Excavation Report

Medieval and Post-Medieval Activity at Sun Street (64-68 Newmarket Road), Cambridge

Excavation Report

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Medieval and Post-Medieval Activity at Sun Street (64-68 Newmarket Road), Cambridge

Archaeological Excavation

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Summary

During November 2016 Oxford Archaeology East carried out an archaeological excavation at Sun Street (64-68 Newmarket Road), Cambridge within an area proposed for redevelopment as mixed residential and commercial space. Although modern disturbance (including a petrol tank) and truncation was evident in places, the 160m^2 excavation uncovered sporadic evidence for medieval back plot activity spanning the 13th-16th centuries.

The activity was characterised by two phases of pitting activity (containing small quantities of finds), which were possibly excavated to dispose of midden waste, along with a possible cess pit or latrine. Later remains comprised structural elements of 19th century buildings and a well. These buildings probably represent part of the row of cottages documented to front onto Sun Street to the north in 1813, which were later listed as two neighbouring public house in the Cambridgeshire Historic Environment Record. The upper part of the well was infilled with pottery and other domestic rubbish, including a large quantity of collegiate ceramics similar to that found at other sites in this part of Cambridge.

Evidence for medieval occupation of the site, however slight, is a significant discovery for the locality. The group of pits raises the possibility that by the 13th century the lay settlement at Barnwell extended westwards, beyond the junction of Newmarket and East Road, to incorporate part of the triangle of land later known as The Kite. This mode of occupation appeared to have continued until the end of the medieval period. The lack of any post-medieval remains within the excavation area should be viewed in light of significant later truncation of the natural land surface revealed by the wider test pit investigations. Resulting from gravel quarrying and more recent construction, it reflects the wider narrative of post-medieval decline followed by rapid growth into a well populated and vibrant suburb of the city.

1 INTRODUCTION

1.1 Location and scope of work

1.1.1 Between 2nd and 30th November 2018 Oxford Archaeology East (OA East) carried out excavations at a former bus depot on Sun Street (Nos 64-68 Newmarket Road), Cambridge (NGR TL 46038 58811; Fig. 1). The site lies on the western fringes of the historic medieval lay settlement of Barnwell, associated with Barnwell Priory to the north. The surrounding area contains a number of known prehistoric archaeological sites and remains.

1.1.2 The work was commissioned by Unex Group in relation to the development of the site for mixed use, comprising 84 residential dwellings and commercial space, along with access ways and landscaping (Planning Application: 14/1905/FUL).

1.1.3 An archaeological evaluation was carried out prior to the excavation in order to establish the presence/absence of archaeological features and deposits. This evaluation consisted of seven test pits (Test Pits *2016*-1-7). Remains probably relating to medieval settlement activity were encountered in Test Pits *2016*-1 and *2016*-6 in the northern part of the site (ECB4717; MCB23747; Cox and Morgan 2016). These works were undertaken in accordance with a Written Scheme of Investigation (WSI) prepared by OA East (Wiseman and Connor 2016) and approved by Kasia Gdaniec of Cambridgeshire County Council Historic Environment Team (CCC/HET).

1.1.4 A further WSI (Thatcher 2016) was prepared by OA East (and approved by CCC/HET) detailing the strategy for excavation of *c.*160m^2, which was required on the site to mitigate the impact of the proposed development on the medieval remains revealed by the initial phase of evaluation. The preparation of the WSI was informed by a Brief issued by Kasia Gdaniec of CCC/HET (Gdaniec 2016).

1.1.5 In accordance with a further approved WSI prepared by OA East (Thatcher 2017), a subsequent evaluation was carried out in the southwestern extremity of the development area, occupied by four residential properties that uncovered 18th-20th century remains (ECB5367; Graham 2018).

1.1.6 This report deals solely with the 2016 excavation. Relevant parts of the evaluation phases of work will be referred to during the report where appropriate, with their results forming part of the stratigraphic narrative.

1.1.7 The site archive is currently held by OA East and will be deposited with Cambridgeshire County Council Stores in due course under the site code ECB4819.

1.2 Geology and topography

1.2.1 The development site is a built-up area, comprised principally of a former bus depot along with residential properties within the development's southwestern extremity; it also encompasses an access road – Severn Place. It lies at *c.*13-17m OD with the land sloping down towards the River Cam approximately 250m to the north. The development area is bounded to the east and west by commercial properties, to the north by Sun Street/Newmarket Road and to the south by East Road.

1.2.2 The site lies on the boundary of the West Marlbury Chalk Formation to the south and east and the Gault Mudstones to the north and west. This is overlain by River Terrace Gravels 3 (British Geological Survey online map viewer viewer http://www.bgs.ac.uk /discoveringGeology/geologyOfBritain/ viewer.html) (accessed 15 March 2016).

1.2.3 During the excavation, the underlying River Terrace Gravel geology was found to consist of a mix of reddish/orange silt and sand with frequent gravel inclusions.

1.3 Archaeological and historical background

1.3.1 A full search of the Cambridgeshire Historic Environment Record (CHER) of a 1km radius centred on the excavation site was commissioned from CCC/HET (licence number 19-3941). Other sources include a desktop study for a site at the Riverside Campus, immediately to the north, undertaken by Cambridge Archaeological Unit (Appleby and Dickens 2009). The following section provides a brief summary of these records, with pertinent records shown on Fig. 2.

Prehistoric

1.3.2 The Cambridgeshire Historic Environment Record (CHER) lists a number of prehistoric finds in the vicinity, although none from the site itself. Excavation work in 1862 at the Festival Theatre site recovered bones of elephant, hippopotamus and rhinoceros at a depth of 12 feet with further works in 1878 also yielding two Acheulean hand axes (CHER 04531). Further finds include a Neolithic polished stone axe (CHER 05142) and a cremation burial of indeterminate prehistoric date (CHER 05020A). Excavations to the north of the site uncovered Early Neolithic pits containing pottery and worked flint (MCB26821A). A crouched human burial of an adult male, dating to the Late Bronze Age/Early Iron Age, was found during excavation at Harvest Way (MCB23498). Two food vessels and a small, Early Bronze Age bowl were found in gravel diggings on Midsummer Common in about 1860 (CHER 04801), whilst a Bronze Age Beaker sherd was found at the site of Barnwell priory (CHER 04623A). The gravel terraces of the river Cam are thought to have been particularly favoured for prehistoric settlement (Fox 1923), although in heavily built up areas the evidence for this period is often obscured or destroyed.

Roman

1.3.3 The Roman town of Cambridge, known in the Antonine Itineraries as *Duroliponte*, lies to the north-west of the Cam, in the area now known as Castle Hill, *c.*2km to the west of the site. Pottery found in the vicinity of the proposed development area includes a few sherds found during construction of a sewer across Midsummer Common in 1895, although it is uncertain how significant these artefacts are as they may relate to settlement or manure scatters (CHER 05020B; Salzman 1948; Browne 1974, 23). To the south of the site, a bronze coin, probably of Claudius, was found during the construction of Parkside Swimming Pool (CHER 04555). Two bronze figurines of Mercury and Hercules were also found to the south of the site (CHER 03420).

Anglo-Saxon

1.3.4 The development of Anglo-Saxon Cambridge is complex and not clearly understood, but it seems to have developed from a series of scattered settlements that only merged into villages later (Taylor 1999, 39). Several cemeteries are known to exist but little evidence of the settlements in which the Anglo-Saxons lived. The town is first documented in AD695, although the reference suggests the (presumably Roman) town of Grantacaestir was ruined (*ibid*, 43). The only cemetery site within the study area is located to the south of the development area, at Mill Road Cemetery, where burials were found in 1847 along with a fragment of shield and spearhead (CHER 04622). To the east of the site, excavations at the Eastern Gate Hotel encountered features of a

likely Saxon date including a ditch containing 5-7th century pottery, a 6th century cruciform brooch and a clay loom weight (MCB26816A; Newman 2013, 9).

1.3.5 By the 8th century, Offa had control of the town and had created a defended burh to the north of the river and built a bridge to cross it. In AD875 the Anglo-Saxon Chronicle refers to Cambridge as Granta Bryege and in the same year the town came under the rule of the Danelaw (*ibid*, 43). The Late Saxon town of Cambridge was centred on Market Hill south of the river and more than a kilometre to the west of the current site. Few finds of this date have been found close to the subject site, although a few sherds of Saxon pottery were found during excavation of a sewer across Midsummer Common in 1895 (CHER 05020B).

Medieval

1.3.6 Medieval remains are common to the east of the site as the proposed development area lies immediately to the southwest of the precinct for the medieval priory at Barnwell and also sits on the western margins of its associated lay settlement to the south of Newmarket Road. Barnwell Priory was founded in 1092 by the first Sheriff, Picot, at St Giles Church on Castle Hill, and was moved to its present site in 1112 by the second Sheriff, Pain Peverel (CHER 04653). Significantly, this new site encompassed the site of Barnwell Spring (CHER04653c). It was originally intended to house a group of six Augustinian Regular Canons to serve neighbouring churches but grew to be the largest religious house in Cambridge. The priory was connected to the medieval town of Cambridge, only a short distance to the west, by Barnwell (MCB23064), a medieval street delineated by modern day Newmarket Road.

1.3.7 Dissolution of the priory in 1538 saw much of its stone removed for use in a new chapel at Corpus Christi College, with further demolition and robbing taking place in the early 19th century. The excavation of gravel extraction pits on the priory site in the 19th century found stone coffins and an inhumation burial, along with architectural fragments and medieval pottery, as depicted on the 1885 Ordnance Survey (OS) map (MCB19332; CHER 04654). A rescue excavation carried out in 1985 found quarry pits had truncated the course of a substantial east-west foundation trench (CHER 10157). The only surviving features of the priory are a single vaulted chamber of mid 13th century date (the Cellarer's Chequer; CHER 04653) and a stretch of boundary wall near Beche Road (CHER 04653a). An evaluation undertaken within the southeastern corner of the priory precinct revealed a range of features including clunch-lined wells, clunch walls, floors, pits and ditches. Although most of the features were undated, Late Saxon to early medieval pottery was recovered from a ditch and a pit (MCB23968). A watching brief along the eastern edge of the precinct revealed only modern service features and redeposited alluvial material introduced during the revetment of the frontage in the 19th and 20th centuries (Davenport *et al.* 2008).

1.3.8 A medieval fishpond (CHER 04653b) belonging to the priory was also located immediately to the west of the precinct walls (Appleby and Dickens 2009). The site of the fish pond is also recorded on the 1885 OS Map. A layer of midden material of 12th-13th century date, associated with Barnwell Priory, was excavated immediately to the west of the priory precinct at the former Cambridge Regional College, to the north of the current development site (Atkins 2012; MCB26821B). Finds from this layer included pottery, slag, metalworking artefacts and ceramic building material.

1.3.9 Evidence for the associated lay settlement of Barnwell, outside of the priory precinct, has been revealed to the east of the site through a series of recent archaeological works to the south of Newmarket Road. The westernmost site uncovered only a single

pit that produced a piece of worked bone from a decorative strip or handle along with 12th-14th century pottery and animal bone (122-128 Newmarket Road; MCB26811; Brook 2018). To the east, a neighbouring site revealed a set of agricultural ditches that were overlain by both a post-built and a clunch-built building, tentatively dated to the later medieval period. Along with their associated hearths, a number of pits and post holes were generally attributed to the medieval period (132-136 Newmarket Road; MCB23496A; Atkins 2015). On a neighbouring excavation further to the east of these remains, a similar series of ditched enclosures were uncovered, overlain by a series of plots containing at least seven buildings fronting onto Newmarket Road. These structures were delineated by post holes, clay floors and stone walls. In addition, seven ovens/kilns, five tanks and ten wells were identified on this substantial settlement site (9-15 Harvest Way; MCB23500A; Atkins *et al.* 2016). The trend of greater eastward density of medieval remains continued with the easternmost site of the group revealing six distinct plots dating from the 13th-16th centuries. Features identified included pits, drains, cess pits, gullies, post-built workshops/kitchen/cellared buildings, bread ovens, tanks and wells, with activity dating from the end of the 12th century (Eastern Gate Hotel; MCB26816A; Newman 2013). To the east of this group of sites, beyond Coldhams Lane, lay a group of six wells along with 30 pits for gravel extraction, storage and waste, dating to the 13th-15th centuries (Intercell House, Coldhams Lane; MCB19806; Atkins 2013).

1.3.10 To the south and rear of this substantial area of settlement activity fronting onto Newmarket Road, several substantial gravel extraction quarry pits (average 2m diameter x 1m deep) were uncovered at Occupation Road, which produced heavily abraded 12th-14th century pottery (MCB21440).

1.3.11 Relatively few medieval remains have been uncovered by recent development of the extensive tract of land to the north of Newmarket Road between the precincts of the Benedictine Nunnery of St Radegund (later Jesus College) to the west (CHER 05275c) and Barnwell Priory to the east (CHER 04653). Adjacent to the river, Midsummer Common held a trades fair from medieval to modern times. In 1952, excavations for the erection of a marquee unearthed a number of human skeletons considered to be of medieval date and possibly the remains of plague victims (CHER 10174).

Post-medieval

1.3.12 Details for the post-medieval period (up until the 19th century) are not well known for the immediate area, although recent archaeological work within the lay settlement of Barnwell (see Section 1.3.9 above), has revealed that settlement continued throughout the 16th to 18th centuries. Excavated remains include: a possible latrine, defined by two well made clunch walls, pits, ditches and a cultivation layer (MCB23496B); a possible manor house, twelve buildings, cellar, wells, pits, ovens, floors and ditches (MCB23500B); and cellars, drains, gullies, pits, post holes, soakaways, structures, tanks and wells (MCB26818B).

1.3.13 To the north of the site and Newmarket Road, post-medieval gravel quarry pits were revealed by excavations at the former Cambridge Regional College (Atkins 2012; MCB26821) and Auckland Road (MCB19673). An archaeological evaluation immediately to the east of the site at Compass House also revealed several large extraction pits associated with post-medieval quarrying (MCB20740). In the wider vicinity of the site, intensive quarrying activity was revealed during the excavation of the Parkside Fire and Rescue Station (MCB19909).

19th century

1.3.14 Gravel extraction in the vicinity of the site continued into the 19th century with further large, deep quarries identified by an evaluation at 91-93 East Road, to the southeast of the site. These were uncovered along with a series of smaller pits containing large quantities of dumped 19th century pottery (MCB20329). The 1885 OS map also shows an extraction pit at St Matthew's Gardens (MCB20565). Excavations at the nearby St Matthew's Primary School also uncovered a coprolite extraction site (MCB18137).

1.3.15 By the beginning of the 19th century, the former lay settlement at Barnwell had become a small satellite village in the rural hinterland of Cambridge (Fig. 3). The immediate area around the site was heavily built up during the course of the century to become a suburb of the city, comprising a mix of industrial buildings and workers housing. Brewing was a particularly well represented industry with a number of breweries known to have been built in the area in the 19th century. These include Priory Brewery (MCB17304), documented in the 1860s/70s and taken over by the Star Brewery in 1891 (MCB16525), although there is now no trace of the brewery buildings. Auckland Brewery (MCB17310), Rabbit Brewery (MCB17314), Shakespeare Brewery (MCB17308), Fitzroy Brewery (MCB17315), Hope Brewery (MCB17303) and others (MCB20614, MCB21872) were also located in this area. The site of former malthouses with kilns are shown on the 1885 OS map to the east of Coldhams Lane (MCB21840). Malthouses are also recorded on Newmarket Road (MCB17309), East Road (MCB21865), Melbourne Place (MCB21866) and New Street (MCB21890). The rapid population growth and the presence of the brewing industry went hand-in-hand with the establishment of numerous public houses in the area; the CHER lists a total of 26 former drinking establishments within a 750m radius of the site (MCB17311, MCB20413, MCB21850-21871, MCB21891, MCB21893 and MCB21894).

1.3.16 Other industries included the Britannia Ironworks, the last surviving 19th century foundry/smithy buildings in Cambridge (MCB16546), which was located to the south of East Road. Workers houses (terraces) were located in Britannia Place to the immediate southeast alongside a Soap and Candle Works (MCB20615), and to the north was a 19th century Brush Works. Immediately to the west of the site, at Severn Place and Wellington Court, archaeological evaluations (MCB20306 and MCB19136) uncovered walls and floors of 18-19th century date that probably formed part of pre-existing terraced properties shown on the 1885 OS map. Fragments of 'Codd' bottles from the nearby Star Brewery were also recovered.

1.3.17 The 1813 map of the Parish of St Andrew the Less shows that the northern part of the development site (encompassing the excavation area) comprised part of Plot 18, described as a 'Homestead and Premises' belonging to Reverend H. Bulton (Fig. 4; Electronic Source 1). The northeastern extremity of the site also appeared to encompass Plot 20, a 'Cottage and Premises' belonging to William Watts. Together these properties form a range of buildings that extended around the northern and eastern sides of the current development site. The southern part of the site (Plot 19) is described as an 'Orchard' belonging to Reverend H. Bulton.

1.3.18 Baker's Map of 1830 depicts the site as an area of buildings and open ground fronting on to Sun Street, now Newmarket Road (Fig. 5).

1.3.19 The 1885 OS Map (Fig. 6) shows that by this time the site was occupied by terraced houses and buildings. Two of these buildings were probably the former public houses listed on the CHER as fronting on to Sun Street/Newmarket Road (CHER MCB21852 and MCB21853).

Previous work (Fig. 7; ECB 4717; MCB23747; Cox and Morgan 2016)

1.3.20 The 2016 evaluation uncovered evidence of medieval settlement activity in the northern part of the site (Test Pits 1 and 6) in the form of pits and low densities of finds. Test Pit 5 at the rear of the plot was on the site of a row of terraced houses shown on historical maps (Figs 5 and 6). This test pit showed that quarrying had also taken place in this part of the development site.

Subsequent work (Fig. 7; ECB5367; Graham 2018)

1.3.21 The 2018 evaluation revealed no surviving evidence for activity prior to the 18th century and contained layers of soil indicating that the site had probably been part of an open field until the 19th century. Test Pit 1, at the southern end of the development area, contained evidence for quarrying followed by development for housing. The other test pits and trenches on the western side of Severn Place revealed pits and ditches containing 19th century pottery. These features may relate to the former use of this part of the site as an orchard (see Section 1.3.17).

1.4 Acknowledgements

1.4.1 The author would like to thank Unex Group for commissioning and funding the work. Aileen Connor managed the project and Kasia Gdaniec of Cambridgeshire County Council monitored the works. The fieldwork was supervised by Chris Thatcher and excavated by Neus Esparsa Nogues, Amy Revans and Kelly Sinclair. The site survey was conducted by Dave Brown. The illustrations were produced by Dave Brown. Thanks are extended to the various specialists for their contributions to this report.

2 Aims and Methodology

2.1 Aims

2.1.1 The original aims of the project were set out in the Brief (Gdaniec 2016) and Written Scheme of Investigation (Thatcher 2016) and further refined in the Updated Project Design and Post Excavation Assessment (Thatcher 2017). The main aims of this excavation were:

- 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.
- To preserve the archaeological evidence contained within the excavation area by record and to attempt a reconstruction of the history and use of the site.

2.1.2 The aims and objectives of the excavation were developed with reference to the goals of Regional Research Frameworks relevant to this area (Medlycott 2011 and Brown & Glazebrook 2000).

2.1.3 The primary objective was to preserve the archaeological evidence contained within the site by record and to attempt a reconstruction of the history and use of the site.

2.1.4 All aspects of the investigation were conducted in accordance with the Chartered Institute for Archaeologists' *Code of Conduct*, the *Standard and Guidance for Archaeological Excavation* (CIfA 2014), and *Standards for Field Archaeology in the East of England* (EAA Occasional Paper 14, 2003).

2.1.5 The research objectives identified as pertinent to the investigation included:

2.1.6 ***To characterise the nature of medieval occupation at the edge of the Cam floodplain.***

By using the spectrum of environmental techniques appropriate for this aspect of investigation, is it possible to model the landscape and its transformation by both 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.

2.1.7 ***To attempt to understand the nature of the boundary between settlement-related remains and those of fields/gardens to the south*:**

The origins, longevity and layout of individual properties

There is cartographic and documentary evidence that suggest 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.

- What trades and crafts were being carried out at the properties?
- Was there any evidence for social organisation, health, wealth and can differences be discerned?

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 Eastern Gate Hotel, Harvest Way and Cold hams Lane sites.

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 nearby sites; it was therefore thought probable that there would be similar finds here. In addition, it was thought likely that the influence of the Priory on the fortunes of the settlement would be discernible by close analysis of the material remains:

- In what ways did the relationship between the site and Barnwell Priory change/develop after the Dissolution?
- What factors influenced the decline of Barnwell settlement and growth of the Cambridge suburb?

2.1.8 To characterise the nature of post-medieval occupation in the vicinity

- 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?
- How did the site develop in the post-medieval period and what was 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 was 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.

2.1.9 Economy, Industry and Environmental reconstruction

- Using relevant methods from the spectrum of appropriate sampling techniques, an attempt was made to model the landscape and its transformation brought about both by the settlement's inhabitants and by natural events.
- Detailed examination of waterlogged fills and utilised buried soils was an expectation, particularly 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 indicative of on-site manufacture were sought and appropriately investigated and sampled.
- Evidence of food preparation/consumption or kitchen waste was sought.

2.2 Additional Research Objectives

2.2.1 Completion of the post-excavation assessment showed that the original aims and objectives of the excavation were wider in scope than could be met by the archaeological remains preserved within the excavation area.

2.2.2 A significant level of disturbance was evident within the site; this included the post-medieval and modern activities in the northern part but also possible medieval quarrying identified to the south. Combined, this is likely to have had a detrimental effect on any earlier archaeological remains.

2.2.3 It was determined that the final archive report would focus on a more targeted set of aims and objectives, drawn from those set out in Section 2.1. These are as follows:

Inter and intra site comparison between contemporary properties.

- There was some potential to make comparisons across a wide range of sites in the locality, for instance Eastern Gate Hotel, Harvest Way and Coldhams Lane. However, given the small size of the Sun Street site, it may be more appropriate for the results to be made available for incorporation into these larger studies.

To characterise the nature of medieval and post-medieval occupation within the site.

- What was the extent and character of medieval and post-medieval activity within the excavation area?
- Using a combination of cartographic and documentary sources, combined with the material evidence, establish how the site developed in the later post-medieval period, in particular in relation to the public house and its inhabitants.
- By making the report on the Collegiate Wares, and the assemblage itself, available for wider study, the site can make a valuable contribution to the study of this particular pottery group, and a wider

understanding of post-medieval ceramics in the Cambridge area.

2.3 Methodology

2.3.1 The methodology used followed that outlined in the Brief (Gdaniec 2016) and detailed in the WSI (Thatcher 2016) which required that a single *c*.160m^2 excavation area be machine stripped in the former bus depot's front yard to the level of natural geology or the top of the archaeological horizon, whichever was encountered first.

2.3.2 Machine excavation was carried out by a tracked 360^o type excavator using a 2m wide flat bladed ditching bucket under constant supervision of a suitably qualified and experienced archaeologist.

2.3.3 The site survey was carried out using a Leica GPS GS08 with SmartNET.

2.3.4 Spoil, exposed surfaces and features were scanned with a metal detector. All metal-detected and hand-collected finds were retained for inspection, other than those which were obviously modern.

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

2.3.6 A total of ten bulk samples were taken from the excavated features for the analysis of plant micro/macro-fossils. These each totalled between 10L and 40L and were processed by flotation at OA East's environmental processing facility at Bourn.

2.3.7 Site conditions were good with rain at times.

3 Results

3.1 Introduction

3.1.1 The proposed development area was subject to a 160m^2 excavation area. This excavation followed the evaluation of the site by seven test pits (Test Pits *2016*-1-7; Fig. 7). Test Pits 1 and 6 adjacent to Sun Street/Newmarket Road revealed evidence for medieval settlement activity. The current excavation uncovered further evidence for medieval activity along with 19th century building elements. The chronological phasing presented below is based on spatial associations and similarity of features, combined with dating evidence provided by stratified artefacts. Descriptions of the features identified and artefacts recovered are given in this section, supplemented by a context inventory presented in Appendix A, Table 2. An excavation plan of the site with phasing is presented in Figure 8 and selected Sections are included in Figure 9.

3.1.2 Two main periods of activity have been identified:

Period 1: Medieval (*c.*AD1066-1540)

Phase 1.1: early-high medieval (*c.*AD1150-1400)

Phase 1.2: late medieval (*c.*AD1400-1540)

Period 2: Post-medieval to modern (*c.*1540 to present)

3.2 Natural deposits and truncation

Geology

3.2.1 Natural River Terrace Gravel deposits (113) were encountered in the excavation and in both phases of the trenching/test pit investigations. These deposits generally consisted of a mix of reddish/orange silt and sand with frequent gravel content.

Natural land surface survival and truncation

3.2.2 The upper geological horizon was found to be overlain by a layer of relict subsoil in a selection of the test pit excavations and thereby enabled an approximate height of the original natural land surface to be mapped across the site (Table 1). The natural ground in the northern part of the site (encompassing the excavation area and Test Pit *2016*-1) lay at a height of *c.*11.8m OD. To the west and south of the excavation, the natural land surface in the vicinity of Test Pits *2016*-2, 6-7 was found to have been truncated by modern disturbance. However, a small area unaffected by modern truncation was found to be present in the central part of the site, with natural ground recorded at 12.5m OD in Test Pit *2016*-3. Further to the south, both Test Pits *2016*-4-5 and *2018*-1 and 4 demonstrated the natural ground level had been truncated across the remainder of the development site. The upper natural ground horizon did however survive in the southwestern part of the site (encompassing Trenches 1-2 and Test Pits *2018*-2-5), at a height of between 12.1m and 12.3m OD.

