Medieval retting tanks and other features along North Road
RAF Brampton

Excavation Report

May 2017

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Property VII Limited

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Medieval retting tanks and other features along North Road, RAF Brampton

Archaeological Excavation

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Summary

Between the 26th of January and the 8th of February 2017 Oxford Archaeology East conducted a programme of trial trenching and excavation along North Road, RAF Brampton, Cambridgeshire (TL 2115 7031). This work followed on from an earlier investigation along Central Avenue undertaken in 2016 (Blackbourn 2017).

Two initial trenches were excavated along the line of North Road on an east to west axis. The eastern trench (Trench 45) was found to be heavily disturbed by the footings of demolished former RAF buildings. The western trench (Trench 46) contained a small number of pits and ditches surviving between areas of heavy truncation. Two further trenches were subsequently excavated in a northerly direction from Trench 46. Trench 48 contained an additional pit and two ditches on a north-east to south-west alignment, whilst Trench 47, to the west, revealed two large inter-cutting pits that produced medieval pottery.

Following the recording of the trenches, a targeted area of excavation was stripped around Trenches 46 and 47, centred upon the two large pits. The extent of the area was defined by the level of truncation, with the final excavation measuring 12.5m by 10m. Features uncovered comprised two large pits/tank-like features containing waterlogged deposits and a series of beamslots, ditches and pits. One of the earliest features was a boundary or enclosure ditch aligned north-west to south-east that produced a relatively large assemblage of pottery that dates to the mid 14th-mid 15th century. Extending partially over the top of the infilled ditch were three sides of a small sub-rectangular beamslot structure, measuring 5m by 4.5m, within which two undated pits were revealed.

Located to the immediate south were two tank-like features, the largest of which produced a notable 14th-15th century pottery assemblage that includes large fragments of an Early Everton-type ware bunghole jug or cistern. A total of 25 fragments of leather representing at least three shoes were also recovered, together with other cobbling waste including repair patches. The styles of shoe were of a type commonly worn from the 14th to the 15th centuries. In addition to the leather items, the waterlogged conditions within these features allowed for the preservation of a wide range of plant remains. Most importantly, the presence of hemp within the fills suggests that at least one of the pits, and potentially others, were used for retting.

This site, although small, has enabled some investigation of the immediate landscape and the activities taking place here during the medieval period. There are a number of similarities between the type and character of features revealed at the site and those previously excavated along Central Avenue, c. 80m to the south-west (Blackbourn 2017). This suggests that the two sites were not only contemporary, but are most likely to have formed part of the same swathe of more utilitarian, non-domestic activity associated with the medieval (manorial) pre-cursor to Brampton House.
1 INTRODUCTION

1.1 Location and scope of work
1.1.1 Archaeological trenching, followed by strip, map and sample excavation, was conducted along North Road at the former RAF Brampton site, Brampton, Cambridgeshire (Fig.1; TL 2115 7031). The work was commissioned by Campbell Buchanan on behalf of JCAM Commercial Real Estate Property VII Limited, ahead of residential development at the site (Planning Application15/00368/OUT).

1.1.2 The investigation followed on from earlier phases of archaeological evaluation and excavation at the site (Stocks-Morgan 2015; Nicholls 2016; Blackbourn 2017), and was undertaken in accordance with a Brief issued by Andy Thomas of Cambridgeshire County Council (dated 19/02/2016), and an approved Written Scheme of Investigation prepared by Oxford Archaeology East (Brudenell 2016).

1.1.3 This report provides a detailed description of the results of the investigation, focusing on the area of excavation along North Road. The report has been compiled in accordance with the principles identified in Historic England's guidance documents Management of Research Projects in the Historic Environment, specifically The MoRPHE Project Manager's Guide (2015) and PPN3 Archaeological Excavation (2008).

1.1.4 The site archive is currently held by OA East and will be deposited with Cambridgeshire County Council in due course,

1.2 Geology and topography
1.2.1 The site is located on the southern outskirts of Brampton, c. 2.7km south-west of Huntingdon within the former envelope of the RAF Brampton site. This phase of work was undertaken along the edge of North Road where RAF buildings had previously stood, in Zone J of the broader development site (Brudenell 2016).

1.2.2 The solid geology of the site consists of Jurassic clays of the Oxford Clay Formation Mudstones. These are overlain by superficial deposits of Quaternary River Terrace sands and gravels (http://mapapps.bgs.ac.uk/geologyofbritain/home.html). The site lies at about 10m OD and is relatively flat.

1.3 Archaeological and historical background
1.3.1 Research into the archaeological and historical context of the site has previously been undertaken in various heritage desk-based assessments (Atkinson 2013; Daniell and Brown 2011; Ferguson 2013; Ryan 2015). The following section, which is based on the archaeological background included in the WSI (Brudenell 2015), draws on and summarises some of the findings in these reports, further supplemented with data supplied by the Cambridgeshire Historic Environment Record (CHER; Fig. 2).

Prehistoric
1.3.2 Brampton lies in the Ouse Valley which has several known early prehistoric monuments and finds spots. Palaeolithic finds were uncovered from a site 1km to the south which consisted of mammoth and other animal bones and worked flint comprising flakes and scrapers. Neolithic axeheads have been recovered 800m west of the site (CHER 02548). To the north of the village a number of Bronze Age features and cropmarks have been identified including a barrow, ditches, pits and post-holes (CHER 02117), evidence for cremations was also found at this site. Approximately 1km north-west of
the site an Early Bronze Age cremation pit was uncovered alongside Beaker pottery (CHER 11176). A square enclosure believed to date to the Late Bronze Age/Early Iron Age has been identified 1km to the south-west, which contained residual Middle Bronze Age pottery (CHER 10066).

**Iron Age and Roman**

1.3.3 Iron Age features were revealed 1km to the south-west of the site and comprise ditches, enclosures, pits, a watering hole and a field system (CHER MCB20046). Iron Age finds have also been recovered from a site 1km to the south (CHER 02498A).

1.3.4 A number of Roman finds have been uncovered in the area, particularly to the west and the south. Several cropmarks interpreted as being of Iron Age or Roman origin are present to the south and west of the site, comprising ditches, enclosures and pits (CHER 4475), with further ditches, enclosures and a possible trackway also visible (CHER 05765). Other cropmarks identified 950m south-west of the site are also thought to be Iron Age or Roman in date (CHER MCB18443).

1.3.5 Roman field systems have been identified 1km to the south of the site, alongside ditches, enclosures and a possible droveway (CHER MCB17492), with Roman pottery also being recovered near to this site (CHER MCB18426).

1.3.6 A Roman coin depicting Antonius Pius, dating to AD 145 was uncovered 400m to the east (CHER 00951). Roman quern fragments have been recovered 750m to the north (CHER 00952), while further to the north (1.3km) approximately 20 Roman pots were found (CHER 02556). Evidence for contemporary activity has also be found 1.5km north-west of the site, represented by pits containing Roman pottery and tile (CHER CB15265).

1.3.7 The remains of a substantial Roman settlement have been identified to the north of Brampton village, consisting of a series of enclosures along with buildings, a corn dryer and an associated cobbled surface (MCB 20033).

1.3.8 Of particular interest is the discovery of a Roman pottery kiln dating to the mid/late 1st century AD, which was revealed but not fully excavated approximately 1km to the west of the site (Jones & Panes 2014).

**Anglo-Saxon and medieval**

1.3.9 Brampton is a parish and village located to the south-west of Huntingdon. Evidence of an Anglo-Saxon settlement has been identified approximately 1km to the south of the site, represented by pits and sunken featured buildings (CHER 02498C). The village was known as 'Brantune' in the 11th century, 'Brantone', 'Brampton' and 'Brauntone' in the 12th and 13th centuries, and finally 'Brampton' from the 13th century (Ryan 2015).

1.3.10 The core of the medieval village is centred in the area around the modern day High Street and is noted in the Domesday Book of AD 1086. At this time the village is recorded as having a manor house and two mills, suggesting an established and prosperous settlement.

1.3.11 To the north-west of the site, evidence for medieval buildings has been uncovered along with medieval pottery (CHER 02550). Further afield, a number of medieval sites and find spots are recorded approximately 900m to the north of the site, comprising medieval pottery sherds recovered alongside post-medieval finds (CHER 07667) and architectural fragments in the form of large limestone carved blocks (CHER 07707). Medieval ponds were found just to the east of Manor Farm (CHER 02653), while a
medieval cross dating to the 13th/14th century was located at West End (CHER 02549) and a medieval dovecote 250m north-east of the site (CHER 02731).

1.3.12 St Mary's church 900m north-east of the site contains elements that originate from the 12th century (CHER 02706) and medieval pits have been uncovered near to the church boundary (CHER CB14753). Extensive ridge and furrow has been identified 1km to the north-west (CHERs 11501, 11502), 1km north-east (CHER 02746, 07690) and 1.3km north of the site (CHER 09259) respectively.

Post-Medieval

1.3.13 Activity dating to the post-medieval period largely relates to Brampton Park and features associated with it, with further remains of this date recorded to the north-east of the site. A post-medieval bridge is located near to the church, some of which has been rebuilt but 17th century masonry still remains (CHER 02553). A windmill depicted on a map from 1757 is known 1km north-east of the site (CHER 02555). Pepys House is located 1.3km north-east of the site: is a two storey timber house dating to the 16th century (CHER 02705). Manor Barn is recorded 1km north-east and comprised a hall, two parlours, a kitchen, a pantry and four chambers. This was attached to a barn, a stable, a cow house and a garden (CHER 02708).

Brampton Park

1.3.14 Brampton House and Park (MCB15297) lies partially within the development area. The first house, the location of which is now lost, had 12th century origins but by 1328 had fallen into disrepair and ruin (Page and Proby 1936). Brampton Park and gardens includes the current RAF base. The park is believed to have been larger than the current site, extending a little to the west - to include the dovecote - and to the north incorporating the fields between the modern boundary and the southern limit of the village. These fields are recorded in the HER as medieval strip fields that are evident on aerial photographs. As it would be unusual to have working fields within a formal park, the emparkment probably dates from the post-medieval period and may be associated with wider enclosure of the landscape.

1.3.15 In the 16th century the house and park were acquired by the Throckmorton family who rebuilt the house. In the 19th century the house was owned by Lady Olivia Bernard Sparrow who commenced a series of building and landscaping works, designing the entranceway, woodland area and formal gardens. Two other buildings erected at this time are also listed; the first is the gate lodge (Listed Building No. 54529), which is constructed of brick with a hipped thatched roof. The second is a coach house and stable block adjacent to the house. The structure is Grade II listed (Listed Building No. 54531). The building is two storeys and has a tiled hipped roof. To the south-west there is a tiled one storey former stable block. Following the death of Lady Olivia in 1863 and until 1907, the house was used as an institute for the treatment of speech impediment, referred to at the time as curing stammers (Daniell 2011, 12). In 1907 a devastating fire broke out in the grand eastern wing of the house, completely destroying this section of the building. A considerably smaller replacement was built and whilst sympathetic in design, the gothic detailing was not replicated. At this time the estate became home to Lord Mandeville (Ryan 2015, 9).

