xcavation

An Iron Age Enclosure, Roman Pottery
Kilns and a Post-Medieval Trackway



at Zone B, RAF Brampton

Cambridgeshire

Excavation Report & Updated Project Design



October 2016

Client: JCAM Commercial Real Estate Property VII Limited

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NGR: TF 2087 7007



An Iron Age Enclosure, Roman Pottery Kilns and a Post-Medieval Trackway at Zone B, RAF Brampton, Cambridgeshire

Archaeological Excavation Report and Updated Project Design

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Summary

In March and April 2016 Oxford Archaeology East undertook a 0.37ha excavation at RAF Brampton, Cambridgeshire (centred TF 2087 7007), which focused upon an area of prehistoric and possible post-medieval activity defined by evaluation in 2015.

Whilst the excavation revealed some of the remains anticipated from the trial trenching, the most significant and unexpected result of the investigation was the discovery eight Early Roman pottery kilns clustered in the south-east corner of the site. The pottery kilns contained in-situ pedestals alongside clay plates, spacers and large quantities of Roman pottery including wasters. These kilns date to 60-80 AD and were largely producing lid seated jars with their lids.

These kilns were particularly well preserved and provide an insight into Early Roman pottery production in this area of Cambridgeshire, adding to a growing corpus of broadly contemporary kiln sites in the county, such as those at Swavesey, Duxford, Greenhouse Farm and the Addenbrooke's Hutchison Site. Other features dating to the Roman period at the site included a small number of pits, ditches and gullies. It is uncertain whether these features were directly related to the pottery kilns and pottery production, though one of the ditches appeared to represent a southern boundary to kiln field.

West of the kiln area, a small number of features were uncovered dating to the Iron Age. These comprised the partial remains of a large sub-rectangular enclosure, an additional ditch and a series of small pits and post-holes. Very few finds were recovered from these features, suggesting the focus of occupation lay beyond the excavation area.

At the north end of the site a series of north-east to south-west aligned ditches were revealed which defined the route of the original Park Lane. The lane is depicted on historic estates map of Brampton Park, and ran along the southern boundary of the park until the mid 19th century when the park was expanded further south, and a new Park Lane constructed. Other post-medieval features revealed included a series of large inter-cutting ditches to the north of the lane, which potentially represent the former park boundaries. To the south, smaller ditches and post-holes were also attributed to this phase, and are likely to be plot boundaries outside of Brampton Park. Very little material was recovered from these features other than brick and tile, potentially from the nearby destruction of former buildings associated with the Park.





1 Introduction

1.1 Project background

- 1.1.1 Between the 15th March and 8th April 2016 Oxford Archaeology East (OA East) carried out an archaeological excavation, totalling 0.37ha in size, at RAF Brampton, Brampton, Cambridgeshire (TF 2087 7007; Fig. 1). This work was commissioned by Campbell Buchanan on behalf of JCAM Commercial Real Estate Property VII Limited, in respect of a proposed residential development of the site (Planning Application 15/00368/OUT). The excavation was undertaken in accordance with a Brief issued by Andy Thomas of Cambridgeshire County Council Historic Environment Team (CHET; Thomas 2016), and an approved Written Scheme of Investigation (WSI) by OA East (Brudenell 2016).
- 1.1.2 The former RAF Brampton site was subject to a trial trenched evaluation in 2015 (Stocks-Morgan 2015) which identified dispersed archaeological remains dating from the prehistoric, Roman, medieval and post-medieval periods across the site. On the basis of the results, a phased mitigation plan was subsequently agreed with Andy Thomas (CHET), with results presented here representing the mitigation required in Zone B of the plan (see Brudenell 2016). Results of other phases of the required investigations are being presented separately.
- 1.1.3 This report has been conducted 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)*.

1.2 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. The excavation area is located on a sports field bounded by trees and houses to the east and south.
- 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. The site lies at about 10m OD and is relatively flat. (http://mapapps.bgs.ac.uk/geologyofbritain/home.html)

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 were also found at this site. Approximately 1km north-west of the site an Early Bronze Age cremation pit was uncovered alongside Bronze Age



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 recovered from a site (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', 'Bramptone' 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 20.6 ha. 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.

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. The project was managed by Matthew Brudenell on behalf of OA East and monitored by Andy Thomas on behalf of Cambridgeshire County Council. The fieldwork was carried out by the author with the assistance of Denis Sami, Jack Easen and Rebecca Pridmore. Site survey was carried out by Gareth Rees.



2 AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The original aims of the project were set out in the Brief (Thomas 2016) and the Written Scheme of Investigation (Brudenell 2016), based on the archaeology uncovered during the evaluation (Stocks-Morgan 2015). Further aims have been added as a result of the archaeology uncovered during the excavation.

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 developed with reference to Regional and Local Research Agendas (Medlycott 2011).

2.2 National Research Aims

2.2.1 No national research aims were identified.

2.3 Regional Research Aims

Social organisation and settlement in the Early Iron Age (Medlycott 2011, 29). What is the nature and form of the settlement at the site, and how does it relate to other Iron Age sites in the area?

2.4 Site Specific Research Objectives

- Dating and chronology (Medlycott 2011, 29). Can the date of occupation be tied down more accurately? When was settlement established in the Early Iron Age, and can scientific dating at the site assist in the understanding of artefact chronologies?
- How did the pond relate to the Brampton Park, and what was its function?
- Are there other 'late' features and metal detected finds that can shed light on the story of the development of the park and its land use stemming from the medieval origins.

2.5 Additional Research Objectives

2.5.1 Some of the original aims and objectives of the excavation stated above could be met through the analysis of the excavated features. However, as unexpected and significant remains of some importance, comprising eight Early Roman pottery kilns, were uncovered, the project's aims and research objectives have been updated and amended accordingly.

2.5.2 Additional aims were:

- Location: How does the Roman pottery Industry relate to topography and natural resources (Medlycott 2011,48)
- *Organisation of production*: The circulation of local kiln products to markets within Cambridgeshire. Organisation of regional pottery industries in the 1st century AD.



Evidence for pottery production and the organisation of industry in the region needs collation and synthesis (Medlycott 2011, 48)

- Chronology: To establish a date for the pottery kilns and whether they represent a single or multiple use
- Ceramic technology and change: What forms were being produced on site? Continuity or change in ceramic traditions both over the Roman period and in relation to the pre-Roman Iron Age and post-Roman period. What is the social/cultural meaning of the continuity of native Late Iron Age pottery traditions into and right through the Roman period? (Willis 2002)
- Regional Typology. An investigation to determine what vessel types in the region occur together and which may have formed 'series' or 'sets' would be instructive. (Willis 2002)
- Can similarities be drawn between the kilns at Brampton and others in Cambridgeshire, such as Swavesey, Duxford, Greenhouse Farm, Hutchison sites? Do similarities indicate a spread of knowledge in pottery production across Cambridgeshire or the movement of itinerant workers?
- To compile a detailed report on the location, format, structure, chronology and products of the kilns (with the addition of a type series of products, fabric analysis data, photographs of fabrics, the main form types and important features such as decoration, base 'cheese wire patterns', fingerprints etc) to add to the extensive database of *The Pottery Kilns of Roman Britain* (Perrin 2011, 41).

2.6 Methodology

- 2.6.1 The methodology used followed that outlined in the Brief (Thomas 2016) and detailed in the Written Scheme of Investigation (Brudenell 2016).
- 2.6.2 Machine excavation was carried out by a 360 type excavator using a 2.1m wide flat bladed ditching bucket, under constant supervision of a suitably qualified and experienced archaeologist.
- 2.6.3 Spoil, exposed surfaces and features were scanned with a metal detector. All metaldetected and hand-collected finds were retained for inspection, other than those which were obviously modern.
- 2.6.4 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.
- 2.6.5 Features were excavated based on the proportions stated in the brief (Thomas 2016) so that a representative sample was achieved. The eight Roman pottery kilns were recorded and excavated to a high standard whilst following the guidelines for best practice (White *et al.* 2015).
- 2.6.6 A selection of environmental samples were taken from across the site. These largely comprised deposits from the Roman pottery kilns and associated features, but samples were also taken from ditches, pits and post-holes. Small samples of clay were obtained in case of further study into the clay obtained for the production of pottery on site.
- 2.6.7 In general the site was well-drained other than at the northern end of the site where a machine-excavated slot through a series of post-medieval ditches filled with water.



3 RESULTS

3.1 Introduction

- 3.1.1 Three main phases of activity were revealed across the 0.37ha site that span the Iron Age, Roman and post-medieval periods. A number of undated features were also present, which are described separately. Modern intrusions were also noted but not excavated. Although Iron Age and post-medieval features were identified during the evaluation, the majority of the archaeology investigated during the excavation dates to the Roman period and includes eight Early Roman pottery kilns, the presence of which had not been anticipated based on the results of the evaluation (Fig. 3).
- 3.1.2 The following section describes the results of the fieldwork by phase, supplemented by a context list (Appendix A), overall phase plans and detailed kiln 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. Section 5 outlines the recommendations for publication and archiving.

3.2 Phase 1: Iron Age (*c*.800 BC - AD43)

3.2.1 The Iron Age phase is represented by part of a sub-rectangular enclosure, a ditch and a scatter of pits (Fig. 4). Very few finds were associated with this phase of activity, suggesting that the main focus of settlement lay elsewhere at this time. Two undated post-holes have been attributed to this phase based on their proximity and position in relation to the northern edge of Enclosure 1. It is possible that some of the undated pits that lie near to the enclosure could also be Iron Age in date: these are described with the other undated features below.

Enclosure 1 and associated features

- 3.2.2 Part of a large probable sub-rectangular enclosure (307, 309, 317, 344 and 364), with a 2.45m-wide north-east-facing entrance, was revealed in the south-west corner of the excavation area. Although this was only partially exposed, it appears to have been aligned north-west to south-east with its overall dimensions measuring at least 20m by 30m.
- 3.2.3 The ditch terminals (**307** and **309**) forming the entrance measured 1.1m wide and 0.52m deep and 1.46m wide and 0.46m deep respectively (Plate 1), with steep sides and concave bases (Section 142). Each contained a single fill (308 and 310) which consisted of a mid brown grey silty sand with frequent gravel inclusions, from which no finds were recovered. Two further slots (**317** and **344**) were excavated across the northern arm of the enclosure. The ditch slot (**317**) was 1.62m wide and 0.52m deep (Plate 2; Section 146), becoming slightly narrower and shallower to the west (**344**), where it was found to be 1.38m wide and 0.34m deep. The only finds from this ditch comprised a sherd of Middle Iron Age pottery recovered from the single fill (318) in ditch **317**.
- 3.2.4 Possibly associated with Enclosure 1 was a ditch (301/303/367) aligned north-east to south-west extending from the north-west corner of the enclosure (Plate 3) and terminating just before the northern limit of the excavation. The ditch measured 1.06m wide and 0.26m deep with steep sides and a concave base (Section 138), narrowing to



- 0.8m wide and 0.24m deep at the terminal (**303**). It contained a single fill (302, 304, 368) which consisted of mid reddish grey brown sandy silt with occasional gravel inclusions. Although no finds were recovered, a single sherd of Early Iron Age pottery was found in the ditch during the evaluation, where it was revealed in Trench 35.
- 3.2.5 Two undated circular post-holes (**346** and **348**) of similar dimensions located immediately to the north of and adjacent to Enclosure 1 may have been contemporary with it. Post-hole **346** measured 0.51m x 0.44m wide and 0.24m deep and contained a single fill (347) of mid brown grey silty sand with rare gravel inclusions. Post-hole **348** measured 0.47m x 0.38m wide and 0.25m deep. This post-hole contained a single fill (349) which consisted of a mid brown grey silty sand with occasional gravel inclusions. Neither post-holes contained finds.
- 3.2.6 A sub-circular pit (**353**) was located within the north-west corner of Enclosure 1 and measured 0.72m wide and 0.25m deep. It contained two fills (Plate 4), the lowest of which (354) consisted of a mid yellow brown silty sand which may represent a slump of natural into the pit whilst it was still in use/open. The uppermost fill (355) consisted of mid brown grey silty sand and produced a single piece of fired clay.
- 3.2.7 Pit **379**, which was located several metres to the north of the enclosure, measured 1.08m wide and 0.28m deep with moderately sloping sides and a fairly flat base. Its single fill (380) consisted of a mid grey brown silty sand which contained a single piece of Early Iron Age pottery weighing 5g.

Scattered pits

- 3.2.8 At the north-east edge of the excavation, a small pit or post-hole and a tree throw were uncovered. The pit (227) measured 0.57m wide and 0.1m deep with sloping sides and a slightly concave base. Its single fill (228) consisted of a mid red brown clayey sand silt which contained a single sherd of Early Iron Age pottery weighing 13g. Possible tree throw 229 measured 0.45m wide and 0.12m deep and was an irregular shape in plan. It contained a single fill (230) which produced a sherd of prehistoric pottery weighing 10g that is not closely datable.
- 3.2.9 A loose cluster of sub-circular pits was present in the south-east corner of the excavation, in an area subsequently occupied by the Early Roman kilns (see below). Pit 278, which appeared to have been truncated by one of the kilns (275, see below), measured 0.7m wide and 0.18m deep (Section 166). Its single fill (279) consisted of a mid to dark grey clayey sand which contained 34g of Late Iron Age pottery.
- 3.2.10 Located to the south-east were two small pits, the more easterly of which (pit **311**) was 0.54m wide and 0.09m deep and contained a single fill (312) of mid brown grey sandy silt that produced three small sherds of Early Iron Age pottery weighing 10g. Pit **313** lay just to the west and measured 0.76m wide and 0.18m deep. Its single fill (314) consisted of mid brown grey sandy silt which contained occasional charcoal and three sherds of Early Iron Age pottery weighing 37g.
- 3.2.11 Pit **97** to the west of these, excavated during the evaluation, measured 0.64m wide and 0.3m deep with steep sides and a concave base. Its single fill (96) consisted of a dark brown grey clayey silt which contained Early Iron Age pottery weighing 135g.

3.3 Phase 2: Early Roman (mid to late 1st century AD)

3.3.1 This phase is dominated by the presence of eight Early Roman pottery kilns, six of which were complete and two of which only partially-survived due to later truncation (Fig. 5). Seven of the kilns and a number of associated pits were grouped in the southeast corner of the site, within an area measuring approximately 25m x 15m forming a



'kiln field'. The kilns were largely orientated east to west or south-east to north-west and were delineated by a boundary ditch (372) on the same alignment to the south. Although the kilns were not completely identical in design and construction, some clear similarities are discernible. The presence of a partially-exposed kiln along the edge of the excavation area indicates that this activity probably continued to the east.

3.3.2 Detailed descriptions of the kiln furniture and pottery associated with the kilns can be found in Appendix B.2.

The Kiln Field

Kiln **241** (Fig. 6)

3.3.3 The earliest kiln in this group, located along the eastern edge of the excavation area, was kiln **241**. Its full extent is not known as it extended beyond the limit of excavation and was truncated by later kiln **220** (also known as **257**; see below). The chamber appears to have been located at the western end, with the stoke hole presumably to the east. The chamber measured 0.8m long, 0.7m wide and 0.1m deep; its original depth was probably much greater. Remnants of a fired clay lining survived in places (428), measuring 0.02m thick and orangey red in colour. The chamber contained a single fill (248) which consisted of a dark blue grey sandy clay which produced 883g of Roman pottery and two fragments of clay plate. The main product produced by this kiln was a globular jar with single lid-seating grooves in the rim alongside lids (Appendix B.2).

Kiln 220 (Fig. 6)

- 3.3.4 Kiln **220** was aligned east to west and formed a figure-of-eight shape in plan, with the chamber at the western end. The chamber measured 0.8m long, 0.7m wide and 0.4m deep. Within this a fired-clay lining (427) survived, which was mid blue grey and measured 0.04m thick. The chamber contained a fill (249) which consisted of a dark brown silty sand, that was probably related to the kiln's use. Positioned directly above this fill were two central pedestals (SFs 1 & 22), aligned east to west. Constructed from fired clay, the pedestals were roughly rectangular in shape with the largest of the two (SF 1) being placed at the western end of the chamber. These showed some similarities to those present within kiln **240** (see below), although they were not as wellformed. This was the only kiln where the flue arch still remained *in-situ*, consisting of an orangey red fired clay. The stoke hole of this kiln (**257**) was much larger than the chamber, although its full extent is unknown due to truncation from later features (**256** and **363**, see below). The stoke hole measured 0.7m long, 1.6m wide and 0.35m deep.
- 3.3.5 A single disuse fill (251) consisting of a dark brown clayey sand was present in this kiln, which contained 4946g of Roman pottery and kiln furniture, including 22 fragments of kiln plate and 14 fragments of kiln wall. A partial example of a sub-rectangular plate with a central perforation (SF 27) was recovered from this fill. This kiln's main pottery product was a jar with single and double lid-seating grooves in the rim.

Kiln 239 (Fig. 7)

3.3.6 Positioned roughly 10m to the north of kilns **241** and **220**, close to the eastern limit of excavation, was a fully-exposed kiln (kiln **239**) that appeared to have had a number of phases of use. Aligned east to west with the chamber at the western end, this kiln also formed a figure-of-eight shape in plan. The chamber measured 1.16m long by 1.04m wide and 0.6m deep, with a flue leading to a stoke hole to the east which measured 1.6m long, 1.02m wide and 0.56m deep. Remnants of an original lining survived within the kiln (381 and 382). Lining 381 consisted of a light greenish grey clay which didn't



appear to have been fired. This lining was just 0.03m thick and only remained at the bottom corner on the western side of the kiln. Lining 382 measured 0.02m thick and consisted of a mixed mid orangey red and red blackish brown fired clay which lined the entire chamber to a depth of 0.56m. Together, these may represent parts of the same lining but with varying levels of firing.

- 3.3.7 Fill 352, comprising a very dark blue grey silty clay with frequent charcoal inclusions, was revealed at the base of the kiln and represented a period of use from the earliest phase of the kiln. Measuring 0.1m thick, it extended across the entire chamber and partially into the stoke hole and produced 130g of Roman pottery.
- 3.3.8 A period of disuse was evident for this kiln, indicated by a 0.26m-thick deposit of redeposited natural gravel (351/360) which overlay fill 352 and filled the entire length of the feature. This deposit produced a single sherd of 1st-century pottery along with 56 fragments of clay plate and 285g of kiln superstructure: perhaps indicating the partial destruction of the kiln at this time. The kiln was then evidently re-lined, represented by a deposit (384) of light green grey clay which measured 0.2m thick and reached a depth of 0.29m. This lining was not well fired, however a lens of clayey silt (386) with frequent charcoal inclusions lay directly above it, and was probably related to the use of the kiln. A mid orange yellow clayey sand (387), which measured 0.05m thick, lay above this. The lining of the final phase of use (389) had been well fired and was mid orangey red on the outer edges and dark grey on the inner chamber wall. This lining appears to have been used for some time.
- Two pedestals were uncovered in the centre of the chamber (SFs 13 & 14). These 3.3.9 appeared to be in-situ although the presence of flanged bases on their southern sides may indicate that they were re-used from an earlier kiln. Overlying this was a mid grey brown to black sandy silt fill (283/282) which measured 0.12m thick. This produced a large amount of kiln furniture, which may be indicative of period of disuse. Directly overlying this was a 0.15m-thick mid brown sandy silt (285/259), which also contained large quantities of fired clay objects. The uppermost fills combined (258 and 260) measured 0.19m thick and comprised a dark brown grey silty clay which contained frequent pottery sherds in addition to a fragment of mammal long bone weighing 6g (from 258) and 1g of burnt bone (from 260, which was more charcoal-rich). Fill 258 also contained a fragment of sub-circular clay plate with a central perforation (SF 28). The nature of these fills indicate that the kiln was subsequently used for the disposal of waste products from other nearby kilns once it became disused. Combined, this kiln contained 10783g of Roman pottery alongside 170 fragments of clay plates and 159 fragments of kiln superstructure. It appears to have been producing jars with a single or double lid-seating groove in the rim and lids.

Kiln **268** (Fig. 8)

3.3.10 A group of intercutting kilns and later features was located to the west of kiln 239, the earliest element of which was kiln 268. Aligned roughly south-east to north-west with the chamber at the most westerly end, this kiln was probably also of figure-of-eight plan originally. The chamber was sub-circular and measured 1m long, 0.74m wide and 0.3m deep. A small amount of clay lining remained on the western side of the kiln chamber, however it appeared to be poorly fired and largely comprised a mid grey red clay. Evidence for three pilasters survived, which appeared to have been roughly-shaped and placed around the inner face of the chamber wall. A roughly elongated and shaped central pedestal was also present (SF 12), which seemed to be very crudely made or badly eroded. Overlying the pedestal was a single fill (269) consisting of a mid brown grey clayey silt which contained large quantities of Roman pottery and 1g of



burnt animal bone. A fragment of kiln prop (SF 32) was also recovered from this fill. No evidence of a flue remained and the stoke hole of this kiln appeared to sit directly beneath the chamber of later kiln **240**. Although a clear cut for the stoke hole was no longer discernible, remnants of its fill remained beneath the later kiln. This fill (362) consisted of mid brown grey clayey silt and contained 31g of Roman pottery. In total the kiln produced 226g of pottery, in addition to the single fragment of kiln prop, 33 pedestal fragments and nine fragments of superstructure. The main pottery produced by this kiln was a globular jar with single lid-seating groove in the rim and associated lids.

Kiln **240** (Fig. 8)

Kiln 240, which truncated kiln 268 on its eastern side, was also aligned roughly south-3.3.11 east to north-west, with the chamber at its western end; forming a figure-of-eight shape in plan. The circular chamber measured 1m in diameter and was 0.3m deep. It had a 0.08m-thick fired clay lining (276) which was orangey red on its outer edges and a dark grey on the inner edges where it had been subjected to more heat. A total of six pedestals remained in-situ within the chamber (SFs 4, 5, 6, 7, 10 & 11). Two central rectangular pedestals (SFs 4 and 5) were aligned east to west and survived to a height of 0.3m. The remaining four pedestals were of cylindrical column-like form: one in each quadrant of the chamber; equally spaced. These pedestals had probably survived insitu in their entirety, however they became fragmentary during excavation. Overlying and surrounding these pedestals was a single disuse fill (266) which comprised a mid brown grey clayey silt that contained large quantities of Roman pottery. A small flue to the west led into a sub-circular stoke hole which measured 1.3m long, 0.85m wide and 0.3m deep. This stoke hole also contained a single disuse fill (267) that was the same as 266 and which also produced a large quantity of Roman pottery. A total of 7826g of Roman pottery dating to the mid/late 1st century AD was recovered from this kiln, along with a single fragment of kiln plate, 57 fragments of pedestal and 135 fragments of superstructure. The main kiln product appears to have been a globular jar with single lid-seating grooves in the rim, some with a bi-fid rim.

Kiln **250** (Fig. 9)

- 3.3.12 Located to the south of kiln **240**, kiln **250** also formed a figure-of-eight shape: it was aligned east to west with the chamber at the western end. This structure was almost identical to that of kiln **240**. The chamber was circular in plan with a diameter of 1.1m. It contained a fired clay lining (426), 0.06m thick, which was mid orangey red on the outer edges and dark grey on the inner edges. Above this was a fill (286) which measured 0.03m thick and consisted of a dark bluey grey silt containing very frequent charcoal and 6g of Roman pottery. This fill may represent the initial use of the chamber. Overlying this was fill 287, which consisted of a 0.15m-thick mid orangey yellow sandy clay. The latter may indicate a period of disuse as it contained the remains of a cylindrical pedestal (SF 29). Another fill (288) consisting largely of mid orange red fired clay overlay this, deriving from the collapsed superstructure of the kiln. The uppermost fill (265) is also indicative of the kiln's disuse: it measured 0.34m thick and contained a large amount of Roman pottery representing deliberate infilling.
- 3.3.13 A 0.5m-wide flue led to a sub-circular stoke hole measuring 1.68m long, 1.16m wide and 0.78m deep. This stoke hole had steeply sloping sides and appeared to contain a number of fills (261, 262, 263 and 264). Most notable of these was the uppermost fill (263), which was 0.36m thick and consisted of a very dark grey clayey silt. This fill contained Early Roman pottery, 1g of burnt animal bone and fragments of clay plates, including one with cereal impressions (SF 24). Pedestal fragments of the cylindrical type (SF 25) similar to those in kiln 240, were also present.



3.3.14 This kiln contained the largest amount of pottery, totalling 17173g. In addition, 75 fragments of undiagnostic structural clay and kiln furniture, 144 fragments of kiln plate, 34 pedestal fragments and 89 pieces of kiln wall were recovered. The main product of this kiln appears to have been a jar with single and double lid-seating grooves in the rim and the lid; cheese presses were also present.

Kiln **275** (Fig. 10)

- 3.3.15 Kiln **275** lay at the south-west extent of the main group of kilns and was the only example to be orientated roughly north to south, with the chamber at the northern end. This kiln was also of a different shape, being more oval in plan with very little distinction between the chamber and the stoke hole. The chamber of this kiln measured 1.38m long, 0.96m wide and 0.6m deep. This chamber had a fired clay lining which was dark grey in colour, mottled with orangey brown patches. A total of four pilasters (SF 15 and 16) that were slightly rectangular in shape had been attached to the inner surface of the chamber wall, and a single pedestal (SF 17), which was fragmentary and possibly not entirely *in-situ*, was located centrally at the northern end of the chamber. This kiln shows similarities to kiln **268** in terms of the presence/type of pilasters used and the poor quality of the kiln lining. The stoke hole was sub-circular in shape and measured 1.3m long, 0.7m wide and 0.5m deep with steeply sloping sides.
- 1.1.1 This kiln contained a number of fills (274, 279, 280 and 281) which combined produced 4556g of Roman pottery, in addition to a small amount of kiln furniture. The latter comprises 14 fragments of kiln plates, 22 fragments of pedestal and four fragments of kiln superstructure. Fill 280 also contained a fragment of kiln plate with distinct rolled edges (SF 31). In addition, fills 274 and 281 each produced 1g of burnt animal bone. The main ceramic product of this kiln appears to have been a jar with a single-lid seating groove in the rim.

Kiln 255 (Fig. 11)

1.1.2 Kiln **255** was the most northerly of the kilns and was also the smallest. It was aligned north-east to south-west with the chamber to the south-west. The chamber measured 0.7m long, 0.6m wide and 0.1m deep: there was no evidence for any clay lining or a flue. The stoke hole lay to the north-east and measured 0.46m long by 0.4m wide and 0.08m deep. This kiln contained a single disuse fill (254) which consisted of a dark brown grey clayey sand and contained 495g of Roman pottery dating to the mid/late 1st century AD and 1g of burnt animal bone. Only one fragment of kiln superstructure was recovered from this fill. The main product from this kiln appears to have been a jar with single lid-seating grooves in the rim.

Boundary ditch

3.3.16 Ditch **359/372** was aligned north-west to south-east and probably represents a southern boundary for the kilns located to the north (Plate 5). This ditch measured 0.73m wide and 0.26m deep, its single fill (358) consisted of a mid to dark brown clayey sand which contained 285g of Roman pottery. A sherd of residual Iron Age pottery was also recovered. This ditch was probably open at the same time as the kilns were in use, as it contained fragments of lid-seated jar which were being produced here. No kiln furniture was recovered from this ditch, however, which was subsequently truncated by a post-medieval ditch (**374**, see below).

Associated pits and other features



- 3.3.17 A scatter of pits were located within close proximity to the kilns, some of which appear to have been directly associated with them due to the nature of the pottery and other finds recovered from them, although their functions remain uncertain.
- 3.3.18 Pits **420** and **422** were located directly east of boundary ditch **359**. Pit **420** measured 0.91m wide and 0.14m deep (Section 182), its single fill (421) consisted of a mid brown grey sandy silt which contained fired clay. Pit **422** to the immediate north measured 0.45m wide and 0.2m deep: its single fill was similar to that of **420** but contained no finds.
- 3.3.19 To the north, pit **319** was positioned on the east side of kiln **275**. This pit had an irregular shape and measured 2.5m long, 1.29m wide and 0.22m deep (Section 144). Its single fill (320) consisted of a mid grey brown sandy silt which contained 9g of Iron Age pottery and 53g of Early Roman pottery. Pit **321** lay directly north of pit **319** and measured 0.71m wide and 0.11m deep, its single fill (322) contained a small fragment of kiln furniture.
- 3.3.20 At the eastern edge of the site, two pits (256 and 363) appeared to truncate kiln 220, however this area was heavily disturbed from rooting and a modern service. Pit 256 was the more southerly of the pits and measured 0.8m wide and 0.28m deep. Its single fill (221) consisted of a dark brown clayey sand which contained 960g of Roman pottery. Immediately north was pit 363 which measured 1.1m wide and 0.3m deep. Its single fill (222) contained 1011g of Roman pottery. The pottery within these fills presumably came from truncated kiln 220.
- 3.3.21 To the north-east, pit **270** was located directly west of kilns **240** and **268** and measured 1.05m wide and 0.3m deep: it had near vertical sides and a fairly flat base (Section 123). Its single fill (271) consisted of mid brown grey clayey silt and contained fragments of kiln furniture, 29g of residual Early Iron Age pottery and rare charcoal flecks.
- 3.3.22 Pit **390** was located on the western edge of the group, to the south-west of kiln **250**, and was truncated by a post-medieval ditch (**393**). This circular pit measured 1.1m wide and 0.16m deep, and contained two fills. The basal fill (391) consisted of a mid grey brown sandy silt which contained no finds: and probably represents a primary silting of the pit. The uppermost fill (392) consisted of a very dark grey sandy silt which contained 14q of Roman pottery.
- 3.3.23 Pit **231** was located to the north of the main cluster of kilns and south of kiln **255**. It measured 0.5m wide and 0.12m deep and had sloping sides and a concave base. Its single fill (232) consisted of a mid red brown silt which contained a single sherd of residual Late Iron Age pottery. Further north was another pit (**316**) which measured 1.4m long, 1.2m wide and 0.23m deep. Its single fill (315) consisted of a mid yellow brown clayey sand which contained 65g of Roman pottery.

3.4 Phase 3: Post-medieval (19th century)

3.4.1 Post-medieval features included the remains of a trackway defined by ditches running north-west to south-east across the site. A series of intercutting ditches were found to the north of the trackway, while several boundary ditches were revealed towards the southern and western end of the site, along with a single post-hole (Fig. 12).

Trackway 1

3.4.2 The remains of a trackway extended north-west to south-east across the excavation area, delineated by segmented ditches on its northern and southern sides. Ditch **242/330** (Plate 6) formed part of the southern trackway ditch and measured 0.57m wide



- and 0.4m deep (Section 116). It contained a single fill (243) which consisted of a mid to dark reddish brown clayey silt that produced a piece of post-medieval glass.
- 3.4.3 A single post-hole (225) lay directly north of trackway ditch 242 and may have been associated with, perhaps representing part of a fence line or marker. This post-hole, which measured 0.35m wide and 0.26m deep, had vertical sides and a flat base. Its single fill consisted of mid brown grey silt which contained no finds.
- 3.4.4 To the north the trackway ditch was more segmented: ditch **206** measured 1.2m wide and 0.3m deep and had steep sides with a concave base (Plate 7; Section 101). Its single fill (207) consisted of mid reddish brown clayey silt and contained no finds. This segment of ditch terminated to the north-west (**424**), where it measured 0.68m wide and 0.24m deep; its fill (425) contained no finds. Adjacent and directly to the north of this ditch was a smaller gully (**208**) also aligned north-west to south-east. This gully measured 2m long and 0.5m wide and 0.07m deep; its sides were very shallow, breaking imperceptibly to a slightly concave base. No finds were recovered from its single fill (209). A further section of the trackway ditch (**378**) lay on the same alignment to the north-west. This measured 1.2m wide and 0.3m deep and contained a single fill (377) which consisted of a mid brown clayey sand. The latter produced a sherd of post-medieval pottery in addition to 63g of large mammal bone, along with brick and tile weighing 429g.

Major boundary/former channel

- 3.4.5 A series of intercutting ditches (**400**, **403**, **405**, **407**, **411**, **413** and **416**; Plate 8; Section 187) on a similar north-west to south-east alignment lay just to the north of the trackway. The most north-easterly of these was ditch **400**, which cut natural deposit 202 and measured 2.6m wide and over 0.76m deep. This ditch contained two fills, the lowest of which (401) was 0.28m thick and consisted of a mid brown grey clayey silt which contained no pottery. Overlying this was fill 402 which consisted of a light brown grey clayey silt. Ditch **400** was truncated by ditch **403**, which measured 1m wide and 0.46m deep. This ditch contained a single fill (404) consisting of mid bluey grey silty clay, from which no finds were recovered.
- 3.4.6 Just to the south-west of this was ditch **405** which had been heavily truncated and measured only 0.2m wide and 0.76m deep. This ditch contained a single fill (406) which consisted of a mid orangey brown clayey sandy silt with no finds. Truncating this ditch was ditch **407** which measured 1.56m wide and 0.8m deep, and was probably a direct re-cut of ditch **405**. This ditch contained two fills, the basal fill (408) was a mid blue grey silty clay which measured 0.4m thick, overlying which was a 0.4m-thick fill (409) of mid brown grey clayey silt. Ditch **407** also cut what appeared to be possible remnants of an earlier ditch or palaeochannel (410) which consisted of a light blue grey clay. This was not fully exposed due to the encroaching water level.
- 3.4.7 A large ditch (411) was later cut to the south-west, truncating ditch 407. This ditch measured 5.2m wide and at least 0.76m deep. Its exposed fill (412) consisted of a mid grey brown clayey silt which contained no finds. This was cut by another ditch (413) that measured 2m wide and 0.4m deep and contained two fills. The basal fill (414) consisted of a mid brown grey silty clay which was 0.28m thick. Overlying this was a mid orange brown silty clay fill (415), which was 0.2m thick and produced no finds.
- 3.4.8 The latest ditch in the sequence (**416**) measured 3.26m wide and 0.44m deep and contained a single fill (417) of mid brown grey silty clay that also produced no finds.