Relict subsoil

3.2.3 Corresponding with the survival of the natural land surface, a buried subsoil was observed in both the excavation area (102) and Test Pits *2016*-1 (12) and *2016*-3 (33). This soil uniformly consisted of a *c.*0.2m thick reddish/greyish brown sandy silt. No finds were recovered from any of these deposits. This buried subsoil may be equated to the subsoil (123) observed in the 2018 test pit investigation in the southwestern part of

the development site (Table 1). This layer was found to be 0.2m thick and consisted of reddish brown clayey sand that yielded two 19th century pottery sherds (34g). During the current excavation buried subsoil 102 was observed to be truncated by Period 2 buildings and foundation cuts (Fig. 9, Section 30).

Relict topsoil/ploughsoil

3.2.4 Overlying the subsoil in neighbouring Test Pits *2018*-2 and *2018*-3 was a further, 0.3-4m thick, darker layer of reddish brown clayey sand (122) that may represent relict topsoil/plough soil (Table 1). However, no finds were recovered from these deposits.

ECB4717							
Test Pit number	**Geology height (m OD)**	**Relict subsoil**			**Relict topsoil**		
		Cxt.	**Thick. (m)**	**Desc.**	**Cxt.**	**Thick. (m)**	**Desc.**
2016-1	11.8	12	0.2	reddish brown sandy silt	na	na	na
2016-3	12.5	33	0.2	reddish brown sandy silt	na	na	na
ECB5367							
Test Pit number	**Height of natural geology (m OD)**	**Relict subsoil**			**Relict topsoil**		
		Cxt.	**Thick. (m)**	**Desc.**	**Cxt.**	**Thick. (m)**	**Desc.**
2018-2	12.13	123	0.2	reddish brown clay sand	122	0.3	dark reddish brown clay sand
2018-3	12.12	123	0.2	reddish brown clay sand	122	0.4	dark reddish brown clay sand
2018-5	12.26	123	0.2	reddish brown clay sand	na	na	na
Trench 1	12.3	123	0.2	reddish brown clay sand	na	na	na
Trench 2	12.3	123	0.2	reddish brown clay sand	na	na	na

Table 1: Natural deposits inventory

3.3 Phase 1.1: early to high medieval (*c.*AD1150-1400)

3.3.1 Two adjacent pits (**85** and **92**) located in the western part of the excavation and a further three pits (**126**, **136** and **142**) clustered towards the excavation's eastern limit produced exclusively early and high medieval pottery sherds (date range *c.*1200 to 1400).

*Pit **85***

3.3.2 Pit **85** was sub-circular in plan measuring 1.9m in diameter with a vertically sided profile. It contained six fills (86-88, 121-122 & 147) with deposits of dark grey silty sand (86, 88 and 122) producing significant quantities of medieval pottery between the intervening backfills of paler grey silty clay (87,121 & 147). The pottery assemblage comprised a total of 131 sherds (1.616kg) of pottery with a combined date range of 1250-1400. Belonging to either jug or jar forms, the fabrics are predominantly Medieval

Essex-type Micaceous Grey Sandy Wares (73% by weight) with a lesser proportion of East Anglian Redwares (18% by weight) along with seven other fabric types. Three animal bone fragments were also recovered. Samples taken from basal fill 88 contained waterlogged plant remains including fat hen, corn spurry, dead-nettle, henbane and sedges.

*Pit **92***

3.3.3 Pit **92** was also sub-circular, measuring 3m in width and 1.25m in depth (Fig. 9, Section 20; Plates 1-3). It had steep sides and contained seven fills (93, 95, 96, 118, 119, 120, 157 &158), two of which (93 & 120) contained medieval pottery. Basal fill 120 contained waterlogged seeds of pond weed, henbane, fat hen, corn spurry and the egg-cases of water-fleas, indicative of standing water. The pottery assemblage comprised a total of 33 sherds (0.511kg) with a combined date range of 1200-1400. Similar to the assemblage recovered from pit **85**, these sherds belong to either jug or jar forms and are predominantly East Anglian Redwares (41% by weight) and Medieval Essex-type Micaceous Grey Sandy Wares (31% by weight) along with a lesser proportion comprising six further fabric types. A complete bone knife handle (SF 1; Plate 8) was also recovered from context 93 along with a heavily corroded hand forged iron staple and a fragment of tile (46g). In addition, context 96 yielded three unidentifiable iron objects. Combined, contexts 93-96 produced a total of 37 animal bone fragments. The upper backfill 158 had a high clay component and was overlain by a levelling layer (157), which comprised mixed gravel, sand and soil, similar in composition to the silty gravel natural geology (Plate 3). This pit was heavily truncated by a Phase 1.2 pit (**144**).

*Pit **126***

3.3.4 Pit **126** was located towards the southeastern corner of the excavation. It was also circular in plan, measuring 1.32m in width. In profile it was moderately steep sided with a concave base up to 0.86m deep. This feature contained seven fills (127–133); the primary fill (127) appeared to represent a yellowish grey clay lining that extended across the base of the pit and was between 0.08m and 0.14m thick. Sealing the lining was a mid greyish brown sandy silt (128), which contained six sherds (48g) of pottery dated to the 13th to 14th century, a fragment (11g) of CBM and an animal bone fragment. As with pits **85** and **92**, the pottery belonged exclusively to jar or jug forms of either East Anglian Redware or Medieval Essex-type Micaceous Grey Sandy Wares with a relatively large sherd of Grimston ware. The upper fills consisted of successive layers of grey/red/grey/yellow brown sandy silt with varying gravel content that only produced a further three animal bone fragments.

*Pit **136***

3.3.5 Pit **136** was was not fully exposed within the excavation area; it extended underneath the eastern baulk and probably represented a further pit within this group of discrete features. In profile it had very steep sides, with the southern edge being stepped, and a flat base. A total of three deposits filled this feature (137, 138 & 139). The primary fill (137) consisted of mid greyish brown silty clay and was overlain successively with mid red (138) and mid grey (139) brownish grey sandy silt. Fill 139 contained a sherd each of Mill Green Fineware (9g) and Medieval Sandy Greyware (17g) with a date range of 1250-1400.

*Pit **142***

3.3.6 Immediately to the north of pit **136**, pit **142** was more circular in plan and measured 1.75m in diameter and 0.38m in depth. It had a bowl-shaped profile with shallow sloping sides, a flat base and a single homogeneous fill (143), which consisted of dark brownish grey sandy loam with frequent gravel inclusions. Due to its similarity in morphology to the other discrete Phase 1.1 pits within the excavation, this feature has also tentatively been placed within this period.

Test Pit 2016-1

3.3.7 Two further discrete features (**6** and **9**) were partly revealed by Test Pit *2016*-1 during the previous evaluation of the site (Cox and Morgan 2016). Both features cut subsoil 12 (see Section 3.2.3 above) and were in turn cut by Period 2 truncation (**4**).

3.3.8 Sub-circular pit **6** measured at least 0.46m wide and 0.5m deep. It was filled by a light grey chalky silt (5) which contained a single sherd of medieval sandy greyware dating to the late 12th to 14th centuries.

3.3.9 Along the southern edge of this test pit was a circular post hole like feature (**9**). It measured 0.26m wide and 0.35m deep and contained a yellow brown sandy silt post packing (8) and a post-pipe of a reddish brown sandy silt (7). No finds were associated with it.

3.3.10 Running the whole length of the eastern edge of the test pit was a north to south aligned feature, possibly a ditch (**11**) which was of unknown width and at least 0.5m deep. This was filled by a brown sandy silt with moderate gravel inclusions (10). No finds were recovered from it; however, as with the other features in this test pit, it cut through subsoil 12 and was in turn cut by Period 2 truncation (**4**).

3.4 Phase 1.2: late medieval (*c*.AD1400-1540)

Pits

3.4.1 A group of four sub-circular pits were revealed along the western boundary of the excavation. This pitting activity probably extended westwards from the excavated area.

*Pit **67=105=114***

3.4.2 Pit **105=114** was not fully exposed within the excavation area, continuing beyond the western baulk. This pit corresponds with pit **67** revealed in Test Pit *2016*-6 during the previous phase of evaluation. The portion revealed indicated that it was sub-circular in plan, being *c*.4m on its long axis with shallow sloping sides and a concave base, and measured up to 0.9m in depth.

3.4.3 Each excavated section contained between one and four fills. Excavated section **67** contained a primary fill consisting of a mid grey brown clayey silt (66). This fill was overlain successively by mid blue grey silty clay (65) and mid grey brown clayey silt (64). Section **105** contained primary fills (106 and 107) consisting of dark brownish orange/orange brown sandy silt with rare gravel inclusions. These fills were overlain by secondary fills, which consisted of mid greyish brown/brownish grey sandy silt (108) and silty clay (109) with frequent gravel inclusions. Section **114** was found to contain a single fill (117) consisting of dark grey sandy silt with clay and gravel inclusions.

3.4.4 The uppermost fill (64) of excavated section **67** yielded five sherds of pottery (23g) of various fabrics, the earliest dating to the 10th to 11th century (Thetford-type ware) with the latest sherd belonging to a 15th to 16th century bowl (Surrey Whiteware transitional

(Tudor Green)). Combined, the fills of excavated section **105** produced a further nine sherds (87g) of 13th and 14th century pottery of various grey ware, coarse ware and red ware fabrics and a tile fragment (12g). The pottery sherds belonged to either jug or jar forms with the mixed assemblage of small sherds of 10th to 14th century date presumably residual. These fills also yielded three animal bone fragments. Excavated section **67** also contained a fragment of medieval tile and seeds of wheat and barley along with five animal bone fragments.

*Pit **80***

3.4.5 Pit **80** was a shallow feature in the south-west corner of the site. It was truncated on its western side by Period 2 feature **83** with the surviving portion being 1m wide. In profile it was just 0.24m deep, with steep sides and a flat, sloping base. It was filled by two homogeneous deposits (81 & 82), the latter of which contained 57 sherds (638g) of late medieval pottery with a date range of 1350-1500. This assemblage comprised either jug or jar forms mostly of East Anglian Redware (including Late) fabrics (70% by weight) with a lesser proportion of medieval sandy grey wares. In addition, this feature yielded the largest assemblage of charred wheat grains, although preservation was poor and they may have been redeposited through successive re-working. These fills also produced 17 animal and bird (chicken) bone fragments including burnt and gnawed examples with some elements displaying evidence for butchery.

*Pit **89***

3.4.6 This feature was located 2m to the north of pit **80**. It was circular in plan with stepped sides and a flat base (Plate 4). Its fills (90 & 91) contained 14 sherds (137g) of pottery with a combined date range of 1250-1450. This assemblage consisted of a wide range of fabric types of mostly medieval grey wares and East Anglian Redwares along with a sherd each of Huntingdonshire Early Medieval ware and Late Medieval Hertfordshire Glazed ware. The samples taken from these both contained charred wheat and barley grains along with elderberry preserved by waterlogging and algae indicative of standing water. Three animal and bird bone fragments were also recovered from the fill.

*Pit **144***

3.4.7 This pit truncated a Phase 1 pit (**92**) close to the western baulk. It was not fully exposed within the excavation area but was sub-circular in plan and up to 2m in diameter by 0.5m deep (Plates 1-3). In section it had vertical sides and a slightly concave base (Fig. 9, Section 20) and was filled by a single homogeneous deposit (94) consisting of mid greyish brown silty sand with frequent gravel inclusions. It contained 33 sherds (164g) of pottery dating from the 13th to 14th century. The assemblage comprised a total of five different fabrics, belonging to jug or jar forms, predominantly of sandy grey/coarse wares (63% by weight) and East Anglian Redwares (30% by weight) with a single sherd of South-East Fenland Medieval Calcareous Buff ware. Two iron nails and one unidentified iron object was also recovered from the fill. In addition, the fill produced 17 animal bone fragments including a wing bone fragment of a large bird. A sample taken from fill 94 contained occasional charred grains of wheat, barley and rye along with a dock seed.

3.5 Period 2: Post-medieval to modern (*c*.1540 to present)

Brick-built building

3.5.1 The brick foundations and other deposits associated with the walls of a building were exposed in the south facing baulk section (Fig. 9, Section 25; Plate 6). The earliest surviving layers comprised hardcore (152) overlain by bedding sand (151), over which a section of a flooring (**150**) was visible, constructed of 18th century floor bricks (Plate 10). The possibly external walls to the west (**155**) and east (**153**) suggest the building may have been *c*.4.2m wide at this point. These walls were constructed of 18th-19th century bricks (Plates 11-13). Along with a further internal brick wall (**154**), they survived to a depth of approximately 0.6m. Several layers of demolition material were infilling the surviving remains (101, 148 & 149). Of note, from backfill deposit 148, was a 19th century decorated clay pipe bowl and stem.

*Well **103***

3.5.2 A brick-lined well, 1.5m in diameter, was located to the immediate south of the brick foundations associated with the building of probable 19th century origin. Inspection of the 1813 map of the site indicates this well would have lain within the bounds of the 'Homestead and Premises' (see Section 1.3.17) and later terrace housing/public houses (Fig. 4; Section 1.3.18-19). The lowest encountered fill (104) consisted of mid grey silty clay with large bricks and charcoal and gravel inclusions. The upper portion of this feature had been backfilled (156) with a large quantity of late 19th century broken glass bottles (10.81kg recovered) and 855 sherds (43.171kg recovered) of pottery, a notable proportion of which (98 sherds, 4.14kg) is Collegiate Ware (Plate 5).

*Possible building foundation cuts **83/100** & **134***

3.5.3 A shallow, north to south aligned feature with steep sides and a flat base extended from the southern baulk for approximately 4m (**83**/**100**) (Fig. 9, Section 16). It contained a single fill in its northern terminal (84) and three fills to the south (97-99), which consisted of mid brownish grey/dark greyish brown/mid grey sandy silt with frequent gravel inclusions. Fill 84 of cut **83** contained a range of finds including a small quantity of post-medieval pottery (16th-18th century), a bone textile smoother (Plate 7), 32 fragments (2.35kg) of late post-medieval tile and a sawn cattle radius. Occasional carbonised wheat grains, nettle and clover/medick seeds were also present in the sample taken from this fill along with a single nutlet of Great Fen sedge. Waterlogged seeds included dead-nettle, henbane and elderberry. Given the square-cut character of this feature, it is possible that it represented the remnant of a robbed-out foundation trench. Fill 98 of cut **100** also yielded three undiagnostic pieces (1.91kg) of architectural limestone or clunch and a single animal bone.

3.5.4 Feature **134** was exposed at the eastern edge of the excavation. It was cut through the same stratigraphic horizon as **83**/**100** and may also have represented the terminus of a linear feature running eastwards, perpendicular to **83**/**100**. In section, it also had a square cut profile measuring 0.80m in width by 0.85m in depth (Fig. 9, Section 30). Glass bottle sherds (19th century) and clay pipe fragments were recovered from its homogeneous grey brown fill (135).

*Chimney base **115***

3.5.5 This rectangular feature, with vestiges of a lining constructed of 18th or 19th century bricks (Plate 9) around its perimeter, contained a fill (116) that produced fragments of

19th century pottery (18 sherds, 219g), brick (4.58kg), glass (302g) and clay tobacco pipe (8g). A total of 16 animal bone fragments were also recovered that included sawn pig rib and sheep/goat pelvis. It lay in line with the northern terminus of possible building foundation cuts **83**/**100** and **134** and may therefore represent another surviving element of this building.

*Post hole **110***

3.5.6 A small, post hole like feature, that measured 0.15m in width and 0.04m in depth, lay to the east of feature **83**/**100**, with which it may have been associated. It was U-shaped in profile and its dark brown silty sand fill with frequent gravel inclusions (111) did not contain any finds.

*Pit **123***

3.5.7 In the south-eastern corner of the site was a partially exposed pit (**123**). It contained two backfill deposits (124 & 125) consisting of mid and dark greyish brown clayey sandy silt with gravel inclusions. These fills contained 11 fragments of post-medieval clay tobacco pipe (79g) dated to *c*.1700-1740 and four sherds (139g) of late 17th to 18th century pottery (including part of a chamber pot), along with seven animal bone fragments.

Modern disused petrol tank

3.5.8 Part of a large modern, brick-lined pit truncated the entire northwestern corner of the excavation area. It contained a disused petrol tank and was therefore probably associated with the site's previous use as a bus depot.

3.6 Artefact Summaries

Overview

3.6.1 Analysis of all of the finds and environmental categories has shown that although they add to the general interpretation of site activities, they have low potential to contribute to any wider research issues. The small quantity of medieval finds (pottery, iron objects) and contemporary animal bone makes it difficult to draw any meaningful conclusions about the nature of occupation (such as craft activities), identification of boundaries/properties or associations with Barnwell Priory or its lay settlement. The assemblages are fairly typical of low-level back yard activities related to rubbish disposal. The environmental evidence indicates that several of the pits stood open and waterfilled for some time, although the plant and other remains are poorly preserved. Collegiate ceramics were recovered from the Period 2 well (**103**), which add to the growing corpus of this type of ceramic in the city.

Metalwork (Appendix B.1)

3.6.2 Seven iron objects plus an iron and bone object (bone knife handle SF 1, see Section 3.6.3 below) were recovered and identified as two nails, an iron staple and four unidentifiable objects. These finds were recovered exclusively from the fills of a Period 1.1 pit (**92**; four items) and a Period 1.2 pit (**144**; three items).

Worked bone objects (Appendix B.2)

3.6.3 A complete bone implement handle (SF 1), consisting of two bone plates secured to a flat rectangular tang by three iron rivets, was recovered from the fill of a Period 1.1 pit

(**92**). The fill of Period 2 foundation cut **83** also produced a largely complete bone textile smoother, made from a cattle metatarsus.

Post-Roman pottery (Appendix B.3)

3.6.4 A total of 380 sherds of pottery, weighing 4.484kg, were recovered during the evaluation and excavation phases. These dated predominantly to the medieval period, the post-medieval and early modern periods being poorly represented. The assemblage is in relatively good condition and comprises domestic wares, mainly associated with the preparation and serving of consumables. A sample taken from 19th century well **103** produced a further 855 sherds, including collegiate ceramics, weighing 43.171kg.

Ceramic Building Materials (CBM) (Appendix B.4)

3.6.5 An assemblage totalling 55 fragments (17.67kg) of CBM was recovered that included several complete 18th and 19th century bricks and fragments of later post-medieval brick and tile. Much of the CBM is residual, related to the discard of building material and subsequent dispersal across the site, although complete *in-situ* examples were collected from structural features (brick floor **150** and brick walls **153**-**155**) associated with former 19th century brick-built buildings on the site.

Glass (Appendix B.5)

3.6.6 A small assemblage weighing 11.113kg was recovered, mainly comprising vessel glass, the bulk of which are black or green glass wine bottles, dating to the 18th-19th century. This assemblage was recovered from the backfills of Period 2 well **103** and chimney base **115**.

Architectural Stone (Appendix B.6)

3.6.7 A small assemblage comprising three pieces of undated architectural stone weighing 1.909kg was collected from the backfill of Period 2 foundation cut **100**. The dressed blocks have opposing smoothed surfaces and are made of coarse limestone or clunch.

Clay Tobacco Pipe (Appendix B.7)

3.6.8 A total of 15 fragments of plain, white ball clay tobacco pipe, weighing 0.101kg, were recovered. The only item of note is a miniature pipe, that dates to the 19th century, recovered from backfill (148) of the Period 2 brick-built building remains.

Faunal Remains (Appendix C.1)

3.6.9 The assemblage comprises 2.46kg of hand collected bone. The material is generally in good condition with cattle, sheep/goat, pig and small quantities of bird present. Gnawed, root-etched, burnt specimens are present and butchery marks are also evident.

Environmental Remains (Appendix C.2)

3.6.10 Ten bulk samples were taken from pit fills. Preservation is generally poor and species diversity and densities are low although there is evidence for preservation of plant remains by both carbonisation (charring) and, in Period 1.1 pits **85** and **92** and Period 1.2 pit **89**, waterlogging. The low quantity and poor preservation of the cereal grains suggest that they are likely to have originated from midden waste disposed of in the pits and not necessarily produced on site. The largest assemblage of charred wheat grains was recovered from Period 1.1 pit **80**, although preservation was poor, probably due to

successive re-working. Occasional charred grains were also recovered from Period 1.2 pits **89** and **144**.

4 Discussion and Conclusions

4.1 The medieval setting

4.1.1 This small site has provided an insight into a plot of land located on the western fringes of the medieval lay settlement of Barnwell. Previous archaeological works to the east of the site demonstrate its urban core lay directly to the south of Barnwell Priory and Newmarket Road (Newman 2013; Atkins 2015; Atkins *et al*. 2016; Brook 2018). This core lay to the south of Barnwell Causeway (Newmarket Road) and between its junction with Old Mill Way (East Road) to the west and Coldhams Lane to the east. The historical limits to this urban medieval settlement are as yet poorly understood with its westward extent (towards the current site) perhaps lying at an unknown point within the distinctive triangle of land between Barnwell Causeway and Old Mill Way. The projection of the eastern limit to the settlement may be more easily defined. A short distance to the east of Coldhams Lane, the lay settlement abutted the lower lying waterlogged heavy clay and chalk land (with many chalk springs) extending to Coldham Brook (Hesse 2007, 156). To the south of the settlement lay the extensive arable land of Cambridge's East Field, otherwise known as Bradmore or Barnwell Field (*ibid*., 151).

4.1.2 The lay settlement sprang up to service the Augustinian foundation of Barnwell Priory in 1112 at the site of 'the springs of Barnwell' to the north of Newmarket Road (Fig. 10). Its precinct encompassed 13 acres of land given by Henry I to Sheriff Pain Peverel (Atkins 2012, 11). This monastic site grew to be one of the most wealthy and important religious establishments in East Anglia before its dissolution in 1538. After this date the building stone from the priory was quarried for college buildings such as Corpus Christi in Cambridge (Clark 1891). To the west of the site, south of the precinct of the nunnery of St Radegund (founded in the late 1130s), a similar ribbon development extended eastwards from the medieval urban centre of Cambridge along Newmarket Road (*ibid.*). Inspection of the geology map for the area reveals settlement was confined to the well drained terrace gravels. An outcrop of poorly drained Gault Clay located 300m to the west of the site may have formed a natural break in settlement between Cambridge and Barnwell. This outcrop gave the medieval name of 'Clayangles' to the intervening field (Hess 2007, 145, fig. 2).

4.1.3 The terrace gravels to the north of the site and Newmarket Road (between the priory and nunnery precincts) may also have been settled in the medieval period. However, limited excavation of the former Cambridge Regional College site, bordering the priory's western limit, did not encounter any evidence for occupation (Atkins 2012). On the common land of Greencroft to the west, the only remains encountered outside of the nunnery has been a burial ground of purported medieval date (see Section 1.3.11, CHER 10174). It is possible the entirety of the land to the north of the road was either part of Greencroft (later Midsummer) common (Hesse 2007, 149 fig. 5) or agricultural land owned by Barnwell Priory (Atkins 2012, 19). When considering all of the above observations, any outward growth from the core of the medieval lay settlement at Barnwell would naturally have extended westwards towards the site.

4.2 The 13th-14th century remains

4.2.1 The previous phase of evaluation uncovered only a single ditched boundary, tentatively dated to the medieval period (Test Pit *2016*-1 ditch **11**). This ditch is projected to extend on a north-south alignment along the eastern boundary of the site. It is possible this linear boundary formed part of a medieval plot division for a property fronting

Newmarket Road to the north. As no further ditches were uncovered by the excavation, it is possible the 13th-14th century remains lay in a plot of land of at least 11m in width. The plots excavated at both the East Gate Hotel (Newman 2013, fig.10) and Harvest Way (Atkins *et al*. 2016, fig.15) generally ranged between 7.5-12m in width. The orientation of the boundary also reflects the wider orientation of land division observed in the settlement core that fronted onto and respected Newmarket Road. It is also possible that this ditch represents an earlier land division unrelated to settlement. The recent series of excavations into the settlement core revealed it overlay both agricultural ditches at the 132–136 Newmarket Road site (Fig. 2, MCB23496A; Atkins 2015) and a series of ditched enclosures at the Harvest Way site (Fig. 2, MCB23500A; Atkins *et al*. 2016).

4.2.2 The presence of only seven discrete pits within the excavation and neighbouring Test Pit *2016*-1 demonstrates there was less intensive occupation of the site during this period than to the east, where progressively more dense settlement remains have been excavated (see Section 1.3.9). These pits probably represent activity within the rear of a plot of land fronting onto Newmarket Road to the north. With the establishment of Sun Street at some point in the post-medieval period, to the south of Newmarket Road, the excavation area may lie as much as 20m to the south of the original medieval road, where the dwelling associated with the property probably lay. As shown by the more substantial excavations into the medieval core of Barnwell (Newman 2013, fig.10; Atkins, 2016, fig.15), individual plots of land typically extended for *c*.50m and more from the frontage. It has been commented on that there was an incentive for the local populace to keep extensive back plots to grow produce or rear animals for the annual Stourbridge Fair, one of the largest medieval fairs in the country (Atkins *et al*. 2016, 103).

