	1.236	In 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
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	5.1
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?	Posthole	4.2
287	288	1	0.560	Purple (560g). Slightly overfired. Cracked poorly made. 101mm wide (4") c.2" thick. Medieval	Posthole	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.	Posthole	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.	Posthole	5.1
325	328	2	0.187	Yellow brick. Has frequent large internal cracks. 55mm (2¼") thick. 17th-18th century	Posthole	5.1
329	322	1	0.048	Yellow sandy	Posthole	5.2
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. Arrises 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

Ctxt	Cut	No	Weight	Comments	Feature	Period
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	Posthole	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	Posthole	5.1
363	363	5	0.093	5 yellow/red puddled	Posthole	5.1
423	424	2	0.468	Purple. Sanded. 95mm (4") wide and 48mm (2") thick. Arises ok. Mortar on 1.	Posthole	3
425	426	1	1.807	Complete brick. 223mm (8¾") long, 99mm (4") wide and 49mm (2") thick	Posthole	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	Posthole	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"). 1 orange sandy brick (336g). Sanded. Arises 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	Posthole	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	Posthole	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
627	626	1	0.227	Purple (227g). A few yellow chalk lump inclusions. Vegetative impressions. Poorly made. inc. arrises. Brick has cracks etc. Medieval	Posthole	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	Posthole	5.1
636	645	1	0.286	Light Orange sandy (286g). Well made. c.38mm (1½") thick.	Pit	4.2
639	645	1	0.028	Purple. Some chalk inclusions. Vegetative impressions. Medieval	Pit	4.2
652	-	8	1.874	In 3 fabrics: A) 3 purple (543g). c.2" thick. Overfired. Vegetative impressions 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 Mortar 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.	Posthole	5.1

Table 12: *Brick catalogue*

Medieval floor tile

B.6.16 Only two medieval floor tiles were found, one in a contemporary pit (**229**) and the other residual (Table 13).

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 13: *Catalogue of medieval floor tile*

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

- B.6.17 The ceramic roof tile assemblage from Coldhams Lane comprises a moderately large collection of 499 fragments (42.73kg) with an average tile fragment weight of 85.63g (Tables 10, 14, 15 and 16). 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.6.18 The roof tile was found in low numbers in pre AD 1400 contexts (Table 14). The vast majority of the assemblage was found in Period 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. One of the exceptions is a peg tile which has an 'H' or a tally mark scratched on pre-firing (Fig.20, no.4).
- B.6.19 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.6.20 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.6.21 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 (Fig.20, no.5). A comparison includes a medieval decorated glazed tile from Wisbech Castle excavations (context 201), which was probably locally made but copying continental Flemish stove tiles (pers comm Paul Sperry). Pantile and floor brick were only found in post-medieval and modern contexts (Tables 15 and 16).

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 with 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

Ctxt	Cut	No.	Wt	Comments	Feature	Ph
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 and 45mm from side) and seven uncertain (sides did not survive). Mortar on c.35. F) 1 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.	Pit	3
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	5.1
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	5.2

Ctxt	Cut	No.	Wt	Comments	Feature	Ph
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-rounded 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
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	8	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) 2 medium 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	-

Ctxt	Cut	No.	Wt	Comments	Feature	Ph
639	645	1	0.151	Hard orange sandy. Sub-rounded peg hole 32mm from side – 2 peg hole type (Fig.20, no. 4). Has H or a tally mark scratched on pre-firing.	Pit	4.2
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 14: *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 curve on tile	Pit	3
639	645	1	0.278	?stove tile (Fig.20, no. 5). Light orange sandy. Occasional small pebble inclusion. Originally the tile had been double size i.e square. Now roughly triangular with a right angle 4" by 4" and hypot not measured. c.1½" thick. Fabric similar to Bourne 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 incised lines has been carved out by knife. Frequent knife marks are visible. Broken in half before firing. Late medieval? Presumably originated from priory.	Pit	4.2

Table 15: *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	4.2

Table 16: *Catalogue of floor brick*

B.7 Other Artefacts

By Rob Atkins

Clay pipes

B.7.1 A small collection of clay pipes was recovered from the excavations comprising twenty clay pipe stems weighing 46g from 8 contexts and these were all in 19th and 20th century contexts (Table 17).

Context	Cut	Feature	No.	weight (g)	Period
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	5.1
325	328	posthole	1	4	5.1

Context	Cut	Feature	No.	weight (g)	Period
573	574	posthole	1	2	5.1
Total			20	46	

Table 17: *Clay pipe by context and Period*

Wig curler

- B.7.2 An 18th/19th century wig curler made from pipe clay in cylindrical form was recovered from context 100

Fired Clay/daub

- B.7.3 A small collection of three fired clay pieces (0.155kg) was found in three 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 an Iron Age fired clay spindle whorl (67g) has been reported separately by Nina Crummy (see Appendix B.2.8 above).

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 medieval pit **37** and part of a broken patinated blade from pit **204**.

Glass

- B.7.5 Eight vessel and window glass fragments (218g) were found in seven different features. A fragment (3g) of possible Roman green bottle glass (with some internal air bubbles) was found in medieval Period 2.2 pit **204**. A post-medieval onion bottle fragment (28g) was possibly intrusive in Period 3 pit **229**. An intrusive clear 19th/20th century window glass fragment (2g) was recovered from medieval Period 2.1 well **557**. The majority of the glass came from four 19th century (Period 5.1) contexts and comprise a body shard from an olive-green wine bottle with a gold iridescent (flaking) surface (late 17th-18th century) in wall foundation **22**, 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 posthole **320**.

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 Coldhams Lane 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. Faunal material was recovered from a variety of features from the five identified periods.

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 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 18. 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 18 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 Periods 2 and 3 along with smaller amounts from both late post-medieval and Middle/Late Iron Age phases.

Period	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 familiaris)	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 18: *Faunal species distribution for the assemblage*

C.1.4 The Iron Age material is almost exclusively recovered from fills of an enclosure or 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 (Chart 7), with only a single wild mammal element 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 Chart 7). 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**).

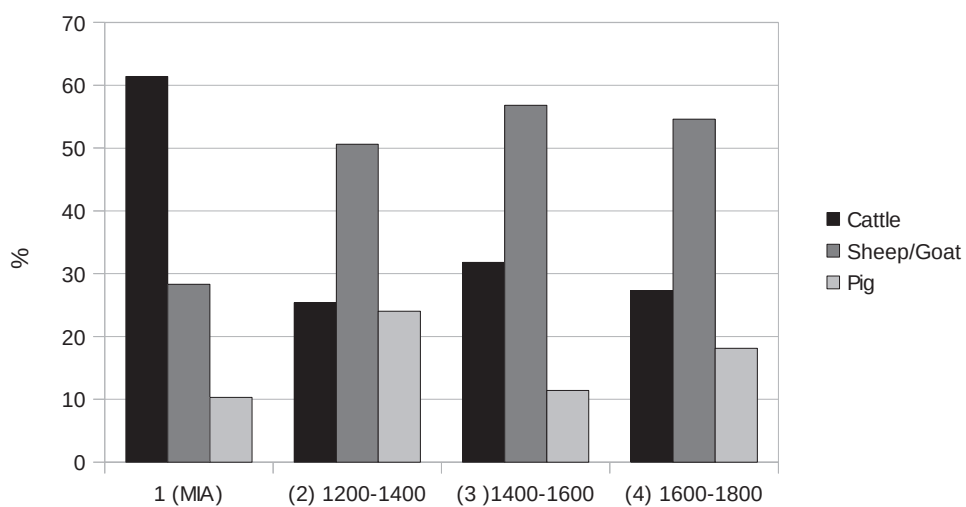


Chart 7: *Domestic mammal distribution by period*

C.1.5 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).

Species Present

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 a 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 consist 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 periods 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. Chart 8 shows the body part distribution for Period 2 sheep. As with the Iron Age sample the assemblage is dominated by mandibles and tibia fragments.

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 animals over four years of age suggesting the focus was on wool and to a lesser extent mutton production (see Chart 9). 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.

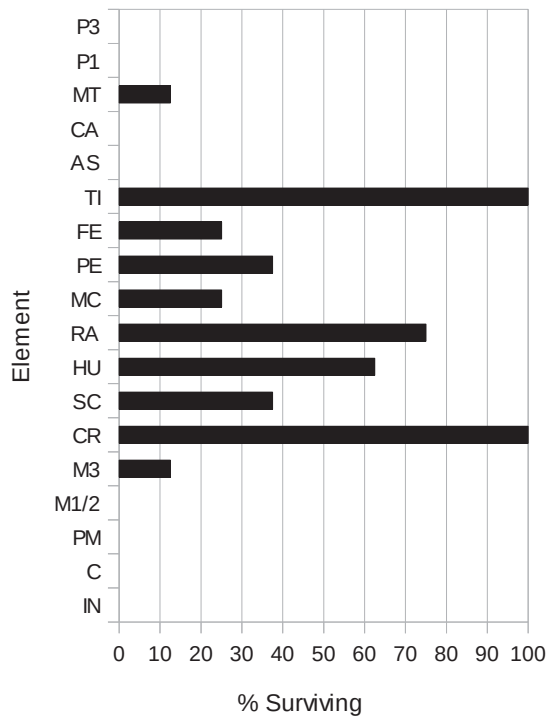


Chart 8: *Sheep body part distribution (Period 2)*

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.

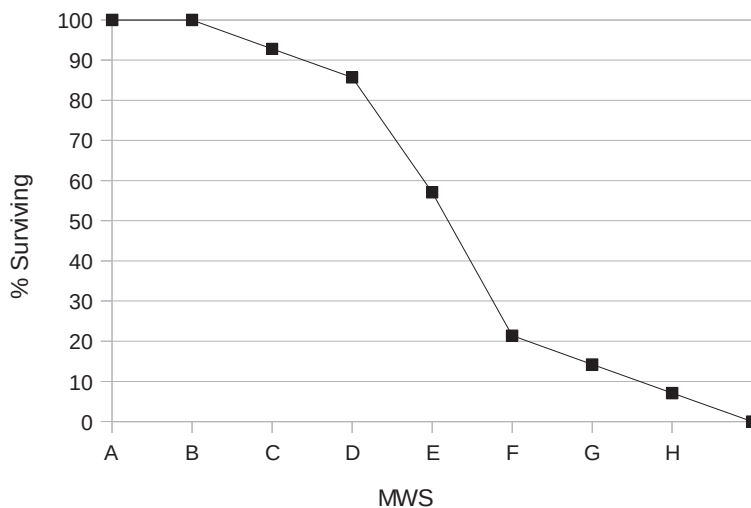


Chart 9: *Mandibular wear stages for Period 2 sheep*

C.1.11 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. 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.

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). An 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, six 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 Period 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 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

Introduction

- C.2.1 Fifty-six environmental bulk samples were taken from deposits within pits and wells that dated from three phases of occupation throughout the medieval to the late post-medieval periods. An initial assessment of these samples suggested that many of the features contained preserved plant remains that had the potential for further archaeobotanical study. Ten samples were chosen for full analysis based on their content and whether they had the potential to provide further information about the environment, diet and economy of the site. The aims of this further study were to characterise the individual deposits from three phases of occupation of the site with regard to the modes of preservation present and the diversity and density of plant species.
- C.2.2 Preservation of plant remains is by carbonisation (charring) and waterlogging with occasional plant and insect specimens that have been preserved by mineralisation. The charred plant remains include significant quantities of cereals commonly encountered in medieval samples along with seeds of weed plants that are associated with cereal cultivation. Plant remains preserved by waterlogging are present in successive deposits from two wells 190 (Sample 50) and 481 (Sample 55). Waterlogging occurs when a deposit has remained wet as a result of being below the water table. A waterlogged environment is anoxic in that oxygen is excluded which inhibits the decay-causing

bacterial leading to the preservation of organic remains such as plants, insects and wood that would not be preserved in dry contexts. Carbonization only occurs under certain conditions when plant material is incompletely burnt and reduced to pure carbon. Any surviving charred remains will only represent a small proportion of the original material being burnt.

Methodology

- C.2.3 For the initial assessment, approximately ten litres (one bucket) of each of the bulk environmental samples were processed by water flotation (using a modified Siraff three-tank system). The flot was collected in a 0.3mm nylon mesh. An initial assessment of the waterlogged flots was carried out using a binocular microscope and the flots were then dried for storage. The analysis of the two waterlogged samples was carried out on 1L sub-samples that were washed through a set of sieves and the individual fractions stored in water suspension. The remaining flots were allowed to air dry prior to examination. A list of the recorded remains are presented in Tables 19-21. Identification of plant remains is with reference to the *Digital Seed Atlas of the Netherlands* and the authors' own reference collection and nomenclature is according to Stace (1997). Carbonized seeds and grains, by the process of burning and burial, become blackened and often distort and fragment leading to difficulty in identification whereas seeds preserved by waterlogging often retain their outer surface (testa) enabling more accurate identification. Plant remains have been identified to species where possible. The identification of cereals has been based on the characteristic morphology of the grains and chaff as described by Jacomet (2006).

Quantification

- C.2.4 Individual cereal grains, chaff elements and seeds within selected samples have been counted, the remaining samples have been scored quantitatively. Quantification of cereal remains can be problematic due to the tendency of the material to break into small pieces. The methods used are as recommended by (Jones 1988). Fragmented cereal grains have been counted if over half of the grain has survived or if the embryo ends of smaller fragments are present. Cereal grains, chaff elements and seeds have been counted.

Samples that have been recorded qualitatively have been score according to the following categories

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

Charcoal and waterlogged seeds and have been scored for abundance according to the following criteria:

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

Key to table: u = untransformed, w = waterlogged, f=fragment, b=burnt, m=mineralised

Results

Preservation

- C.2.5 Preservation is by both carbonisation and by waterlogging. Most of the samples contain uncharred seeds of dead-nettle (*Lamium* sp.) and to a lesser extent, henbane (*Hyoscyamus niger*). These seeds are probably contemporary with the deposits from which they derived as the seed coat (testa) of these species are extremely tough and fairly resistant to decay

Economic plants

- C.2.6 A range of crops are represented including the full range of cereals; wheat (*Triticum* sp.), barley (*Hordeum vulgare*), rye (*Secale cereale*) and oats (*Avena* sp.) along with legumes including peas (*Pisum* sp.) and beans (Fabaceae). These findings are typical of Medieval sites in the East of England as described in a review of excavated sites in this area (de Moulins & Murphy 2001). The wheat grains are mainly compact and chaff elements have been identified as hexaploid-type bread wheat (*T. aestivum/compactum*) forms in addition to inclusions of rivet wheat (*T. turgidum* subsp. *turgidum*). The rye grains have a distinct morphology and can be identified by their truncated apex and a long scutellum. Oat grains have also been identified by their characteristic shape. The diagnostic floret bases of the both wild and cultivated oats are present showing that oats were grown as a crop in their own right and that the wild forms are present as crop weeds. The barley appears to be of the hulled variety which would have required parching/pounding/light milling to remove the outer husk if intended for consumption but not for brewing or for use as animal fodder.
- C.2.7 Peas (*Pisum cf. sativum*) are relatively common and beans (Fabaceae) are also present but are less identifiable due to poor preservation of the outer testa. In the medieval period beans tended to have a rounded morphology making them harder to distinguish from peas when charred (Moffet 2006).
- C.2.8 Evidence of other economic plants is scarce; two rosehips (*Rosa canina*) were found in well **481** and there is a possible lentil (*Lens culinaris*) in pit/posthole **283**.
- Weed seeds*
- C.2.9 Charred weed seeds largely represent common segetal weeds 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*) and goosefoot (*Chenopodium* sp.). Seeds of a more ruderal habitat which may also include segetal seeds include dock (*Rumex* sp.), goosefoot (*Chenopodiaceae* indet.) and clover/medick (*Trifolium/Medicago* sp.). Stinking mayweed is an ecologically specific species that favours heavy clay soils in cultivated ground. The presence of this species within a charred cereal assemblage suggests that at least one of the crops, probably the more wet soil-tolerant wheat, was growing on heavier clay soils. Charred weed seeds are fairly common 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) are also present and may indicate hay.
- C.2.10 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*), dead-nettle (*Lamium* sp.) and members of the Pinks family (Caryophyllaceae) includingampions (*Silene* sp.) and chickweed (*Stellaria* sp.). Obligate aquatic plants such as pond weed are noticeably absent indicating that plants were not growing within the water in either of the wells
- C.2.11 Mineralised remains are rare on this site and are restricted to occasional seeds, insect fragments and fly eggs.