1.3.16 Fragments of the park survive, albeit overlain by the RAF base, with elements including a number of standard trees, some of them exotics, such as Douglas Fir and Cedar of Lebanon, which indicate a 19th century design. In addition, several garden features survive, including brick and stone benches, steps and terraces to the north and south of the house (Daniell 2011, 12). Within the wider landscape, evidence of a post-medieval
icehouse exists which is shown on 1st edition 25 inch Ordnance Survey maps of the 1860s and on the 1926 edition OS map (not illustrated). In the vicinity of the icehouse is the dovecote, of which the mound survives, which lies outside RAF Brampton’s perimeter but is likely to have been associated with the house; now the Officers’ Mess.

Modern

1.3.17 The Park was occupied by the military during the Great War (1914-1918) and used as a camp for German Prisoners of War. Following the end of hostilities the house was restored to Lord Mandeville, the civilian owner, who let the property, first as a domestic house and then as a nursery, providing a location for a London children’s’ home that was situated away from bombing (Daniell 2011).

1.3.18 In 1942 RAF Brampton was commissioned as an intelligence centre for the Royal Air Force, comprising an area of 20.6ha. The base was built to house RAF Support Command and JARIC: The National Imagery Exploitation Centre. Historical maps (not illustrated) detail the development of the site with the construction of the majority of amenity buildings shown to have occurred in the late 1940s to early 1950s.

Previous work at RAF Brampton

1.3.19 In March and April 2016 an excavation was undertaken on the playing fields at RAF Brampton some 600m south-west of the current site. This excavation area yielded archaeology dating to the Iron Age, Roman and post-medieval periods. The Iron Age phase consisted of part of an enclosure in the south-west corner of the site, alongside pits of the same phase. A total of eight Roman pottery kilns were uncovered, dating to 60 to 80 AD: these kilns produced large quantities of kiln furniture including clay plates and pedestals alongside Roman pottery. The kilns were producing lid seated jars with their associated lids. A small number of other features were identified dating to the Roman period, including a ditch and several pits. Post-medieval features comprised a series of inter-cutting ditches in the north of the site. Trackway ditches which relate the original Park Lane, the former southern boundary to Brampton park was also uncovered along with other ditches thought to be plot boundaries outside the Park boundaries (Nicholls 2016).

1.3.20 A second phase of excavation was undertaken in September to October 2016 approximately 80m south-west of the current site. Here a number of medieval features comprising pits, ditches, beam slots and well/tank features were uncovered dated from the 12th to 16th centuries. A large well or tank like feature was uncovered containing a number of use and disuse fills dating to the 14th century with a capping layer dated to the 16th century. At the bottom of this feature was a wooden structure, thought to represent shoring or revetment for this well or tank, most likely to aid in holding large amounts of water (Blackbourn 2017).

1.4 Acknowledgements

1.4.1 The author would like to thank Andy Girvan of Campbell Buchanan, who commissioned the work on behalf of JCAM Commercial Real Estate Property VII Limited. Thanks also to Breheny for providing a machine and other assistance on site.

1.4.2 The project was managed by Matthew Brudenell and monitored by Andy Thomas of Cambridgeshire County Council. The fieldwork was carried out by the author and Neus Esparsa Nogues.
2 AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The original aims of the project were set out in the Brief and Written Scheme of Investigation (Thomas 2016 & Brudenell 2016).

2.1.2 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.

2.1.3 The aims and objectives of the excavation were general due to the lack of knowledge for this specific area of the site. It was stated that further, more specific aims would be developed upon completion of the work and would be developed with reference to National, Regional and Local Research Agendas (Medlycott 2011). These are listed below.

2.2 Regional Research Aims

2.2.1 The origins and development of the different rural settlement types need further research, also the dynamics of medieval settlement. Much of the region has primarily a dispersed pattern, not nucleated, and more small hamlets are being discovered all the time. More data will add to our understanding of the way places appear, grow, shift and disappear (Medlycott 2011:70).

2.3 Site Specific Research Objectives

2.3.1 Chronology: To determine whether there are distinct phases of occupational activity on the site

2.3.2 Site function: Does the material and environmental evidence from the site, in particular the pits/tanks, tell us anything about the nature of activities being carried out here during the medieval period?

2.3.3 Location: Is this site contemporary with the site uncovered approximately 80m to the south west?

2.4 Methodology

2.4.1 The methodology used followed that outlined in the Brief (Thomas 2016) and detailed in the Written Scheme of Investigation (Brudenell 2016).

2.4.2 North Road was identified as an area for potential preservation of archaeological remains within Zone J (Fig. 3). Whilst the original aim had been to strip the entire eastern end of North Road, a combination of live services, ground contamination, and changes to the proposed new road construction made this impossible. In consultation with Andy Thomas of CHET, it was therefore agreed that the accessible sections alongside the road line would be trenched first, and decisions made on the need to expand areas into excavation zones on the basis of the preliminary results.
2.4.3 The initial phase of trial trenching comprised two trenches excavated to the north of North Road (Trench 45 and 46). Trench 45, to the east measured 50m long and 1.8m wide, whilst Trench 46 to the west measured 55m long and 1.8m wide (Fig. 4).

2.4.4 A small number of archaeological features were observed within Trench 46, and following further consultation with Andy Thomas of CHET, two further trenches were excavated (47 and 48) to establish the extent of the remains in this area (Fig. 4). Both trenches measured 23m in length and reached the northern limits of the development area. Further archaeological features were recorded, and an area was defined by the CHET for strip, map and sample excavation, measuring 12.5m by 10m. The excavation area was limited on all four sides by concrete footings, tree protection zones and live services.

2.4.5 Machine excavation was carried out by a 360 type excavator using a 1.8m wide flat bladed ditching bucket, under constant supervision of a suitably qualified and experienced archaeologist.

2.4.6 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.

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

2.4.8 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.

2.4.9 Environmental samples were taken from seven features, focused on dark organic fills of large pit/tanks.

2.4.10 The water table at the site was encountered at just 0.3m below the surface of the natural, which made digging the larger features difficult, but had led to the preservation of certain materials, such as leather.
3 RESULTS

3.1 Introduction
3.1.1 The following section describes the results of the fieldwork by phase, supplemented by a context list (Appendix A), overall phase plans, in addition to a selection of sections and photographs. Cut features such as ditches or pits are shown in **bold** in the text. Finds and environmental remains are noted in the descriptions where relevant, with summaries provided at the end of the Section that give an overview of the specialist reports included as Appendices B and C. The excavation results are discussed within their wider context and with reference to the project’s research aims and objectives in Section 4.

3.2 Trenches 45 and 46
3.2.1 Two initial trenches (Trenches 45-46; Figs 4 and 5) were excavated to the north of and alongside North Road to investigate the presence of archaeological remains.

3.2.2 The eastern trench (Trench 45) measured 50m in length and reached depths of 1.6m (Plate 1). No archaeology was observed and the soil profile was heavily disturbed, with no surviving subsoil. The only remains recorded were the footing trenches and services of the former RAF buildings.

3.2.3 Trench 46, to the west, measured 55m in length and 1.2m in depth. The soil profile was also disturbed, and further modern truncation was recorded, consisting largely of concrete footings. However, pit **579** survived at the eastern end of the trench. The pit measured 1.74m wide and 0.46m deep, displaying vertical sides and a flatish base (Fig. 6, Section 238). Its single fill (580) consisted of a mid orange brown clayey silt that contained two sherds of pottery (26g) dating from the 12th to 13th century.

3.2.4 Further west, toward the centre of the trench was pit **575**, which measured 1.25m wide and 0.2m deep with a concave profile. Its single fill (576) consisted of a mid brown grey clayey silt that contained no finds.

3.2.5 Ditch **577** was recorded at the western end of Trench 46. The ditch was aligned north-west to south-east and measured 1.12m wide and 0.3m deep. It displayed steep sides and a concave base (Fig. 6, Section 237, Plate 2), and was filled with a single deposit of mid brown grey clayey silt. The ditch yielded 52 sherds of pottery (835g) dated to the 12th to 15th century alongside cattle bone. An environmental soil sample taken from the fill yielded no charred remains.

3.3 Trenches 47 and 48
3.3.1 Following the excavation of Trenches 45 and 46, a second phase of trenching was conducted in order to further define the area of archaeological remains around Trench 46.

3.3.2 Two trenches, both 23m long (Trenches 47 and 48; Figs 4 and 5), were excavated northwards from Trench 46. The trenches were 0.9-1.2m deep with disturbed soil profiles from the demolition of the former RAF buildings.

3.3.3 To the west, two parallel ditches and a pit were revealed in Trench 48. Pit **581** was located at the southern end of the trench and measured 1.8m wide and 0.24m deep (Fig. 6, Section 239, Plate 3). The pit had gently sloping sides and a flat base and was filled with a mid brown grey clayey silt. No finds were recovered from the pit.
3.3.4 At the northern end of the trench were two parallel ditches, 581 and 585. The ditches were both aligned north-east to south-west. No relationship could be discerned between the two ditches due to the similarity of their fills. Ditch 583 measured 0.8m wide and 0.2m deep with steep sides and a concave base. Its single fill (584) consisted of a light brown grey clayey silt and contained no finds. Directly south of this was ditch 585 which measured 1.12m wide and 0.14m deep. Its single fill (586) also consisted of a light brown grey clayey silt and contained no finds.

3.3.5 The excavation of Trench 47 revealed two large pits at the southern end of the trench. These features were examined in the subsequent excavation phase, and are detailed below.

3.4 Excavation

3.4.1 Following a consultation with CHET on the results of Trenches 46-48, an area measuring 12.5m by 10m was stripped for excavation. This revealed a series of medieval features comprising pits, ditches, beamslots and large pit/tank-like features dating to the 14th century (Fig. 4). This section describes these features sequentially, and where possible, stratigraphically.

3.4.2 The natural consisted of a mid orange yellow clayey sand. A mid brown grey clayey silt subsoil survived in patches, but was otherwise truncated as a result of the demolition process. Overlying the subsoil was a mixture of modern disturbance and make-up layers.

**Boundary ditch 577/607**

3.4.3 Stratigraphically, ditch 577/607 was the earliest features exposed within the excavation area, and was first revealed in Trench 46 where it yielded 52 sherds (835g) of 12th to 15th century pottery and cattle bone (see Section 3.2.5 above).

3.4.4 The ditch could be traced for a total of 12.3m, on a north-west to south-east alignment. However, its line was was completely truncated by modern disturbance is one section, and was further cut by pits 614/621 and 604 and beamslot 602.

3.4.5 The north-west terminal of the ditch (607) was 0.6m wide and 0.1m deep. As with the slot in Trench 46, the ditch had a single fill of mid brown grey clayey silt (Fig. 6, Section 246). No finds were recovered from the terminus.