Boundary ditches

- 3.4.9 On the western side of the excavation area was a ditch (**305**) was on a north-east to south-west alignment that measured 0.8m wide and 0.18m deep. This ditch had fairly steep sides and a concave base. Its single fill (306) consisted of a mid red grey brown sandy silt which contained no finds. This ditch truncated the ditch forming Iron Age Enclosure 1.
- 3.4.10 Within the south-east extent of the excavation another ditch (374/244 and 393), on a similar alignment truncated a number of Roman features (359, 390). The ditch measured 0.6m wide and 0.26m deep: its fill contained a number of post-medieval finds including brick and tile weighing 1642g.
- 3.4.11 A ditch terminus (235) was partially exposed along the northern limit of the site. It appeared to have a north to south alignment and measured 0.35m wide and 0.1m deep. Its single fill (236) consisted of a mid brown grey clayey silt which contained no finds.

3.5 Undated/Unphased features

3.5.1 A number of features did not contain any dating evidence, most of which were post-holes. Some could conceivably relate to the post-medieval phase representing a fence line however a large number of those identified and excavated don't seem to represent any distinct pattern and their shapes and sizes vary considerably. One of the post-holes contained modern inclusions and another contained iron nails, apart these two post-holes the others contained no finds. A cluster of post-holes were located in the south-east area of the site near the Early Roman kilns and other features, while others lie to the north, near the post-medieval features, with a further group in the centre of the site.

Post-holes

- 3.5.2 In the north of the site was a small pit or post-hole (210) that measured 0.35m wide and 0.07m deep, its single fill consisted of light to mid grey brown sandy silt which contained 11 fragments of cattle bone. Another small pit or post-hole (212) that measured 0.45m wide and 0.12m deep, also produced a small quantity (45g) cattle bone.
- 3.5.3 A small group of post-holes (214, 216 and 218) measured between 0.4m and 0.55m wide and between 0.05m and 0.1m deep. The fills of these post-holes (215, 217 and 219) all consisted of a light yellow grey clayey sand which contained no finds. To the south of these were four further post-holes (223, 324, 326 and 328) which ranged in size from 0.3m to 0.4m wide and 0.09m to 0.18m deep; their fills contained no finds.
- 3.5.4 The remainder of the post-holes were scattered across the southern part of the site (246, 253, 289, 291, 293, 295, 297, 299, 331, 333, 335, 337, 339) and measured between 0.2m and 0.47m wide and 0.05m to 0.28m deep, with their fills all largely consisting of a mid brown grey clayey silt. Only four of the post-holes contained finds: 295 contained modern material, 333 contained a piece of clinker, 335 contained post-medieval tile weighing 9g and post-hole 337 contained two iron nails.

3.5.5 Pit **237**, which was located to the east of Phase 1 enclosure ditch **301**, measured 0.55m wide and 0.12m deep. Its single fill (238) consisted of a dark brown grey clayey silt from which no finds were recovered. Another pit (**98**) was located north-east of Enclosure 1 and measured 0.75m wide and 0.16m deep. Its single fill (399) contained no finds.

Pits



- 3.5.6 Two undated pits located in the vicinity of the Early Roman kilns may have been dug to extract clay for use in the lining of the kilns, or for pottery production itself. Large pit 356 was located on the south-east edge of the site and measured 2.3m by 2m wide and 0.8m deep with vertical sides and a flat base. This pit contained a single fill (357) which consisted of a mid grey yellow brown silty clay which contained a single piece of bone weighing 9g. This pit was heavily disturbed by rooting. The second pit (375) was partially exposed along the eastern edge of the site within close proximity to kiln 239. It measured 0.15m deep and its single fill (376) consisted of a light orangey brown clay which contained no finds.
- 3.5.7 Pit **233** was located directly west of Roman pit **231** to the north of the main kiln group. It measured 0.5m wide and 0.05m deep; its single fill (234) contained no finds.

3.6 Modern

3.6.1 Only a small number of modern features were identified: these were located but not further investigated. Of note was a spread containing modern brick and tile at the northern end of the excavation area. This layer, which was also identified during the evaluation, overly the series of intercutting post-medieval boundary ditches described above.

3.7 Finds Summary

3.7.1 Roman pottery and kiln furniture formed the largest collection of finds from this site with 46.89kg of Roman pottery deriving from the kilns themselves along with 90.78kg of kiln furniture and kiln superstructure. The pottery being produced in the eight pottery kilns has been dated to 60-80 AD and largely comprises lid seated jars along with their lids. The kiln furniture present comprised clay plates, pedestals and spacers. A small amount of Iron Age pottery is also present, although much of it was residual in later features, while ceramic building material was recovered from some of the post-medieval features. A fragment of glass and undiagnostic post-medieval pottery were recovered from the trackway ditches. Nails were recovered from one of the undated post-holes too, most likely signifying a post-medieval date.

3.8 Environmental Summary

3.8.1 Samples taken from Iron Age and post-medieval features were of little interest. The samples taken from the Roman pottery kilns yielded occasional grains of barley and hulled wheat grains mixed with weed seeds, sparse remains of chaff and small volumes of charcoal (App. C). Very few faunal remains were recovered.



4 DISCUSSION AND CONCLUSIONS

4.1 Iron Age Enclosure

- 4.1.1 The main focus of activity in this phase is represented by the sub-rectangular enclosure on the south-west side of the site (Enclosure 1). Only a single sherd of Middle Iron Age pottery was recovered from the enclosure ditch: this paucity of finds combined with the lack of plant and other remains suggests that the enclosure was not directly related to settlement. Similar enclosures in Cambridgeshire dating to the Middle Iron Age have, however, been interpreted as such, including site at Eaton Socon which lies further south along the Quaternary river gravel terrace (Stansbie 2008). Enclosure 1 at Brampton is most likely to have been associated with agricultural use, probably a stock enclosure that was part of a nearby settlement perhaps located further to the southwest.
- 4.1.2 A number of cropmarks and finds spots are known on land to the south and west of RAF Brampton (e.g. CHER MCB20046 and CHER 02498A), while recent geophysical survey undertaken as part of the A14 improvements have revealed circular and rectilinear enclosures potentially dating to this period (Fig 13). Although a number of other features can be associated with this phase of use at the current site, very little pottery or other finds were recovered to provide a reliable chronology for this activity. The handful of pottery sherds found in pits, a tree throw and a later ditch date from the Early Iron Age through to the Late Iron Age, tentatively suggesting an Iron Age presence in the area throughout the period.
- 4.1.3 Combined, the evidence indicates that the site was probably located on the periphery of a settlement, presumably a farmstead, which may have had its origins in the Early Iron Age. The limited nature of this evidence means that it can make little contribution to the study of chronology and social organisation in this period (Medlycott 2011).

4.2 Early Roman Pottery Kilns

By Alice Lyons with Kathyrn Nicholls

"Knowledge and understanding of the centres where the pottery was produced are fundamental to the study of Roman pottery" (Perrin 2011, 41).

- 4.2.1 The eight Roman pottery kilns located in the south-east corner of the site were an unexpected discovery, as no hint of their presence was found during the evaluation. This 'kiln field' appears to form the largest group of kilns known in this part of Cambridgeshire and makes a valuable contribution to a growing corpus of such sites dating to the 1st century AD across the county.
- 4.2.2 In recent years a number of Early Roman kiln sites have been excavated across Cambridgeshire notably at Swavesey, Greenhouse Farm, the Hutchison Site (Addenbrookes Hospital) and Duxford which together provide some useful comparisons with those found at Brampton (Fig. 14). Another kiln has also recently been discovered in Brampton, 1km west of the site, as part of the archaeological works in advance of the A14 improvements. This kiln, although not fully excavated and poorly preserved (Jones & Panes 2014) appears to have been of a similar mid- to late-1st century date. Other examples have been recorded at Godmanchester to the east, although only one of these kilns has been tentatively dated to the 1st century AD.



Location: why was the kiln site here?

- 4.2.3 Swan (1984, 3) notes: "the basic requirements for pottery production are the availability of suitable clay, tempering material, water and fuel". These materials would have been readily available at the Brampton site, where the natural geology comprises Oxford Clay Formation Mudstones (see Section 1.2 above). The River Great Ouse (a well used routeway in the Roman period) flows just 1.2km east of the site, and it is likely that there were tributaries of this located within or close to the site. Possibly of significance is the series of intercutting (post-medieval) ditches in the northern part of the site that may have recut the line of a palaeochannel; this area consistently filled with water (see below). Alternatively ponds may have formed, especially in the areas where clay extraction was taking place. The limited environmental evidence from RAF Brampton suggests that potentially easily available woodland resources (perhaps dominated by branch/brush wood), rather than specifically selected woodland trees, were being utilised at the site. Kindling or tinder may have been provided by cereal straw, although the evidence for this is also inconclusive (see Appendices C1 and C3).
- Brampton was well-placed within the developing Roman infrastructure, particularly with 4.2.4 Godmanchester (Durovigutum) being located 4km to the east. This small Roman town developed around an Early Roman fort positioned to guard the Ermine Street and River Great Ouse crossing (Lyons Forthcoming). Although the kiln field at Brampton does not appear to have been associated with any contemporary settlement, this situation was not unusual as other kiln sites in Cambridgeshire seem to have favoured relatively isolated positions - most likely to provide space to work while avoiding the risk of fire to the wider settlement (Anderson & Woolhouse 2016, 22). Evans (et al., 2008, 128) suggests that this may have been due in part to the character of the potters and their place in society, whereby they may have been itinerant and not fully integrated into the local community. The presence of the Iron Age enclosure to the immediate south-west of the kiln field, however, indicates that there was settlement-related activity in this area prior to the Roman conquest. Both Iron Age and Roman sites have also been identified to the south and west of the site, largely comprising ditches, enclosures and a possible trackway (CHER 4475; 05765). A substantial Roman settlement was also located to the north of Brampton village, consisting of a series of enclosures, houses, a corn dryer and an associated cobbled surface (MCB 20033). Although these are probably too far away to have been directly associated with the kiln field, their presence demonstrates the extent of rural Late Iron Age and Roman settlement in this area.

Typology and Chronology

- 4.2.5 All of the kilns, apart from northernmost kiln **255**, were located in the south-east corner of the site, in an area measuring 25m by 15m. This area was bounded on the southern side by a ditch and while the western boundary appears to have been of post-medieval date, this may conceivably have followed the line of an earlier Roman ditch. The kiln field probably extended further to the east, as kiln **241** continued beyond the eastern baulk.
- 4.2.6 Although the kilns differed in design, which is standard for the time, the majority were of a 'figure of eight' shape comprising a circular clay-lined firing chamber and a single stoke hole a template which is seen in many of the early kilns so far excavated in Cambridgeshire. Within this broad design, kiln 255 was notably much smaller, while kiln 275 was sub-circular in plan with no apparent flue; kiln 255 appears to have had no clay-lining surviving. Some kilns had very crude linings, often with incorporated pedestals and kiln 239 had been relined a number of times.



- 4.2.7 In general, the kilns were on a roughly east to west alignment with the chamber at the western end, apart from kiln 275 which was aligned north to south with the chamber at the northern end. Similar differences in orientation were identified at the Greenhouse Farm and Hutchison sites where it was suggested that this was in response to the direction of the common prevailing winds (Gibson & Lucas 2002). The kiln uncovered 1km to the west had a north-west to south-east alignment with the stoke hole at the south-east end (Jones & Panes 2014).
- 4.2.8 These different orientations, combined with the varying designs and intercutting of some of the kilns at Brampton, indicate that not all were in use at the same time Unfortunately, the kilns were not suitable for scientific dating methodology, such as archaeomagnetic study or thermoluminescence, as the relatively low firing temperature of the kilns (estimate 800 °C) meant their linings had become cracked and unstable. Spot dating of the pottery combined with the available stratigraphy and kiln typology were the forms of dating employed to suggest a range of use for the kilns between AD 60-80.

Internal elements and portable kiln furniture

- 4.2.9 Several elements of the design of these kilns are particularly interesting. The two kilns with integral pilasters and linear pedestals (268, 275) may be paralleled to other Early Roman kilns seen in the region such as kiln F.1117 found at The Hutchinson Site, Addenbrookes (Evans, Mackay and Webley 2008, 60, fig 2.25) but are known to be a short-lived Early Roman form (Swan 1984, 86) and may therefore represent early experimentation by potters new to this technology.
- While three kilns have no surviving internal features (241, 250, 255) the remainder (220, 239, 240), had one (or two) linear central rectangular pedestals flanked by a cylindrical pedestal in each quarter of the kiln (240 was the best preserved example, with six pedestals). Although linear pedestals are seen elsewhere in Early Roman kiln design in Cambridgeshire, they were usually twinned or parallel to each other (Addenbrooke's: Evans, Mackay and Webley 2008, 59-60, fig 2.25, F.63; Greenhouse Farm: Gibson and Lucas 2002, Group 2, 99, fig. 4). The cylindrical pedestals are defined by Swan as 'Dumb-bell type': "a square, rectangular or circular column, expanded at both ends". At the time of Swan's publication most known examples were closely associated with the Upper Nene Valley, particularly the pottery production centred at Rushden (Swan 1984, 59). A possible parallel is also seen from Martin's Lane, Hardingston in Northamptonshire where seven kilns were excavated in 1965 (Jackson 1966): "In Kiln 2 – 'on one side two clay pillars had been built and burnt in situ - these were 5in (13cm) square and about 1ft 1in (33cm) high. Also found lying in the kiln - but not in situ was a clay pedestal with a stem 4in by 5in (10cm x 13cm) mushrooming out to an 8 inch (20 cm) square at the top".
- 4.2.11 A large amount of kiln furniture was recovered from Brampton, the majority of which was found within the kilns themselves (90.78kg). The absence of surviving *in-situ* pedestals in three of the kilns indicates that they were removed for re-use in another kiln. The use of portable kiln furniture was common in the 1st century AD a practice that may account for the lack of furniture present in some early kilns (Woods 1974).
- 4.2.12 None of the Brampton kilns had permanent floors and intriguingly no kiln bars were found which are a common component of other early kilns in Cambridgeshire (Lyons 2008). What was found, however, is a relatively large number of flat circular and subrectangular kiln plates (some with a central perforation), many with cereal impressions where they had been lain on chaff to dry (SF 24). Clay plates have been found from the



other Cambridgeshire kiln sites, most noteworthy are those recently found at a flagon production centre at Duxford, also at Addenbrookes (Evans, Mackay and Webley 2008, 83, fig 2.36), however these are of a quite different design with distinctive indented ends (Anderson & Woolhouse 2016, 15, fig. 7). Recorded kiln plates of the type found at Brampton are generally rare in Cambridgeshire, although they were recorded at Swavesey (Lyons 2008) but both circular and sub-rectangular plate forms are well documented around Milton Keynes (Williams 1994, 363).

4.2.13 Parallels for Early Roman kilns not using kiln bar technology in the region are scarce, indeed all the other Cambridgeshire sites have at least one example of a kiln bar and they are prevalent at the Swavesey site (Lyons 2008) and at the other kiln site in Brampton (Jones & Panes 2014). So it is significant that recent experimental firing by Hines (2012) has shown that perforated plates can function as a kiln floor, without the additional support of kiln bars, when resting between the pedestal(s) and the wall ledge.

Chronology

- 4.2.14 Looking at the kiln typology in more detail it is suggested, therefore, that the kilns with integral pilasters and those of possibly cruder construction (255, 268 and 275) represent the earliest phase of pottery production, with the more circular chambered, well-fired, central pedestalled versions (220, 239, 240, 250) representing the next generation of kiln use. Although even within this suggested model elements of re-use such as the re-lined kiln 239 may hint at a more complicated timeline. The Brampton kilns clearly represent more than one phase of use, although it is not possible to make more specific interpretations regarding whether this was seasonal or over a longer period of time. At Duxford, for example, it has been noted that the area of land where the kilns were positioned was prone to flooding, evidence of which could be seen in the kilns. These kilns would then be cleared out and re-used each season (Anderson & Woolhouse 2016).
- 4.2.15 The ceramic assemblages excavated from within the kilns support the interpretation of at least two phases of kiln use. Although a conservative range of reduced and oxidised sand tempered lid-seated jars and associated lids were the main product of these kilns throughout their existence subtle changes in the designs of these vessels suggest different potters at work possibly over two generations. Where the earlier kilns produced lid-seated jars with distinctive high-shoulders, this design changed over time as the jars became more globular in the later kilns. The hand of more than one potter may also be reflected in the choice to provide single or double lid-seating grooves within the vessel rims.

Kiln products

- 4.2.16 A total of 2036 sherds of Early Roman coarse ware were recovered from the eight kilns. All of the kilns were used to make a limited range of lid-seated jars and associated lids. These types of jars are considered fairly easy to produce in comparison to other 'specialist' forms such as mortaria and flagons. The fabric used is a simple mix of local clay and sand with common fine flint, fired to either oxidised or reduced finishes depending on either their position in the kiln or reflecting progressive firings. There are subtle differences between each kiln load, however, perhaps suggesting not only slightly different dates of use but also the hand of different potters.
- 4.2.17 The potential kiln uncovered 1km to the west appeared to be producing lid-seated bead rimmed jars, however there is no evidence for any lids being produced here (Jones & Panes 2014).



Technology, specialism and the demise of the smaller workshops

- 4.2.18 Analysis of the kilns and their products has suggested that the Brampton potters developed a system of firing pottery whereby numerous pedestals (both rectangular and cylindrical) were used to support a temporary floor constructed of kiln plates. This technology was influenced by practices seen in Northamptonshire and the Upper Nene Valley (Swan 1984, 68, fig. VIII), although no exact parallels of either kiln typology or product have been found as yet.
- 4.2.19 The small number of kilns, located in an apparently isolated position and producing utilitarian coarse ware lid-seated jars, jar lids and with a potential specialism in cheese-press production may be compatible with the model of a 'potter-farmer' who slotted potting tasks into their seasonal agricultural programme (Evans *et al* 2008, 127-133; Gibson and Lucus, 109-114). This potter (or potters) may indeed have been making cheese as part of their agricultural regime, while the presence of spelt cereal impression on the clay kiln plates also indicates crops were being grown and processed near-by. Clay was evidently available in the nearby geology, perhaps extracted from exposed areas in river-beds although one large pit (356; 2m wide by 0.8m deep) may also have been used for extraction. It seems that any workshop buildings that may have existed were of ephemeral construction (Bates & Lyons 2003, 68), although gully 272 could possibly be interpreted as a wind break or possible drain.
- 4.2.20 It is worth considering how these pottery skills became widespread in rural Cambridgeshire during the Early Roman period. Evans argues that itinerant specialists were not necessary to transfer pottery skills in the relatively dense settlement of central Cambridgeshire in the Late Iron Age and Early Roman periods, as local knowledge could have spread through regular social interchange, such as marriage or the exchange of skilled labour (serfs or slaves), or the presence of the military (Evans et al 2008, 131; Ralph 2007).
- 4.2.21 These smaller individual workshops clearly fell from use at the end of the 1st century, when larger pottery industries such as those at Horningsea and the Nene Valley became established (Evans *et al.* 2004). It is not thought the Brampton pottery was made for trade or export, although it is interesting to note that none of the excavated sites in the vicinity of the Brampton site appear to have evidence for the lid seated jars, indicating that the settlement that these pots were being produced for has yet to be discovered.

Other Roman features

4.2.22 A scatter of contemporary features was revealed, including a southern boundary ditch, although whether the majority of these were directly associated with the kilns and pottery production is difficult to ascertain. It is possible that some of the Iron Age ditches were still visible elements within the landscape, including Enclousre 1 to the south-west. No waster pits were uncovered, perhaps because the kilns were being used for this purpose once they went out of use; some of the pottery recovered from the kilns are waster sherds. Several of the pits located in the south-east area of the site contained pottery similar to that from the kilns, suggesting that they were contemporary with their use. A number of post-holes and a gully could represent windbreaks, workshops or shelters; examples of gullys directly associated with kilns at Two Mile Bottom in Thetford have been interpreted as a windbreak or possible drain (Bates & Lyons 2003, 68).



4.3 Post-medieval features associated with Brampton Park

- 4.3.1 Post-medieval features associated with Brampton Park have been identified during the evaluation as well as within the area targeted for excavation and elsewhere across RAF Brampton.
- 4.3.2 Trench 15 was located to the north-east of the excavation area and uncovered a gravel ride or drive which was orientated north to south and followed the same line as an avenue of trees which can be seen on the 1820 estate map (Fig 15). The feature measured over 6m wide and was perhaps intended as a carriage drive (Stocks-Morgan 2015). Two garden features from the former Park still remain *in-situ* and comprise the remains of a brick wall and viewing platform that formed the southern boundary of a formal garden to the south of Brampton House. In addition, a low brick wall situated to the north of Brampton House was recorded (Fairbairn 2016), all of which are early to mid 19th century in date.
- 4.3.3 A large pond identified by the evaluation at the northern end of the site, was found during excavation to be a series of intercutting ditches possibly overlying an older palaeochannel. The location of the ditches within the park boundaries suggest they were contemporary with the park and may represent an inner park boundary to the north of Park Lane. They may have also been cut for drainage given the potential presence of a palaeochannel at this location the water table was notably high in this location.
- 4.3.4 Ditches representing the remains of a trackway (Trackway 1) aligned north-west to south-east across the excavation area correspond with the former 'Park Lane' depicted on the 1820 estate map (Fig. 15). This trackway is visible on aerial photographs and is still marked by the presence of the old oak trees which can be seen to the east of the excavation area and running just south of Manchester Road. The ditches defining the former Park Lane appear to have remained in use until the late 19th century when the Park was subject to significant changes under Lady Olivia Bernard Sparrow. One of these changes was the repositioning of the southern Park boundary. The first cartographic evidence for this is shown on the 1834 estate map (Fig 16), which depicts the line of a fence annotated as 'New Quick fence' situated along the route of the current Park Lane, which runs east to west just south of the excavation area.
- 4.3.5 The 1840 estate map shows plans to formalise these changes, with the land immediately south of the old Park Lane labelled 'proposed addition to Park', and the line of the 'new' Park Lane depicted for the first time (Fig 17). By 1852 the map of that date shows the road had been constructed and formally named Park Lane. The 1888 OS map is the first map to not depict the former Park Lane (not illustrated).
- 4.3.6 Other features dating to this phase include two north-north-east to south-south-west orientated ditches and a series of post-holes on the same alignment. A sketch map from 1820 shows the land to the south of Park Lane labelled as 'Sir R Bernards third allotment Freehold' which was divided into north-north-east to south-south-west plots which broadly correspond with two of the ditches (244 and 305) and potentially also the post-holes. Even during the expansion of the Park boundary the maps still depict the area of land between the former and new Park Lane as being used for cultivation.
- 4.3.7 Very little material was recovered from these features and no finds were retrieved through metal detecting. Despite this, the archaeological investigations, combined with the cartographic evidence in particular, make some contribution to further understanding the development of Brampton Park and its environs in the 19th century.



4.4 Significance

- 4.4.1 Although the results of the evaluation indicated that the excavation would uncover remains relating to an Iron Age settlement and parts of the 19th-century Brampton Park, the most significant result was the identification of eight Early Roman pottery kilns.
- 4.4.2 Lid seated jars along with their lids were the main form being produced here between 60-80 AD, along with a small number of specialist cheese presses. At least two phases of kiln construction and pottery production were revealed, possibly representing different potters at work over one or more generations. The Brampton potters developed a system of firing pottery that was influenced by practices seen in neighbouring areas (Northamptonshire and the Upper Nene Valley), perhaps suggesting links between these communities, although no exact parallels for the kiln typology or product have so far been found.
- 4.4.3 The kilns were remarkably well-preserved, yielding a large amount of pottery and kiln furniture. They are undoubtedly of regional importance and will make a significant contribution to the study of the adoption of wheel-made kiln-fired pottery in Early Roman rural communities in Cambridgeshire and beyond.

Report Number 1914



5 UPDATED PROJECT DESIGN FOR PUBLICATION

5.1 Introduction

5.1.1 It is proposed that the results of the excavation will be published in *The Proceedings of the Cambridgeshire Antiquarian Society*.

5.2 Stratigraphic and Structural Data

The Excavation Record

5.2.1 All hand written records have been collated and checked for internal consistency, and the site records have been transcribed onto an MS Access Database. Quantities of records are laid out in the table below.

Туре	Quantity
Context registers	6
Context numbers	229
Plan registers	2
Section registers	3
Sample registers	3
Plans	63
Sections	191
Digital photographs	380

5.3 Storage and Curation

- 5.3.1 Excavated material and records will be deposited with, and curated by, Cambridgeshire County Council under the Site Code BRARAF16 and the county HER code ECB 4681. A digital archive will be deposited with OA Library/ADS. During publication preparation, OA East will hold all material and reserves the right to send material for further specialist analysis.
- 5.3.2 The archive will be prepared in accordance with current OA East guidelines, which are based on current national guideline and the Cambridgeshire County Council standards for archaeological archive preparation.

5.4 Publication

5.4.1 It is proposed that the results of the project should be published in *The Proceedings of the Cambridgeshire Antiquarian Society.* The article would be authored by Kathryn Nicholls and Alice Lyons, and would focus on the eight Early Roman pottery kilns, discussing their forms and the pottery they were producing:

Article Structure

Introduction

Background – Project and archaeological background

The Kilns

The Pottery and Kiln furniture

The Environmental Evidence

Discussion



5.4.2 The publication will comprise 8-10,000 words and include 12 figures (two location figs, six kiln figures, up to four figs of illustrated pottery and kiln furniture) and 4 tables.

6 Resources and Programming

6.1 Project Team Structure

Name	Initials	Project Role	Establishment
Matt Brudenell	MB	Project Manager/content editor	OA East
Elizabeth Popescu	EP	PX Project Manager/editor	OA East
Kathryn Nicholls	KN	Author	OA East
Alice Lyons	AL	Roman pottery/kiln furniture specialist	OA East
Rachel Fosberry	RF	Environmental specialist	OA East
Illustrators	CW, GG,	Illustrations	OA East
	SB		
Katherine Hamilton	KH	Archives Supervisor	OA East

6.2 Stages, Products and Tasks

Task No.	Task	Product No.*	Staff	No. Days
Project	Management		<u>'</u>	
1	Project management		MB	0.5
2	Team meetings		MB/EP/AL/KN/ GG	0.25
3	Liaison with relevant staff and specialists, distribution of relevant information and materials		KN	0.5
Stage 1				
Illustra		T		
	Prepare publication plans and sections		GG/CW	4
	Select photographs for inclusion in the report		KN	0.25
	Finds illustration: Roman pottery		SB	8
Artefac	t and environmental studies			
	Edit Roman Pottery and Kiln furniture report		AL	1.5
	Edit Environmental report		RF	1.5
Stage 2				
	Edit background and kiln descriptions		KN/AL	2
	Compile list of illustrations/liaise with illustrators		KN/AL/GG	0.25
	Write discussion and conclusions		KN/AL	2
	Finalise report figures		KN/AL/GG	1
	Collate/edit captions, bibliography, appendices etc		KN/AL	0.5
	Produce draft report		KN/AL	8
	Internal edit		MB/EP	1
	Incorporate internal edits		KN	0.5
	Final edit		EP	0.5
	Send to publisher for refereeing		EP	0.25
	Post-refereeing revisions		KN/EP	0.5
	Copy edit queries		EP	0.5
	Proof-reading		EP	0.5
Stage 3	: Archiving			



Task No.	Task	Product No.*	Staff	No. Days
	Finds and paper marking		Finds assistant	13.5
	Archive/delete digital photographs		KH	4
	Compile/check material and paper		KH	4
	archive			
Total:				55.5

6.3 Project Timetable

6.3.1 It is anticipated that an article will be ready to submit early 2017, with the archive deposited at the same time.



APPENDIX A. CONTEXT INVENTORY

Context	Same as	Cut	Category	Feature Type	Function	Breadth	Depth	Phase
96		97	fill	pit	disuse	0.64	0.3	1
97		97	cut	pit	Rubbish?	0.64	0.3	1
200			layer	topsoil			0.3	0
201			layer	subsoil			0.15	0
202			layer	natural				0
206	424	206	cut	ditch	trackway	1.2	0.3	3
207		206	fill	ditch	disuse	1.2	0.3	3
208		208	cut	gully	trackway	0.5	0.7	3
209		208	fill	gully	disuse	0.5	0.7	3
210		210	cut	pit/post-hole	?	0.35	0.07	0
211		210	fill	pit/post-hole	disuse	0.35	0.07	0
212		212	cut	pit/post-hole	?	0.45	0.12	0
213		212	fill	pit/post-hole	disuse	0.45	0.12	0
214		214	cut	pit/post-hole	?	0.5	0.1	0
215		214	fill	pit/post-hole	disuse	0.5	0.1	0
216		216	cut	pit/post-hole	?	0.4	0.05	0
217		216	fill	pit/post-hole	disuse	0.4	0.05	0
218		218	cut	pit/post-hole	?	0.55	0.1	0
219		218	fill	pit/post-hole	disuse	0.55	0.1	0
					pottery			
220		220	cut	kiln	production	0.7	0.4	2
221		256	fill	pit	disuse	0.9	0.25	2
222		363	fill	pit	disuse	1.05	0.3	2
223		223	cut	post-hole	structural	0.3	0.09	0
224		223	fill	post-hole	disuse	0.3	0.09	0
225		225	cut	post-hole	structural	0.35	0.26	3
226		225	fill	post-hole	disuse	0.35	0.26	3
227		227	cut	pit	?	0.57	0.1	1
228		227	fill	pit	disuse	0.57	0.1	1
229		229	cut	tree throw	?	0.45	0.12	1
230		229	fill	tree throw	disuse	0.45	0.12	1
231		231	cut	pit	?	0.5	0.12	2
232		231	fill	pit	disuse	0.5	0.12	2
233		233	cut	pit	?	0.5	0.05	0
234		233	fill	pit	disuse	0.5	0.05	0
235		235	cut	ditch terminus	boundary	0.35	0.1	3
236		235	fill	ditch	disuse	0.35	0.1	3
237		237	cut	pit	?	0.55	0.12	0
238		237	fill	pit	disuse	0.55	0.12	0
239		239	cut	kiln	pottery production	1.32	0.42	2
240		240	cut	kiln	pottery production	0.9	0.28	2
241		241	cut	kiln	pottery	0.7	0.1	2



Context	Same as	Cut	Category	Feature Type	Function	Breadth	Depth	Phase
			, ,	, , , , , , , , , , , , , , , , , , ,	production			
242	330	242	cut	ditch	trackway	0.57	0.4	3
243		242	fill	ditch	disuse	0.57	0.4	3
244	374, 393	244	cut	ditch	boundary	0.5	0.36	3
245		244	fill	ditch	disuse	0.5	0.36	3
246		246	cut	post-hole	structural	0.3	0.06	0
247		246	fill	post-hole	disuse	0.3	0.06	0
248		241	fill	kiln	disuse	0.7	0.16	2
249		220	fill	kiln	use	0.5	0.35	2
250		250	cut	kiln	pottery production	1.3	0.51	2
251		220	fill	kiln	disuse	0.5	0.4	2
252		253	fill	post-hole	disuse	0.4	0.1	0
253		253	cut	post-hole	structural	0.4	0.1	2
254		255	fill	kiln	disuse	0.65	0.14	2
255		255	cut	kiln	pottery production	0.65	0.14	2
256		256	cut	pit	?	0.9	0.28	2
					pottery			
257	220	257	cut	kiln	production	1.8	0.25	2
258		239	fill	kiln	disuse/use		0.31	2
259		239	fill	kiln	disuse	1.45	0.12	2
260		239	fill	kiln	disuse/use	1.2	0.19	2
261		250	fill	kiln	disuse	1.3	0.42	2
262		250	fill	kiln	disuse	1.3	0.27	2
263		250	fill	kiln	disuse	1.3	0.36	2
264		250	fill	kiln	disuse	1.3	0.26	2
265		250	fill	kiln	disuse	1	0.34	2
266		240	fill	kiln	disuse	0.8	0.28	2
267		240	fill	kiln	disuse	0.9	0.28	2
					pottery			
268		268	cut	kiln	production	0.7	0.2	2
269		268	fill	kiln	disuse	0.7	0.2	2
270		270	cut	pit	?	1.05	0.3	2
271		270	fill	pit	disuse	1.05	0.3	2
272		272	cut	gully	?	0.25	0.06	2
273		272	fill	gully	disuse	0.25	0.06	2
274		275	fill	kiln	disuse	0.7	0.25	2
275		275	cut	kiln	pottery production	1	0.3	2
276		240	fill	kiln	lining		0.08	2
277		278	fill	pit	disuse	0.7	0.18	2
278		278	cut	pit	?	0.7	0.18	2
279		275	fill	kiln	disuse	0.7	0.23	2
280		275	fill	kiln	disuse	1	0.28	2
281		275	fill	kiln	disuse	0.85	0.3	2
282		239	fill	kiln	disuse	1.37	0.4	2