4.2.3 The only sizeable animal bone assemblage was recovered from pit **92** with identifiable large mammal species comprising cattle, pig and sheep/goat. The remains of landfowl, fish, small mammal and egg shell were also present. The presence of the wider set of remains within this pit suggests it contained waterlogged deposits. The lower fill of this pit also contained waterlogged weed seeds, providing evidence of standing water in this feature (Appendix C.2.9-10). It is therefore likely that this pit remained open for a period of time before backfilling and may have functioned as a cess pit or latrine, a function previously determined for wet pit deposits excavated within the settlement core to the east (Fig. 2, MCB23500A; Atkins *et al*. 2016). Pit **92** also produced a complete highly polished bone knife handle with the corroded remains of the tang for the iron blade (SF 1; Appendix B.2). The single pit excavated at the 122-128 Newmarket Road excavation, 150m to the east of the site, also produced an unfinished bone handle or comb (MCB26811; Brook 2018).

4.2.4 A significant quantity of pottery was recovered from pit **85** with a lesser quantity present in pit **92**. Comprising mostly Medieval Essex-type Micaceous Grey Sandy Wares, the sherds belonged to either jug or jar forms (Appendix B.3.17-18). The remaining pits contained only a few further sherds of pottery along with some fragmentary animal bone and iron items. The presence of these artefacts suggest the pits were excavated to dispose of midden waste, such as dumps of broken pottery, with the poor preservation of organic remains a result of the deposits remaining unsaturated after deposition (Appendix C.2.15).

4.3 The 15th-16th century remains

4.3.1 A cluster of four pits were present in the southwestern part of the excavation area that contained a similar range of artefacts (with the addition of some medieval tile fragments) as the pits attributed to the 13th-14th century. The small assemblages of pottery recovered from each of these pits included sherds dated to the 15th-16th century to suggest this site probably continued to be periodically utilised for the disposal of waste into this later period within a back plot setting. A proportion of the pottery sherds within these pits were residual items dating from as early as the 10th century, suggesting that not all the material interred into the pits originated from on-site activity.

4.3.2 The possible cess pit or latrine delineated by pit **92** was heavily truncated by pit **144**. Similar to the earlier pit, this later feature also produced one of the two larger animal bone assemblages of the period, including fragments of cattle and sheep/goat along with a wing bone of a large bird (Appendix C.1.6). The other animal bone assemblage of note was recovered from pit **80** which similarly comprised large mammal and chicken. This assemblage includes burnt and gnawed examples with some elements displaying evidence for butchery (Appendix C.1, Table 12). Animal and bird bone fragments were also found in the fill of pit **89**, with the presence of waterlogged elderberry seeds (indicative of standing water) implying this pit may also have been open for a time prior to backfilling.

4.3.3 A relict subsoil was recorded overlying the geological horizon and the medieval remains to demonstrate the natural land surface level had survived in this part of the site. However, the test pit investigations across the wider development site demonstrated that most of the natural land surface within the bounds of the wider development had been truncated from the post-medieval period onwards (Fig. 7). It therefore remains possible to conjecture whether similar evidence for medieval settlement would have extended into the southern part of the site; perhaps as far as East Road. In this regard, it is perhaps significant that where natural subsoils were extant in the southwestern extremity of the development site, no further evidence for medieval settlement was found.

4.4 The post-medieval remains

4.4.1 After the dissolution of Barnwell Priory in 1538, documentary evidence demonstrates that the village of Barnwell suffered continual contraction and decline until only 48 houses were recorded within the parish in 1749 (Atkins 2012, 21). By the beginning of the 19th century its total population had fallen to 252 individuals (Newman and Dickens 2012, 10). It is possible that the earliest detailed map of Barnwell, The 1810 Ordnance Survey map, fossilises the former extent of the medieval lay settlement, as the site is shown to lie within a built-up area of land within the triangle of land formed by the junction of East Road and Newmarket Road on the western fringe of the village (Fig. 3). This area later became known as ‘The Kite’ due to its distinctive shape on the map.

4.4.2 The test pits placed in the southern part of the site revealed evidence for the quarrying of the underlying gravel prior to its 19th century redevelopment. At least four other quarry sites dated to this period are known close to the site (see Section 1.3.13) to suggest this industry accompanied the urban decline. Perhaps the arable land on the terrace gravels to the south, that helped to support the economic needs of Cambridge (Hesse 2007, 143), was still too valuable in the post-medieval period to suffer such destructive encroachment.

4.5 The 19th century remains

4.5.1 At the start of the 19th century the economy and fortunes of the entire area around the site began to change. The shrunken village of Barnwell grew rapidly in size to become a built-up suburb of the city of Cambridge, with a greater population than the city itself (Newman and Dickens 2012, 10). Gravel extraction continued in the area, with extensive quarries mapped on the 1885 OS map, and listed in the CHER, including a pit located within the former precinct of the priory (see Section 1.3.14).

4.5.2 This urban growth was fuelled by the establishment of multiple breweries, public houses and other industries (see Section 1.3.15). It appears The Kite was considered an economically deprived/slum area of the city, with the Cambridge University authorities discouraging students from visiting numerous suspected brothels that had also sprung up alongside the public houses (Electronic Source 2).

4.5.3 Structural vestiges of 19th century buildings were present in the excavation area and extended to the north, east and south. The remains of a brick-built structure was revealed in the northern baulk section along with an adjacent brick-lined well. The robbed out remains of footings for a further building was also present in the southern part of the site along with the footings of a possible chimney. These structural elements probably formed part of the row of cottages shown on the 1813 enclosure map of Barnwell, whose footprints extended across the northern and eastern side of the excavation area (Fig. 4; see Section 1.3.17). The cottages are shown to be present throughout the 1800s (Figs. 5 and 6; Section 1.3.18-19). As described in the CHER (Fig. 2, MCB21852-3), two of the cottages appeared to later become public houses (see Section 1.3.15). The brick-lined well was probably associated with the cottages. Excavation of its backfill recovered an assemblage of collegiate ceramics similarly found on both the Harvest Way and Eastern Gate Hotel sites (Appendix B.3, Table 7).

4.6 Significance

4.6.1 Evidence for medieval occupation of the site, however slight, is a significant discovery for the locality. The group of medieval features uncovered by the excavation raises the possibility that by the 13th century the western limit of the lay settlement at Barnwell may have extended beyond the junction of East Road with Newmarket Road. The lack of any post-medieval remains prior to its 19th century development reflects Barnwell's well documented decline and re-establishment as a well populated and vibrant suburb of the city.

Appendix A. Context Inventory

Cxt.	Cut	Phase	Category	Feature Type	Function	Colour	Fine component	Coarse component	Compaction	Thickness	Breadth	Depth	Shape in Plan	Profile
80	80	1.2	cut	pit							1	0.26	sub-circular	bowl
81	80	1.2	fill	pit		dark grey	silty sand	frequent mixed stones	loose	0.14	1	0.14		
82	80	1.2	fill	pit	disuse	dark brown grey	sandy silt	frequent mixed stones	loose	0.12	0.99	0.12		
83	83	2	cut	pit							1	0.3	rectangular	square
84	83	2	fill	pit	disuse	mid brown grey	sandy silt	very frequent stones	loose		1	0.3		
85	85	1.1	cut	pit							1.1	1.16	sub-circular	bowl
86	85	1.1	fill	pit		dark grey	silty sand	gravel	compact	0.1	0.5	0.16		
87	85	1.1	fill	pit	backfill	pale grey	silty clay	rare, small stones and chalk flecks	compact	0.2	0.9	0.2		
88	85	1.1	fill	pit		dark grey	silty sand	gravel	compact		0.9	1.1		
89	89	1.2	cut	pit							1.55	0.84	circular	stepped bowl
90	89	1.2	fill	pit	disuse	mid grey brown	silty sand	frequent small stones	loose	0.53	1.55	0.53		
91	89	1.2	fill	pit	disuse	light grey brown	silty sand	frequent small stoones	loose	0.36	1.55	0.36		
92	92	1.1	cut	pit							1.4	1.02	sub-circular	not fully excavated
93	92	1.1	fill	pit	disuse	dark brown grey	sandy clay	frequent small stones, charcoal	compact		1.44			
94	144	1.2	fill	pit	backfill	mid grey brown	clayey sand	frequent, small stones	compact	0.36	1.28	0.36		
95	92	1.1	fill	pit	backfill	mid brown grey	clayey sand	frequent small stones	compact	0.32	1.1	0.32		
96	92	1.1	fill	pit	disuse	mid reddish brown	clayey sand	frequent small stones	compact	0.18	1.3	0.18		
97	100	2	fill	foundation trench	disuse	dark grey brown	sandy silt	frequent small gravel	friable	0.2	1	0.2		
98	100	2	fill	foundation	disuse	mid grey	sandy silt	frequent small	friable	0.3	1	0.3		

Cxt.	Cut	Phase	Category	Feature Type	Function	Colour	Fine component	Coarse component	Compaction	Thickness	Breadth	Depth	Shape in Plan	Profile
				trench				stones						
99	100	2	fill	foundation trench	disuse	mid brown grey	sandy silt	frequent small stones	friable	0.66	1.2	0.66		
100	100	2	cut	foundation trench	construction						1.2	0.66	linear	U shaped
102			layer	subsoil		dark brown	sandy loam	frequent grit, stone	loose					
103	103	2	cut	well	construction						0.63		sub-circular	not visible
104	103	2	fill	well	disuse	mid grey	silty clay	large bricks, charcoal, stone	compact		0.63			
105	105	1.2	cut	pit							1.62	0.9	sub-circular	square/ bowl
106	105	1.2	fill	pit	disuse	dark orange brown	sandy silt	rare stones, gravel	loose	0.04	1.4	0.04		
107	105	1.2	fill	pit	disuse	dark brown orange	sandy silt	rare small stones, gravel	loose	0.58	0.3	0.58		
108	105	1.2	fill	pit	disuse	mid grey brown	sandy silt	frequent small stones	loose	0.52	0.36	0.52		
109	105	1.2	fill	pit	disuse	mid brown grey	silty clay	moderate, small stones	soft	0.18	1.5	0.18		
110	110	2	cut	post hole	structural					0.04	0.15	0.04		
111	110	2	fill	post hole	disuse	mid grey	clayey silt	small stones, chalk	loose	0.04	0.15	0.04		
112	105	2	fill	pit	disuse	dark brown	silty sand	frequent small stones	loose	0.3	1.62	0.3		
113			layer	natural		reddish/orange	silt and sand	frequent gravel inclusions						
114	114	1.2	cut	pit							0.94	0.54	not visible	U shaped
115	115	2	cut	structure	chimney						1.35	0.4	rect-angular	
116	115	2	fill	structure	chimney	dark grey brown	silty clay	frequent small stones	loose	0.4	1.35	0.4		
117	114	1.2	fill	pit		dark grey	sandy silt	gravel, clay	loose		0.94	0.54		
118	92	1.1	fill	pit	backfill	mid red brown	sandy silt	frequent stone	compact	0.06	1.1	0.06		
119	92	1.1	fill	pit	disuse	dark grey brown	clayey silt	small, frequent stones	compact	0.34	1.18	0.34		
120	92	1.1	fill	pit	backfill	dark brown grey	clayey silt	small, frequent	firm	0.22	0.54	0.22		

Cxt.	Cut	Phase	Category	Feature Type	Function	Colour	Fine component	Coarse component	Compaction	Thickness	Breadth	Depth	Shape in Plan	Profile
								stones						
121	85	1.1	fill	pit		dark grey	silty clay	rare pebbles	compact	0.3	0.6	0.3		
122	85	1.1	cut	pit		mid grey	sandy silt	clay	compact	0.1	2.5	0.1		
123	123	2	fill	pit	waste						0.7	0.48	sub-circular	U shaped
124	123	2	fill	pit	backfill	dark grey brown	clayey silt	occasional small stones	firm	0.04	0.9	0.04		
125	123	2	fill	pit	disuse	mid grey brown	sandy silt	frequent small stones	compact	0.44	0.88	0.44		
126	126	1.1	cut	pit							0.32	0.86	circular	U shaped
127	126	1.1	fill	pit	lining	light yellow grey	silty clay	frequent small stones	firm	0.14	0.8	0.14		
128	126	1.1	fill	pit	disuse	mid grey brown	sandy silt	frequent small stones	firm	0.48	1.24	0.48		
129	126	1.1	fill	pit	disuse	mid red brown	sandy silt	frequent small stones	compact	0.16	0.76	0.16		
130	126	1.1	fill	pit	disuse	mid grey brown	sandy silt	frequent small stones	firm	0.15	0.5	0.15		
131	126	1.1	fill	pit		dark grey brown	sandy silt	frequent small stones	firm	0.16	0.9	0.16		
132	126	1.1	fill	pit	disuse	yellow grey	clayey silt	occasional small stones	compact	0.08	0.32	0.08		
133	126	1.1	fill	pit	disuse	dark red brown	sandy silt	occasional small stones	firm	0.12	0.58	0.12		
134	134	2	cut	pit							0.8	0.85	square	square
135	134	2	fill	pit	disuse	dark brown grey	sandy silt	frequent mixed stones	loose		0.8	0.85		
136	136	1.1	cut	ditch							2.5	1.2	linear	stepped square
137	136	1.1	fill	ditch		mid grey brown	silty clay		compact	0.3	0.52	1.2		
138	136	1.1	fill	ditch		mid red brown	sandy silt	rare flint	compact	0.9	0.98	0.9		
139	136	1.1	fill	ditch		mid grey brown	sandy silt	rare pebbles, flint, charcoal	compact	0.3	0.15	0.3		
142	142	1.1	cut	pit	modern						1.75	0.38	circular	U shaped
143	142	1.1	fill	pit	disuse	dark brown grey	sandy loam	dense gravel	loose		1.75	0.38		
144	144	1.2	cut	pit										
147	85	1.1	fill	pit	disuse	dark grey brown	silty clay	frequent small	compact	0.2	1.2	0.2		

Cxt.	Cut	Phase	Category	Feature Type	Function	Colour	Fine component	Coarse component	Compaction	Thickness	Breadth	Depth	Shape in Plan	Profile
								gravel						
148		2	layer	demolition	leveling							0.6		
149		2	layer	demolition	leveling	very dark grey brown	silty sand	stones and dense burnt material	loose	0.08	2.52	0.08		
150		2	masonry	floor	surface						1.88	0.05		
151		2	layer	sand	bedding	yellow grey	sand	grit	loose					
152		2	layer	hardcore	structural	grey/black	silty sand	dense stones and rubble	moderately compacted					
153		2	masonry	wall	exterior structure						0.26	0.6		
154		2	masonry	wall	interior structure						0.24	0.52		
155		2	masonry	wall	exterior structure						0.23	0.48		
156	103	2	fill	well	backfill									
157	92	1.1	fill	pit	backfill		silty sand	frequent gravel		0.5				
158	92	1.1	fill	pit	backfill		silty clay	occasional gravel		0.4				

Table 2: Context inventory

Appendix B. Finds Reports

B.1 Metal Finds

by James Fairbairn

Summary

B.1.1 A total of seven iron objects were recovered, all from Period 1.1 pit **92** and Period 1.2 pit **144**. The finds consist of two nails and one unidentifiable iron object from pit fill 94, an iron staple from pit fill 93 and three unidentifiable objects from pit fill 96. All are thought to be medieval to post-medieval in date.

Catalogue

*Pit **92**, fill 93, Phase 1.1*

B.1.2 Staple

Period: Medieval to post-medieval

A heavily corroded large hand forged iron staple. The staple is unevenly bent, thicker at the top and each shaft tapers to a point. The tip of one of these points is missing. Length: 65mm, Width: 38mm, Thickness: 13mm.

*Pit **92**, fill 96, Phase 1.1*

B.1.3 Object type: Three small unidentifiable iron objects

Broad period: Medieval to post medieval

Pit fill 96 contained two small spherical iron objects. Both are heavily corroded and are roughly spherical in shape. Although both unidentifiable concretion and corrosion can form around nail heads in a spherical fashion. The objects have a combined weight of 11.38g. A small piece of unidentifiable thin iron was also found within pit fill 96. This has an elongated shape tapering into rough points at either end. This shape is most likely due to corrosion and fragmentation rather than design Length: 39mm, Width: 14mm, Thickness: 5mm.

*Pit **144**, fill 94, Phase 1.2*

B.1.4 Two nails and one unidentifiable iron object

Period: Medieval to post-medieval

Two small heavily corroded hand forged iron nails were found within the context. One has lost both head and shaft. The object is 31mm in length and weighs 6.46g. The second has lost the tip. It is bent at a right angle at approximately half way down the shaft. The head is sub circular and flat. Length: 46mm, Weight: 6.01g. A small piece of unidentifiable heavily corroded iron was also found within pit fill 94. The object is roughly spherical in shape. Diameter 15mm.

B.2 Worked Bone Objects

by Ian Riddler

Smoothing Bone

B.2.1 A fragmentary cattle metatarsus has been lightly modified around its distal end (Plate 7). It includes a series of rough file marks around the lateral condyle, slicing away part of the bone, and the raised surfaces of the condyles have been flattened on both the anterior and posterior faces. In addition, the midshaft has a rounded, corrugated surface on the medial face. The bone is heavily polished in this area and shows further polish across all of the surfaces, except for the condyles. On antler and bone pin-beaters similar rounded corrugations along both sides of the shaft have been regarded as an index of extensive handling and wear (Riddler *et al* forthcoming). In this case the wear patterns are confined to one side of the bone. It is possible that they reflect the winding of thread laterally across the bone, so that it acted as a spool, but this would not explain why only one side of the bone includes a corrugated surface.

B.2.2 Light modification and high polish are features of bone skates and the cattle metatarsus was one of the preferred bones for that object type (Becker 1990, 20; Küchelmann and Zidarov 2005, 425). Yet, despite the smoothing of the bone and the polish on the anterior face, which was usually the face chosen to be placed on the ice, the wear marks visible on both sides are not those associated with skates. Moreover, the anterior face has not been ground to a flat surface and the distal end of the bone, which would form the front of the skate, is not upswept to enable it to glide on the ice. A range of similar bones from Hedeby, polished on both sides, were interpreted by Jankuhn as skates but Barthel considered them to be smoothing bones, in part because they were polished on both sides and not just on the anterior face (Jankuhn 1943, 163; Barthel 1969, 208). Both Barthel and Becker have stressed that not all smoothed cattle metapodia were used as skates and that some bones were used instead for smoothing (Barthel 1969, 208-10; Becker 1990, 22).

B.2.3 A key part of their arguments lay in a close examination of the wear traces on the anterior and posterior faces. Thus, longitudinal wear was characteristic of skates, whilst lateral or diagonal wear implies a smoothing bone (Barthel 1969, 211-2; Becker 1990, 22-3). Subsequently, Küchelmann and Zidarov have questioned this simple differentiation of object types, noting that diagonal and lateral wear can also occur on objects used as skates, following experimental work with different bone types (Küchelmann and Zidarov 2005, 443). At the same time, they acknowledge that smoothing bones existed alongside skates and the two object types can usually be differentiated.

B.2.4 Barthel has linked smoothing bones with textile manufacture and has also suggested their use in tanning where, however, the longer cattle radius bone would have been much more practical as a smoothing and working tool (Barthel 1969, 210 and 215). Both radii and metapodia occurred in Becker's sample of smoothing bones from Berlin-Spandau, with the radii more common (Becker 1990, 22-3). She has shown how these bones could be used in the tanning process, with the anterior face forming the smoothing surface (*ibid*, abb 3). Cattle long bones used as smoothers in the tanning process would have been held at either end, with the midshaft providing the contact surface (Becker 1990, abb 6), whereas here it appears that the bone was held by the midshaft, with the ends forming the contact surfaces. It seems unlikely, therefore, that

this bone was used in tanning processes.

B.2.5 It was probably still a smoothing bone, however. In particular, this would explain why one side of the bone includes rounded, raised areas. The indentations between those areas would have been the location for the fingers of one hand, with the thumb pressing on the opposite side of the bone. The hand would only ever have been on one side of the implement, leading to wear in that area but not on the other side. Held in this way, either the proximal or the distal end could have been used as the smoothing surface, and it is noticeable that both the anterior and the posterior faces of the distal end of the bone have been trimmed to provide flat surfaces, with the ridges of the condyles removed. Both faces were probably used for smoothing. Lateral lines are present on both sides of the bone but particularly on the anterior face and this may have been the main smoothing face. It is most likely that the bone was used to smooth soft materials like textile on a flat surface until the proximal end fractured away, at which point it was discarded.

Context 84, Period 2 foundation cut **83**. Bone textile smoother. Cattle metatarsus, roughly split obliquely across the midshaft, removing the proximal end. Lateral condyle has been roughly modified with file marks in two planes. Numerous lateral and oblique scratches on the posterior face and a small number of longitudinal and oblique lines and scratches on the anterior face. Lateral side is highly polished and indented, with four rounded, raised areas visible. No corresponding marks on the medial side. Lower part of the bone has a speckled appearance.

Implement Handle

B.2.6 A complete bone implement handle (SF 1; Plate 8) now lacks the blade of the knife but retains its rectangular scale tang. The form of the handle, with a straight, horizontal upper edge and a lightly curved lower edge, is relatively common during the late medieval period. It can be seen on knives from late 14th-century contexts in London, and from mid 14th- to early 15th-century contexts at York (Cowgill *et al* 1987, figs 64.125 and 65.133 and 136; Ottaway and Rogers 2002, fig 1365.13805). The knife blades survive on some of these knives but are absent on others, the junction of the blade and the handle forming a notable point of weakness.

SF 1. Context 93, Period 1.1 pit **92**. Complete scale tang implement handle, consisting of two bone plates of trapezoidal section, secured to a flat, rectangular tang by three iron rivets. Front of the handle has a slight lip at the lower end, main body has a straight horizontal back and a lower edge that widens to a curved area before tapering to a point. The terminal includes a hole formed by part of the bone channel. Undecorated; highly polished throughout.

B.3 Post-Roman Pottery

by Carole Fletcher

Introduction

B.3.1 Archaeological works produced a moderate hand excavated pottery assemblage of 380 sherds, weighing 4.484kg, including material from the evaluation Test Pits 1 and 6 originally examined by Sue Anderson (Anderson 2016). A small number of sherds were recovered from samples, however these are mainly small, abraded sherds, many of which are undiagnostic and therefore have not been included in this assessment, except where no other dating material was available. This assemblage is broadly medieval with the post-medieval and early modern periods poorly represented. The condition of the overall assemblage is moderately abraded to abraded, and the average

sherd weight is low to moderate at approximately 12g. Summary pottery catalogues are given as Tables 5-7 at the end of this report.

B.3.2 In addition to the main excavation assemblage, a 'grab sample' from a 19th century well was recovered, which produced a further 855 sherds, weighing 43.171kg, with a high average sherd weight of 50g. This material has been recorded alongside the main assemblage but is reported on separately due to the amount of pottery recovered, which would otherwise skew the results of the excavation and the method of recovery (see methodology). The material recovered includes 18th and 19th century ceramics with the likely *terminus post quem* (TPQ) of *c.*1861, if all of the material was deposited as a single event. This date relates to Collegiate pottery recovered from the well and discussed elsewhere in this report, although this date may be readjusted to 1863 or later if the glass assemblage is taken into account.

Methodology

B.3.3 The Prehistoric Ceramics Research Group (PCRG), Study Group for Roman Pottery (SGRP), The Medieval Pottery Research Group (MPRG), 2016 *A Standard for Pottery Studies in Archaeology* and the MPRG *A guide to the classification of medieval ceramic forms* (MPRG 1998) act as standards.

B.3.4 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 Cambridgeshire fabric types where possible (Spoerry 2016) and the Museum of London fabric series http://www.mola.org.uk/resources/medieval-and-post-medieval-pottery-codes acts as a basis for post-1700 fabrics. All sherds have been counted, classified, minimum number of vessels (MNV) established, weighed on a context-by-context basis and recorded in an Access database. The assemblage is recorded in the summary catalogue, with the full catalogue available in the archive. The pottery and archive are curated by Oxford Archaeology East until formal deposition.

Sampling Bias

B.3.5 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. The Period 2 well (**103**) was sampled with the aid of a machine bucket. A single toothless machine bucket scoop was taken from the well and the diagnostic rim and base sherds were recovered by hand. Although not an entirely satisfactory method of sampling, approximately 75% of the material from the bucket scoop was recovered, equating to 855 sherds (MNV 635) weighing 43.171kg, suggesting the total weight of pottery that the bucket scoop produced was approximately 58kg. The sherds recovered from the well have all been counted and classified to a basic level and have been recorded alongside the main assemblage.

The Hand Excavated Assemblage

B.3.6 Ceramic fabric abbreviations used in the summary catalogue and the total sherd count and weight of all fabrics are given in Table 3; this table excludes the material recovered from well **103**, which is listed elsewhere in this report (Table 4).

