The Eastern Gate Hotel Site, Cambridge

An Archaeological Excavation

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Summary

Following on from an initial trench-based evaluation, an open-area excavation extending over 1867.5m^2 was conducted at the Eastern Gate Hotel site. This encountered an intensive and long-lived archaeological sequence. Firstly, during the later Prehistoric and Roman periods the site appears to have been situated within a broader agricultural hinterland. Then, in the 6th century AD, a ditch was established; a residual cruciform brooch and clay loom weight were also recovered. This evidence, although limited in scale, coincides with a number of earlier antiquarian discoveries in the area and indicates that an Anglo-Saxon settlement and/or cemetery may have been present in the near vicinity. Subsequently, the area returned to agricultural usage as part of the East Fields of the liberty of Cambridge, until – in c. *1200 – five long-lived burgage plots were established at the site. Linear in form, and with a distinctive twist at their head, each of these plots represents the occupation of a former strip within the preceding open field. The newly-established properties were situated on the outer fringe of an extra-mural settlement that was founded following the relocation of Barnwell Priory in* c. *1112. So rapid and successful was this settlement's growth, by the late 13th century the site comprised part of a substantial 'dislocated' suburb – containing around 95 households – which was physically separated from Cambridge by over half-a-mile of open fields. By the early 14th century a sixth plot had been established, which was principally industrial in focus, and the level of activity at the site appears to have reached its zenith.*

Associated with this period, a relatively substantial ceramic assemblage was recovered that included two sherds of imported French fineware (from Rouen and Saintonge) which have not previously been identified in Cambridge. Yet, by the 15th century, the suburb appears to have entered a period of decline; a situation that was further exacerbated by the dissolution of Barnwell Priory in 1538. Although occupation continued throughout the Post-Medieval period, the settlement was reduced in scale to the size of a village. At the Eastern Gate Hotel site itself the former medieval plots were gradually amalgamated into three larger units, one of which appears to have functioned as a farmstead and another as a brewery and/or public house. Then, following the inclosure of the surrounding fields in 1807, a process of re-suburbanisation commenced. Over the course of less than 40 years the population of Barnwell increased by almost 4000% as a large number of buildings were constructed, and the site became incorporated into Cambridge's expanding suburban fringe. During the 19th century the public house continued to operate and an adjacent property was converted into an urban dairy. Associated with this latter plot, a discrete late 19th century ceramic assemblage was recovered that comprised in excess of 500 vessels, 170 of which were collegiate in origin. Finally, during the 1960s the preceding structures were demolished and a series of industrial warehouse units were constructed.

CONTENTS

FIGURE LIST

1 - Cambridge Regional College (2010)
2 - Abbey House (est. 1578)
3 - Cellarer's Chequer
4 - St. Andrew-the-Less
5 - Eastern Gate Hotel
6 - Intercell House (2012)

Figure 1. Site location, showing significant locations mentioned in text

Figure 2. Panoramic photo sequence, facing west, showing depth of excavation over time