Context	Same as	Cut	Category	Feature Type	Function	Breadth	Depth	Phase
283		239	fill	kiln	disuse		0.31	2
285	259	239	fill	kiln	disuse		0.2	2
286		250	fill	kiln	use	1	0.52	2
287		250	fill	kiln	disuse	1	0.49	2
288		250	fill	kiln	disuse	1	0.4	2
289		289	cut	post-hole	structural	0.47	0.27	2
290		289	fill	post-hole	disuse	0.4	0.27	0
291		291	cut	post-hole	structural	0.2	0.05	2
292		291	fill	post-hole	disuse	0.2	0.05	0
293		293	cut	post-hole	structural	0.2	0.08	2
294		293	fill	post-hole	disuse	0.2	0.08	0
295		295	cut	post-hole	structural	0.35	0.1	2
296		295	fill	post-hole	disuse	0.35	0.1	0
297		297	cut	post-hole	structural	0.22	0.15	2
298		297	fill	post-hole	disuse	0.22	0.15	0
299		299	cut	post-hole	structural	0.3	0.15	2
300		299	fill	post-hole	disuse	0.3	0.15	0
301	303	301	cut	ditch	enclosure	1.6	0.26	1
302		301	fill	ditch	disuse	1.06	0.26	1
303	301	303	cut	ditch terminus	enclosure	0.8	0.24	1
304		303	fill	ditch terminus	disuse	0.8	0.24	1
305		305	cut	ditch	boundary	0.8	0.18	3
306		305	fill	ditch	disuse	0.8	0.18	3
307		307	cut	ditch terminus	enclosure	1.1	0.52	1
308		307	fill	ditch terminus	enclosure	1.1	0.52	1
309		309	cut	ditch terminus	enclosure	1.46	0.46	1
310		309	fill	ditch terminus	enclosure	1.46	0.46	1
311		311	cut	pit/post-hole	?	0.54	0.09	1
312		311	fill	pit/post-hole	disuse	0.54	0.09	1
313		313	cut	pit	?	0.76	0.18	1
314		313	fill	ditch	disuse	0.76	0.18	1
315		316	fill	pit	disuse	1.2	0.23	2
316		316	cut	pit	?	1.2	0.23	2
317		317	cut	ditch	enclosure	1.62	0.52	1
318		317	fill	ditch	enclosure	1.62	0.52	1
319		319	cut	pit	?	1.29	0.22	2
320		319	fill	pit	disuse	1.29	0.22	2
321		321	cut	pit	?	0.71	0.11	2
322		321	fill	pit	disuse	0.71	0.11	2
323		324	fill	pit	disuse	0.46	0.12	0
324		324	cut	post-hole	structural	0.46	0.12	0
325		326	fill	post-hole	disuse	0.4	0.09	0
326		326	cut	post-hole	structural	0.4	0.09	0
327		328	fill	pit	disuse	0.3	0.18	0
328		328	cut	pit	?	0.3	0.18	0
329		330	fill	ditch	disuse	0.5	0.25	3



Context	Same as	Cut	Category	Feature Type	Function	Breadth	Depth	Phase
330	242	330	cut	ditch	trackway	0.5	0.25	3
331		331	cut	post-hole	structural	0.24	0.2	0
332		331	fill	post-hole	structural	0.24	0.2	0
333		333	cut	post-hole	structural	0.33	0.16	0
334		333	fill	post-hole	disuse	0.33	0.16	0
335		335	cut	post-hole	structural	0.29	0.28	0
336		335	fill	post- hole	disuse	0.29	0.28	0
337		337	cut	post-hole	structural	0.36	0.28	0
338		337	fill	post-hole	disuse	0.36	0.26	0
339		339	cut	post-hole	structural	0.33	0.07	0
340		339	fill	post-hole	disuse	0.33	0.7	0
344		344	cut	ditch	enclosure	1.38	0.34	1
345		344	fill	ditch	enclosure	1.38	0.34	1
346		346	cut	post-hole	structural	0.44	0.24	1
347		346	fill	post-hole	disuse	0.44	0.24	1
348		348	cut	post-hole	structural	0.38	0.25	1
349		348	fill	post-hole	structural	0.38	0.25	1
351	360	239	fill	kiln	redep. natural	1.2	0.26	2
352		239	fill	kiln	use	- · · -	0.1	2
353		353	cut	pit	?	0.72	0.25	1
354		353	fill	pit	disuse	0.17	0.25	1
355		353	fill	pit	disuse	0.55	0.25	1
356		356	cut	pit	?	2	0.8	0
357		356	fill	pit	disuse	2	0.8	0
358		359	fill	ditch	disuse	0.73	0.26	2
359	372	359	cut	ditch	boundary	0.73	0.26	2
360	351	239	fill	kiln	redep. natural	1.35	0.20	2
362	331	268	fill	kiln	disuse	1.55	0.2	2
363		363			?	1.1	0.3	2
303	307, 309	363	cut	pit	f	1.1	0.3	
364	317, 344	364	cut	ditch	enclosure	1.52	0.6	1
365	011,011	364	fill	ditch	enclosure	1.52	0.6	1
000	308, 310	001	1	ditori	Gridiodaro	1.02	0.0	
366	318, 345	0	fill	ditch	enclosure	1.52	0.38	3
367		367	cut	ditch	boundary	0.28	0.18	3
368	304	367	fill	ditch	disuse	0.28	0.18	3
369	305	369	cut	ditch	boundary	0.4	0.2	1
370	306	369	fill	ditch	disuse	0.4	0.2	1
371	358	372	fill	ditch	disuse	0.5	0.3	2
372	359	372	cut	ditch	boundary	0.5	0.3	2
373		374	fill	ditch	disuse	0.6	0.26	3
374	244, 393	374	cut	ditch	boundary	0.6	0.26	3
375		375	cut	pit	clay storage?		0.15	2
376		375	fill	pit	disuse		0.15	0
377		378	fill	ditch	disuse, silting	1.2	0.3	3
378		378	cut	ditch	trackway	1.2	0.3	3
379		379	cut	pit	?	1.08	0.28	1



Context	Same as	Cut	Category	Feature Type	Function	Breadth	Depth	Phase
380		379	fill	pit	disuse	1.08	0.28	1
381		239	fill	kiln	lining	0.3	0.03	2
382	381	239	fill	kiln	lining	0.02	0.56	2
384		239	fill	kiln	lining	0.1	0.29	2
386		239	fill	kiln	use	0.02	0.14	2
387		239	fill	kiln	lining	0.05	0.28	2
389		239	fill	kiln	lining	0.1	0.29	2
390		390	cut	pit	?	1.1	0.16	2
391		390	fill	pit	disuse	0.52	0.16	2
392		390	fill	pit	waste?	0.92	0.16	2
393	244, 374	393	cut	ditch	boundary	0.56	0.2	3
394	373	393	fill	ditch	disuse	0.56	0.2	3
396		396	cut	post-hole	structural	0.36	0.18	0
397		396	fill	post-hole	structural	0.36	0.18	0
398		398	cut	pit	?	0.75	0.16	0
399		398	fill	pit	disuse	0.75	0.16	0
400		400	cut	ditch	boundary	2.6	0.76	3
401		400	fill	ditch	disuse	1.2	0.28	3
402		400	fill	ditch	disuse	2.6	0.5	3
403		403	cut	ditch	?	1	0.46	3
404		403	fill	ditch	disuse	1	0.46	3
405		405	cut	ditch	?	0.2	0.76	3
406		406	fill	ditch	disuse	0.2	0.76	3
407		407	cut	ditch	boundary	1.56	0.8	3
408		407	fill	ditch	disuse	1.5	0.4	3
409		407	fill	ditch	disuse	1.16	0.4	3
410		0	fill	palaeochannel		1.1	0.2	3
411		411	cut	ditch	?	5.2	0.76	3
412		411	fill	ditch	disuse	5.2	0.76	3
413		413	cut	ditch	?	2	0.4	3
414		413	fill	ditch	disuse	2	0.28	3
415		413	fill	ditch	disuse	1.5	0.2	3
416		416	cut	ditch	?	3.26	0.44	3
417		416	fill	ditch	disuse	3.26	0.4	3
420		420	cut	pit	disuse	0.91	0.14	2
421		420	fill	pit	disuse	0.91	0.14	2
422		422	cut	post-hole	structural	0.45	0.2	2
423		422	fill	post-hole	disuse	0.45	0.2	2
424		424	cut	ditch	trackway	0.68	0.24	3
425		424	fill	ditch	disuse	0.68	0.24	3
426		250	fill	kiln	lining		0.06	2
427		220	fill	kiln	lining		0.04	2
428		241	fill	kiln	lining		0.02	2



APPENDIX B. FINDS REPORTS

B.1 Later Prehistoric Pottery

By Matt Brudenell

Introduction

- B.1.1 The excavations at Brampton yielded a small assemblage of prehistoric pottery totalling 37 sherds (414g) with a mean sherd weight (MSW) of 11.1g. The pottery was recovered from 15 contexts relating to 15 separate features including pits (eight), ditches (five) a pit/post-hole and a single three-throw (Table 1). Fifteen sherds (244) derived from four contexts examined in the evaluation, whist the rest of the material was recovered from the 2016 excavation. The pottery is in a stable condition, though sherd sizes are mainly small and sherd surfaces abraded.
- B.1.2 Combined, the assemblage includes pottery dating from the Late Bronze Age through to the Late Iron Age, with the bulk of the assemblage being of Early Iron Age origin. However, around a third of the assemblages was recovered from Phase 2 features (12 sherds, 104g) and is considered residual.
- B.1.3 This report provides a fully quantified characterisation and assessment of the pottery.

Methodology

B.1.4 All the pottery has been fully recorded following the recommendations laid out by the Prehistoric Ceramic Research Group (2009). After a full inspection of the assemblage, fabric groups were devised on the basis of dominant inclusion types, their density and modal size. Sherds from all contexts were counted, weighed (to the nearest whole gram) and assigned to a fabric group. Sherd type was recorded, along with technology (wheel-made or handmade), evidence for surface treatment, decoration, and the presence of soot and/or residue. Rim and base forms were described using a codified system recorded in the catalogue, and were assigned vessel numbers. Where possible, rim and base diameters were measured, and surviving percentages noted. In cases where a sherd or groups of refitting sherds retained portions of the rim and shoulder, the vessel was also categorised by form. Late Bronze Age and Early Iron Age vessels were classified using a form series devised by the author (Brudenell 2012), and the class scheme created by John Barrett (1980). The Middle Iron Age-type forms were codified using the series developed by JD Hill (Hill and Horne 2003, 174; Hill and Braddock 2006, 155-156). All pottery was subject to sherd size analysis. Sherds less than 4cm in diameter were classified as 'small' (21 sherds); sherds measuring 4-8cm were classified as 'medium' (14 sherds), and sherds over 8cm in diameter will be classified as 'large' (2 sherds). A programme of refitting was also conducted, and sherd joins were noted within and between contexts. The quantified data is presented on an Excel data sheet held with the digital site archive.

Fabric series

B.1.5 The sources of the potting clays and tempering ingredients remain uncertain. However, the raw materials required for the production of the site's pottery were all potentially available within the local landscape (Table 2).



Flint

F1: Moderate to common coarse to very coarse flint (mainly 2-4mm in size).

F2: Moderate to common fine to medium flint (up to 2mm in size).

Flint and sand

FQ1: Moderate to common medium to coarse flint (mainly 2-3mm in size) in a dense sandy clay matrix

FQ2: Moderate to common fine to medium fine (mainly 1-2mm in size) in a dense sandy clay matrix.

Grog

G1: Moderate to common fine to coarse grog (1-3mm)

Sand

Q1: Moderate to common quartz sand. May contain very rare partially burnt flint or burnt *Flint* and sand

Shell

S1: Moderate to common coarse shell (mainly 2-5mm in size)

S2: Moderate to common fine to medium shell (mainly 1-2mm in size)

Late Bronze Age pottery

B.1.6 A single body sherd of probable Late Bronze Age pottery (23g) was recovered from ditch **95**, Trench 27 in the evaluation. The sherd is in fabric F1, which is typical of the period, and may be dated c. 1100-800 BC.

Early Iron Age pottery

- B.1.7 The Early Iron Age pottery comprises 27 sherds (324g) recovered from nine contexts, and constitutes the bulk of the overall prehistoric assemblage (73% of sherds by count; 78% by weight). The material derived from two ditches (107 and 331), six pits (97,102, 227, 270, 379 and 390) and one pit/post-hole (331).
- B.1.8 The assemblage is dominated by plain body sherds in flint and sand tempered fabrics (FQ1 and FQ2), with only two shelly wares of fabric S1 (29g) identified. The fabrics are typical of the period and region (Brudenell 2012). The only diagnostic sherds recovered (three refitting, 80g) comprise the partial profile of a small Class I round-shouldered coarseware jar (Form F) with flattened rim-top and internal rim diameter of 14cm (15% of circumference intact). This derived from pit 97, Trench 27 in the evaluation.
- B.1.9 This small group of pottery cannot be closely dated, but broadly belongs to the period between *c*.800-400 BC.

Middle Iron Age pottery

B.1.10 Two sherds of Middle Iron Age-type pottery (8g) were recovered from the excavation. They include a fragment of a slack-shouldered vessel with upright rim (Form A, 5g, fabrics S2) recovered from enclosure ditch **317**, and a plain sandy ware body sherd recovered from three-throw **229** (3g). The sherds are dated *c*.350-50 BC, and are in fabrics typical of period and region (Hill and Horne 2003).



Late Iron Age pottery

- B.1.11 Seven sherds (59g) of Late Iron Age-type pottery were recovered from the excavation. These derived from three contexts relating to pits **231**, **278** and ditch **372**. The material includes sherds in Grog (G1: one sherd, 21g), sand (Q1: two sherds, 12g) and shell-tempered fabrics (S2: four sherds, 26g). Five of the sherds (42g) were wheel-made, with one shelly ware (9g, pit **278**) displaying a post-firing perforated hole through the neck; probably a repair hole.
- B.1.12 The pottery can be broadly dated *c*. 50 BC AD 50, but the quality of the wares hints at a date toward the end of this time frame.

Discussion

B.1.13 The prehistoric pottery assemblage contains material dating from the Late Bronze Age through to the Late Iron Age. However, all the period assemblages are small, and much of the material is residual. Beyond indicating the presence of activities in these periods, the assemblage adds little to our understandings of ceramic traditions in Cambridgeshire.

Recommendations

B.1.14 The pottery has been fully recorded and described to recognised standards. The material is not considered worthy of illustration or publication and adds nothing new to understanding of later prehistoric ceramics in Cambridgeshire. It is recommended that the material is deselected prior to archiving.

Context	Cut	Feature Type	Phase	No. sherd s	Weight (g)	Date	Comment
93	95	Ditch	1?	1	23	LBA, c. 1100-800 BC	From eval, Tr. 27
96	97	Pit	1	10	135	EIA, c. 800-350 BC	From eval. Tr. 27
101	102	Pit	1	3	80	EIA, c. 800-350 BC	From eval. Tr 27
108	107	Ditch	1?	1	6	EIA, c. 800-350 BC	From eval. Tr 35
228	227	Pit	1	1	13	EIA, c. 800-350 BC	
230	229	Tree throw	1	1	3	Generic prehistoric	
232	231	Pit	2	1	4	LIA, c. 50 BC-AD 50	Residual?
271	270	Pit	2	3	29	EIA, c. 800-350 BC	Residual
277	278	Pit	2	3	34	LIA, c. 50 BC-AD 50	
312	311	Pit/post-hole	1	3	3	EIA, c. 800-350 BC	
314	313	Ditch	1	3	37	EIA, c. 800-350 BC	
318	317	Enclosure ditch	1	1	5	MIA, c. 350-50 BC	
371	372	Ditch	2	3	21	LIA, c. 50 BC-AD 50	Residual
380	379	Pit	1	1	5	EIA, c. 800-350 BC	
392	390	Pit	2	2	16	EIA, c. 800-350 BC	Residual
TOTAL				37	414		

Table 1: Quantified later prehistoric pottery by context.

Fabric Type	Fabric Group	No./Wt. (g) sherds	% fabric by Wt.	No./Wt. (g) burnished	No/Wt. (g) wheel-made	MNV
F1	Flint	1/23	5.6	0/0	0/0	2
FQ1	Flint & sand	21/285	68.8	0/0	0/0	0
FQ2	Flint & sand	4/10	2.4	1/2	0/0	0
G1	Grog	1/21	5.1	0/0	1/21	0



TOTAL	-	37/414	100.0	1/2	5/42	3
S2	Sell	5/31	7.5	0/0	3/17	1
S1	Shell	2/29	7.0	0/0	0/0	0
Q1	Sand	3/15	3.6	0/0	1/4	0

Table 2: Quantified later prehistoric pottery by fabric. MNV = minimum number of vessels calculated as the total number of different rims and bases identified (2 rims, 1 base).

B.2 Roman Pottery from the Kilns

By Alice Lyons

Introduction

- B.2.1 A total of 2036 pottery sherds, weighing 46888g (39.4 Estimated Vessel Equivalent (EVE)) of Early Roman coarse ware pottery was recovered from the eight kilns, with significant assemblages found in five of them (kilns **220**, **239**, **240**, **250** and **275**: Table 3). The pottery has survived in good condition and has an average sherd weight of 23g.
- B.2.2 Much of this material is thought to be the discarded products of these kilns, as many pieces are wasters with cracked and bubbled surfaces. The surviving pottery suggests that all eight kilns were used to make a limited range of lid-seated jars and associated lids. The fabrics used are very simple local clays mixed with additional sand and common fine flint fired to either oxidised or reduced finishes depending on either their position in the kiln or reflecting progressive firings. There are subtle differences between each kiln load, however, perhaps suggesting not only slightly different dates of manufacture, but also the hand of different potters.
- B.2.3 Spot dating of the pottery combined with the available stratigraphy and kiln typology suggest a range of use for the kilns between AD 60-80.

Methodology

B.2.4 The Roman pottery was analysed following the guidelines of the Study Group for Roman Pottery (Barclay *et al.* 2016). The total assemblage was studied and a full catalogue was prepared (Table 24). The sherds were examined using a hand lens (x10 magnification) and were divided into fabric groups defined on the basis of inclusion types present. Vessel forms (jar, bowl) were recorded and vessel types cross-referenced and compared to other examples. The sherds were counted and weighed to the nearest whole gram and recorded by context. Decoration, residues and abrasion were also noted. OA East currently curates the pottery and site archive.

The Fabrics and Forms

B.2.5 Only three fabrics associated with kiln products were recorded, indicating a conservative tradition of pottery production (Table 4). The most common fabric found is a Sandy grey ware (67% by weight), with varying amounts of additional sand and fine flint fragments added as additional mixing agents or temper. The Sandy oxidised ware found as a secondary ware (30%) is visually identical to the SGWs but fired in an oxygen rich kiln. These two fabrics are therefore, petrologically identical i.e. the same fabrics exposed to different firing conditions, possibly caused by being placed in different parts of the kiln or (more likely) representing different loads. A third probable kiln product are the shelley wares, made using clay with fossilised shell as a natural component, which were found in significantly smaller numbers (3%) and possibly only associated with kilns 239 & 255.



- B.2.6 Although a limited range of jars and dishes were produced the majority are lid-seated jars (type 4.4); unusually the lids to use in conjunction with these jars were also being made. While fine wares (such as beakers) are totally absent from the range of vessels being produced, a small number of specialist cheese presses were found within the kiln assemblages.
- B.2.7 It should be noted that no fine wares, imports (no amphora or samian) or specialist wares (no mortaria) other than cheese presses were found. This suggests the assemblage does indeed reflect production waste rather than re-deposited settlement material.

The Forms

- B.2.8 The majority of the pottery retrieved from the kilns are medium (type 4), also wide mouthed (type 5), jars sherds which could not be assigned to a specific type due to the absence of a diagnostic profile (Table 5).
- B.2.9 Where vessels could be assigned to type it can be seen by all methods of quantification (sherd count, weight and EVE) that lid-seated jars (type 4.4) are the most abundant. Within the broad term 'lid-seated jar' or type 4.4 are subtle variations of form were noted which are discussed further within the kiln assemblages.

KILN	Sherd Count	Weight (g)	EVE	Weight (%)
220	280	4946	6.71	10.55
239	588	10783	10.44	23.00
240	430	7826	6.18	16.69
241	50	883	1.55	1.88
250	376	17173	6.93	36.63
255	45	495	1.26	1.06
268	16	226	0.31	0.48
275	251	4556	6.02	9.71
Total	2036	46888	39.40	100.00

Table 3. The pottery quantified by kiln

Fabric	Abbreviation (Table 24)		_	Weight (g)	EVE	Weight (%)
Sandy grey ware		4, 4.4 , 4.5, 4.13, 4.14, 5, 5.3, 6.18, 6.21, 8, 9		31189	25.35	66.52
Sandy oxidised ware	SOW(Q)	4.4 , 4.5, 5, 5.3, 6.3, 8, 9	729	13947	12.32	29.75
Shelly wares	STW	4.4	108	1397	1.68	2.98
Oxidised ware with grog inclusions	OW(GROG)	4.4	10	154	0.05	0.33
Reduced wares with organic inclusions	GW(ORG)	-	5	102	0.00	0.22
Sandy coarse ware (residual Iron Age)	SCW	4.5	2	61	0.00	0.09
Oxidised ware with organic inclusions	OW(ORG)	-	3	38	0.00	0.08
Total			2036	46888	39.40	100.01



Table 4. The pottery recovered from kilns (possible kiln products shaded; most common kiln products in bold).

Form	Type	Sherd Count	Weight (g)	EVE	Weight (%)
Medium Mouthed jars	4	1442	23254	0.19	49.59
	4.13	10	448	1.30	0.96
	4.14	1	38	0.06	0.08
	4.4	465	9156	28.61	19.53
	4.5	13	167	0.74	0.36
Wide mouthed jars	5	22	11343	0.92	24.19
	5.3	26	1078	2.30	2.30
Dishes	6.18	1	14	0.07	0.03
	6.21	18	314	1.50	0.67
	6.3	1	6	0.05	0.01
Lids	8	31	793	3.23	1.69
Cheese press	9	3	230	0.44	0.49
Not assigned to type	-	2	15	0.00	0.03
Total		2036	46888	3940	100.00

Table 5. The vessels forms found, quantified by type

Type Series

- B.2.10 The type series is based on one originally designed by Jude Plouviez (Suffolk Archaeological Unit) and adapted by the author in this case to reflect Cambridgeshire typologies (Perrin 1996; 1999, Howe *et al* 1980).
 - 4: medium mouthed jars and storage jars, miscellaneous or indeterminate.
 - 4.4: jar with short angular neck, lid-seated or flattened rim (Perrin 1996, 387; Perrin 1999, 55)
 - 4.5: medium-mouthed jar, short neck, rolled and generally undercut rim and globular body (Perrin 1999, 36).
 - 4.8: medium-mouthed jar, everted rim that is hollowed or with projection underneath (bifid), globular body (Perrin 1996, 592; 583; Perrin 1999, 53).
 - 4.13: medium-mouthed jar, rounded body and simple everted rim (Perrin 1999, 47-48).
 - 4.14: large storage vessels with rolled rims.
 - 5: wide mouthed jars, miscellaneous or indeterminate.
 - 5.3: rounded jar with a reverse 'S' profile and a cordon on the neck (Perrin 1999, 46).
 - 6: bowls, miscellaneous or indeterminate.
 - 6.18: dish, straight-sided, flat-based, thickened everted 'triangular' rim (Perrin 1996, 417; 426; 449; 453; 455. Perrin 1999, 253-254).
 - 6.19: Dish, straight sides which may be upright or angled, plain rim or may have external groove just below the rim (Perrin 1996, 402; 403; 415; Perrin 1999, 231-234).
 - 6.21. Open dish internal angle, incurving rim, flat or foot ring base (Perrin 1996, 28, 29, 30).
 - 8: Lid standard type to fit cooking/storage pot, in-turned or out-turned, can have terminal grip (Perrin 1996, 57; 58; 59).
 - 9: Cheese Press (Perrin 1996, 393).



B.3 The Kiln Furniture

By Alice Lyons

Introduction

B.3.1 A total of 1136 fragments, weighing 92709g, of fired clay kiln superstructure and portable kiln furniture was recovered from the eight kilns examined. This material ranges from complete pedestals to superstructure fragments. Generally, however, the material survives in good condition and has an average fragment weight of 82g (Table 6).

Methodology

B.3.2 The fired clay was counted and weighed, by form and fabric type and any complete dimensions measured (mm). Levels of abrasion, any evidence of re-use or burning were also recorded. All kiln material was retained during excavation and examined forming the basis of this report. This follows guide lines prepared by OA.

The Fabrics and Forms

- B.3.3 Three distinct fabrics were recorded (see below) of which Fabric 3 was the most abundant (Table 6):
 - Fabric 1. An orange red sand clay matrix, poorly mixed, with common angular flint (2m-20mm), also common organic material (dung) burnt out during the firing process, often leaving impressions. Occasional large grog fragments. Both fired and burnt examples found.
 - Fabric 2. Burnt Fabric 1 not used.
 - Fabric 3. A grey sandy clay matrix, quite well mixed with common fine flint and large flint pieces (some of which is burnt). Contains organic material (?dung or straw) burnt out during the firing process. Smoothed surfaces.
 - Fabric 4. A pale grey sandy clay matrix, quite well mixed with common fine flint and large flint pieces (some of which is burnt). Chalk and or limestone fragments also common. Contains organic material (?dung or straw) burnt out during the firing process. Smoothed surfaces.

Fabric	Form	Fragment Count	Weight (g)	Weight (%)
FAB 1		882	27425	29.58
(burnt and unburnt)				
	KILN PLATE	337	9629	
	PEDESTAL	21	1992	
	SUPERSTRUCTURE	403	14602	
	UNDIAGNOSTIC	121	1202	
FAB 3		152	40460	43.64
	KILN PLATE	18	975	
	KILN PROP	1	97	
	PEDESTAL	119	38182	
	SUPERSTRUCTURE	1	1054	
	UNDIAGNOSTIC	13	152	
FAB 4		102	24824	26.78
	PEDESTAL	95	23039	
	SUPERSTRUCTURE	7	1785	
Total		1136	92709	100.00

Table 6. The Kiln furniture fabrics, quantified by form

B.3.4 No single fabric was used for exclusively for any one purpose, although as a general rule Fabric 1 was mostly used to construct the kilns and Fabrics 3 and 4 to furnish them. How this material relates to each individual kiln is discussed below.



B.4 The Kilns and Associated Ceramic Assemblages

By Alice Lyons

Introduction

B.4.1 The kilns are described below (see Section 3.3 for detailed stratigraphic descriptions of the kilns) with a summary of the structural clay and kiln furniture associated with the kiln, also the probable kiln products recovered from each kiln. The discussion of the kilns has been integrated with the overall Discussion section (see Section 4.2 above). A selection of the kiln furniture is illustrated as Figs 18-28, a list of the pottery sherds recommended for illustration in the proposed publication are available in the archive.

Kiln 220

(Fig. 6)

B.4.2 Kiln **220** was located along the eastern edge of the excavation area; its stoke hole truncated the chamber of underlying Kiln **241**.

The structural clay and kiln furniture

- B.4.3 A total of 76 fired clay pieces, weighing 16928g were recovered from this kiln (Table 7). The material had generally survived in good condition and has an average weight of 223g.
- B.4.4 The fired clay recovered from this kiln includes a small amount of the firing chamber wall (Fabric 1), but the majority of the assemblage comprises two rectangular pedestals, produced in the same fabrics (Fabric 3). The larger of the two rectangular pedestals (317mm long, by 230mm wide by 106mm deep) is flared towards the bottom and top (SF22). Also found in the backfill (251) of the kiln were the fragmentary remains of two cylindrical pedestals (Fabric 3 and 4). In addition, the incomplete remains of five sub-rectangular kiln plates were recovered (between 10-12mm thick), at least three of which had central perforations (SF27).

Fabric		Fragment Count	Weight (g)
FAB 1	KILN PLATE - sub rectangular, some with central perforations	21	936
	SUPERSTRUCTURE - wall	14	577
	UNDIAGNOSTIC	1	11
FAB 3	KILN PLATE - flat	1	58
	PEDESTAL – rectangular and cylindrical	17	13546
FAB 4	PEDESTAL - cylindrical	22	1800
Total		76	16928

Table 7. Kiln **220**: the structural fired clay and kiln furniture

Illustration catalogue

- SF22 Fabric 3. Rectangular pedestal. Very large (but incomplete). Impression of the potter fingers still visible where they have constructed the pedestal. Fill 251, kiln **220**. (Fig 18)
- SF27 Fabric 1. Kiln Plate. 12mm thick. Part of a sub-rectangular plate with a partial central perforation surviving (20mm diameter). Fill 251, kiln **220**. (Fig 19)

The Pottery (Spot Date: late 1st century AD)

B.4.5 A total of 280 sherds, weighing 4946g, (6.71 EVE) and representing a minimum of 60 individual vessels were recovered from a dis-use fill (251) of this kiln. The pottery is quite well preserved and has an average sherd weight of 18g.



B.4.6 Sandy grey ware globular lid-seated jars with both single and double seating grooves within the rim are the main products of this kiln: their rim diameters vary from 12-20cm, with the majority measuring between 14 and 18cm. A small amount of Sandy oxidised jars of the same type were also found. A minor product of the kiln may have been the Shelley ware lid-seated jars – found only with double lid-seating grooves within the rim (Table 8).

Fabric	Kiln Product	Vessel type	Sherd Count	Weight E	EVE
SGW(Q)	Main kiln product	Jar with single and double lid-seating grooves in rim (type 4.4): most globular, although some with a high shoulder and some with a high wide-shoulder. Also found a globular jar (type 4.5), also a jar with everted rim (type 4.13) and a wide mouthed cordoned jar (type 5.3). Lid (type 8.a; type 6.21). A single strainer fragment.	188	3602	4.66
SOW(Q)	Secondary kiln product	yJar with single and double lid-seating grooves in rim (type 4.4). Lid (type 8).	59	988	1.88
STW	Minor kiln product	Jar with double lid-seating grooves in rim (type 4.4). Lid (type 8).	25	157	0.17
GW(ORG)		Jar	3	92	0.00
SCW		Storage jar	1	43	0.00
OW(GROG)		Jar	2	35	0.00
SOW		Jar or flagon	2	29	0.00
Total			280	4946	6.71

Table 8. Kiln 220. The pottery, listed in descending order of weight (%)

Kiln 241

(Fig. 6)

B.4.7 Kiln **241** was partially-exposed along the eastern edge of the excavation area and was cut by the stokehole of kiln **220** and therefore predated it.

The structural clay and kiln furniture

B.4.8 No kiln superstructure or pedestal fragments were recovered from within this kiln. Two partial Fabric 1 kiln plates (one of which was burnt) were found; they were between 10 and 12.5mm thick and one had a central perforation (22mm diameter). The more complete example was slightly curved – suggesting with it had become slightly warped during the firing process or perhaps that it had been used as a roof plate – in this condition it would have been unsuitable for a floor plate.

The pottery (spot date: late 1st century to early 2nd century AD)

- B.4.9 A total of 50 sherds, weighing 883g, (1.55 EVE) and representing a minimum of 15 individual vessels were recovered from the only surviving fill (248). The pottery was guite well preserved and has an average sherd weight of 18g.
- B.4.10 Sandy grey ware globular lid-seated jars with a single seating groove within the rim are the main products of the kiln: with a consistent rim diameter of 16cm. A small amount of Sandy oxidised lid-seated jars with double seating grooves within the rim were also found. A minor product of the kiln may have been the Shelley ware lid-seated jars found only with single lid-seating grooves within the rim (Table 9).

Fabric	Kiln	Vessel	Sherd	Weight	EVE



	Product	type	Count (g)		
SGW(Q)	Main kiln product	Globular jar with single lid-seating grooves in rim (type 4.4). Also found a jar with everted rim (type 4.13). Lid (type 6.21).		537	0.80
SOW(Q)	Secondary kiln product	Globular jar with double lid-seating grooves in rim (type 4.4). Globular jar (type 4.5). Lid (type 8.a).	12	207	0.66
STW	Minor kiln product	Globular jar with single lid-seating grooves in rim (type 4.4).	10	139	0.09
Total			50	883	1.55

Table 9. Kiln 241. The pottery, listed in descending order of weight (%)

Kiln 239

(Fig. 7)

B.4.11 Kiln **239** was located on the eastern edge of the site and showed evidence of being rebuilt. Two rectangular pedestals were uncovered in the centre of the chamber, although *in situ* they had toppled over and lay on their sides, their flanged edges indicating they would have originally stood upright (SF 13 & 14). The nature of the upper fills indicate that the kiln was later used for the disposal of waste products from other nearby kilns.

The structural clay and kiln furniture

- B.4.12 A total of 433 fired clay pieces, weighing 17694g, were recovered from this kiln (Table 10). The material was fragmentary with an average weight of 41g.
- B.4.13 The fired clay recovered from this kiln includes the upper part of the firing chamber wall (lip), also flue fragments (Fabric 1). It also includes the largely intact remains of the two rectangular pedestals (SF 13 & 14) (Fabric 3). Other small rectangular (Fabrics 1, 3 and 4) and cylindrical pedestal fragments (Fabric 3) were found within the kiln in contexts relating to disuse and demolition (258, 282, 260, 285). In addition, the incomplete remains of fifteen undiagnostic flat plates with single perforations were recorded (Fabric 1) (between 8.5 and 16mm thick), also an unusual perforated circular example (SF28). Two additional Fabric 3 kiln plates were also found (17.5mm thick). The clay plates were found in both use (282, 283, 352, 360) and disuse (258, 260) deposits.

Fabric	Form	Fragment Count		Veight g)
FAB 1	perforations recorded. One circular example with central			
	perforation (SF28).		166	3555
	PEDESTAL - rectangular		21	1992
	SUPERSTRUCTURE – part of the lip of the firing chamber			
	and flue		159	5063
	UNDIAGNOSTIC		55	533
FAB 3	KILN PLATE		4	107
	PEDESTAL - rectangular (SF 13 and 14), also cylindrical			
	fragments		23	6135
FAB 4	PEDESTAL - rectangular		5	309
	Grand Total		433	17694

Table 10. Kiln 239: the structural fired clay and kiln furniture

Illustration Catalogue

SF14. Fabric 3. Rectangular pedestal, incomplete. Finger-tip impressions showing how the block was constructed. Fill 258, Kiln **239**. (Fig 20)



SF28. Fabric 1. Kiln Plate. Sub-circular plate, smaller than the rectangular examples. Central perforation. Dried on a bed of sand. Fill 258, Kiln 239. (Fig. 21)

The Pottery (Spot date: late 1st century AD)

- B.4.14 A total of 588 sherds, weighing 10783g (10.44 EVE) and representing a minimum of 120 individual vessels were recovered from the primary (352), secondary (282, 283), tertiary (259, 285) phases of use, also from disuse and demolition (258, 260). The pottery was quite well preserved and has an average sherd weight of 18g.
- B.4.15 Sandy grey ware globular lid-seated jars with double seating grooves within the rim, and associated lids, are the main products of this kiln: their rim diameters vary from 12-18cm, with the average being 14cm. A similar amount (in fact a larger weight) of Sandy oxidised ware jars, with both single and double lid-seating grooves and associated lids, was also the product of this kiln. Found in much smaller quantities but notably recovered from the primary context are Shelley ware jars with double lid-seating grooves in the rim (Table 11).