**Beamslot structure**

3.4.6 Three beamslots (598, 600 and 602) were partially exposed at the northern end of the excavation area, forming three sides of a small sub-square structure measuring 5m by 4.5m (Plate 4).

3.4.7 Beamslot 598 had a north-east to south-west alignment and measured 0.38m wide and 0.15m deep with moderately steep sides and a concave base (Fig. 6, Section 243). Its single fill (599) consisted of a mid brown grey clayey silt that contained two sherds (22g) of medieval pottery dating from the 11th to 15th centuries. An environmental soil sample taken from the fill yielded no charred remains (App. C1).

3.4.8 To the east was beamslot 600, which had a north-west to south-east alignment and measured 0.34m wide and 0.1m deep with moderately steep sides and a concave base. Its single fill (601) consisted of a mid brown grey clayey silt that contained no finds.

3.4.9 The surviving southern arm of the structure was formed by beamslot 602 which had a north-east to south-west alignment. This measured 0.35m wide and 0.1m deep with
moderately steep sides and a concave base. Its single fill (603) consisted of a mid brown grey clayey silt that contained no finds. The beamslot appeared to cut ditch 577/602.

Pits 604 and 596

3.4.10 Two pits were located within the footprint of the beamslot structure: pits 604 and 596.

3.4.11 The more westerly example, pit 604, which cut ditch 607, measured 1.64m wide and 0.6m deep with near vertical sides and a slightly concave base (Fig. 6, Section 246, Plate 5). The basal fill (605) measured 0.34m thick and was the result of slumping on the northern side of the pit; an event which most likely occurred whilst the pit was in use. This fill consisted of a mid yellow orange silty sand that contained frequent gravel inclusions but no finds. Overlying this was fill 606 that measured 0.26m thick and consisted of a dark bluey grey silty clay. This fill most likely formed during the use of this feature. A tree branch was also identified within this fill lying up against the northern side of the cut, which possibly acted as a support to the sides of this feature. The uppermost fill (609) measured 0.34m thick and consisted of a mid brown grey clayey silt that contained no finds.

3.4.12 Pit 596 was located adjacent to the northernmost beamslot and measured 0.68m wide and 0.26m deep with steep sides and a fairly flat base (Fig. 6, Section 242). Its single fill (597) consisted of a mid brown grey clayey silt that contained no finds. This fill was environmentally sampled and contained two poorly preserved cereal grains and a pea-sized legume (App. C1).

Pits/tanks 617 and 587

3.4.13 Two large sub-circular pit/tank-like features were revealed at the centre of the excavation area (Plate 6). The most northerly (and earlier) of these was feature 617 = 610 which measured 2.9m by 2.78m and 0.65m deep with very steep, near vertical sides and a slightly concave base (Fig. 6, Sections 247 and 248, Plate 7).

3.4.14 This pit contained three fills, the lowest of which (618=611) measured 0.4m thick and represented a slumping deposit derived from the northern side of this feature. This fill consisted of a light yellow orange silty sand that contained no finds. Overlying this was fill 619/612 which measured 0.3m thick and consisted of a dark bluey grey silty clay that contained five sherds (183g) of medieval pottery dated to the 11th to 15th centuries, alongside cattle and horse bone. An environmental sample taken from the interface of fills 611 and 619 contained degraded waterlogged plant material in the form of roots and small shrub-wood fragments, with seeds of elderberry and buttercup. The uppermost fill (620=613) measured 0.3m thick and consisted of a mid brown grey clayey silt that contained sheep/goat and other medium-sized mammal bones. A further environmental sample of this deposits contained only a single charred wheat grain but no evidence for waterlogging (App. C1).

3.4.15 Pit/tank 617 was cut by larger pit/tank 587 (= 614 and 621) on its southern side. This feature measured 5.35m by 3.55m and 0.9m deep with near vertical sides and a flat to slightly concave base (Fig. 6, Sections 241, 247 and 249, Plates 8 and 9). The feature contained a number of use and disuse fills. Two fills (588 and 589) were identified on the southern and western sides of the feature and measured 0.1m thick; representing primary slumping whilst the feature was in use. These fills consisted of a mid yellow orange silty sand that contained frequent gravel inclusions.

3.4.16 Basal fill 590 (=622) measured 0.5m thick and consisted of a dark blue grey organic silty clay and may represent the use of this feature. This fill contained four sherds
(165g) of pottery dated to the 14th to 15th centuries alongside cattle and horse bone. Two of these sherds (111g) belonged to an Early Everton-type ware rounded bunghole jug or cistern (Fig. 8), with fragments of the same vessel also found in upper fills (in 592 and 595) of the pit suggesting rapid infilling. Fill 590 also yielded the remains of at least two leather shoes (Figs 8a-b), one of which was part of a left adult shoe and the other a sole fragment and sole repairs. Two environmental samples taken from this fill contained evidence for a waterlogged assemblage composed of rootlets and shrub-wood material with indeterminate thorns and buds. The samples also contained seeds of cow parsley, knotweed, pale persicaria, goosefoots, dead nettles, docks, bramble, fools parsley and evidence for hemp. A pollen sample was also processed from the fill and was found to contain pollen of grass, dandelion, ribwort, docks and the carrot and pea family (App. C1).

3.4.17 Overlying this basal deposit was fill 591 (=623) which measured 0.12m thick and consisted of a mid green grey clayey silt that appeared to represent a dump of material whilst the feature was still in use. Above was fill 592 (=624), which measured 0.26m thick and consisted of a dark bluey grey silty clay that was very similar to fill 590. This fill was very organic and contained 32 sherds (1773g) of 14th to 15th century pottery and a residual sherds of Roman pottery. Two fragments of late medieval ceramic building material (200g) were also recovered, together with fragments of a leather adult sized sole (Fig. 9a) and upper fragment, oyster and mussel shell, and a pig bone which appeared polished. Environmental samples taken for the fill contained a similar waterlogged assemblage to fill 622, but also contained wild radish, corncockle, nettles and stones of cherry and bullace/damson, along with a waterlogged seed of grape/raisin. A charred assemblage comprising barley grains and occasional oats, wheat and peas were also recovered (App. C1).

3.4.18 A 0.1m thick layer of mid orangey brown clayey silt with frequent gravels (fill 593=625) capped the organic layers of the pit/tank. This was sealed by a sump of mid yellow orange silty sand (594) on the southern side of the feature. Finally, the uppermost fill (595=626) measured 0.32m thick and consisted of a mid brown grey clayey silt. This contained eight sherds (247g) of pottery, largely dating to the 12th to 15th centuries. It also yielded a fragment of a lava rotary quern, a partial whetstone and large mammal and sheep/goat bones (App. B and C).

3.5 Finds Summary

3.5.1 The small pottery assemblage includes 107 sherds weighing 3.246kg. It comprises an early late medieval and late medieval assemblage with a peak of activity centred in the mid 14th century. The assemblage is domestic in nature and the bulk of it is represented by a single vessel (weighing 1.884kg) recovered from pit/tank 587. A single sherd of residual Roman pottery was also recovered from this feature.

3.5.2 Two fragments of ceramic building material, weighing 200g, were recovered from pit/tank 587 alongside evidence for a rotary quern and a fragment of whetstone from pit 621 (=587); both suggestive of domestic or craft-related activity.

3.5.3 A number of fragments of leather representing at least three shoes were recovered from the fills of pit/tank 587. The items were made from cattle hide and appear to represent cobbling waste.

3.6 Environmental Summary

3.6.1 Ten samples were taken from features on site, seven of which came from the pit/tank like features (587=621 and 610=617). Ditch 577 and beamslot 598 were devoid of plant
remains but the pit/tank features contained large waterlogged assemblages. Significantly pit/tank 587 contained evidence for hemp which suggests the pits may have been use for retting. Charred grains of wheat, oats and barley were also recovered.

3.6.2 A sub-sample from fill 622 (621) was sent for pollen analysis and was found to contain pollen of grass, dandelion, ribwort, docks, the carrot and pea family. No hemp pollen was recovered.

3.6.3 A small quantity of animal bone was recovered from features on the site (1.116kg) consisting of cattle, horse, sheep/goat and pig. Cut marks were noted on a horse femur from pit/tank 610 and four medium mammal ribs from pit/tank 621. A pig femur from fill 624, pit/tank 621 has been polished.

3.6.4 Only three fragments of oyster and mussel shell weighing 32g were recovered from fill 624 from pit/tank 621.
4 DISCUSSION AND CONCLUSIONS

4.1 Introduction
4.1.1 A number of features were uncovered by the excavation along North Road, which centred upon a small area of surviving archaeological remains measuring just 12.5m by 10m. Although the soil profile of the site was heavily disturbed, with only patchy survival of subsoil between zones of extensive truncation, a number of medieval features were preserved including beamslots, a ditch, two pits and two large pit/tank-like features. These features, combined with the artefactual and ecofactual assemblages recovered from them, allow for a discussion of site chronology and interpretation of feature functions, as well as a consideration of wider medieval activity at RAF Brampton.

4.2 Chronology and sequence of activity
4.2.1 A basic objective of the investigation was to determine the date of features and the duration of activity along North Road. Pottery has provided key evidence in meeting this objective, with a total of 107 sherds (weighing 3246g) recovered from the excavation, representing a minimum of 26 vessels. The pottery dates from the 12th to the 15th centuries, with an apparent peak in material dating from the 14th century.

4.2.2 Given the limited scale of the excavations and the dates assigned to the pottery, no attempt has been made to further sub-phase the archaeology at the site. However, based on the limited stratigraphic associations and spatial relationships between features, it is possible to outline the broad sequence of activity.

4.2.3 On stratigraphic grounds the earliest feature encountered was ditch 577/607, aligned north-west to south-east, which terminated in the northern half of the excavation area. This ditch is thought to have formed part of a rectilinear boundary, with the northern arm of the plot defined by the north-east to south-west aligned ditches 583 and 585 in Trench 48. These ditches did not extend into the excavation area, but were aligned at right angles to 577/602, and presumably terminated to the east of Trench 47.

4.2.4 Ditch 577/607 was cut by beamslot 602 which formed part a small sub-square structure located at the terminus of the ditch line. The remains of three shallow beamslots survived (598, 600, 602), measuring 0.34-0.38m in width and 0.1-0.15m in depth, with the structure dimensions being roughly 5m by 4.5m. Whilst the building cut the ditch 577/607, it was orientated in line with the boundary, and may have lain within the corner of the former putative enclosure delineated by ditches 577/607 and 583 and 485.

4.2.5 With only two sherds of pottery (22g) recovered from beamslot 598, little can be deduced about the function of the structure. Pits 596 and 604 were located within the footprint of the building, but whilst 596 may have been contemporary, it seems unlikely that 604 was, given its size and position. More interestingly, the eastern terminal of beamslot 602 and the southern terminal of 600 appear to respect pit/tank 617, suggesting the structure may have been contemporary with, if not functionally related to, the tank.