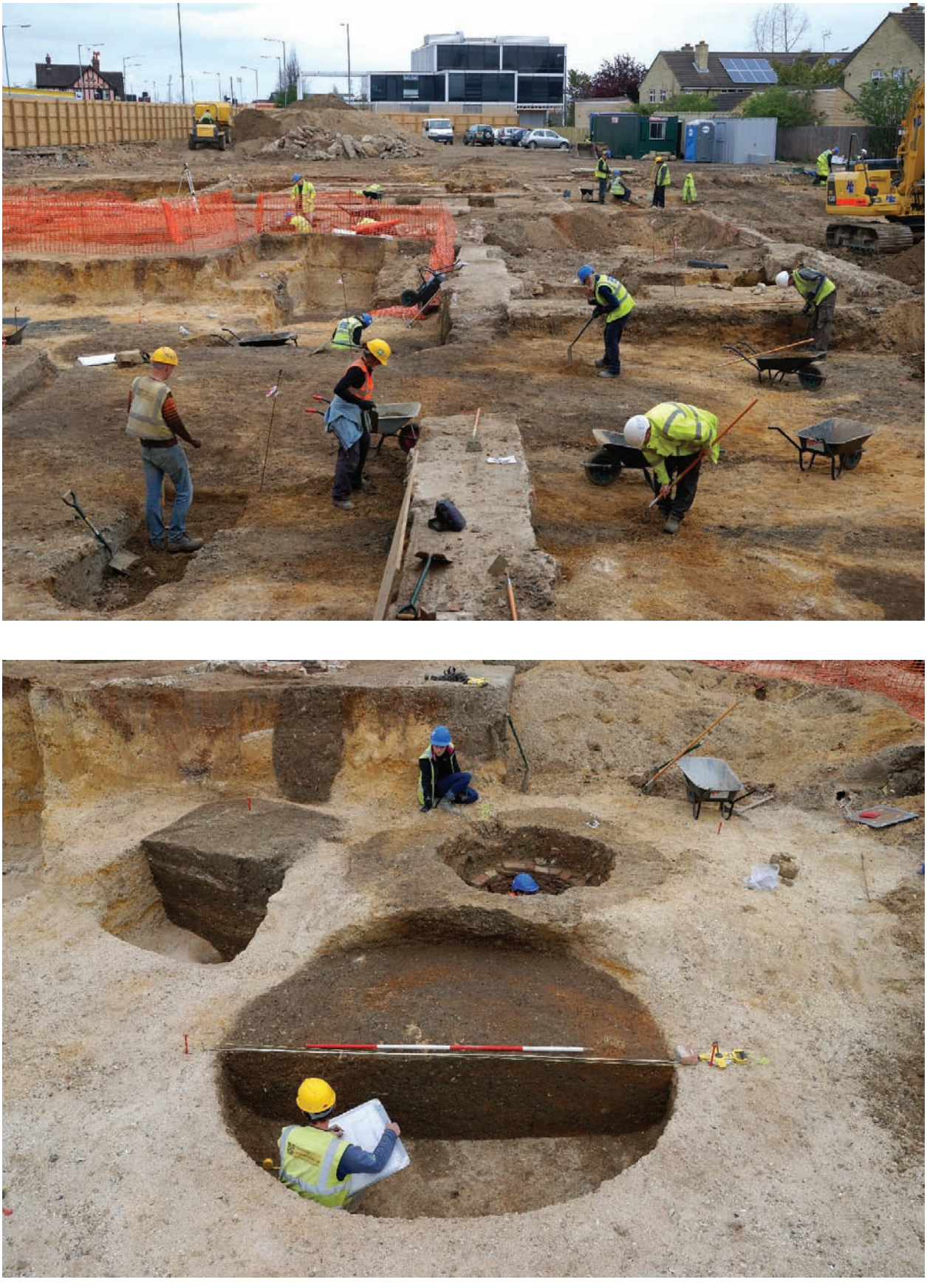


Figure 3. Views of excavation in progress, facing east and north respectively

- Introduction -

The Cambridge Archaeological Unit (CAU) undertook excavations at the Eastern Gate Hotel site, Cambridge, between the 14th of March and the 25th of May 2012. This followed directly on from a trench-based evaluation that was conducted at the site between the 15th and the 24th of February 2012. The results of both elements of the project are reported upon here. The development area is located on the suburban outskirts of Cambridge (Figure 1). It is bounded to the northeast by Coldhams Lane, to the north by Newmarket Road, to the south by Harvest Way and to the west by a standing industrial unit (see Figure 1). In total it extends over 3854m^2 in extent, the western 2500m^2 of which (centred on TL 46430 58891) was called for excavation. Following the discovery of a spread of asbestos within this latter area, however, along with the retention of a series of stepped baulks and the presence of a large 20th century cellar, the lower area of excavation was reduced to 1867.5m^2; in addition, four evaluation trenches, covering a total of 37m^2, were situated outside of the excavated zone (giving a combined total of 1904.5m^2 investigated; see Figures 4 & 5). The project followed two Written Schemes of Investigation issued by the CAU (Dickens 2012a & b) and approved by Andy Thomas, Development Control Archaeologist at Cambridgeshire County Council's Historic Environment Team. The evaluation was commissioned by Anglian Demolition and Asbestos Ltd. and the excavation was commissioned by Davis Langdon Ltd. on behalf of Merchant Place Developments.

Landscape and Geology

The site is located over half-a-mile to the east of the historic centre of the city of Cambridge, within the medieval settlement of Barnwell. Here, it is situated upon the southern periphery of the floodplain of the River Cam. This river rises from springs situated along a northwest-southeast aligned Cretaceous chalk ridge that is located to the southeast of the town. Geologically, valley gravels and alluvium cover the valley bottoms while the surrounding terraces are formed from drift deposits. The site itself lies on 3rd Terrace river gravels over Gault clay (British Geological Survey 1976). Prior to the commencement of the excavation, the site was occupied by a series of large industrial warehouses. Following their demolition, the ground surface varied between 12.58m and 13.02m OD, while the uppermost horizon of the 3rd Terrace gravels lay at 11.73m to 12.13m OD. Gault clay was encountered at 8.34m OD.

Methodology

During both the evaluation and excavation phases, modern deposits and overburden – including layers of concrete and hardcore – were broken out and removed by a 360° mechanical excavator with a 2m toothless bucket. Any archaeological features that were thus revealed were then excavated by hand and recorded using the CAU modified version of the MoLAS system (Spence 1994); base plans were drawn at a scale of 1:50, whilst sections were drawn at a scale of 1:10. Where required, during the excavation phase multiple stages of machining were undertaken in order to provide safe access to deep features such as wells (Figures 2 and 3); where practicable, all such features were bottomed. The site was also extensively metal detected. Context numbers are indicated within the text by square brackets (*e.g.* **[001]**), and feature numbers are denoted by the prefix F. (*e.g.* **F.03**); all stratified contexts have been assigned feature numbers. A table of concordance, providing more detailed information on each individual feature, is presented at the end of this report.

The photographic archive consists of a series of digital images. All work was carried out with strict adherence to Health and Safety legislation, and within the recommendations of FAME (Allen & Holt 2010). The sitecode for both phases of the project was **EGN 12**, and the event numbers were **ECB 3732** (evaluation) and **ECB 3733** (excavation).

Historical and Archaeological Background

The wider historical and archaeological background of the development area is covered in depth in an earlier desk-based assessment (Dickens 2001), and will not therefore be reiterated in detail here. Little is known of the earliest inhabitants of the Cambridge area. Although there is diffuse evidence of Prehistoric occupation and activity, most notably of Iron Age date, located to the north and west of the town (*e.g.* Evans 1996; Newman 2008a; Evans & Newman 2010) no definite or intensive large-scale settlement has yet been identified. Within the more immediate vicinity of the site, a small number of findspots are recorded which relate to this period. The first of these was situated in the vicinity of the old Festival Theatre. Here, in 1862, flint hand-axes, a sharpened elephant bone and the remains of rhinoceroses, hippopotami and elephants were found at a depth of 12 feet (CHER ref: 04531). Close by, probable Acheulean stone implements – including "a magnificent abraded hand-axe" of Late Palaeolithic date – were found in 1878 during gravel extraction activity (Griffith 1881, 178). Perhaps more significantly, however, almost immediately to the north of the site Cyril Fox recorded the discovery of three Iron Age vessels from "the Abbey Road area of Barnwell" and suggested that "there can be little doubt [these were] associated with burials" (Fox 1923, 91-97). The vessels – which comprised a barrel urn, a globular urn and a shale tazza with a pedastalled foot – are now held by the Museum of Archaeology and Anthropology (CHER ref: 04643). Nearby a Ptolemaic coin, of *c*. 323-285 BC, was also "found in a Barnwell gravel pit" (Fox 1923, 86) while to the south, on New Street, a further sherd of Late Prehistoric pottery has been recorded (CHER ref: 04625; Browne 1974, map 16.35). Overall, therefore, the evidence of prehistoric activity in this area is piecemeal, but suffices to suggest that a level of activity occurred throughout the majority of the period.

During the succeeding Roman period, the widely accepted picture of Cambridge is one of a settlement centred almost exclusively upon the Castle Hill area (*e.g.* Alexander & Pullinger 2000; Evans & Ten Harkel 2010). Recent fieldwork, however, is demonstrating that this interpretation is somewhat limited. Significant settlement *foci* have recently been identified to the west of the presumed centre (*e.g.* Lucas & Whittaker 2001; Evans & Newman 2010) and finds from this period have also been made to the southeast; there is evidence of Roman activity on the riverfront (Dickens 1996) and in the Bridge Street (Newman 2008b) and Park Street/Jesus Lane areas (Alexander *et al.* 2004), for example, as well as further to the south of the town (Evans *et al.* 2008). It is therefore clear that the extent of Roman activity on the southern bank of the Cam was greater than has generally been supposed and that the wider hinterland of the town – within which the current site lies – was extensive, although it remains poorly understood. Within the vicinity of the Eastern Gate Hotel site itself very little archaeological evidence dating to this period has been identified previously, with the exception of an unstratified bronze key of probable Roman date (CHER ref: 07908).