C.2.12 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.

Results by Period

Period 2.1

C.2.13 The assessment of twenty-two samples from Period 2.1 deposits had shown that charred cereals are abundant but that accompanying chaff elements are rare. Four samples were chosen for analysis.

Sample No.		2	10	20	50
Context No.		38	120	207	533
Feature No.		39	119	168	190
Feature type		pit	pit	pit	well
Sample volume (L)		18	24	27	1
Preliminary Phasing		2.1	2.1	2.1	2.1
Volume of flot (litres)		75	80	80	60
% flot sorted		100	100	100	100
Cereals					
<i>Avena</i> sp. caryopsis	Oats [wild or cultivated]	14	71	1	
<i>Avena</i> sp. Germinated caryopsis		1			
<i>Avena</i> sp./ <i>Poaceae</i> caryopsis	oat/grass	2			
<i>Hordeum vulgare</i> L. caryopsis	domesticated Barley grain	13	77	3	1
<i>Secale cereale</i> L. caryopsis	Rye grain	3	22	3	
free-threshing <i>Triticum</i> sp. Caryopsis	free-threshing Wheat grain	102	983	63	
cereal indet. caryopsis	indeterminate	77	213	19	
	Total cereals	212	1366	89	1
Chaff					
<i>Hordeum vulgare</i> L. rachis internode	domesticated Barley chaff	3	1		
free-threshing <i>Triticum</i> sp. rachis internode	free-threshing Wheat chaff	6			
cf. cereal indet. culm node	Cereal stem-joint [indicates straw]	8	3	1	
cereal indet detached sprout	cereal sprout	1	9		
	Total chaff	18	13	1	0
Other food plants					
Legume 2-4mm	vetch/tare/small pea		3		
Legume 2-4mm	Pea/small bean	2	41.5	5	
Fabaceae	Bean		3f	2	
Dry land herbs					
<i>Agrostemma githago</i> L. seed	Corncockle		1		
<i>Anthemis cotula</i> L. seed	Stinking Chamomile	7	8	4	
<i>Arctium lappa</i> L. seed	Greater burdock				11w
<i>Atriplex prostrata</i> Boucher ex DC./ <i>patula</i> L. seed	Spear-leaved/Common Orache		1		3w
<i>Brassica nigra</i> type seed	Black Mustard [coarse-textured seed]	6	3	2	
<i>Bromus</i> spp. caryopsis	Bromes		1		
<i>Centaurea cyanus</i> L. achene	Cornflower		1		
Chenopodiaceae indet. seed	Goosefoot Family	7		3	4w
<i>Chenopodium album</i> L. seed	Fat-hen	1	1		48w
<i>Fallopia convolvulus</i> (L.) Á. Löve achene	Black-bindweed			1	
<i>Galium aparine</i> L. nutlet	Cleavers	1			

<i>Geranium pratense</i> L. seed	Meadow cranesbill				5w
<i>Hyoscyamus niger</i> L. seed	Henbane		1 + 1u		19w
<i>Lamium cf. maculatum</i> nutlet	spotted henbit				58w
<i>Lapsana communis</i> L. achene	Nipplewort	2			
<i>Lolium cf. temulentum</i> L. caryopsis	Darnel	1	3	16	
<i>Malva</i> sp. nutlet	Mallows				1w
<i>Medicago lupulina</i> L. fruit	Black Medick			1	
<i>Plantago lanceolata</i> L. seed	Ribwort Plantain		1		
medium Poaceae indet. [3-4mm]	medium-seeded Grass Family		3		
Polygonaceae indet. achene	Dock Family	1			
<i>Polygonum aviculare</i> L. achene	Knotgrass				3w
<i>Rumex acetosella</i> L. achene	Sheep's Sorrel	1	1		
<i>Rumex cf. crispus</i> L. achene	Curled Dock		4		
<i>Rumex cf. obtusifolius</i> L. achene	Broad-leaved Dock	1			
<i>Rumex</i> sp. achene	small-seeded Docks		4		1w
<i>Silene</i> sp. Seed	Campions	4			
<i>Sonchus asper</i> L. Hill achene	Prickly sow-thistle				1w
<i>Sonchus oleraceus</i> L. achene	Smooth sow-thistle				5w
<i>Stellaria media</i> (L.) Vill. Seed	Common Chickweed				13w
<i>Taraxacum officinale</i> F.H. Wigg seed	common dandelion				6w
<i>Thalictrum flavum</i> L. fruit	Common Meadow-rue			1	
<i>Thalictrum flavum</i> L. achene	Common Meadow-rue			1	
<i>Torilis arvensis</i> L. seed	Common hedge-parsley				11w
small <i>Trifolium</i> spp. [<1mm] seed	small-seeded Clovers	15	16	2	
large <i>Trifolium/Medicago</i> spp. [2-3mm] seed	large-seeded Clovers/Medicks	5	8		
<i>Urtica dioica</i> L.. seed	Common Nettle	1			
<i>Urtica urens</i> L. seed	Small Nettle		3		1w
Wetland/aquatic plants					
Small trigonous <i>Carex</i> spp. nut	small triangular-seeded Sedges			17	
medium trigonous <i>Carex</i> spp. [2-3mm] nut	Common / Slender Spike-rush		1		
elongate lenticular <i>Carex</i> spp. nut	elongate & flat-seeded Sedges		1	1	
Charophyte oogonia	Stonewort		1		
<i>Cladium mariscus</i> (L.) Pohl leaf	Great Fen-sedge	++	+	+	
<i>Cladium mariscus</i> (L.) Pohl nut	Great Fen-sedge	1	1	10	
<i>Eleocharis palustris</i> (L.) Roem. & Schult./ <i>uniglumis</i> (Link) Schult. nut	Spike rush			1	
<i>Juncus tenuis</i> Willd. seed	Slender Rush		3		
Tree/shrub macrofossils					
<i>Sambucus nigra</i> L. seed	Elder		1u		
Other plant macrofossils					
Charcoal <2mm		++	+++	+++	
Charcoal >2mm		++	++	++	
Charcoal >10mm				+	
Indet.culm nodes				11	
Waterlogged plant remains					+++w
Indet.seeds				3	
Other remains					
molluscs			++b	+b	
Bone				#	
mineralised arthropod remains			#		

Table 19: Plant remains from Period 2.1 samples

Pits 39, 119 and 168

- C.2.14 Three extraction/quarry pits contained deposits relating to the secondary use of these features for the disposal of domestic refuse. Pit **39** had a single backfill (38) and contained mixed cereals (8.4 grains per litre) with wheat predominating. The cereal grains are not well preserved which may suggest that the pit had been left open and exposed to the elements or that the material had suffered some degradation prior to deposition. The weed seed assemblage consists of seeds of plants that would have been harvested with the cereals such as clover and stinking mayweed that are likely to have been sieved from the grains during processing. Brassica seeds are present and may represent a wide range of crops such as turnips, cabbages or mustards as the seeds of each type are hard to distinguish. Great fen sedge leaf fragments and nutlets are also present
- C.2.15 Pit **139** was a square-ish extraction pit that had two fills. Sample 10 was from the lower fill 120 and contains a significant quantity of charred grain (57 grains per litre) of which wheat predominates (72%). Equal numbers of oats and barley grains are present with rye grains occurring occasionally. This sample contains the greatest number of legumes. They are poorly-preserved but their size indicates that both peas and beans are present with peas most common.
- C.2.16 Pit **168** contained ten deposits of which 207 (Sample 20) was the fourth from the base of the feature. The assessment showed that this sample is similar in composition to the latest fill (170) which may indicate repeated use for the disposal of similar waste. Wheat predominates and there are only occasional barley, oat and rye grains included although the overall concentration of cereals is quite low at only 3 grains per litre of soil. There is a relatively large number of darnel seeds in this sample and, given the high percentage of wheat, it is likely that this particular weed species was a contaminant of the wheat crop. Sedges (*Carex*) and great fen sedge also form a large component of this sample and may represent the burning of thatch or flooring material although stem fragments are rare.

Well 190

- C.2.17 Well **190** was located near the southern bank of the site. It was 3.64m deep and contained twenty-seven fills, most of which related to disuse backfills that contained domestic waste in the form of charred cereal remains and pottery, animal bone etc.. The lowest fill, 533 (Sample 50) was 1.12m deep at the base of the well and was the only fill that was sampled that had remained waterlogged since construction. The aim of analysis of this sample is to determine the nature of the surrounding vegetation as open-features such as wells act as a trap for wind-blown seeds. The most abundant seeds present are those of dead-nettles including spotted henbit (*Lamium maculatum*), fat-hen (*Chenopodium album*), chickweed (*Stellaria media*), burdock (*Arctium lappa*), common hedge-parsley (*Torilis arvensis*) and meadow cranesbill (*Geranium praetense*). All of these plants are high seed producers. Two complete rosehips (*Rosa* sp.) are also present and are most probably of the hedge-forming sweet- briar (*R. rubiginosa*) or dog-rose (*R. canina*) variety.
- C.2.18 The assessment of a larger volume of this sample produced a few charred cereal grains which may have percolated through later dis-use deposits or could also have blown into the well and be contemporary.

Period 2.2

Sample No.		29	31	55
Context No.		282	230	555
Feature No.		283	204	481
Feature type		posthole	pit	pit/well
Sample volume (L)		24	21	1
Volume of flot (litres)		30	440	110
% flot sorted		100	10	100
Cereals				
<i>Avena</i> sp. caryopsis	Oats [wild or cultivated]	224	98	1
<i>Avena</i> sp. Germinated caryopsis				
<i>Avena</i> sp./Poaceae caryopsis	oat/grass	41	4	
<i>Hordeum vulgare</i> L. caryopsis	domesticated Barley grain	2	203	
<i>Secale cereale</i> L. caryopsis	Rye grain	6	33	
free-threshing <i>Triticum</i> sp. Caryopsis	free-threshing Wheat grain	143	464	1
cereal indet. caryopsis	indeterminate	270	655	
	Total cereals	732	1457	2
Chaff				
<i>Hordeum vulgare</i> L. rachis internode	domesticated Barley chaff		1	
free-threshing <i>Triticum</i> sp. rachis internode	free-threshing Wheat chaff		6	
cf. cereal indet. culm node	Cereal stem-joint [indicates straw]	7		
cereal indet detached sprout	cereal sprout	29		
	Total chaff	36	7	
Other food plants				
Legume 2-4mm	vetch/tare/small pea	7		
Legume 2-4mm	Pea/small bean		24	1
Fabaceae	Bean	1 +1f	4	
cf. <i>Lens culinaris</i> Medikus seed	lentil	1		
Dry land herbs				
<i>Aethusa cynapium</i> L. kernel	Fool's Parsley			3w
<i>Agrostemma githago</i> L. seed	Corncockle		13	
<i>Anthemis cotula</i> L. seed	Stinking Chamomile	36	2	1
<i>Atriplex prostrata</i> Boucher ex DC./ <i>patula</i> L. seed	Spear-leaved/Common Orache	1		
<i>Borago officinalis</i> L. nutlet	Borage			1w
<i>Brassica nigra</i> type seed	Black Mustard [coarse-textured seed]	1	5	
<i>Bromus</i> spp. caryopsis	Bromes		1	
<i>Carduus/Cirsium</i> sp. achene	Thistles			1w
Caryophyllaceae indet. [1-3mm] seed	medium-seeded Pink Family	2		
<i>Centaurea cyanus</i> L. achene	Cornflower		3	
<i>Cerastium</i> sp. Seed	mouse-ear chickweed			4w
<i>Cerastium arvense</i> L. Seed	mouse-ear chickweed			3w
<i>Chaerophyllum temulentum</i> L. seed	Chervil			27w
Chenopodiaceae indet. seed	Goosefoot Family	1m + 10		1w
<i>Chenopodium album</i> L. seed	Fat-hen	32		5w
<i>Fumaria officinalis</i> L. achene	Common Fumitory			2w
<i>Hyoscyamus niger</i> L. seed	Henbane	1m + 2U		5w
<i>Lamium</i> sp. nutlet	Dead-nettles	2m		10w
<i>Lamium</i> cf. <i>maculatum</i> nutlet	spotted henbit			1w
<i>Lepidium</i> sp. seed	Peppergrass			5w

<i>Lithospermum arvense</i> L. nutlet	Field Gromwell		3	
<i>Lolium cf. temulentum</i> L. caryopsis	Darnel	3		
<i>Malva cf. sylvestris</i> L. nutlet	Common mallow			1w
<i>Medicago lupulina</i> L. fruit	Black Medick	7		
<i>Persicaria maculosa</i> Gray achene	Redshank		2w	
<i>Plantago lanceolata</i> L. seed	Ribwort Plantain	1		
medium Poaceae indet. [3-4mm]	medium-seeded Grass Family		1	
Polygonaceae indet. achene	Dock Family	3		
<i>Polygonum aviculare</i> L. achene	Knotgrass			3w
<i>Rumex cf. crispus</i> L. achene	Curled Dock		19	
<i>Rumex</i> sp. achene	small-seeded Docks	1	39	
<i>Silene</i> sp. Seed	Campions	1		
<i>Sonchus asper</i> L. Hill achene	Prickly sow-thistle			3w
<i>Sonchus oleraceus</i> L. achene	Smooth sow-thistle			3w
<i>Stellaria media</i> (L.) Vill. Seed	Common Chickweed	2		13w
<i>Torilis japonica</i> L. seed	upright hedge-parsley			5w
small <i>Trifolium</i> spp. [<1mm] seed	small-seeded Clovers	41 + 1m	7	
large <i>Trifolium/Medicago</i> spp. [2-3mm] seed	large-seeded Clovers/Medicks	23	4	
<i>Urtica dioica</i> L. seed	Common Nettle	1		202w
<i>Urtica urens</i> L. seed	Small Nettle			1w
<i>Valerianella dentata</i> L. seed	Narrow-fruited cornsalad		1	
<i>Verbena officinalis</i> L. seed	Common vervain			1w
Wetland/aquatic plants				
Small trigonous <i>Carex</i> spp. nut	small triangular-seeded Sedges	1	6	
medium trigonous <i>Carex</i> spp. [2-3mm] nut	Common / Slender Spike-rush	9		1w
elongate lenticular <i>Carex</i> spp. nut	elongate & flat-seeded Sedges	5		
Charophyte oogonia	Stonewort	25	1	
<i>Cladium mariscus</i> L. Pohl leaf	Great Fen-sedge	+	+	
<i>Cladium mariscus</i> L. Pohl nut	Great Fen-sedge	5		
<i>Eleocharis palustris</i> L.Roem.. nut	Spike rush		3	
<i>Juncus tenuis</i> Willd. seed	Slender Rush	12		
<i>Schoenus nigricans</i> L. nut	Black bog rush	3		
Tree/shrub macrofossils				
<i>Rosa</i> sp. Fruit	Rosehip			3w
<i>Sambucus nigra</i> L. seed	Elder	3u		1w
Other plant macrofossils				
Charcoal <2mm		+	++	+++
Charcoal >2mm		+	++	++
Charcoal >10mm		+	+	
Indet.culm nodes		+		
Waterlogged plant remains				+++w
Bryophytes	Mosses and liverworts			++w
Indet.seeds		5	8	
Other remains				
molluscs		+b	++b	
mineralised arthropod remains		#		

Table 20: *Plant remains from Period 2.2 samples*

C.2.19 Pits **204** and **283** are thought to be related to cess disposal. Pit **283** had a single fill 282 (sample 29) containing a mixed grain assemblage of 30 grains per litre. Oats predominate and are assumed to therefore be the cultivated variety despite lack of confirming chaff elements. A relatively large number of detached embryos are present;

the coleoptiles range in length from 3mm to 9mm and it isn't entirely obvious which cereal-type they originate from. Several of the wheat, barley and oat grains are missing their embryos but only a single oat has the characteristic dorsal groove indicating germination. The charred weed seeds are quite diverse with significant numbers of stinking mayweed, clover/medick and fat-hen seeds present. Clover and medick are leguminous plants and may have been deliberately cultivated with the oats as a fodder crop. There are occasional seeds that have been preserved by mineralisation; all are weed seeds (dead-nettle, clover, henbane) rather than the usual fruit seeds that are commonly preserved in latrine deposits. There are also several mineralised insect eggs and occasional insect segments preserved. It is likely that the cessy-nature of this deposit has developed from the disposal of fodder and animal waste rather than human latrine waste.