	Kiln Product	Vessel type	Sherd Count	Weight (g)	EVE
SGW(Q)	Main kiln product	Jar with double lid-seating grooves in rim (type 4.4). Also found a wide mouthed cordoned jar (type 5.3). Lid (type 8).	285	4897	6.41
SOW(Q)	Secondary kiln product	Jar with single or double lid-seating grooves in rim (type 4.4). Lid (type 8).	253	5123	3.38
STW	? First kiln product	Jar with double lid-seating grooves in rim (type 4.4).	37	573	0.43
SGW(OX SURFACES)		Lid (8)	3	46	0.17
SOW(GROG)		Jar with single and double lid-seating grooves in rim (type 4.4). Storage jar.	4	34	0.05
OW(GROG)		Jar, storage jar	4	85	0.00
OW(ORG)		Jar/bowl	2	25	0.00
Total			588	10783	10.44

Table 11: Kiln 239. The pottery, listed in descending order of weight (%)

Kiln 240

(Fig. 8)

B.4.16 Kiln **240** was situated at the northern end of kiln field and truncated earlier kiln **268**. A total of six intact pedestals remained *in situ* within the chamber: two linear rectangular pedestals, aligned north-west to south-east, which were flanked by four cylindrical pedestals - one in each quadrant of the chamber.

The Structural clay and kiln furniture

- B.4.17 A total of 193 fired clay pieces, weighing 23863g, were recovered from this kiln (Table 12). The material was generally in good condition, although deteriorated upon excavation, with an average fragment weight of 124g.
- B.4.18 The fired clay recovered from this kiln includes numerous undiagnostic structural fragments, with smoothed surfaces (Fabric 1). It also includes the intact remains of the two rectangular pedestals (SF 4 & 5) which although visually very similar were of



differing dimensions and fabrics. SF 4 measured 315mm long, by 205mm wide, by 60mm deep (Fabric 3) and SF 5 measured 300mm long, by 250mm wide and 55mm deep (Fabric 4). Also found were four cylindrical pedestals with squared ends (edges measuring between 130-133mm) and column-like shafts (ranging between 78-88mm in diameter). Three of the cylindrical pedestals are made using Fabric 4 (SF 6, 7, 11), while one in made in Fabric 3 (SF 10). The mix of pedestal fabrics and dimensions may suggest they were brought together from other kilns which fits with their description as 'portable' kiln furniture. A single Fabric 1 kiln plate (18mm thick) with a possible central perforation was also found within this kiln.

Fabric	Form	Fragment Count	Weight (g)
FAB 1	KILN PLATE - undiagnostic flat plate with		
	single central perforation.	1	120
	SUPERSTRUCTURE - undiagnostic	135	2341
FAB 3	PEDESTAL – rectangular and cylindrical	10	9876
FAB 4	PEDESTAL – rectangular and cylindrical	47	11526
Total		193	23863

Table 12. Kiln **240**: the structural fired clay and kiln furniture

Illustration catalogue

SF 4. Fabric 3. Rectangular pedestal (complete). Fill 266, kiln 240. (Fig. 22)

SF10. Fabric 3. Cylindrical pedestal (complete). Fill 266, kiln 240. (Fig 23)

The Pottery (Spot date: mid to late 1st century to early 2nd century AD)

- B.4.19 A total of 430 sherds, weighing 7826g (6.18 EVE) and representing a minimum of 50 individual vessels were recovered from the disuse oven (266) and stoke hole (267) fills. The pottery is quite well preserved and has an average sherd weight of 18g.
- B.4.20 The main pottery type (probable product) recovered from this kiln is a Sandy oxidised ware globular lid-seated jar with a single lid-seating groove (type 4.4) some of the jars differ from previous kiln assemblages as the rim is bi-fid (type 4.8). Found in slightly fewer numbers were Sandy grey ware globular lid-seated jars some with distinctive high-shoulders. These variations in form may suggest new styles (subtle changes) are being introduced into the Brampton repertoire possibly indicating a slightly later date of production than previously seen, perhaps a second generation of potters.

Fabric	Kiln Produc	tVessel	Sherd	Weight	EVE
		type	Count	(g)	
SOW(Q)	Main kiln	Globular jar with single lid-seating grooves in	238	4119	2.71
	product	rim (type 4.4): some with a bi-fid rim (type 4.8)			
SGW(Q)	Secondary	Globular jar with single lid-seating grooves in	191	3689	3.47
	kiln product	rim (type 4.4): some with a high shoulder. Also)		
	•	found a plain globular jar (type 4.5)			
PRE	Residual	Jar/bowl	1	18	0.00
Total			430	7826	6.18

Table 13: Kiln **240**. The pottery, listed in descending order of weight (%)

Kiln 268

(Fig. 8)

B.4.21 Only the firing chamber of kiln **268** survived, as the flue was destroyed and the stoke hole truncated by the construction of kiln **240**. Integral to the lining were three roughly



shaped pilasters which appeared to have been placed around the inner face of the chamber wall. A roughly elongated and shaped central pedestal was also present.

The structural clay and kiln furniture

- B.4.22 A total of 46 fired clay pieces, weighing 3342g, were recovered from this kiln (Table 14). The material was fairly fragmentary with an average weight of 73g.
- B.4.23 The fired clay recovered from this kiln includes a small number of undiagnostic Fabric 1 structural fragments, also Fabric 4 firing chamber lip and wall pieces the presence of two fabrics perhaps indicating that this kiln was patched or repaired during its lifetime. Fragments of a Fabric 3 cylindrical pedestal were found in addition to the decayed central pedestal. Worthy of note is a small cylindrical object with a diameter of 38mm and clear finger impressions from its maker (SF 32), which may have been used as a prop or spacer to support the vessels during the firing process.

Fabric		Fragment		
	Form	Count	V	Veight (g)
FAB 1	SUPERSTRUCTURE		3	43
FAB 3	KILN PROP(SF 32)		1	97
	PEDESTAL – cylindrical, ?central pedestal		34	1499
	UNDIAGNOSTIC		3	36
FAB 4	SUPERSTRUCTURE – lip & wall		5	1667
Total			46	3342

Table 14. Kiln 268: the structural fired clay and kiln furniture

Illustration catalogue

SF32 Fabric 3. Prop. Fill 269, kiln 268. (Fig. 24)

The Pottery (spot date: mid/late 1st century to early/mid 2nd century AD)

- B.4.24 Only 16 pottery sherds, weighing 226 (0.31 EVE) and representing a minimum of 5 individual vessels were recovered from the disuse oven (269) and stoke hole (362) fills. The pottery is significantly abraded with an average sherd weight of only 14g.
- B.4.25 The main pottery type (probable product) recovered from this kiln is a Sandy grey ware globular jar with a single lid-seating groove and associated lids. A small number of Shelley wares jar/bowl fragments were also found (RB kiln table 14).

Fabric	Kiln Product	Vessel type	Sherd Count	Weight (g)	EVE	
SGW(Q)	Main kiln product	Globular jar with single lid-seating groove in rim (type 4.4). Lid (type 8).	1	4 2	07	0.31
STW		Jar/bowl		2	19	0.00
Total	•		1	6 2	26	0.31

Table 15: Kiln 268. The pottery, listed in descending order of weight (%)

Kiln 250

(Fig. 9)

B.4.26 Kiln **250** lay centrally within the kiln field and shares an identical alignment, and was similar in size and shape to kiln **240**, which may suggest that they were contemporary.



The structural clay and kiln furniture

- B.4.27 A total of 342 fired clay pieces, weighing 21151g, were recovered from this kiln (Table 16). The material was in fragmentary condition with an average weight of 62g.
- B.4.28 A lot of this assemblage (c. 29% by weight) comprises the remains of the clay lining of the firing chamber (Fabric 1) in which the kiln builders finger-tip impressions can still clearly be seen. In addition, six (two almost complete (SF 25 & 26) and four partial) Fabric 3 cylindrical pedestals were recovered, although none were found in situ or associated with use deposits. Also found was one Fabric 4 cylindrical pedestal (SF 29), also found within a disuse layer (287). These pedestals all have square bases and cylindrical shafts with an average diameter of 73mm. Fragments from Fabric 3 rectangular pedestals were also recovered in the stoke-hole. A minimum of 13 sub-rectangular unperforated kiln plates (ranging from 7 to 20mm thick) were also found in deposits associated with disuse.

Fabric	Form	Fragment Count	We (g)	ight
FAB 1	KILN PLATE – sub-rectangular, unperforated (SF 23)		144	4678
	SUPERSTRUCTURE - wall		89	6088
	UNDIAGNOSTIC		65	658
FAB 3	PEDESTAL – cylindrical and rectangular (SF 25 & 26)		33	8066
	UNDIAGNOSTIC		10	116
FAB 4	PEDESTAL – cylindrical (SF 29)		1	1545
Total		· ·	342	21151

Table 16: Kiln **250**, the structural fired clay and kiln furniture

Illustration catalogue

SF24. Fabric 1. Kiln Plate. Well preserved cereal impressions. Fill 265, kiln 250. (Fig 25)

SF25. Fabric 3. Cylindrical pedestal. Fill 265, kiln 250. (Fig. 26)

SF29. Fabric 4. Cylindrical pedestal. Fill 265, kiln 250. (Fig. 27)

The Pottery (spot date: mid/late 1st century AD)

- B.4.29 A total of 376 sherds, weighing 17173g (6.93 EVE) and representing a minimum of 70 vessels was recovered from this kiln. Only a single SGW dish/lid fragment (type 6.21) was recovered from the primary use fill (286), with the remainder retrieved from dis-use deposits especially from within the stokehole (263). The pottery has survived well and has a large average sherd weight of 46g.
- B.4.30 The main pottery type (probable product) recovered from this kiln is a Sandy grey ware globular jar with either single or double lid-seating grooves, several with distinctive high-shoulders (type 4.4). Other possible kiln products include a wide mouthed cordoned jar (type 5.3) and jar lids (type 8 and 6.21). Found in significantly smaller numbers are Sandy oxidised ware globular jars with single lid-seating grooves, several also with the distinctive high-shoulder. The similarity in form suggests the same potter was making the high-shouldered lid-seated jars in both SGW and SOW fabrics with any differences occurring during the firing process.
- B.4.31 It is also worthy of note that two cheese-press fragments were recovered from within this kiln; one SGW example (287) and one SOW piece (263) the variety of fabrics perhaps indicating they were a minor product of this kiln. This is particularly interesting as cheese presses in this area are usually associated with Early Roman (AD 50s) military production such as that known at Longthorpe Fort, near Peterborough (32 km to



the north of Brampton) (Cool 2006, 96). Could this Brampton potter have military connections – a retired soldier potter perhaps?

Fabric	Kiln	Vessel	Sherd	Weight	EVE
	Product	type	Count	(g)	
SGW(Q)	Main kiln product	Jar with single and double (x1 example) lid- seating grooves in rim (type 4.4): several with a high shoulder. Also found a wide mouthed cordoned jar (type 5.3). Lid (type 8; 6.21). Storage jar (type 4.14). Cheese-press.	243 a	3 14583	3 3.93
SOW(Q)	Secondar kiln product	yJar with single lid-seating grooves in rim (type 4.4): several with a high shoulder. Also found a wide mouthed cordoned carinated jar (type 5.3). Cheese-press.	120	3 2492	2 3.00
SGW(CALC)		Jar	(3 74	1 0.00
OW(ORG)		Jar/bowl		1 13	3 0.00
GW(ORG)		Jar/bowl		2 10	0.00
STW		Jar		1 1	0.00
Total			370	6 17173	6.93

Table 17: Kiln 250. The pottery, listed in descending order of weight (%)

Kiln 255

(Fig. 11)

B.4.32 Kiln **255** was the most northerly of the kilns and also the least well preserved.

The Structural clay and kiln furniture

B.4.33 A single Fabric 1 (burnt) fired clay kiln superstructure (lip) fragment weighting 367g was recovered from this kiln. It is of interest as it shows the kiln wall was constructed using a series of thick coils. A similar method of construction was seen at Postwick, Norfolk (Lyons 2003, 51, fig 29).

The Pottery (spot date: mid/late 1st century AD to early to mid 2nd century AD)

- B.4.34 Only 45 sherds, weighing 495 (1.26 EVE) and representing a minimum of two vessels were recovered from the single fill of the kiln (254). The pottery is extremely abraded with an average sherd weight of only 11g.
- B.4.35 One possible kiln product was recorded a globular lid-seated jar with a single seating groove (type 4.4) found in both Sandy grey ware and Shelley fabrics.

Fabric	Kiln	Vessel	Sherd	Weight	EVE
	Product	type	Count	(g)	
STW	?kiln	Jar with single lid-seating grooves in rim (type	29	409	0.99
	product	4.4).			
SGW	?kiln	Jar with single lid-seating grooves in rim (type	16	86	0.27
	product	4.4).			
Total			45	495	1.26

Table 18: Kiln 255. The pottery, listed in descending order of weight (%)

Kiln 275

(Fig. 10)

B.4.36 Kiln 275 lay to the south-west within the kiln field; it was the only kiln orientated north to south (NNE-SSW) with the firing chamber at the northern end. The construction was closest to kiln 268, which also had integral pilasters – perhaps indicating this kiln was



also early in the sequence of Brampton kilns. Possibly an experiment with north-south alignment which did not prove successful long-term.

The Structural clay and kiln furniture

- B.4.37 A total of 40 fired clay pieces, weighing 7216g, were recovered from this kiln (RB kiln table 18). The material was incomplete but not too fragmentary, with an average weight of 180g.
- B.4.38 Only a couple of small pieces of the kiln wall were retained (Fabrics 1 and 4). The main component of the fired clay assemblage from this kiln are the rectangular pedestal fragments recovered from the disuse fill of this kiln (281) and were not therefore *in situ* (SF 15 & 16). Also found were a minimum of seven incomplete kiln plate fragments which are of a type not seen in any other of the Brampton kilns, as they were circular with no surviving perforations and distinctive rolled edges (SF 31).

Fabric	Form	Fragment Count	Weight (g)
FAB 1	KILN PLATE - flat	1	13
	SUPERSTRUCTURE	2	123
FAB 3	KILN PLATE – rolled edges (SF 31)	13	810
	PEDESTAL - cylindrical	3	114
FAB 4	PEDESTAL – rectangular (SF 15 & 16)	19	6038
	SUPERSTRUCTURE -wall	2	118
Total		40	7216

Table 19: Kiln **275**, the structural fired clay and kiln furniture

Illustration catalogue

SF. 31. Kiln Plate with distinctive rolled edges. Fill 280, Kiln 275 (Fig. 28)

The Pottery (spot date: mid/late 1st century AD)

- B.4.39 A total of 251 sherds, weighing 4556 (6.02 EVE) and representing a minimum of 52 vessels were recovered from all four dis-use deposits within this kiln (274, 279, 280 & 281). The pottery was quite well preserved and has an average sherd weight of 18g.
- B.4.40 The main pottery type (probable product) recovered from this kiln is a Sandy grey ware globular jar with a single lid-seating groove, some with distinctive high-shoulders (type 4.4). Other possible kiln products include a wide mouthed cordoned jar (type 5.3), jar lids (type 8 and 6.21) and a cheese press (type 9). Found in significantly smaller numbers are Sandy oxidised ware globular jars with single lid-seating grooves, several also with the distinctive high-shoulder. The similarity in form suggests the same potter was making the high-shouldered lid-seated jars in both SGW and SOW fabrics with any differences occurring during the firing process.
- B.4.41 This is a very similar (almost identical) range of products to that found within Kiln **250** which suggests they may have been contemporary or closely sequential (with one being used to dump the wasters from the other?).

Fabric	Kiln Product	Vessel type	Sherd Count	Weig (g)	ht	EVE
SGW(Q)	Main kiln product	Jar with single lid-seating groove in rim (type 4.4): most globular, although some with a high shoulder. Also found a wide mouthed cordoned jar (type 5.3). Lid (type 6.21). Storage jar. Cheese-press.	21	1	3542	5.33
SOW(Q)	Secondary	Jar with single lid-seating groove in rim (type	3	9	989	0.69



	kiln product	4.4): most globular, although some with a high shoulder. Also found a wide mouthed cordoned jar (type 5.3).		-	
STW		Storage jar	1	25	0.00
Total	,		251	4556	6.02

Table 20: Kiln 275. The pottery, listed in descending order of weight (%)

The Roman Pottery from other features

B.4.42 A small quantity (136 sherds, weighing 2545g) of pottery was recovered from features adjacent to the kilns which are consistent with being displaced kiln products and wasters (Table 21).

Feature	Sherd Count	Weight (g)	EVE	Weight (%)
Kiln	2036	46888	39.40	94.85
Pit	104	2112	2.00	4.27
Ditch	24	291	0.67	0.59
Gully	6	109	0.00	0.22
Post-hole	2	33	0.00	0.07
Total	2171	49433	42.07	100.00

Table 21. The pottery from all features

Significance

B.4.43 The kilns at Brampton are one of the largest and best-preserved groups of pottery kilns known in Cambridgeshire and add to a growing (but still limited) corpus of kiln sites dating to the post-conquest 1st century in the area (Table 22). They are undoubtedly of regional importance and will make a significant contribution to are growing understanding of the adoption of wheel made kiln fired pottery in rural early Roman communities. It is particularly interesting that they seem to be adopting technologies seen in the Upper Nene Valley and Northamptonshire, perhaps suggesting links with those communities.

Site Name	Site Summary	Date	Reference
The Hutchison Site, Addenbrookes	Eleven kilns	AD 50-80	Webley and Anderson 2008, 63-75
Brampton	Eight kilns	AD 60-80	This report
Duxford	Six kilns	AD 50-80	Anderson and Woolhouse 2016
Swavesey	Two kilns	AD 40-60	Willis <i>et al</i> 2008, 53-76
Greenhouse Farm, Teversham	Eleven kilns	AD 45-68	Gibson and Lucas 2002
Cherry Hinton	Six kilns	AD 55-90	Evans 1990
Manor Farm, Teversham	A single kiln	Flavian	White 1982



Tort Hill West, Sawtry	Two kilns	Flavian	Hancocks et al 1998
Longthorpe II, Water Newton	Three kilns	AD 50-60	Dannell and Wild 1987
Longthorpe, Water Newton	A single kiln	AD 45-60	Perrin 1999, 44-5
Brampton (A140)	A single kiln	AD 60-80	Jones & Panes 2014
Haddon	A single kiln	Flavian	Rollo 1994; Evans 2003, 75-81
Bobs Wood	A single kiln	Flavian- Trajanic	Lyons in prep
Clay Farm	A single kiln	Early Roman	Poole in prep

Table 22: Summary of firmly dated Early Roman kilns so far excavated in Cambridgeshire

Potential for further work

B.4.44 Although a significant amount of research, writing and illustration has been already undertaken, this material has the potential to make a significant contribution to the study of Early Roman pottery production in Cambridgeshire and deserves publication in the regional archaeological journal (*PCAS*; see Section 5 above). The need to develop our understanding of Roman pottery production is highlighted by both the Study Group for Roman pottery (Perrin 2011, 41-42) and the Regional Research Framework (Medlycott 2011, 40). The well-preserved character of the Brampton kilns and the potential to see how the kiln site developed in conjunction with its ceramic product is still relatively rare in the archaeological record and provides and unique opportunity to develop this field of research.

Table 23. Summary of kiln structure and ceramic product

Kiln	Shape	Fittings	Furniture	Main product	Date
Kiln 220	Figure of '8' shape	2 rectangular pedestals	Kiln plates	SGW(Q): Jar with single or double lid-seating grooves in rim (type 4.4)	AD 60-80
Kiln 241	Circular (incomplete)		Kiln plate	SGW(Q): Globular jar with single lid-seating grooves in rim (type 4.4).	AD 60-80
Kiln 239	Figure of '8' shape	2 rectangular pedestals	Kiln plates	SGW(Q): Jar with double lid-seating grooves in rim (type 4.4). Lid (type 8.a).	AD 60-80



Kiln 240	Figure of '8' shape	2 rectangular and 4 cylindrical pedestals	Kiln plates	SOW(Q): Globular jar with single lid-seating grooves in rim (type 4.4): some with a bi-fid rim (type 4.8)	AD 60-80
Kiln 268	Circular (incomplete)	3 integral pilasters	Kiln prop	SGW(Q): Globular jar with single lid-seating groove in rim (type 4.4). Lid (type 8.1).	AD 60
Kiln 250	Figure of '8' shape	At least x 3 cylindrical pedestals	Kiln plates	SGW(Q): Jar with single lid-seating groove in rim (type 4.4): several with a high shoulder.	AD 60-80
Kiln 255	Figure of '8' shape (small)	-	-	?STW: Jar with single lid- seating grooves in rim (type 4.4).	AD 60
Kiln 275	Oval	4 integral pilasters and a rectangular pedestal (?in situ)	Kiln plate	SGW(Q): Jar with single lid-seating groove in rim (type 4.4): most globular, although some with a high shoulder.	AD 60



Context	Cut	Feature Type	Fabric	Dsc	Form	Туре	Sherd Count	Weight (g)	DATE
221	256	PIT	SGW	R	JAR	4.4	1	34	M/LC1- E/MC2
221	256	PIT	SGW	R	JAR	4.4	1	23	M/LC1- E/MC2
221	256	PIT	SOW	R	JAR	4.4	1	72	M/LC1- E/MC2
221	256	PIT	SGW	R	JAR	5.3	1	168	M/LC1- EC2
221	256	PIT	SGW	R	JAR	5.4	2	115	M/LC1- EC2
221	256	PIT	OW(GRO G)	U	JAR		2	29	M/LC1- EC2
221	256	PIT	SCW	D	SJAR		1	31	C1
221	256	PIT	SGW	R	JAR		1	5	M/LC1- MC2
221	256	PIT	SGW	UD	JAR		32	394	MC1- E/MC2
221	256	PIT	SOW	U	JAR		7	73	MC1- E/MC2
221	256	PIT	STW	U	JAR		1	16	MC1- MC2
222	363	PIT	SGW	R	JAR	4.13	1	24	ML/C1- E/MC2
222	363	PIT	SGW	R	JAR	4.4	1	56	M/LC1- E/MC2
222	363	PIT	SGW	R	JAR	4.4	1	35	M/LC1- E/MC2
222	363	PIT	SOW	RUB	JAR	4.5	7	262	LC1-C2
222	363	PIT	SGW	R	JAR	5.3	1	86	M/LC1- EC2
222	363	PIT	SGW	R	DISH	6.21	1	20	LC1- E/MC2
222	363	PIT	SGW	R	JAR	8.1	1	8	M/LC1- MC2
222	363	PIT	SOW	R	JAR	4.4	2	4	M/LC1- E/MC2
222	363	PIT	SOW	R	LID		1	135	M/LC1- MC2
222	363	PIT	GW(ORG	U	JAR		1	39	M/LC1- EC2
222	363	PIT	SGW	UDB	JAR		12	278	M/LC1- E/MC2
222	363	PIT	STW	U	JAR		5	64	M/LC1-



									E/MC2
248	241	KILN	SGW	R	JAR	4.13	1	60	M/LC1- E/MC2
248	241	KILN	SGW	R	JAR	4.4	1	26	M/LC1- E/MC2
248	241	KILN	SGW	R	JAR	4.4	4	47	M/LC1- E/MC2
248	241	KILN	sow	R	JAR	4.4	1	31	MC1-C2
248	241	KILN	STW	R	MJAR	4.4	10	139	M/LC1- E/MC2
248	241	KILN	SGW	R	JAR	4.5	1	4	LC1- E/MC2
248	241	KILN	SOW	R	JAR	4.5	1	23	M/LC1- EC2
248	241	KILN	SGW	R	DISH	6.21	1	12	LC1- E/MC2
248	241	KILN	SGW	R	DISH	6.21	1	16	LC1- E/MC2
248	241	KILN	sow	R	LID		2	78	MC1-C2
248	241	KILN	SOW	R	LID		1	13	MC1-C2
248	241	KILN	SGW	UB	JAR		7	215	M/LC1- E/MC2
248	241	KILN	SGW	D	JAR		1	34	M/LC1- E/MC2
248	241	KILN	SGW	D	JAR		1	26	M/LC1- EC2
248	241	KILN	SGW	U	JAR		10	97	MC1- MC2
248	241	KILN	SOW	U	JAR		7	62	M/LC1- E/MC2
251	220	KILN	SGW	R	JAR	4	5	29	M/LC1- EC2
251	220	KILN	SGW	RU	JAR	4.13	3	182	M/LC1- E/MC2
251	220	KILN	SGW	R	JAR	4.13	3	118	M/LC1- E/MC2
251	220	KILN	SGW	R	JAR	4.13	3	88	M/LC1- E/MC2
251	220	KILN	SGW		JAR	4.4	1	28	M/LC1- E/MC2
251	220	KILN	SGW		JAR	4.4	1	11	M/LC1- E/MC2
251	220	KILN	SGW		JAR	4.4	1	12	M/LC1- E/MC2
251	220	KILN	SGW		JAR	4.4	1	13	M/LC1- E/MC2



251	220	KILN	SGW		JAR	4.4	1	31	M/LC1- E/MC2
251	220	KILN	SGW		JAR	4.4	1	14	M/LC1- E/MC2
251	220	KILN	SGW		JAR	4.4	1	35	M/LC1- E/MC2
251	220	KILN	SGW		JAR	4.4	1	20	M/LC1- E/MC2
251	220	KILN	SGW		JAR	4.4	1	10	M/LC1- E/MC2
251	220	KILN	SGW		JAR	4.4	1	7	M/LC1- E/MC2
251	220	KILN	SGW		JAR	4.4	1	6	M/LC1- E/MC2
251	220	KILN	SGW	R	JAR	4.4	1	15	M/LC1- EC2
251	220	KILN	SGW	R	JAR	4.4	1	23	M/LC1- EC2
251	220	KILN	SGW	R	JAR	4.4	1	17	M/LC1- EC2
251	220	KILN	SGW	R	JAR	4.4	1	35	M/LC1- EC2
251	220	KILN	SGW	R	JAR	4.4	1	43	M/LC1
251	220	KILN	SGW	R	JAR	4.4	1	46	M/LC1
251	220	KILN	SGW	R	JAR	4.4	1	14	M/LC1
251	220	KILN	SGW	R	JAR	4.4	1	30	M/LC1
251	220	KILN	SGW	R	JAR	4.4	1	27	M/LC1
251	220	KILN	SGW	R	JAR	4.4	1	29	M/LC1- EC2
251	220	KILN	SOW		JAR	4.4	2	81	M/LC1- E/MC2
251	220	KILN	SOW	R	JAR	4.4	1	78	MC1- E/MC2
251	220	KILN	SOW	RD	JAR	4.4	3	66	MC1- E/MC2
251	220	KILN	SOW	R	JAR	4.4	4	59	MC1- E/MC2
251	220	KILN	SOW	R	JAR	4.4	1	26	MC1- E/MC2
251	220	KILN	SOW	R	JAR	4.4	1	7	MC1- E/MC2
251	220	KILN	STW	R	JAR	4.4	1	12	M/LC1- E/MC2
251	220	KILN	STW	RD	JAR	4.4	1	18	M/LC1- E/MC2



251	220	KILN	SCW	RU	JAR	4.5	3	20	LC1- MC2
251	220	KILN	SGW	R	JAR	5.3	1	49	M/LC1
251	220	KILN	SGW	R	JAR	5.3	1	46	M/LC1
251	220	KILN	SGW	R	LID/DISH	6.21	1	67	LC1- E/MC2
251	220	KILN	SGW	R	LID/DISH	6.21	3	27	LC1- E/MC2
251	220	KILN	SGW	R	LID/DISH	6.21	1	39	LC1- E/MC2
251	220	KILN	SGW	R	LID/DISH	6.21	1	13	LC1- E/MC2
251	220	KILN	SGW	R	LID/DISH	6.21	1	24	LC1- E/MC2
251	220	KILN	SGW	R	LID/DISH	6.21	1	26	LC1- E/MC2
251	220	KILN	SGW	R	LID/DISH	6.21	1	12	LC1- E/MC2
251	220	KILN	SGW	R	LID/DISH	6.21	1	12	LC1- E/MC2
251	220	KILN	sow	R	JAR	4.4	3	23	MC1- E/MC2
251	220	KILN	SGW	R	JAR	4.4	1	8	M/LC1- EC2
251	220	KILN	SGW	R	LID		1	66	LC1- E/MC2
251	220	KILN	SGW	R	LID		1	21	LC1- E/MC2
251	220	KILN	SOW	R	LID		2	30	MC1- E/MC2
251	220	KILN	GW(ORG)	UD	JAR		3	92	M/LC1- EC2
251	220	KILN	OW(GRO G)	U	JAR		1	29	M/LC1- EC2
251	220	KILN	OW(GRO G)	U	JAR		1	6	M/LC1- EC2
251	220	KILN	SCW	D	SJAR		1	43	C1
251	220	KILN	SGW	UB	JAR		121	2100	M/LC1- E/MC2
251	220	KILN	SGW	UB	STRAINER		1	32	MC1- E/MC2
251	220	KILN	SGW	D	JAR		11	108	M/LC1- E/MC2
251	220	KILN	SGW	D	JAR		2	49	M/LC1- E/MC2
251	220	KILN	SOW	U	JAR/FLAG		2	29	MC1-C2



251	220	KILN	SOW	UB	JAR		35	539	MC1- E/MC2
251	220	KILN	sow	D	JAR		7	79	MC1- E/MC2
251	220	KILN	STW	U	JAR		23	127	MC1- EC2
254	255	KILN	SGW	RU	JAR	4.4	16	86	M/LC1- E/MC2
254	255	KILN	STW	RU	JAR	4.4	29	409	M/LC1- E/MC2
258	239	KILN	STW	RU	JAR	4.4	20	372	M/LC1- E/MC2
258	239	KILN	SGW	R	JAR	4.4	1	30	M/LC1- E/MC2
258	239	KILN	SGW	R	JAR	4.4	1	7	M/LC1- EMC2
258	239	KILN	SGW	R	JAR	4.4	1	54	LC1- E/MC2
258	239	KILN	SGW	RU	JAR	4.4	17	196	M/LC1- E/MC2
258	239	KILN	SGW	R	JAR	4.4	1	10	M/LC1- E/MC2
258	239	KILN	SGW	R	JAR	4.4	3	30	M/LC1- E/MC2
258	239	KILN	SOW	R	JAR	4.4	1	43	M/LC1- E/MC2
258	239	KILN	SOW	R	JAR	4.4	1	25	M/LC1- E/MC2
258	239	KILN	SOW	R	JAR	4.4	1	34	M/LC1- E/MC2
258	239	KILN	SOW	R	JAR	4.4	1	24	M/LC1- E/MC2
258	239	KILN	SOW	R	JAR	4.4	1	60	M/LC1- E/MC2
258	239	KILN	sow	R	JAR	4.4	1	54	M/LC1- E/MC2
258	239	KILN	sow	R	JAR	4.4	1	35	M/LC1- E/MC2
258	239	KILN	sow	R	JAR	4.5	1	9	M/LC1- E/MC2
258	239	KILN	SGW	R	JAR	5	1	13	M/LC1- E/MC2
258	239	KILN	SOW	R	JAR	5	1	33	M/LC1- E/MC2
258	239	KILN	SOW	R	JAR	5.3	2	59	M/LC1- EC2



258	239	KILN	sow	R	JAR	6.3	1	6	M/LC1- E/MC2
258	239	KILN	SGW	R	JAR	4 OR 5	1	5	M/LC1- E/MC2
258	239	KILN	SGW	R	JAR	4.4	1	21	LC1- E/MC2
258	239	KILN	SGW	R	JAR	4.4	3	93	LC1- E/MC2
258	239	KILN	SOW	R	JAR	4.4	1	24	LC1- E/MC2
258	239	KILN	SGW	R	JAR	4.5	1	8	M/LC1- E/MC2
258	239	KILN	SGW	R	DISH/LID	6.18	1	14	LC1-C2
258	239	KILN	SGW	RU	LID		3	46	LC1- E/MC2
258	239	KILN	OW(GRO G)	U	JAR		3	56	C1
258	239	KILN	SGW	UB	JAR		6	30	M/LC1- E/MC2
258	239	KILN	SGW	UB	JAR		54	788	M/LC1- E/MC2
258	239	KILN	SOW	UB	JAR		44	693	M/LC1- E/MC2
259	239	KILN	SOW	Р	JAR	4.4	1	328	M/LC1- E/MC2
259	239	KILN	SOW	R	JAR	4.4	1	41	M/LC1- E/MC2
259	239	KILN	SOW	R	JAR	4.4	1	22	M/LC1- E/MC2
259	239	KILN	SOW	R	JAR	4.4	1	2	M/LC1- E/MC2
259	239	KILN	SOW	U	JAR	4.4	8	105	M/LC1- E/MC2
259	239	KILN	SOW	R	JAR	4.4	1	9	M/LC1- E/MC2
259	239	KILN	SGW	R	JAR	4.5	1	28	M/LC1- E/MC2
259	239	KILN	SGW	UB	JAR		7	159	M/LC1- E/MC2
260	239	KILN	SGW	R	JAR	4.4	1	26	M/LC1- E/MC2
260	239	KILN	SGW	R	JAR	4.4	1	12	M/LC1- E/MC2
260	239	KILN	SGW	R	JAR	4.4	1	21	M/LC1- E/MC2
260	239	KILN	SGW	R	JAR	4.4	2	56	M/LC1-