Full Name	Fabric Code	MNV	No. Sherds	Wgt (kg)	% by Wgt (kg)
Brill/Boarstall ware	BRILL	4	4	0.066	1.5
Coloured-glazed Refined White Earthenware	COLG	1	1	0.054	1.2
Creamware	CREA	1	2	0.015	0.3
Early Medieval Essex Micaceous Sandy ware	EMEMS	2	2	0.014	0.4
East Anglian Redwares	EAR	36	65	0.542	12.1
East Anglian Redwares (Late)	EAR (L)	5	35	0.393	8.8
East Anglian Redwares/Mill Green Fineware	EAR/MGF	4	6	0.232	5.2
English Porcelain with overglaze transfer-printed decoration	ENPO OTR	1	1	0.003	0.1
English Stoneware	ENGS	1	1	0.007	0.2
English Tin-Glazed ware	TGW	1	1	0.004	0.1
Grimston ware	GRIM	2	2	0.042	0.9
Hedingham Fineware	HEDI	1	1	0.002	<0.1
Horticultural Ceramics	HORT	1	1	0.080	1.8
Huntingdonshire Early Medieval ware	HUNEMW	2	2	0.007	0.2
Late Medieval Hertfordshire Glazed ware	HERTG	1	1	0.007	0.2
London Stoneware	LONS	1	1	0.006	0.1
Lyveden A-type ware	LYVA	1	1	0.003	0.1
Medieval Ely ware	MEL	4	4	0.087	1.9
Medieval Essex-type Micaceous Grey Sandy wares (Essex Fab. 20)	MEMS	34	154	1.675	37.4
Medieval Sandy Coarseware	MSW	13	18	0.143	3.2
Medieval Sandy Greyware	MSGW	16	27	0.180	4.0
Mill Green Coarseware	MGCOAR	6	12	0.092	2.1
Mill Green Fineware	MGF	3	3	0.021	0.5
Modern Redware	MODR	1	1	0.006	0.1
Nottinghamshire-Derbyshire Stoneware	NOTTS	1	3	0.033	0.7
Pearlware with slip decoration	PEARL SLIP	1	1	0.005	0.1
Pearlware with transfer-printed decoration	PEARL TR	3	4	0.016	0.4
Post-Medieval Redware	PMR	9	11	0.609	13.6
Refined White Earthenware	RFWE	3	5	0.043	1.0
Shelly wares	SHW	1	1	0.003	0.1
South-East Fenland Medieval Calcareous Buff ware	SEFEN	4	4	0.034	0.8
Staffordshire-type Slipware	STSL	3	3	0.054	1.2
Surrey Whiteware 'Tudor Green'	TUDG	1	1	0.004	0.1
Unidentified	UNID	1	1	0.002	<0.1
Total		**169**	**380**	**4.484**	**100**

*Table 3: Fabrics present in the assemblage excluding well **103***

Pottery by period

B.3.7 Early medieval pottery (AD 1050-1200) forms *c.*0.5% of the total assemblage by weight and comprises two sherds of Huntingdonshire Early Medieval ware and two of Early Medieval Essex Micaceous Sandy ware. Their presence is not significant.

B.3.8 Medieval fabrics (AD 1200-1400) form *c.*70% of the total assemblage (by weight), suggesting moderate levels of medieval activity, with much of this material related to the medieval kitchen and serving of liquids. These vessels were recovered from a number of pits and a single ditch. Some are the result of reworking of medieval features at a later point. This group of fabrics include Mill Green Coarseware and South-East Fenland Medieval Calcareous Buff ware. Shelly fabrics are notable by their low numbers. A common fabric in the hand excavated assemblage is Medieval Essex-type

Micaceous Grey Sandy wares (Essex Fabric 20), at approximately 38% of the assemblage by weight, mainly jar and jug sherds. Vessels present are most commonly jugs, followed by jars, with few medieval bowls.

B.3.9 Glazed wares are relatively common in the medieval assemblage (*c*.12% by weight of the total hand excavated assemblage) and include Mill Green Fineware, Hedingham Fineware, Medieval Ely ware, Brill/Boarstall ware and Grimston ware. Also present are a number of redware sherds. These sherds, unless a specific fabric identification can be made such as Mill Green ware, have 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.

B.3.10 Definitively late medieval (AD 1350-1500) ceramics form *c*.9% of the total hand excavated assemblage by weight and include a single sherd of Late Medieval Hertfordshire Glazed ware, while the remainder are late East Anglian Redwares. Post-medieval fabrics are moderately represented, forming approximately 14% of the total assemblage by weight and comprise mainly 16th-18th century Glazed Red Earthenwares, alongside sherds of Staffordshire Slipware and a single sherd of Tin-Glazed Earthenware.

B.3.11 The mid 18th-19th century material is poorly represented (with the exception of machine sampled Period 2 well **103**), at approximately 7% of the assemblage, including Creamware, Pearlwares and Refined White Earthenware from the industrial Midlands and other pottery producing areas.

B.3.12 There is little residuality or intrusiveness evident within the assemblage due to the majority of the medieval pottery being in production over a relatively long period of time and therefore, even where the context is deemed to be late medieval, the overall medieval material is still contemporary. In Period 2, three contexts contained only residual material, however, this is not significant, as the material is most likely the result of reworking of medieval deposits in the post-medieval period.

Provenance

B.3.13 There is a range of fabrics of local and non-local origin present in the assemblage from a relatively moderate range of sources, some represented by only small numbers of sherds and there are no imported vessels in the hand excavated assemblage, German stonewares are commonly found on occupation sites of this date suggesting the site was not extensively used for general rubbish deposition in the 16th century.

B.3.14 Approximately 43% of the hand excavated assemblage consists of identifiable fabrics from the Essex region, including Medieval Essex-type Micaceous Grey Sandy wares (Essex Fabric 20) which form the largest group of medieval ceramics (*c*.37%), but excluding the East Anglian Redwares where the production centre has not been identified. Also present are Hedingham finewares and Mill Green finewares. Fabrics from Cambridgeshire form approximately 3% of the assemblage and include Huntingdonshire Early Medieval ware, South-East Fenland Medieval Calcareous Buff ware, and Ely ware. Also present are small numbers of sherds from Norfolk and Buckinghamshire, and late medieval glazed ware from Hertfordshire alongside a single sherd from Surrey Whiteware 'Tudor Green' dish or bowl.

B.3.15 Fabrics from the industrial Midlands are present in restricted numbers in the hand excavated assemblage, Creamwares, Pearlwares and Refined White Earthenwares, alongside English Stoneware, London Stoneware, Nottinghamshire Stonewares and fragments of plant pot were all recovered.

Form

B.3.16 The vessels present in the assemblage are primarily domestic in nature, comprising jugs and jars, with a number of sherds that might be jugs or jars (jugs *c*.36%, jars *c*.23%, jug/jar is 21% of the total hand excavated assemblage by weight), while bowls are poorly represented, comprising only *c*.6% of the assemblage. No vessels for managing domestic hearths or other specialist vessels were identified in the assemblage.

Phase 1.1: early-high medieval (c.AD1150-1400)

B.3.17 Pit **85** produced 135 sherds, weighing 1.629kg, representing a MNV of 24, from three contexts. The pottery is medieval in date and includes a single sherd from a Brill/Boarstall ware jug, one of only three such vessels recovered from the site. Also present are a number of East Anglian redware jugs and jars, alongside a small number of late medieval East Anglian redware vessels which may be intrusive. Also present are large numbers of Medieval Essex-type Micaceous Grey Sandy wares (Essex Fabric 20), representing a minimum of four jugs, one jar and two vessels where it was undetermined whether they were from a jar or jug. Two of the small number of South-East Fenland Medieval Calcareous Buff ware sherds identified in the site were recovered from this feature. One sherd is from a jug, the other from a jar. Overall the feature most likely dates to the 14th century.

B.3.18 Pit **92** contained medieval pottery, producing a total of 108 sherds weighing 0.875kg, comprising a MNV of 65. Much of the material recovered from this feature is of Essex origin and is similar to that of pit **85** and includes includes both East Anglian Redware jugs, Medieval Essex-type Micaceous Grey Sandy wares (Essex Fabric 20) jars, and a Hedingham fineware jug. Alongside these, sherds from Brill/Boarstall ware jugs were found, and one of only two sherds of Grimston ware recovered from the excavation. Overall the context dates from the mid 13th to mid-end 14th century.

B.3.19 Pit **126** contained two contexts, which produced in total nine sherds of pottery weighing 0.066kg, MNV 9. These include a moderately-sized sherd from a Grimston ware jug, only the second such sherd recovered during the excavation, and sherds from Medieval Essex-type Micaceous Grey Sandy ware (Essex Fabric 20) jars and a jug. Ditch **136** contained only two sherds of pottery, one from a Mill Green Fine ware jug, the other from a Medieval Essex-type Micaceous Grey Sandy ware (Essex Fabric 20) jar. Medieval pottery contained within this feature dates to the mid 13th-end 14th century.

Phase 1.2: late medieval (c.AD1400-1540)

B.3.20 A single fill from pit **80** produced 57 sherds of pottery weighing 0.638kg (MNV 13). Of this, some 27 sherds weighing 0.311kg, came from two late medieval East Anglian redware jugs alongside Medieval Essex-type Micaceous Grey Sandy wares (Essex Fabric 20), jar/jug sherds. Overall the context dates from the mid 14th to mid-end of the 15th century. Late medieval pottery recovered from pit **89** consists of a sherd from a Late Medieval Hertfordshire Glazed ware jug, alongside East Anglian redware jug sherds and Medieval Essex-type Micaceous Grey Sandy wares (Essex Fabric 20) jar sherds. Overall the date for both contexts is mid 14th to mid-end of the 15th century.

Period 2: post-medieval to modern (c.AD1540-present day)

B.3.21 A number of layers and several pits from the evaluation were located within the current area of excavation. Context 3, from the evaluation phase, produced three sherds of pottery, a single residual sherd from an East Anglian redware vessel, a Post-medieval

Redware bowl sherd, and the base from a Coloured-glazed Refined White Earthenware vessel, suggesting the layer is 19th century. Layer 62 produced post-medieval redware and transfer-decorated Pearlware sherds, while layer 63 contained a mix of residual medieval and post-medieval material. Pit **71** from the evaluation produced a single sherd from a transfer-decorated English porcelain vessel with a single line of lustre glaze on the internal surface, dating to the late 18th century.

B.3.22 Foundation cut **83** produced Post-medieval Redware sherds from a minimum of one bowl and four jars suggesting a date of mid-16th to end of the 18th century for the context. Pit **105** produced only medieval pottery including East Anglian redware jug sherds alongside and Ely were jug sherd and sherds from a Medieval Essex-type Micaceous Grey Sandy ware (Essex Fabric 20) jar. Pit **123** produce a small assemblage of post-medieval and early modern pottery including a sherd from a London Stoneware drinking vessel and fragments of a Staffordshire-type Slipware bowl and chamber pot.

B.3.23 A small assemblage of 18 sherds 0.219kg (MNV 13) was recovered from chimney base 115. The material present includes a single residual sherd of East Anglian Redware, alongside plant pot fragments, a Nottinghamshire-Derbyshire stoneware bowl, a transfer-printed Pearlware tea bowl or cup and three Refined White Earthenware plates. Overall the context dates to the 19th century.

Machine Sampled Assemblage from Period 2 well 103

B.3.24 Well **103** produced the single largest group of ceramics from the excavation and as a 'grab' sample it does not truly reflect the levels of pottery deposited elsewhere on the relatively small site. Table 4 details the ceramic fabric abbreviations used in the summary catalogue and the total sherd count and weight of all fabrics present in well **103**. See methodology section B.3.2 for details of the sampling strategy employed.

Full Name	Fabric Code	MNV	No. Sherds	Wgt (kg)	% by Wgt (kg)
Glazed Black Basalt ware	BASS(G)	1	4	0.158	0.4
Bone China	BCHIN	25	30	0.944	2.2
Bone China overglaze painted decoration	BCHIN OPNTD	20	28	0.507	1.2
Bone China overglaze painted gilding	BCHIN OPNTD(G)	16	24	0.526	1.2
Bone China overglaze painted decoration and gilded	BCHIN OPNTDG	4	5	0.076	0.2
Bone China with underglaze transfer-printed and overglaze painted decoration	BCHIN TR6	3	5	0.068	0.2
Chinese Porcelaineous Stoneware	CHPO STON	1	6	0.311	0.7
Coloured-glazed Refined White Earthenware	COLG	3	3	0.048	0.1
Creamware	CREA	11	14	0.346	0.8
Drab-coloured Stoneware	DRAB	1	1	0.026	0.1
Dry-bodied Stoneware	DRYST	1	2	0.063	0.1
Dyed-bodied Refined Earthenware	DYE	3	3	0.059	0.1
English Stoneware	ENGS	8	8	0.916	2.1
English Stoneware (Bristol Glaze)	ENGS (BRIST)	31	34	4.522	10.6
English Porcelain with over- or underglaze polychrome-painted decoration	ENPO PNTD	1	1	0.079	0.2
Refined White Earthenware with underglaze transfer-printed 'flow blue' decoration	FLOW	1	1	0.056	0.1
Unsourced German Stoneware	GERST	1	2	0.272	0.6
Horticultural Ceramics	HORT	20	42	2.211	5.2
Ironstone China	IRONSTON	1	1	0.038	0.1
London Stoneware	LONS	1	1	0.050	0.1
Late Slipped Kitchen wares	LSKW	12	15	1.084	2.5
Modern Redware	MODR	13	14	1.582	3.7
Nottinghamshire-Derbyshire Stoneware	NOTTS	17	30	3.030	7.1
Pearlware	PEARL	69	81	3.452	8.1
Pearlware with underglaze painted decoration	PEARL PNTD	2	2	0.103	0.2
Pearlware with slip decoration	PEARL SLIP	1	1	0.065	0.2
Pearlware with transfer-printed decoration	PEARL TR	46	71	3.054	7.1
Pearlware with underglaze brown or black transfer-printed decoration	PEARL TR3	8	10	0.695	1.6
Pearlware with underglaze colour transfer-printed decoration (green, mulberry, grey etc.)	PEARL TR4	2	2	0.019	<0.1
Pearlware with underglaze transfer-printed and overglaze painted decoration	PEARL TR6	1	1	0.023	0.1
Post-medieval Black-Glazed Ware	PMBL	10	12	2.431	5.7
Refined White Earthenware	RFWE	63	75	4.036	9.4
Refined White Earthenware with cut-out sponged decoration	RFWE CUT SPON	15	26	0.574	1.3
Refined White Earthenware with overglaze painted decoration	RFWE OPNTD	1	1	0.009	<0.1
Refined White Earthenware with underglaze painted decoration	RFWE PNTD	1	1	0.012	<0.1
Refined White Earthenware with slip decoration	RFWE SLIP	1	1	0.001	<0.1
Refined White Earthenware with cut-out sponged decoration	RFWE SPON1	1	1	0.127	0.3
Refined White Earthenware with transfer-printed decoration	RFWE TR	101	129	4.142	9.7
Refined White Earthenware with transfer-printed decoration and underglaze underglaze brown or black transfer-printed decoration	RFWE TR & TR3	1	1	0.046	0.1
Refined White Earthenware with underglaze brown or black	RFWE TR3	62	81	3.855	9.0

Full Name	Fabric Code	MNV	No. Sherds	Wgt (kg)	% by Wgt (kg)
transfer-printed decoration					
Refined White Earthenware with underglaze colour transfer-printed decoration (green, mulberry, grey)	RFWE TR4	27	33	1.380	3.2
Refined White Earthenware with underglaze transfer-printed and overglaze painted decoration	RFWE TR6	7	12	0.449	1.1
Dipped White Salt-Glazed Stoneware	SWSL	1	1	0.133	0.3
Yellow ware	YELL	9	11	0.417	1.0
Yellow ware with slip decoration	YELL SLIP	9	23	0.731	1.7
Total		**633**	**850**	**42.726**	**100**

*Table 4: Fabrics present in machine excavated well **103** assemblage*

B.3.25 The well contained no residual medieval material, the earliest pottery present being sherds from (MNV) 10, Post-medieval Black-Glazed ware vessels (*c*.1580-1700), alongside 18th century Nottinghamshire-Derbyshire Stoneware jugs, jars and bowls. 19th-century ceramics were the most commonly recovered, including a number of collegiate related ceramics. This mixing of material with similar levels of abrasion from distinctly different centuries suggests, perhaps, a certain degree of curation of the assemblage, or that the material has been brought from several different sources simply to be dumped and used to fill the redundant well. Cessford indicates that contexts which most frequently produced significant [collegiate] assemblages are redundant features such as backfilled cellars, wells, cesspits and soakaways (Cessford 2014, 375).

B.3.26 The well assemblage contained a full range of vessels involved in the consumption of food and drink including plates, saucers, cups, teapots and jugs in a wide range of fabrics including Creamwares, Pearlwares, Refined White Earthenwares, Dyed-Bodied wares, Flow Blue and Yellow wares. These were found alongside serving vessels including a sherd from a transfer-printed Pearlware drainer, undecorated Refined White Earthenware and transfer-printed serving dishes and bowls, sauce boats, a tureen and a Yellow ware colander. Also present were the ceramics used in everyday life by household or college staff in the kitchen. These include Bristol glaze flagons, Refined White Earthenware cylindrical jars including 2lb Keiller marmalade jars and blacking bottles for treating the range or the hearth. Other items of household ephemera include, ink bottles for the study, for the bedroom, an English stoneware hot water bottle, or for those who could afford indoor plumbing, a fragment of bathroom sanitary ware. A description of all the vessels recovered can be found in the archive and includes identifiable transfer printed patterns such as Eton College (http://www.blueandwhite.com/museum.asp?p=Eton+College), Asiatic Pheasants, the pattern present on a number of different plates, also sherds from several wild Rose border pattern plates with a portion of the foreground image of Nuneham Courtney, Oxfordshire. (https://www.blueandwhite.com/museum.asp?m=Unattributed+Maker&p= Wild+Rose). Very few sherds apart from some of the marmalade jars, can be identified to any particular manufacturer, although there is at least one example of a Copeland vessel and a sherd of creamware with the impressed name Turner (Godden 1991, 626, ref.3896), which was a relatively common mark on creamware recovered from the Harvest Way assemblage (Fletcher 2015a).

B.3.27 These vessels represent a wide range of activities undertaken by a wide range of people some of them possibly college servants. The presence of a relatively large number of Collegiate ceramics indicates that some of this material originated from at least three, and possibly four, different colleges. The collegiate pottery is recorded in Tables 4 and 7. Ceramics from a number of distinct services were identified and most

are similar to services recorded by Cessford from numerous excavations around Cambridge, including excavations on Newmarket Road, both the Eastern Gate hotel site (Cessford, Hall and Newman 2013) and the OAE excavations at Harvest Way (Cessford, 2016; Fletcher 2015a and 2016) and 132-36 Newmarket Rd (Cessford 2015; Fletcher 2015b). Cessford discusses in detail the some of the college cooks associated with these assemblages in *An Assemblage of Collegiate Ceramics: Mid-Nineteenth Century Dining at Trinity Hall* (Cessford 2014).

B.3.28 Among the collegiate ceramics identified are two vessels possibly from St John's. Although this identification is tentative, the vessels, including one with an internal transfer-print of a long-tailed bird, bear similarities to sherds recovered from Newmarket Road. A total of 29 sherds weighing 1.063kg and representing a minimum of 17 vessels including lids, are from Clare College. All except two vessels bear either a blue transfer-printed Union-type border, a blue transfer-printed view of Old Court of Clare Hall/College or both (pattern identified and described by Cessford, the lids internally are also marked MOORE CLARE COLLEGE (Cessford 2014, 369). The quality of the transfer-printing varies considerably from one vessel to another, suggesting perhaps not all were purchased at the same time or, as Cessford suggests with regards to similar issues with the Trinity College Egg and Dart pattern, may have been seconds (Cessford 2014, 360). Two vessels are decorated with flowers and stylised foliate and floral motifs with polychrome overpainting; both have very similar designs but only one is marked with a partial MOORE CLARE COLLEGE.

B.3.29 Of the remaining collegiate material, 47 sherds are from Gonville and Caius College, weighing 1.857kg and representing a MNV of 17. Of these, two are Willow pattern plates, marked on the reverse, within a double circle, J Fuller, one complete mark and one partial. In addition, 45 sherds came from a black transfer-printed service decorated with a Union-type border near identical to that of the Clare College material, bar the colour used. In the centre of the plates, surrounded by a black border, sometimes with two lines, others with three black lines surrounding the picture, a scene of Gonville and Caius College. On the sauce boat that carries the image of the College, the black lined border is absent. Various vessels have either partial images of the college or fragments of the union border or both and some are marked J Fuller within the double circle mark, or bear a portion of the mark or the circle. Like the Clare College vessels, the quality and colour of the transfer-printing varies considerably.

B.3.30 A further, 20 sherds weighing 1.087kg, representing a minimum of 12 vessels, were identified as belonging to various services from Trinity College, Cambridge. Of these, eight vessels, including a Pedestal Bowl and oval dish (both serving vessels), are from a service decorated with a moulded gadroon rim and a blue transfer-printed pattern, known as the Byron Groups design. This consists of the floral centre from the Warwick Groups pattern and a botanical border of acanthus leaves used for the Byron Groups (Sussman 1979, no. 68 in Cessford 2016). The transfer-print incorporates the text H & P HUDSON TRINITY [COLLEGE] (Cessford 2013, 73; Cessford 2015, 52-53) One vessel in this assemblage does incorporate the text P HUDSON TRINITY and is marked on the reverse with [C]opeland; it is likely to be of a similar date (*c.*1847-72) to that recovered from Harvest Way.

B.3.31 One sherd, on its rim lip-marley, has AUL [TRIN] an abbreviated form of *Aulam Trintatis* (the Latin name for Trinity Hall (Cessford 2014, 361), while another bears a geometric border and partial Trinity crest, also seen on vessels at CAMNMR14. This pattern is known to have been in use by *c.*1833–40 and continued until at least the late 19th century, with some vessels probably manufactured after 1885 (Cessford 2015, 134).

B.3.32 Finally, a single sherd from a blue transfer-printed Egg and Dart Pattern plate was

recovered. As this pattern is present only around the rim of the vessel, other sherds of the plates may have been present but not been recognised or have been recovered but there is no cross fit with the single surviving rim sherd. No other Egg and Dart patterned sherds were observed in the hand processing of the grab sample. In the Trinity Hall assemblage recovered from Newmarket Rd, Cambridge and discussed by Cessford (Cessford 2014), Egg and Dart was the most common service present in the assemblage. No Egg and Dart was recovered from the Harvest Way excavation, making this the first sherd to be recovered on an OAE site.

B.3.33 Using the work undertaken by Cessford on the Newmarket Road assemblages (Cessford 2013, 2014, 2015, 2016), it would appear that the Sun Street assemblage has a TPQ of c.1861, as indicated by the presence of the Clare College material related to William Robert Moore who was Cook at the college from *c*.1861 until his death in 1873. This TPQ may be altered to 1863 or later if the presence of a glass bottle from the Cooperative Wholesale Society (established in 1863) and other late 19th century glass bottles are taken into account (App. B.5).

Discussion

B.3.34 Domestic in nature, the hand excavated assemblage suggests medieval occupation deposits within the area of excavation, involving both the preparation and serving of food and drink. The medieval period (AD 1200-1500) is well represented in the assemblage, although some of the material recovered from later medieval features is residual and much has been reworked. Post-medieval fabrics (AD 1550-1720+) are poorly represented within the assemblage, suggesting that the focus of occupation may have been elsewhere, with a change of usage for the site at the beginning of the 16th century. This would have been followed by disturbance of the site by later cellars. The assemblage is broadly similar, although smaller, to those recovered from Harvest Way (Fletcher 2015a) and Newmarket Road (Fletcher 2015b) and as such, although the assemblage feeds into the understanding of pottery consumption within this area of the city, the assemblage has little potential to aid regional or national research priorities. However, the archival record should be reconsidered if a synthesis of sites along Newmarket Road is undertaken.

B.3.35 The assemblage from well **103** also included a similar range of pottery to that recovered from similar redundant features on both the Harvest Way (Cessford 2016; Fletcher 2015a, 2016) and Eastern Gate Hotel sites (Cessford 2013) and has similar dates. The collegiate element from the well **103**, should be made available for study (by Craig Cessford of the Cambridge Archaeological Unit), to allow this material to be incorporated into his ongoing study of collegiate ceramics recovered from excavations within the city.