4.2.6 Pit/tank 617 measured 2.9m by 2.78m and was 0.65m deep with very steep, near vertical sides and a slightly concave base. This was cut by a larger pit/tank, 587 (5.35m by 3.55m and 0.9m deep) on its southern side. This displayed a similar profile and fill sequence, and was possibly a direct replacement of this feature. Pit/tank 587 appears to have been the latest feature revealed, and yielded the largest assemblage of pottery (46 sherds, 2206g), the bulk of which dates to the 14th century. The key diagnostic
ceramics from the pit were sherds from a single Early Everton-type ware bunghole jug or cistern (Fig. 8; 34 sherds, 1995g); fragments of which were found across the middle and upper fills of the feature. The sherds are thought to represent primary deposition, and suggest the feature was beginning to go out of use around the late 14th century.

4.2.7 Overall, whilst it is possible to give some of sense of the feature sequence at this site, all are broadly roughly contemporary on ceramic grounds, and are likely to date to between the mid-late 14th century. The only earlier feature was pit 579 in Trench 46, which yielded 12th-13th century pottery. No pottery later than c.1500 was recovered and it seems likely that activity to which these features related had ceased or relocated elsewhere.

4.3 Medieval 'industrial' features

4.3.1 The second objective of the investigation was to determine whether the material and environmental evidence from the site, in particular that from pits/tanks 617 and 587, could yield information about the nature of activities on and around the site during the medieval period.

4.3.2 The narrow window of the excavation, coupled with the high degree of truncation, inevitably limits the possibility of fully understanding the nature of activities and the function of different features at the site. That being said, sufficient evidence survives to provide a general impression of the site and the character of occupation.

4.3.3 As summarised above, the key components of the site include the boundary ditches, pits, a beamslot structure and two large pit/tanks. The small size of the sub-rectangular beamslot structure suggests it was not a domestic dwelling, but perhaps a shed-like building located in the corner of a once ditch-defined plot (demarcated by the silted boundaries of 577, 583 and 585). The exact function of the structure is difficult to determine, but the paucity of finds from the beamslots, and the smaller pits and ditches suggests that this area of activity was peripheral to a focus of settlement, with most features yielding no finds or just a few sherds of pottery and animal bone.

4.3.4 Larger material assemblages were recovered from ditch slot 577 and pit/tanks 617 and 587, but even including these tallies, the overall finds quantity for the site is relatively small. The faunal assemblage, for example, included just 16 fragments of bone (1116g), with sheep/goat, pig, cow, and horse all represented (App. C.2). Whilst a few cut marks indicative of de-fleshing were noted on some of the bones, with the exception of partially polished pig femur from pit/tank 587, the assemblage is otherwise unremarkable. The pottery assemblage is similarly small for a medieval site, with only 107 sherds (3246g) recovered, nearly half of which belongs to a single vessel deposited in pit 587. In general, the pottery is broadly domestic in nature, again indicative of settlement close-by, but seemingly not on the site itself.

4.3.5 Finds including the quern fragment, whetstone and the two pieces of ceramic building material add to this general impression of activity in proximity to settlement. Information relating to site conditions and activities, however, was provided by remains recovered from the waterlogged deposits in pits/tanks 617 and 587. Most important are the 25 fragments of leather recovered from fills 592 and 622 of pit/tank 587, which included parts of three shoes (Fig. 9a-b). The styles of shoe were commonly worn from the 14th to the 15th centuries, and are contemporary with the pottery recovered. The sole of the more complete shoe had been cut up, whilst the fragments appear to comprise old, worn out parts that had been discarded when no further use could be made of them. This suggests the assemblage represents cobbbling waste, and that shoe-making and shoe repairs were being conducted in the vicinity (App. B4).
4.3.6 The waterlogged deposits from pits/tanks 617 and 587 also yielded information on the surrounding environment as well as the function of these features. Sampling of the fills produced tough, woody material along with seeds from brambles and fruit trees, indicating the presence of scrub-land and hedgerow, with nettles suggestive of nutrient soils associated with disturbed ground and animal occupation. Charred cereal grains and legumes were also present in small quantities including barley, oats, wheat, rye and peas; species all common in the medieval period and suggestive of a developed agricultural economy.

4.3.7 More significantly, hemp seeds were recovered from pit/tank fills 592 and 622. These are a relatively rare archaeobotanical find, despite the plant being commonly cultivated throughout the medieval period, and used in the production of rope and cloth. The presence of hemp in this setting therefore suggests that these large water-filled pits may have been constructed and used for retting; the process in which stems of hemp are submerged in water and left to partially decompose to enable fibre extraction. Indeed, the absence of evidence for certain aquatic plants that commonly colonise open, water-filled features, hints that the pits were covered, lending support to the theory. Unfortunately, there was no corroborating evidence from pollen analysis, although the hemp pollen may not have filtered down into the deepest fills (M. Rutherford pers. comm.). The retting process produced a foul odour, and would preferably have been undertaken at some distance from settlement, which would be in keeping with the location of the Brampton site.

4.3.8 Medieval retting pits have previously been uncovered in the county at Soham (Mortimer 2007). These had similar characteristics and dimension to those at North Road, with one measuring 7m long and 1m deep with a broad V-shaped profile, and containing dark-coloured fills that produced waterlogged remains. Analysis of environmental samples identified a strong pollen signal for hemp (Cannabis). The finds assemblage from this feature included large quantities of 15th century Essex redwares, well-preserved leather shoes and parts of two wooden bowls (Mortimer 2007, 75).

4.4 Relationship with medieval remains from Central Avenue, RAF Brampton

4.4.1 The medieval activity at North Road is broadly contemporary with that uncovered in previous the investigations along Central Avenue, c.80m south-west of the site (Blackbourn 2017). Here, two phases of medieval activity were identified dating from the 12th to 14th century and the 14th to 16th century. Interestingly, the nature of the remains and overall character of the activity was broadly similar, with a comparable range of features uncovered: non-domestic structures, ditches forming parts of rectilinear enclosures, and large pit/tank-like features.

4.4.2 Whilst the Central Avenue excavation yielded a larger finds assemblages, including a wider range of artefact types such as metalwork, brick and tile fragments, both sites appear to have been on the periphery of contemporary settlement. Most significantly, both have large waterlogged tank-like features of similar dimensions; that from Central Avenue preserving a wooden revetment structure at its base. Interpretation of the functions of the pits at the Central Avenue site was slightly ambiguous, but based on the results from North Road, it may be that all of these features were also retting pits.

4.5 Significance

4.5.1 Even though the area along North Road was heavily truncated by former RAF buildings, the investigations identified a small area of medieval activity contemporary with that from Central Avenue, c.80m to the south-west. This appears to have spanned
the period between the 12th to 15th centuries, with the main focus of activity centred upon the 14th century.

4.5.2 Features identified comprised a non-domestic sub-square structure, boundary ditches forming part of a rectilinear enclosure, pits and two large waterlogged pits/tank-like features possibly used for hemp retting. Whilst notable finds include fragments of three leather shoes and cobbling waste, the overall quantity of artefacts recovered was relatively low, and the range limited, suggesting the site was located towards the edge of a settlement focus.

4.5.3 Given the proximity to the Central Avenue site, the remains from North Road may belong to the same swathe of medieval activity, possibly associated with Brampton House. An early estate map (dated 1840) shows that these features were located to the north of the (later) Carriage Road (Fig. 7) that may follow the route of an earlier track or boundary. The history of Brampton Park, and probably that of the house, can be traced back to the 12th century, and was originally referred to as a manor (Page and Proby 1936). No details are known about the first house or its exact location, but by 1328 it had reportedly fallen into disrepair and ruin (Page and Proby 1936). If the original house had been constructed in the same area as the later house, this would suggest that the retting pits and other non-domestic remains would have been sited some distance to the east of the manorial centre. No pottery later than c.1500 was recovered from this site, while that from the nearby Central Avenue excavation suggested that infilling of features took place slightly later, in the mid to late 16th century, with no later activity recorded. This latter date broadly coincides with the time that the Throckmorton family acquired the Park and rebuilt the house (Page and Proby 1936), which combined with the excavated evidence suggests that there may have been a wider programme of estate reorganisation at this time.

4.5.4 The medieval remains uncovered in the excavations at both sites were broadly contemporary with the first historic records of the house. Whilst there was no direct evidence for the house itself in the area examined, nor in that from previous archaeological investigations at RAF Brampton (Stocks-Morgan 2015; Nicholls 2016; Blackbourn 2017), the remains exposed could relate to a wider manorial complex of buildings, working areas and related dwellings likely to have existed in its vicinity.
## APPENDIX A. TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

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<td>0.6</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>609</td>
<td>604</td>
<td>fill</td>
<td>pit</td>
<td>Disuse</td>
<td>1.64</td>
<td>0.34</td>
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</tr>
<tr>
<td>610</td>
<td>617</td>
<td>cut</td>
<td>Pit/well/tank</td>
<td>Industrial</td>
<td>2.78</td>
<td>0.65</td>
<td></td>
</tr>
<tr>
<td>611</td>
<td>610</td>
<td>fill</td>
<td>pit</td>
<td>use</td>
<td>0.9</td>
<td>0.1</td>
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<tr>
<td>612</td>
<td>610</td>
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<td>pit</td>
<td>use</td>
<td>2.78</td>
<td>0.4</td>
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<td>610</td>
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<tr>
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<td>587, 621</td>
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<td>614</td>
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<td>Disuse</td>
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<td>0.5</td>
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<tr>
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<td>610</td>
<td>cut</td>
<td>Pit/well/tank</td>
<td>Industrial</td>
<td>2.78</td>
<td>0.65</td>
<td></td>
</tr>
<tr>
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<td>617</td>
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<td>Slump</td>
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</tr>
<tr>
<td>620</td>
<td>617</td>
<td>fill</td>
<td>pit</td>
<td>Disuse</td>
<td>2.8</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>621</td>
<td>587, 614</td>
<td>cut</td>
<td>Pit/well/tank</td>
<td>Industrial</td>
<td>3.55</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>622</td>
<td>621</td>
<td>fill</td>
<td>pit</td>
<td>Use</td>
<td>3.5</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>623</td>
<td>621</td>
<td>fill</td>
<td>pit</td>
<td>Dump</td>
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<td>0.12</td>
<td></td>
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<tr>
<td>624</td>
<td>621</td>
<td>fill</td>
<td>pit</td>
<td>Use</td>
<td>1.5</td>
<td>0.14</td>
<td></td>
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<tr>
<td>625</td>
<td>621</td>
<td>fill</td>
<td>pit</td>
<td>capping</td>
<td>3.5</td>
<td>0.04</td>
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</tr>
<tr>
<td>626</td>
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<td>fill</td>
<td>pit</td>
<td>disuse</td>
<td>3.55</td>
<td>0.3</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B. FINDS REPORTS

B.1 Worked Stone

By Carole Fletcher

Introduction and methodology

B.1.1 A small assemblage of worked stone artefacts was recovered. The functional categories used are those defined by Crummy in 1983 and 1988: category 4 household items and furniture, category 10 tools. The artefacts are a fragment of a lava quern and a whetstone or hone stone.