									E/MC2
260	239	KILN	SGW	R	JAR	4.4	5	20	M/LC1- E/MC2
260	239	KILN	SGW	R	JAR	4.4	1	81	M/LC1- E/MC2
260	239	KILN	SGW	R	JAR	4.4	1	45	M/LC1- E/MC2
260	239	KILN	SGW	R	JAR	4.4	1	13	M/LC1- E/MC2
260	239	KILN	SGW	R	JAR	4.4	1	14	M/LC1- E/MC2
260	239	KILN	SGW	R	JAR	4.4	1	48	M/LC1- E/MC2
260	239	KILN	SGW	R	JAR	4.4	1	1	M/LC1- E/MC2
260	239	KILN	SGW	R	JAR	4.4	1	1	M/LC1- E/MC2
260	239	KILN	OW(GRO G)	RU	JAR/SJAR	4.4	4	34	M/LC1- E/MC2
260	239	KILN	SOW	R	JAR	4.4	1	34	M/LC1- E/MC2
260	239	KILN	SOW	R	JAR	4.4	1	15	M/LC1- E/MC2
260	239	KILN	SOW	R	JAR	4.4	1	18	M/LC1- E/MC2
260	239	KILN	SOW	R	JAR	4.4	1	6	M/LC1- E/MC2
260	239	KILN	SOW	R	JAR	4.4	1	11	M/LC1- E/MC2
260	239	KILN	SOW	R	JAR	4.4	1	8	M/LC1- E/MC2
260	239	KILN	SOW	R	JAR	4.4	1	4	M/LC1- E/MC2
260	239	KILN	SOW	R	JAR	4.4	1	7	M/LC1- E/MC2
260	239	KILN	SOW	R	JAR	4.4	1	4	M/LC1- E/MC2
260	239	KILN	SOW	R	JAR	4.4	1	12	M/LC1- E/MC2
260	239	KILN	SOW	R	JAR	4.4	1	6	M/LC1- E/MC2
260	239	KILN	SOW	R	JAR	4.4	1	10	M/LC1- E/MC2
260	239	KILN	SOW	R	JAR	4.4	1	36	M/LC1- E/MC2
260	239	KILN	SOW	R	JAR	4.4	1	19	M/LC1-



									E/MC2
260	239	KILN	sow	R	JAR	4.4	1	13	M/LC1- E/MC2
260	239	KILN	sow	R	JAR	4.4	1	19	M/LC1- E/MC2
260	239	KILN	SOW	R	JAR	4.4	1	36	M/LC1- E/MC2
260	239	KILN	SGW	RU	WJAR	5	11	205	M/LC1- E/MC2
260	239	KILN	SOW	R	JAR	5	1	18	M/LC1- E/MC2
260	239	KILN	SGW	R	JAR	5.3	3	294	M/LC1- EC2
260	239	KILN	SGW	R	JAR	5.3	1	119	M/LC1- EC2
260	239	KILN	SOW	R	JAR	5.3	1	84	M/LC1- E/MC2
260	239	KILN	SOW	R	JAR	5.3	1	47	M/LC1- E/MC2
260	239	KILN	SGW	R	DISH	6.21	1	14	LC1- MC2
260	239	KILN	SGW	R	DISH	6.21	1	6	LC1- MC2
260	239	KILN	SGW	R	DISH	6.21	2	20	LC1- E/MC2
260	239	KILN	sow	R	LID	8	1	27	MC1-C2
260	239	KILN	SOW	R	LID	8	1	8	M/LC1- E/MC2
260	239	KILN	SGW	R	LID	8.1	1	33	M/LC1- C2
260	239	KILN	SOW	R	LID	8.1	2	73	LC1-C2
260	239	KILN	SOW	R	JAR	4.4	1	4	M/LC1- E/MC2
260	239	KILN	SGW	R	JAR	4.4	1	5	M/LC1- E/MC2
260	239	KILN	SGW	UB	JAR		50	414	ML/C1- E/MC2
260	239	KILN	STW	U	JAR		2	55	M/LC1- E/MC2
260	239	KILN	SGW	D	MOULD FRAG		1	6	M/LC1- E/MC2
260	239	KILN	SGW	UDB	JAR		55	1048	M/LC1- E/MC2
260	239	KILN	SOW	UB	JAR		111	1828	MC1- E/MC2
261	250	KILN	SGW	U	JAR	4.4	5	35	M/LC1-



201		1711 51	0.0147	- Du					E/MC2
261	250	KILN	SOW	RU	JAR	4.4	3	13	M/LC1- E/MC2
263	250	KILN	SGW	RU	JAR	4.4	12	253	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	4.4	1	10	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	4.4	1	41	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	4.4	1	45	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	4.4	1	25	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	4.4	1	27	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	4.4	1	12	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	4.4	1	7	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	4.4	1	76	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	4.4	1	41	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	4.4	1	22	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	4.4	1	14	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	4.4	1	16	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	4.4	1	58	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	4.4	1	27	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	4.4	1	47	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	4.4	1	27	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	4.4	1	18	M/LC1- E/MC2
263	250	KILN	sow	R	JAR	4.4	1	56	M/LC1- E/MC2
263	250	KILN	sow	R	JAR	4.4	1	39	M/LC1- E/MC2
263	250	KILN	SOW	R	JAR	4.4	1	22	M/LC1- E/MC2
263	250	KILN	SOW	R	JAR	4.4	1	34	M/LC1-



									E/MC2
263	250	KILN	SOW	R	JAR	4.4	1	24	M/LC1- E/MC2
263	250	KILN	SOW	R	JAR	4.4	1	25	M/LC1- E/MC2
263	250	KILN	SOW	R	JAR	4.4	1	16	M/LC1- E/MC2
263	250	KILN	SOW	R	JAR	4.4	1	50	M/LC1- E/MC2
263	250	KILN	SOW	R	JAR	4.4	1	21	M/LC1- E/MC2
263	250	KILN	SOW	R	JAR	4.4	1	21	M/LC1- E/MC2
263	250	KILN	SOW	R	JAR	4.4	1	26	M/LC1- E/MC2
263	250	KILN	SOW	R	JAR	4.4	1	27	M/LC1- E/MC2
263	250	KILN	SOW	R	JAR	4.4	1	22	M/LC1- E/MC2
263	250	KILN	SOW	R	JAR	4.4	1	33	M/LC1- E/MC2
263	250	KILN	SOW	R	JAR	4.4	1	31	M/LC1- E/MC2
263	250	KILN	sow	R	WJAR	5	3	131	M/LC1
263	250	KILN	SOW	R	WJAR	5	1	23	M/LC1- E/MC2
263	250	KILN	SGW	R	JAR	5.3	1	28	M/LC1- E/MC2
263	250	KILN	sow	R	JAR	5.3	1	37	M/LC1
263	250	KILN	SGW	R	LID	8.1	1	27	M/LC1- E/MC2
263	250	KILN	SGW	R	LID		1	15	M/LC1- E/MC2
263	250	KILN	GW(ORG	U	JAR/BOW L		2	10	M/LC1- E/MC2
263	250	KILN	SGW	D	MOULD FRAG		1	9	M/LC1- E/MC2
263	250	KILN	SGW	В	JAR		1	4	M/LC1- E/MC2
263	250	KILN	SGW	UB	JAR		90	1496	M/LC1- E/MC2
263	250	KILN	SGW	U	JAR/SJAR		5	108	M/LC1- E/MC2
263	250	KILN	SOW	В	CHEESEP RESS		1	40	M/LC1
263	250	KILN	sow	UB	JAR		73	1419	M/LC1-



									E/MC2
264	250	KILN	SGW	RU	JAR	5	4	10920	MLC1- E/MC2
264	250	KILN	OW(ORG	D	JAR/BOW L		1	13	M/LC1
264	250	KILN	SGW	U	JAR		17	200	M/LC1- E/MC2
264	250	KILN	SOW	UD	JAR		8	81	M/LC1
265	250	KILN	SGW	R	SJAR	4.14	1	38	M/LC1- E/MC2
265	250	KILN	SGW	R	JAR	4.4	1	15	M/LC1- E/MC2
265	250	KILN	SGW	R	JAR	4.4	1	10	M/LC1- E/MC2
265	250	KILN	SOW	RUB	JAR	4.4	14	156	M/LC1- E/MC2
265	250	KILN	SGW	R	JAR/BEAK	?BUTT	1	9	M/LC1- E/MC2
265	250	KILN	SGW	U	JAR		13	84	MLC1- E/MC2
265	250	KILN	STW	UB	JAR		3	74	M/LC1- E/MC2
265	250	KILN	SGW	UB	JAR		54	443	M/LC1- E/MC2
265	250	KILN	SOW	U	JAR/FLAG		1	3	MC1-C2
266	240	KILN	SGW	RU	JAR	4.4	18	162	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	26	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	2	69	M/LC1- E/MC2
266	240	KILN	SGW	RU	JAR	4.4	13	130	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	24	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	19	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	15	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	1	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	1	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	8	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	14	M/LC1-



									E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	9	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	3	149	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	38	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	59	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	45	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	50	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	43	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	28	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	36	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	24	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.4	1	19	M/LC1- E/MC2
266	240	KILN	SOW	R	JAR	4.4	1	40	M/LC1- E/MC2
266	240	KILN	SOW	R	JAR	4.4	1	36	M/LC1- E/MC2
266	240	KILN	SOW	R	JAR	4.4	1	74	M/LC1- E/MC2
266	240	KILN	SOW	R	JAR	4.4	1	20	M/LC1- E/MC2
266	240	KILN	SOW	R	JAR	4.4	1	8	M/LC1- E/MC2
266	240	KILN	SOW	R	JAR	4.4	1	12	M/LC1- E/MC2
266	240	KILN	SOW	R	JAR	4.4	1	24	M/LC1- E/MC2
266	240	KILN	SGW	R	JAR	4.5	1	23	M/LC1- E/MC2
266	240	KILN	SCW	U	JAR/BOW L		1	18	PRE
266	240	KILN	SGW	UB	JAR		125	2514	M/LC1- E/MC2
266	240	KILN	SOW	UB	JAR		53	1062	M/LC1- E/MC2
267	240	KILN	SGW	R	JAR	4.4	1	37	M/LC1-



									E/MC2
267	240	KILN	SGW	R	JAR	4.4	1	15	M/LC1- E/MC2
267	240	KILN	SGW	R	JAR	4.4	1	19	M/LC1- E/MC2
267	240	KILN	SOW	R	JAR	4.4	1	12	M/LC1- E/MC2
267	240	KILN	SOW	R	JAR	4.4	1	13	M/LC1- E/MC2
267	240	KILN	SOW	R	JAR	4.4	1	18	M/LC1- E/MC2
267	240	KILN	SOW	R	JAR	4.4	2	8	M/LC1- E/MC2
267	240	KILN	SOW	R	JAR	4.4	1	20	M/LC1- E/MC2
267	240	KILN	SOW	R	JAR	4.4	1	27	M/LC1- E/MC2
267	240	KILN	SOW	R	JAR	4.4	3	131	M/LC1- E/MC2
267	240	KILN	SOW	R	JAR	4.4	2	65	M/LC1- E/MC2
267	240	KILN	SOW	R	JAR	4.4	2	47	M/LC1- E/MC2
267	240	KILN	SOW	R	JAR	4.4	1	10	M/LC1- E/MC2
267	240	KILN	SOW	R	JAR	4.4	1	14	M/LC1- E/MC2
267	240	KILN	SOW	R	JAR	4.4	2	41	M/LC1- EC2
267	240	KILN	SGW	U	JAR		1	6	M/LC1- E/MC2
267	240	KILN	SGW	UB	JAR		7	106	M/LC1- E/MC2
267	240	KILN	SOW	UB	JAR		160	2437	M/LC1- E/MC2
269	268	KILN	SGW	R	JAR	4.4	2	30	M/LC1- E/MC2
269	268	KILN	SGW	RUD	LID		4	79	M/LC1- E/MC2
269	268	KILN	SGW	UB	JAR		5	67	M/LC1- E/MC2
269	268	KILN	STW	U	JAR		2	19	M/LC1- E/MC2
273	272	GULLY	SOW	U	JAR		6	109	M/LC1- EMC2
274	275	KILN	SGW	R	JAR	4.4	4	56	M/LC1-



									E/MC2
274	275	KILN	SGW	RUDB	JAR	4.4	16	205	M/LC1- E/MC2
274	275	KILN	SGW	R	JAR	4.4	1	4	M/LC1- E/MC2
274	275	KILN	SGW	R	JAR	4.4	1	7	M/LC1- E/MC2
274	275	KILN	SGW	R	JAR	4.4	1	21	M/LC1- E/MC2
274	275	KILN	SGW	R	JAR	4.4	1	27	M/LC1- E/MC2
274	275	KILN	sow	R	JAR	4.4	1	42	M/LC1- E/MC2
274	275	KILN	SOW	R	JAR	4.4	1	8	M/LC1- E/MC2
274	275	KILN	SOW	R	JAR	4.4	1	6	M/LC1- E/MC2
274	275	KILN	SGW	R	JAR	5.3	5	64	M/LC1
274	275	KILN	sow	RUD	WJAR	5.3	3	84	M/LC1
274	275	KILN	sow	R	WJAR	5.3	1	11	M/LC1
274	275	KILN	SGW	R	LID		1	9	MC1- MC2
274	275	KILN	SGW	R	LID		1	18	M/LC1- MC2
274	275	KILN	SGW	R	LID		1	30	M/LC1- E/MC2
274	275	KILN	SGW	R	LID		1	10	M/LC1- E/MC2
274	275	KILN	SGW	R	LID		1	44	M/LC1- E/MC2
274	275	KILN	SGW	UDB	JAR		31	451	M/LC1- E/MC2
274	275	KILN	SGW	UDB	JAR		37	688	M/LC1- E/MC2
274	275	KILN	SGW	UB	CHEESEP RESS		1	13	M/LC1
274	275	KILN	SOW	UDB	JAR		32	838	M/LC1- E/MC2
274	275	KILN	STW	U	SJAR		1	25	C1
279	275	KILN	SGW	R	JAR	4.4	1	17	M/LC1- E/MC2
279	275	KILN	SGW	R	JAR	4.4	1	57	M/LC1- E/MC2
279	275	KILN	SGW	R	JAR	4.4	1	21	M/LC1- E/MC2



279	275	KILN	SGW	R	JAR	4.4	1	21	M/LC1- E/MC2
279	275	KILN	SGW	R	JAR	4.4	1	4	M/LC1- E/MC2
279	275	KILN	SGW	R	JAR	4.4	1	5	M/LC1- E/MC2
279	275	KILN	SGW	RU	JAR	4.4	3	29	M/LC1- E/MC2
279	275	KILN	SGW	R	JAR	4.4	2	48	M/LC1- E/MC2
279	275	KILN	SGW	R	JAR	4.4	2	32	M/LC1- E/MC2
279	275	KILN	SGW	R	JAR	4.4	1	22	M/LC1- E/MC2
279	275	KILN	SGW	R	LID		3	81	M/LC1- E/MC2
279	275	KILN	SGW	UBD	JAR		32	483	M/LC1- E/MC2
280	275	KILN	SGW	R	JAR	4.4	1	12	M/LC1- E/MC2
280	275	KILN	SGW	R	JAR	4.4	1	69	M/LC1- E/MC2
280	275	KILN	SGW	R	JAR	4.4	1	67	M/LC1- E/MC2
280	275	KILN	SGW	R	JAR	4.4	1	34	M/LC1- E/MC2
280	275	KILN	SGW	R	JAR	4.4	1	25	M/LC1- E/MC2
280	275	KILN	SGW	R	JAR	4.4	1	12	M/LC1- E/MC2
280	275	KILN	SGW	R	JAR	4.4	1	24	M/LC1- E/MC2
280	275	KILN	SGW	R	JAR	4.4	1	16	M/LC1- E/MC2
280	275	KILN	SGW	R	JAR	4.4	1	8	M/LC1- E/MC2
280	275	KILN	SGW	R	JAR	5.3	1	18	M/LC1- EC2
280	275	KILN	SGW	R	JAR	5.3	1	18	M/LC1- EC2
280	275	KILN	SGW	R	LID/DISH	6.21	1	20	M/LC1- E/MC2
280	275	KILN	SGW	D	JAR	4.4	6	160	M/LC1- E/MC2
280	275	KILN	SGW	UB	JAR/BOW L		1	10	MC1



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280	275	KILN	SGW	UB	JAR		25	308	M/LC1- E/MC2
280	275	KILN	SGW	D	SJAR		1	26	M/LC1
280	275	KILN	SGW	UB	JAR		3	55	M/LC1- E/MC2
281	275	KILN	SGW	R	JAR	4.4	4	121	M/LC1- E/MC2
281	275	KILN	SGW	RUB	JAR	4.4	7	72	M/LC1- E/MC2
282	239	KILN	SOW	R	JAR	4.4	4	200	M/LC1- E/MC2
282	239	KILN	SGW	R	LID	8.1	1	29	M/LC1- MC2
282	239	KILN	OW(GRO G)	U	JAR/SJAR		1	29	M/LC1- EC2
282	239	KILN	SGW	U	JAR		2	16	M/LC1- E/MC2
283	239	KILN	STW	R	JAR	4.4	3	36	M/LC1- E/MC2
283	239	KILN	SGW	R	JAR	4.4	1	47	M/LC1- E/MC2
283	239	KILN	SOW	R	JAR	4.4	1	25	M/LC1- E/MC2
283	239	KILN	SGW	R	JAR	4.5	2	32	M/LC1- E/MC2
283	239	KILN	SGW	U	JAR		1	11	M/LC1- E/MC2
283	239	KILN	SOW	U	JAR		19	452	M/LC1- E/MC2
284	239	KILN	SGW	R	JAR	4.4	1	104	M/LC1- E/MC2
284	239	KILN	SGW	R	JAR	4.4	1	48	M/LC1- E/MC2
284	239	KILN	SGW	R	JAR	4.4	1	26	M/LC1- E/MC2
284	239	KILN	SGW	R	JAR	4.4	1	26	M/LC1- E/MC2
284	239	KILN	SGW	R	JAR	4.4	1	39	M/LC1- E/MC2
284	239	KILN	SGW	R	JAR	4.4	1	17	M/LC1- E/MC2
284	239	KILN	SGW	R	JAR	5.3	1	51	M/LC1- EC2
284	239	KILN	SOW	R	JAR	5.3	2	69	M/LC1- EC2
284	239	KILN	SGW	R	LID	8.1	1	56	M/LC1-



									E/MC2
284	239	KILN	OW(ORG	U	JAR/BOW L		2	25	M/LC1- EC2
284	239	KILN	SGW	U	JAR		1	3	M/LC1- E/MC2
284	239	KILN	SGW	U	JAR		13	170	M/LC1- E/MC2
284	239	KILN	SOW	R	JAR		11	222	M/LC1- EC2
285	239	KILN	SGW	R	JAR	4.4	1	26	M/LC1- E/MC2
285	239	KILN	SGW	R	JAR	4.4	1	21	M/LC1- E/MC2
285	239	KILN	SGW	R	JAR	4.4	1	60	M/LC1- E/MC2
285	239	KILN	SGW	R	JAR	4.4	1	16	M/LC1- E/MC2
285	239	KILN	SGW	R	JAR	4.4	1	26	M/LC1- E/MC2
285	239	KILN	SGW	U	JAR		5	65	M/LC1- E/MC2
285	239	KILN	SOW	U	JAR		9	200	M/LC1- E/MC2
286	250	KILN	SGW	R	LID/DISH	6.21	1	6	LC1- E/MC2
287	250	KILN	SGW	R	JAR	4.4	1	16	M/LC1- E/MC2
287	250	KILN	SGW	R	JAR	4.4	1	35	M/LC1- E/MC2
287	250	KILN	SOW	R	JAR	4.4	1	24	M/LC1- E/MC2
287	250	KILN	SOW	R	JAR	4.4	1	17	M/LC1- E/MC2
287	250	KILN	SOW	R	JAR	4.4	1	13	M/LC1- E/MC2
287	250	KILN	SGW	Р	CHEESEP RESS		1	177	M/LC1
287	250	KILN	SGW	UB	JAR		13	142	M/LC1- E/MC2
287	250	KILN	SOW	U	JAR		3	88	M/LC1- E/MC2
287	250	KILN	STW	U	JAR		1	1	C1
289	289	POST- HOLE	OW(GRO G)	U	JAR/SJAR		1	26	C1
289	289	POST- HOLE	SGW	U	JAR/BOW L		1	7	M/LC1- E/MC2



315	316	PIT	SGW	RU	WJAR	5	7	58	M/LC1
315	316	PIT	SOW	U	JAR		2	7	M/LC1- E/MC2
320	319	PIT	OW(ORG	R	JAR/BOW L		1	6	C1
320	319	PIT	SCW	U	JAR/BOW L		2	9	PRE
320	319	PIT	SGW	U	JAR		3	31	M/LC1- E/MC2
320	319	PIT	SGW	U	JAR/BEAK		1	4	M/LC1- EC2
320	319	PIT	SGW	U	JAR		1	11	M/LC1- E/MC2
320	319	PIT	STW	U	JAR/BOW L		1	1	C1
352	239	KILN	STW	R	JAR	4.4	12	110	M/LC1- E/MC2
352	239	KILN	SGW	RU	JAR	4.5	2	20	M/LC1- E/MC2
358	359	DITCH	SGW	R	JAR/SJAR	4.14	1	47	LC1-C2
358	359	DITCH	SGW	RU	JAR	4.4	15	180	M/LC1- E/MC2
358	359	DITCH	SGW	RUD	JAR	5.4	3	25	M/LC1- E/MC2
358	359	DITCH	SGW	R	BOWL	6.3	2	24	LC1- EMC2
358	359	DITCH	SCW	U	JAR/BOW L		1	5	PRE
358	359	DITCH	SGW	U	JAR/BOW L		1	4	MC1- MC2
360	239	KILN	SOW	U	JAR		1	2	M/LC1- E/MC2
362	268	KILN	SGW	U	JAR		3	31	M/LC1- E/MC2
377	378	DITCH	GRE	R	JAR/LID		1	6	C17-C19
392	390	PIT	SGW	RU	JAR	4.4	2	14	M/LC1- E/MC2

Table 24: Roman Pottery Catalogue KEY: B = base, C=century, D = decorated body sherd, Dsc = description, E=early, Eval = evaluation, Ex = excavation, H = Handle, L=late M=mid, R = rim, U=undecorated body sherd.



222 ? KILN PLATE FAB 1 2 248 241 KILN PLATE FAB 1 1 248 241 KILN PLATE FAB 1 1 249 220 KILN PLATE FAB 3 1 251 220 KILN PLATE FAB 1 3 251 220 KILN PLATE FAB 1 7 251 220 KILN PLATE FAB 3 1 251 220 PEDESTAL FAB 3 8 251 220 PEDESTAL FAB 3 1 251 220 PEDESTAL FAB 3 1 251 220 PEDESTAL FAB 3 8 251 220 PEDESTAL FAB 4 22 251 220 PEDESTAL FAB 4 22 251 220 SUPERSTRUCTURE - WALL FAB 1 1 251 220 UNDIAGNOSTIC FAB 1 1 251 220 SUPERSTRUCTURE - LIP FAB 1 1 252 239 KILN PLATE FAB	Veight (g)	Fragment Count	Fabric	Form	Cut	Context
248 241 KILN PLATE FAB 1 (BURNT) 1 249 220 KILN PLATE FAB 3 1 251 220 KILN PLATE FAB 1 3 251 220 KILN PLATE FAB 1 7 251 220 KILN PLATE FAB 1 11 251 220 PEDESTAL FAB 3 8 251 220 PEDESTAL FAB 3 1 251 220 PEDESTAL FAB 3 8 251 220 PEDESTAL FAB 3 8 251 220 PEDESTAL FAB 4 22 251 220 PEDESTAL FAB 4 22 251 220 PEDESTAL FAB 1 13 (BURNT) 13 (BURNT) 13 251 220 UNDIAGNOSTIC FAB 1 1 254 255 SUPERSTRUCTURE - LIP FAB 1 1 258 239 KILN PLATE FAB 1 40 258 239 KILN PLATE FAB 1 (BU	106	2	FAB 1	KILN PLATE	?	222
BURNT	147	1	FAB 1	KILN PLATE	241	248
251 220 KILN PLATE FAB 1 3 251 220 KILN PLATE FAB 1 7 251 220 KILN PLATE FAB 1 11 251 220 PEDESTAL FAB 3 8 251 220 PEDESTAL FAB 3 1 251 220 PEDESTAL FAB 3 8 251 220 PEDESTAL FAB 4 22 251 220 PEDESTAL FAB 4 22 251 220 PEDESTAL FAB 4 22 251 220 SUPERSTRUCTURE - WALL (BUNRT) FAB 1 13 (BUNRT) 13 (BUNRT) 14 251 220 SUPERSTRUCTURE - LIP FAB 1 1 254 255 SUPERSTRUCTURE - LIP FAB 1 1 258 239 KILN PLATE FAB 1 40 258 239 KILN PLATE FAB 1 (BURNT) 258 239 KILN PLATE FAB 3 11 258 239 UNDIAGNOSTIC	74	1		KILN PLATE	241	248
251 220 KILN PLATE FAB 1 7 251 220 KILN PLATE FAB 1 (BURNT) 11 251 220 PEDESTAL FAB 3 8 251 220 PEDESTAL FAB 3 1 251 220 PEDESTAL FAB 3 8 251 220 PEDESTAL FAB 4 22 251 220 PEDESTAL FAB 4 22 251 220 PEDESTAL FAB 4 22 251 220 SUPERSTRUCTURE - WALL (BUNRT) FAB 1 13 (BUNRT) 13 (BUNRT) 14 251 220 SUPERSTRUCTURE - LIP FAB 1 1 251 220 SUPERSTRUCTURE - LIP FAB 1 1 254 255 SUPERSTRUCTURE - LIP FAB 1 1 258 239 KILN PLATE FAB 1 40 258 239 KILN PLATE FAB 1 1 258 239 KILN PLATE FAB 3 11 258 239 PEDESTAL<	58	1	FAB 3	KILN PLATE	220	249
251 220 KILN PLATE FAB 1 (BURNT) 11 251 220 PEDESTAL FAB 3 8 251 220 PEDESTAL FAB 3 1 251 220 PEDESTAL FAB 3 8 251 220 PEDESTAL FAB 4 22 251 220 PEDESTAL FAB 4 22 251 220 SUPERSTRUCTURE - WALL FAB 1 (BUNRT) 13 251 220 UNDIAGNOSTIC FAB 1 1 254 255 SUPERSTRUCTURE - LIP FAB 1 (BURNT) 1 258 239 KILN PLATE FAB 1 (BURNT) 3 258 239 KILN PLATE FAB 1 (BURNT) 6 258 239 KILN PLATE FAB 1 (BURNT) 11 258 239 KILN PLATE FAB 1 (BURNT) 11 258 239 KILN PLATE FAB 3 11 258 239 PEDESTAL FAB 3 11 258 239 KILN PLATE FAB 3 1 258<	152	3	FAB 1	KILN PLATE	220	251
(BURNT)	328	7	FAB 1	KILN PLATE	220	251
251 220 PEDESTAL FAB 3 1 251 220 PEDESTAL FAB 4 22 251 220 PEDESTAL FAB 4 22 251 220 SUPERSTRUCTURE - WALL (BUNRT) FAB 1 13 251 220 UNDIAGNOSTIC FAB 1 1 251 220 SUPERSTRUCTURE - LIP FAB 1 1 254 255 SUPERSTRUCTURE - LIP FAB 1 1 258 239 KILN PLATE FAB 1 40 258 239 UNDIAGNOSTIC FAB 1 3 258 239 KILN PLATE FAB 1 6 258 239 UNDIAGNOSTIC FAB 1 11 258 239 UNDIAGNOSTIC FAB 3 11 258 239 PEDESTAL FAB 3 11 258 239 PEDESTAL FAB 3 1 258 239 PEDESTAL FAB 4 5 259 239 SUPERSTRUCTURE - LIP FAB 1 1 260 239	456	11		KILN PLATE	220	251
251 220 PEDESTAL FAB 3 8 251 220 PEDESTAL FAB 4 22 251 220 SUPERSTRUCTURE - WALL (BUNRT) FAB 1 (BUNRT) 13 251 220 UNDIAGNOSTIC (BAB 1) 1 1 251 220 SUPERSTRUCTURE - LIP (BAB 1) 1 1 254 255 SUPERSTRUCTURE - LIP (BURNT) FAB 1 (BURNT) 34 258 239 KILN PLATE (BAB 1) 40 258 239 KILN PLATE (BURNT) FAB 1 (BURNT) 6 258 239 KILN PLATE (BURNT) 6 6 258 239 UNDIAGNOSTIC (BURNT) FAB 1 (BURNT) 11 258 239 PEDESTAL (BURNT) FAB 3 11 258 239 KILN PLATE (BAB 3) 11 258 239 KILN PLATE (BAB 4) 5 258 239 <td< td=""><td>1891</td><td>8</td><td>FAB 3</td><td>PEDESTAL</td><td>220</td><td>251</td></td<>	1891	8	FAB 3	PEDESTAL	220	251
251 220 PEDESTAL FAB 4 22 251 220 SUPERSTRUCTURE - WALL (BUNRT) 13 251 220 UNDIAGNOSTIC FAB 1 1 251 220 SUPERSTRUCTURE FAB 1 1 254 255 SUPERSTRUCTURE - LIP FAB 1 1 258 239 KILN PLATE FAB 1 34 258 239 UNDIAGNOSTIC FAB 1 40 258 239 KILN PLATE FAB 1 (BURNT) 6 258 239 UNDIAGNOSTIC FAB 1 (BURNT) 11 258 239 UNDIAGNOSTIC FAB 1 (BURNT) 11 258 239 PEDESTAL FAB 3 11 258 239 KILN PLATE FAB 3 11 258 239 KILN PLATE FAB 3 11 258 239 KILN PLATE FAB 3 1 258 239 KILN PLATE FAB 3 1 258	9840	1	FAB 3	PEDESTAL	220	251
251 220 SUPERSTRUCTURE - WALL (BUNRT) 13 251 220 UNDIAGNOSTIC FAB 1 1 251 220 SUPERSTRUCTURE FAB 1 1 254 255 SUPERSTRUCTURE - LIP FAB 1 1 258 239 KILN PLATE FAB 1 34 258 239 UNDIAGNOSTIC FAB 1 40 258 239 KILN PLATE FAB 1 (BURNT) 6 258 239 KILN PLATE FAB 1 (BURNT) 6 258 239 UNDIAGNOSTIC FAB 1 (BURNT) 11 258 239 PEDESTAL FAB 3 11 258 239 KILN PLATE FAB 3 11 258 239 KILN PLATE FAB 3 1 258 239 PEDESTAL FAB 4 5 259 239 SUPERSTRUCTURE - LIP FAB 1 1 260 239 PEDESTAL FAB 1 20 (BURNT) 10 (BURNT) 20	1815	8	FAB 3	PEDESTAL	220	251
BUNRT	1800	22	FAB 4	PEDESTAL	220	251
251 220 SUPERSTRUCTURE FAB 1 1 254 255 SUPERSTRUCTURE - LIP FAB 1 (BURNT) 1 258 239 KILN PLATE FAB 1 (BURNT) 34 258 239 WIDIAGNOSTIC FAB 1 (BURNT) 3 258 239 KILN PLATE FAB 1 (BURNT) 6 258 239 UNDIAGNOSTIC FAB 1 (BURNT) 11 258 239 PEDESTAL FAB 3 11 258 239 KILN PLATE FAB 3 1 258 239 KILN PLATE FAB 3 1 258 239 PEDESTAL FAB 4 5 259 239 SUPERSTRUCTURE - LIP FAB 1 1 260 239 PEDESTAL FAB 1 20 (BURNT) 20	529	13		SUPERSTRUCTURE - WALL	220	251
254 255 SUPERSTRUCTURE - LIP FAB 1 (BURNT) 1 258 239 KILN PLATE FAB 1 40 258 239 UNDIAGNOSTIC FAB 1 (BURNT) 258 239 KILN PLATE FAB 1 (BURNT) 258 239 UNDIAGNOSTIC FAB 1 (BURNT) 258 239 PEDESTAL FAB 3 11 258 239 KILN PLATE FAB 3 11 258 239 KILN PLATE FAB 3 11 258 239 PEDESTAL FAB 4 5 259 239 SUPERSTRUCTURE - LIP FAB 1 1 260 239 PEDESTAL FAB 1 1 (BURNT) FAB 1 1 20 (BURNT)	11	1	FAB 1	UNDIAGNOSTIC	220	251
258 239 KILN PLATE FAB 1 34 258 239 UNDIAGNOSTIC FAB 1 40 258 239 KILN PLATE FAB 1 (BURNT) 3 258 239 KILN PLATE FAB 1 (BURNT) 6 258 239 UNDIAGNOSTIC FAB 1 (BURNT) 11 258 239 PEDESTAL FAB 3 11 258 239 KILN PLATE FAB 3 1 258 239 PEDESTAL FAB 4 5 259 239 SUPERSTRUCTURE - LIP FAB 1 1 260 239 PEDESTAL FAB 1 (BURNT) 20	48	1	FAB 1	SUPERSTRUCTURE	220	251
258 239 UNDIAGNOSTIC FAB 1 40 258 239 KILN PLATE FAB 1 (BURNT) 3 (BURNT) 258 239 KILN PLATE FAB 1 (BURNT) 11 (BURNT) 258 239 UNDIAGNOSTIC FAB 1 (BURNT) 11 (BURNT) 258 239 PEDESTAL FAB 3 11 258 239 KILN PLATE FAB 3 1 258 239 PEDESTAL FAB 4 5 259 239 SUPERSTRUCTURE - LIP FAB 1 1 260 239 PEDESTAL FAB 1 (BURNT) 20	367	1		SUPERSTRUCTURE - LIP	255	254
258 239 KILN PLATE FAB 1 (BURNT) 3 (BURNT) 258 239 KILN PLATE FAB 1 (BURNT) 6 (BURNT) 258 239 UNDIAGNOSTIC FAB 1 (BURNT) 11 (BURNT) 258 239 PEDESTAL FAB 3 11 258 239 KILN PLATE FAB 3 1 258 239 PEDESTAL FAB 4 5 259 239 SUPERSTRUCTURE - LIP FAB 1 1 260 239 PEDESTAL FAB 1 (BURNT) 20 (BURNT)	1170	34	FAB 1	KILN PLATE	239	258
BURNT	399	40	FAB 1	UNDIAGNOSTIC	239	258
258 239 UNDIAGNOSTIC FAB 1 11 (BURNT) 11 (BURNT) 1258 239 PEDESTAL FAB 3 11 11 1258 239 KILN PLATE FAB 3 1 1 1 1 1 1 1 1 1	169	3		KILN PLATE	239	258
(BURNT)	190	6		KILN PLATE	239	258
258 239 KILN PLATE FAB 3 1 258 239 PEDESTAL FAB 4 5 259 239 SUPERSTRUCTURE - LIP FAB 1 1 260 239 PEDESTAL FAB 1 20 (BURNT) 20	100	11		UNDIAGNOSTIC	239	258
258 239 PEDESTAL FAB 4 5 259 239 SUPERSTRUCTURE - LIP FAB 1 1 260 239 PEDESTAL FAB 1 (BURNT) 20	432	11	FAB 3	PEDESTAL	239	258
259 239 SUPERSTRUCTURE - LIP FAB 1 1 260 239 PEDESTAL FAB 1 (BURNT)	49	1	FAB 3	KILN PLATE	239	258
260 239 PEDESTAL FAB 1 (BURNT) 20	309	5	FAB 4	PEDESTAL	239	258
(BURNT)	411	1	FAB 1	SUPERSTRUCTURE - LIP	239	259
	1012	20		PEDESTAL	239	260
260 239 SUPERSTUCTURE FAB1 42 (BURNT)	774	42	FAB1 (BURNT)	SUPERSTUCTURE	239	260
260 239 KILN PLATE FAB 10 1(BURNT)	280	10		KILN PLATE	239	260
260 239 KILN PLATE FAB 1 3	90	3	FAB 1	KILN PLATE	239	260