Context	Cut	Fabric	Form	MNV	Sherd Count	Weight (kg)	Assessment date range	Phase
3		PMR	Bowl	1	1	0.049	1800-1900	2
		EAR	Jug	1	1	0.016		
		COLG		1	1	0.054		
5	6	MSGW			1	0.001	1200-1400	1.2
62		PMR		1	1	0.019	1770-1840	1.2
		PEARL TR	Plate	1	2	0.011		
63		PMR		1	1	0.007	1700-1900	1.2
		MODR		1	1	0.006		
		EAR (L)	Jar	1	1	0.007		
		EAR		1	1	0.024		
64	67	BRILL	Jug	1	1	0.005	1250-1400	1.2
		EMEMS	Jar	1	1	0.007		
		MGF	Jug	1	1	0.002		
		MEMS		1	1	0.005		
		TUDG	Dish/Bowl	1	1	0.004		
70	71	ENPO OTR		1	1	0.003	1775-1800	2
82	80	EAR		3	3	0.018	1350-1500	1.2
		EAR	Jug	3	8	0.103		
		EAR (L)	Jug	2	27	0.311		
		EAR/MGF	Jug	1	1	0.013		
		MEMS		1	1	0.009		
		MEMS	Jar/jug	1	15	0.174		
		MSGW		2	2	0.010		
84	83	PMR	Bowl	1	1	0.052	1550-1800	2
		PMR	Jar	4	6	0.396		
86	85	BRILL	Jug	1	1	0.010	1250-1400	1.1
		EAR		1	5	0.058		
		EAR	Jug	2	6	0.087		
		MEMS	Jar/jug	1	2	0.010		
		MEMS	Jug	2	18	0.185		
		MEMS	Jar	1	2	0.020		
		MGF	Jug	1	1	0.010		
		MSGW		1	3	0.025		
		SEFEN	Jar	1	1	0.002		
88	85	EAR		1	5	0.058	1300/1350-1400	1.1
		EAR	Jug	1	1	0.006		
		EAR (L)		1	5	0.054		
		EAR (L)	Jar	1	2	0.021		
		EMEMS		1	1	0.007		
		LYVA	Jar	1	1	0.003		
		MEL	Jug	1	1	0.056		
		MEMS	Jar/jug	1	54	0.707		
		MEMS	Jug	1	19	0.264		
		MSGW	Jar	1	1	0.003		
		MSW	Jar	1	1	0.012		
		SEFEN	Jug	1	1	0.018		
90	89	HERTG	Jug	1	1	0.007	1350-1450	1.2
		HUNEMW	Jar	2	2	0.007		

Context	Cut	Fabric	Form	MNV	Sherd Count	Weight (kg)	Assessment date range	Phase
		MEMS	Jar	2	3	0.018		
		MSGW		1	3	0.033		
		MSW	Jar	1	1	0.027		
		MSW	Jug	1	1	0.021		
		SHW	Jar	1	1	0.003		
91	89	EAR		1	1	0.009	1250-1400	1.2
		EAR/MGF	Jug	1	1	0.012		
93	92	EAR	Jug	3	6	0.021	1200-1400	1.1
		GRIM	Jug	1	1	0.006		
		MEL	Jug	1	1	0.006		
		MEMS	Jar	1	1	0.009		
		MEMS	Jar/jug	3	5	0.017		
		MSGW			2	0.003		
		MSGW	Jar/jug	1	2	0.017		
		MSW	Jar	2	4	0.010		
94	144	EAR			2	0.004	1200-1400	1.2
		EAR	Jug	3	9	0.046		
		MEMS		5	7	0.039		
		MSGW		4	7	0.036		
		MSW		2	3	0.012		
		MSW	Jar/jug	2	4	0.016		
		SEFEN	Jar	1	1	0.011		
95	144	BRILL		1	1	0.003	1250-1400	1.2
		EAR		1	1	0.002		
		EAR	Jar	1	1	0.003		
		EAR	Jug	4	4	0.026		
		EAR/MGF	Jug	1	1	0.018		
		HEDI	Jug	1	1	0.002		
		MEMS		2	6	0.014		
		MEMS	Jar	2	4	0.025		
		MGCOAR	Jar	2	8	0.029		
		MSGW	Jar	1	1	0.003		
		MSW		1	1	0.005		
		SEFEN		1	1	0.003		
96	144	EAR		2	2	0.006	1200-1400 or 1350+	1.2
		EAR	Jug	3	4	0.022		
		MEMS	Jar	3	3	0.007		
		MSGW	Jar	1	1	0.006		
		MSW		1	1	0.002		
		MSW	Jar	1	1	0.024		
107	105	EAR	Jug	1	1	0.005	1200-1400	1.2
		MEL	Jug	1	1	0.014		
108	105	EAR		1	1	0.005	1200-1400	1.2
		MGCOAR	Jar	2	2	0.019		
109	105	MEMS	Jar	1	2	0.017	1200-1400	1.2
		MSGW	Jar	1	1	0.013		
		MSW		1	1	0.014		
116	115	CREA		1	2	0.015	*c.*1805-1840+	2

Context	Cut	Fabric	Form	MNV	Sherd Count	Weight (kg)	Assessment date range	Phase
		EAR	Jug	1	1	0.020		
		ENGS		1	1	0.007		
		HORT	Jar	1	1	0.080		
		NOTTS	Bowl	1	3	0.033		
		PEARL SLIP	Bowl	1	1	0.005		
		PEARL TR	Dish	1	1	0.002		
		PEARL TR	Drinking vessel	1	1	0.003		
		RFWE	Dish	3	5	0.043		
		STSL	Bowl	1	1	0.007		
		TGW	Bowl	1	1	0.004		
120	92	BRILL	Jug	1	1	0.048	1250-1350	1.1
		EAR/MGF	Jug	1	3	0.189		
		MEL	Jug	1	1	0.011		
		MEMS	Jar	2	4	0.132		
		MGCOAR	Jar	1	1	0.035		
		MSGW	Jar	1	1	0.007		
121	85	MEMS	Jug	1	4	0.013	1200-1400	1.1
125	123	LONS	Drinking vessel	1	1	0.006	1670-1800	2
		PMR	Bowl	1	1	0.086		
		STSL	Bowl	1	1	0.028		
		STSL	Jar	1	1	0.019		
128	126	EAR	Jar	1	1	0.001	1200-1400	1.1
		EAR	Jug	1	1	0.002		
		GRIM	Jug	1	1	0.036		
		MEMS	Jar	1	1	0.003		
		MEMS	Jug	1	1	0.004		
		UNID		1	1	0.002		
131	131	MEMS	Jar	1	1	0.003	1200-1400	1.2
		MGCOAR	Jar	1	1	0.009		
		MSGW		1	1	0.006		
139	136	MGF	Jug	1	1	0.009	1250-1400	1.1
		MSGW	Jar	1	1	0.017		
Total				169	380	4.484		

*Table 5: Summary Pottery Catalogue for excavated assemblage (excluding well **103**)*

Context	Fabric	Form	MNV	Sherd Count	Weight (kg)	Date range
156	BASS(G)	Teapot	1	4	0.158	TPQ = C19th Collegiate ware post-*c.*1861
	BCHIN	Bowl	6	7	0.302	
	BCHIN	Drinking vessel (cup)	8	9	0.198	
	BCHIN	Jug	1	1	0.020	
	BCHIN	Lids	1	1	0.019	
	BCHIN	Plate	7	10	0.379	
	BCHIN	Saucer	2	2	0.026	
	BCHIN OPNTD	Bowl	5	6	0.060	
	BCHIN OPNTD	Dish	1	1	0.008	
	BCHIN OPNTD	Drinking vessel (cup)	6	8	0.089	
	BCHIN OPNTD	Plate	5	8	0.301	
	BCHIN OPNTD	Saucer	3	5	0.049	
	BCHIN OPNTD(G)	Bowl	2	3	0.035	
	BCHIN OPNTD(G)	Drinking vessel (cup)	6	6	0.119	
	BCHIN OPNTD(G)	Plate	4	8	0.252	
	BCHIN OPNTD(G)	Saucer	4	7	0.120	
	BCHIN OPNTDG	Drinking vessel (cup)	2	2	0.008	
	BCHIN OPNTDG	Plate	1	1	0.035	
	BCHIN OPNTDG	Saucer	1	2	0.033	
	BCHIN TR6	Drinking vessel (cup)	3	5	0.068	
	CHPO STON	Jar	1	6	0.311	
	COLG	Drinking vessel (cup)	1	1	0.017	
	COLG	Jug	1	1	0.016	
	COLG	Plate	1	1	0.015	
	CREA	Bowl	2	3	0.066	
	CREA	Cylindrical jar	4	5	0.084	
	CREA	Dish (serving vessel)	3	4	0.165	
	CREA	Plate	2	2	0.031	
	DRAB	Jug	1	1	0.026	
	DRYST	Jar	1	2	0.063	
	DYE	?Teapot	1	1	0.011	
	DYE	Jug	2	2	0.048	
	ENGS	Blacking bottle	1	1	0.073	
	ENGS	Bottle	5	5	0.401	
	ENGS	Hot water bottle	1	1	0.351	
	ENGS	Ink bottle	1	1	0.091	
	ENGS (BRIST)	Bottle	11	11	1.366	
	ENGS (BRIST)	Cylindrical jar	13	15	1.711	
156	ENGS (BRIST)	Cylindrical jar lid	1	1	0.076	
	ENGS (BRIST)	Flagon	2	3	0.495	
	ENGS (BRIST)	Ink bottle	3	3	0.715	
	ENGS (BRIST)	sanitary ware	1	1	0.159	
	ENPO PNTD	Saucer	1	1	0.079	
	FLOW	Bowl	1	1	0.056	
	GERST	Bottle	1	2	0.272	
	HORT	Dish	3	5	0.336	
	HORT	Jar	17	37	1.875	
	IRONSTON	Serving dish	1	1	0.038	
	LONS	Jar	1	1	0.050	

Context	Fabric	Form	MNV	Sherd Count	Weight (kg)	Date range
	LSKW	Bowl	6	6	0.386	
	LSKW	Handled jar	2	4	0.315	
	LSKW	Jar	4	5	0.383	
	MODR	Bowl	4	5	0.104	
	MODR	Handled bowl	1	1	0.169	
	MODR	Lids	1	1	0.313	
	MODR	Pancheon	7	7	0.996	
	NOTTS	Bowl	10	18	2.497	
	NOTTS	Jar	5	9	0.318	
	NOTTS	Jug	1	2	0.043	
	NOTTS	Lids	1	1	0.172	
	PEARL	Bowl	8	9	0.239	
	PEARL	Bowl (serving vessel)	11	13	0.678	
	PEARL	Chamberpot	1	1	0.029	
	PEARL	Cylindrical jar	21	28	1.067	
	PEARL	Dish (serving vessel)	1	1	0.021	
	PEARL	Drinking vessel (cup)	1	1	0.011	
	PEARL	Jar	14	16	1.103	
	PEARL	Jug	3	3	0.090	
	PEARL	Lids	2	2	0.079	
	PEARL	Pedestal bowl	1	1	0.011	
	PEARL	Plate	6	6	0.124	
	PEARL PNTD	Chamberpot	1	1	0.057	
	PEARL PNTD	Jug	1	1	0.046	
	PEARL SLIP	Bowl	1	1	0.065	
	PEARL TR	Bowl	4	8	0.348	
	PEARL TR	Dish (serving vessel)	22	26	1.662	
	PEARL TR	Drainer	1	1	0.067	
	PEARL TR	Drinking vessel (cup)	1	2	0.001	
	PEARL TR	Jug	3	12	0.235	
	PEARL TR	Lids	2	2	0.188	
	PEARL TR	Pedestal bowl	1	4	0.169	
	PEARL TR	Pedestal bowl (serving vessel)	2	5	0.455	
	PEARL TR	Plate	12	14	0.335	
	PEARL TR	Sauce boat	1	2	0.049	
	PEARL TR3	Cylindrical jar	6	7	0.453	
	PEARL TR3	Jar	1	1	0.174	
	PEARL TR3	Lids	1	2	0.068	
156	PEARL TR4	Drinking vessel (cup)	2	2	0.019	
	PEARL TR6	Bowl (serving vessel)	1	1	0.023	
	PMBL	Bowl	6	7	1.768	
	PMBL	Jar	4	5	0.663	
	RFWE	Bottle	1	1	0.031	
	RFWE	Bowl	11	12	0.553	
	RFWE	Bowl (serving vessel)	3	4	0.434	
	RFWE	Cylindrical jar	15	21	1.190	
	RFWE	Dish	1	1	0.004	
	RFWE	Dish (serving vessel)	3	3	0.377	
	RFWE	Drinking vessel (cup)	8	9	0.132	

Context	Fabric	Form	MNV	Sherd Count	Weight (kg)	Date range
	RFWE	Jar	12	15	0.828	
	RFWE	Jug	3	3	0.109	
	RFWE	Lids	3	3	0.268	
	RFWE	Plate	3	3	0.110	
	RFWE CUT SPON	Bowl	3	3	0.078	
	RFWE CUT SPON	Chamberpot	3	8	0.200	
	RFWE CUT SPON	Dish	1	1	0.005	
	RFWE CUT SPON	Drinking vessel (cup)	1	2	0.021	
	RFWE CUT SPON	Jug	2	3	0.108	
	RFWE CUT SPON	Plate	4	8	0.140	
	RFWE CUT SPON	Saucer	1	1	0.022	
	RFWE OPNTD	Lids	1	1	0.009	
	RFWE PNTD	Plate	1	1	0.012	
	RFWE SLIP	Drinking vessel (cup)	1	1	0.001	
	RFWE SPON1	Bowl	1	1	0.127	
	RFWE TR	Bowl	8	8	0.203	
	RFWE TR	Bowl (serving vessel)	4	4	0.115	
	RFWE TR	Dish	1	1	0.041	
	RFWE TR	Dish (oval serving vessel)	4	8	0.540	
	RFWE TR	Dish (serving vessel)	16	18	0.778	
	RFWE TR	Drinking vessel (cup)	3	3	0.028	
	RFWE TR	Jug	2	2	0.089	
	RFWE TR	Lids	1	2	0.064	
	RFWE TR	Lids (serving vessel)	1	1	0.020	
	RFWE TR	Plate	60	80	2.233	
	RFWE TR	Sauce boat	1	2	0.031	
	RFWE TR & TR3	Pedestal bowl (serving vessel)	1	1	0.046	
	RFWE TR3	Bowl	2	5	0.129	
	RFWE TR3	Bowl (serving vessel)	2	2	0.153	
	RFWE TR3	Chamberpot	1	1	0.065	
	RFWE TR3	Cylindrical jar	14	20	1.268	
	RFWE TR3	Dish (oval serving vessel)	2	2	0.135	
	RFWE TR3	Dish (serving vessel)	1	1	0.185	
	RFWE TR3	Jar	2	2	0.082	
	RFWE TR3	Lids	1	1	0.013	
	RFWE TR3	Pedestal dish (serving vessel)	1	1	0.074	
	RFWE TR3	Plate	35	42	1.657	
	RFWE TR3	Sauce boat	1	4	0.094	
156	RFWE TR4		1	1	0.024	
	RFWE TR4	Bowl	3	4	0.105	
	RFWE TR4	Chamberpot	1	1	0.066	
	RFWE TR4	Dish	1	1	0.027	
	RFWE TR4	Dish (serving vessel)	1	2	0.186	
	RFWE TR4	Jar	1	1	0.037	
	RFWE TR4	Jug	1	3	0.044	
	RFWE TR4	Plate	16	18	0.785	
	RFWE TR4	Sauce boat	1	1	0.037	
	RFWE TR4	Teapot	1	1	0.069	
	RFWE TR6	Bowl	1	1	0.007	

Context	Fabric	Form	MNV	Sherd Count	Weight (kg)	Date range
	RFWE TR6	Jar	1	1	0.109	
	RFWE TR6	Lids	1	1	0.015	
	RFWE TR6	Plate	3	7	0.284	
	RFWE TR6	Sauce boat	1	2	0.034	
	SWSL	Ink bottle	1	1	0.133	
	YELL	Bowl	4	4	0.191	
	YELL	Colander	2	4	0.172	
	YELL	Plate	3	3	0.054	
	YELL SLIP	Bowl	6	15	0.552	
	YELL SLIP	Jar	1	4	0.100	
	YELL SLIP	Jug	2	4	0.079	
Total			**635**	**855**	**43.171**	

*Table 6: Summary pottery catalogue for well **103**, including collegiate ceramics*

Context	Fabric	Basic Form	MNV	Sherd Count	Sherd Wgt (kg)	Decoration	College	Date range
156	RFWE TR & TR3	Pedestal bowl (serving vessel)	1	1	0.046	Internal/external floral transfer-print	?St Johns	19th century
	RFWE TR3	Bowl (serving vessel)	1	1	0.087	Internal black transfer-printed long-tailed bird		
	PEARL TR	Lids	1	1	0.169	Blue transfer-printed Union-type border & Old Court of Clare Hall/College facing the river, w/Kings College in background. Internally stencilled in blue MOORE: [C]LARE COLLEGE:	Clare	*c.*1861-1873
	RFWE TR	Bowl	1	1	0.059	Internal blue transfer-printed Union-type border		
	RFWE TR	Dish (oval serving vessel)	1	3	0.101	Internal and external blue transfer-printed Union-type border, partial depiction of the Old Court of Clare Hall/College etc.		
	RFWE TR	Drinking vessel (cup)	1	1	0.009	External blue transfer-printed Union-type border.		
	RFWE TR	Lids	1	2	0.064	External blue transfer-printed Union-type border, partial depiction of the Old Court of Clare Hall/College etc.		
	RFWE TR	Plate	5	8	0.236	Internal blue transfer-printed Union-type border.		
	RFWE TR	Plate	2	4	0.173	Internal blue transfer-printed Union-type border, partial depiction of the Old Court of Clare Hall/College etc.		
	RFWE TR	Plate	3	3	0.078	Internal blue transfer-printed, partial depiction of the Old Court of Clare Hall/College etc. On base of each sherd partial 'MOORE CLARE COLLEGE'.		
			1	5	0.142	Design, inc. flowers & stylised foliate & floral motifs. Overglaze painted in blue-black, red & yellow (gilt?). Partial 'MOORE CLARE COLLEGE' on base. Partial painter's mark -278.		
	RFWE TR6	Plate	1	1	0.032	Design, including flowers & stylised foliate & floral motifs. Overglaze painted in blue-black, red and yellow (?gilt).	?Clare	
	RFWE TR	Plate	2	2	0.049	Internal blue transfer-printed willow pattern. On underside of base complete script 'J Fuller' in double circle border. Second sherd partial double circle border, typical of J Fuller signature.	Gonville & Caius	*c.*1839-1871
	RFWE TR3	Bowl (round bottomed)	1	4	0.115	Internal black transfer-printed Union-type border. Partial depiction of the College, approx 75%, missing top right. Picture trimmed to fit inside the bowl.		
156	RFWE TR3	Dish (oval serving vessel)	2	2	0.135	Internal black transfer-printed Union-type border.		
	RFWE TR3	Pedestal dish (serving vessel)	1	1	0.074	External black transfer-printed Union-type border. Internal black transfer-printed partial depiction of the College, bottom of image.		

Context	Fabric	Basic Form	MNV	Sherd Count	Sherd Wgt (kg)	Decoration	College	Date range
	RFWE TR3	Plate	1	1	0.134	Internal black transfer-printed Union-type border, partial depiction of College, top right of image. Picture has triple line border surrounded by double line border, in imitation of wooden frame. On underside of base script 'J Fuller' in a double circle border.		
	RFWE TR3	Plate	2	2	0.233	Internal black transfer-printed Union-type border. Partial depiction of the College, top right of image. On underside of base, partial double circle border, typical of J Fuller signature.		
	RFWE TR3	Plate	1	1	0.058	Internal black transfer-printed, Partial depiction of the College, bottom left of image. On underside of base script '-ler' in a double circle border.		
	RFWE TR3	Plate	1	1	0.030	Internal black transfer-printed. Partial depiction of the College, left of image. On underside of base script 'J Fu-' in a double circle border.		
	RFWE TR3	Plate	1	2	0.094	Internal black transfer-printed, Partial depiction of the College, bottom left of image. On underside of base script 'J Full-' in a double circle border.		
	RFWE TR3	Plate	12	15	0.498	Internal black transfer-printed Union-type border, some sherds have traces of inner border from around central image missing from these sherds. This internal border varies in the number of lines present.		
	RFWE TR3	Plate	11	12	0.343	Internal black transfer-printed Union-type border. Partial depiction of College.		
	RFWE TR3	Sauce boat	1	4	0.094	Internal black transfer-printed Union-type border, external black transfer-printed partial depiction of the College. Because of the uneven rim height, the transfer is awkwardly positioned on either side of the vessel.		
	PEAR TR	Lids	1	1	0.019	External floral transfer-printed acanthus leaves (same external design as for the Trinity vessel pedestalled bowl) a botanical border of acanthus leaves used for the Byron Groups (Sussman 1979, no. 68 in Cessford 2016).	Trinity	*c.*1847-1872
	PEAR TR	Pedestal bowl (serving vessel)	2	5	0.445	Moulded gadroon rim and internal and external blue transfer-printed pattern, known as the Byron Groups design; this consists of the floral centre from the Warwick Groups pattern and a botanical border of acanthus leaves used for the Byron Groups (Sussman 1979, no. 68 in Cessford 2016).	Trinity	
	PEAR TR	Plate	2	4	0.105	Moulded gadroon rim & internal blue transfer-printed pattern, a botanical border of acanthus leaves used for the Byron Groups (Sussman 1979, no. 68 in Cessford 2016).		
156	RFWE TR	Dish (oval serving vessel)	2	3	0.269	Moulded rim edge, internal foliate print, acanthus leaves. The transfer-print incorporates the text H & P HUDSON TRINITY on one sherd but the quality of the transfer print indicates two vessels. One base sherd impressed [C]OPELAND curved over a crown. Same pattern as recovered from		

Context	Fabric	Basic Form	MNV	Sherd Count	Sherd Wgt (kg)	Decoration	College	Date range
						CAMEAG14 Pit **2735** fill 2736, dating based on that collegiate material *c*.1847–72. Moulded gadroon rim and a blue transfer-printed pattern, known as the Byron Groups design; this consists of the floral centre from the Warwick Groups pattern and a botanical border of acanthus leaves used for the Byron Groups (Sussman 1979, no. 68 in Cessford 2016).		
	RFWE TR	Lids (serving vessel)	1	1	0.020	Blue transfer-printed pattern, known as the Byron Groups design; consists of floral centre from the Warwick Groups pattern & botanical border of acanthus leaves used for Byron Groups (Sussman 1979, no. 68 in Cessford 2016).		
	RFWE TR	Sauce boat	1	2	0.031	External foliate print, acanthus leaves. Same pattern as recovered from CAMEAG14 pit **2735** (2736), dating based on collegiate material *c*.1847–72. A blue transfer-printed pattern, known as the Byron Groups design; consists of floral centre from the Warwick Groups pattern & a botanical border of acanthus leaves used for the Byron Groups (Sussman 1979, no. 68 in Cessford 2016).		
	RFWE TR	Bowl	1	1	0.018	Likely an oval vessel. Plain Aul Trin blue on rim lip-marley AUL [TRIN], an abbrev, form of *Aulam Trintatis* (Latin for Trinity Hall (Cessford 2014, 361).		19th century
	RFWE TR	Dish (oval serving vessel)	1	2	0.170	Internal geometric border transfer-print, partial Trinity College crest on serving plate similar vessel in cellar **360** recovered from 132-36 Newmarket Road (Cessford 2015, 137).	Trinity	
	RFWE TR	Plate	1	1	0.010	Internal blue transfer-printed 'egg and dart' decoration around rim and below rim-body angle.		
Total			**67**	**98**	**4.140**			

*Table 7: Summary catalogue of collegiate ceramics from well **103***

B.4 Ceramic Building Materials

by Ted Levermore

Introduction

B.4.1 Archaeological works produced 55 fragments (17666g) of Ceramic Building Material (CBM). The assemblage contains several complete bricks of the type common in the 18th and 19th centuries. The rest of the assemblage exhibit the hallmarks and colouration of later post-medieval brick and tile. Where CBM was collected from structural features they were deemed a representative sample by the excavators.

Methodology

B.4.2 The assemblage was quantified by context, fabric, form and counted/weighed to the nearest whole gram. Fabrics were examined using a x20 hand lens and were described by main inclusions present. Width, length and thickness were recorded where possible.

B.4.3 The quantified data and fabric descriptions are presented on an Excel spreadsheet held with the site archive. A summary of the catalogue can be found in Table 8.

Fabric

B.4.4 The assemblage consists of ten fabrics, for both brick and tile. Whilst recorded as distinct from each other, there are some variations on a theme. Where a whole brick was examined the fabric was an estimation, nevertheless there are some clear fabric types apparent. Namely, yellow and fine sandy fabrics or darker reddish-orange sandy fabrics which are common in the later post-medieval period. The similar fabric types of the brick and tile would suggest they are of the same origin or at least the same style.

Context	Cut	Feature	Phase	Brick	Wgt (g)	Tile	Wgt (g)	Undiag.	Wgt (g)	Count	Total (g)
84	83	Pit	2			32	2351			32	2351
93	92	Pit	1.1			1	46			1	46
107	105	Pit	1.2			1	12			1	12
115	115	Structure	2	2	4154					2	4154
116	115	Structure	2	3	283	8	144			11	427
128	126	Pit	1.1					1	11	1	11
150	masonry number	Floor	2	2	3069					2	3069
153	masonry number	Wall	2	3	2752					3	2752
154	masonry number	Wall	2	1	2202					1	2202
155	masonry number	Wall	2	1	2643					1	2643
Grand Total				**12**	**15102**	**42**	**2553**	**1**	**11**	**110**	**35333**

Table 8: Summary of CBM catalogue

Assemblage

B.4.5 This assemblage is made up of post-medieval brick and tile, with a set of complete bricks collected from the structural features on site. All of this assemblage comes from Period 2 features, except a small undated fragment from pit **126** (Phase 1.2).

Phase 1.2: late medieval (c.AD1400-1540)

B.4.6 Pit **126** produced a single fragment (11g) of undiagnostic, undatable CBM.

Period 2: post-medieval to modern (c.AD1540-present day)

B.4.7 Pit **83** produced 32 fragments (2351g) of tile in three fabrics. Peg holes were recorded,

including a hole for a square peg, indicating that this dates to the latter part of the post-medieval period. Pits **92** and **105** produced a fragment of flat tile each (46g & 12g respectively), in fabrics similar to those in pit **83**. Therefore these too are likely to be post-medieval.

B.4.8 Chimney base **115** produced 13 fragments of CBM (4581g), including two complete bricks in yellow fabrics (2387g & 1767g). One is a complete wall brick with gravelly lime mortar on both beds and end headers (Plate 9). One stretcher is darker and more worn than the other suggesting use wear. The other is a near complete brick. Its upper bed is scorched and the lower bed is sheered away. It has a large concentration of gravelly lime mortar attached to the lower bed and is patchy on the scorched bed. It is most likely a broken hearth brick subsequently reused in a wall. The brick and tile fragments are broadly post-medieval, the complete bricks can be more closely dated to the 18th or 19th centuries; the earliest period is more likely, based upon their form and production style.