Condition

B.1.2 The stone items are stable, although the whetstone, having possibly been burnt, has somewhat fractured surfaces. Neither object requires specialist storage or packaging. The worked stone and archive are curated by Oxford Archaeology East until formal deposition.

Assemblage

B.1.3 A rotary lava quern fragment was recovered from fill 595 (pit 587), which produced 14th century pottery. Lava querns from the Mayen-Niedermendig area of the Eifel Hills region of Germany were imported into Britain (as blanks) from the Late Iron Age into the later medieval period, when the use of querns was restricted as the tolls charged for the use of the manorial mill were an important source of income (Watts 2002, 40).

B.1.4 Context 626 (pit 621) contained a partial whetstone or hone stone. A long, relatively narrow, rod-shaped stone, sub-rectangular in section, with rounded corners, one broken end and slightly waisted. The surfaces are somewhat fractured and slightly discoloured as if burnt and only a single side remains smooth from use. The whetstone is a silver-grey mica schist, a Norwegian Ragstone, from quarries around Eidsborg, Telemark, Norway. Norwegian Ragstone hones appear in Late Saxon times, reached a position of near dominance throughout much of England in medieval times and their use lasted until recently (More 1978, 72). Crummy indicates that the hones from Colchester suggest a medieval, but not post-medieval, date for the trade (Crummy 1988, 77). The context also produced a single sherd of Late Medieval Reduced ware and, unlike the quern whose use was restricted in the 13th century, the whetstone is likely to be contemporary with the 14th century pottery and may have been used for sharpening domestic or agricultural implements.

Discussion

B.1.5 Both items most likely originated in a domestic setting, yet both are also strongly linked to agriculture. Neither worked stone object is closely datable and although Roman pottery was recovered from the evaluation trenches across the larger area (Lyons 2015), little was produced by this phase of work, suggesting that the quern is likely to be medieval and may have been reused in the late medieval period as a floor or hearth stone. The hone is likely to be contemporary with the late medieval pottery recovered from the same feature.
Catalogue

Category 4: Household utensils
SF49. Fragment of a rotary (Niedermendig) lava quern upper-stone, approximately triangular in form, shallow wedge-shaped in section. Diameter in excess of 340mm, up to 440mm due to slightly uneven nature of the surviving outer edge. Thickness at outer edge 20mm, increasing to 34mm at surviving central point. The fragment has broken before the central hole. The upper surface is coarsely pecked, the lower surface has straight furrows, possibly forming a complex pattern; the furrows are approximately 3 mm deep. The grinding surface appears slightly worn, but there is very little polishing of the surface, which is slightly discoloured in places, possibly indicating sooting. Weight 256g. Pit 587. 595.

Category 10: Tools
SF48. Incomplete silver-grey mica schist whetstone or hone stone, sub-rectangular with rounded corners, somewhat waisted due to use, giving the whetstone a tapered appearance. Broken in antiquity at narrowest point. One face is smooth and worn concave with use as a sharpening surface, although fractures in the stone are visible. The remaining faces are rough and somewhat fractured, the fourth face has lost a considerable amount of its surfaces towards the broken end. This may in part be the result of use, as it slopes towards the break and a small area is slightly grooved, perhaps from the sharpening of a point, however, this is uncertain, as the remaining surface is badly fractured. Maximum length 112mm, at unbroken end thickness 38mm and width 34mm, at waist 34mm by 34mm. Weight 251g. Pit 621. 626

B.2 Pottery

by Carole Fletcher

Introduction

B.2.1 The excavation produced a pottery assemblage of 107 sherds, weighing 3.246kg, representing a minimum of 26 vessels. The assemblage includes a single sherd of Roman pottery, however, the main group spans the mid 13th to the mid 16th century. The bulk of the assemblage comprises a single 14th century vessel (Fig. 8). The condition of the overall assemblage is moderately abraded and the mean sherd weight is moderate at approximately 0.030g.

Methodology

B.2.2 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.2.3 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 (Spoerri 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.2.4 The open area excavation was carried out by hand and selection made through standard sampling strategies on a feature by feature basis. There are not expected to be any inherent biases.
B.2.5 Ceramic fabric abbreviations used in the summary catalogue and the total sherd count and weight of all fabrics are given in Table 1.

<table>
<thead>
<tr>
<th>Full Name</th>
<th>Fabric</th>
<th>MNV</th>
<th>No. Sherds</th>
<th>Weight (kg)</th>
<th>% by Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brill/Boarstall ware</td>
<td>BRILL</td>
<td>1</td>
<td>1</td>
<td>0.021</td>
<td>0.6</td>
</tr>
<tr>
<td>Developed St Neots-type ware</td>
<td>DNEOT</td>
<td>2</td>
<td>3</td>
<td>0.065</td>
<td>2.0</td>
</tr>
<tr>
<td>Early Everton-type ware</td>
<td>ELEVER</td>
<td>1</td>
<td>34</td>
<td>1.995</td>
<td>61.5</td>
</tr>
<tr>
<td>Huntingdon Late Medieval Calcareous ware</td>
<td>HUNCAL</td>
<td>3</td>
<td>16</td>
<td>0.209</td>
<td>6.4</td>
</tr>
<tr>
<td>Huntingdonshire Fen Sandy ware</td>
<td>HUNFSW</td>
<td>3</td>
<td>4</td>
<td>0.051</td>
<td>1.6</td>
</tr>
<tr>
<td>Late Medieval Reduced ware</td>
<td>LMR</td>
<td>4</td>
<td>4</td>
<td>0.098</td>
<td>3.0</td>
</tr>
<tr>
<td>Lyveden A-type Shelly ware</td>
<td>LYVA</td>
<td>5</td>
<td>37</td>
<td>0.720</td>
<td>22.1</td>
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<tr>
<td>Medieval Sandy Coarseware</td>
<td>MSW</td>
<td>1</td>
<td>1</td>
<td>0.010</td>
<td>0.3</td>
</tr>
<tr>
<td>Roman Sandy Greyware</td>
<td>SGW</td>
<td>1</td>
<td>1</td>
<td>0.011</td>
<td>0.3</td>
</tr>
<tr>
<td>Shelly wares</td>
<td>SHW</td>
<td>3</td>
<td>3</td>
<td>0.046</td>
<td>1.4</td>
</tr>
<tr>
<td>St Neots-type ware/Developed St Neots-type ware</td>
<td>NEO/T/DNEOT</td>
<td>2</td>
<td>3</td>
<td>0.024</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>26</td>
<td>107</td>
<td>3.246</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Fabrics present in the assemblage

**Pottery By Ceramic Period**

A single sherd of Romano-British pottery was recovered as a residual element from pit 587/621. Roman pottery was also recovered from the evaluation of the larger site (Lyons 2015), however none was recovered from the area 100m south-west of the current site. A small amount of early medieval pottery, St Neots-type ware/Developed St Neots-type ware and Developed St Neots-type ware sherds, were recovered during the excavation, comprising less than 3% of the total assemblage by weight. Medieval fabrics form 26% of the assemblage and include Brill/Boarstall ware, Huntingdonshire Fen Sandy ware and Lyveden A-type Shelly ware, which alone comprises approximately 22% of the medieval assemblage.

B.2.7 The bulk of the assemblage is 14th century medieval to late medieval transitional pottery, Early Everton-type ware, approximately 62% of the total assemblage. The pottery from Everton is discussed in Slowikowski (Slowikowski 2011) and in Spoerry (Spoerry 2016 228-9). A further 6% is Huntingdon Late Medieval Calcareous ware (1300-1450). A small number of Later Medieval Reduced ware sherds are also present, this suggests that the peak of activity is the mid-end of the 14th century, and that the site was likely abandoned or had undergone a change of use by the mid 15th century. By comparison the excavation 100m south-west of the current site, appears to have survived into the 16th century (Fletcher 2017)

**Provenance**

B.2.8 There is a moderate range of fabrics of local and non-local origin present in the assemblage from a moderate range of sources with one obvious exception - there are no imported wares. The majority of the assemblage originated in Bedfordshire, including the Early Everton-type ware, organisationally in Bedfordshire, but only 800m from the Cambridgeshire border (Spoerry 2016 228). Northamptonshire fabrics, mostly Lyveden
A-type Shelly ware, are the next largest group, while Cambridgeshire fabrics make up only 8% of the assemblage. A single sherd of Brill/Boarstall ware is the only material from Buckinghamshire and is also the only glazed vessel sherd in the assemblage.

Form

B.2.9 The vessels present in the assemblage are primarily domestic in nature comprising mainly jugs (c.62% by weight), followed by bowls (c.18% by weight), the bulk of which are Lyveden A-type Shelly ware with a single example of a Huntingdon Late Medieval Calcareous ware bowl. Jars form the smallest percentage of vessels present, which also fits with a later date for the assemblage, examples of both bowls and jars were sooted, indicating their use in food preparation. No specialist forms were identified within the assemblage.

The Assemblage In Relation to Archaeological Features

B.2.10 Five features produced pottery including three pits which produced the majority of the assemblage. Pit 579 produced two sherds from a sooted Huntingdonshire Fen Sandy ware jar c.1175-1300, a Huntingdonshire Fen Sandy ware sherd was also recovered from pit 610/617, alongside Lyveden A-type Shelly ware and sherds from a Huntingdon Late Medieval Calcareous ware bowl, suggesting a date of c.1300-1450 for pit 610/617.

B.2.11 Pit 587/621, produced the largest assemblage recovered from the site, a total of 46 sherds weighing 2.206kg, representing an MNV of 11 and forming approximately 68% of the total assemblage by weight. A single Early Everton-type ware rounded bunghole jug or cistern (34 sherds, 1.995kg) was the main vessel recovered, large sherds from the upper part of the vessel and handle were recovered. The jug 'has affinities with the stabbing and slashing found on the handles of contemporary Brill–Boarstall pottery [...] [and] on 14th-century pottery from Potterspury' (Spoerry 2016, 229). The vessel is very distinctive and is fully described in the illustration catalogue (Fig. 8). The sherds may represent primary deposition.

B.2.12 Also present was the only glazed sherd the assemblage produced from a Brill/Boarstall ware jug and Huntingdonshire Fen Sandy ware, Lyveden A-type Shelly ware and a single residual Roman Sandy Greyware sherd. A total of three Late Medieval Reduced sherds (MNV 3, 0.068kg) were also recovered, overall dating the feature to mid-end of the 14th century.

B.2.13 Beamslot 598 produced a rim sherd from a Developed St Neots-type ware jar and a Medieval Sandy Coarseware sherd, while ditch 577 produced the second largest assemblage from the excavation, 52 sherds weighing 0.809kg, MNV 8. The majority of the sherds recovered from this feature are Lyveden A-type Shelly ware (1150-1400). Present are a minimum of two bowls, including a near complete profile from a concave sided bowl and a jar. Also present are sherds from two Huntingdon Late Medieval Calcareous ware jars (1300-1450) and a single sherd from a Late Medieval Reduced ware vessel (1350-1500). Overall the pottery recovered from ditch 577 dates to the mid 14th-mid 15th century.