260 250 KILN PLATE FAB 1 7 176						
BURNT Canal Can	260	250	KILN PLATE	FAB 1	42	813
Superstructure - Wall FAB 1 9 786	260	250	KILN PLATE		7	176
261 250 SUPERSTRUCTURE - WALL FAB 1 17 435 261 250 KILN PLATE FAB 1 5 1030 261 250 KILN PLATE FAB 1 2 233 261 250 KILN PLATE FAB 1 6 61 261 250 UNDIAGNOSTIC FAB 3 2 21 263 250 KILN PLATE FAB 1 27 494 263 250 KILN PLATE FAB 1 17 581 263 250 KILN PLATE FAB 1 12 223 263 250 PEDESTAL FAB 3 2 1815 263 250 PEDESTAL FAB 3 1 1302 263 250 PEDESTAL FAB 3 1 1302 264 250 SUPERSTRUCTURE - WALL FAB 1 4 107 264 250 SUPERSTRUCTURE - WALL FAB 1 2 36 265	260	250	KILN PLATE		16	439
261 250 KILN PLATE FAB 1 5 1030 261 250 KILN PLATE FAB 1 2 233 261 250 KILN PLATE FAB 1 6 61 261 250 UNDIAGNOSTIC FAB 3 2 21 263 250 SUPERSTRUCTURE - WALL FAB 1 27 494 263 250 KILN PLATE FAB 1 17 581 263 250 KILN PLATE FAB 1 17 581 263 250 PEDESTAL FAB 3 2 1815 263 250 PEDESTAL FAB 3 1 1302 263 250 PEDESTAL FAB 3 1 1759 264 250 SUPERSTRUCTURE - WALL FAB 1 4 107 264 250 SUPERSTRUCTURE - WALL FAB 1 2 36 264 250 PEDESTAL FAB 3 1 66 265	261	250	SUPERSTRUCTURE - WALL	FAB 1	9	786
261 250 KILN PLATE FAB 1 2 233 261 250 KILN PLATE FAB 1 6 61 261 250 UNDIAGNOSTIC FAB 3 2 21 263 250 SUPERSTRUCTURE - WALL FAB 1 27 494 263 250 KILN PLATE FAB 1 17 581 263 250 KILN PLATE FAB 1 12 223 263 250 KILN PLATE FAB 1 12 223 263 250 PEDESTAL FAB 3 2 1815 263 250 PEDESTAL FAB 3 1 1302 263 250 PEDESTAL FAB 3 1 1302 263 250 PEDESTAL FAB 1 4 107 264 250 SUPERSTRUCTURE - WALL FAB 1 2 36 264 250 PEDESTAL FAB 3 1 66 265 250	261	250	SUPERSTRUCTURE - WALL	FAB 1	17	435
261 250 KILN PLATE FAB 1 6 61 261 250 UNDIAGNOSTIC FAB 3 2 21 263 250 SUPERSTRUCTURE - WALL FAB 1 27 494 263 250 KILN PLATE FAB 1 17 581 263 250 KILN PLATE FAB 1 12 223 263 250 PEDESTAL FAB 3 2 1815 263 250 PEDESTAL FAB 3 1 1302 263 250 PEDESTAL FAB 3 1 1302 263 250 PEDESTAL FAB 3 1 1302 263 250 PEDESTAL FAB 1 4 107 264 250 SUPERSTRUCTURE - WALL FAB 1 2 94 264 250 PEDESTAL FAB 3 1 66 265 250 UNDIAGNOSTIC FAB 1 6 56 265 250	261	250	KILN PLATE	FAB 1	5	1030
261 250 UNDIAGNOSTIC FAB 3 2 21 263 250 SUPERSTRUCTURE - WALL FAB 1 27 494 263 250 KILN PLATE FAB 1 17 581 263 250 KILN PLATE FAB 3 1 12 223 263 250 PEDESTAL FAB 3 2 1815 263 250 PEDESTAL FAB 3 1 1302 263 250 PEDESTAL FAB 3 1 1302 263 250 PEDESTAL FAB 3 1 1302 264 263 250 PEDESTAL FAB 3 1 1302 264 250 SUPERSTRUCTURE - WALL FAB 1 4 107 264 250 SUPERSTRUCTURE - WALL FAB 1 2 36 264 250 SUPERSTRUCTURE - WALL FAB 1 6 4 269 266 250 UNDIAGNOSTIC FAB 1 1 89 265 250 UNDIAGNOSTIC FAB 1 1 4<	261	250	KILN PLATE	FAB 1	2	233
263 250 SUPERSTRUCTURE - WALL FAB 1 27 494 263 250 KILN PLATE FAB 1 17 581 263 250 KILN PLATE FAB 1 12 223 263 250 PEDESTAL FAB 3 2 1815 263 250 PEDESTAL FAB 3 1 1302 263 250 PEDESTAL FAB 3 1 1302 263 250 PEDESTAL FAB 3 1 1302 263 250 PEDESTAL FAB 1 4 107 264 250 SUPERSTRUCTURE - WALL FAB 1 2 36 264 250 KILN PLATE FAB 3 1 66 264 250 VEDESTAL FAB 3 1 66 264 250 VEDESTAL FAB 3 1 66 265 250 UNDIAGNOSTIC FAB 1 1 89 265 250	261	250	KILN PLATE	FAB 1	6	61
263 250 KILN PLATE FAB 1 17 581 263 250 KILN PLATE FAB 1 (BURNT) 12 223 263 250 PEDESTAL FAB 3 2 1815 263 250 PEDESTAL FAB 3 1 1302 263 250 PEDESTAL FAB 3 13 1759 264 250 SUPERSTRUCTURE - WALL FAB 1 4 107 264 250 SUPERSTRUCTURE - WALL FAB 1 2 36 264 250 KILN PLATE FAB 1 2 94 264 250 KILN PLATE FAB 3 1 66 264 250 PEDESTAL FAB 3 1 66 265 250 UNDIAGNOSTIC FAB 1 64 569 265 250 UNDIAGNOSTIC FAB 1 1 4 2461 265 250 KILN PLATE FAB 1 2 6 757 265 250 KILN PLATE FAB 1 1 113	261	250	UNDIAGNOSTIC	FAB 3	2	21
263 250 KILN PLATE FAB 1 (BURNT) 12 223 263 250 PEDESTAL FAB 3 2 1815 263 250 PEDESTAL FAB 3 1 1302 263 250 PEDESTAL FAB 3 13 1759 264 250 SUPERSTRUCTURE - WALL FAB 1 4 107 264 250 SUPERSTRUCTURE - WALL FAB 1 2 36 264 250 KILN PLATE FAB 1 2 94 264 250 KILN PLATE FAB 3 1 66 264 250 PEDESTAL FAB 3 1 66 264 250 PEDESTAL FAB 3 1 66 265 250 UNDIAGNOSTIC FAB 1 64 569 265 250 KILN PLATE FAB 1 1 2461 265 250 KILN PLATE FAB 1 2 52 265 250 KILN PLATE FAB 1 2 52 265 250	263	250	SUPERSTRUCTURE - WALL	FAB 1	27	494
BURNT	263	250	KILN PLATE	FAB 1	17	581
263 250 PEDESTAL FAB 3 1 1302 263 250 PEDESTAL FAB 3 13 1759 264 250 SUPERSTRUCTURE - WALL FAB 1 4 107 264 250 SUPERSTRUCTURE - WALL FAB 1 2 36 264 250 KILN PLATE FAB 1 2 94 264 250 KILN PLATE FAB 3 1 66 264 250 PEDESTAL FAB 3 1 66 265 250 UNDIAGNOSTIC FAB 1 64 569 265 250 SUPERSTRUCTURE - WALL FAB 1 1 2461 265 250 KILN PLATE FAB 1 2 52 265	263	250	KILN PLATE		12	223
263 250 PEDESTAL FAB 3 13 1759 264 250 SUPERSTRUCTURE - WALL FAB 1 4 107 264 250 SUPERSTRUCTURE - WALL FAB 1 2 36 264 250 KILN PLATE FAB 1 2 94 264 250 KILN PLATE FAB 3 1 66 265 250 UNDIAGNOSTIC FAB 1 64 569 265 250 UNDIAGNOSTIC FAB 1 1 89 265 250 UNDIAGNOSTIC FAB 1 1 2461 265 250 KILN PLATE FAB 1 6 115 265 250 KILN PLATE FAB 1 2 52 265 250 SUPERSTRUCTURE FAB 1 2 52 265 250 KILN PLATE FAB 1 1 113 265 250 SUPERSTRUCTURE FAB 3 2 990 265	263	250	PEDESTAL	FAB 3	2	1815
264 250 SUPERSTRUCTURE - WALL FAB 1 4 107 264 250 SUPERSTRUCTURE - WALL FAB 1 2 36 264 250 KILN PLATE FAB 1 2 94 264 250 PEDESTAL FAB 3 1 66 265 250 UNDIAGNOSTIC FAB 1 64 569 265 250 UNDIAGNOSTIC FAB 1 1 89 265 250 SUPERSTRUCTURE - WALL FAB 1 14 2461 265 250 KILN PLATE FAB 1 6 115 265 250 KILN PLATE FAB 1 2 52 265 250 SUPERSTRUCTURE FAB 1 1 113 265 250 KILN PLATE FAB 1 2 52 265 250 KILN PLATE FAB 3 2 990 265 250 PEDESTAL FAB 3 7 67 265	263	250	PEDESTAL	FAB 3	1	1302
264 250 SUPERSTRUCTURE - WALL FAB 1 2 36 264 250 KILN PLATE FAB 1 2 94 264 250 PEDESTAL FAB 3 1 66 265 250 UNDIAGNOSTIC FAB 1 64 569 265 250 UNDIAGNOSTIC FAB 1 1 89 265 250 UNDIAGNOSTIC FAB 1 14 2461 265 250 KILN PLATE FAB 1 6 115 265 250 KILN PLATE FAB 1 2 52 265 250 SUPERSTRUCTURE FAB 1 2 52 265 250 SUPERSTRUCTURE FAB 1 1 113 265 250 SUPERSTRUCTURE FAB 1 1 113 265 250 KILN PLATE FAB 3 2 990 265 250 KILN PLATE FAB 3 2 990 265 250 KILN PLATE FAB 3 7 67 265 250	263	250	PEDESTAL	FAB 3	13	1759
264 250 KILN PLATE FAB 1 (BURNT) 2 94 264 250 PEDESTAL FAB 3 1 66 265 250 UNDIAGNOSTIC FAB 1 64 569 265 250 UNDIAGNOSTIC FAB 1 1 89 265 250 SUPERSTRUCTURE - WALL FAB 1 14 2461 265 250 KILN PLATE FAB 1 6 115 265 250 KILN PLATE FAB 1 26 757 265 250 KILN PLATE FAB 1 2 52 265 250 SUPERSTRUCTURE FAB 1 2 52 265 250 KILN PLATE FAB 3 2 990 265 250 PEDESTAL FAB 3 3 4 1588 265	264	250	SUPERSTRUCTURE - WALL	FAB 1	4	107
264 250 PEDESTAL FAB 3 1 66 265 250 UNDIAGNOSTIC FAB 1 64 569 265 250 UNDIAGNOSTIC FAB 1 1 89 265 250 SUPERSTRUCTURE - WALL FAB 1 14 2461 265 250 KILN PLATE FAB 1 6 115 265 250 KILN PLATE FAB 1 26 757 265 250 SUPERSTRUCTURE FAB 1 2 52 265 250 SUPERSTRUCTURE FAB 1 1 113 265 250 SUPERSTRUCTURE FAB 1 2 52 265 250 KILN PLATE FAB 3 2 990 265 250 KILN PLATE FAB 3 2 990 265 250 KILN PLATE FAB 3 2 990 265 250 PEDESTAL FAB 3 7 67 265 250 PEDESTAL FAB 3 4 1588 265 250	264	250	SUPERSTRUCTURE - WALL	FAB 1	2	36
265 250 UNDIAGNOSTIC FAB 1 64 569 265 250 UNDIAGNOSTIC FAB 1 1 89 265 250 SUPERSTRUCTURE - WALL FAB 1 14 2461 265 250 KILN PLATE FAB 1 6 115 265 250 KILN PLATE FAB 1 26 757 265 250 SUPERSTRUCTURE FAB 1 2 52 265 250 KILN PLATE FAB 1 1 113 265 250 KILN PLATE FAB 1 1 113 265 250 KILN PLATE FAB 1 2 52 265 250 KILN PLATE FAB 1 1 113 265 250 KILN PLATE FAB 3 2 990 265 250 PEDESTAL FAB 3 7 67 265 250 PEDESTAL FAB 3 4 1588 265 250 PEDESTAL FAB 3 1 6692 266 240 PE	264	250	KILN PLATE		2	94
265 250 UNDIAGNOSTIC FAB 1 1 89 265 250 SUPERSTRUCTURE - WALL FAB 1 14 2461 265 250 KILN PLATE FAB 1 6 115 265 250 KIILN PLATE FAB 1 26 757 265 250 SUPERSTRUCTURE FAB 1 2 52 265 250 KILN PLATE FAB 1 1 113 265 250 KILN PLATE FAB 3 2 990 265 250 PEDESTAL FAB 3 2 990 265 250 PEDESTAL FAB 3 4 1588 265 250 PEDESTAL FAB 3 4 1588 265 250 PEDESTAL FAB 3 1 6692 266 240 PEDESTAL FAB 3 1 2877 266 240 PEDESTAL FAB 4 2 819 266 240 PEDESTAL FAB 4 1 1551 266 240 PEDESTA	264	250	PEDESTAL	FAB 3	1	66
265 250 SUPERSTRUCTURE - WALL FAB 1 14 2461 265 250 KILN PLATE FAB 1 6 115 265 250 KILN PLATE FAB 1 26 757 265 250 SUPERSTRUCTURE FAB 1 2 52 265 250 KILN PLATE FAB 1 1 113 265 250 KILN PLATE FAB 3 2 990 265 250 KILN PLATE FAB 3 2 990 265 250 PEDESTAL FAB 3 2 990 265 250 PEDESTAL FAB 3 4 1588 265 250 PEDESTAL FAB 3 4 1588 265 250 PEDESTAL FAB 3 1 6692 266 240 PEDESTAL FAB 3 1 2877 266 240 PEDESTAL FAB 4 2 819 266 240 PEDESTAL FAB 4 1 1551 266 240 PEDESTAL<	265	250	UNDIAGNOSTIC	FAB 1	64	569
265 250 KILN PLATE FAB 1 6 115 265 250 KIILN PLATE FAB 1 26 757 265 250 SUPERSTRUCTURE FAB 1 2 52 265 250 KILN PLATE FAB 1 1 113 265 250 PEDESTAL FAB 3 2 990 265 250 PEDESTAL FAB 3 7 67 265 250 PEDESTAL FAB 3 4 1588 265 250 PEDESTAL FAB 3 8 149 266 240 PEDESTAL FAB 3 1 6692 266 240 PEDESTAL FAB 4 2 819 266 240 PEDESTAL FAB 4 1 1551 266 240 PEDESTAL FAB 4 1 1551 266 240 PEDESTAL FAB 4 5 729	265	250	UNDIAGNOSTIC	FAB 1	1	89
265 250 KIILN PLATE FAB 1 26 757 265 250 SUPERSTRUCTURE FAB 1 2 52 265 250 KILN PLATE FAB 1 1 113 265 250 PEDESTAL FAB 3 2 990 265 250 PEDESTAL FAB 3 7 67 265 250 PEDESTAL FAB 3 4 1588 265 250 PEDESTAL FAB 3 8 149 266 240 PEDESTAL FAB 3 1 6692 266 240 PEDESTAL FAB 3 1 2877 266 240 PEDESTAL FAB 4 2 819 266 240 PEDESTAL FAB 4 1 1551 266 240 PEDESTAL FAB 4 5 729	265	250	SUPERSTRUCTURE - WALL	FAB 1	14	2461
265 250 SUPERSTRUCTURE FAB 1 2 52 265 250 KILN PLATE FAB 1 1 113 265 250 PEDESTAL FAB 3 2 990 265 250 UNDIAGNOSTIC FAB 3 7 67 265 250 PEDESTAL FAB 3 4 1588 265 250 PEDESTAL FAB 3 8 149 266 240 PEDESTAL FAB 3 1 6692 266 240 PEDESTAL FAB 3 1 2877 266 240 PEDESTAL FAB 4 2 819 266 240 PEDESTAL FAB 4 1 1551 266 240 PEDESTAL FAB 4 5 729	265	250	KILN PLATE	FAB 1	6	115
265 250 KILN PLATE FAB 1 1 113 265 250 PEDESTAL FAB 3 2 990 265 250 UNDIAGNOSTIC FAB 3 7 67 265 250 PEDESTAL FAB 3 4 1588 265 250 PEDESTAL FAB 3 8 149 266 240 PEDESTAL FAB 3 1 6692 266 240 PEDESTAL FAB 3 1 2877 266 240 PEDESTAL FAB 4 2 819 266 240 PEDESTAL FAB 4 1 1551 266 240 PEDESTAL FAB 4 5 729	265	250	KIILN PLATE	FAB 1	26	757
265 250 PEDESTAL FAB 3 2 990 265 250 UNDIAGNOSTIC FAB 3 7 67 265 250 PEDESTAL FAB 3 4 1588 265 250 PEDESTAL FAB 3 8 149 266 240 PEDESTAL FAB 3 1 6692 266 240 PEDESTAL FAB 3 1 2877 266 240 PEDESTAL FAB 4 2 819 266 240 PEDESTAL FAB 4 1 1551 266 240 PEDESTAL FAB 4 5 729	265	250	SUPERSTRUCTURE	FAB 1	2	52
265 250 UNDIAGNOSTIC FAB 3 7 67 265 250 PEDESTAL FAB 3 4 1588 265 250 PEDESTAL FAB 3 8 149 266 240 PEDESTAL FAB 3 1 6692 266 240 PEDESTAL FAB 3 1 2877 266 240 PEDESTAL FAB 4 2 819 266 240 PEDESTAL FAB 4 1 1551 266 240 PEDESTAL FAB 4 5 729	265	250	KILN PLATE	FAB 1	1	113
265 250 PEDESTAL FAB 3 4 1588 265 250 PEDESTAL FAB 3 8 149 266 240 PEDESTAL FAB 3 1 6692 266 240 PEDESTAL FAB 3 1 2877 266 240 PEDESTAL FAB 4 2 819 266 240 PEDESTAL FAB 4 1 1551 266 240 PEDESTAL FAB 4 5 729	265	250	PEDESTAL	FAB 3	2	990
265 250 PEDESTAL FAB 3 8 149 266 240 PEDESTAL FAB 3 1 6692 266 240 PEDESTAL FAB 3 1 2877 266 240 PEDESTAL FAB 4 2 819 266 240 PEDESTAL FAB 4 1 1551 266 240 PEDESTAL FAB 4 5 729	265	250	UNDIAGNOSTIC	FAB 3	7	67
266 240 PEDESTAL FAB 3 1 6692 266 240 PEDESTAL FAB 3 1 2877 266 240 PEDESTAL FAB 4 2 819 266 240 PEDESTAL FAB 4 1 1551 266 240 PEDESTAL FAB 4 5 729	265	250	PEDESTAL	FAB 3	4	1588
266 240 PEDESTAL FAB 3 1 2877 266 240 PEDESTAL FAB 4 2 819 266 240 PEDESTAL FAB 4 1 1551 266 240 PEDESTAL FAB 4 5 729	265	250	PEDESTAL	FAB 3	8	149
266 240 PEDESTAL FAB 4 2 819 266 240 PEDESTAL FAB 4 1 1551 266 240 PEDESTAL FAB 4 5 729	266	240	PEDESTAL	FAB 3	1	6692
266 240 PEDESTAL FAB 4 1 1551 266 240 PEDESTAL FAB 4 5 729	266	240	PEDESTAL	FAB 3	1	2877
266 240 PEDESTAL FAB 4 5 729	266	240	PEDESTAL	FAB 4	2	819
	266	240	PEDESTAL	FAB 4	1	1551
266 240 PEDESTAL FAB 4 18 2100	266	240	PEDESTAL	FAB 4	5	729
	266	240	PEDESTAL	FAB 4	18	2100



266	240	PEDESTAL	FAB 4	6	5990
266	240	SUPERSTRUCTURE	FAB 1 (BURNT)	135	2341
266	240	PEDESTAL	FAB 4	15	337
266	240	PEDESTAL	FAB 3	7	300
267	240	KILN PLATE	FAB 1	1	120
267	240	PEDESTAL	FAB 3	1	7
269	268	SUPERSTRUCTURE	FAB 3	1	1054
269	268	SUPERSTRUCTURE	FAB 4	4	1101
269	268	SUPERSTRUCTURE - LIP	FAB 4	1	566
269	268	PEDESTAL	FAB 3	33	445
269	268	KILN PROP	FAB 3 (BURNT)	1	97
269	268	SUPERSTRUCTURE	FAB 1(BURNT)	3	43
269	268	UNDIAGNOSTIC	FAB 3(BURNT)	3	36
274	275	KILN PLATE	FAB 3	3	258
274	275	SUPERSTRUCTURE - WALL	FAB 4	2	118
274	275	PEDESTAL	FAB 3	2	69
274	275	KILN PLATE	FAB 3	1	58
274	275	KILN PLATE	FAB 1	1	13
279	275	KILN PLATE	FAB 3	3	120
280	275	PEDESTAL	FAB 3	1	45
280	275	SUPERSTRUCTURE	FAB 1 (BURNT)	1	57
280	275	KILN PLATE	FAB 3	4	292
281	274	PEDESTAL	FAB 4	1	1821
281	275	PEDESTAL	FAB 4	18	4892
281	275	PEDESTAL	FAB 4	1	1146
281	275	KILN PLATE	FAB 3	1	32
281	275	KILN PLATE	FAB 3	1	50
281	275	SUPERSTRUCTURE	FAB 1	1	66
282	239	PEDESTAL	FAB 3	1	164
282	239	SUPERSTRUCTURE	FAB 1(BURNT)	3	70
282	239	KILN PLATE	FAB 1	1	8
282	239	KILN PLATE	FAB 1	14	273
283	239	SUPERSTRUCTURE	FAB 1 (LOW FIRED)	15	549
283	239	SUPERSTRUCTURE - FLUE	FAB 1	4	366
_					



283	239	KILN PLATE	FAB 1	1	184
283	239	KILN PLATE	FAB 1	2	96
283	239	KILN PLATE	FAB 1	5	114
283	239	KILN PLATE	FAB 1	11	100
283	239	KILN PLATE	FAB 1	1	24
283	239	UNDIAGNOSTIC	FAB 1	1	13
283	239	SUPERSTRUCTURE - FLUE	FAB 1 (BURNT)	3	270
283	239	KILN PLATE	FAB 1 (BURNT)	5	104
283	239	KILN PLATE	FAB 3	3	58
283	239	PEDESTAL	FAB 3	6	2261
283	239	PEDESTAL	FAB 3	4	3268
284	239	PEDESTAL	FAB 1	1	980
284	239	SUPERSTRUCTURE - LIP	FAB 1	1	113
284	239	UNDIAGNOSTIC	FAB 1 (BURNT)	3	21
285	239	SUPERSTRUCTURE	FAB 1	32	1370
285	239	SUPERSTRUCTURE	FAB 1	41	855
285	239	PEDESTAL	FAB 3	1	10
287	250	SUPERSTRUCTURE - WALL	FAB 1	3	1598
287	250	KILN PLATE	FAB 1	2	43
287	250	SUPERSTRUCTURE - WALL	FAB 1	3	39
287	250	PEDESTAL	FAB 3	1	177
287	250	PEDESTAL	FAB 3	1	220
287	250	UNDIAGNOSTIC	FAB 3	1	28
287	250	PEDESTAL	FAB 4	1	1545
288	250	SUPERSTRUCTURE - WALL	FAB 1	8	80
351	239	SUPERSTRUCTURE	FAB 1	14	139
352	239	KILN PLATES	FAB 1	14	209
360	239	KILN PLATE	FAB 1	56	544
360	239	KILN SUPERSTRUCTURE	FAB 1	3	146

Table 25: Roman kiln furniture catalogue



B.5 Ceramic Building Material

By Ted Levermore

Introduction and methodology

B.5.1 Archaeological works produced a small assemblage of post-medieval brick and tile (17 fragments weighing 2.08kg).

Methodology

- B.5.2 The assemblage was quantified by context, fabric and form and counted and weighed to the nearest whole gramme. Fabrics were examined using a x20 hand lens and were described by main inclusions present. Width, length and thickness were recorded where possible.
- B.5.3 The quantified data is presented on an Excel data sheet held with the site archive. A summary of the catalogue can be found in Table 23.

Assemblage

- B.5.4 The assemblage comprises incomplete brick and flat tile fragments in hard red, orange and yellow sandy fabrics with few visible inclusions.
- B.5.5 The ceramic building material (CBM) was recovered from post-medieval boundary and drainage ditches. A fragment of tile came from post-hole **335**, which had no other artefacts recovered from it. The fabric and form of this tile is post-medieval.

Discussion

- B.5.6 This assemblage is fragmentary and post-medieval in date. The forms and fabrics suggests this CBM is from the latter part of this era, however a closer date is not discernible. The assemblage is probably related to the discard of building material and subsequent dispersal through an agricultural landscape.
- B.5.7 Summary of CBM Catalogue:

Cut	Context	Feature	Brick	Tile	Weight (g)
244	245	Ditch	1	1	264
335	336	Post-hole	-	1	9
374	373	Ditch	1	1	47
378	377	Ditch	1	6	429
393	394	Ditch	5	-	1331
		Total	8	9	2080

Table 26: Quantity and weight of CBM types by feature

APPENDIX C. ENVIRONMENTAL REPORTS

C.1 Environmental samples

By Rachel Fosberry

Introduction

C.1.1 Twenty-seven bulk samples were taken from features within the excavated areas at RAF Brampton in order to assess the quality of preservation of plant remains and their potential to contribute to the research aims of the project.



- C.1.2 The main phase of activity on the site was the construction, use and disuse of several Roman pottery kilns. These have been extensively sampled with the aim of investigating the charred content of the fills for evidence of fuel and also for spatial distribution of preserved plant remains.
- C.1.3 Environmental samples taken from prehistoric and post-medieval deposits during the evaluation of this site had shown that preserved plant remains were sparse (Fosberry 2015), although samples were also taken from additional deposits encountered during the excavation to verify these results.

Methodology

- C.1.4 The total volume (up to 20 litres) of each of the kiln samples and a single bucket (up to 10L) of the remaining bulk samples was processed by water flotation (using a modified Siraff three-tank system) for the recovery of charred 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. Both flot and residues were allowed to air dry. A magnet was dragged through each residue fraction prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds. The dried flots were subsequently sorted using a binocular microscope at magnifications up to x 60 and a complete 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 authors' own reference collection. Nomenclature is according to Zohary and Hopf (2000) for cereals and Stace (1997) for other plants. Carbonised 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.1.5 Based on the results of an initial assessment of the flots, the remaining soil of selected samples was processed to ensure maximum retrieval of preserved remains.

Quantification

C.1.6 For the purpose of this assessment, items such as seeds, cereal grains and legumes have been scanned and recorded qualitatively according to the following categories

Items that cannot be easily quantified such as charcoal has been scored for abundance + = rare, ++ = moderate, +++ = abundant

Results

C.1.7 The results are discussed by phase:

Phase 1: Prehistoric

C.1.8 Samples were taken from two enclosure ditches; fill 310 of ditch 309 contains a small charred legume that may be intrusive as it is the only preserved item in the sample. Fill 304 of ditch 303 contains sparse charcoal only. The two pits sampled were both located in the south-east of the excavation area but are not considered to be contemporary. Fill 312 of pit 311 contains a single poorly-preserved indeterminate cereal grain whereas fill 314 of Iron Age/Roman pit 313 does not contain any preserved plant remains other than sparse charcoal.



Sample no.		117	119	118	120
Context no.		310	304	312	314
Feature no		309	303	311	313
Feature type		Ditch	Ditch	Pit	Pit
Volume processed (I)		9	8	10	9
Phase		1	1	1	1
Cereal indet. caryopsis	Indeterminate cereal grain			#	
Legumes <2mm	Vetch/small pea	#			
Estimated charcoal volume (ml)		<1	<1	<1	<1
Charcoal <2mm		+	+	+	+
Charcoal >2mm		0	0	0	0
Volume of flot (mls)		1	1	20	1

Table 27: Samples from Phase 1 deposits

Phase 2: Roman

- C.1.1 Samples were taken from seven pottery kilns that were located in a cluster in the south-eastern area of the site. Kiln **220** contained a single fill (251) that contained a moderate assemblage of mixed charred cereal grains that includes spelt (*Triticum spelta*) wheat, Barley (*Hordeum vulgare*) and oats (*Avena* sp.). A large volume of flot was produced that was mainly comprised modern rootlets. The cereal grains are poorly preserved and most likely originate from midden refuse that was discarded into the kiln that served as a convenient depository.
- C.1.2 Kiln 239 was well-preserved and had evidence of different firing events. It was subsequently extensively sampled. Fill 352 (Sample 121) represented one of the earliest uses of the kiln and contains a small amount of fine charcoal flecks with occasional charred seeds of bromes (Bromus sp.), goosefoots (Chenopodium sp.), black bindweed (Fallopia convolvulus), knotweed (Polygonum aviculare) and small grass (Poaceae) seeds. These are all plants that are most commonly found growing amongst cereal crops although they are also likely to have been growing in hay pastures, particularly if a cereal crop had preceded. Fill 283 (Sample 109) overlaid the pedestals in the centre of the chamber and contains occasional charred cereal grains (barley and wheat) and a few brome, grass and dock (Rumex sp.) seeds. The fill above (259, Sample 103) contains only a single barley grain. Two samples were taken from the tertiary fill, 258 (Sample 102) and 260 (Sample 104) and produced different results suggesting spatial variation within the deposit. Sample 102 contains barley grains along with occasional chaff elements in the form of glume bases of spelt wheat whereas Sample 104 contains barley and wheat grains but no chaff. Both samples also contain charred vetches (*Vicia* sp.) and seeds of brome, docks and grasses.
- C.1.3 The two samples taken from kiln **240** (Sample 107, fill 266 and Sample 108, fill 267) produced similar assemblages of sparse wheat and barley grains, bromes and docks. These two fills are the same single disuse fill that was recovered from the stoke hole. Kiln **240** truncated an earlier kiln (**268**). The single disuse fill 269 (Sample 115) contains spelt wheat grains, a single glume base and seeds that have tentatively been identified as yarrow (*Achillea millifolium*). Fill 362 (Sample 123) taken from the truncated stoke hole contains a single charred grain. Pit **270** is thought to have been directly associated with the kilns. Sample 116, fill 271 did not contain preserved remains.
- C.1.4 Five samples were taken from kiln **250** which was identical in appearance to kiln **240**. The use-fill of the feature (286) was not sampled but contained frequent charcoal as



probable evidence of fuel. The overlying fill (287, Sample 114) contains single grains of barley and wheat. The next fill in the sequence (288) represented the collapse of the kiln and two samples were taken from the fill above this (265, Samples 105 and 110). Again, there was spatial variation with Sample 110 containing charred grass seeds that are absent in Sample 105. Sample 110 also contains a charred tuber of false-oat grass (*Arrhenatherum elatius* ssp. *bulbosus*) which is the basal internode of the plant and represents the use of turf, most likely in the construction of the kiln covering. Two samples (106 and 111) were taken from one (263) of the four fills of the stoke hole. Both samples contain barley, wheat, occasional spelt glume bases and seeds of bromes and grasses.

- C.1.5 A single sample (Sample 101) taken from the smallest kiln **255** contains charcoal, occasional charred wheat and barley grains, bromes and a seed of clover (*Trifolium* sp.).
- C.1.6 Kiln 275 was the most productive for preserved plant remains. Two of the four disuse fills were sampled; fill 274 (Sample 113) contains a moderate assemblage of charred grain (wheat and barley) but the grains are poorly preserved and are mostly abraded and/or fragmented. There is a diverse assemblage of seeds of both pasture plants (representing hay) and crop weeds that includes bromes, poppies (*Papaver* sp.), grasses, wild basil (*Clinopodium* sp.), scentless mayweed (*Tripleurospermum inodorum*), cleavers, red bartsia (*Odontites vernus*), chickweed (*Stellaria media*), meadow grass/Cat's-tails (*Poa/Phleum* sp.), wild radish (*Raphanus raphanistrum*), goosefoots, and rye-grass (*Lolium*/sp.) and fescue (*Festuca* sp.). Upper fill 281 (Sample 112) contains fewer weed seeds but also contains a moderate assemblage of degraded grain and occasional charred seeds of flax (*Linum usitatissimum*). These fills contained Roman pottery and are also likely to represent the deposition of midden waste.