B.4.9 Two complete bricks (3069g) were collected from floor **150** (Plate 10). These bricks share similar dimensions and the same production quality as the 18th century bricks found elsewhere on site. They are about half the thickness of these others and each have one worn bed face which suggests that these bricks were made as floor bricks.

B.4.10 Walls **153**, **154** and **155** produced a set of complete or near complete bricks (Plates 11-13). The CBM collected from wall **153** is an amalgam of three fragments of brick cemented together by a gravelly lime mortar (2752g). Two in a yellow sandy fabric and the third in a reddish sandy fabric. The two yellow fragments abut perpendicularly, one header against one end of the other's stretcher face. The third fragment of brick is cemented in the course below the second brick. Every face of these bricks has evidence of lime mortar. The two yellow bricks are 18th-19th century in date but the third brick is too fragmentary to assign a closer date than post-medieval.

B.4.11 Walls **154** and **155** each produced a single complete 19th century brick (2202g and 2643g respectively), both made in fine yellow clays. The brick from **154** appears to have had a pinkish-red slip/layer applied to its surfaces to disguise the yellow core, however this has worn and faded on what was likely the exposed stretcher face. The opposite face has a deep v-shaped groove impressed into it most likely from another brick having lent against it during their drying phase. The other brick, from wall **155**, is well formed with squared edges and traces of grey cement on a bed face which suggests a later use than those used in conjunction with lime mortar.

Discussion

B.4.12 The CBM recovered was not *in situ*; it is related to the discard of building material and subsequent dispersal across the site. It represents little more than background noise within the modern landscape. Those fragments recovered from structural features offer more detail about the later use of this site, notably the former public house. This assemblage is dominated by post-medieval brick and tile and it is no surprise that the brick from the site's structural remains relate to the 18th and 19th centuries, the latter part of this period. The disuse of these structures and the appearance of tile and brick fragments elsewhere suggests the disuse, demolition and rebuilding common in urban centres.

B.5 Glass

by Carole Fletcher

B.5.1 Archaeological hand excavation produced a small assemblage of glass weighing 0.302kg, recovered from a single feature, chimney base **115** (Table 9). A further 72 shards, weighing 10.811kg and representing a minimum number of vessels (MNV) of 51, were recovered from the machine bucket 'grab sample' taken from well **103** (Table 10).

Methodology

B.5.2 The glass was scanned, catalogued, weighed and recorded as individual vessels where possible. The assemblage is a sample of the glass present within the 'grab' sample, where the decision was taken to recover base and rim-neck shards from this assemblage and not to recover undiagnostic body shards. Although this has reduced the minimum number of vessels (MNV) recovered by a small percentage, due to the fragmentary and sharp nature of glass bottle body sherds and the health and safety requirements with cleaning and storage, the decision was taken not to recover these sherds from the sample. Window glass was also not collected for similar reasons. MNV for the 'grab' sample from well **103** was for the most part based on rim counts however for the Hamilton type bottles, where the embossed body sherds from individual bottles far out numbered the rim sherds present and for pharmaceutical, food or wine bottles of different coloured glass, bases have been counted.

Assemblage

B.5.3 The bulk of the hand excavated assemblage is vessel glass, the majority of which are utility bottles, mostly natural black or green glass wine bottles, with a single shard of not closely datable window glass. The shards are in varying conditions and where these could be dated are late 18th-19th century. The glass indicates the consumption of wine and the disposal of bottles however due to its small size is not significant in itself (although these items may relate to the former public house). The glass is recorded in Table 9.

B.5.4 The glass recovered from well **103** provides a wider range of vessels, including Hamilton-type bottles, pharmaceutical bottles and a bottle embossed CWS on the base. This bottle dates to sometime after 1863 when the The Co-operative Wholesale Society was established. The date of the bottles varies, with some late 18th-early 19th century and late 19th century vessels suggesting either curation of the material or material disposed of as rubbish at an earlier point, then redeposited with more recent material to fill the redundant well. Although window glass was not collected during the sampling, shards were observed that had fragments of gilt on one surface suggesting they came from the window or door of a company, shop or pub. The glass has been recorded in Table 10.

Ctxt	Cut	Count	Wgt (kg)	MNV	Form	Description	Date
116	115	1	0.182	1	Utility vessel-Wine bottle	Partial base shard from a cylindrical, natural black glass, bottle with well formed kick, rounded cone type 19mm deep. ?Sand pontil mark, rounded, slightly splayed, basal edge. Base diam. uncertain but around 100mm.	C18th-mid 19th
		1	0.083	1	Utility vessel-Wine bottle	Partial base shard from a natural black glass bottle, with lightly iridised surfaces, and well formed kick, rounded cone type 28mm deep. ?Sand pontil mark.	C18th-mid 19th
		1	0.005	1	Utility vessel-Wine bottle	Shard from a natural black glass bottle, heavily iridised and flaking.	NCD
		1	0.005	1	Utility vessel	Cylindrical shard from a clear colourless glass vessel with slightly clouded, slightly iridescent surfaces.	NCD
		1	0.002		Window glass	Rectangular shard of clear glass with a blue-green cast. 28mm long, 14mm wide, 2mm thick.	NCD
		1	0.025	1	Utility vessel-Wine bottle	Neck shard from a clear, dark olive green glass bottle.	C18th-late 19th
Total		**6**	**0.302**	**5**			

Table 9: Glass from hand excavated features

Ctxt	Cut	Count	Wgt (kg)	MNV	Form	Description	Date
156	103	1	0.157	1	Hamilton-type bottle	Pointed end of Hamilton-type bottle. Blue-green glass clear but slightly patinated and iridescent [..]DGE […] S &Co […]ORKS. Likely to be a Cambridge bottle.	Mid-late C19th
		1	0.187	1	Hamilton-type bottle	Pointed end of Hamilton-type bottle. Blue-green glass clear but slightly patinated and iridescent [..]E [...]TERS & Co [..]S STREET. STREET Should read J Schweppe's. Schweppe & Co. 51 Berners Street Oxford Street Genuine Superior Aerated Waters.	Mid-late C19th
		1	0.428	1	Hamilton-type bottle	Hamilton-type bottle missing neck and rim, Blue-green glass clear but slightly patinated and iridescent bears the embossed legend along the length of the body. J SCHWEPPE & Co [51] BERNERS STREET OXFORD STREET GENUINE SUPERIOR [.A]ERATED WATERS.	Mid-late C19th
		1	0.183	1	Hamilton-type bottle	Pointed end of Hamilton-type bottle. Blue-green glass clear but slightly patinated and iridescent [SUP]ERIOR WATERS Co [..]EET [..]TREET Should read J Schweppe's bottle Legend should read. Schweppe & Co. 51 Berners Street Oxford Street Genuine Superior Aerated Waters.	Mid-late C19th
		1	0.222	1	Hamilton-type bottle	Pointed end of Hamilton-type bottle. Blue-green glass clear but slightly patinated and iridescent [SU]PERIOR [WA]TERS [..]E & Co [..]RS STREET [..]TREET Should read J Schweppe's bottle Legend should read .Schweppe & Co. 51 Berners Street Oxford Street Genuine Superior Aerated Waters.	Mid-late C19th
		1	0.447	1	Hamilton-type	Hamilton-type bottle missing neck and rim. Blue-green glass clear, but slightly patinated and iridescent bears	Mid-late

Ctxt	Cut	Count	Wgt (kg)	MNV	Form	Description	Date
					bottle	the embossed legend along the length of the body. FLEETS LEMONADE DOUBLE SODA & MINERAL WATERS WALWORTH, in elegant script 'to H.R.H. The Prince of Wales'. Blue-green glass, clear but slightly patinated and iridescent. Fleets' bottles manufactured after 1884 were embossed with the Prince of Wales feathers. http://www.stcroixarchaeology.org/files/Bottles_Found_in_St_Thomas-Hannon.pdf p30 consulted 02/02/2107	C19th
		1	0.240	1	Hamilton-type bottle	Pointed end of Hamilton-type bottle. Blue-green glass, clear but slightly patinated and iridescent.	Mid-late C19th
		1	0.002	0	Hamilton-type bottle	Partial neck and applied rim from Hamilton-type bottle.	Mid-late C19th
		1	0.002	0	Hamilton-type bottle	Partial neck and applied rim from Hamilton-type bottle.	Mid-late C19th
		1	0.067	0	Hamilton-type bottle	Neck and applied rim from Hamilton-type bottle, iridescent.	Mid-late C19th
		1	0.048	1	Pharmaceutical -type bottle	Base from pharmaceutical bottle rectangular with flat chamfered corners in pale blue small area of embossing [..]Y'S.	Mid-late C19th
		1	0.189	1	Pharmaceutical -type bottle	Near complete pharmaceutical bottle rectangular with flat chamfered corners in aqua. Missing neck & rim & one corner. One side of bottle has embossed lines horizontally across the front (dosage indicators).	Mid-late C19th
		1	0.028	0	Pharmaceutical -type bottle	Neck and shoulders from pharmaceutical bottle rectangular with flat chamfered corners in pale to mid blue.	Mid-late C19th
		1	0.056	1	Pharmaceutical -type bottle	Near complete base of hexagonal bottle in a pale-mid blue highly iridescent glass. Possible registration mark on the base.	Mid-late C19th
		1	0.061	1	Pharmaceutical -type bottle	Complete base of hexagonal bottle in a pale-mid blue.	Mid-late C19th
		1	0.107	1	Pharmaceutical -type bottle	Base of blue-green ten-sided bottle iridescent.	Mid-late C19th
		1	0.139	1	Pharmaceutical -type bottle	Partial base from pharmaceutical bottle rectangular with flat chamfered corners in blue-green impressed on the base and the indent, K and the base of the bottle letters C & B. Iridescent surfaces.	Mid-late C19th
		1	0.022	1	Pharmaceutical -type bottle	Partial base from pharmaceutical bottle rectangular with flat chamfered corners in pale blue smaller of embossing but cannot read. Iridescent surfaces.	Mid-late C19th
		1	0.043	1	Pharmaceutical -type bottle	Partial base from pharmaceutical bottle, rectangular with flat chamfered corners in pale to mid blue.	Mid-late C19th

Ctxt	Cut	Count	Wgt (kg)	MNV	Form	Description	Date
		1	0.052	1	Pharmaceutical -type bottle	Complete base of ovoid bottle in a pale blue. Iridescent surfaces. Marks on the front of the bottle, indicate the doses, traces of two letters that cannot actually be read.	Mid-late C19th
		2	0.049	2	Pharmaceutical -type bottle	Near complete base of octagonal bottle in a pale blue, slightly iridescent. Slightly differently sized bottles.	Mid-late C19th
		1	0.033	1	Pharmaceutical -type bottle	Near complete base of hexagonal bottle in a mid blue. Highly iridescent surfaces. Possible registration mark on the base. The bottle has vertical ribs on two sides these act as a reminder the contents are dangerous.	Mid-late C19th
		1	0.161	1	Utility bottle	Base of a square natural black glass bottle, flaring slightly from base upwards.	Mid-late C19th
		2	0.087	2	Utility bottle-food	Neck and beginning of shoulders with the slides lip from a blue-green bottle of the type that would have held camp coffee or club source, similar bottle, but just the neck present.	Mid-late C19th
		1	0.377	0	Utility vessel-? Liquor bottle	Base from a natural black glass, moulded bottle with a small mamelon on the base from production methods. Internally the base is uneven which Jones and Sullivan describe as a slugged bottom where the internal glass distribution in the base of the container is extremely uneven. This is apparently very common on mid 19th-century dark green glass liqueur bottles and appears to be related to the working processes. (Jones & Sullivan et al 1989, 87)	Mid-late C19th
		1	0.309	0	Utility vessel-? Liquor bottle	Base from a natural black glass, moulded bottle with a small mamelon on the base from production methods, also embosed ring and the letter P. Internally the base is uneven, which Jones and Sullivan describes as a slugged bottom where the internal glass distribution in the base of the container is extremely uneven. This is apparently very common on mid 19th-century dark green glass liqueur bottles and appears to be related to the working properties. (Jones and Sullivan et al 1989, 87)	Mid 19th century
		1	0.437	0	Utility vessel-bottle	Sub-rectangular or sub-rounded base it is uncertain natural black glass bottle mould produced with a small mamelon on the base which is also embossed with the letters CWS indicating the bottles produced for the Co-op; CWS stands for the The Co-operative Wholesale Society, which was established in 1863.	Post 1863
		1	0.270	1	Utility vessel-bottle	Base from a blue-green square jar or bottle. Iridised surface which is flaking off.	Mid-late C19th
		1	0.105	1	Utility vessel-bottle	Blue-green cylindrical embossed bottle on the base letters A C B Co and the letters LE[..] on the body. Iridescent surfaces.	Mid-late C19th
		3	0.330	1	Utility vessel-food	Base and neck from blue-green, moulded large diameter food bottle/jar, heavily iridescent, hand applied lip.	Mid-late C19th
		1	0.175	1	Utility vessel-ink bottle	Complete bell-shaped, moulded glass bottle blue-green glass arm with cracked off neck which may have contained ink, glue or gum.	Late 19th century
		8	2.142	0	Utility vessel-	Bases from 8 natural black glass bottles, all with well formed kicks; the glass is in good condition. The bottles	Late 19th

Ctxt	Cut	Count	Wgt (kg)	MNV	Form	Description	Date
					Wine bottle	are all cylindrical and do not have flaring or bulging faces, indicating that they are probably late 19th century.	century
		4	1.403	0	Utility vessel-Wine bottle	Four bases from different bottles, three of which are slightly iridised and patinated, the fourth is clear. All of this material could be described as natural black black glass, cylindrical bottles with pushed up bases of the type Jones and Sullivan describe as a large mamelon, having a high kick within the centre of which is a thick blob of glass, which is related to mould blown vessels. Peligot suggests hese mamelon are large and protuberant on champagne bottles and that the lump itself is a type of vent mark. It describes them as a small circular protrusion found in the basal service usually on the tip of the push-up. (Peligot 1877, 304-5 in Jones and Sullivan et al 1989, 87).	Late 19th century
		3	0.207	3	Utility vessel-Wine bottle	Neck and string rim from three separate bottles of varying sizes, all of which have rather poorly applied. Flattened string rim is of the champagne finished-type. Something about the bottles suggest these are slightly earlier examples, but still 19th-century.	19th century
		1	0.124	1	Utility vessel-Wine bottle	Neck rim and lip of a natural black glass bottle with part of the shoulder. The finish to the lip is V-shaped with a down tooled string rim. *c*.1782-1821.	*c*.1782-1821.
		1	0.062	1	Utility vessel-Wine bottle	Dark green to natural black glass wine bottle neck with a champagne finish (flattened string rim). However, the lip flares outward slightly and is heavily twisted, suggesting it might be slightly earlier than the majority of the bottles with similar champagne finish, possibly early 19th-century or late 18th century.	Early C19th/late C18th
		7	0.483	7	Utility vessel-Wine bottle	A mix of bottlenecks with applied champagne-type finish (flattened string rim). Variously natural black glass bottles with high levels of iridescence, possibly early 19th-century through to pale green and olive green bottles with no evidence of iridescence. The likelihood is they are all 19th century in date, although the two highly iridescent vessels may be slightly earlier.	Early-late 19th century
		11	0.616	11	Utility vessel-Wine bottle	A mix of necks with applied rim/lip from 11 different vessels all could be described as natural black glass, though the actual colour varies from very dark olive green to mid green. All have the rim/lip forms of 19th-century bottles, post-1810 likely *c*.1840-1870.. The majority of the glass is in good condition with little iridescence.	*c*.1840-70
		1	0.672	1	Utility vessel-Wine bottle	Near complete missing upper part of neck and rim/lip of a dark amber moulded bottle with an indented base upon which is in embossed letters A W. The bottle is the tall, narrow cylindrical shape of the type that contains a Hock-type wine.	*c*.1840-70
		1	0.089	1	Utility vessel-Wine bottle	Neck and rim/lip of a dark amber bottle. The rim has an applied champagne-type finish (flattened string rim) with a sloped top and indicates there was a second dark amber bottle in the well.	*c*.1840-70
Total		72	10.811	51			

*Table 10: Glass catalogue from sample of well **103***

B.6 Architectural Stone

by Sarah Percival

Introduction and methodology

B.6.1 A small assemblage of three pieces of undated architectural stone weighing 1.909kg was collected from fill (98) of possible foundation cut **100** (Period 2). The dressed blocks have opposing smoothed surfaces and are made of coarse limestone or clunch. They may have originated from nearby Barnwell Priory but are too undiagnostic for further comparison – they may be deselected from the site archive.

B.7 Clay Tobacco Pipe

by Carole Fletcher

B.7.1 A total of 15 fragments of white ball clay tobacco pipe, weighing 0.101kg, were recovered from the excavation (Table 11).

B.7.2 The material was recovered from features and a layer. The majority of the pipe bowls, both complete and partially complete, appear to be Oswald type 10 (Oswald 1975, p37 fig 3) with a date range of c.1700-40. A single miniature pipe bowl was also recovered and no parallels could be found, although it has similarities with both English and Dutch pipes of c.1830-60, or perhaps French floral pipes of the late 19th century (www.dawnmist.org/gallery.htm, see tulip pipe). Terminology used is taken from Oswald's simplified general typology (Oswald 1975, 37–41) and Crummy and Hind (Crummy 1988, 47-66). A quantification table for the clay pipes can be found at the end of this report, based on the recording methods recommended by the Society for Clay Pipe Research (http://scpr.co/PDFs/Resources/White%20BAR%20Appendix%204.pdf). Stem bore diameter recording has not been undertaken on this assemblage due to its limited size.

Discussion

B.7.3 The fragments of clay tobacco pipe recovered represent what are most likely casually discarded pipe stems and bowls, that have subsequently been reworked. The majority of the pipe fragments do little other than to indicate the consumption of tobacco on or in the vicinity of the site, by one or more individuals, in the early to mid 18th century. The miniature pipe recovered from layer 148 is a 19th century example and may relate to the 19th century material recovered from the redundant well **103**.

Ctxt	Cut	Form	Weight (kg)	stem frags	complete /partial bowls	Description	Date	Phase
116	115	stem	0.008	3		Three white ball clay tapering stem fragments from three different pipes, one stem fragment is slightly greyed due to cleaning or use.	NCD, pot dates from C19th	2
125	123	stem	0.014		1	White ball clay complete pipe bowl, heel and short length of stem, no mould lines visible on sub-circular heel, along stem or back of bowl, although traces of a neatly trimmed mould line are visible on the upper part of the bowl front wall, being slightly burnished along mould line. There are no initials on the sides of the heel. Oswald type 10 pipe (Oswald 1975 p37 fig 3).	*c.*1700-40	2
125	123	bowl and heel	0.011		1	White ball clay complete pipe bowl and heel, stem broken just behind heel, no mould lines visible on sub-rectangular heel or bowl. There are no initials on the sides of the heel. Oswald type 10 pipe (Oswald 1975 p37 fig 3).	*c.*1700-40	2
125	123	bowl	0.005		1	White ball clay, partial bowl fragment, the angle of the bowl suggest it may be from an Oswald type 10 pipe (Oswald 1975 p37 fig 3).	?*c.*1700-40	2
125	123	bowl and heel	0.006		1	White ball clay, partial heel and bowl fragment the angle of the surviving bowl fragment and stem suggest may be from an Oswald type 10 pipe (Oswald 1975 p37 fig 3).	?*c.*1700-40	2
125	123	stem	0.030	6		Six white ball clay tapering stem fragments from a minimum of five different pipes. One stem fragment is slightly greyed due to cleaning or use, another is somewhat cream coloured, again due to heat discolouration.	NCD Pot dates late C17th – end 18th	2
125	123	Frag. bowl and stem	0.013		1	White ball clay complete pipe bowl, heel and short length of stem, mould line visible on sub-circular heel and along stem and front of bowl, neatly trimmed on wall and slightly burnished along mould line. No clearly visible remains of mould line on back of slightly sub-rounded bowl although it can be felt on the stem. Little discolouration internally, although the whole bowl appears slightly cream due to ?heat. There are no initials on the sides of the heel. Oswald type 10 pipe (Oswald 1975 p37 fig 3).	*c.*1700-40	2
148		bowl and stem	0.014		1	Complete bowl and partial stem from a highly decorated (?miniature) clay pipe. There is no heel, the area in from of the bowl on the stem is a wooden branch an ?oak leaf bends back from the back of the bowl to lay along the stem and the bowl lies within four leaves or petals, each with a raised central vein. May be Dutch, English or French.	*c.*1830-60	2
Total			**0.101**	**9**	**6**			

Table 11: Clay tobacco pipe catalogue

Appendix C. Environmental Reports

C.1 Faunal Remains

By Ian Smith

C.1.1 The assemblage consists of one 11 litre box of hand collected bone weighing 2.48kg. The material is clean and bagged by context. All is temporarily curated by OA North.

Methods

C.1.2 The assemblage was quantified with regard to countable, ageable and measurable specimens following Baker and Worley (2014). Countable specimens here include all elements zoned by Serjeantson (1996) or Cohen and Serjeantson (1996). Vertebrae, ribs and other fragments where there is limited surface survival are generally classed as "large mammal" (cattle or horse sized) and "medium mammal" (sheep size).

C.1.3 Mandibular rows were counted as such if they included at least one *in situ* deciduous fourth premolar or permanent fourth premolar or any molar in addition to at least one other *in situ* tooth (to correspond with the teeth assessed for tooth wear by Grant 1982 & Payne 1973, 1987). Maxillary rows were counted where at least two teeth were present. Loose mandibular teeth (and corresponding maxillary teeth to reflect the presence of cranial parts) were also counted. Fusion state totals are of numbers of specimens (not numbers of "ends") from amongst the scapulae, pelves, major long bones, calcanei, metapodia and phalanges 1 & 2 that will produce at least one record (ie proximal or distal) of epiphyseal fusion. Specimens were counted as measurable if they included measurement points illustrated and defined in von den Driesch (1976) or Davis (1992, 1996). Counts were made of any complete, butchered, gnawed, root etched and burnt specimens. Bone surface preservation was assessed as 1 "excellent", 2 "good", 3 "fair" & 4 "poor" to reflect states of preservation corresponding approximately with Harland *et al* (2003) and average preservation states are presented by context.

Results

C.1.4 Surface preservation is generally good on average being approximately at "2" (Table 12) or corresponding to "good" Harland *et al* (2003). Although there are gnawed, root etched and burnt specimens, some states of butchery can be recognised amongst the cattle, sheep/goat and pig.

Period 1 Phase 1: early-mid medieval (c.AD1150-1400)

C.1.5 There are no mandibular rows and no fusion states that can be assessed and thus there is no potential to reconstruct any kill off patterns. Neither is there any potential biometric data. Cattle and pig were certainly present, but given the size of the group from this phase, there is no real further potential.

Period 1 Phase 2: late medieval (c.AD1400-1540)

C.1.6 This phase produced the largest group of fragments (Tables 13 & 14) and cattle, sheep/goat, pig and a probable chicken carpometacarpus (the latter referred to as "Galliforme" in the tables) are present. One bird bone from (94) is a partial first phalanx (wing) from a large bird. The totals are not large enough to be taken seriously with regard to species ratios. There are only four elements here considered robust identifications to

species and zoned under either Serjeantson (1996) or Cohen and Serjeantson (1996). Context (94) produced one partial cattle mandible (first and second molar at Grant (1982) wear stages “g” and “f” respectively). The totals for all data categories are small and there is no real further potential in isolation.

Period 2

C.1.7 The presence of cattle, pig and sheep/goat is demonstrated in period 2 but again the totals are too small to provide age structures or other numerically significant kill off or provisioning information. Sawn bones are present including a cattle radius from (84), a sawn pig rib and a sawn sheep/goat pelvis, both from (116). All are indicative of post-medieval or recent butchery and do not represent bone working.

C.1.8 Also from Period 2, there is a cattle metatarsal from context (84) which is of some interest since it has polish and wear indicative of its use as a tool. It may possibly have been used as a handle to secure a rope.