Following the decline of Roman Cambridge from the later 5th century onwards, the level of occupation in the area appears to have temporarily decreased. The evidence for Early Saxon (*c.* 410-700) activity in and around the former town primarily comprises material recovered during the 19th century from pagan cemeteries situated on the outskirts of Cambridge (Fox 1923, 242-50; Dodwell *et al.* 2004; Cessford with Dickens 2005b). Very little occupational evidence from this period has yet been identified, with the exception of a small 6th to 7th century settlement located on the western bank of the Cam around a kilometre to the south of the former Roman town (Dodwell *et al.* 2004). Within the more immediate environs of the site, an Anglo-Saxon interment has been recorded "from Newmarket Road", along with a stray Anglo-Saxon find "from Barnwell" (Fox 1923, 244-45), although few additional details pertaining to either discovery are known. Subsequently, Middle to Late Saxon (*c.* 700-1000) activity appears to have been primarily refocused upon the Castle Hill area, where a 7th to 9th century execution cemetery has recently been investigated (Cessford with Dickens 2005b; Cessford *et al.* 2007). In addition, a little under a kilometre to the east of the present site a possible Middle Saxon inhumation cemetery has been excavated (Newton 2007). The dating evidence for this attribution comprised a single belt buckle, however, and may not therefore be entirely reliable.

Up until the mid 10th century Cambridge appears to have remained only an "economically viable backwater" (Hines 1999, 136); following this date, however, it emerged as a significant urban centre. By the late 10th century a mint had been established (Lobel 1974, 3; Haslam 1984, 21) and the town was being linked to a group of important trading centres including Norwich, Thetford and Ipswich (Cam 1934, 43). Consistent with the rapid economic expansion of the town, during the early to mid 10th century the earliest evidence of Late Saxon settlement to the south of the Cam has been identified at the Corfield Court and Old Divinity School sites. Here occupation initially appears to have been relatively limited in scale, but rapidly expanded (Newman 2008b, 74-77; Cessford 2012, 11-12). Further to the south, along the line of Trumpington Street/Kings Parade, the presence of numerous pre-Conquest churches indicates that this roadway was well-established by the first half of the 11th century (Addyman & Biddle 1965, 99; Haslam 1984, 21; Brooke 1985). Subsequently, the limit of the town was demarcated by a substantial feature known as the King's Ditch. Although the eponymous 'king' has been interpreted as being either John (1167-1216), who repaid the bailiffs of Cambridge the costs of enclosing of the city in 1215, or Henry III (1207-72), who paid for its refortification in 1267 (Cooper 1852, 53), a recent radio-carbon determination derived from the basal fill of the ditch at the Grand Arcade site indicates that this boundary was at least partially extant by the early-mid 12th century (Cessford & Dickens *in prep.*). By this date suburban occupation was already well-established at several points beyond the ditch's circuit.

The wealth of medieval Cambridge attracted a large number of ecclesiastical foundations (Lobel 1974, 6; Haigh 1988b), and it is the presence of these institutions that is likely to have influenced in turn the establishment of the University at Cambridge in 1209 (see further Leader 1988). Forming a key element in this wider pattern of activity, the Augustinian Priory of Barnwell was established immediately opposite the Eastern Gate Hotel site in *c.* 1112 (Salzman 1948, 234-5; see Figure 1). Originally founded at St. Giles, at the foot of Castle Hill, in *c.* 1092, this monastery was relocated to a new, greenfield site when it outgrew its original location (Burton 1994, 133). A highly successful and wealthy monastery, the history of this institution

– along with that of the associated settlement that was soon established outside its gates – is central to an understanding of the archaeology at the Eastern Gate Hotel site, and will therefore be discussed in detail wherever pertinent throughout the following report.

- Results -

Evaluation Trenching

An initial trench-based evaluation was conducted at the site between the 15th and 24th of February 2012. This followed on immediately from the demolition of the various industrial warehouse units that had previously occupied the development area. A total of 13 trenches were excavated at this time, although one of these (Trench 6) had to be abandoned due to the presence of asbestos within a large modern disturbance and a second (Trench 2) encountered a substantial 19th century cellar. The disposition of the excavated trenches across the site is shown in Figure 4.

Two key results were obtained from the trench-based evaluation. The first comprised the identification of numerous archaeological features dating to the medieval, Post-Medieval and modern periods. These have been fully integrated into the following text – a process that was facilitated by the contextual record remaining consistent between the two phases of investigation – and will not therefore be discussed individually here. The second result consisted of the identification of two distinct 'zones' of differing archaeological preservation. On the one hand, the eastern half of the development area was found to have been heavily disturbed, predominately by the erection of a large, stanchion-built warehouse in 1968. Although a small number of extant features were identified in this area (within Trenches 3, 10 and 13), they represented only isolated 'islands' situated amidst a series of later truncations. Across the western half of the development area, in contrast, the degree of preservation was generally quite high. During the 1960s the ground level in this area had primarily been *raised* as opposed to *lowered*, as it had been to the east. As a result, the subsequent phase of open-area excavation was focused upon the latter, western portion of the site (Figures 4 and 5). Here, the evaluation had identified substantial 19th century made-ground/horticultural deposits that had disturbed and/or removed the majority of the preceding stratigraphic sequence. Similarly, at the rear of the area a former loading bay had been partially terraced into the natural slope, thereby reducing the ground height by around a metre. Consequently, the site area was machine-stripped to the uppermost horizon of the natural gravel prior to the commencement of the excavation phase.

Site Sequence

	Date Range	Number of Features	Percentage of Total
Phase I	Pre *c.* 1200	4	0.6%
Phase II	*c.* 1200-1538	372	54.5%
Phase III	1539-1807	66	9.6%
Phase IV	1808-1968	207	30.3%
Phase V	1968-present	34	5.0%