Phase 3: Post medieval

C.1.7 Samples taken from pits **356**, **375** and ditches **359** and **424** were unproductive

Discussion

- C.1.8 The environmental bulk samples from RAF Brampton indicate that there was little activity on the site in the prehistoric and post-medieval periods that was related to human habitation. Similarly in the Roman period, the site was used specifically for industrial related processes, namely pottery production, and then, when the kilns were no longer viable, they were used as rubbish pits.
- C.1.9 The samples taken from the kilns have all produced very similar assemblages that are mainly composed of occasional grains of barley and hulled wheat grains mixed with weed seeds, sparse remains of chaff and small volumes of charcoal. The presence of such small quantities of preserved plant remains is possibly an indicator that the kilns were thoroughly cleaned after each firing to prevent accidental fires (Fryer 2014, 102) although this presumably would not have been necessary if the kiln had collapsed in its final use. Samples from Romano-British kiln (10273/10135 in Trench 10223) at another site in Brampton (1km to the west of this site) produced more abundant charred assemblages (Wyles 2014, 49) but the taxa recovered appear to be very similar in composition to those from the kilns at this site. They also comprised barley and hulled wheat grains and spelt wheat chaff (although the proportion of chaff to to grain appears to have been higher) with almost identical weed seed assemblages.
- C.1.10 Samples from kiln contexts at Hutchison Site at Addenbrookes Hospital (Roberts 2014, 49) produced spelt and emmer chaff, which has been interpreted as the use of wheat



straw as fuel. The RAF Brampton kilns contain wheat and barley grains and occasional chaff elements in the form of spelt glume bases but this can only be tentative evidence of the use of cereal straw specifically being used as fuel. The glume bases are the remnants of the spelt spikelet that consists of the cereal grain (caryposis) tightly held within an outer sheath. Spelt wheat would have been stored in spikelets (presumably as ears that have been snapped from the stem) as the outer sheath protects the grain from insect and mould attack. When the grain is required, the spikelets would have been lightly parched and then pounded to release the grain and the resultant papery chaff would have been used as fuel or kindling. It is frequently found in large amounts in Roman corn-dryers but seems to be less commonly used in pottery kilns. This is probably due to the higher temperatures required to fire the pottery but the chaff would still have been useful as kindling. It is also interesting to note that culm nodes (the 'joints' on the cereal stem) are not present. Cereal stems are not particularly conducive to preservation by carbonisation (Boardman and Jones 1990, 6) but the tougher culm nodes are often preserved. The lack of charred culm nodes in the RAF Brampton kilns suggests that cereal straw was not the main choice of fuel.

- C.1.11 Charcoal volumes are extremely low with most of the kilns producing less than 1ml charcoal. The exception is kiln 239 which produced volumes of between 20ml and 40ml in most of the samples taken (see Appendix C.3).
- C.1.12 The weed seeds from RAF Brampton included species that can be found growing in a variety of habitats but the major component are grasses and weeds that are likely to either have been harvested with cereal crops or as hay. False-oat grass forms bulbous tubers (basal internodes) just below the soil surface and carbonised tubers are often thought to represent the burning of turf (Stevens 2007, 284). Turves could have been used in the construction of the pottery kilns to form the mound over both the central area and the flue of the kiln. The composition of the turf in which plant macrofossils are incorporated into the soil structure, would have provided a suitable reducing environment in which the macrofossils would become carbonised and subsequently collect within a collapsed structure (Hall 2003, 24).

Sample no.		100	102	103	104	109	121	107	108	105	106	110	111	114	101	115	123	112	113	116
Context no.		251	258	259	260	283	352	266	267	265	263	265	263	287	254	269	362	281	274	271
Feature no		220	239	239	239	239	239	240	240	250	250	250	250	250	255	268	268	275	275	270
Volume processed (I)		33	17	5	18	8	18	33	32	17	19	19	18	15	16	17	17	18	17	7
Cereals																				
Avena sp. Caryopsis	Oats [wild or cultivated]	#																		
Hordeum vulgare L. caryopsis	domestica ted Barley grain	#	##	#	##	##		#	#	##	#	#	##		#			#	#	
Triticum cf. spelta L. caryopsis	Spelt Wheat grain	##			##	#	#	#	#	##	#	#	##		#	##		##	##	
Cereal indet. caryopsis	indetermin ate cereal grain	#			##	#		#	#	#	##	##	##	#	#	##	#	###	###	
Chaff																				
Triticum spelta L glume base	Spelt Wheat chaff		##						#		#	#	#			#				
Other food plants:																				
Legumes <2mm	vetch/sma		#		##	#							#							



Sample no.		100	102	103	104	109	121	107	108	105	106	110	111	114	101	115	123	112	113	116
Context no.		251	258	259	260	283	352	266	267	265	263	265	263	287	254	269	362	281	274	271
Feature no		220	239	239	239	239	239	240	240	250	250	250	250	250	255	268	268	275	275	270
	II pea																			
Linum usitatissimum L. seed	Flax																	#		
Dry land herbs:																				
Cf. Achillea millefolium L. seed	Yarrow															##				
Bromus sp. seed	Bromes		##		#	#	##	#	#	#	#	#	##	#	#	#		#	#	
Chenopodiaceae indet. seed	Goosefoot s				#		#	#										#		
Chenopodium ficifolium sm.seed	Fig-leaved Goosefoot																		#	
Clinopodium cf. vulgare L. seed	wild basil																		#	
Fallopia convolvulus L. seed	Black- bindweed		#		#		#													
Galium aparine L. seed	cleavers																		#	
Lolium sp. caryopsis	Rye grass																		#	
Malva sp. Nutlet	Mallows															#				
Montia fontana ssp. chondrosperma (fenzl) walters seed	Blinks																		#	
Odontites vernus (bellardi) dumort. seed	Red Bartsia																		#	
Papaver sp. seed	Рорру																		#	
Small poaceae indet. [< 2mm] caryopsis	small- seeded Grass Family		##		#		#	#			##		##					#	#	
Medium poaceae indet. [3-4mm]	medium- seeded Grass Family		##		#	#					#		##					#	#	
Polygonaceae indet. achene	Dock Family													#				#	#	
Polygonum aviculare L. achene	Knotgrass						#													
Raphanus raphanistrum L. seed	Wild Radish seed-case segment																	#	#	
Rumex sp. achene	Docks		##	#	##	#		#		#		#	#							
Stellaria media (I.) Vill. Seed	Common Chickwee d																	#		
Trifolium spp. [<1mm] seed	Small seeded clovers														#					
Tripleurospermu m inodorum (I.) Sch. Bip. achene	Scentless Mayweed																	#	##	



Sample no.		100	102	103	104	109	121	107	108	105	106	110	111	114	101	115	123	112	113	116
Context no.		251	258	259	260	283	352	266	267	265	263	265	263	287	254	269	362	281	274	271
Feature no		220	239	239	239	239	239	240	240	250	250	250	250	250	255	268	268	275	275	270
Urtica dioica L. seed	Stinging nettle																		#	
Other plant macrofossils																				
Estimated charcoal volume (ml)		2	40	<1	20	<1	1	2	10	<1	<1	1	<1	<1	40	<1	<1	<1	1	<1
Charcoal <2mm		+	++	+	++	+	++	++	++	+	++	++	++	+	++	++	+	++	+	+
Charcoal >2mm		0	+	0	++	+	0	++	++	0	+	++	+	+	++	+	0	+	0	0

Table 28 samples from Roman kilns

			T	
Sample no.	122	124	125	126
Context no.	357	376	358	425
Feature no	356	375	359	424
Feature type	Pit	Pit	Ditch	Ditch
Volume processed (I)	8	8	8	8
Estimated charcoal volume (ml)	0	0	<1	0
Charcoal <2m	0	0	+	0
Charcoal >2mm	0	0	0	

Table 29: Samples from pits and ditches

C.2 Animal Bone

By Zoe Ui Choileáin

Introduction

C.2.1 A total weight of 254g of animal bone was recovered from excavations at RAF Brampton.

Methodology

C.2.2 All identifiable elements were recorded using a version of the criteria described in Davis (1992). Identification of the assemblage was undertaken with the aid of Schmid (1972) and France (2009) plus use of the OA East reference collection. Taphonomic information such as butchery, carnivore/rodent gnawing and burning was recorded. Moreover, preservation condition was evaluated using the 0-5 scale devised by Brickley and McKinley (2004). The potential for determining age, butchery and biometry in full analysis was recorded.

Results

- C.2.3 Only two contexts were identifiable by species. Contexts (211) and (213) from possible post holes **210** and **212** contained cattle bone. Fragments from all other contexts were identifiable as either large mammal and medium mammal.
- C.2.4 The overall surface condition of the bone was determined to be consistent with Brickley and Mckinley's Grade one (2004 14-15) where only light and patchy surface erosion is present.



- C.2.5 No butchery marks was detected on any of the bone. Almost every bone was fragmented therefore there is very little potential for marking biometry. Should further excavations take place there is limited potential for determining age at death.
- C.2.6 A proportion of this assemblage is made up of unidentifiable calcined bone. This is most likely the result of domestic waste.

Discussion and conclusion

C.2.7 This is a small assemblage that can provide little information about diet or industrial practices. No further work is necessary.

Context	Cut	Weight (g)	Element	Number of frags	Taxon	Collection method	Erosion	Biometry	Burnt	Age
211	210	125	Radius	11	Cattle	Hand	1 (Light and patchy surface erosion)	Yes	-	Yes
213	212	45	Humerus	10	Cattle	Hand	1 (Light and patchy surface erosion)	-	-	Yes
254	255	1	Long bone	10	Medium mammal	Bulk enviro sample	1 (Light and patchy surface erosion)	-	Yes	-
258	239	6	Long bone	1	Medium mammal	Hand	1 (Light and patchy surface erosion)	-	-	_
260	239	1	Vertebra	1	Medium mammal	Hand	1 (Light and patchy surface erosion)	-	Yes	-
263	250	1	Indet	1	Indet	Bulk enviro sample	1 (Light and patchy surface erosion)	-	yes	-
269	268	1	Indet	1	Indet	Bulk enviro sample	1 (Light and patchy surface erosion)	-	Yes	-
274	275	1	Indet	1	Indet	Bulk enviro sample	1 (Light and patchy surface erosion)	-	Yes	-
281	275	1	Indet	1	Indet	Bulk enviro sample	1 (Light and patchy surface erosion)	-	Yes	-
357	356	9	Tibia	1	Medium mammal	Hand	1 (Light and patchy surface erosion)	-	-	-
377	378	63	Rib	2	Large mammal	Hand	1 (Light and patchy surface erosion)	-	-	Yes

Table 30: Results according to collection method (i.e. hand-collection or flotation). Erosion grades (simplified version of Brickley & McKinley 2004, 14-15): 0 (surface morphology clearly visible, fresh appearance), 1 (light and patchy surface erosion), 2 (more extensive surface erosion than grade 1), 3 (most of bone surface affected by some degree of erosion, 4 (all of bone surface affected by erosive action), 5 (heavy erosion across whole surface, completely masking normal surface morphology).



C.3 Charcoal: Species Identification

By Denise Druce

Introduction

C.3.1 Fills from several of the pottery kilns from RAF Brampton were assessed for their charred plant remains (CPR) and charcoal content. Although some charred cereal grains, light chaff, and weed seeds were recovered, the extremely low quantities suggest the kilns may have been thoroughly cleaned after each firing (R. Fosberry this report). Two samples taken from the tertiary fill (258 and 260) of kiln 239, however, contained relatively higher volumes of charcoal, which were subsequently selected for analysis in order to explore the nature of the fuelwood being used at the site. Although the fills appear to have been deposited after the collapse or destruction of kiln 239, they are interpreted as representing the waste material coming from other nearby kilns. The presence of both pottery and animal bone, however, suggests the kilns may have served several functions. The charred plant remains recovered from several of the kilns are interpreted as representing possible fuel waste, rather than crop-drying residues (R. Fosberry this report).

Methodology

C.3.2 Following processing at OA East, the dried flots were sent to OA North for charcoal analysis. Charcoal fragments larger than >2mm in size are generally considered to be large enough for species/group identification. Subsequently, the flots were passed through a >2mm mesh and any retaining fragments were extracted and identified. The fragments were initially grouped together based on the characteristics observed in transverse section at up to X40 magnification. Representative fragments of each group were then fractured to reveal both radial and tangential sections, which were examined under a Meiji incident-light microscope at up to X400 magnification. Identifications were made with reference to Hather (2000), and modern reference material. Nomenclature follows Stace (2010).

Results (Table 28)

C.3.3 Although both flots contain common comminuted charcoal, only 15-20 >2mm fragments were recovered from each. It has been acknowledged that in order to investigate the relative abundance, and therefore dominance, of taxa within a given sample, at least 100 identifiable fragments are required. Subsequently, given the low number of charcoal fragments from kiln 239, only a taxa list of presence (+) is given. Although a taxa list will provide data on the type of wood being utilised at the site, no interpretations can be made with regard wood fuel selection.

Discussion

C.3.4 Given that the fills are likely to represent re-deposited waste (rather than accumulating during the use of the kiln) the exact source of the material is unclear. However, if the remains do, indeed, represent fuelwood, then it would appear that a range of woody taxa was being utilised. The presence of dogwood (*Cornus* sp), hawthorn-type (*Maloideae*), blackthorn-type (*Prunus* sp), and field maple (*Acer campestre*), together with oak (*Quercus* sp), suggests that the wood of both woodland trees and shrubs was being sourced. The lack of obvious heartwood from the assemblages, combined with a dominance of small roundwood/twigs, suggests that the assemblage was dominated by branch/brush wood.



	Sample no	102	104
	Context no	258	260
Acer campestre	Field maple		+
cf Cornus sp	Dogwood	+r	+r
Maloideae	Hawthorn-type	+r	
Prunus sp	Blackthorn-type		+r
Quercus sp	oak		+r
Indeterminate (knotty)	-	+r	+r

Table 31: Charcoal from Kiln 239.

Conclusion

C.3.5 A lack of previously published work on the nature of fuel used during Roman pottery production makes comparison of the evidence from RAF Brampton with other pottery production sites difficult. Neverthless, if it is assumed that pottery firing would have required a long, sustained, high, heat, then, as evidenced from the Late Saxon pottery kilns, hard woods, such as oak, would have made the ideal choice (Druce, unpubl report). The limited evidence from RAF Brampton suggests that possible easily available woodland resources, rather than specifically selected woodland trees, were being utilised at the site. Given the small assemblages and taphonomic uncertainties, however, the exact source and function of the charcoal in kiln 239 is unclear. It is feasible, for example, that it may represent waste from other activities, or even clearance/bonfire waste.

Report Number 1914

^{+ =} present, r = dominated by small roundwood/twig fragments



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APPENDIX E. OASIS REPORT FORM

All fields are required unless they are not applicable.

Project De	etails										
OASIS Nun	nber	oxforda	ar3-262636	3							
Project Nan	ne	Iron Ag	je enclosui	re, Roman potte	ery kilns ar	nd a post	-medieval t	rackway a	at RAF Brampton,		
Project Date	es (field	dwork)	Start	04-03-2016			Finish	04-04-2	2016		
Previous W	ork (by	OA Ea	ast)	Yes			Future	Work	Yes		
Due le et De f		0 - 1 -									
Project Refo	BRARA		S		Plannir	ng App.	No.	15/	15/00368/OUT		
HER No.	DRARA	AF 10			Related HER/OASIS No.						
ECB 4681				Relate	u ner/	UASIS IV	0.				
Type of Pro	Type of Project/Techniques Used										
Prompt Select Prompt (this sho					e in your b	rief/spec)				
Please sel	ect all	tech	niques	used:							
Field Observation (periodic visits)			Part Excavation			☐ Sa	alvage Record				
Full Excavation (100%)			☐ Part Sur	vey			☐ Sy	ystematic Field Walki	ng		
☐ Full Survey	,			Recorde	ed Observa	ation		☐ Sy	ystematic Metal Dete	ctor Survey	
☐ Geophysica	al Survey	,		Remote Operated Vehicle Survey			□те	est Pit Survey			
Open-Area	Excavat	ion		Salvage Excavation			□w	atching Brief			
List feature typ	es using	the NN	/IR Mon	nds & Their ument Type ve periods. If no	e Thesa	I UľUS ar			sing the MDA Obj	ect type	
Monument			Period			Object			Period		
ditch			Iron Age	e -800 to 43		potter	y		Iron Age -800 to	o 43	
pit			Iron Age	e -800 to 43		potter	у		Roman 43 to 47	10	
kiln			Roman	43 to 410		fired o	lay pedes	tals	Roman 43 to 47	10	
Project Lo	ocatio	on									
County				Site Ad	ldress (in	cluding	postcode if poss	ible)			
District	huntingdonshire				1	rampton					
Parish	Brampton				Bramp Cambr	ton idgeshire					
HER	Camb	ridge									

7200sqm

Study Area

National Grid Reference

TF 2087 7007



Project Originators

Organisation	OA EAST
Project Brief Originator	Andy Thomas
Project Design Originator	Matt Brudenell
Project Manager	Matt Brudenell
Supervisor	Kathryn Nicholls

Project Archives

Physical Archive	Digital Archive	Paper Archive
ccc	OA East	CCC
ECB 4681	BRARAF16	ECB 4681

Archive Contents/Media

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

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

Notes:

pit - roman gully - roman ditch - roman ditch - post-med post-hole - post-med fired clay plates - roman

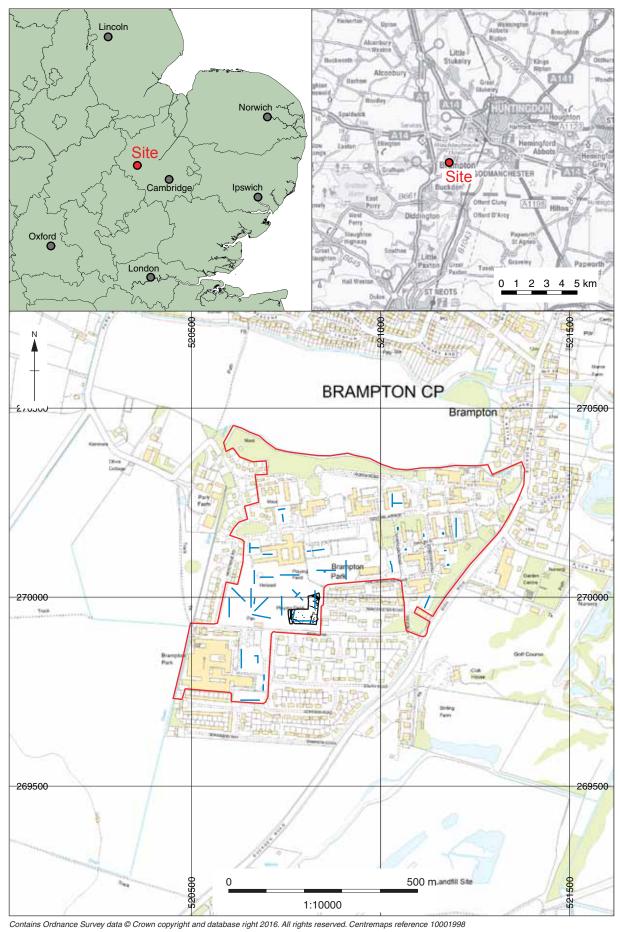


Figure 1: Site location showing archaeological excavation (black) in development area (red) and evaluation trenches (blue)



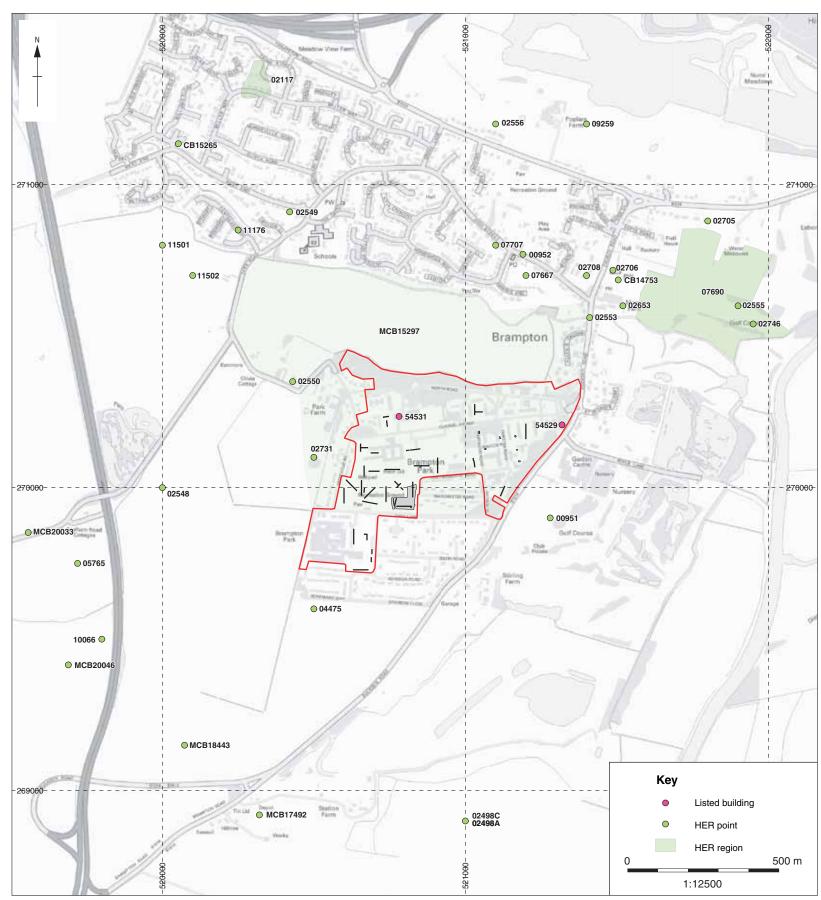


Figure 2: HER data



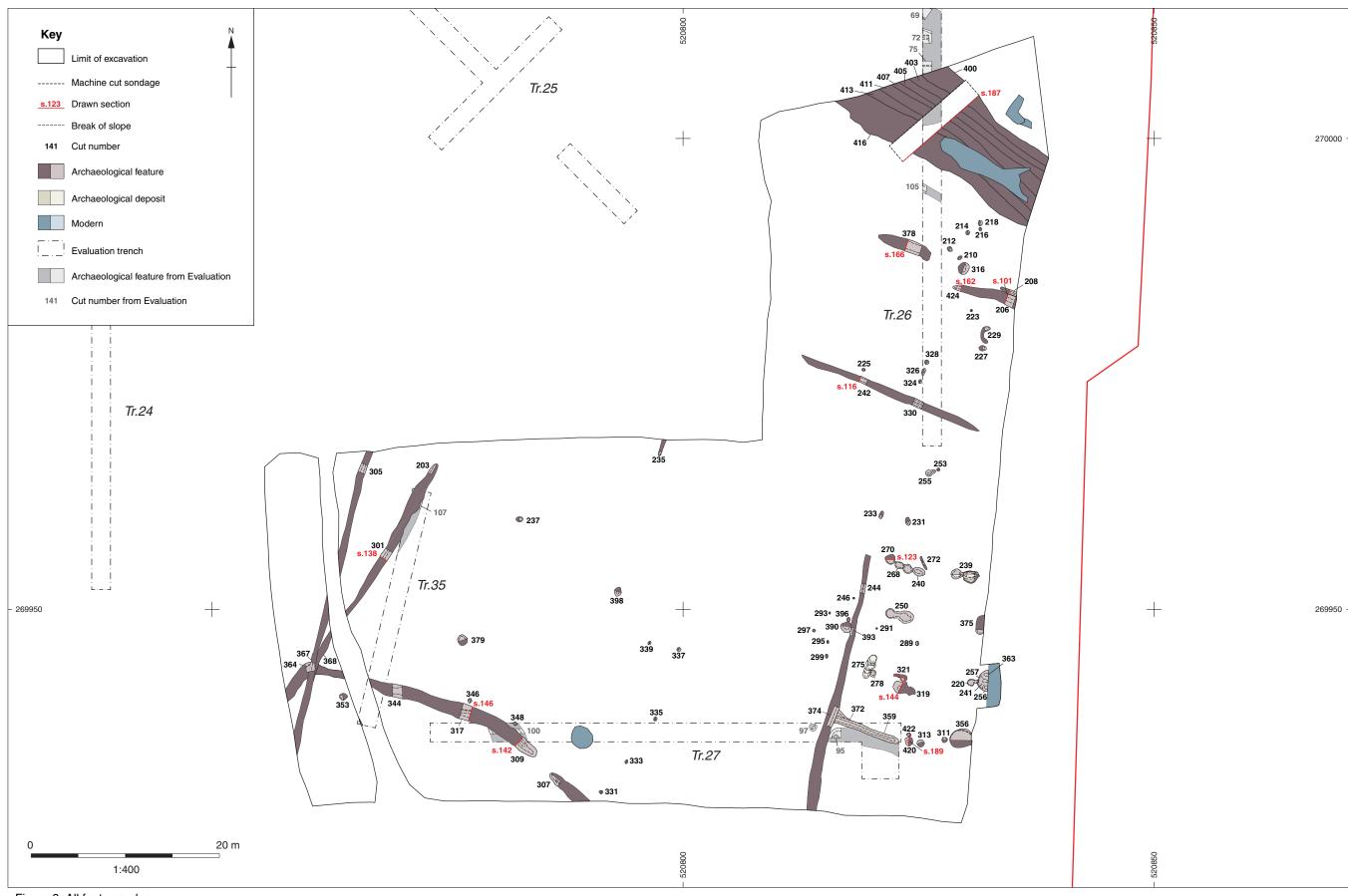


Figure 3: All features plan



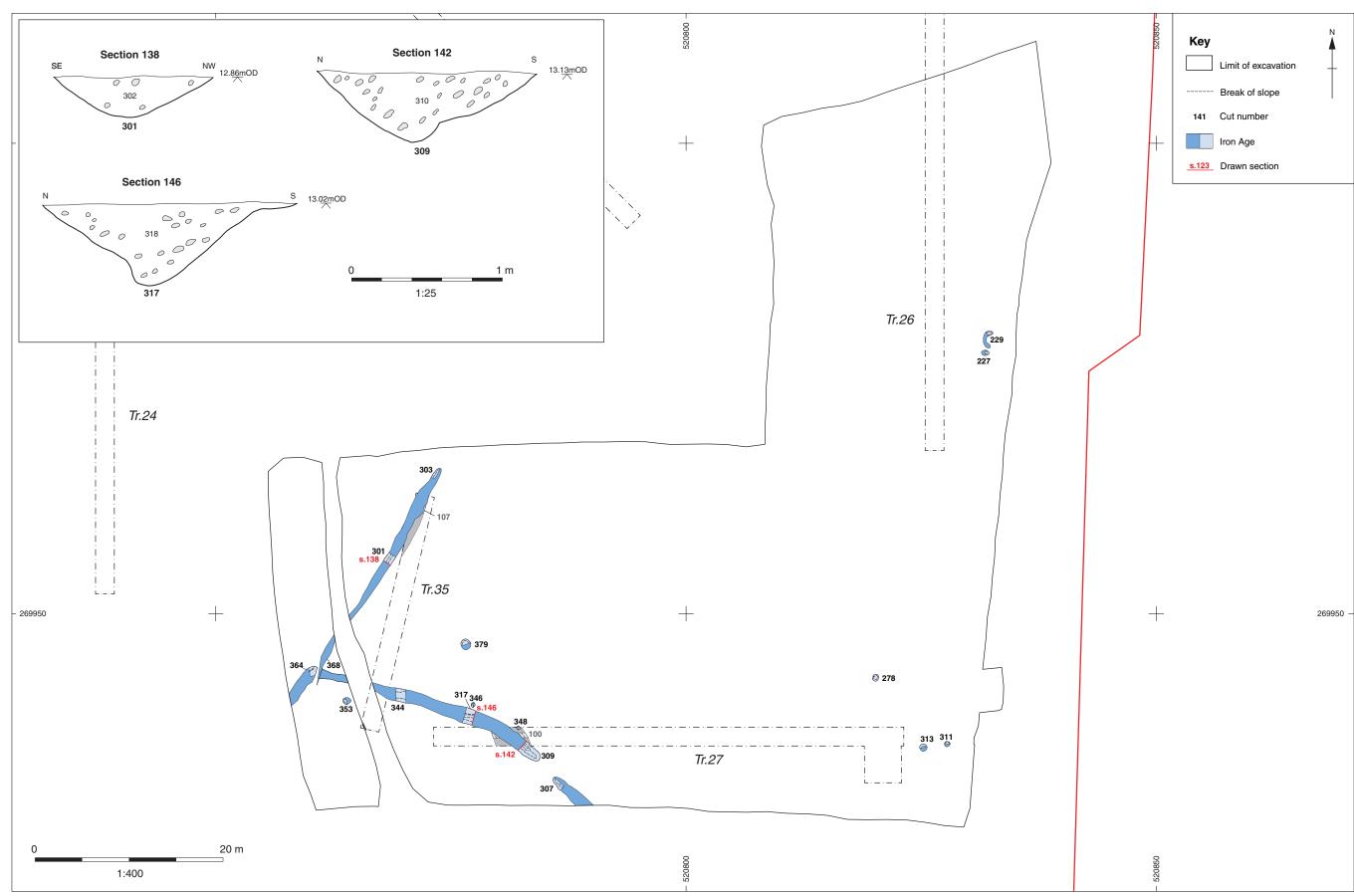


Figure 4: Plan of Iron Age features (Phase 1)



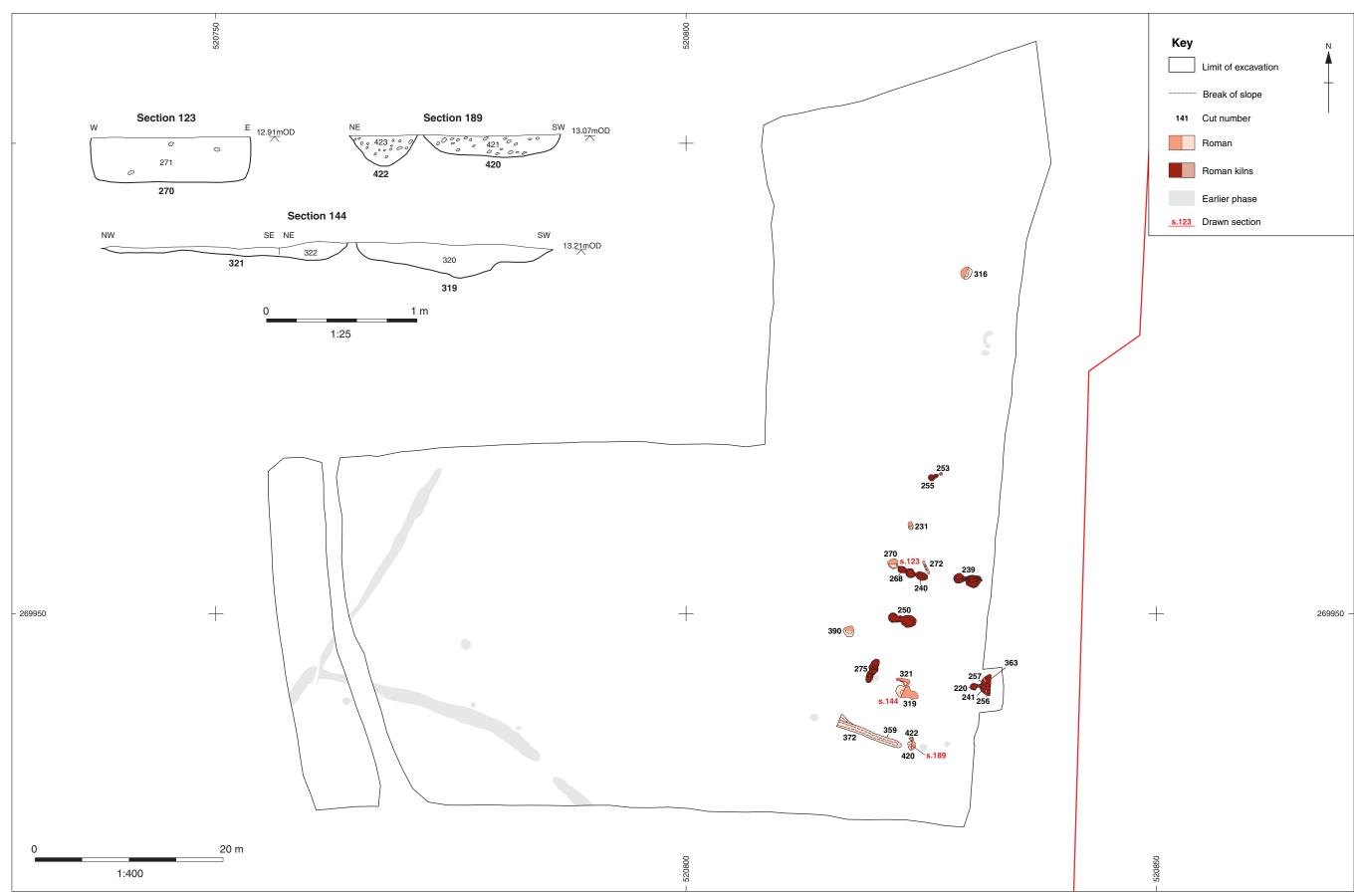


Figure 5: Plan of Roman features (Phase 2)