Cxt.	Period/ Phase	Taxa	Total frags	Complete	Butcher	Gnawed	Root etched	Burnt	Average of Preservation
82	1.2		**17**		**4**	**2**		**1**	**2.3**
		cattle	1		1				2.0
		large mammal	10		2	1			2.3
		pig	2		1				2.5
		medium mammal	2			1		1	2.5
		Galliforme	1						2.0
		bird	1						2.0
84	2		**1**		**2**	**1**			**2.0**
		cattle	1		2	1			2.0
88	1.1		**2**						**1.5**
		large mammal	1						2.0
		medium mammal	1						1.0
90	1.2		**3**						**2.0**
		large mammal	1						2.0
		medium mammal	1						2.0
		bird	1						2.0
93	1.1		**6**		**1**				**2.8**
		cattle	3						2.5
		large mammal	2		1				3.0
		med/large mammal	1						3.0
94	1.2		**17**			**1**	**1**		**2.1**
		cattle	12						2.0
		large mammal	3				1		3.0
		sheep/goat	1			1			1.0
		bird	1						1.0
95	1.1		**17**			**2**		**1**	**2.6**
		cattle	1			1			3.0
		large mammal	3					1	3.0

Cxt.	Period/ Phase	Taxa	Total frags	Complete	Butcher	Gnawed	Root etched	Burnt	Average of Preservation
		med/large mammal	2						2.0
		sheep/goat	9						2.7
		pig	1			1			2.0
		medium mammal	1						2.0
96	1.1		**14**		**3**				**1.9**
		large mammal	8						2.0
		sheep/goat	1						3.0
		sheep/g/roe/fallow	1		2				2.0
		medium mammal	1		1				1.0
		cf Galliforme	1						2.0
		fish	1						1.0
		unidentified	1						2.0
98	2		**1**						**1.0**
		large mammal	1						1.0
107	1.2		**1**						**3.0**
		large mammal	1						3.0
108	1.2		**1**						**1.0**
		cattle	1						1.0
109	1.2		**1**						**2.0**
		cattle	1						2.0
116	2		**16**		**7**	**2**			**2.2**
		cattle	2		1				2.5
		large mammal	3		1	1			2.3
		pig	7		3				2.0
		sheep/goat	2		1	1			2.5
		medium mammal	2		1				2.0
121	1.1		**1**						**3.0**
		pig	1						3.0
125	2		**7**			**1**	**2**		**2.4**
		large mammal	1						3.0
		sheep	2				1		2.5
		sheep/goat	1						2.0
		medium mammal	3			1	1		2.3
128	1.1		**1**						**2.0**
		medium mammal	1						2.0
131	1.1		**3**				**1**		**3.0**
		large mammal	1				1		3.0
		medium mammal	1						4.0
		cf Galliforme	1						2.0
Grand Total			**109**		**17**	**9**	**4**	**2**	**2.3**

Table 12: Numbers of total fragments by context including butchered, gnawed, root etched and burnt specimens and average states of preservation

Taxa by Period/Phase	Total frags	Mand rows	Loose mand teeth	Max rows	Loose max teeth	Countable	Fusion	Measured specimens
Period 1 Phase 1	9		2		1			
cattle	3		1					
large mammal	3				1			
med/large mammal	1							
pig	1		1					
medium mammal	1							
Period 1 Phase 2	72	1	2		5	11	2	1
cattle	14	1			2	2		1
large mammal	26				1	5	1	
med/large mammal	2							
sheep/goat	11		2		2		1	
sheep/goat roe/fallow	1							
pig	3					1		
medium mammal	7					1		
Galliforme	1					1		
cf Galliforme	2					1		
bird	3							
fish	1							
unidentified	1							
Period 2	28	1	2			19	5	2
cattle	5		1			4		
large mammal	6					4	1	
sheep	2					2	2	2
sheep/goat	3					3		
pig	7	1	1			4	2	
medium mammal	5					2		
Grand Total	109	2	6		6	30	7	3

Table 13: Numbers of total fragments by phase

Includes mandibular and maxillary rows, loose teeth, countable specimens [which are based on zones of Serjeantson 1996 (mammals) or Cohen and Serjeantson 1996 (birds)], and numbers of specimens where fusion states and measurements could be recorded

Phase/Ctxt/Taxa	Tot frags	Mand rows	Loose mand teeth	Max rows	Loose max teeth	Countable	Fusion	Measured specimens
Period 1 Phase 1	9		2		1			
88	2							
large mammal	1							
medium mammal	1							
93	6		1		1			
cattle	3		1					
large mammal	2				1			
med/lge mammal	1							
121	1		1					
pig	1		1					
Period 1 Phase 2	72	1	2		5	11	2	1
82	17					7	1	
cattle	1					1		
large mammal	10					4	1	
medium mammal	2							
pig	2					1		
Galliforme	1					1		
bird	1							
90	3							
large mammal	1							
medium mammal	1							
bird	1							
94	17	1			2		1	1
cattle	12	1			2			1
large mammal	3							
sheep/g	1						1	
bird	1							
95	17		2		3	1		
cattle	1					1		
large mammal	3				1			
med/lge mammal	2							
sheep/g	9		2		2			
pig	1							
medium mammal	1							
96	14							
large mammal	8							
sheep/g	1							
sheep/g/roe/falloff	1							
medium mammal	1							
cf Galliforme	1							
fish	1							
unidentified	1							
128	1					1		
medium mammal	1					1		
131	3					2		
large mammal	1					1		
medium mammal	1							
cf Galliforme	1					1		
Period 2	28	1	2			19	5	2
84	1					3		

Phase/Ctxt/Taxa	Tot frags	Mand rows	Loose mand teeth	Max rows	Loose max teeth	Countable	Fusion	Measured specimens
cattle	1					3		
98	1					1	1	
large mammal	1					1	1	
107	1							
large mammal	1							
108	1		1					
cattle	1		1					
109	1							
cattle	1							
116	16	1	1			11	2	
cattle	2					1		
large mammal	3					3		
sheep/g	2					2		
pig	7	1	1			4	2	
medium mammal	2					1		
125	7					4	2	2
large mammal	1							
sheep	2					2	2	2
sheep/g	1					1		
medium mammal	3					1		
Grand Total	**109**	**2**	**6**		**6**	**30**	**7**	**3**

Table 14: Numbers of total fragments by context

Includes mandibular and maxillary rows, loose teeth, countable specimens [based on zones of Serjeantson 1996 (mammals) or Cohen and Serjeantson 1996 (birds)], and numbers of specimens where fusion states and measurements could be recorded

C.2 Environmental Samples

By Rachel Fosberry

Introduction

C.2.1 Ten bulk samples were taken from the site, from pit fills from three phases of activity. The purpose of this report is to determine whether plant remains are present, their mode of preservation and whether they are of interpretable value with regard to domestic, agricultural and industrial activities, diet, economy and rubbish disposal.

Methodology

C.2.2 One bucket (approximately 10 litres) of each of the samples was processed by tank flotation using modified Siraff-type equipment for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present.

C.2.3 The floating component (flot) of the samples was collected in a 0.3mm nylon mesh and the residue was washed through 10mm, 5mm, 2mm and a 0.5mm sieve. A magnet was dragged through each residue fraction for the recovery of magnetic residues prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds. The dried flots were subsequently sorted using a binocular microscope at magnifications up to x 60 and an abbreviated list of the recorded remains are presented in Table 15. Identification of plant remains is with reference to the *Digital Seed Atlas of the Netherlands* (Cappers *et al*. 2006) and the authors' own reference collection. Nomenclature is according to Zohary and Hopf (2000) for cereals and Stace (1997) for other plants. Plant remains have been identified to species where possible.

C.2.4 The identification of cereals has been based on the characteristic morphology of the grains and chaff as described by Jacomet (2006). Carbonized seeds and grains, by the process of burning and burial, become blackened and often distort and fragment leading to difficulty in identification. Waterlogged deposits typically contain organic remains that have been preserved through anoxic conditions in which oxygen is absent and there is no or little bacterial decay. Preservation can be variable dependent on many factors including the plant species present and environmental conditions such as acidity. The types of remains preserved can include plants, molluscs and insects all of which can provide information on the local environment whereas pollen can be useful for wider paleoenvironmental reconstruction. Plant parts, in particular seeds, are often well preserved with the outer testa and cell-structure visible.

Quantification

C.2.5 For the purpose of this initial assessment, items such as seeds, cereal grains and legumes have been scanned and recorded qualitatively according to the following categories

= 1-5, ## = 6-25, ### = 26-100, #### = 100+ specimens

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

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

Results

C.2.6 Preservation of by plant remains is by both carbonisation (charring) and, in some of the deeper features, waterlogged plant remains are preserved. Preservation is generally

poor and species diversity and densities are low.

C.2.7 The results are discussed by phase:

Period 1 Phase 1: early-mid medieval (c.AD1150-1400)

C.2.8 Fill 88 of pit **85** contains plant remains that have been preserved by waterlogging and includes seeds of fat hen (*Chenopodium album*), corn spurry (*Spergula arvensis*), dead-nettle (*Lamium* sp.), henbane (*Hyoscamus niger*) and sedges (*Carex* spp.). Preservation is poor and it is possible that the water-table has fluctuated over time.

C.2.9 Lower fill 120 of pit **92** also contains waterlogged seeds of henbane, fat hen, corn spurry in addition to egg-cases of water-fleas (cf. *Daphnia* sp.) and seeds of pondweed (*Potamogeton* sp.) which provide evidence of standing water. This anoxic preservation indicates that the deposit has been consistently below the water table but the basal fill of this feature (93) contains occasional charred free-threshing wheat (*Triticum aestivum* s.l.) grains and a single charred seed of rye-grass (*Lolium* sp.) with no evidence of waterlogging.

C.2.10 It is possible that the basal fill was drained whilst the upper layer has stayed wet as this peculiarity of preservation was encountered in a cess pit at the nearby site of Harvest Way. There was no conclusive evidence of cess in this deposit (such as mineralised plant and insect remains) although there are occasional fragments of avian egg shell, fish and small mammal bones.

C.2.11 Fill 128 of clay-lined pit **126** produced a single charred wheat grain which is not likely to relate to the pit function.

Period 1 Phase 2: late medieval (c.AD1400-1540)

C.2.12 Samples were taken from two fills of pit **144**; fills 94 and 95 both contain occasional charred grains of wheat, barley (*Hordeum vulgare*) and rye (*Secale cereale*) and each sample contains a charred dock (*Rumex* sp.) seed.

C.2.13 Shallow pit **80** produced the largest assemblage of charred wheat grains. Preservation was poor in that all of the grains were abraded and/or fragmented suggesting that they had degraded prior to deposition (possibly in a midden) or they may have been redeposited through successive pit-digging. Two samples were taken from pit **89**; both fills (91 and 90) contain charred wheat and barley grains. Lower fill 91 also contains elderberry (*Sambucus nigra*) seeds that appear to have been preserved by waterlogging and there is also evidence of charophytes (algae) which may indicate that the pit once contained water. Upper fill 90 contains a single charred seed of corn gromwell (*Lithospermum arvense*) which is likely to have been growing amongst the cereal crop.

Period 2: post medieval to modern c.AD1540-present day

C.2.14 A sample taken from fill 84 of pit/structural feature **83** contains plant remains that have been preserved by both carbonisation and waterlogging. The carbonised component is comprised of occasional wheat grains, seeds of nettles (*Urtica dioica* and *U. urens*) and clover/medick (*Trifolium/Medicago* sp.) and a single nutlet of Great Fen sedge (*Cladium mariscus*). The waterlogged seeds include dead-nettle, henbane and elderberry.

Sample No.	Context No.	Feature No.	Period/Phase	% context sampled	Volume processed (L)	Flot Volume (ml)	Cereals	Chaff	Legumes	Charred weed Seeds	Waterlogged seeds	Charcoal <2mm	Charcoal > 2mm	Hammerscale: flake	Hammerscale: spheroid
22	88	**85**	1.1	<5	6	5	#	0	0	0	##	0	0	+	0
25	93	**92**		10	9	2	##	0	0	#	0	+	0	++	+
28	120			10	8	10	0	0	#	0	##	0	0	++	0
26	94	**144**	1.2	10	9	5	##	0	0	#	0	+	++	++	0
27	95			10	9	15	#	0	#	#	0	++	++	+	0
20	82	**80**		10	8	15	###	#	0	#	0	++	++	+	+
23	90	**89**		5	8	5	##	#	0	0	0	++	++	0	0
24	91			5	9	5	###	#	0	#	##	+	0	+	0
30	128	**126**		<10	4	1	#	0	0	0	0	0	0	+	0
21	84	**83**	2	5	8	2	#	0	0	#	#	+	0	+	0

Table 15: Environmental samples

Discussion

C.2.15 The environmental samples have produced plant assemblages that are comparable to other excavated medieval and post-medieval sites in the Newmarket Road area. Charred cereal grains are the only evidence of domestic, culinary activity and these are mostly found in the Period 2 deposits which appears to be the main phase of activity on this site. The low quantity and poor preservation of the cereal grains suggest that they are likely to have originated from midden waste that has been disposed of in the pits and may not necessarily have been produced on site. This contrasts to most of the other sites that had more conclusive evidence of rubbish disposal.

C.2.16 The waterlogged samples have the potential to provide information on the types of plants that were growing near the deep features. They are mainly plants that are typically found on disturbed, probably wet, muddy ground that would be expected to form around features such as deep pits in an area where the water-table was quite high (probably fluctuating). The seeds that have been preserved are those that have a tough outer coat (testa) that are fairly resistant to decay which results in differential preservation and an incomplete picture of the local flora.

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1) https://capturingcambridge.org/wp-content/uploads/2016/01/croc.ma_.Q_RDc16.jpg: 1813 map ‘Plan of the Parish of Saint Andrew the Less otherwise called Barnwell in the County of Cambridge’.

2) https://lostcambridge.wordpress.com/2017/08/06/the-grafton-centre-the-kite-cambridge/

APPENDIX E. OASIS REPORT FORM

All fields are required unless they are not applicable.

Project Details

OASIS Number	oxfordar3-350300		
Project Name	Medieval and Post-Medieval Activity at Sun Street (64-68 Newmarket Road), Cambridge		
Project Dates (fieldwork) Start	02-11-2016	Finish	30-11-2016
Previous Work (by OA East)	Yes	Future Work	No

Project Reference Codes

Site Code	ECB4819	Planning App. No.	14/1905/FUL
HER No.		Related HER/OASIS No.	ECB4717 and ECB5367

Type of Project/Techniques Used

Prompt: Direction from Local Planning Authority - PPS 5

Please select all techniques used:

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

Monument Types/Significant Finds & Their Periods

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

Monument	Period	Object	Period
Pit	Medieval 1066 to 1540	Pottery, shell, bone	Medieval 1066 to 1540
Pit, post, building	Post Medieval 1540 to 1901	Glass, pipe, brick,	Post Medieval 1540 to 1901
Building, well	Modern 1901 to Present	Pottery, glass	Modern 1901 to Present

Project Location

County	Cambridgeshire	Site Address (including postcode if possible)	
District	Cambridge	64-68 Newmarket Road Cambridge CB5 8DZ	
Parish	Cambridge		
HER	Cambridgeshire		
Study Area	160sqm	National Grid Reference	TL 46038 58811

Project Originators

Organisation	OA EAST
Project Brief Originator	Kasia Gdaniec (CCC/HET
Project Design Originator	Chris Thatcher (OA East)
Project Manager	Aileen Connor (OA East)
Supervisor	Chris Thatcher

Project Archives

Physical Archive	Digital Archive	Paper Archive
Cambs. County Store	OA East	Cambs. County Store
ECB4819	ECB4819	ECB4819

Archive Contents/Media

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

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

Figure 1: Site location map showing overall development area (red)

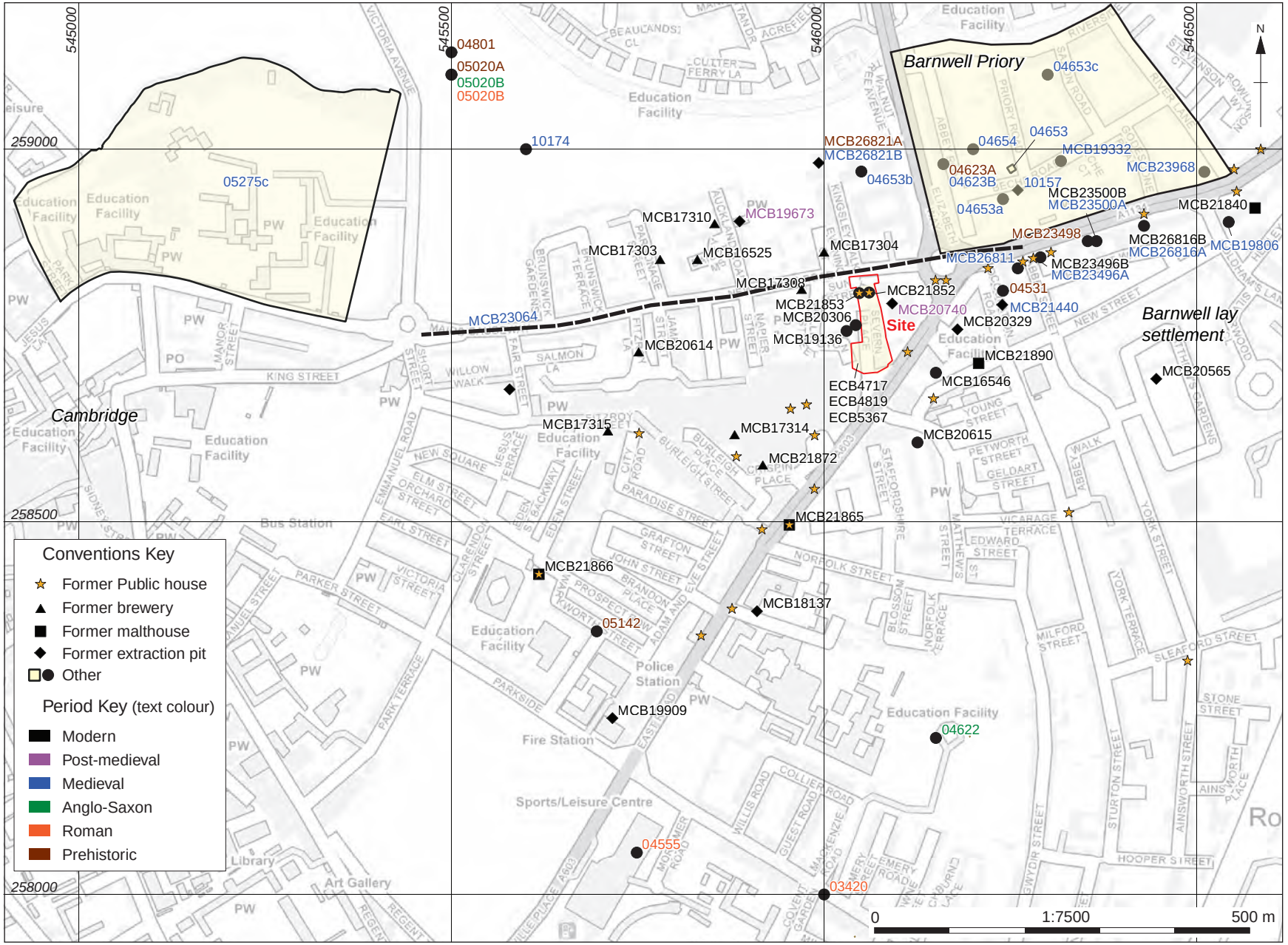


Figure 2: Map showing location of CHER events and monuments

Figure 3: 1810 Ordnance Survey map (extract)

Figure 4: 1813 Plan of the Parish of Saint Andrew the Less otherwise called Barnwell (extract), site outlined red

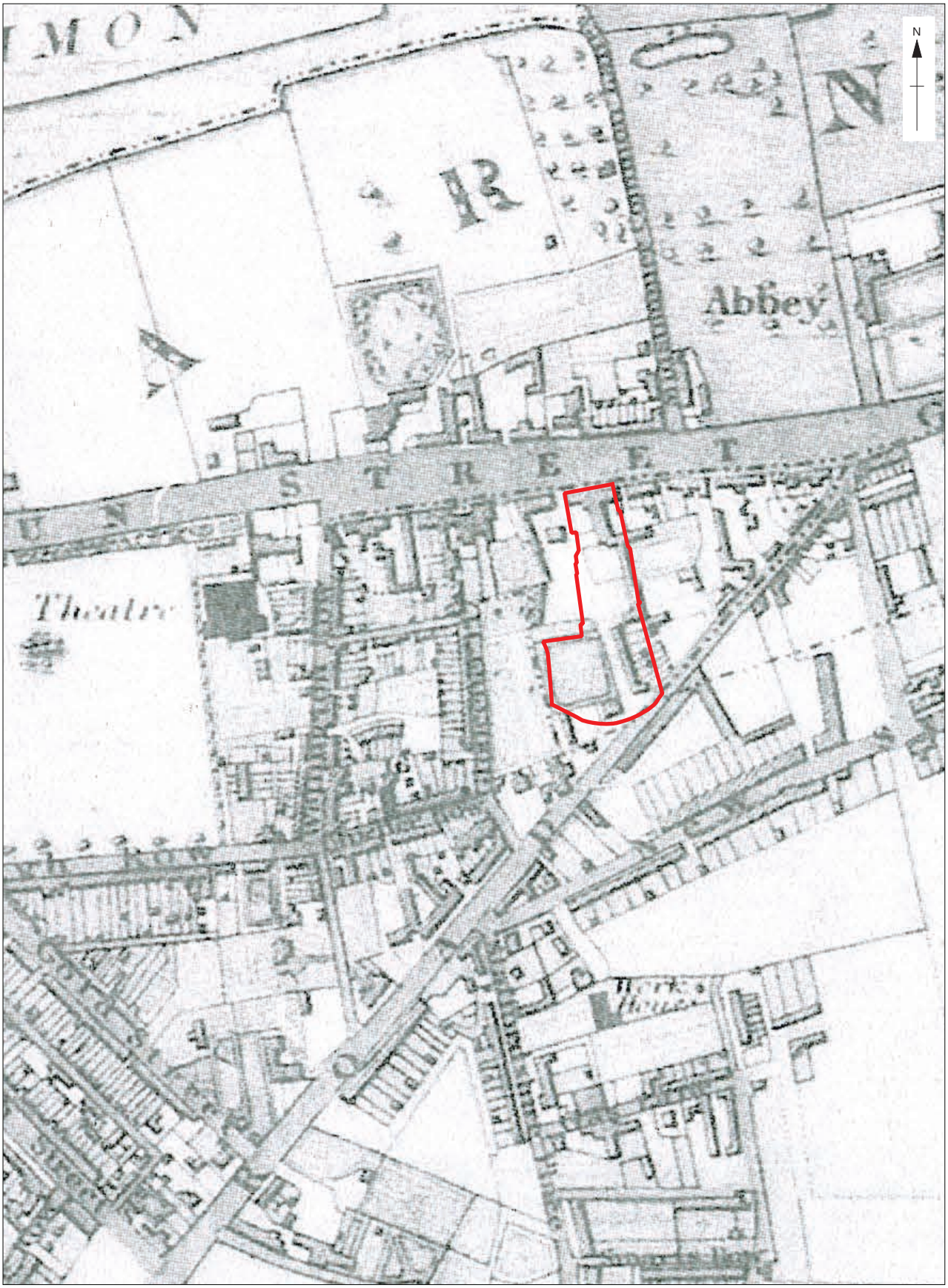


Figure 5: Baker's map of 1830 (extract), site outlined in red

Figure 6: 1885 1st edition OS map (extract), site outlined in red

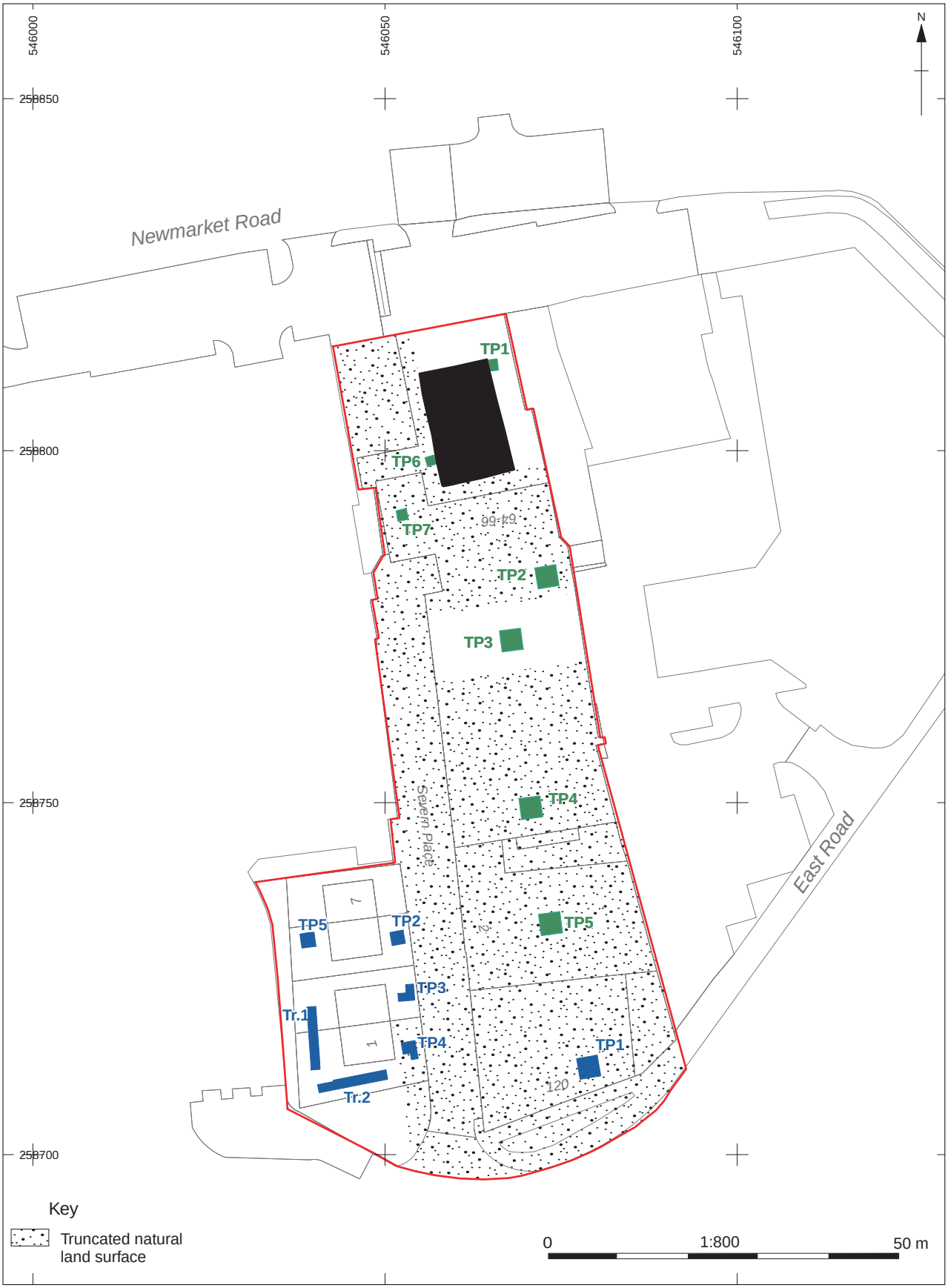


Figure 7: Overall site plan with excavation area (black) in relation to OA East's 2016 (green) and 2018 (blue) evaluation test pits and trenches