B.2.14 All the features appear to be roughly contemporary and probably all broadly date to the mid-end of the 14th century, with the exception of pit 579, which appears a little earlier. No pottery later than c.1500 was recovered and it seems likely that the occupation to which these features relate had relocated due to land use changes from the mid 15th century, and the site was no longer used for rubbish deposition.
**Discussion**

B.2.15 The assemblage is domestic in nature, there are a number of early late medieval and late medieval sherds present that suggest the highest level of activity during the mid 14th century. The bulk of the assemblage is represented by a single vessel related to the consumption of liquids, a large Early Everton-type ware bunghole jug, or cistern, alongside Late Medieval Reduced wares, which were also recovered from the area 100m south-west of the current site (Fletcher 2017). Unlike the area to the south west this site produced no 16th century pottery and appears not to have been used for rubbish deposition post-c.1450.

**Illustration Catalogue (Fig. 8)**

B.2.16 Early Everton-type ware rounded bunghole Jug or cistern. The rim was not recovered, everted neck survives, the body is decorated with two bands of six incised horizontal lines. Applied over these is a large well-formed horizontal strap handle joined neatly to the neck of the vessel, finished with two neat tear-shaped thumb impressions, one either side of the handle, and at the base of the handle by four distinct thumbed impressions. Internally the handle is attached with the interior wall pushed into the handle, leaving several deep impressions that may have been made by a tool. Slowikowski notes that this join is a single deep impression on her recorded examples (Slowikowski 2011 67-9). The handle is deeply incised vertically both sides, with angled short slashes down the centre, of the type also seen on Brill/Boarstall wares and Everton kiln examples (Slowikowski 2011, p58 fig 44, p37, fig 23 12-14, 16, p56, fig 43). The handle is further decorated with the upper edges thumb or finger impressed along their length. The upper body of the vessel externally is in moderately good condition, internally there is a degree of flaking and spalling which increases towards the lower half of the vessel both internally and externally. Fragments of the base angle survive suggesting the base was slightly convex, although these do not join with the larger upper body sherds. A bunghole also survives in poor condition and, although there is no direct fit with any of the upper body sherds, the condition of the sherd and the fabric confirm this is part of the same vessel. The bunghole itself is too abraded to say if it was decorated/thumbed. Reduced fabric, the colour varying from pale-mid grey to black surfaces on joining sherds, suggesting some differential burial conditions, margins pale grey or pale grey -brown, mid grey core, quartz tempered, with moderate calcareous inclusions and voids. Pit 587/621, (592), (595), (622).

<table>
<thead>
<tr>
<th>Context</th>
<th>Cut</th>
<th>Fabric</th>
<th>Basic Form</th>
<th>X-Fit</th>
<th>Sherd Count</th>
<th>Weight (kg)</th>
<th>Pottery Dates</th>
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<td>578</td>
<td>577</td>
<td>HUNCAL</td>
<td>Jar</td>
<td>2</td>
<td>15</td>
<td>0.123</td>
<td>1300-1450</td>
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<td></td>
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<td>Jar</td>
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<td>1</td>
<td>0.030</td>
<td>1350-1500</td>
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<td></td>
<td></td>
<td>LVYA</td>
<td>Jar</td>
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<td>1</td>
<td>0.038</td>
<td>1150-1400</td>
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<tr>
<td></td>
<td></td>
<td>LYVA</td>
<td>Bowl</td>
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<td>28</td>
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<td>1150-1400</td>
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<td></td>
<td></td>
<td>LYVA</td>
<td>Concave-sided bowl</td>
<td>1</td>
<td>3</td>
<td>0.197</td>
<td>1150-1400</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LYVA</td>
<td>Jar</td>
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<td>0.028</td>
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<td></td>
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<td>Jar</td>
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<td>1</td>
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<td>1150–1500</td>
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<td></td>
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<td>Jar</td>
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<td>579</td>
<td>HUNFSW</td>
<td>Jar</td>
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<td>2</td>
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<td>1175–1300</td>
</tr>
<tr>
<td>592</td>
<td>587=621</td>
<td>ELEVER</td>
<td>Cistern/bung hole pitcher</td>
<td>595 &amp; 622</td>
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<td>31</td>
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<td></td>
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<td>Hole pitcher</td>
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<td></td>
<td></td>
<td>SGW</td>
<td>Jar</td>
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<td>1</td>
<td>0.011</td>
<td>1st-4th century</td>
</tr>
<tr>
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<td>587=621</td>
<td>BRILL</td>
<td>Jug</td>
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<td>1</td>
<td>0.021</td>
<td>1200-1500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ELEVER</td>
<td>Cistern/bung hole pitcher</td>
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<td>0.125</td>
</tr>
<tr>
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<td></td>
<td>HUNFSW</td>
<td>Jar</td>
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<td>1</td>
<td>0.015</td>
<td>1175–1300</td>
</tr>
<tr>
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<td>Jar/jug</td>
<td>1</td>
<td>2</td>
<td>0.062</td>
<td>1150-1400</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEOT/DNEOT</td>
<td>Jar</td>
<td>2</td>
<td>3</td>
<td>0.024</td>
<td>875–</td>
</tr>
<tr>
<td>Cut</td>
<td>Fabric</td>
<td>Form/Description</td>
<td>Count</td>
<td>Weight (kg)</td>
<td>Date</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>--------</td>
<td>----------------------------------------------------------------------------------</td>
<td>-------</td>
<td>-------------</td>
<td>-----------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>592</td>
<td>587</td>
<td>Incomplete corner of a roof tile, a peg tile with partial surrounded peg hole approximately 10mm in diameter. Lightly sanded base, upper and lower surfaces survive in relatively good condition, some broken or spalled areas on both surfaces. 14-15mm thick.</td>
<td>1</td>
<td>0.136</td>
<td>Late medieval -early post-mediterranean</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Pottery Catalogue

B.3 Ceramic Building Material

*By Carole Fletcher*

**Assemblage**

B.3.1 Two fragments of ceramic building material (CBM) were recovered from pit/well 587, which also produced 14th century pottery. The fabric of the CBM recovered from the feature is similar to, although somewhat harder fired than CBM recovered from the area excavated 100m south-west of the current site which produced roof tile, brick and from well 453 a glazed floor tile (Levermore 2017). Similar material was also recovered during the evaluation of the wider area where path 80 produced fragments of late medieval-early post-medieval roof tile and glazed floor tile (Fletcher and Atkins 2015).

B.3.2 The CBM consists of fragments of two tiles, one of which has a partial surviving peg or nail hole. This material, alongside that excavated to the North East of the current site, may indicate a late medieval or early post-medieval domestic building in the vicinity of the site.

B.3.3 The fragmentary nature of the assemblage, however, means it is of little significance. The following catalogue acts as a full record and the CBM may be deselected prior to archival deposition.
<table>
<thead>
<tr>
<th>Context</th>
<th>Cut</th>
<th>Fabric</th>
<th>Form/Description</th>
<th>Count</th>
<th>Weight (kg)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Levimore 2017),</td>
<td></td>
<td>Fabric 2a</td>
<td>Irregular fragment of roof tile, the upper surface slightly discoloured by heat/smoke. Upper and lower surfaces are in reasonable condition and a small length of outer edge survives. 14-15mm thick.</td>
<td>1</td>
<td>0.064</td>
<td>Late medieval - early post-medieval</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>0.200</td>
<td></td>
</tr>
</tbody>
</table>

Table 3: CBM by context

**B.4 Leather**

*By Quita Mould*

**Introduction and methodology**

B.4.1 This report is based on examination of the wet leather undertaken on 3rd April 2017. The leather has been identified and a catalogue for the site archive has been made including measurement of relevant dimensions and species identification where possible. The catalogue it appended to the end of this document. Working drawings of the leather have been provided and the items illustrated (Fig. 9A and 9b). The information gathered has been correlated with the available contextual information and summarised below. All measurements are in millimetres (mm). No allowance has been made for shrinkage. The shoe terms employed are those in common use in the archaeological literature (Grew and de Neergaard 1988 and Mould, Carlisle and Cameron 2003 for example). Leather species were identified by hair follicle pattern and thickness using a low-powered magnification.

**Condition**

B.4.2 The leather was wet and had been washed when examined. It was robust and in good condition but being wet it is delicate, easily torn and broken. It is currently stored wet in double, self-sealing polythene bags.

**Summary**

B.4.3 Leather was found in two fills (592, 622) of a large pit or tank 587 (587=614=621). All the leather comprises shoe parts of turnshoe construction. The remains of at least two shoes (2, 3) were found in fill 622 (622=590), and another (1) in fill 592 (592=624). The best preserved is the front (forepart) of a turnshoe of adult size for the left foot. The shoe (2; Figure 8) has a short pointed toe and a closed upper of cattle hide that fastens at the instep with a buckled strap that is now missing. The deep central opening has a whip stitched seam to attach a tongue. Though the back part is missing, what remains it is likely to come from a buckle and strap fastening ankle shoe. These ankle shoes were made with differing cutting patterns (Volken 2014, 164 figure 229) and fastened with one, or more, small straps and buckles at the front of the foot, having the same general appearance as a low boot, what we would call an ankle boot today. The highly fragmentary remains of what may be a second example (1) was found in fill 592,
however, no seams or fastenings survived. The uppers of each (1 and 2) were of relatively thick bovine leather (cattle hide). This general style (Exeter and Braunschweig styles, Volken 2014, 166) was commonly worn from the later 14th through to the end of the 15th centuries. This is entirely compatible with pottery from the two well fills (622 and 592) which contained pottery dating to the 14th to 15th centuries.

B.4.4 The sole of the more complete shoe (2) had been cut up, and two worn sole repair patches (3.2 and 3.3) and a piece of broken shoe sole (3.1) were found in the same fill (622). This suggests that the group is likely to be cobbler waste, that is, old, worn out shoes and shoe parts discarded when of no further use following the salvaging of any reusable leather.

Catalogue (Fig. 9a-b)

Cat No 1- Leather turnshoe, fragmentary, adult size Context 592 (Fig. 9a)

B.4.5 Sole fragment, heavily worn fragment of thick leather with two very small areas of edge/flesh seam on opposite sides, all other edges broken. Leather worn cattle hide max c. 4mm thick. Incomplete. Surviving length 88+mm, width 97mm

B.4.6 Upper fragment, large fragment of thick leather, now broken into six pieces, with a length of plain cut, gently upward curving top edge and an original, right-angled edge, 60/40mm, present. All other edges are broken. No lasting margin or other seams survive, no distinguishing features. Apparently the broken remains of an essentially one-piece upper. Leather cattle hide c. 4mm thick, some iron staining. Incomplete. Surviving length c. 310mm, surviving height c 133+mm.