C.2.20 Charaphyte oogonia are the reproductive spores of algae that form in aquatic environments. Those present within pit **283** have been burnt indicating the boiling of water that had probably been drawn from a well. Seeds of wetland plants are also common within this assemblage and include rushes, black bog-rush and sedges including great fen-sedge.

C.2.21 Pit **204** contained three fills; the lowest two fills (230 and 201) were sampled and found to contain abundant assemblages of charred grain. It is possible that there had been some mixing of the two deposits as the contents were similar although the greater quantity of grain was recovered from the lowest fill **230** (Sample 31). A twenty-one litre sample produced a flot volume of 440ml that is almost entirely comprised of charred grain at a density of 700 grains per litre. Almost half of the grains were too poorly-preserved for identification as they were abraded and fragmented. 35% of the grains are wheat, 15% barley, 7% oats and 3% rye. Chaff elements are scarce with only 6 poorly-preserved wheat rachis and a small barley rachis preserved in the 10% sample analysed. Legumes occur at approximately 2% and are comprised mainly of peas with a few beans and a probable lentil. Charred seeds are predominantly from crop weeds such as corncockle, corn gromwell, cornflowers and, most commonly, docks.

Well **481**

C.2.22 Well **481** was located in the north-east of the site. It reached a depth of 3.38m and contained eleven fills, three of which were sampled, and contained charred cereals and domestic debris. Fill 555 was the secondary fill of the well (the lowest fill was not sampled) and contained waterlogged plant remains. Stinging nettle seeds are most common (and are also the plant species that produces the most seeds) and other plants that are characteristic of disturbed soils are docks, mallows (*Malva* sp), thistles (*Carduus/Cirsium* sp.), dead nettles and henbane. Chervil similarly grows on disturbed soils but it may have been cultivated as a flavouring herb. Both nettles and henbane are plants that prefer phosphorous-rich soils and this may suggest that animals are being kept in this area.

Period 3

Sample No.	48	51	1
Context No.	520	539	31
Feature No.	519	519	32
Feature type	pit	pit	pit
Sample volume (L)	9	28	18
Volume of flot (litres)	75	100	150
% flot sorted	100	100	100

Cereals				
<i>Avena</i> sp. caryopsis	Oats [wild or cultivated]	8	90	21
<i>Avena</i> sp./Poaceae caryopsis	oat/grass		3	3
<i>Hordeum vulgare</i> L. caryopsis	domesticated Barley grain	34	10	23
<i>Secale cereale</i> L. caryopsis	Rye grain	764	10	7
free-threshing <i>Triticum</i> sp. Caryopsis	free-threshing Wheat grain	67	286	209
cereal indet. caryopsis	indeterminate	298	182	102
	Total cereals	1171	581	365
Chaff				
<i>Avena fatua</i> L. floret	Wild-oat seed-head	1	1	
<i>Avena fatua</i> L. pedicel	Wild-oat stem fragment	1		
<i>Avena sativa</i> L. floret	Wild-oat seed-head		1	
<i>Hordeum vulgare</i> L. rachis internode	domesticated Barley chaff	46		1
<i>Secale cereale</i> L. rachis internodes	Rye chaff	16		
cf. <i>Secale cereale</i> L. peduncles	Rye stem fragments	9		
free-threshing <i>Triticum</i> sp. rachis internode	free-threshing Wheat chaff	10	9	1
<i>Triticum aestivum</i> sensu lato rachis internode	free-threshing hexaploid Wheat chaff		2	
cf. cereal indet. culm node	Cereal stem-joint [indicates straw]	196	43	
cf. cereal indet. chaff	Cereal stem fragments	7		
cereal indet detached sprout	cereal sprout	16	4	
	Total chaff	302	60	2
Other food plants				
Legume 2-4mm	Pea/small bean	2	7.5	7.5
Fabaceae	Bean		1	1.5
Dry land herbs				
<i>Agrostemma githago</i> L. seed	Corncockle	3		
<i>Anthemis cotula</i> L. seed	Stinking Chamomile	12		1
<i>Atriplex prostrata</i> Boucher ex DC./ <i>patula</i> L. seed	Spear-leaved/Common Orache			2
<i>Brassica nigra</i> type seed	Black Mustard [coarse-textured seed]	3	1	
<i>Bromus</i> spp. caryopsis	Bromes		1	
<i>Carduus/Cirsium</i> sp. achene	Thistles			
Caryophyllaceae indet. [1-3mm] seed	medium-seeded Pink Family	1	1	
<i>Centaurea cyanus</i> L. achene	Cornflower	19	1	
<i>Cerastium arvense</i> L. Seed	mouse-ear chickweed	2		
<i>Chaerophyllum temulentum</i> L. seed	Chervil	1		
Chenopodiaceae indet. seed	Goosefoot Family	10		3
<i>Chenopodium album</i> L. seed	Fat-hen	2		1
<i>Conium maculatum</i> L. mericarp	Hemlock	1u		
cf. <i>Dipsacus fullonum</i> L. seed	Teasel	3		
<i>Fumaria officianalis</i> L. achene	Common Fumitory		1	
<i>Hyoscyamus niger</i> L. seed	Henbane	10u		
<i>Lamium</i> sp. nutlet	Dead-nettles	1		

<i>Lactuca sativa</i> L. seed	lettuce	1		
<i>Lapsana communis</i> L. achene	Nipplewort	1		
<i>Lithospermum arvense</i> L. nutlet	Field Gromwell	2	6	
<i>Lolium cf. temulentum</i> L. caryopsis	Darnel		3	4
Papaveraceae indet. Seed	Poppy family	6u		
<i>Papaver rhoeas</i> L. seed	Common Poppy	5+3u+4m		
<i>Papaver somniferum</i> L. seed	Opium Poppy	2m		
<i>Plantago lanceolata</i> L. seed	Ribwort Plantain		1	
small Poaceae indet. [< 2mm] caryopsis	small-seeded Grass Family		1	
medium Poaceae indet. [3-4mm]	medium-seeded Grass Family	3		
Polygonaceae indet. achene	Dock Family		2	
cf. <i>Raphanus raphanistrum</i> L. seed	Wild Radish	2		
<i>Raphanus raphanistrum</i> ssp. <i>raphanistrum</i> L. mericarp	Wild Radish seed-case segment	1		
<i>Ranunculus cf. acris</i> L./ <i>repens</i> L./ <i>bulbosus</i> L. achene	cf. Meadow/Creeping/Bulbous Buttercup	5	1	1
<i>Rumex acetosella</i> L. achene	Sheep's Sorrel			1
<i>Rumex cf. crispus</i> L. achene	Curled Dock		4	
<i>Rumex</i> sp. achene	small-seeded Docks	1	8	
<i>Silene</i> sp. Seed	Campions		3	
<i>Sinapis</i> sp. seed kernel	Mustard	1	1	
<i>Stellaria media</i> (L.) Vill. Seed	Common Chickweed	2		
<i>Thalictrum flavum</i> L.fruit	Common Meadow-rue			3
small <i>Trifolium</i> spp. [<1mm] seed	small-seeded Clovers	6	11	15
large <i>Trifolium/Medicago</i> spp. [2-3mm] seed	large-seeded Clovers/Medicks	51		3
<i>Urtica urens</i> L. seed	Small Nettle			1
Wetland/aquatic plants				
Small trigonous <i>Carex</i> spp. nut	small triangular-seeded Sedges	7	1	5
medium trigonous <i>Carex</i> spp. [2-3mm] nut	Common / Slender Spike-rush	1	6	1
elongate lenticular <i>Carex</i> spp. nut	elongate & flat-seeded Sedges	4		4
Charophyte oogonia	Stonewort	1		
<i>Cladium mariscus</i> L. Pohl leaf	Great Fen-sedge	+		+
<i>Cladium mariscus</i> L. Pohl nut	Great Fen-sedge	1	1	4
<i>Eleocharis palustris</i> L.Roem nut	Spike rush	1	1	1
<i>Juncus tenuis</i> Willd. seed	Slender Rush	2		2
<i>Scirpus</i> sp. Achene	Club rush	7		
Tree/shrub macrofossils				
<i>Sambucus nigra</i> L. seed	Elder	1		
Other plant macrofossils				
Charcoal <2mm		+++	+++	
Charcoal >2mm		++	++	
Charcoal >10mm		+	++	
Indet.culm nodes		1		
Indet.seeds		9		5
Other remains				

molluscs			+b	
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Table 21: *Plant remains from Period 3.1 samples*

Pits 32 and 519

- C.2.23 Pit **32** contained a single fill (31) that was sampled during the evaluation of the site (Sample 1) and again on full excavation (Sample 11). Whilst the two samples have similar contents, Sample 1 has greater density and diversity of charred plant remains which suggests the fill was not homogeneous and may represent a number of deposition events within the same feature. This deposit is similar in content to the earlier pit fills that contain mixed grain with wheat predominating. It was notable that the oats and barley grains generally had a squashed appearance and it is possible that this is evidence of their use as animal fodder. Spilt and trodden on grain would have been swept up from the floor with the remains of hay and dung and this waste appears to have been burnt prior to disposal. Similarly there is a high content of leguminous clover seeds and wetland seeds.
- C.2.24 Pit **519** contained eleven deposits. Sample 51 was taken from the third deposit 539 and contains mixed cereals with wheat and then oats most prevalent. Culm nodes are common indicating straw and occasional chaff elements are identifiable as bread wheat (*T. aestivum*). Charred weed seeds are similar to the other samples from this site and include clover, corn gromwell, darnell and docks. The wetland seeds include sedges and spike-rush.
- C.2.25 Sample 48 was from eighth fill 520 and contains an abundant assemblage of charred grain (146 grains per litre) in which rye predominates (at least 65%). There is a high proportion of culm nodes present and there are peduncles, the joint between stem and ear, that are most probably of rye (compared to modern material). Actual rye rachis fragments are less common and indeed barley rachis fragments are more frequent. It is probable that the small amount of barley chaff and grain present represents a couple of complete ears that have been burnt whole and disintegrated during the process or subsequent disposal.
- C.2.26 This sample also contains a diverse seed assemblage. Most of the seeds are charred but there are several untransformed seeds of poppy (*Papaver* sp.), henbane and also hemlock (*Conium maculatum*). It is not clear how these seeds have been preserved. They are likely to be contemporary with the deposit as charred specimens are also present. It is possible that the deposit had been waterlogged until relatively recently or it may be that the seeds were durable enough for survival. Mineralised poppy seeds (*P. somniferum*, *P. rhoeas*) are also present. Crop weed seeds include cornflower, corncockle, corn gromwell, stinking mayweed and docks. Seeds of plants such as buttercup (*Ranunculus acris/bulbosus/repens*), teasel (*Dipsacus* sp.), grasses (Poaceae), clover and wild radish may indicate pasture but could also have been crop weeds. Again there is a significant wetland plant representation in seeds of sedges.
- C.2.27 All of the plant remains in this assemblage are extremely friable, many disintegrating on contact. Several of the culm nodes are fully silicified and it would appear that the deposit has been burnt at a high temperature or for a prolonged period.

Discussion

Economic plants

- C.2.28 The plants preserved within features excavated at Coldhams Lane consist of a range of crops including the full range of cereals; wheat, barley, rye and oats along with pulses including peas and beans. These findings are typical of medieval sites in the East of England as described in a review of excavated sites in this area (de Moulins & Murphy

2001) and also for the medieval and post-medieval periods in general (Greig 1991) and they are representative of the cultivation, processing and consumption of cereals in a domestic location. Cereals would have been grown locally and would normally have been brought into the site as batches of threshed grain but the presence of chaff elements suggest that at least some of these cereal crops were being processed on site. Wheat is the most common cereal-type throughout all phases of occupation at this site. The straw fragments of wheat are scarce and when they are present they are usually too small for identification of varieties but it is evident that both tetraploid and hexaploid free-threshing wheat varieties are present. Wheat would have been the preferred grain for making bread although the cheaper rye bread may have been more common among the peasant class. A combination of flour from both cereals was also widely used to make a different type of bread. Wheat and rye were commonly grown as a mixed crop called a 'maslin' in the medieval period (Moffet 2006, 50) as growing two cereals together provided an insurance crop should one of them fail. It is not possible to distinguish a mixed crop in the archaeobotanical record as it is equally possible that cereals became mixed after harvesting.

- C.2.29 Rye is less common in the early phase of occupation but it is considered to be one of the most important crops of the late Saxon to medieval period in the East of England. It is the most drought-tolerant of the cereals and was mass-produced in Suffolk and Norfolk throughout the later medieval period. The assemblage of rye in 3.1 pit **519** may serve as evidence of the increasing popularity and abundance of this cereal. Rye is free threshing and requires minimal processing. It is a tall growing plant and the grain is harvested by reaping below the ear, the remaining straw being commonly used for thatching. There is a high proportion of culm nodes in this sample (representing straw) and as straw is likely to be under-represented as it is less likely to carbonise (Boardman and Jones 1990), it is likely to have been a major component of the original material. It is interesting that there is evidence of straw in the lower deposit in this feature suggesting repeated use for the disposal of what was either burnt thatch or animal feed.
- C.2.30 Barley and oats appear to have been a secondary crop although this could be due to differential preservation. Both barley and oats were used for animal fodder but they would also have been used for human consumption in the form of porridge, stews and soup. Several germinated grains and detached embryos were noted but not in significant numbers to indicate brewing. They are most likely 'spoilt' grains and are probably the reason for disposal.
- C.2.31 Other crop plants include the legumes; peas and beans and possibly, lentils. Legumes would have been an important protein source in the medieval diet and would have been dried for winter use. In the medieval period when beans tended to have a rounded morphology making them harder to distinguish from peas when charred (Moffet *ibid*). It is probable that peas were grown in rotation with cereal crops as their enrichment of the soil was appreciated. It is also likely that peas were grown along with culinary herbs and flavourings in kitchen gardens and is it possible that they were cultivated as such on this site. 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.
- C.2.32 Other food plants are so rare that the chance recovery of rosehips and possibly of chervil are the only indicators of supplements to the diet. Fruit and vegetables would have been consumed but they are rarely represented in the archaeobotanical record as their seeds are unlikely to be preserved. Occasional charred seeds of brassicas may be indicators of a number of vegetables as there are many species of this genus including turnips and cauliflowers. It is also possible that the seeds were consumed as mustard

and may even have been of medicinal value. Hemlock is also a plant that had medicinal uses and is extremely poisonous but it appears to have been growing freely in all phases of occupation.