Table 1: Number of features by phase

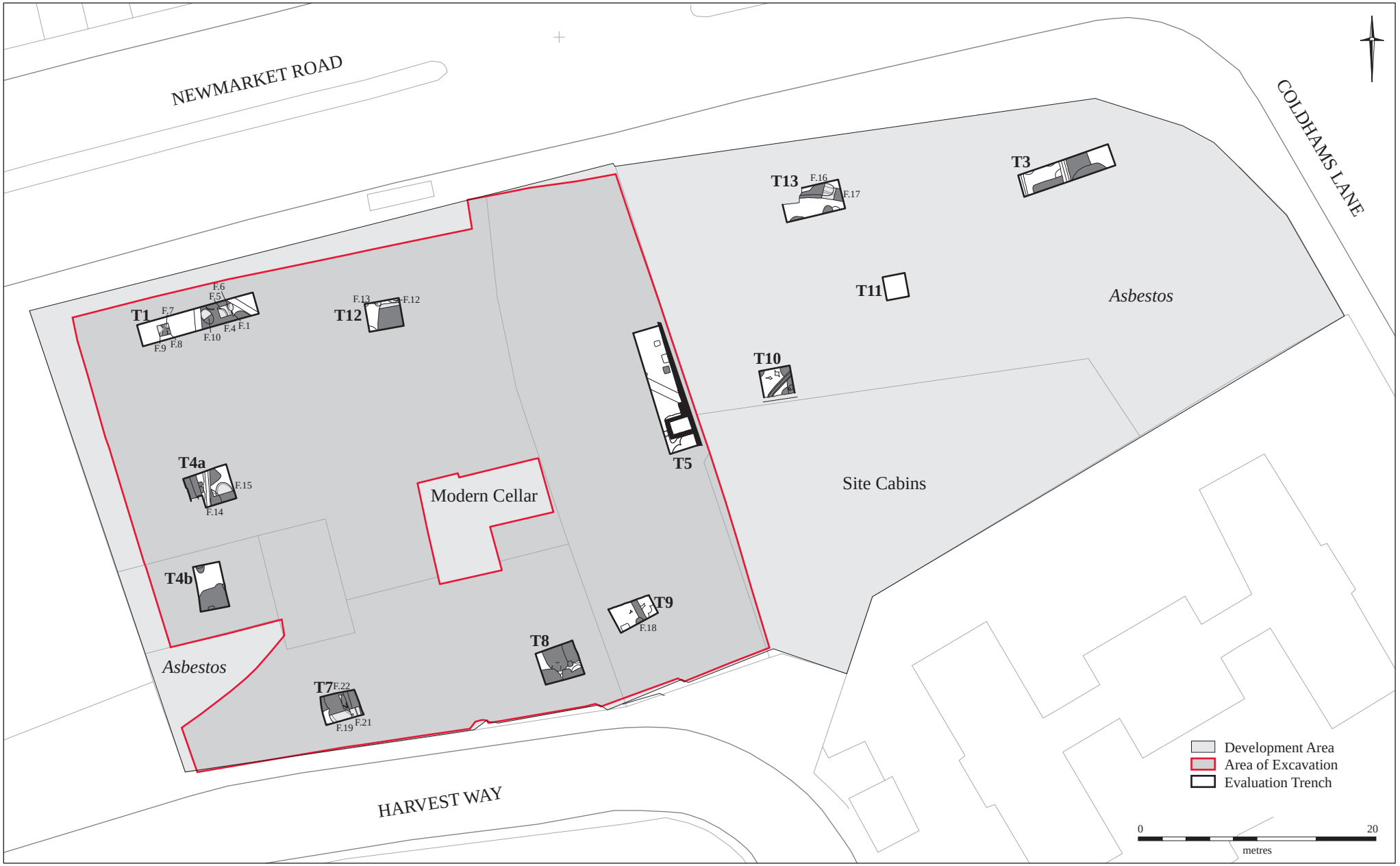


Figure 4. Plan of evaluation trenches with subsequent area of excavation

Figure 5. Plan of all features (excluding layers) and aerial photograph of the site

The Eastern Gate Hotel site sequence can be subdivided into five phases (Table 1). Of these, the first and last are of limited importance; they essentially serve to 'bookend' the principal period of occupation at the site, which occurred between *c*. 1200 and the mid 20th century. Each individual phase broadly corresponds to a discrete historical period (such as medieval, Post-Medieval, modern etc.). In order to reflect the more discrete historical sequence relating to this particular site, however, the phasing takes account of significant events that directly pertain to its development. These include the dissolution of Barnwell Priory in 1538 and the Inclosure of the surrounding open fields in 1807. Although such chronologically precise events cannot be identified with certainty via the imprecise medium of archaeological dating (which, especially in this instance, principally relies upon ceramic association), nevertheless it is felt that such an approach provides a more nuanced, site-specific framework within which to chart the overall developmental sequence. Where ambiguities of phasing occur, they will be discussed in light of the dating evidence available.

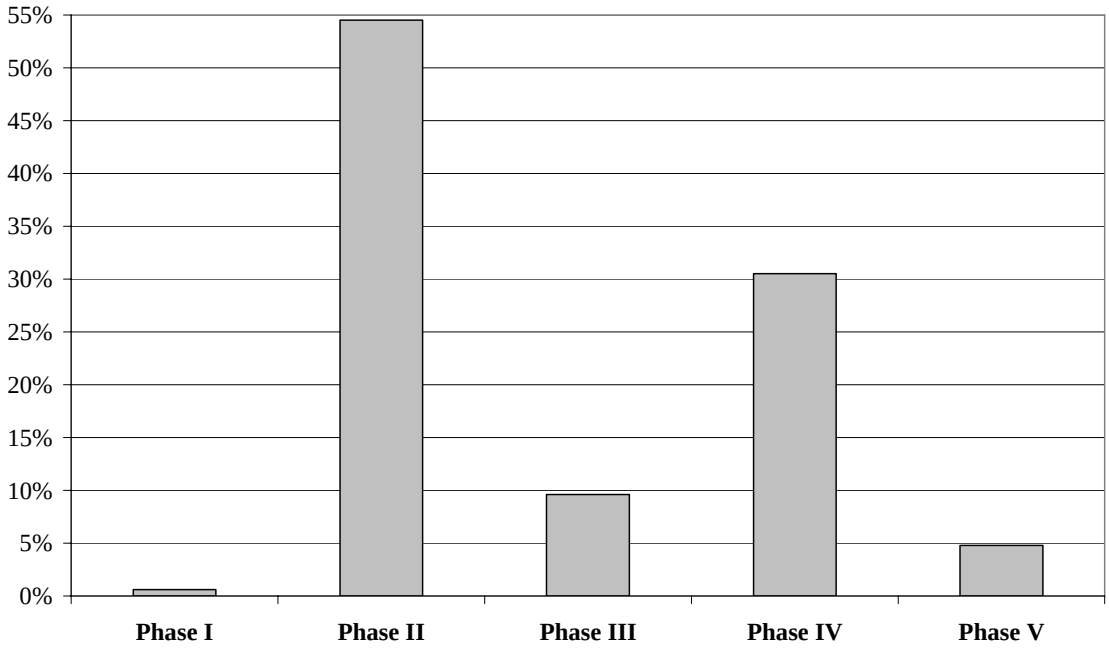


Chart 1: Relative percentage of features per phase

Overall, as Chart 1 clearly demonstrates, the majority of features at the site were created during Phase II. Subsequently, during Phase III, a notable decline in the level of archaeological activity occurred, prior to a partial recovery during Phase IV. The relative significance of each of these phases is reflected in the constitution of the following report.