B.4.7 Condition: wet, washed, currently stored in double, self-sealed polythene bags in Box 24468

Cat No 2- Leather turnshoe, forepart, for left foot, adult size Context 622 (Fig. 9a)

B.4.8 Turnshoe sole with short pointed toe and petal-shaped tread, irregularly cut with a skived edge across the lower waist area, a small area is torn, the waist and seat area are missing. Edge/flesh seam, stitch length 7-8mm. A small hole is worn through the tread in the area of the little toe joint and this area also deliberately cut, with an X-shaped slash in the centre. Now a little distorted from burial. Leather cattle hide c. 4mm thick. Incomplete. Surviving length 153+mm, tread width 83mm. Matching length of rand, 11mm wide, running around the toe and down the left side, with edge/flesh seam and a row of worn stitching to attach a large clump sole repair patch.

B.4.9 Upper, short pointed toe and vamp area with c. 90mm of lasting margin surviving on the left side only, much of the rest of the left side and the lower part of the right side including the lasting margin broken off, no side seams present. The right side appears to have been torn away along the line of a tall side seam but no actual stitches survive. The right (medial) side of the central opening is present with a whip stitched edge running down toward the toe for c. 165mm. A large double slot is located at the top of the central opening on the medial side to take a buckle strap c. 11mm wide. The leather is cattle hide 3mm thick, now delaminating in places, iron staining present. Incomplete. Maximum surviving length 202+mm

B.4.10 Condition: wet, washed, currently stored in double, self-sealed polythene bags in box 2468 (context 622 bag 1)

Cat No 3- Leather turnshoe sole fragment and sole repairs Context 622 (Fig. 9b)

B.4.11 Fragment broken from the edge of a turnshoe sole with edge/flesh seam, stitch length 5mm, other edges broken. Does not belong to the other sole from this context. Leather compacted and worn, cattle hide 2.64mm thick. Incomplete. Surviving length 74+mm, surviving width 31+mm.

B.4.12 One side of a sole repair (known as a clump), the other side torn away and now missing, with widely spaced tunnel stitching on the flesh side running around the surviving original edges. Leather cattle hide 2.79mm thick. Incomplete. Surviving length 103+mm, surviving width 57+mm.

B.4.13 Sole repair (clump) now almost circular in shape with three original sides present, the fourth worn away. Worn tunnel stitching present on flesh side running around edges. May be a clump seat repair for the right foot. Almost complete but heavily worn. Leather cattle hided 3.34mm thick. Surviving length 68+mm, width 75mm.

B.4.14 Condition: wet, washed, currently stored in double, self-sealed polythene bags in box 2468 (context 622 bag 2)
APPENDIX C. ENVIRONMENTAL REPORTS

C.1 Environmental samples

By Rachel Fosberry

Introduction

C.1.1 Ten bulk samples were taken during excavations of Trenches 46 and 47 at RAF Brampton, Cambridgeshire. Features sampled include medieval pits, ditches and a beamslot. The analysis of the samples aimed to determine whether plant remains are present, their mode of preservation and whether they are of interpretable value with regard to domestic, agricultural and industrial activities, diet, economy and rubbish disposal. The analysis identified the preservation of plant remains by both carbonisation and waterlogging. Waterlogging occurs when a deposit has remained wet either as a result of being below the water table or in a sealed organic deposit such as a pit or well. This produces an anoxic environment in that oxygen is excluded which inhibits the decay-causing bacteria leading to the preservation of organic remains such as plants, leather, insects and wood. Four of the waterlogged samples were subsequently studied in more detail.

Methodology

C.1.2 One bucket (approximately 10 litres) of each of the samples was processed by tank flotation using modified Siraff-type equipment for the recovery of preserved plant remains, dating evidence and any other artefactual evidence that might be present. 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 1. Identification of plant remains is with reference to the Digital Seed Atlas of the Netherlands (Cappers et al. 2006) and the author’s own reference collection. Nomenclature is according to Zohary and Hopf (2000) for cereals and Stace (1997) for other plants. Carbonized seeds and grains, by the process of burning and burial, become blackened and often distort and fragment leading to difficulty in identification. Plant remains have been identified to species where possible. The identification of cereals has been based on the characteristic morphology of the grains and chaff as described by Jacomet (2006).

C.1.3 Waterlogged samples are very time-consuming to prepare and to sort. The initial assessment was made on the dried flot produced using the above methodology. The remaining soil from these samples was subsequently processed and the flots examined whilst the material was still wet to identify species present. These flots were then dried to enable a quantitative count of species diversity and density (Table 4)

Quantification

C.1.4 For the purpose of this report 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 has been scored for abundance
w=waterlogged

Results

C.1.5 Preservation of plant remains is by carbonisation (charring) and waterlogging (Tables 4 and 5). The charred remains are mainly cereal grains and legumes and are generally sparse. Small pit 596 (Sample 140, fill 597) produced a small flot that contains two poorly preserved cereal grains that are not identifiable and a pea-sized legume.

C.1.6 Small assemblages of charred plant remains were also recovered from two large features; pit/tank 617/610 which was truncated by pit/tank 587/614/621. Both were thought to possibly have an industrial function and waterlogged plant remains were recovered from the lower fills of both. Samples from the earlier tank 617/610 were taken from the basal fill 611 (Sample 142) which contained degraded waterlogged plant material in the form of roots and small shrub-wood fragments with seeds of nettles (Urtica dioica/urens), elderberry (Sambucus nigra) and buttercup (Ranunculus acris/bulbosus). The uppermost fill 620/613 (Sample 143) contains a single charred wheat (Triticum sp.) grain and no evidence of waterlogging.

C.1.7 Several samples were taken from pit/tank 587/614/621 which had contained worked leather. Charred cereal grains and legumes are present in small quantities along with occasional fragments of cereal chaff. The lowest fill 590/622 (Samples 150 and 144) produced a waterlogged assemblage that is primarily composed of rootlets and shrub-wood material with indeterminate thorns and buds and also contains seeds of cow parsley (Anthriscis sylvestris), knotweed (Polygonum aviculare), pale persicaria (Persicaria laphitifolia), goosefoots (Chenopodium sp.), dead nettle (Lamium sp.), docks (Rumex spp.), bramble (Rubus fruticosus agg.), fool's parsley (Aethusa cynapium), occasional degraded seed coats (testa) that have been identified as hemp (Cannabis sativa) and nettles. Plants that prefer wetter soils such as henbane (Hyoscamus niger) and sedges (Carex sp.) are also present. Ostracods, small freshwater bivalve crustaceans were also noted. Fill 592/624 (Samples 137 and 145) was the third fill in the sequence and contains a similar waterlogged assemblage that also contains hemp, seeds of wild radish (Raphanus raphanistrum), concockle (Agrostemma githago), nettles and stones of cherry (Prunus avium/acerasus) and bullace/damson (Prunus domestica) along with a waterlogged seed of grape/raisin (Vitis vinifera). Ostracods and cladoceran ephippia (egg-cases of water fleas) are also present. All of the lower fills of this feature also contain occasional charred cereals and legumes. The most abundant charred assemblage was recovered from Sample 145, fill 624 which contains a moderate number of barley grains and occasional oats (Avena sp.), wheat (including a rachis fragment) and peas (Pisum sp.). Rye (Secale cereale) was noted in fill 590/622. The final fill to be sampled is 592/624 (Sample 138) which contains only a few ostracods and elderberry seeds.

C.1.8 Ditch 577, Sample 139, fill 578 and the single fill (599) of beamslot 598 was sampled (141) and did not contain any preserved plant remains.

| Sample no. | 137 | 145 | 144 | 150 |
| Context no. | 592 | 624 | 622 | 622 |
| Feature no. | 587 | 621 | 621 | 621 |
| Volume processed (l) | 34 | 8 | 14 | 10 |
| Cereals | | | | |
| Avena sp. Caryopsis | Oats [wild or cultivated] | # | # | # |
| Hordeum vulgare L. caryopsis | Domesticated barley grain | ## | ## | ## |

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Report Number 2047
<table>
<thead>
<tr>
<th>Taxon</th>
<th>Common name</th>
<th>Code</th>
<th>Code</th>
<th>Code</th>
<th>Code</th>
</tr>
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<td>Secale cereale L. caryopsis</td>
<td>Rye grain</td>
<td>#</td>
<td>#</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Free-threshing Triticum sp. caryopsis</td>
<td>Free-threshing wheat grain</td>
<td>##</td>
<td>#</td>
<td>#</td>
<td>#</td>
</tr>
<tr>
<td>Cereal indet. Caryopsis</td>
<td>Unidentified cereal grain</td>
<td>#</td>
<td>#</td>
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<tr>
<td>Chaff</td>
<td></td>
<td></td>
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<td>Avena fatua L. floret</td>
<td>Wild-oat seed-head</td>
<td>#</td>
<td></td>
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<td>Hordeum vulgare L. rachis internode</td>
<td>Domesticated Barley chaff</td>
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<td>Triticum aestivium spp. Compactum rachis internode</td>
<td>Free-threshing Club Wheat chaff</td>
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<td>Legume 2-4mm</td>
<td>Pea/small bean</td>
<td>##</td>
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<td></td>
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<td>Legume &gt;4mm</td>
<td>Bean</td>
<td>#</td>
<td>#</td>
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<td>Pisum sativum L. seed</td>
<td>Garden Pea</td>
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<td>Cannabis sativa L. achene</td>
<td>Hemp</td>
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<td>#w</td>
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<td>Grape/raisin</td>
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<td>Dry land herbs</td>
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<td>Atriplex prostrata Boucher ex DC./ patula L. seed</td>
<td>Spear-leaved/Common Orache</td>
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<td>Brassica nigra type seed</td>
<td>Black Mustard (coarse-textured seed)</td>
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<td>Thistles</td>
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<td>Chenopodium sp. Seed</td>
<td>Goosefoots</td>
<td>###W</td>
<td>####W</td>
<td>####W</td>
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<td>Chenopodium album L. seed</td>
<td>Fat-hen</td>
<td>####W</td>
<td>####W</td>
<td>####W</td>
<td>####W</td>
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<td>Fallopia convolvulus L. Á. Lóve achene</td>
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<td>Hyoscyamus niger L. seed</td>
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<td>Dead-nettles</td>
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<td>####W</td>
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<td>Persicaria lapathifolia L.achene</td>
<td>Pale Persicaria</td>
<td>####W</td>
<td>#w</td>
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<td>Ranunculus cf. acris achene</td>
<td>cf. Meadow Buttercup</td>
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<td>Ranunculus cf.repens L./bulbosus L. achene</td>
<td>cf. Creeping/Bulbous Buttercup</td>
<td>#w</td>
<td>####W</td>
<td>#w</td>
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<td>Rumex sp. Achene</td>
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<td>Wetland/aquatic plants</td>
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<td>medium trigonous Carex spp. [2-3mm] nut</td>
<td>medium triangular-seeded Sedges</td>
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<td>Damson/bullace/plum</td>
<td>#w</td>
<td>#w</td>
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<td>Cherry</td>
<td>#w</td>
<td></td>
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<tr>
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<td>#w</td>
<td>####W</td>
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<tr>
<td>Sambucus nigra L. seed</td>
<td>Elderberry</td>
<td>####W</td>
<td>####W</td>
<td>####W</td>
<td>####W</td>
</tr>
<tr>
<td>Other plant macrofossils</td>
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<td></td>
<td></td>
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<tr>
<td>Indet. Buds</td>
<td>#w</td>
<td>####W</td>
<td>####W</td>
<td>####W</td>
<td>####W</td>
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<tr>
<td>Indet thorns</td>
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<tr>
<td>Waterlogged root/stem</td>
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<td>####W</td>
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<td>Other remains</td>
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<td></td>
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<tr>
<td>Ostracods</td>
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<td>####W</td>
<td>w</td>
<td></td>
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<td>Cladoceran ephippia</td>
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<td>#### W</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Vivianite</td>
<td>#w</td>
<td>#</td>
<td>#</td>
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<tr>
<td>Waterlogged arthropod remains</td>
<td>#</td>
<td></td>
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<tr>
<td>Volume of flot (mls)</td>
<td>1000 900 800 600</td>
<td></td>
<td></td>
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</table>

Table 4: Detailed assessment of selected environmental samples
Table 5: Results of initial assessment

**Discussion**

C.1.9 The preservation of plant remains is moderate to good with both carbonised and waterlogged plant remains present. Waterlogged plant remains are of particular value for providing information on the surrounding environment of a site whereas carbonised plant remains relate to agriculture and domestic, culinary activities. The charred component of the assemblage is small but a full range of cereals are represented (barley, wheat, oats and rye) along with a significant legume component. These economic plants were the staple foods during the medieval period and are found on most occupation sites.