- C.2.33 The weed seed assemblages largely represent common segetal weeds found in cultivated soils along with weeds that would have been growing around the site (known as ruderals) mixed with wetland seeds. This pattern is seen through all phases of occupation.
- C.2.34 Some of the crop weeds such as darnel, bromes, corn gromwell and corn cockle produce large seeds that are of a similar size to cereal grains that would not have been removed by sieving and so they would have had to be picked out by hand prior to grinding/cooking grain. These weed seeds would have been harvested along with the crop, as reaping in the medieval period usually involved crops being cut at ground level with sickles (Jones 1988). Bromes and darnell 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. They could have been tolerated as a crop contaminant as they are unlikely to greatly affect quality of flour. Rye grass/Darnell, field gromwell, corncockle and wild radish pod fragments 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 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 be picked out by hand prior to consumption. Pernicious weeds such as Corncockle and Darnell were thought to be sown by the Devil. Latimer (Sermon of the Plough) laments
“that our prelates would be as diligent to swe the corne of Good Doctrine as Sathan is to sowe Cockle and Darnell”
- C.2.35 Stinking mayweed (*Anthemis cotula*), is an ecologically specific species that favours heavy clay soils in cultivated ground. Its small seeds were also found clustered together suggesting that they had originally been burnt as a seed head. The presence of this species within a charred cereal assemblage suggests that at least one of the crops, probably the more wet soil tolerant wheat, was growing on heavier clay soils.
- C.2.36 Sedges and rushes form a large group of species which include plants of damp and marshy ground. Spike rush is commonly found with crop assemblages and was probably growing in damp field margins or perhaps in deep, damp furrows. It is possible that the sedges were incorporated in peat which was known to be harvested, dried and used as fuel in this period (De Moulins, Murphy, 2001). Peat is almost impossible to identify in charred assemblages without obtaining AMS dates on the seeds of the peat-forming plants. Peat would be expected to contain numerous culm nodes and stem fragments in addition to burnt molluscs, all of which are evident on this site. Great Fen sedge was one of the major vegetation types of the Fen and was commonly used for thatching and for fuel. Charred leaf fragments and nutlets (seeds) have been found in waste deposits at two of the other three sites along this road. It occurs in large quantities at Harvest Way and Newmarket Road sites but is notably absent from Eastern Gate (de Vareilles, 2013).
- C.2.37 Preservation of waterlogged remains may be differential; a fluctuating water table will result in the more robust, woody plants preserving whereas more fragile material such as stems and leaves will decay (Green 1982).
- C.2.38 The disposal of food, latrine and animal waste was of major concern as it was the owners' responsibility to dispose of it either within his own property (Keene 1982, 28) or

to arrange for it to be removed. A large proportion of domestic waste was recycled; the value of its manuring properties was recognised and culinary, animal and latrine waste was spread onto agricultural fields. The site at Coldhams Lane had fields to the south and east so it may have been possible to dispose of midden material there

Conclusion

- C.2.39 The analysis of selected samples from three phases of occupation at the site of Coldhams Lane has highlighted the importance of cereals as the major food staple of the medieval and post-medieval period. There is little variation in the types and amounts of burnt cereals that have been disposed of other than a predominance of rye in the later periods. The relative paucity of cereal chaff present (other than straw) suggests that the cereals would have been brought into the site as batches of cleaned grain ready prepared for grinding into flour or for use as whole-grains in cooking or for animal feed. This is more what would be expected in an urban site and may indicate that the site occupants were tradesmen who were purchasing processed grain.
- C.2.40 The charred assemblages from this site are mainly mixed refuse that has been deposited secondary deposits. There was evidence of quarrying on site and the resultant pits would have been convenient depositories in which to dispose of waste. There is far less evidence for cess disposal on this site compared to the others nearby in which several of the wells had been re-used as cess pits. Neither of the wells at Coldhams Lane contained significant cess material to indicate such use and it must have either been discarded elsewhere or it hasn't been preserved. Consequently there is no evidence for food types that are commonly preserved in such deposits such as apples, grapes, figs etc.
- C.2.41 Most of the samples chosen for analysis originate from features that were at the rear (southern) part of the site and this may reflect backyard activity. Pit **519** is the exception as it was situated at the north of the site and this may be why the contents differ from the other features. Both wells are sited at the back of the plot and the ruderal seeds recovered indicate that there were weeds growing in this area and it is probable that animal byres and pens were situated in this locality in order to be as far away from a dwelling as possible. Both wells appear to have been kept relatively clean during use and this may also reflect on the occupants of the site.

C.3 Pollen

By Mairead Rutherford

Introduction

- C.3.1 Two sub-samples were submitted for pollen assessment. The sub-samples are from wells of medieval age, **190**, sampled from basal deposit 533 (sample 50), and well **481**, sampled from basal deposit 555 (sample 55).

Quantification

- C.3.2 Volumetric samples were taken from two sub-samples and one tablet containing a known number of *Lycopodium* spores was added so that pollen concentrations could be calculated (Stockmarr 1972). The samples were prepared using a standard chemical procedure (method B of Berglund and Ralska-Jasiewiczowa 1986), using HCl, NaOH, sieving, HF, and Erdtman's acetolysis, to remove carbonates, humic acids, particles > 170 microns, silicates, and cellulose, respectively. The samples were then stained with safranin, dehydrated in tertiary butyl alcohol, and the residues mounted in 2000cs silicone oil. Slides were examined at a magnification of 400x by ten equally-spaced traverses

across two slides to reduce the possible effects of differential dispersal on the slides (Brooks and Thomas 1967) or until at least 100 total land pollen grains were counted. Pollen identification was made following the keys of Moore *et al* (1991), Faegri and Iversen (1989), Andersen (1979) for cereal identification and a small modern reference collection. Plant nomenclature follows Stace (2010). The preservation of the pollen was noted and an assessment was made of the potential for further analysis. Fungal spore identification and interpretation followed van Geel (1978).

Results

- C.3.3 Both of the assessed sub-samples contained some pollen, but neither yielded rich pollen assemblages. The raw counts are detailed in Table 22.

Well 190

- C.3.4 Sample 50 (0.17m): Only 18 pollen grains were present in a full assessment count. No tree pollen was present, pollen of herbs including taxa such as grasses (Poaceae), sedges (Cyperaceae), mugworts (*Artemisia*), dandelion-type (*Taraxacum*-type), pollen of the goosefoot family (Amaranthaceae, a large group including plants such as fat hen, fig-leaved goosefoot and common orache) and pollen of Brassicaceae (another large group inclusive of plants such as garlic mustard, bitter-cresses and cabbages). A single cereal-type grain was also recorded. The dimensions of some cereal-type grains overlap with those of wild grasses, such as sweet-grasses (*Glyceria*) (Andersen 1979), causing difficulty in positive identification of a grain as definitely representing a cultivated cereal variety. Apart from cultivation, cereal-type pollen in the sediments may have derived from materials such as straw, human faces or animal dung incorporated into the well sediments.
- C.3.5 The herb taxa represent plants of waysides, waste ground, open, grassy areas, as well as possibly wet and damp areas (for example, sedges). There is no record for pollen of aquatic plants, suggesting the well may have silted up at this time. Moderate quantities of microscopic charcoal are present, suggesting that burning or the product of burning may have been dumped in the vicinity of the well.
- C.3.6 A few fungal spores are present, including *Glomus*-type (HdV-207), *Sporomiella* (HdV-113) and *Chaetomium* (HdV-7A). *Glomus*-type (HdV-207) fungal spores suggest possible disturbed ground and *Sporomiella* (HdV-113) is a coprophilic type and may suggest grazing herbivores. *Chaetomium* (HdV-7A) species are cellulose-decomposing fungi and can occur on plant remains, fibres and dung (van Geel 1978).

Well 481

- C.3.7 Sample 55 (0.20m): Recovery of pollen is generally similar to that outlined above for the sub-sample from well 190, however, the quantity of pollen recovered is less than described above. Apart from a single grain of willow (*Salix*), no tree or shrub pollen is present. Pollen of herbs include dandelion-type, sedges, grasses, pollen of Apiaceae (carrot family, a large group including plants such as burnet-saxifrages, angelica and wild parsley) and devil's bit scabious (*Succisa pratensis*). A little microcharcoal is present.

Potential

- C.3.8 Both the sub-samples assessed yielded pollen but none in sufficient quantity to merit further work.

Sample	50	55
Context	533	555

Preservation		Mixed	Mixed
Potential		No	No
Trees/Shrubs			
Salix	Willow		1
Crops			
Cerealia	Cereal-type	1	
Herbs			
Amaranthaceae	Goosefoot family	2	
Apiaceae	Carrot family		1
Artemisia	Mugworts	1	
Brassicaceae	Cabbage family	4	
Cyperaceae	Sedges	3	4
Fabaceae	Pea family		1
Poaceae	Grass Family	4	3
Succisa pratensis	Devil's-bit scabious		1
<i>Taraxacum</i> -type	Dandelion-type	3	1
	Total land pollen	18	12
	Number of traverses	10	10
<i>Lycopodium</i> spores	Exotic	58	41
Broken grains		1	
Concealed grains		3	2
Crumpled grains			2
Microscopic charcoal		100	54
Fungal spores			
<i>Glomus</i> HdV-207		1	
Chaetomium HdV-7A		1	
Sporomiella HdV-113		1	
Fungal spores (undifferentiated)		3	1

Table 22: *Pollen*

C.4 Insects

By Geoff Hill

Introduction

- C.4.1 Two samples of waterlogged material from medieval well features were submitted for insect analysis. Sample 50 / Context 533, excavated from the base of a well (**190**) relates to Period 2.1 within the site phasing. Sample 55 / Context 555, excavated from near the bottom of a well (**481**) relates to Period 2.2. Both samples were of 5.5L volume and the former 10.5L and the later 9.5L.
- C.4.2 An initial assessment of the insect remains from these samples was undertaken by Dr Kim Vickers, who noted a generally rich and well preserved fauna, consisting largely of

phytophages, detritivores (dung and vegetative), but with few aquatic beetles and no synanthropes (Vickers 2013).

Laboratory methods

C.4.3 To concentrate the sub-fossil sclerite fraction, the four bulk samples were processed following the standard paraffin flotation methods outlined in Kenward *et al.* (1980). Insect remains were sorted and identified under a low-power binocular microscope at magnifications between x15 – x45. Where achievable the insect remains were identified to species level by direct comparison to specimens in the Gorham and Girling insect collections, housed in the Department of Classics, Ancient History and Archaeology, University of Birmingham. The nomenclature and taxonomic order presented follows the BugsCEP database (Buckland 2006) which uses Lucht (1987), revised Böhme (2005), and Gustafsson (2005).

Results

C.4.4 The majority of the insect remains present are beetles (Coleoptera), alongside some true bug (Hemiptera) remains. A list of Coleoptera recovered is presented in Table 23. The nomenclature for Coleoptera (beetles) follows that of Lucht (1987). The list of host and associated plants (Table 23) for the phytophagous species of beetle that were recovered are predominantly derived from Koch (1989; 1992), but include other sources found in BugsCEP database (Buckland 2006) where referenced. The plant taxonomy follows that of Stace (2010).

Context		533	555	
Sample Number		50	55	
COLEOPTERA	Ecological Code			Associated plants / pests
CARABIDAE				
<i>Carabus nemoralis</i> (Müll.)	-	1		
<i>Trechus ?obtusus</i> (Er.)	-		3	
<i>Bembidion gilvipes</i> (Sturm)	ws		1	
<i>Bembidion</i> spp.	-	2		
<i>Ophonus rufibarbis</i> (F.)	p		4	
<i>Pseudoophonus rufipes</i> (Deg.)	p	1	1	Known pest of <i>Fragaria</i> (strawberry) / non-obligate
<i>Harpalus affinis</i> (Schrank)	p		1	
<i>Bradycellus ?verbasci</i> (Duft.)	p		1	
<i>Acupalpus ?parvulus</i> (Sturm)	-	1		
<i>Pterostichus madidus</i> (F.)	-	1	2	Reported pest on <i>Fragaria</i>
<i>Calathus fuscipes</i> (Goeze)	p		1	
<i>Calathus micropterus</i> (Duft.)	-		1	
<i>Calathus</i> sp.	-	1		
<i>Agonum ?marginatum</i> (L.)	ws	3		
<i>Agonum</i> sp.	-	1		
<i>Amara curta</i> (Dej.)	-	1	3	
GYRINIDAE				
<i>Gyrinus</i> sp.	a	1		
HYDRAENIDAE				
<i>Ochthebius</i> spp.	a		8	
<i>Helophorus nubilus</i> (F.)	p	2	1	Pest of <i>Triticum</i> (wheat)
HYDROPHILIDAE				
<i>Cercyon pygmaeus</i> (Ill.)	df	1		
<i>Megasternum obscurum</i> (Marsham)	rt	3	4	
CATOPIDAE				

<i>Ptomaphagus ?medius</i> (Rey)	rt		1	
ORTHOPERIDAE				
<i>Corylophus crassoides</i> (Marsham)	rt		2	
<i>Orthoperus</i> spp.	l		2	
PTILIIDAE				
Ptiliidae indet.	-		1	
STAPHYLINIDAE				
Staphylinidae indet.	-		1	
<i>Micropeplus porcatus</i> (F.)	rt	1	1	
<i>Megarthus</i> spp.	rt		2	
<i>Proteinus brachypterus</i> (F.)	rt		1	
<i>Eusphalerum primulae</i> (Steph.)	-	2		Associated with <i>Primula</i> (primrose)
<i>Omalium caesum</i> (Grav.)	rt		2	
<i>Lesteva</i> spp.	ws	2	1	
<i>Anotylus rugosus</i> (F.)	rt	3	1	
<i>Anotylus inustus</i> (Grav.)	df		2	
<i>Anotylus sculpturatus</i> (Grav.)	rt	12	25	
<i>Anotylus nitidulus</i> (Grav.)	ws	2		
<i>Anotylus clypeonitens</i> (Pand.)	t		1	
<i>Platystethus arenarius</i> (Geoff.)	df		1	
<i>Platystethus nitens</i> (Sahl.)	ws	1		
<i>Stenus</i> spp.	-	1	2	
<i>Lathrobium</i> spp.	-	2	1	
<i>Gyrophypnus fracticornis</i> (Müll.)	rt	2	1	
<i>Xantholinus linearis</i> (Ol.)	rt		1	
<i>Philonthus</i> spp.	-	2	3	
<i>Gabrius</i> sp.	-		1	
<i>Tachyporus chrysomelinus</i> (L.)	-	1	1	
<i>Tachyporus</i> spp.	-	4	1	
<i>Tachinus</i> spp.	-	2		
<i>Drusilla canaliculata</i> (F.)	-		3	
Aleocharinae indet.	-	17	3	
PSELAPHIDAE				
Pselaphidae indet.	-		1	
ELATERIDAE				
<i>Actinicerus sjaelandicus</i> (Müll.)	-		1	
<i>Athous bicolor</i> (Goeze)	p		3	
DERMESTIDAE				
<i>Anthrenus</i> sp.	h		1	
CUCUJIDAE				
<i>Monotoma ?testacea</i> (Mots.)	rt		1	
CRYPTOPHAGIDAE				
<i>Cryptophagus</i> spp.	h		1	
<i>Atomaria</i> spp.	h	3	3	
LATRIDIIDAE				
<i>Latridius</i> spp.	h	5	2	
<i>Corticaria</i> spp.	rt	4	4	
<i>Corticaria gibbosa</i> (Hbst.)	rt		1	
MYCETOPHAGIDAE				
<i>Typhaea stercorea</i> (L.)	-		1	
COLYDIIDAE				

<i>Anommatus duodecimstriatus</i> (Müll.)	rt		1	
ENDOMYCHIDAE				
<i>Mycetaea subterranea</i> (Marsham)	h		1	
COCCINELIDAE				
<i>Coccidula rufa</i> (Hbst.)	-		2	
ANOBIIDAE				
<i>Anobium punctatum</i> (Deg.)	l (h)	4		
SCARABAEIDAE				
<i>Oxyomus sylvestris</i> (Scop.)	df		1	
<i>Aphodius sphacelatus</i> (Panz.)	df	1		
<i>Aphodius foetidus</i> (Hbst.)	df	1		
<i>Aphodius fasciatus</i> (Ol.)	df	2		
<i>Aphodius ater</i> (Deg.)	df		2	
CHRYSOMELIDAE				
<i>Phratora vitellinae</i> (L.)	-		2	Salix/Populus
<i>Phyllotreta vittula</i> (Redt.)	p		5	Poaceae, recorded pest on crops
<i>Phyllotreta nemorum</i> (L.)	p	1	4	Brassicas –pest ‘cabbage flea-beetle’
<i>Phyllotreta undulata</i> (Kuts.)	p		1	Brassicas - pest
<i>Phyllotreta</i> spp.	-	4	7	
<i>Altica</i> sp.	-	1	1	
<i>Batophila rubi</i> (Payk.)	-		1	<i>Rubus / Fragaria</i> (raspberrys / strawberries) <u>not</u> recorded as pest
<i>Chaetocnema subcoerulea</i> (Kuts.)	-	2	1	<i>Carex</i> (sedge)
<i>Psylliodes ?napi</i> (F.)	-	5		Brassicas (inc. cabbage)
<i>Psylliodes cupreus</i> (Koch)	p	5	3	Brassicas
<i>Psylliodes</i> spp.	-	1		
SCOLYTIDAE				
<i>Leperisinus fraxini</i> (Panz.)	dw		1	
CURCULIONIDAE				
<i>Apion</i> spp.	p	5		
<i>Pseudapion rufirostre</i> (F.)	p	2	1	<i>Malva sylvestris</i> (common mallow)
<i>Aspidapion aeneum</i> (F.)	-	2	3	Malvaceae
<i>Taeniapion urticarium</i> (Hbst.)	p	2	1	<i>Urtica</i> spp. (nettles)
<i>Sitona ?cylindricollis</i> (Fahr.)	p		1	<i>Melilotus</i> spp. (sweet clover)
<i>Sitona</i> spp.	-	1	1	
<i>Hypera pastinacae</i> (Rossi)	p		1	<i>Pastinaca sativa</i> (parsnip) and <i>Daucus carota</i> (carrot)
<i>Ceutorhynchus erysimi</i> (F.)	p	1	3	<i>Capsella bursa-pastoris</i> (shepards purse)
<i>Parethelcus pollinarius</i> (Forst.)	-		1	<i>Urtica</i> spp.
<i>Datonychus urticae</i> (Bohe.)	-		1	<i>Stachys sylvatica</i> (hedge woundwort)
<i>Ceutorhynchus</i> sp.	p		1	
<i>Nedyus quadrimaculatus</i> (L.)	p		4	<i>Urtica</i> spp.
MNI		126	162	Σ288

Table 23: *Beetles (Coleoptera)*

Ecological Coding.