Phase I: Pre-Settlement Activity (pre *c*. 1200)

Limited evidence of Prehistoric and Anglo-Saxon activity was encountered at the site (Figure 6). Firstly, a general, background anthropogenic presence during the Prehistoric period is indicated by the recovery of residual worked flints spanning the Mesolithic to the Late Bronze Age/Iron Age (see Billington, below). In addition, the earliest features at the site most probably comprise two undated tree-throws, **F.107** and **F.553**, which appear most likely to be later Prehistoric in date. Their creation may have been related to the establishment of agricultural activity in the area.

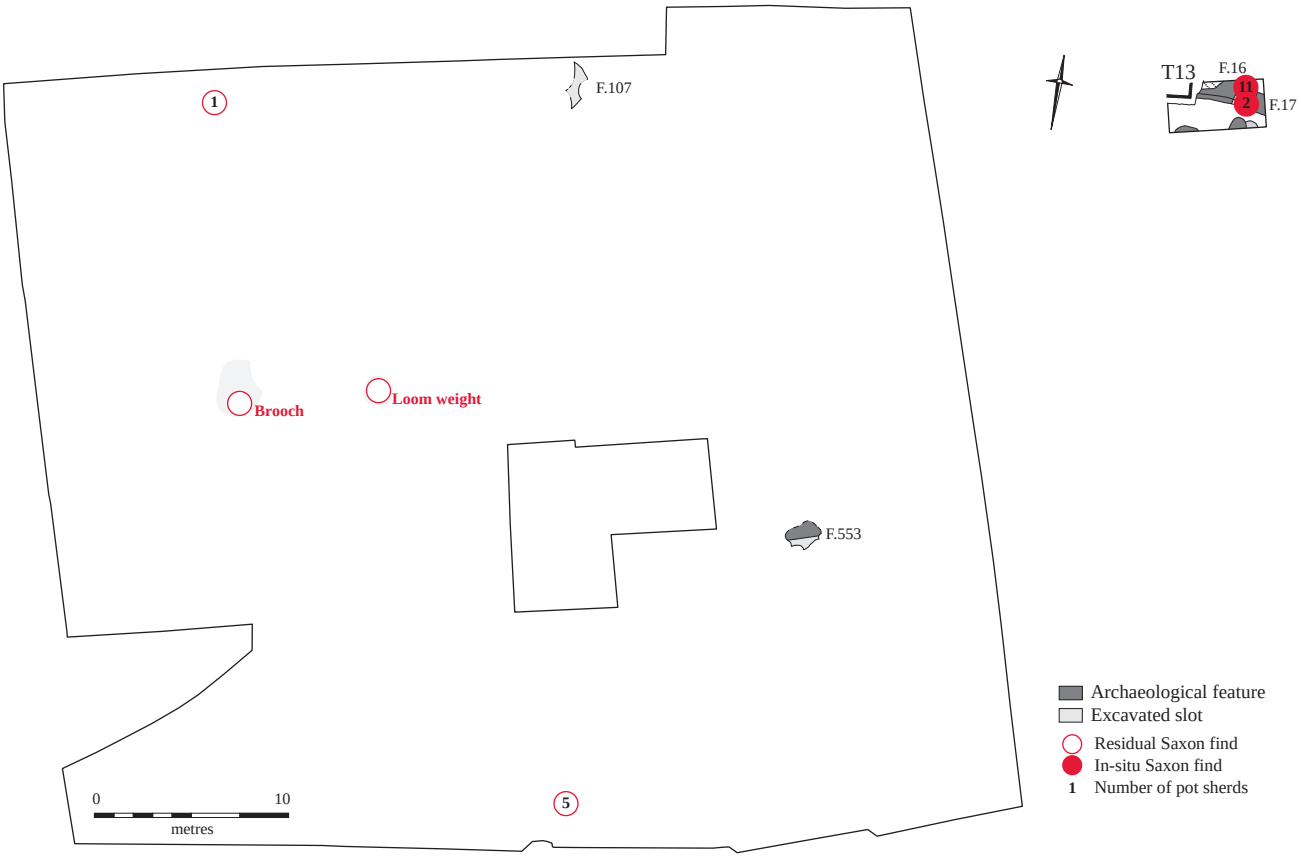


Figure 6. Phase I features and findspots (top), with early 6th century cruciform brooch (below)

A small quantity of residual Roman pottery was also recovered, which appears likely to have been introduced to the site via manuring (see Hall & Newman, below). Subsequently, however, two features containing *in situ* material culture of Early Anglo-Saxon date – ditch **F.17** and its later recut, **F.16** – were identified. These were situated a short distance to the east of the excavated area, within evaluation Trench 13. Aligned broadly east-west, although irregular and partially curvilinear in form, both ditches contained sherds of hand-made mineral-tempered wares of probable 5th to 7th century date (see Hall & Newman, below). Unfortunately, the full extent and alignment of these features could not be determined as they had been heavily truncated to both the east and west by modern concrete stanchions. Within the main area of excavation itself, a small quantity of residual pottery of a similar date was recovered, along with an early 6th century cruciform brooch and a fragmentary Anglo-Saxon clay loom weight (Figure 6). These latter artefacts were again residual in nature. Overall, therefore, this small assemblage indicates that a low level of activity occurred in relatively close proximity to the site during the Early Anglo-Saxon period.

F.17 comprised an east-west oriented ditch. Cut **[042]** had moderately sloping concave sides leading to a concave base. It measured 3.6m+ by 1.05m in extent and 0.46m+ deep. The single fill, **[041]**, consisted of dark reddish brown sandy silt deposit with occasional gravel and rare charcoal fleck inclusions. Eleven sherds of handmade Saxon pottery, weighing 24g, were recovered.

F.16 comprised an east-west oriented recut of ditch **F.17**. Cut **[040]** had moderately sloping concave sides leading to a concave base, and butt-ended partway across the trench. It measured 2.7m+ by 0.87m in extent and 0.18m+ deep. The single fill, **[039]**, consisted of dark brownish grey sandy silt deposit with occasional to frequent gravel and rare charcoal fleck inclusions. Two sherds of handmade Saxon pottery, weighing 3g, were recovered.

Phase II: A Thriving Medieval Settlement (*c*. 1200-1538)

This phase represents the most substantial, and archaeologically the most significant, of the five identified periods of activity. It corresponds to the establishment of a long-lived domestic settlement at the site.