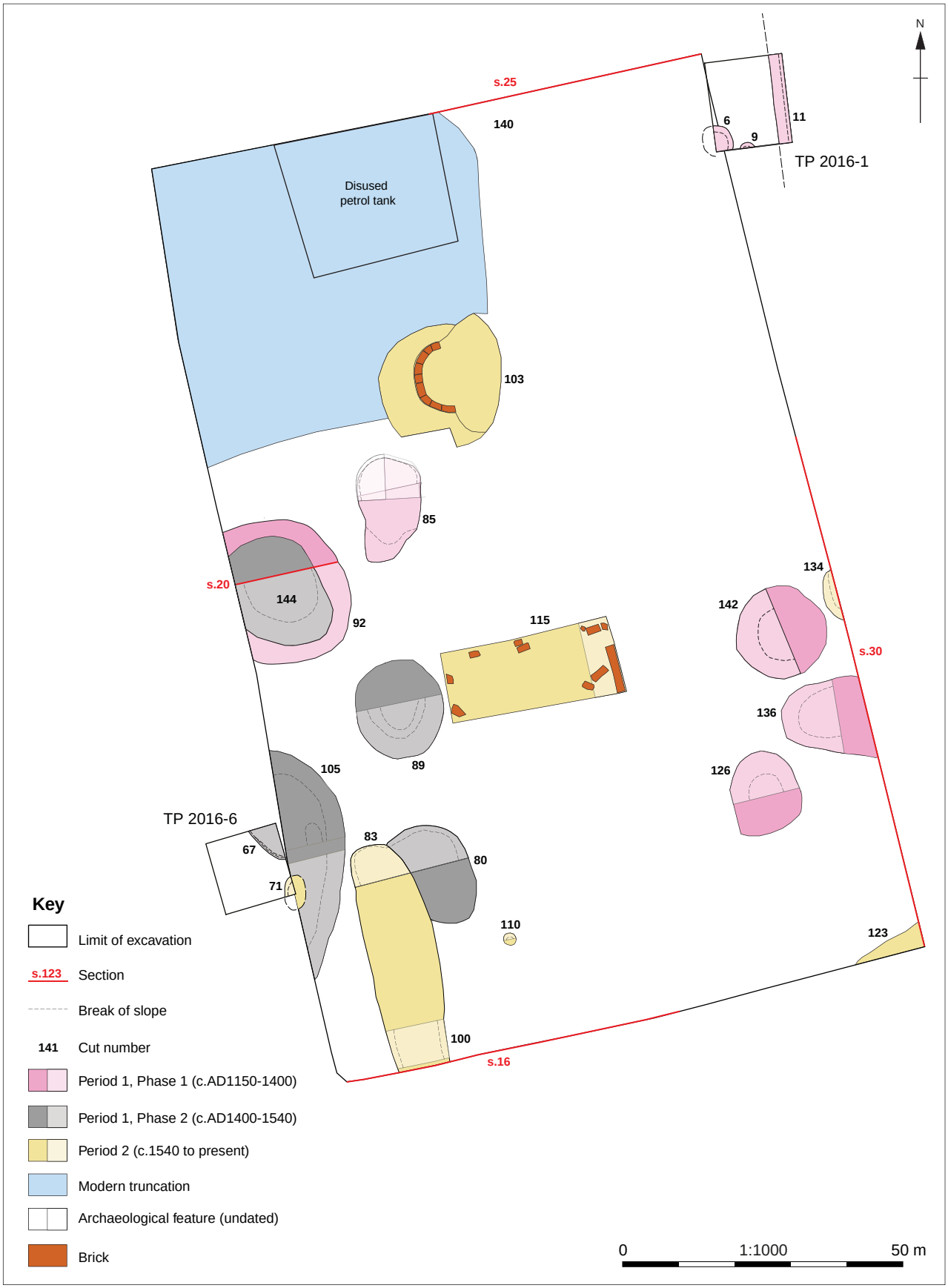
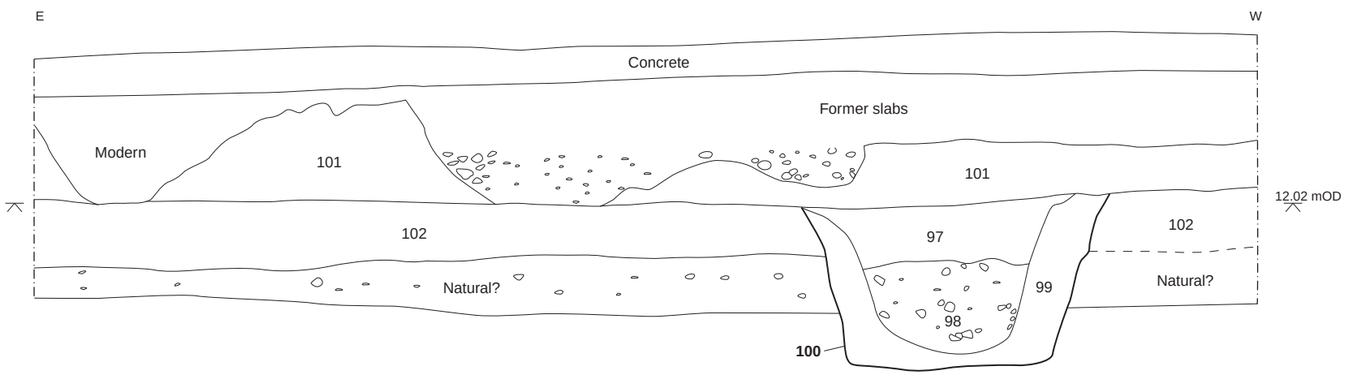


Figure 8: Excavation plan with phasing

Section 16



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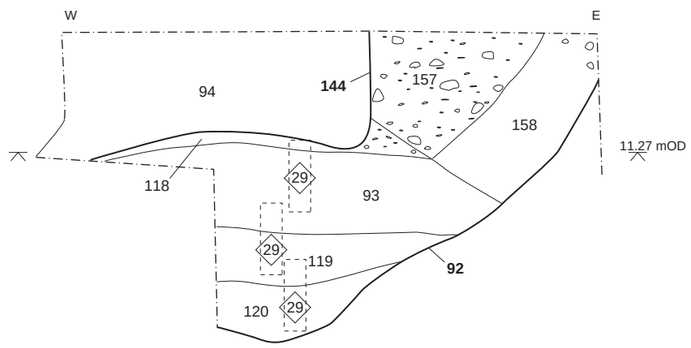

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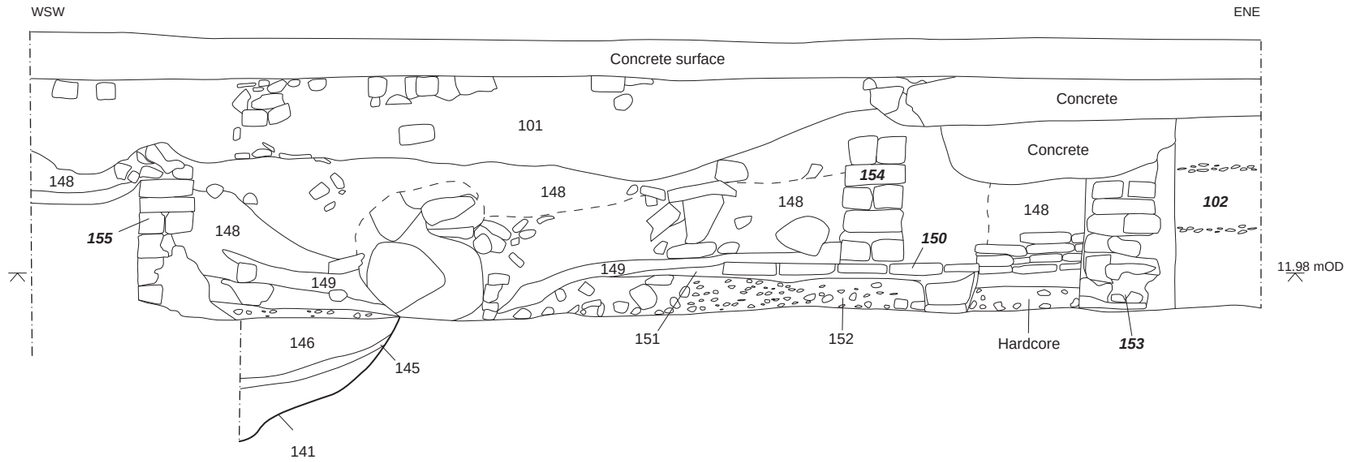

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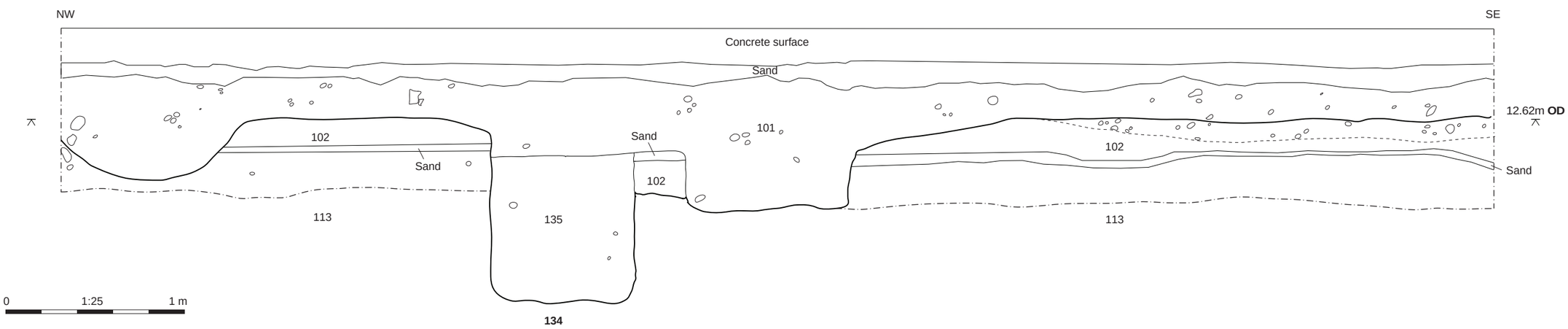

Figure 9: Selected sections

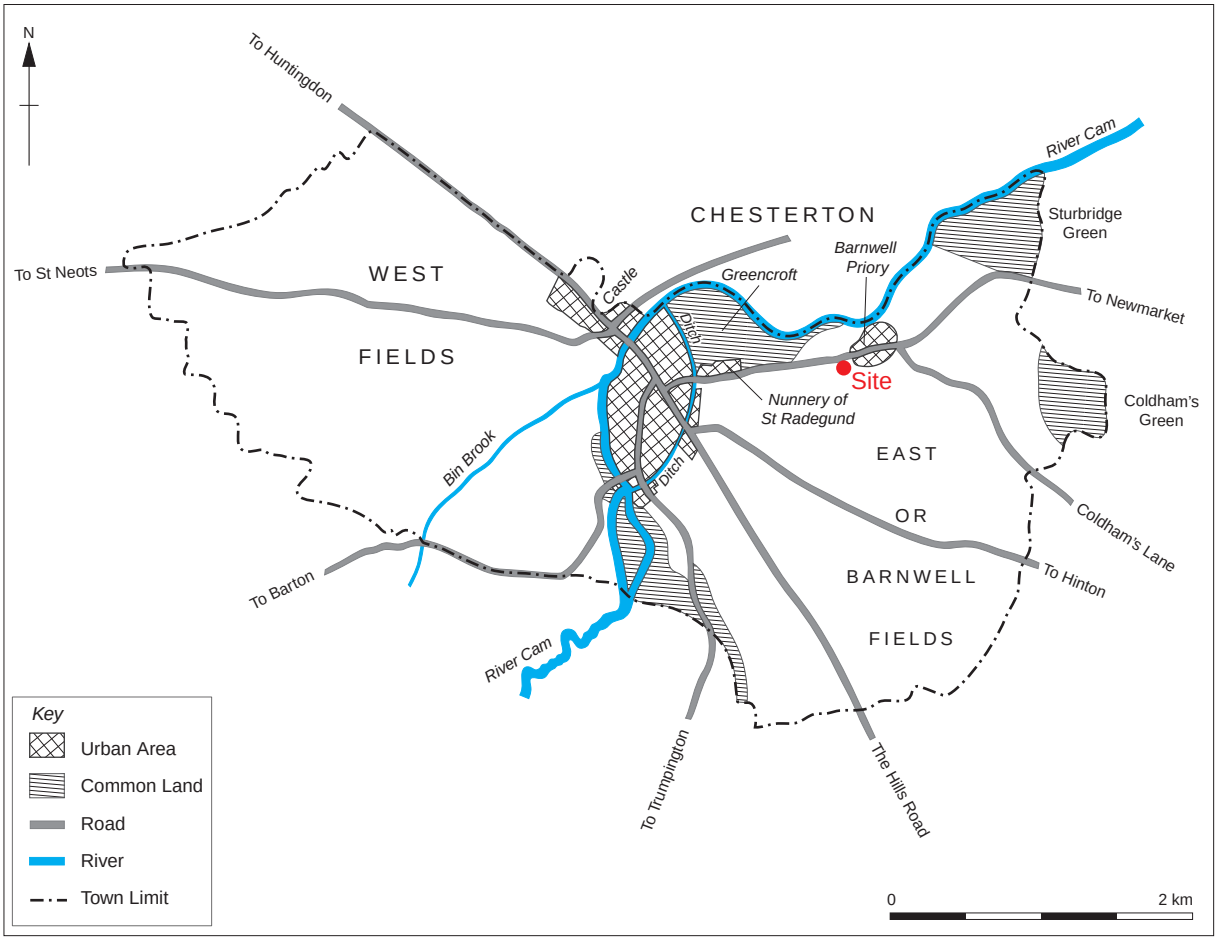

Figure 10: Site in relation to medieval Cambridge (after Maitland 1964 facing p.54). Scale 1:50000

Plate 1: Pits **92** (Period 1, Phase 1) and **144** (Period 1, Phase 2) from the south

Plate 2: Pits **92** (Period 1, Phase 1) and **144** (Period 1, Phase 2) from the south-east showing overlying deposits

Plate 3: Sondage of Pits **92** and **144** from the east

Plate 4: Period 1, Phase 2, pit **89** from the south

Plate 5: Shot of Period 2 well **103** showing backfill composed of domestic waste and Collegiate ware

Plate 6: Section showing surviving remnants of former Period 2 building

Plate 7: Bone textile smoother from Period 2 foundation **83** (84)

Plate 8: SF 1: complete bone implement handle from Period 1.1 pit **92**

Plate 9: Brick from Period 2 chimney base **115**

Plate 10: Brick from Period 2 floor **150**

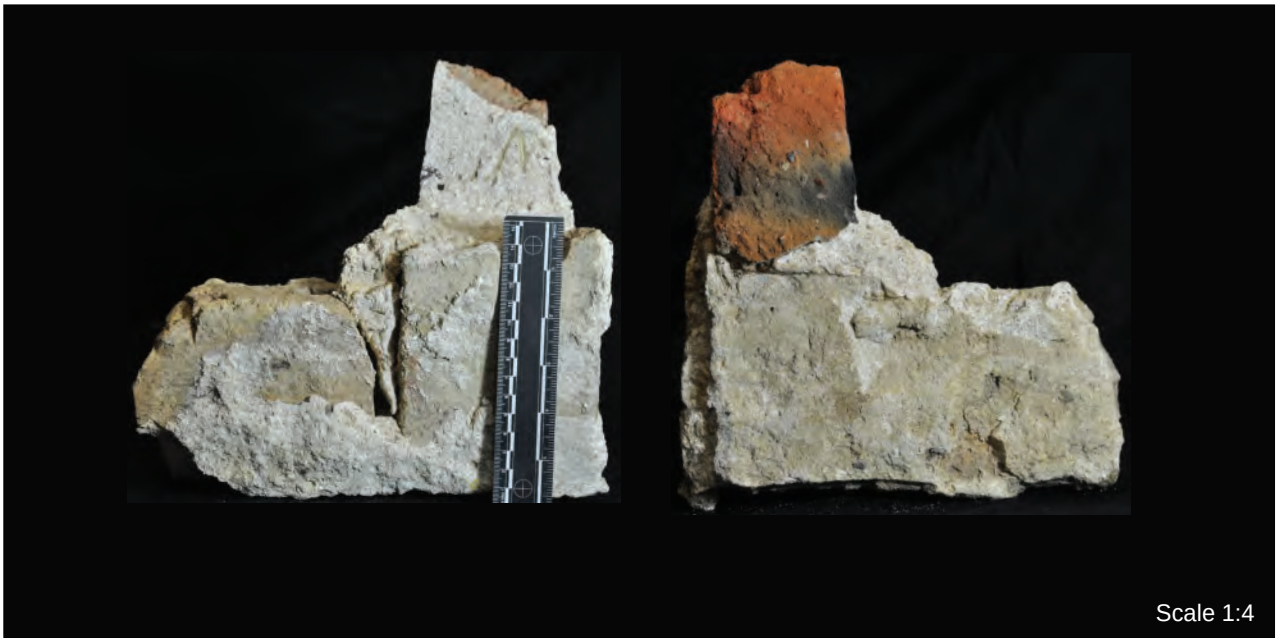

Plate 11: Brick from Period 2 wall **153**

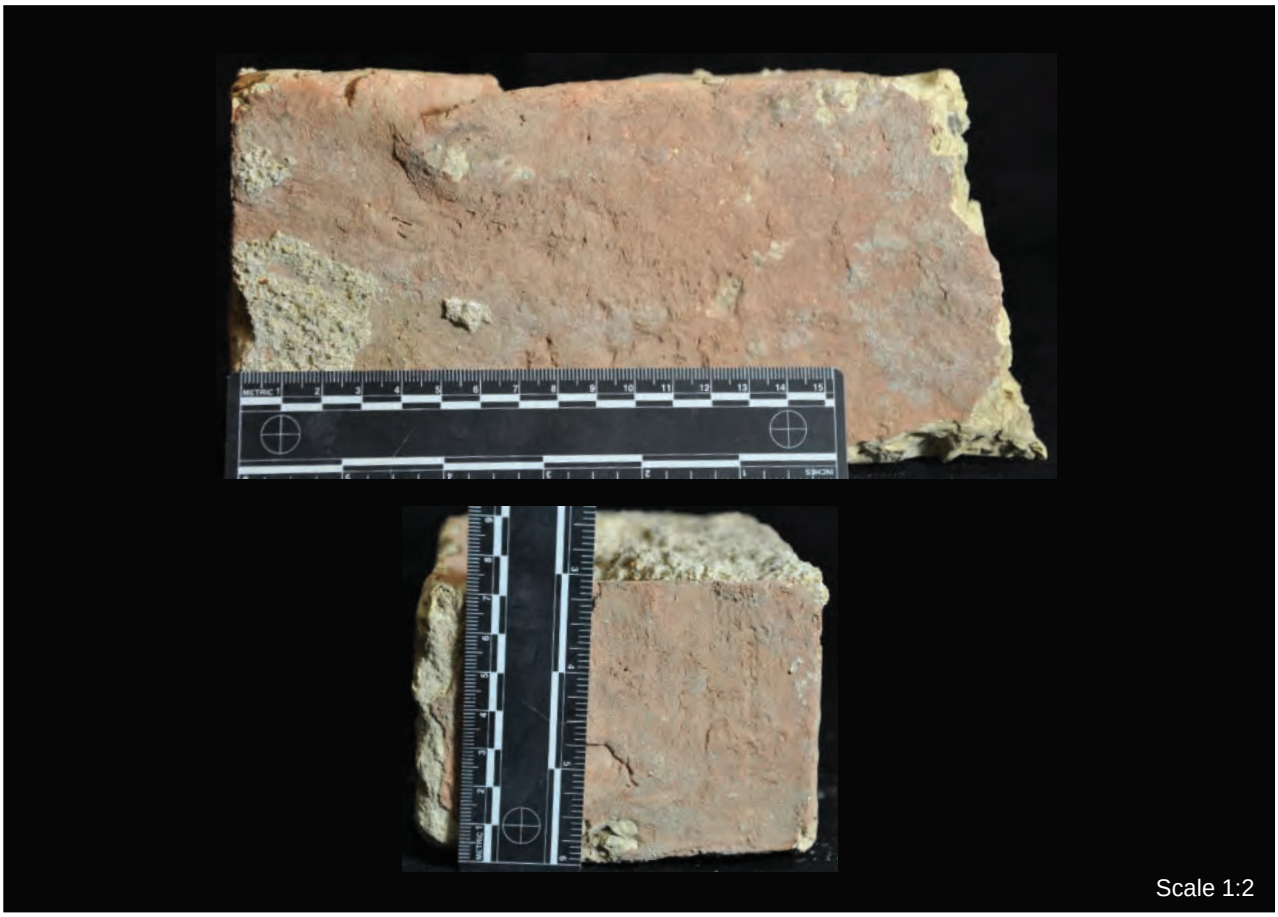

Plate 12: Brick from Period 2 wall **154**

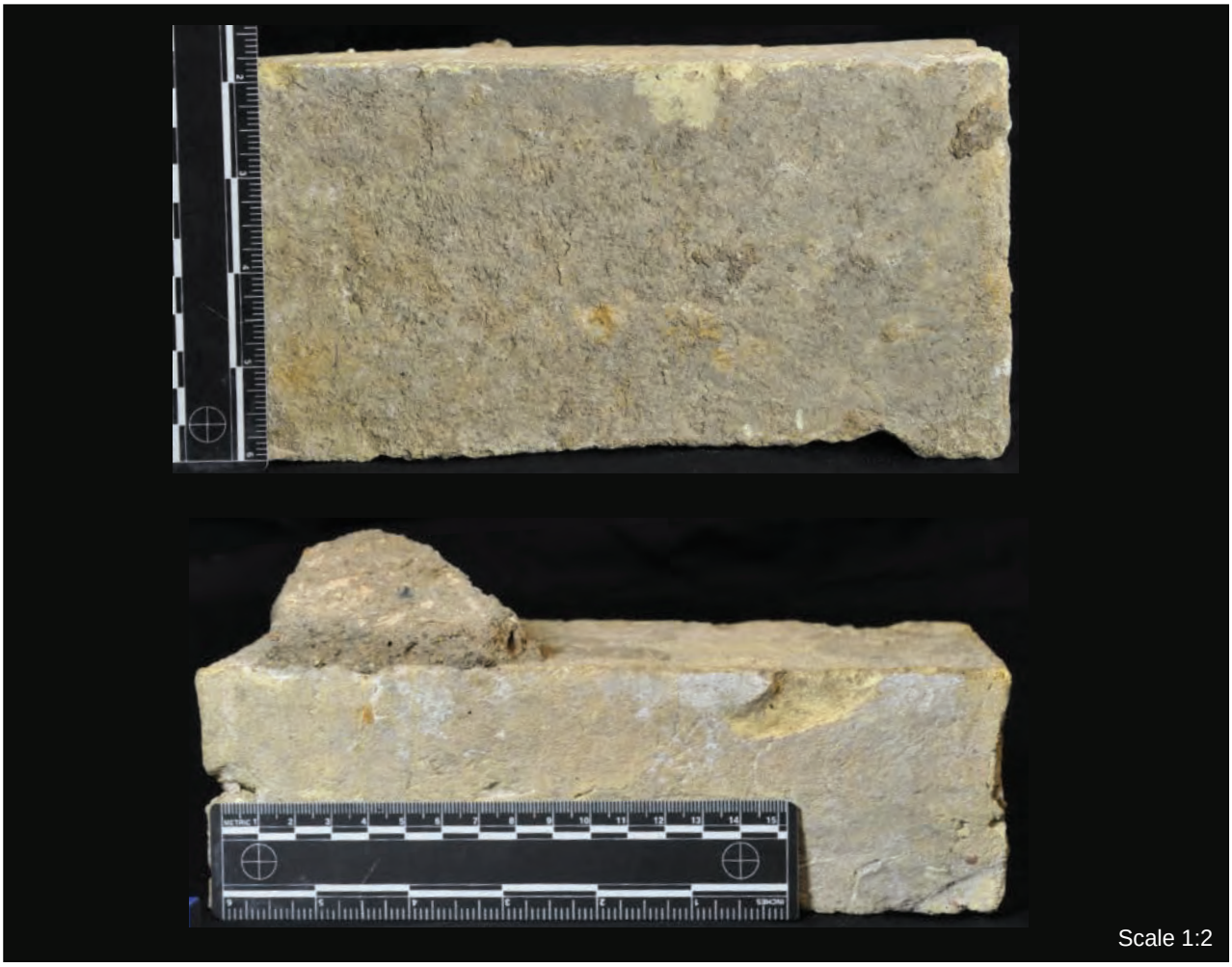

Plate 13: Brick from Pariod 2 wall **155**

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