C.1.10 Of more importance on this site are the waterlogged deposits which offer a rare opportunity to study organic remains relating to the local environment. These remains may have more than one source; plant remains recovered from waterlogged deposits in pits/wells are likely to represent the immediate environment having been blown in from vegetation growing nearby, offering the potential for environmental reconstruction. The plant assemblages recovered from the waterlogged deposits on this site are mainly comprised of tough, woody material along with seeds that are also considered to be ‘tough’ and are most resistant to decay. There are plants present such as brambles and fruit trees that are indicators of scrub-land and hedgerow that are also likely to have been exploited for food. The presence of a grape/raisin seed is particularly indicative of food waste having been included in the deposit as grape vines are unlikely to have been growing naturally in the near vicinity of the feature.

C.1.11 Nettles are frequent and are often indicators of nutrient rich soils associated with animal occupation. Hemp is a reasonably rare archaeobotanical find but the plant was commonly cultivated throughout the medieval period for its use in rope and cloth, particularly for sacks, sails etc. as well as for its oil. Nettles could also be utilised for their fibres although these would have been collected from the wild.

C.1.12 The presence of hemp seeds could be indicative of ‘retting’ which is the process in which the stems of hemp (and also nettles and flax) are submerged in water and left to partially decompose to enable the fibres to be extracted. The hemp plants are harvested when they flower which can result in pollen accumulating in the lower fills of...
retting tanks/pits. The presence of occasional hemp seeds is not sufficient evidence of hemp processing and Geary et al (2005, 321) recommends that 'complementary evidence in the form of fibres' (of which none were identified) or 'large concentrations of pollen are needed for confirmation'.

C.1.13 Eppiphiunm (egg cases) of the water-flea (Daphnia sp) that are indicative of standing water and ostracods (small bivalve crustaceans) are present but it is interesting to note that obligate aquatic plants that are commonly found growing in open, water-filled features are absent. This may indicate that the feature was covered or had a particular use, such as retting, that excluded the growth of these colonising plants.

C.1.14 Several small unidentifiable buds were recovered from the waterlogged deposits. These may be indicative of the season in which the deposit accumulated and, together with seeds of cow parsley, suggest mid-late spring.

C.2 Faunal remains

By Zoe Uí Choileáin

Introduction and methodology

C.2.1 A total weight of 1.116kg of animal bone was recovered by the investigation. All bone analysed was hand collected on site. All identifiable elements were recorded using a version of the criteria described in Davis (1987). Identification of the assemblage was undertaken with the aid of Schmid (1972), plus use of the OA East reference collection. The assemblage is too small and fragmented for most taphonomic information to be observed. The preservation of the cortical bone was evaluated using the 0-5 scale devised for human bone by McKinley (2004, 16 fig. 6).

Results

C.2.2 Results are presented in the summary table below. An equal distribution of cattle, equid and sheep/goat remains was recorded. A single pig fibula was recorded from context 624.

C.2.3 Overall the condition of cortical bone represented a grade 2 (ibid).

C.2.4 The assemblage primarily comprised of adult specimens. Measurements were only possible on a single specimen and have been recorded in the site archive.

C.2.5 Cut marks were observed on a horse femur from feature 610 and four medium mammal ribs from feature 621. These are small cut marks most frequently representative of defleshing (O’Conner 2004, 46).

C.2.6 The pig femur found in feature 621 (context 624) was polished and an accentuated groove was observed on the proximal end. This is possibly wear from use.

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<th>Weight (g)</th>
<th>Erosion</th>
<th>Butchery</th>
<th>Biometry</th>
<th>Gnaed</th>
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Table 6: Summary of faunal remains

Discussion and conclusion

C.2.7 This is a small assemblage and has very low potential for providing information on diet or industrial practices. No further work is required.

C.3 Shell

By Carole Fletcher

Introduction and methodology

C.3.1 A total of 0.033kg of marine bivalve shells were collected by hand from a single feature, pit 621. The shells recovered are all edible examples from estuarine, shallow coastal waters, and intertidal zones. The shell is relatively well preserved and does not appear to have been deliberately broken or crushed. The shells were weighed and recorded by species, the minimum number of individuals (MNI) was recorded. Oysters (Ostrea edulis) have a defined left and right valve, with the right being generally more flat (Winder 2011, 11). Only a single left valve was present in the pit and no evidence of shucking was observed. The mussel shells recovered were from two different individuals.

C.3.2 Few conclusions can be drawn about such a small sample of marine bivalve shells. The oyster and mussel shells recovered are likely to be general discarded food waste, probably incorporated into the pit fills a relatively short time after they were eaten and, although not closely datable in themselves, may be dated by their association with the 14th century pottery also recovered from the feature.

C.3.3 The following catalogue acts as a full record and the shell may be deselected prior to archive deposition. No further work is required.
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<td>Mytilus edulis</td>
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Table 7: Shell by context

C.4 Pollen

By Mairead Rutherford

Introduction and methodology

C.4.1 A single sub-sample (149) was submitted from fill 622 (pit/tank 621=587) to specifically check for the presence or absence of pollen grains of hemp (Cannabis sativa). The feature, from which the sample was taken, was described as having a "possible industrial purpose" and waterlogged plant remains recovered hemp seeds, suggesting possible industrial hemp retting (R Fosberry pers. Comm.).

Quantification

C.4.2 Volumetric samples were taken from the sub-sample and one tablet containing a known number of Lycopodium spores was added so that pollen concentrations could be calculated (Stockmarr 1971). The samples were prepared using a standard chemical procedure (method B of Berglund and Ralska-Jasiewiczowa 1986), using HCl, NaOH, sieving, HF, and Erdtman’s acetyloysis, to remove carbonates, humic acids, particles > 170 microns, silicates, and cellulose, respectively. The sample was then stained with safranin, dehydrated in tertiary butyl alcohol, and the residues mounted in 2000cs silicone oil. Slides were examined at a magnification of 400x by ten equally-spaced traverses across two slides to reduce the possible effects of differential dispersal on the slides (Brooks and Thomas 1967) or until at least 100 total land pollen grains were counted. Pollen identification was made following the keys of Moore et al (1991), Faegri and Iversen (1989), and a small modern reference collection. Plant nomenclature follows Stace (2010). The preservation of the pollen was noted and an assessment was made of the potential for further analysis. Fungal spore identification and interpretation followed van Geel (1978).

Results

C.4.3 The assessed sub-sample contained commonly occurring organic debris but only some pollen, and did not yield grains attributable to hemp pollen. Occurrences of pollen of grasses (Poaceae), dandelion-type (Taraxacum-type), ribwort plantain (Plantago lanceolata), docks / sorrels (Rumex), the carrot family (Apiceae) and pea family (Fabaceae) were recorded. A single hazel-type ( Corylus-type) pollen grain was also present. Fungal spores included occurrences of species of Chaetomium (HdV-7A), which are cellulose-decomposing fungi that can occur on plant remains, fibres and dung (van Geel 1978). Microcharcoal was also present on the pollen slide.
APPENDIX D. BIBLIOGRAPHY


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**Electronic Sources**

### Project Details

**OASIS Number** oxfordar3-276337  
**Project Name** Medieval features at RAF Brampton, Zone J, Cambridgeshire  
**Project Dates (fieldwork)**  
- Start: 26-01-2017  
- Finish: 08-02-2017  
**Previous Work (by OA East)**  
- Yes  
- Future Work: Unknown

### Project Reference Codes

- **Site Code**: BRARAF16  
- **HER No.**: ECB 4681  
- **Planning App. No.**: 15/00368/OUT  
- **Related HER/OASIS No.**: oxfordar3-270450, 262636

### Type of Project/Techniques Used

- **Prompt**: Select Prompt (this should be in your brief/spec)...  

- **Field select all techniques used:**  
  - ☑ Full Excavation (100%)  
  - ☐ Part Excavation  
  - ☐ Part Survey  
  - ☐ Salvage Record  
  - ☐ Systematic Field Walking  
  - ☐ Systematic Metal Detector Survey  
  - ☐ Remote Operated Vehicle Survey  
  - ☐ Test Pit Survey  
  - ☐ 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”.

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### Project Location

- **County**: Cambridgeshire  
- **District**: Huntingdonshire  
- **Parish**: Brampton  
- **HER**: Cambridgeshire  
- **Study Area**: Cambridgeshire  
- **Site Address (including postcode if possible)**: RAF Brampton, Brampton, Cambs  
- **National Grid Reference**: TL 2087 7007

### Project Originators
**Organisation**  
OA EAST

**Project Brief Originator**  
Andy Thomas

**Project Design Originator**  
Matt Brudenell

**Project Manager/Supervisor**  
Matt Brudenell/Kathryn Blackbourn

### Project Archives

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- [x] Illustrations
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- [ ] Virtual Reality

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- [x] Plans
- [x] Report
- [x] Sections
- [x] Survey

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**Notes:**

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Report Number 2047
Figure 1: Site location
Figure 3: Map of areas of mitigation
Figure 4: Trial trenches
Figure 6: Selected sections
Figure 7: Medieval features revealed at the North Road and Central Avenue sites, overlain on an extract of the 1840 map
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Figure 9a. Leather shoe fragments from fills 592 and 622 (Pit 587=621)
Figure 9b. Leather shoe fragment from fills 622 (Pit 621)
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Plate 8: Pit/tank 587, looking north-east
Plate 9: Pit/tank 621, looking west