Feature Type	Number of Features	Percentage of Total
Cesspit (stone-lined) Cesspit (wattle-lined)	1 8	2.4%
Drain	1	0.3%
Gully	3	0.8%
Layer	9	2.4%
Oven	15	4.0%
Pit	168	45.2%
Pit/posthole	5	1.3%
Posthole	112	30.1%
Stakehole	11	3.0%
Structural (beamslot) Structural (construction cut) Structural (foundation) Structural (robbing) Structural (surface)	3 1 1 2 1	2.2%
Tank (clay-lined) Tank (stone-lined)	11 1	3.2%
Well (cask-lined) Well (stone-lined) Well (wattle-lined)	3 1 15	5.1%

Table 2: Phase II features by type

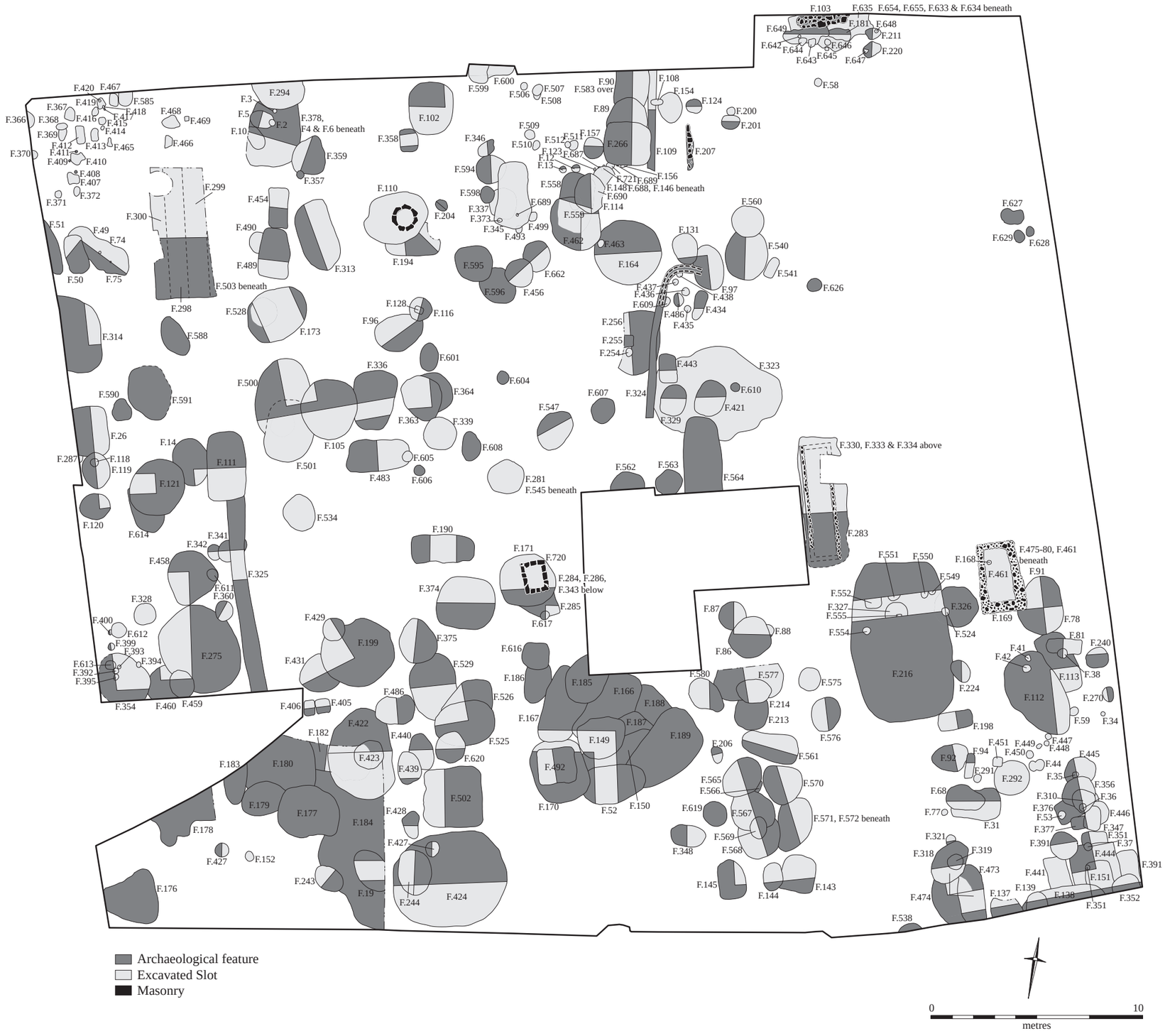


Figure 7. Phase II features

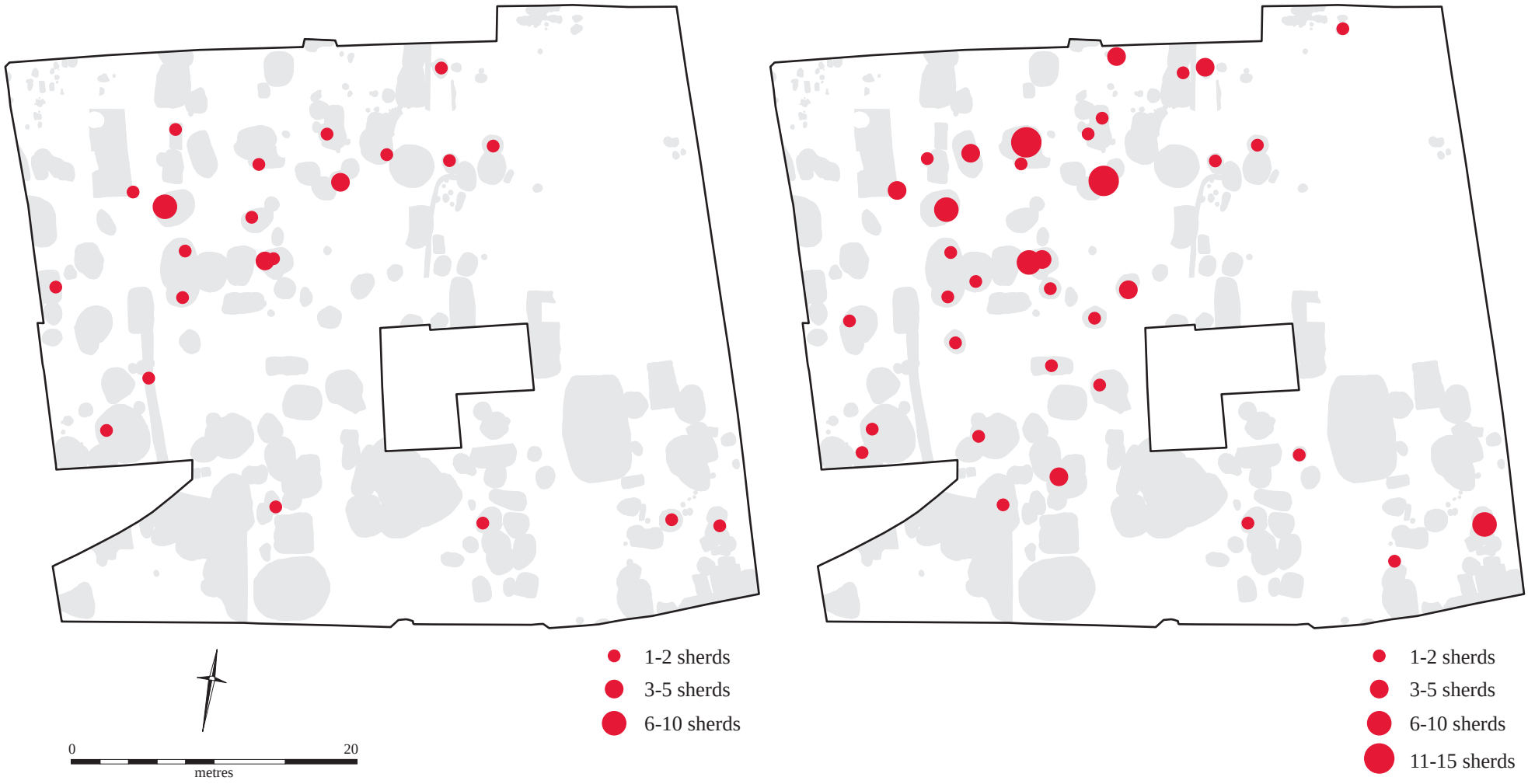


Figure 8. Distribution of closely-dateable 12th century (left) and 13th century (right) pottery

Figure 9. Animal disposal pit F.441, facing west

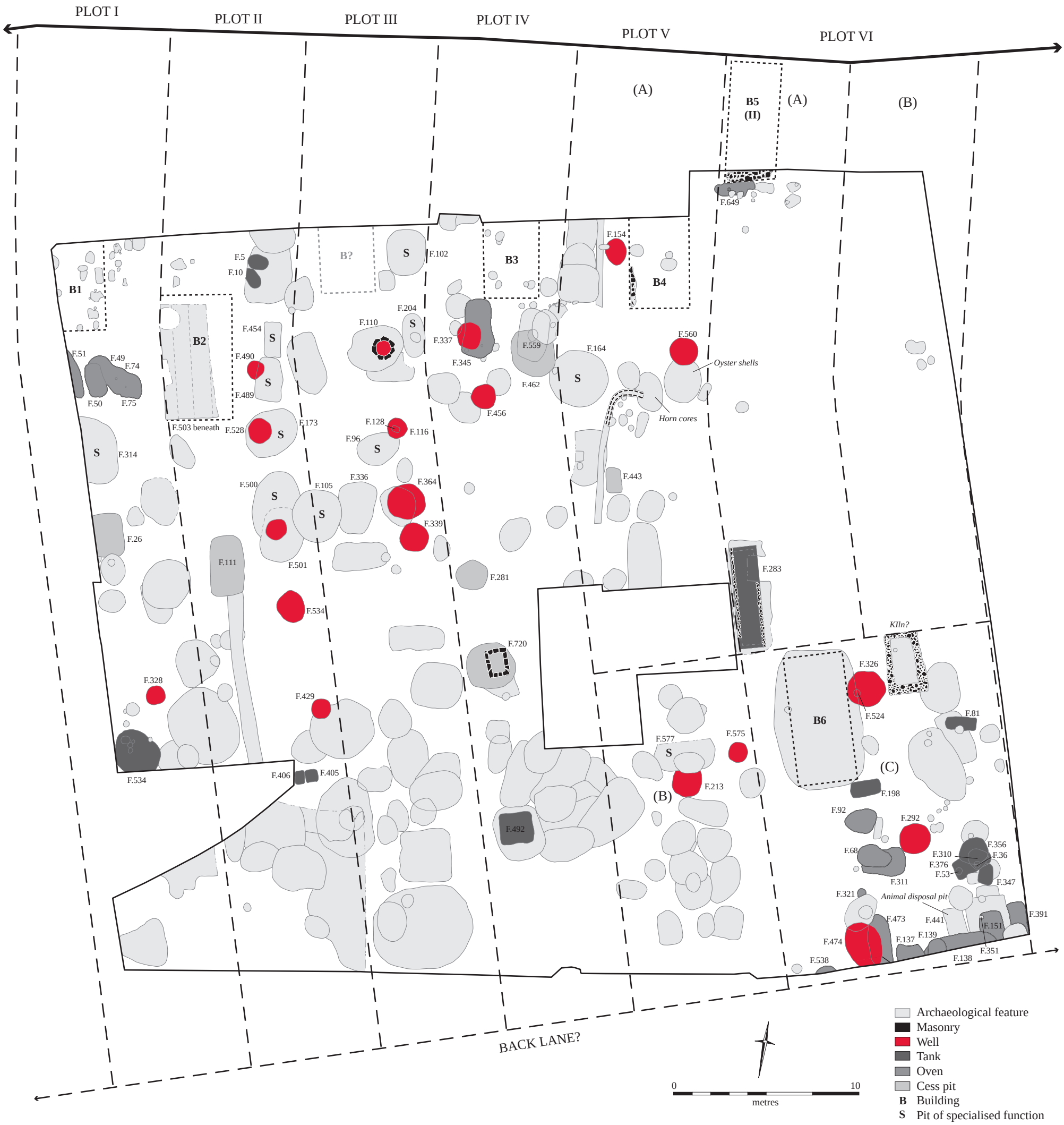


Figure 10. Phase II features with property boundaries and key feature-types highlighted

As Table 2 clearly demonstrates, a large number and wide variety of feature-types were created during this phase (see also Figure 7). As is typical for the period, much the most common of these were pits and postholes (which between them accounted for 75% of all Phase II features). Also present were structural remains, wells, cesspits, gullies, ovens and tanks.