- a = aquatic water beetles
- ws = waterside taxa often associated with emergent vegetation
- df = taxa often associated with dung
- p= taxa associated with grassland and open areas

l = taxa associated with trees / woodland
 dw = taxa associated with deadwood
 h = 'house fauna' synanthropic beetles, *sensu* Hall & Kenward (1990)
 rt = decomposer beetles

C.4.5 In order to aid interpretation, where possible, taxa have been assigned to ecological groupings via the ecological data available in BugsCEP (Buckland 2006). This grouping of Coleoptera follows a simplified version of the scheme suggested by Robinson (1981; 1983) with the addition of Kenward's (Hall and Kenward 1990) 'house fauna'. This 'house fauna' comprises of a suite of beetles with a particular affinity to human habitation and settlement, making home in the dry timbers or roofing and bedding materials of buildings. The affiliation of each beetle species to a particular ecological grouping is indicated in the second column of Table 23. The meaning of each ecological code is explained in the key at the base of Table 23. The occurrence of each of the ecological grouping is expressed as a percentage in Table 24 and in Charts 10 and 11 for the samples. The pasture/grassland, dung, tree and 'house fauna' taxa are calculated as percentages of the number of terrestrial species, as opposed to the whole fauna, where uncoded, true aquatic and waterside taxa are included.

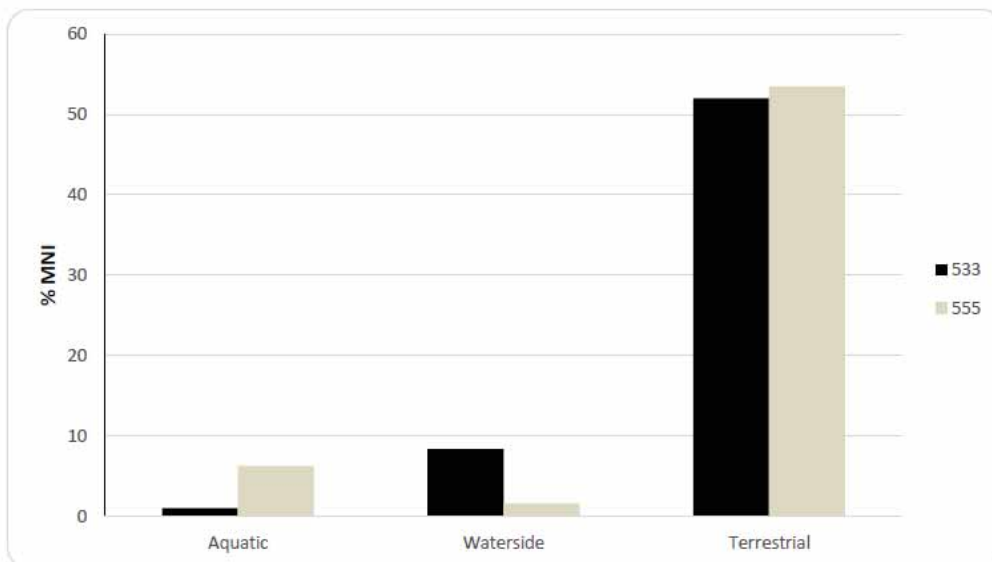


Chart 10: Proportions of the aquatic ecological groups of Coleoptera compared to combined terrestrial species proportions from Contexts 533 and 555

- C.4.6 In total 388 individuals were recovered, from 95 taxa, with a good recovery and preservation across both samples. A greater number of individuals and species were recovered from C555 (Table 24). The species *Anotylus rugosus* was present in sufficient numbers in both samples (>10% of the total assemblage), as to be deemed 'superabundant'. This was subsequently removed from functional group calculations as this represents an autochthonous breeding population (Kenward 1988).
- C.4.7 Although a greater number and diversity of species is present in C555, there is little difference in the proportion of the ecological groups and the autecology of the individual taxa, across both samples. This suggests little difference in both landscape and site use across Periods 2.1 and 2.2. Both samples are discussed together below.

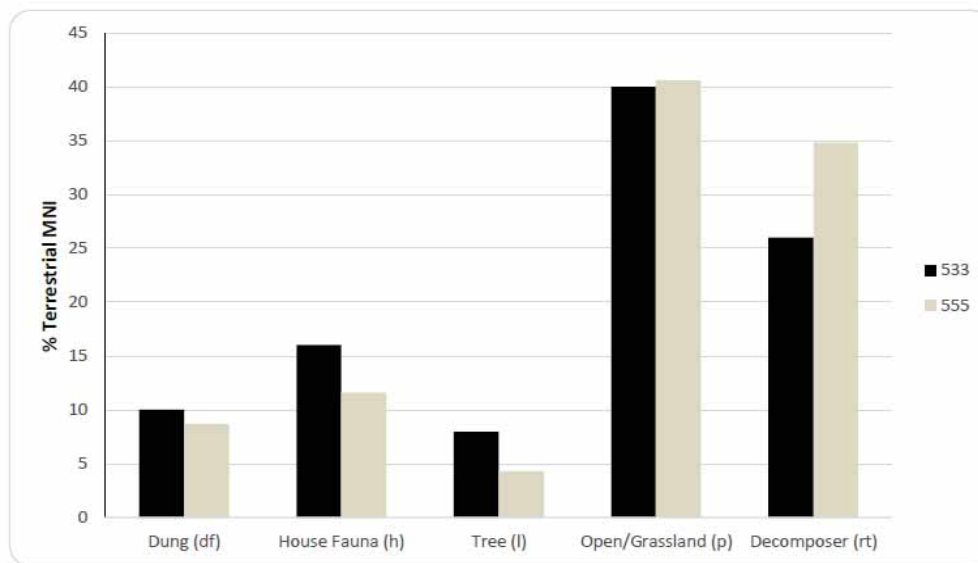


Chart 11: Proportions of the terrestrial ecological groups of Coleoptera from Contexts 533 and 555

Discussion

- C.4.8 As suggested in the post-excavation assessment (Atkins 2013) there are few aquatic fauna associated with this deposit (Table 24; Chart 10). Moreover, a lack of waterside taxa further suggest that the surrounding ground was also relatively dry (Table 24; Chart 10).

Context	533	555
Total number of individuals	126	162
Total number of species	49	75
% aquatic	1%	6.2%
% waterside	8.3%	1.6%
% dung foul / terrestrial	10%	8.7%
% tree / terrestrial	10.3%	6.7%
% grassland and pasture / terrestrial	40%	40.6%
% 'house fauna' / terrestrial	16%	11.6%
% decomposer / terrestrial	26%	34.8%

Table 24: The proportions of the ecological grouping of Coleoptera

- C.4.9 The terrestrial fauna is strongly associated with open, disturbed and grassy/cultivated ground (40%, Chart 11). This includes a fairly diverse suite of ground beetles (Carabidae), including *Pseudoophonus rufipes*, *Harpalus affinis*, *Bradycellus ?verbasci* and *Calathus fuscipes*. Although not strictly an open ground species, *Pterostichus madidus* is a seed eating Carabid, which alongside *Pseudoophonus rufipes* and *Batophila rubi*, may possibly suggest local cultivation of *Fragaria* (strawberry) (Koch 1989, 1992).

- C.4.10 The large numbers of leaf beetles (Chrysomelidae) present in these samples were likely pests of cultivated Brassicas, with *Phyllotreta nemorum* ‘the yellow striped cabbage flea-beetle’ and *Psylliodes ?napi* suggesting cabbage maybe a likely crop (Mohr 1966; Duff 1993). *Phyllotreta vittula* and *Helophorus nubilus* suggest cereal cultivation (Hansen 1987; Koch 1992), the latter ‘wheat shoot beetle’ particularly indicating *Triticum* (wheat), a cultivar recorded also in the archaeobotanical assessment (Vickers 2013).
- C.4.11 The identified weevils (Curculionidae) recorded from these samples are also associated with herbaceous weeds typical of cultivated and disturbed ground, including *Malva* spp. (*Pseudapion rufirostre* and *Aspidapion aeneum*), *Urtica* spp. (*Taeniapion urticarium*, *Parethelcus pollinarius* and *Nedyus quadrimaculatus*), *Melilotus* spp. (*Sitona ? cylindricollis*) and *Capsella bursa-pastoris* L. (*Ceutorhynchus erysimi*). A further Curculionid, *Hypera pastinacae*, may further suggest the presence of either carrot and/or parsnip as another possible cultivar (Koch 1992).
- C.4.12 The generalist fauna associated with decomposing organic matter (‘rt’), typically from the Staphylinidae family, are present in large numbers in both samples (25-35%), reflecting the build-up of refuse. Here, these are probably indicative of agricultural resources, such as haystacks, compost heaps and manure. As suggested in the post-excavation assessment (Vickers 2013), the wells may have been used for dumping settlement and agricultural waste, and it is likely many of these beetles in particular, reflect this deposition.
- C.4.13 Contrary to the initial assessment of Coleopterous remains (Vickers 2013), however, a fairly substantive number of synanthropic fauna, were recovered, including a number of the ‘house fauna’, including *Anthrenus* sp., *Cryptophagus* spp., *Atomaria* spp., *Latridius* spp., *Mycetaea subterranea* and *Anobium punctatum*. Other known synanthropes include a blind hypogaeal species, *Anommatus duodecimstriatus*, which as well as being recorded at the roots of various cultivars (e.g. potato, cabbage and onions) can be found under decaying floorboards as well as mouldy straw (Koch 1989). *Typhaea stercorea* is recorded indoors both in grain stores (although not as a pest) as well as hay and other moulding materials (Koch 1989). These are likely present in the well as a result of the deposition of waste materials from nearby buildings and settlement.
- C.4.14 The proportions of dung beetles, largely from the Scarabaeidae family, are present in fairly low proportions < 10% (Chart 11), suggesting that the site wasn’t predominantly pastoral. Instead, these beetles likely inhabited manure and compost heaps, or, perhaps, the dung of working herbivores (e.g. Kenward and Carrot 2001).
- C.4.15 The smallest group, proportionally, were the beetles associated with woodland and trees, suggesting the presence only of a predominantly cleared landscape.

Conclusions

- C.4.16 Both assemblages reveal a largely cleared landscape, used primarily as agricultural land. A number of identified beetles may suggest a local cultivation of strawberry and cabbage, and possibly carrots or parsnip. As suggested in the initial assessment, the presence of cereals, particularly wheat, is also highlighted in these assemblages, as are a suite of insects which indicate herbaceous weeds typical of cultivated land. The large number of generalist detritivores are symptomatic of a build-up of organic matter, probably from composting materials and farm waste.
- C.4.17 A significant presence of synanthropic beetles, particularly of the ‘house fauna’, would suggest that waste from nearby agricultural/storage buildings were deposited in the

features once they fell out of use. A relative lack of dung associated fauna, however, would suggest animals were not set to pasture or housed nearby.

- C.4.18 There are no records of archaeoentomological assessment from Cambridge based excavations during these periods, however, these results are in keeping nationally with analyses of post Bronze Age sites, which show gradual woodland clearance and the development of both arable and pastoral landscapes through to the medieval period. (Robinson 1978; Robinson 1979; Robinson 1993; Robinson and Lambrick 2009; Smith 2009a, 2009b, 2014; Hill 2015).

C.5 Shell

By Rob Atkins

Results

- C.5.1 There was a very small collection of 91 shells (0.719kg) from 40 contexts (Table 25). 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.5.2 Only three features contained more than 10 shells; three mussel and seven oyster from pit **103** (Period 2.2), 12 oyster from pit **481** (Period 2.2) and four mussel and 12 oyster from pit **519** (Period 3).

Context	Cut	Feature	No	Weight of shell (g)	Type	Period
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

Context	Cut	Feature	No	Weight of shell (g)	Type	Period
255	254	posthole	1	8	oyster	4.2
263	262	posthole	1	7	oyster	4.2
280	281	animal burial	6	41	oyster	5.1
286	288	posthole	1	5	oyster	4.2
287	288	posthole	2	21	oyster	4.2
311	-	layer	1	4	oyster	2.1
319	320	posthole	1	40	oyster	5.1
333	339	pit	2	65	oyster	3
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 25: *Shell by context and Period*

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APPENDIX E. OASIS REPORT FORM

All fields are required unless they are not applicable.

Project Details

OASIS Number	Oa3 207328			
Project Name	A mid/Late iron Age ditch and medieval to modern settlement at Coldhams Lane: Archaeological			
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.	CHER ECB 3873	Related HER/OASIS No.	CHER ECB 3873

Type of Project/Techniques Used

Prompt: Direction from Local Planning Authority - PPS 5

Please select all techniques used:

<input type="checkbox"/> Field Observation (periodic visits)	<input type="checkbox"/> Part Excavation	<input type="checkbox"/> Salvage Record
<input type="checkbox"/> Full Excavation (100%)	<input type="checkbox"/> Part Survey	<input type="checkbox"/> Systematic Field Walking
<input type="checkbox"/> Full Survey	<input type="checkbox"/> Recorded Observation	<input type="checkbox"/> Systematic Metal Detector Survey
<input type="checkbox"/> Geophysical Survey	<input type="checkbox"/> Remote Operated Vehicle Survey	<input type="checkbox"/> Test Pit Survey
<input checked="" type="checkbox"/> Open-Area Excavation	<input type="checkbox"/> Salvage Excavation	<input type="checkbox"/> 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 and sp	Iron Age -800 to 43
Settlement remains	Medieval 1066 to 1540	Domestic	Medieval 1066 to 1540
Settlement remains	Post Medieval 1540 to 1901	Domestic	Post Medieval 1540 to 1901

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
Project Manager	Aileen Connor
Supervisor	Rob Atkins

Project Archives

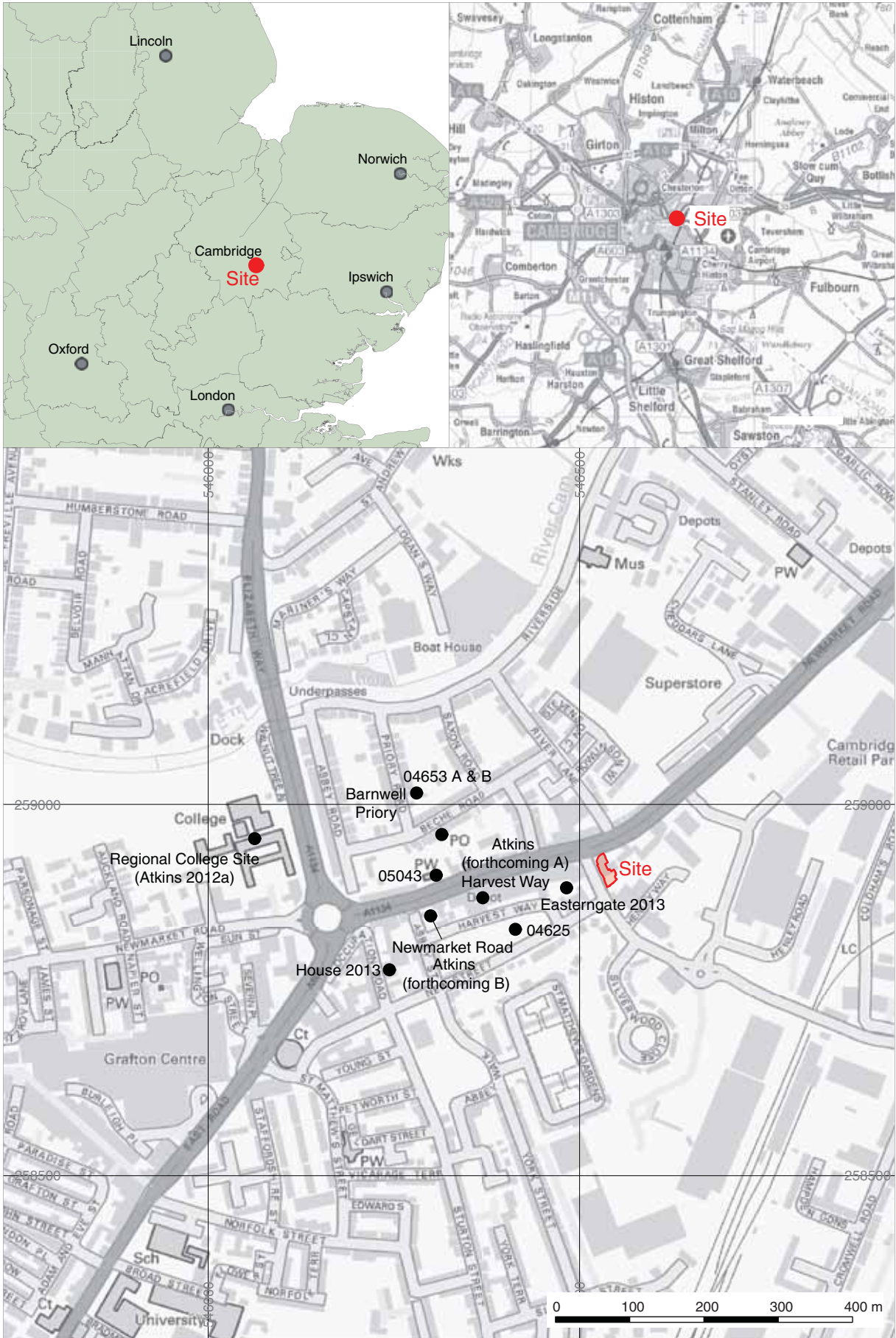
Physical Archive	Digital Archive	Paper Archive
CCC Stores	OA East	CCC Stores
CAMCOL12	CAMCOL12	CAMCOL12