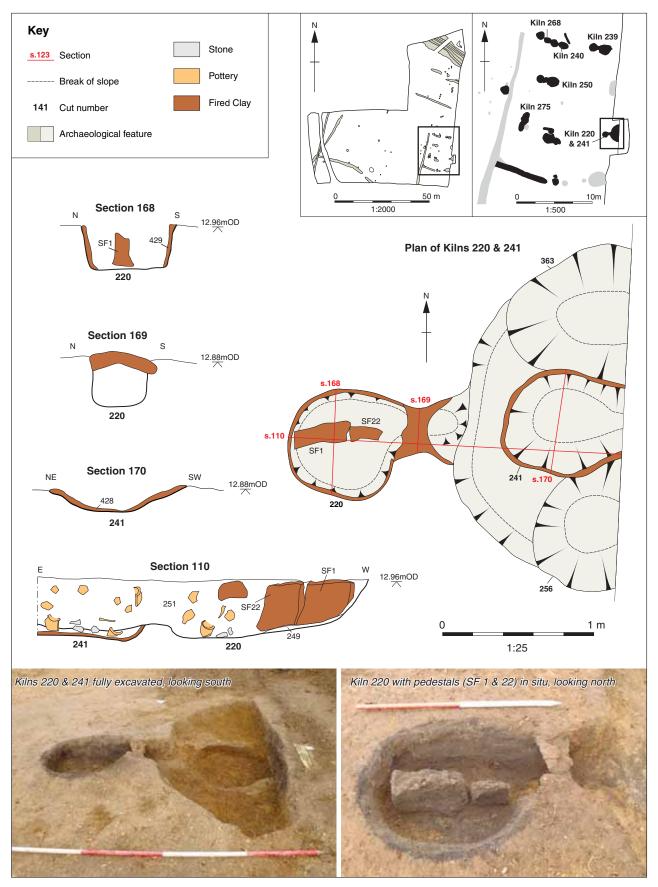


Figure 6: Kilns 220 and 241



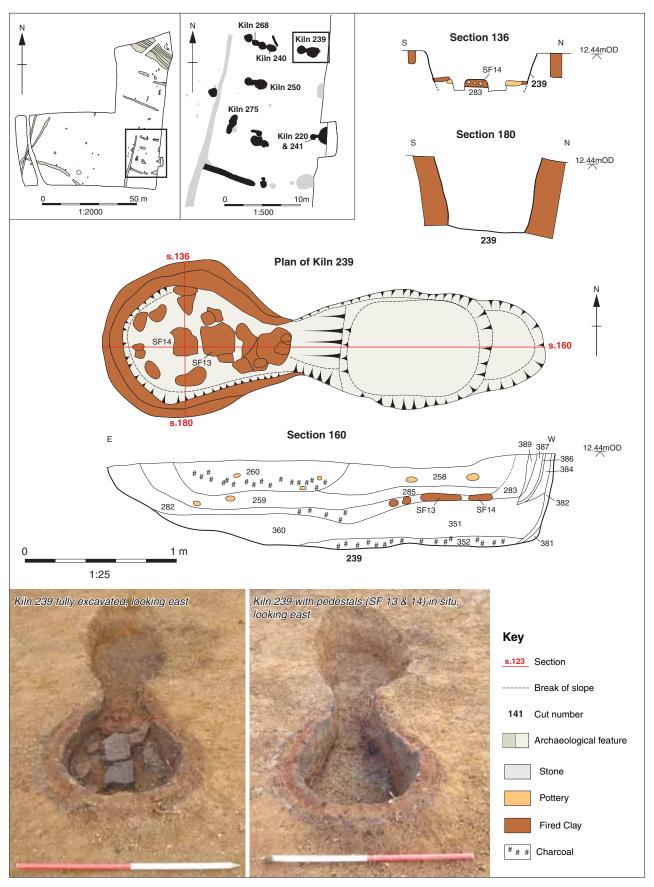


Figure 7: Kiln 239



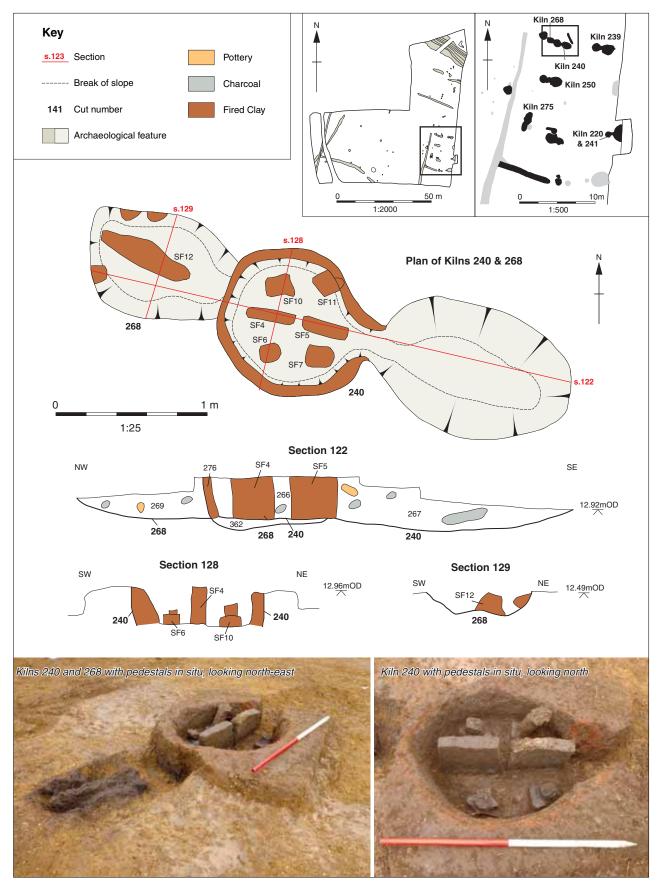


Figure 8: Kilns 240 and 268



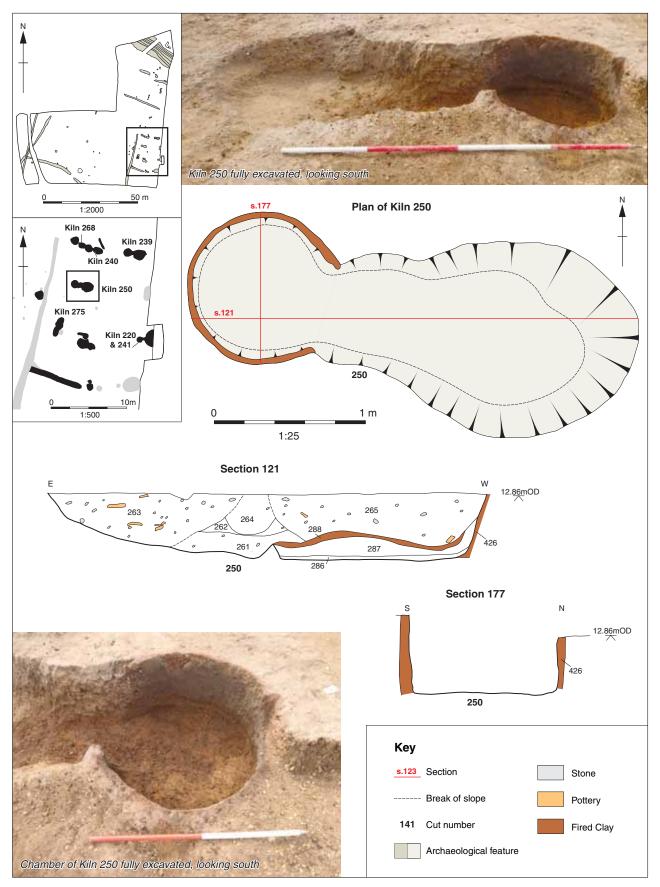


Figure 9: Kiln 250



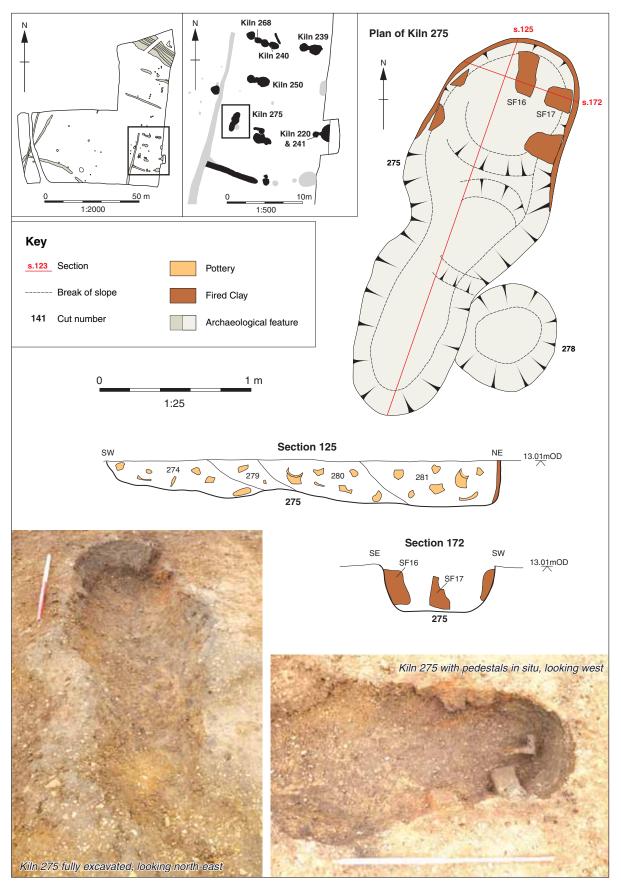


Figure 10: Kiln 275



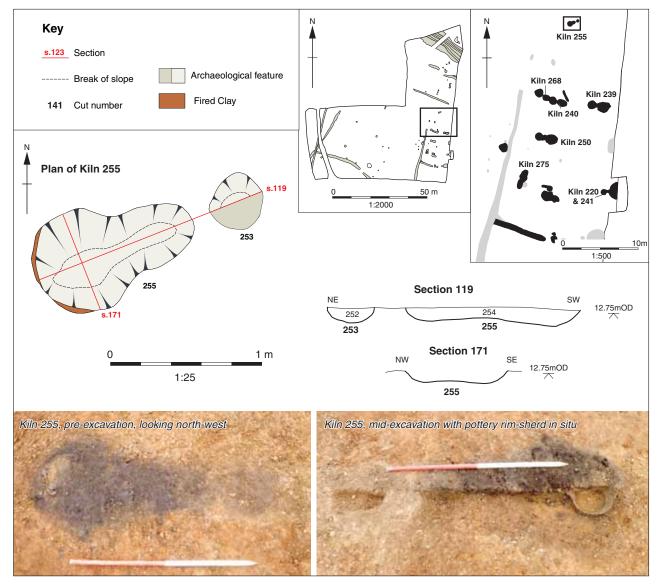


Figure 11: Kiln 255



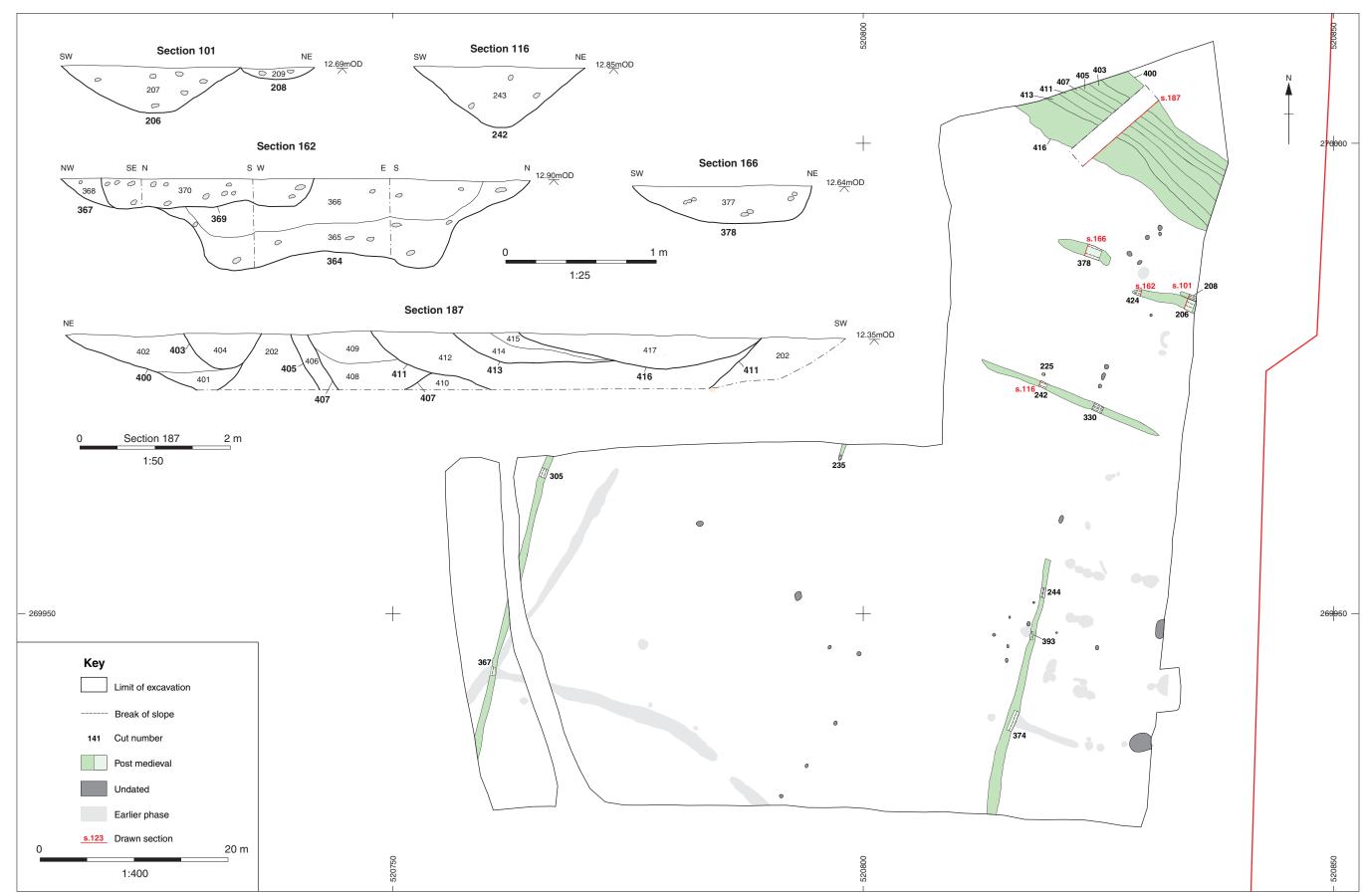
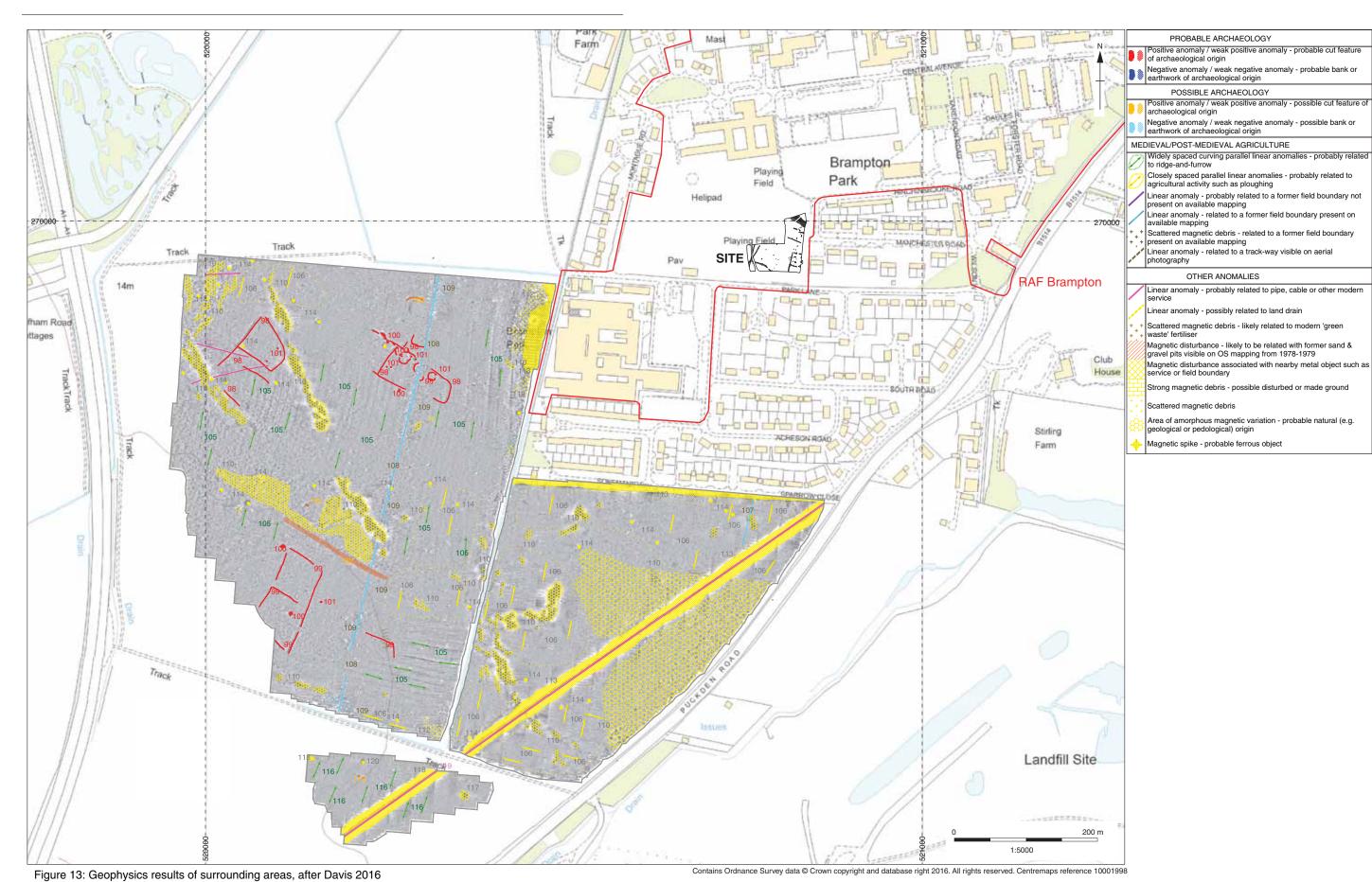


Figure 12: Plan of post-medieval features (phase 3) and undated features

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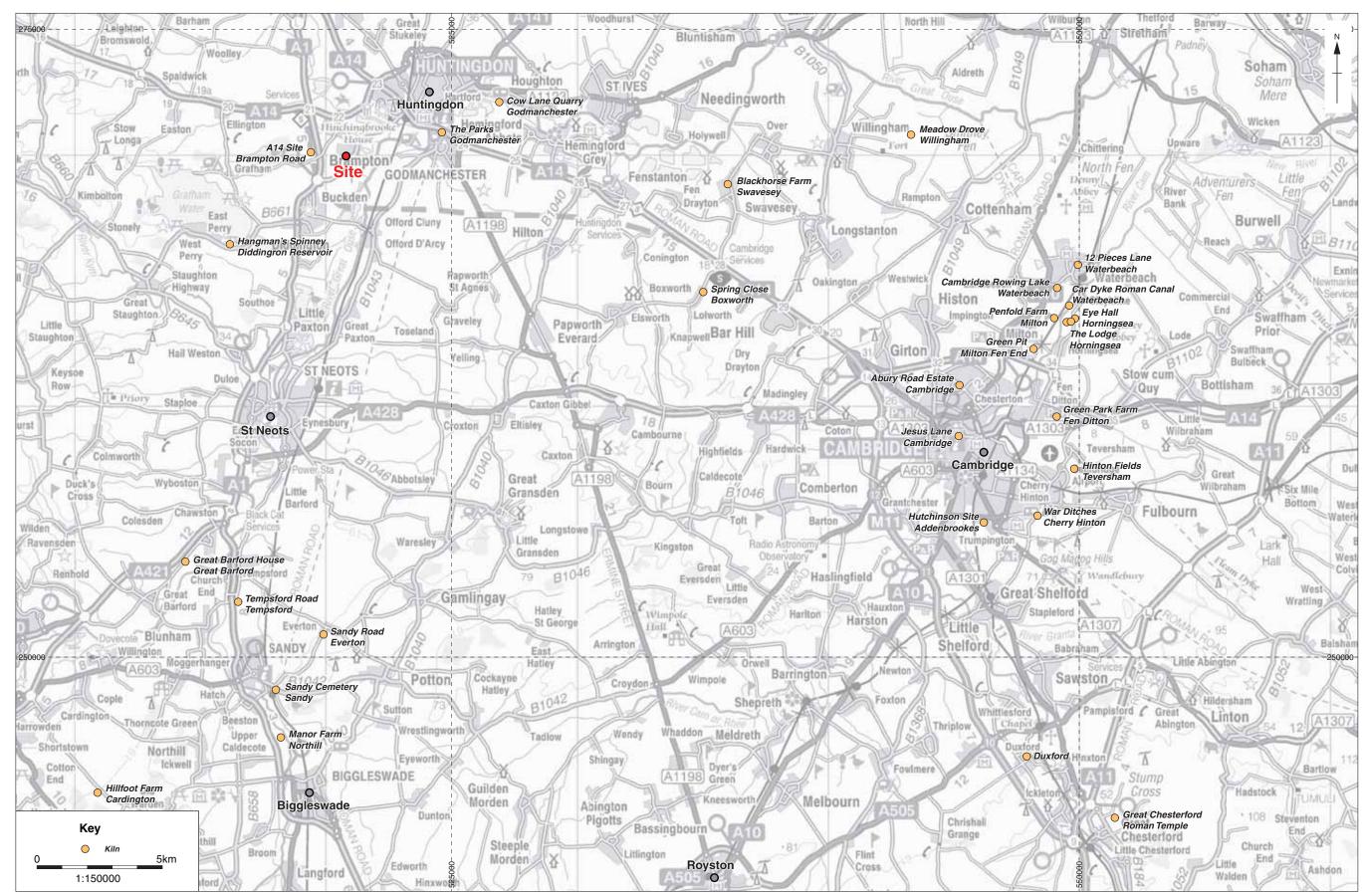
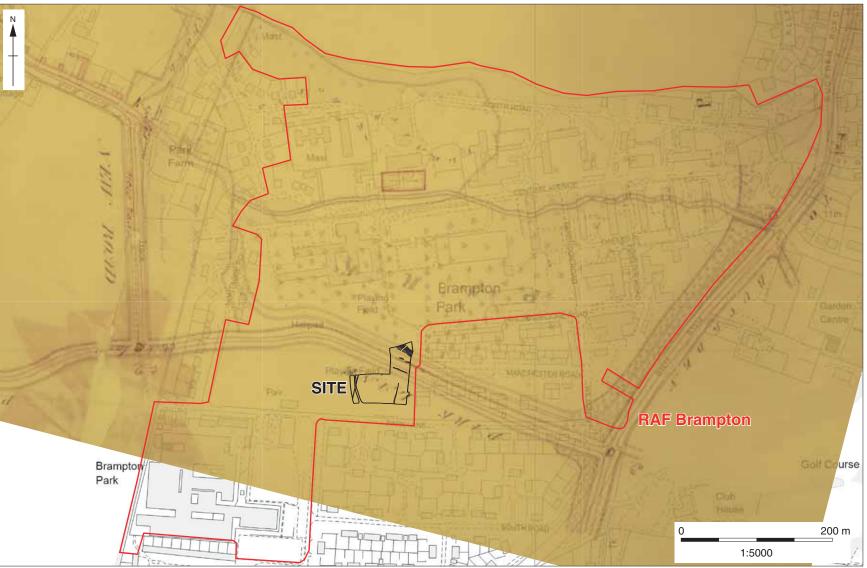
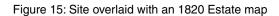
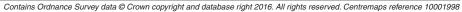


Figure 14: Plot of known Early Roman kilns in Cambridgeshire







east



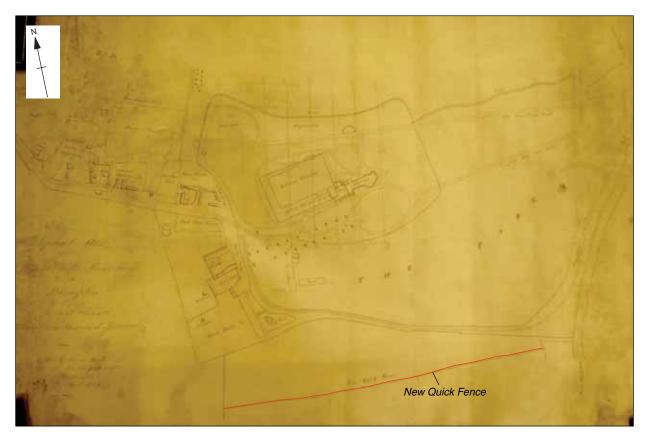


Figure 16: 1834 map showing position of New Quick Fence

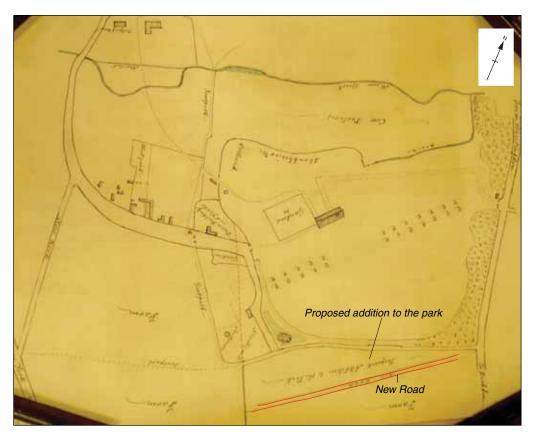


Figure 17: 1840 map showing new road and proposed addition to the park



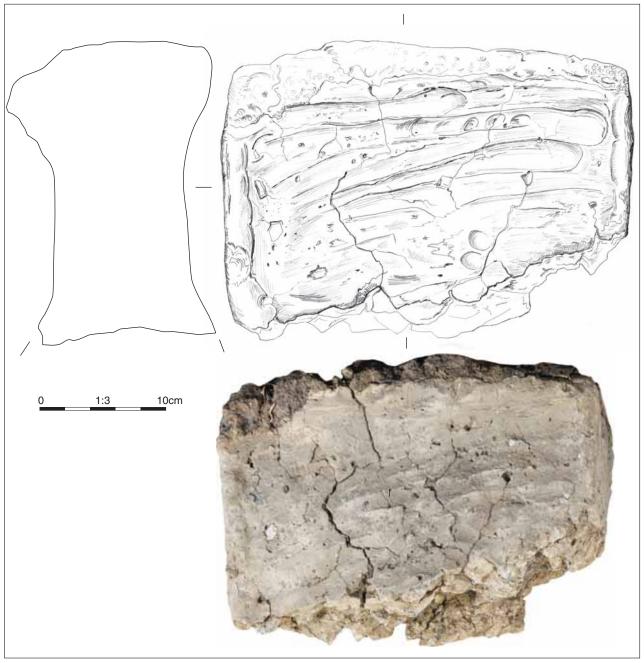


Figure 18: SF22, rectangular pedestal from the chamber of kiln 220



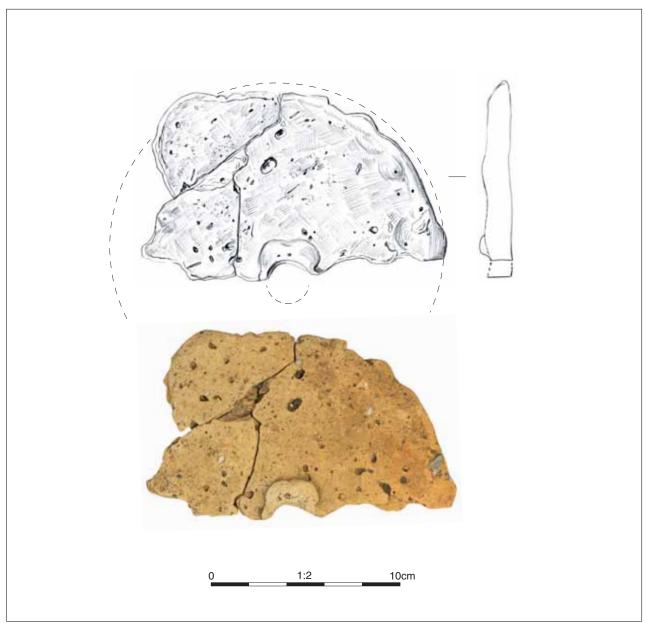


Figure 19: SF 27, perforated clay plate from Kiln 220



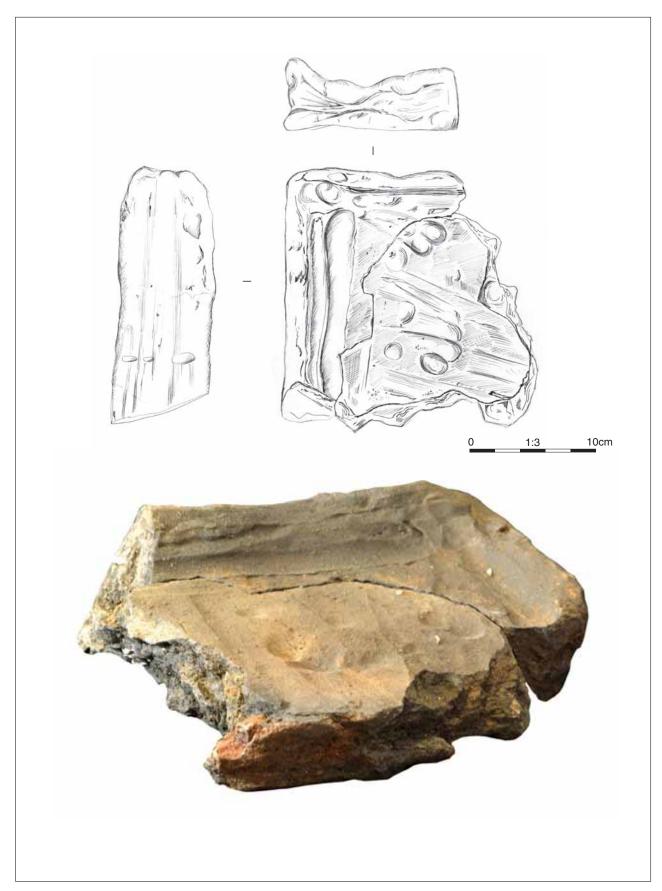


Figure 20: SF14, partial rectangular pedestal Kiln 239



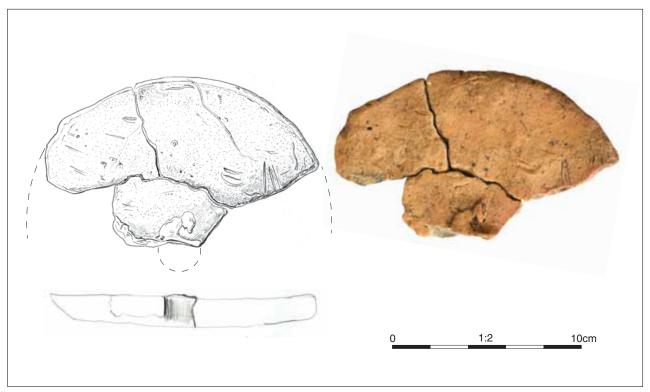


Figure 21: SF 28, perforated clay plate from Kiln 239





Figure 22: SF 4, complete central rectangular pedestal from Kiln 240





Figure 23: SF 10, cylindrical pedestal from Kiln 240



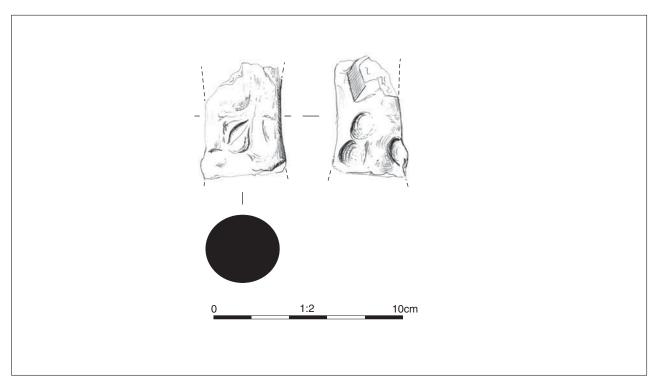


Figure 24: SF 32, kiln prop from Kiln 268



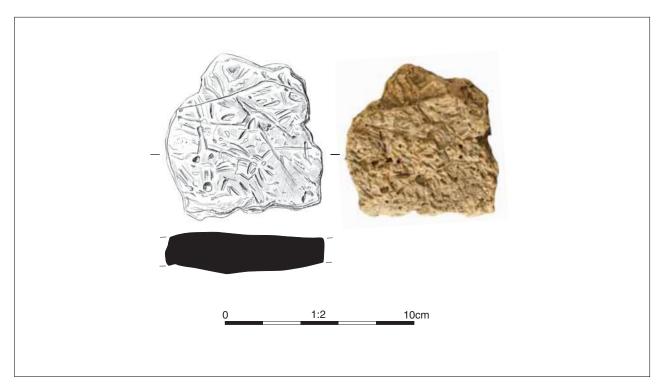


Figure 25: SF 24, clay plate with preserved cereal impressions from Kiln 250





Figure 26: SF 25, cylindrical pedestal from Kiln 250





Figure 27: SF 29, cylindrical pedestal from Kiln 250



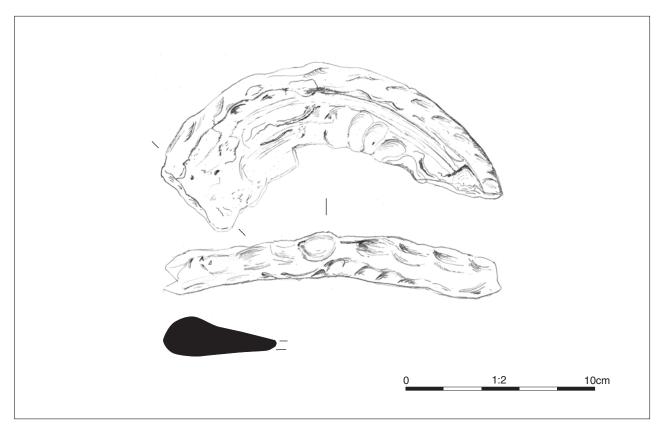


Figure 28: SF 31, clay plate with distinctive rolled edges from Kiln 275





Plate 1: Phase 1 (Iron Age) enclosure ditch terminus 309, looking north-west



Plate 2: Phase 1 (Iron Age) enclosure ditch 317, looking south-east





Plate 3: Phase 1 (Iron Age) ditch 301, looking south-west



Plate 4: Phase 1 (Iron Age) pit 353, looking east





Plate 5: Phase 2 (Early Roman) ditch 359, looking west



Plate 6: Phase 3 (post-medieval) trackway ditch 330, looking west





Plate 7: Phase 3 (post-medieval) trackway ditch 206, looking north-west



Plate 8: Phase 3 (post-medieval) Intercutting ditches, looking south-east



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