Settlement activity most probably commenced at the site at sometime around the end of the 12th or very beginning of the 13th century. This can be demonstrated very clearly via the distribution of diagnostically 12th and 13th century ceramics (Figure 8). Although limited in quantity, 10th-12th century material – which included St. Neots-type ware, Thetford-type ware and Stamford ware – was discretely clustered in the northeast portion of the excavated area, with only a small number of outlying fragments. In no instance did Saxo-Norman material occur in isolation, however; these sherds were predominately found in direct association with diagnostically 13th century fabrics – which included Pink Shelly ware, Blackborough End-type ware, Lyvden/Stanion ware and Brill/Borstall ware – whilst a small number also occurred residually within later features. This evidence, combined with the relative paucity of 12th century ceramics in comparison to the succeeding 13th century material, strongly suggests that occupation commenced at approximately the same time that the transition in ware types occurred. This event is difficult to date precisely, but is likely to have taken place between *c*. 1175 and 1225 (centring with the highest degree of probability on *c*. 1200). Previously, the only Cambridge excavation where this transition has been successfully identified is the Old Divinity School site. Here, a cemetery established *c*. 1250 provided a secure *terminus ante quem* for the introduction of a range of post-Saxo-Norman fabrics, including Medieval Ely ware (Cessford 2012, 14-18).