Archive Contents/Media

	Physical Contents	Digital Contents	Paper Contents
Animal Bones	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ceramics	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Digital Media	Paper Media
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<input checked="" type="checkbox"/> GIS	<input checked="" type="checkbox"/> Context Sheet
<input type="checkbox"/> Geophysics	<input checked="" type="checkbox"/> Correspondence
<input checked="" type="checkbox"/> Images	<input type="checkbox"/> Diary
<input checked="" type="checkbox"/> Illustrations	<input checked="" type="checkbox"/> Drawing
<input type="checkbox"/> Moving Image	<input type="checkbox"/> Manuscript
<input checked="" type="checkbox"/> Spreadsheets	<input checked="" type="checkbox"/> Map
<input checked="" type="checkbox"/> Survey	<input checked="" type="checkbox"/> Matrices
<input checked="" type="checkbox"/> Text	<input type="checkbox"/> Microfilm
<input type="checkbox"/> Virtual Reality	<input type="checkbox"/> Misc.
	<input checked="" type="checkbox"/> Research/Notes
	<input checked="" type="checkbox"/> Photos
	<input checked="" type="checkbox"/> Plans
	<input checked="" type="checkbox"/> Report
	<input checked="" type="checkbox"/> Sections
	<input checked="" type="checkbox"/> Survey

Notes:



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



Figure 2: Excavation and evaluation trench layout

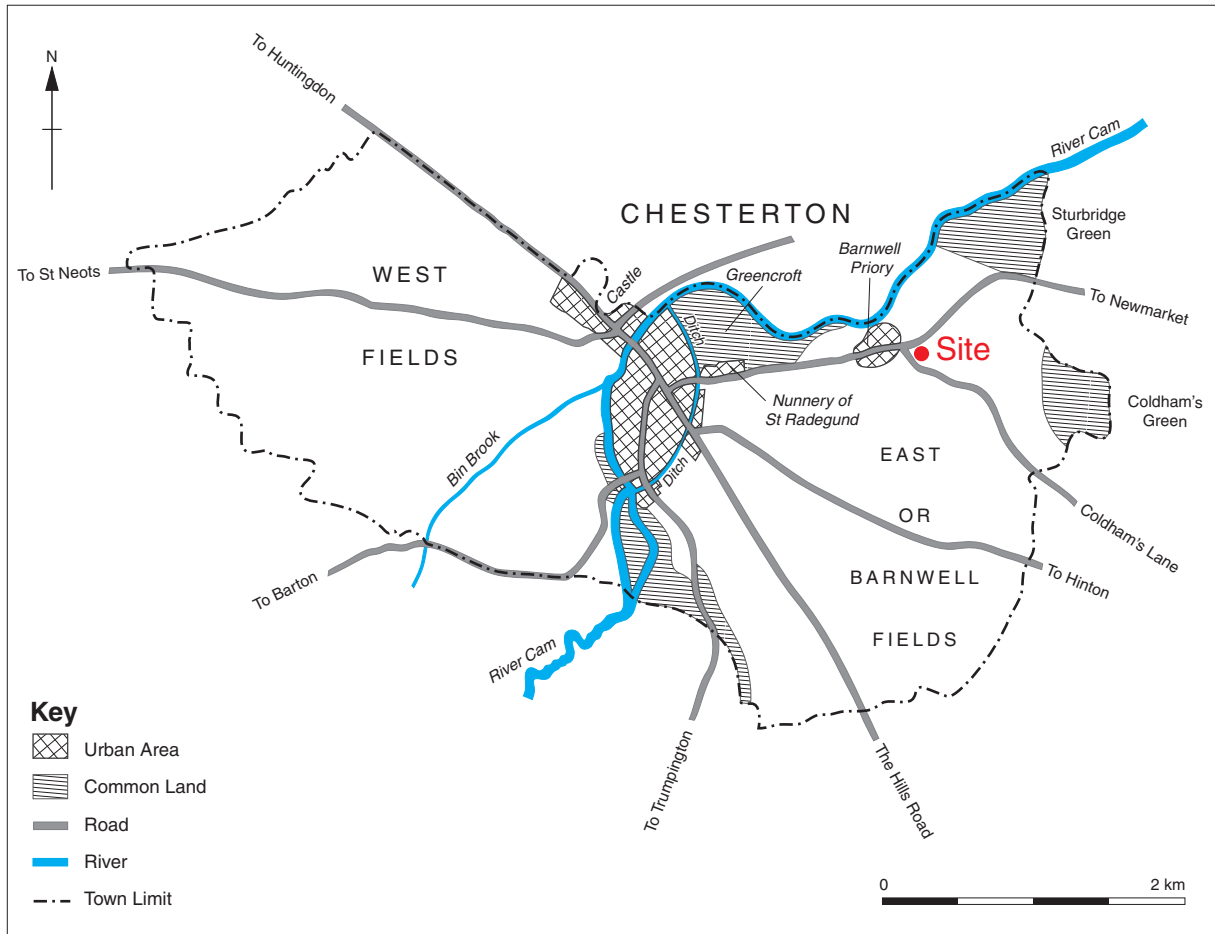


Figure 3: Site in relation to medieval Cambridge (after Maitland 1964 facing p.54). Scale 1:50000

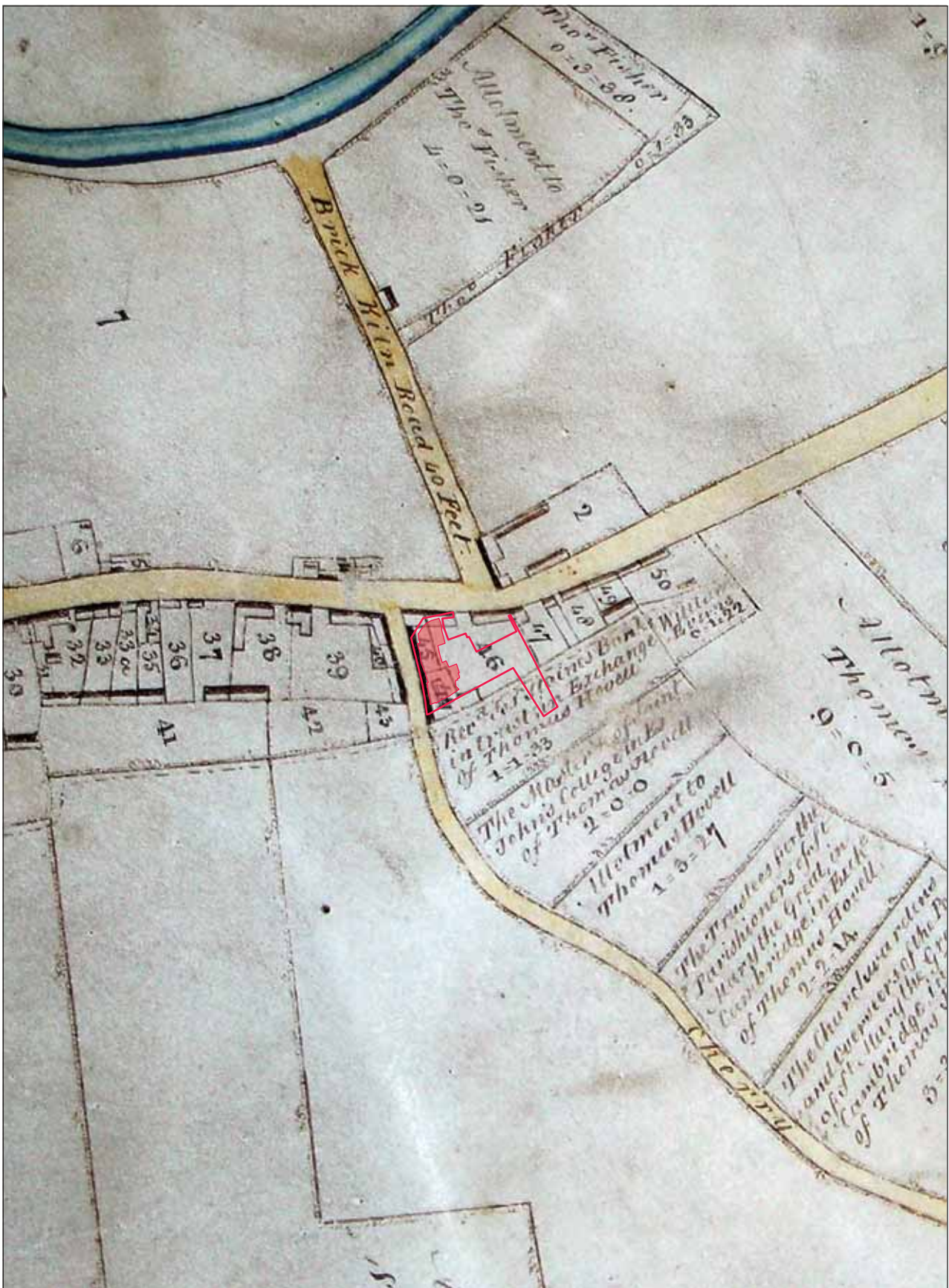


Figure 4: c.1807-1812 Enclosure Map 1812 (CRO Q/RDc16) showing excavation area and development area

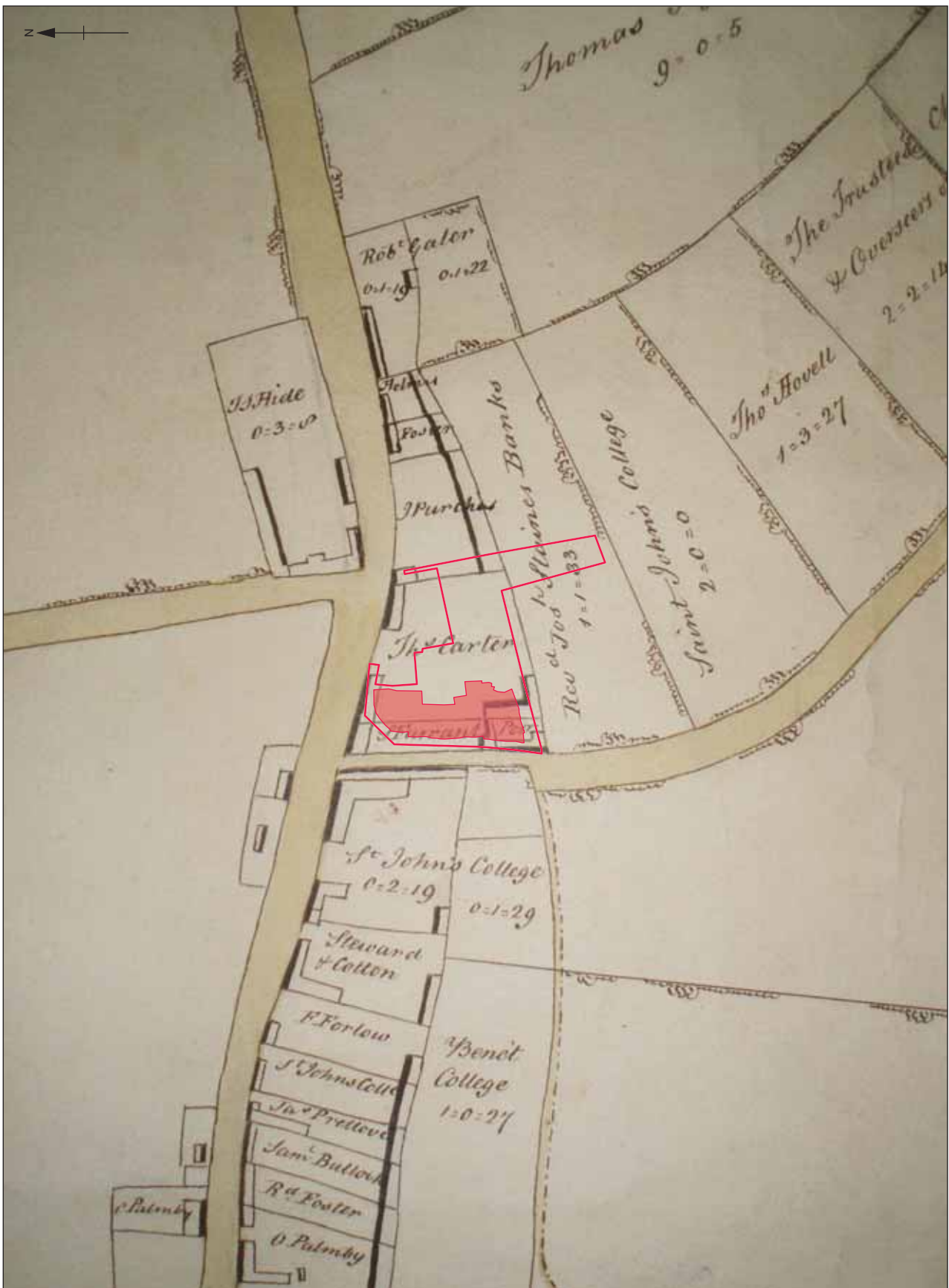


Figure 5: 1813 map of St Andrew the Less parish (CRO 107/P4) showing excavation area and development area



Figure 6: 1840 Dewhurst and Nichols map of Cambridge, showing excavation area and development area

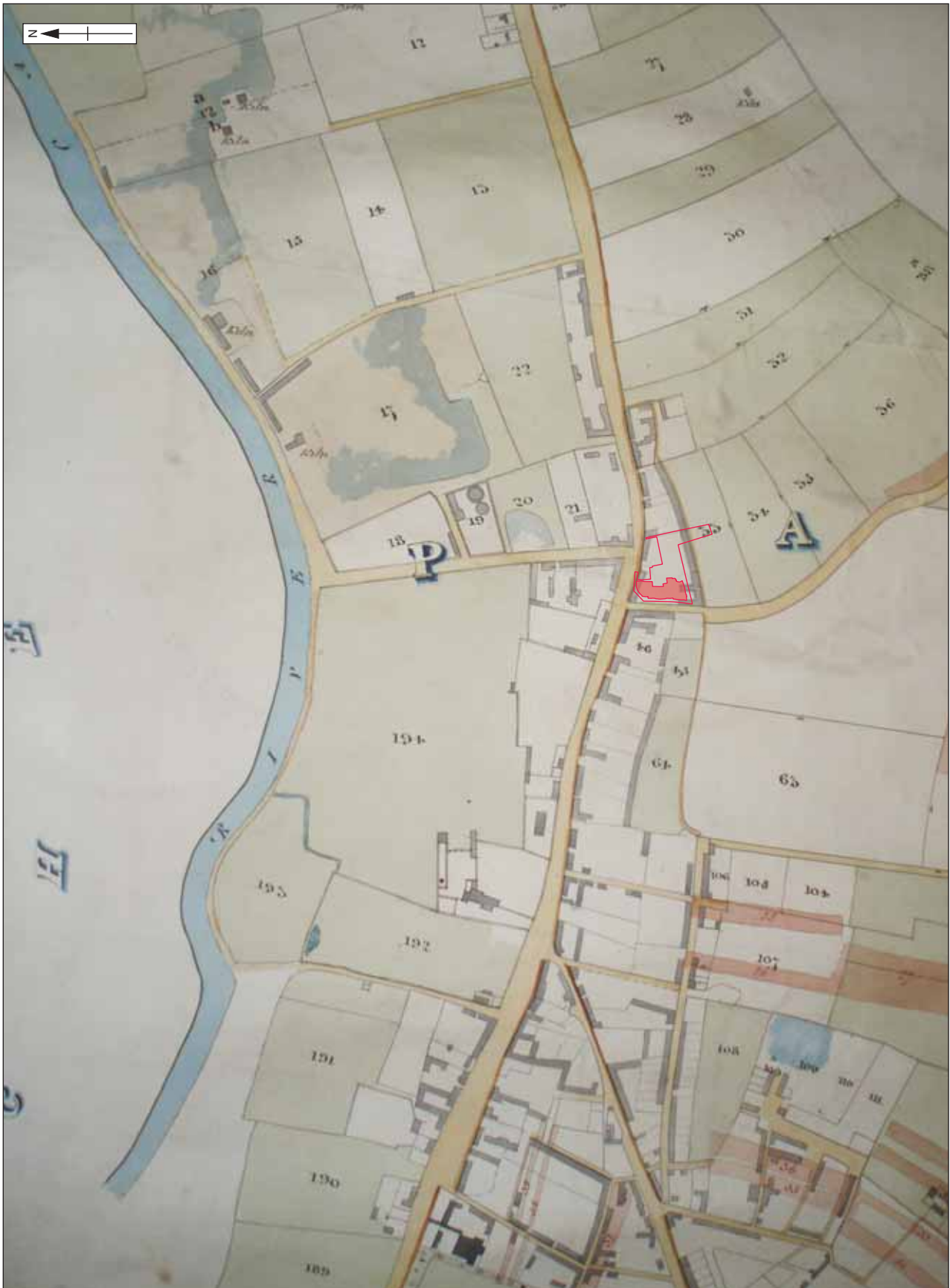


Figure 7: 1832 map of St Andrew the Less parish (CRO TR 869/P10) showing excavation area and development area



Figure 8: 1st Edition Ordnance Survey Map 1886

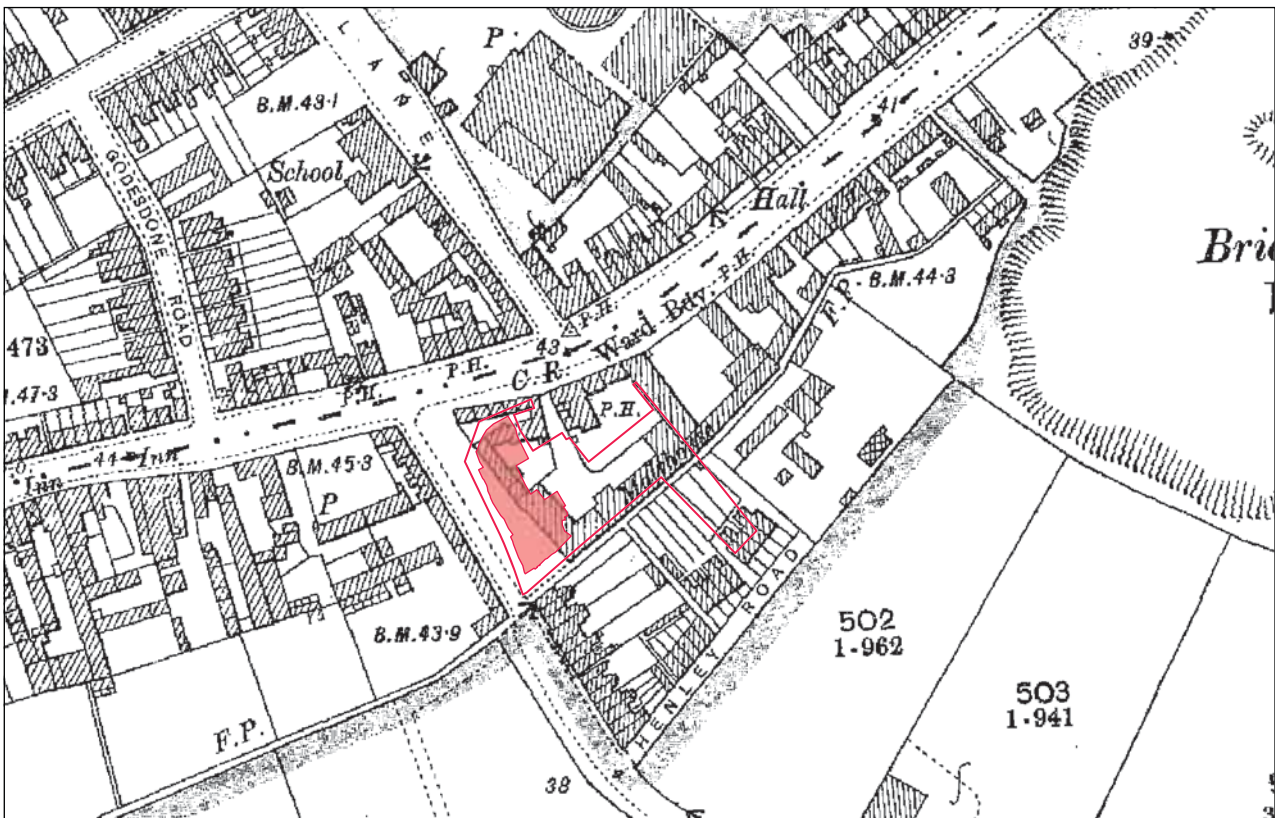


Figure 9: 2nd Edition Ordnance Survey Map 1904



Figure 10: 3rd Edition Ordnance Survey Map 1924

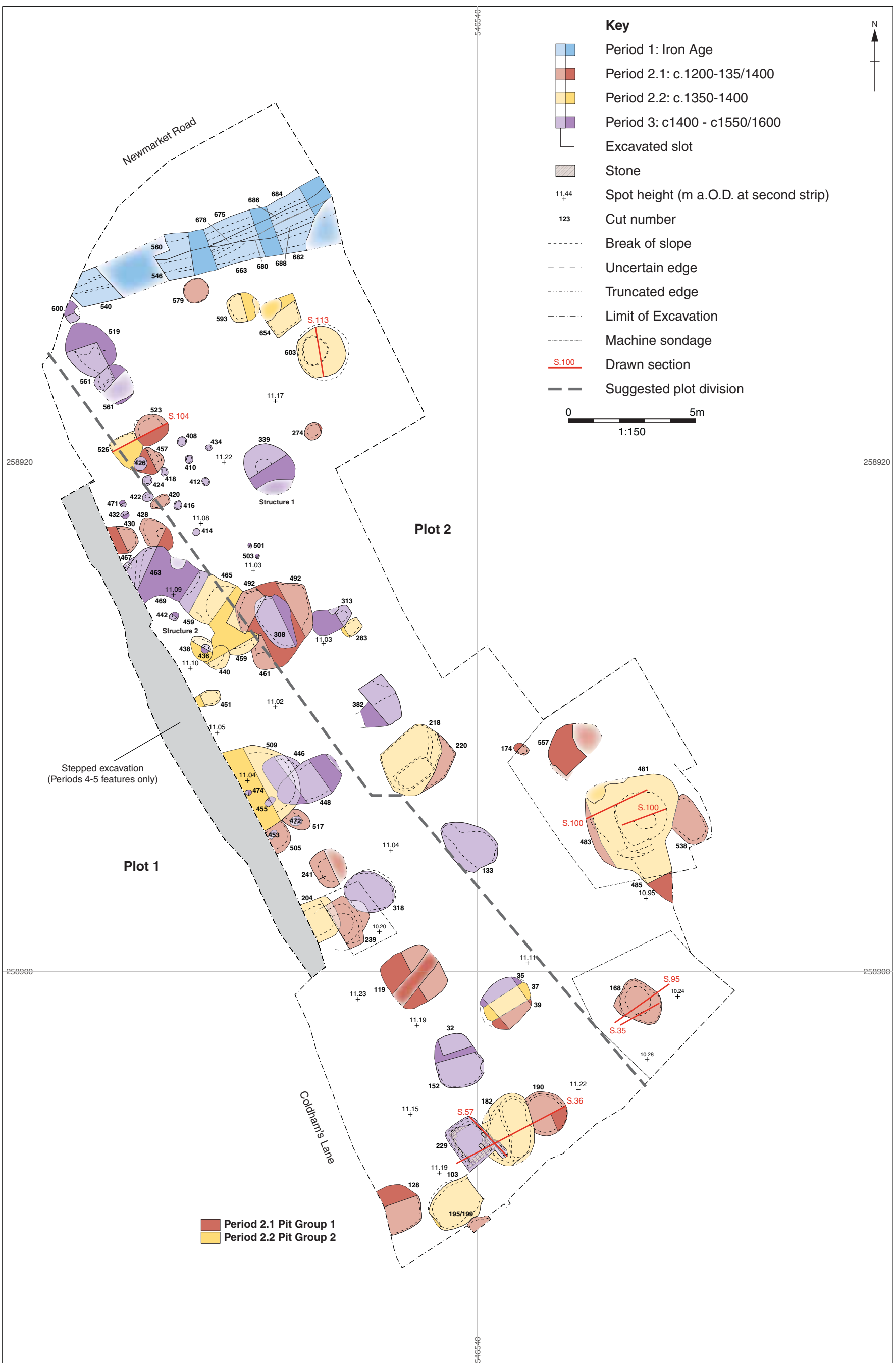


Figure 11: Plan of Periods 1, 2.1, 2.2 and 3 features

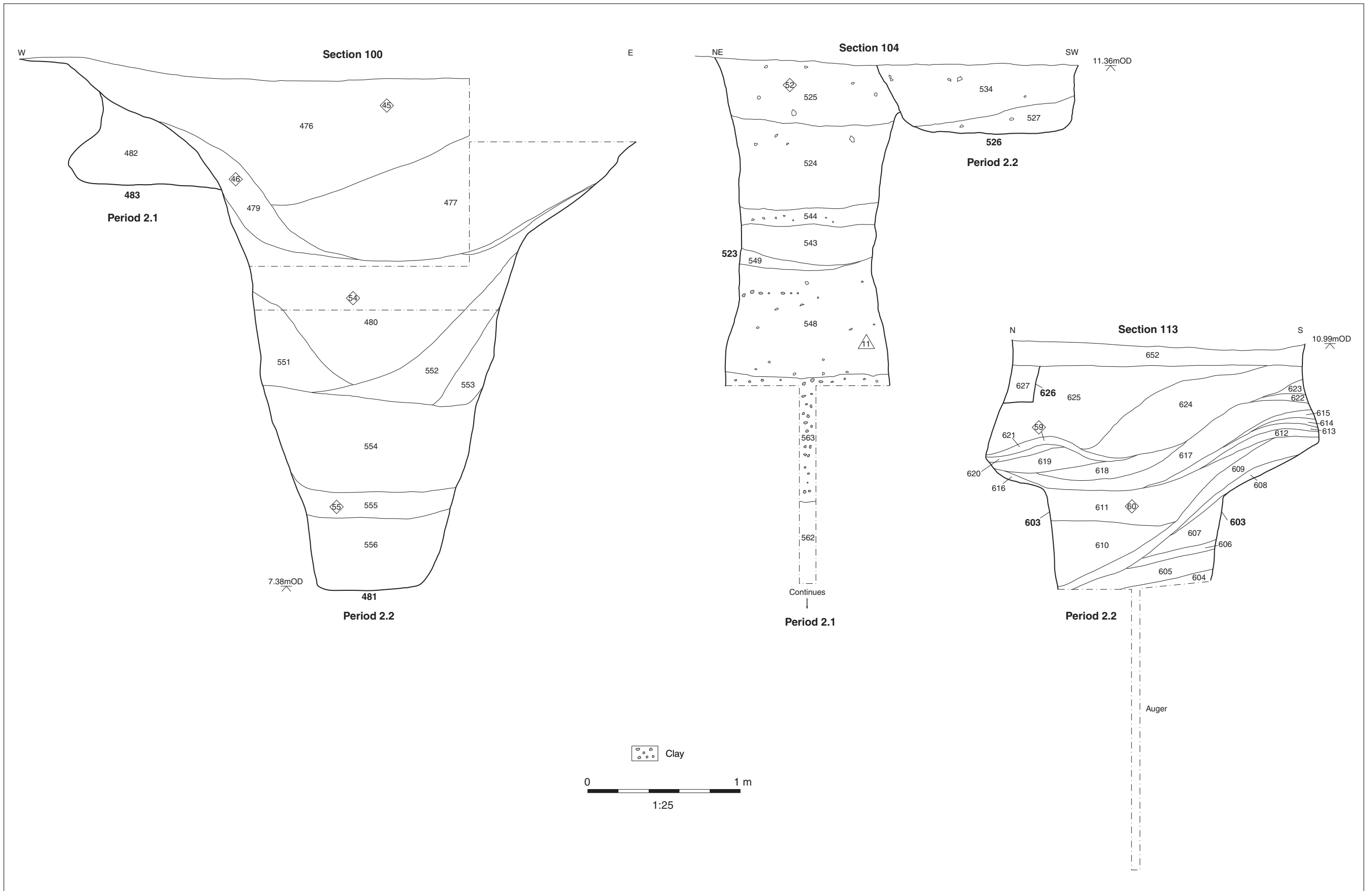


Figure 13: Period 2.1 and 2.2 sections

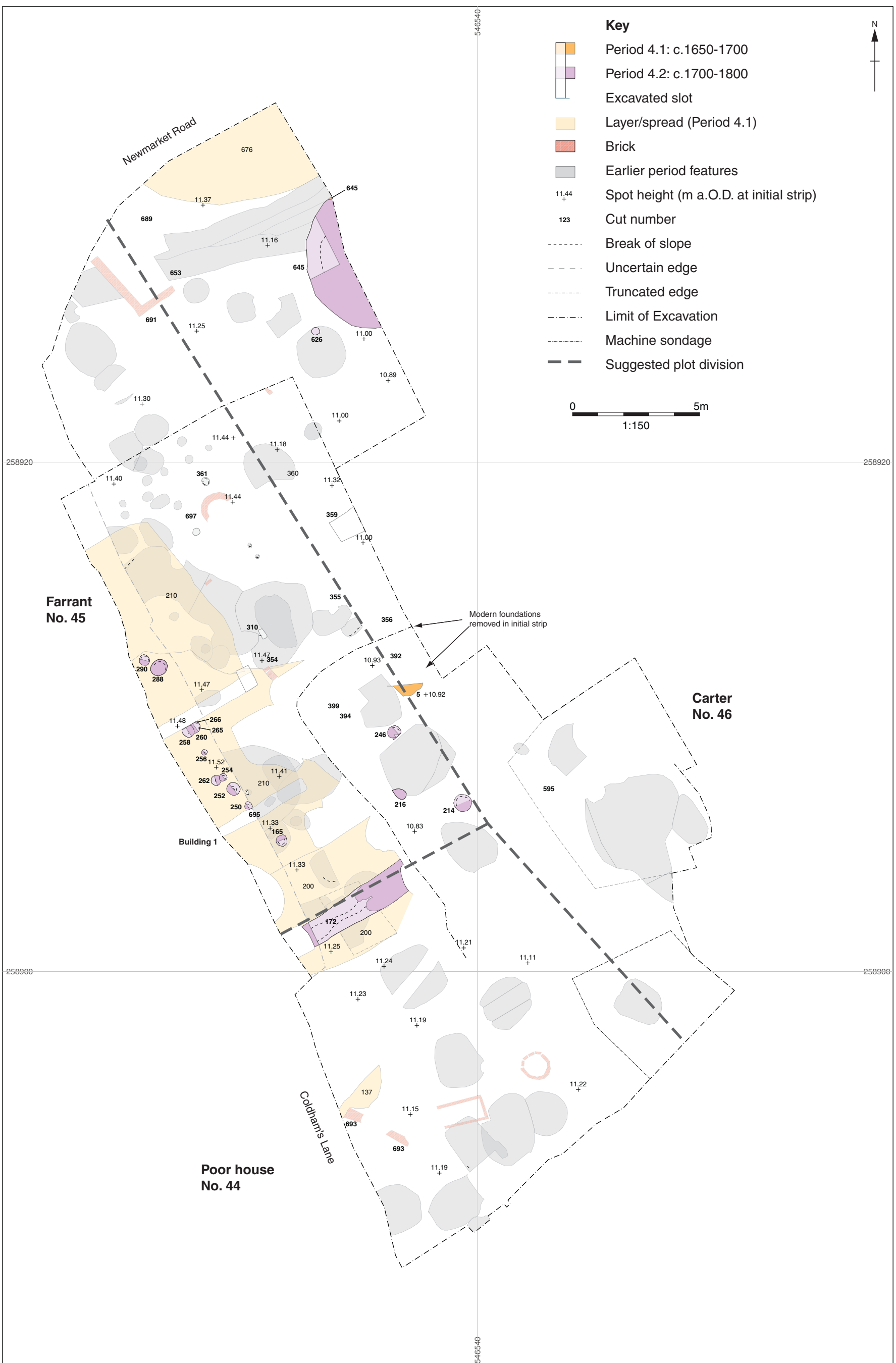


Figure 14: Plan of Periods 4.1 and 4.2 features and layers



Figure 15: Plan of Periods 5.1 and 5.2 features and layers



Figure 16: Period 5.1 features overlaying 1813 map of St Andrew The Less parish (CRO107/P4)

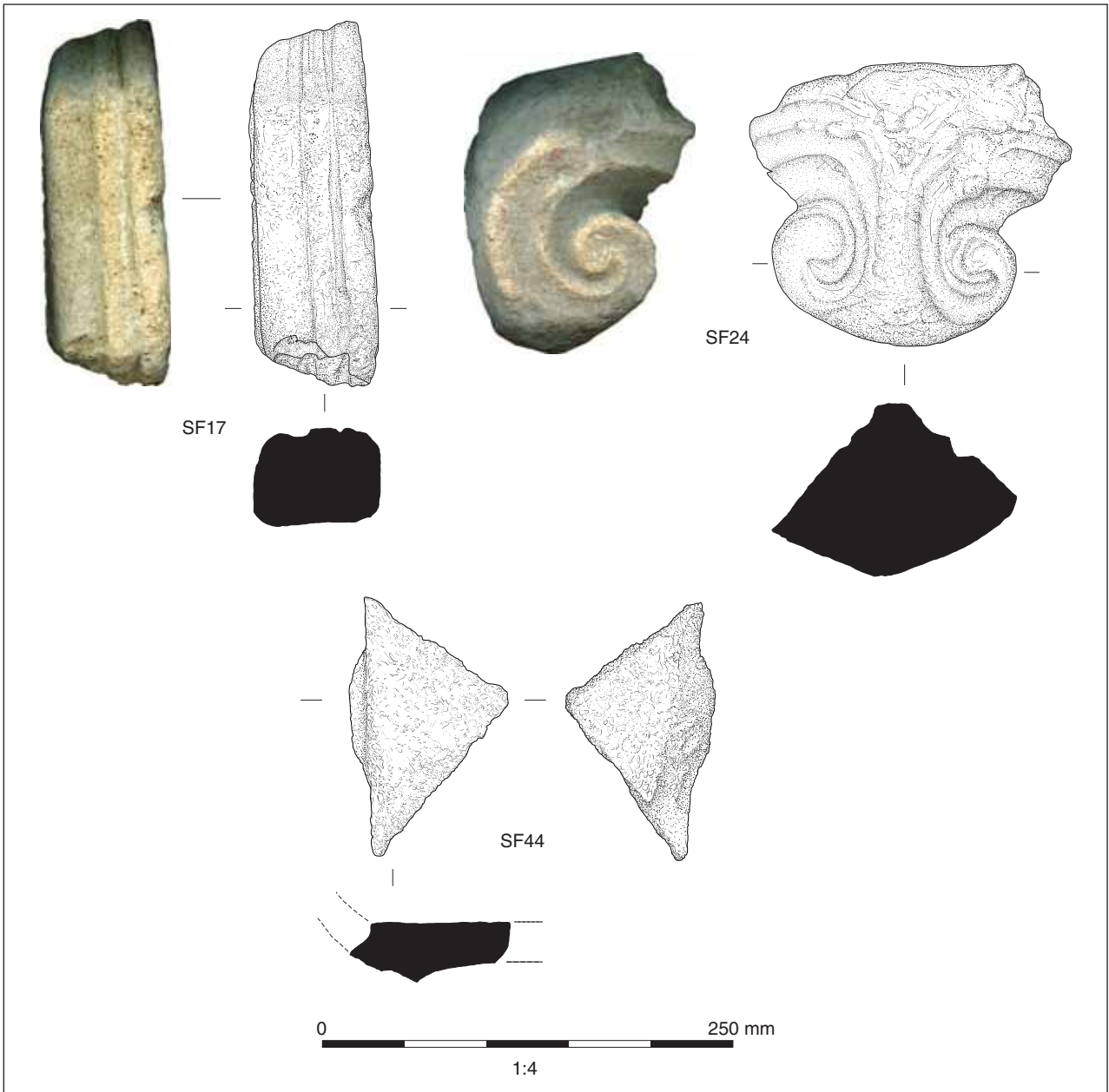


Figure 17: Worked stone

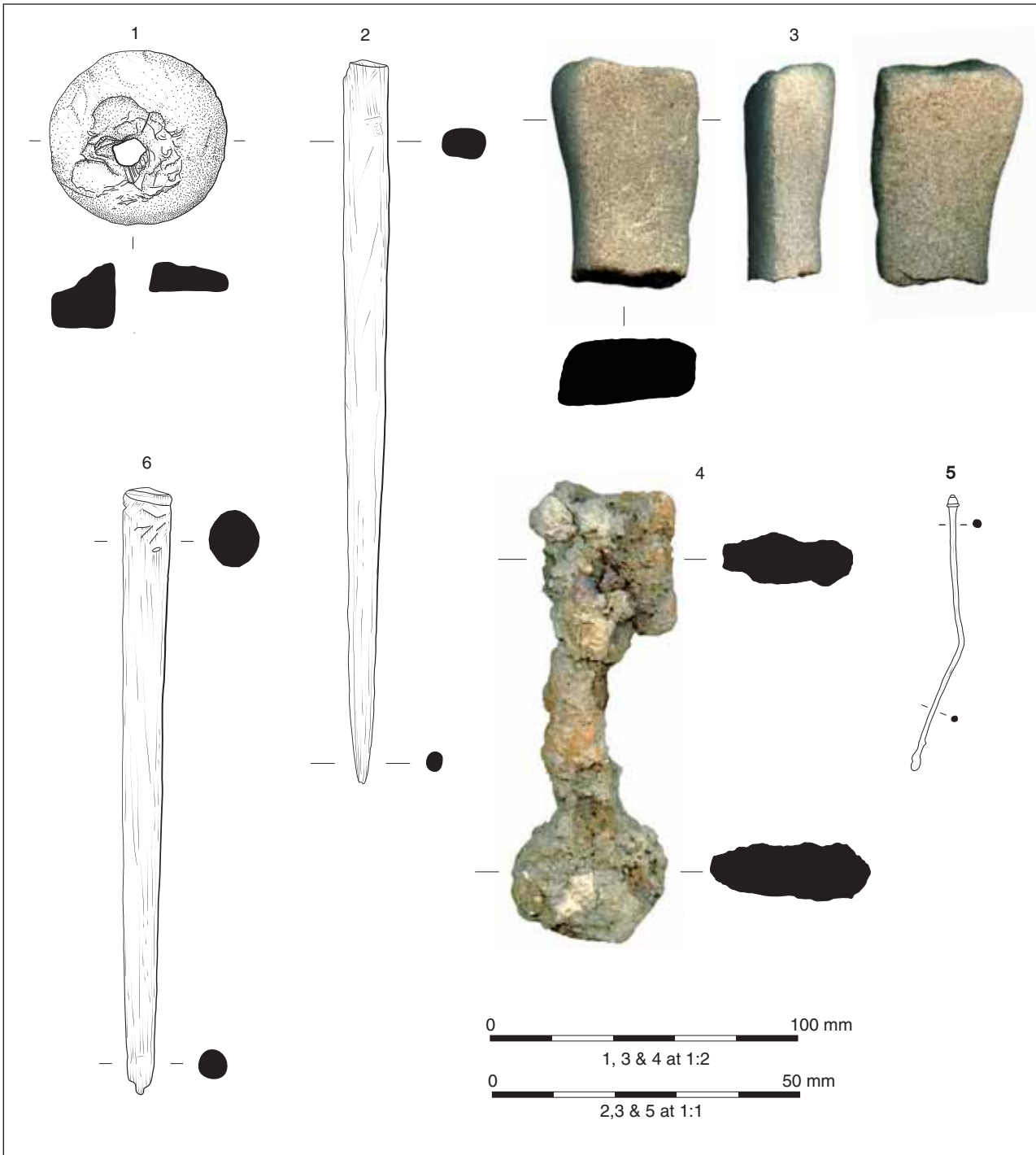


Figure 18: Small finds

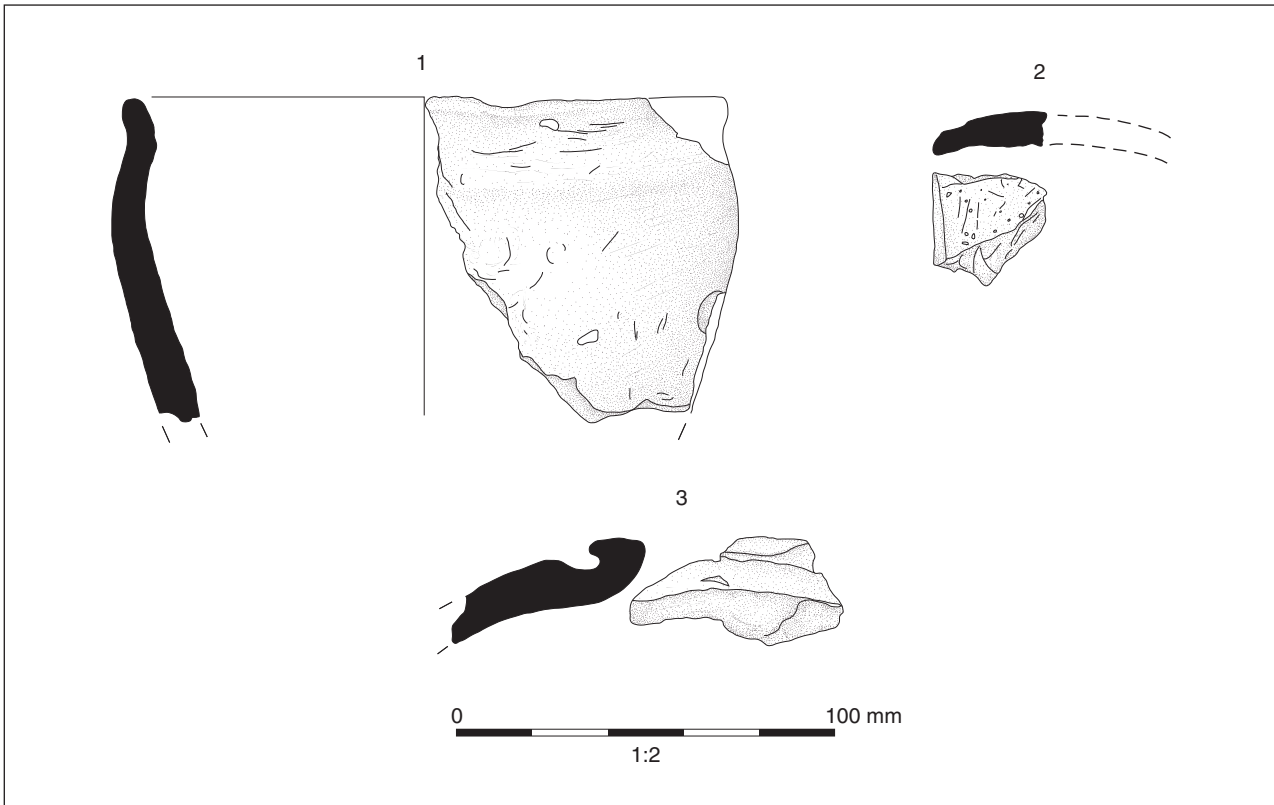


Figure 19: Iron Age pottery

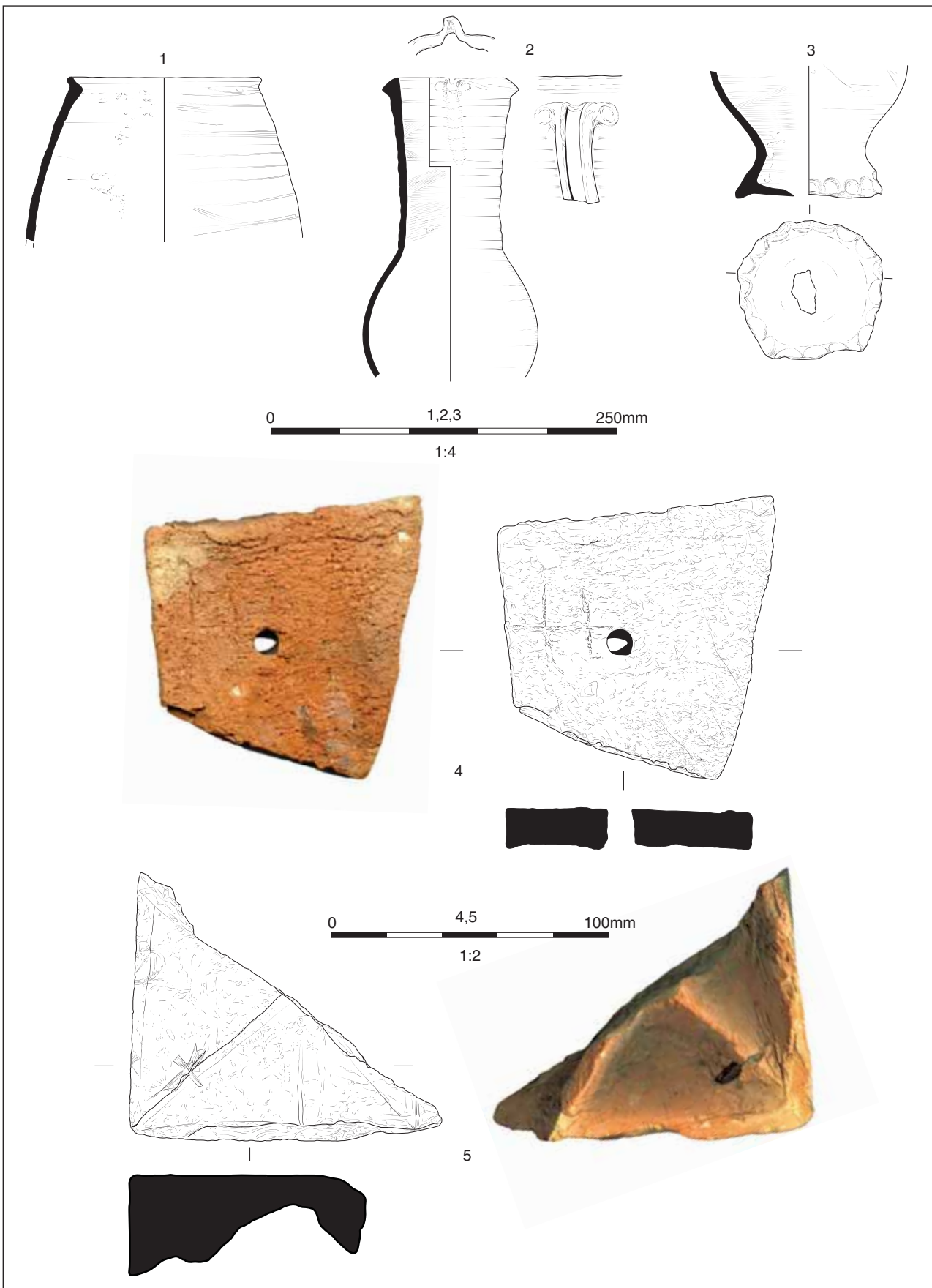


Figure 20: Post-Roman pottery and tile



Plate 1: General view of excavation and Coldhams Lane, looking north-west



Plate 2: Site, looking north-east



Plate 3: Period 2.1 well **190**, looking north



Plate 4: Period 2.2 pit **283**, Phase 3 pit **313** and Phase 5.1 post hole **315**, looking west



Plate 5: Period 3 cess pit **229** and Period 5.2 brick lined feature **136**, looking north



Plate 6: Period 4.1 cultivation soil, Period 4.2 post hole building and Period 5.1 Building 2, clunch walls **22** and **695**, looking north



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