A second pattern is also discernable within the distribution of the earliest medieval ceramics at the site. Towards the eastern edge of the area a distinct 'zone of absence' is apparent, in contrast to the relatively uniform distribution of material further to the west. This suggests that, initially at least, occupation was not continuous across the entire site (Figure 8). Within this 'blank' zone the earliest archaeological feature to be identified, on stratigraphic grounds, comprised animal disposal pit **F.441**, which contained the carcass of a three year old cow that had been at least partially skinned (Figure 9). The presence of this feature, which was most probably 13th century or earlier in date, indicates that the area may initially have served an extra-mural, pastoral function. Subsequently, however, by the late 13th/early 14th century – around a century after occupation had first been established – a dense array of features was created in this location, indicating a probable expansion of the occupied area. Further to the west, the intense and regular disposition of the archaeological remains indicates that several discrete sub-divisions, representing individually occupied 'plots', had been established. No features directly pertaining to boundaries *per se* were identified, however. This is not in itself unusual, as, in contrast to rural sites, long-lived features such as ditches were rarely employed to define the boundaries of medieval properties situated in more densely occupied, sub-urban contexts as they would have been rapidly infilled by the repeated generation of upcast deposits. Instead, stake and wattle fences (*e.g.* Hall & Hunter-Mann 2002, 807-10) or hedge lines (*e.g.* Bowsher *et al.* 2007, 23) were much more commonly utilised. Archaeologically, however, features such as these are more ephemeral than ditches and are thus highly susceptible to later truncation. Moreover, given the degree of spatial segregation prevalent within many

medieval plots, the type of demarcation used may have varied along the boundary's length, and may even have been omitted entirely over certain stretches.

Instead, the identification of non-rural boundaries is most commonly achieved via the identification of discrete spatial 'clustering' within the distribution of key feature-types (Schofield & Vince 2003, 80-82). In the first instance, one of the most consistent indicators of a long-lived boundary comprises a linear alignment of features – most commonly pits, which often represent both the most common and most substantial feature-type present – whose repeated insertion nevertheless respected the line of an otherwise invisible division. As a result of this process, the boundary itself is typically discernable via a 'negative impression' of its former location. In addition, certain feature-types – such as wells and cess pits, for example – were closely associated with the everyday, practical requirements of domestic settlement; it can be reasonably assumed that the majority of properties would have required both a source of fresh water and a latrine. Therefore, the regular disposition of these feature-types can also be used to indicate the presence of discrete subdivisions within a larger settlement area. By employing these various indicators, each of which is well-represented at the Eastern Gate Hotel site, a minimum of six separate plots have been be identified with a high degree of probability (see Figure 10). All six appear to have been linear in form, with their long axes oriented perpendicular to the main highway (which was known, by 1574 at the latest, as *Barnwell Cawsey*; Reaney 1943, 46). Five of these properties, *Plots I* to *V*, appear very regular and consistent, and were most probably established *en masse* as part of a larger topographic 'block' in *c*. 1200. The final, easternmost plot, however – *Plot VI* – was very different. Not only was it double the width of its compatriots, but the principal focus of activity within this property was also oriented at 180º to that of its neighbours. These distinctions may in part be attributable to the later date at which this portion of the site appears to have been occupied, but also indicate that the subsequent usage of this area was rather different.

Overall, the width of the property plots was relatively consistent, varying between 6.9m and 7.8m (excluding *Plot VI*, which was up to 13.5m wide). This equates to approximately 1¼ perches on average, a perch being the standard medieval unit of measurement in relation to property. Some degree of variation between plots is only to be expected, as their boundaries will have required repeated replacement over time and may well have 'travelled' slightly during the course of this process. The length of the plots – as far as can now be plausibly reconstructed, via extrapolation from land divisions that remained extant when the first detailed maps of the area were compiled in the 19th century – appears to have varied between a minimum of *c*. 49m and *c*. 57m (or approximately 8.5-9.5 perches). This gives an average width-to-length ratio of around 1:8. But by far the most striking element of the plots is their shape. This is because each contained a pronounced bend, or twist, which is clearly discernable at its head (the head being defined as that portion situated in closest proximity to the street frontage). Such a layout is highly distinctive, and may well represent the 'fossilisation' of pre-existing elements in the landscape.

During the present excavation, the plot heads themselves were not available for excavation. This is a common pattern in British urban archaeology, where frontages were often intensively built upon and/or cellared during the Post-Medieval and modern periods. In this particular instance, however, the upgrading of Newmarket Road into a dual carriageway during the later 1960s subsumed the earlier street front

beneath tarmac; the degree of archaeological preservation in this area is therefore unknown. Recent studies of medieval housing (*e.g.* Grenville 1997; Quiney 2003; Pearson 2005; Grenville 2008; Johnson 2010) have demonstrated that the plot head comprised the primary location for the principal dwelling in most contemporary properties. This work has also shown that the most common form of non-rural housing during the medieval period consisted of a two storied timber-framed structure with a shop or working area on the ground floor and a *solar*, or sleeping chamber, above (*e.g.* Schofield 1997, 132 & 142). At the present site, the rear portion of a structure that may well have conformed to just such an archetype, **Building 5**, was identified. This was situated at the head of *Plot VI*. Here, the structural sequence appears to have commenced in the late 13th or, more probably, early 14th century when an earth-fast post-built structure – represented by postholes **F.642**-**F.646** – was constructed. This was later replaced by a more complex, timber-framed building that was founded upon substantial clunch-built sill wall **F.103**. The transition in building form most probably occurred during the 15th century, when – somewhat unusually – the structure also appears to have been partially reduced in size. A probable bread oven (**F.649**) was situated immediately to the rear of the building, but, intriguingly, no additional domestic features were identified.

Building Number	Building Type	Construction Type	Date	Plot Number
B1	Accessory – kitchen block?	Earth-fast post	13th-15th century	I
B2	Accessory – partially cellared	Earth-fast beam	14th-15th century	II
B3	Accessory – kitchen block?	Earth-fast post	14th century	IV
B4	Accessory – kitchen block?	Stone-built sill wall	13th-15th century	V
B5	Primary – frontage dwelling	Stone-built sill wall	14th-15th century	VI(A)
B6	Accessory – partially cellared?	Earth-fast post?	15th century	VI(C)

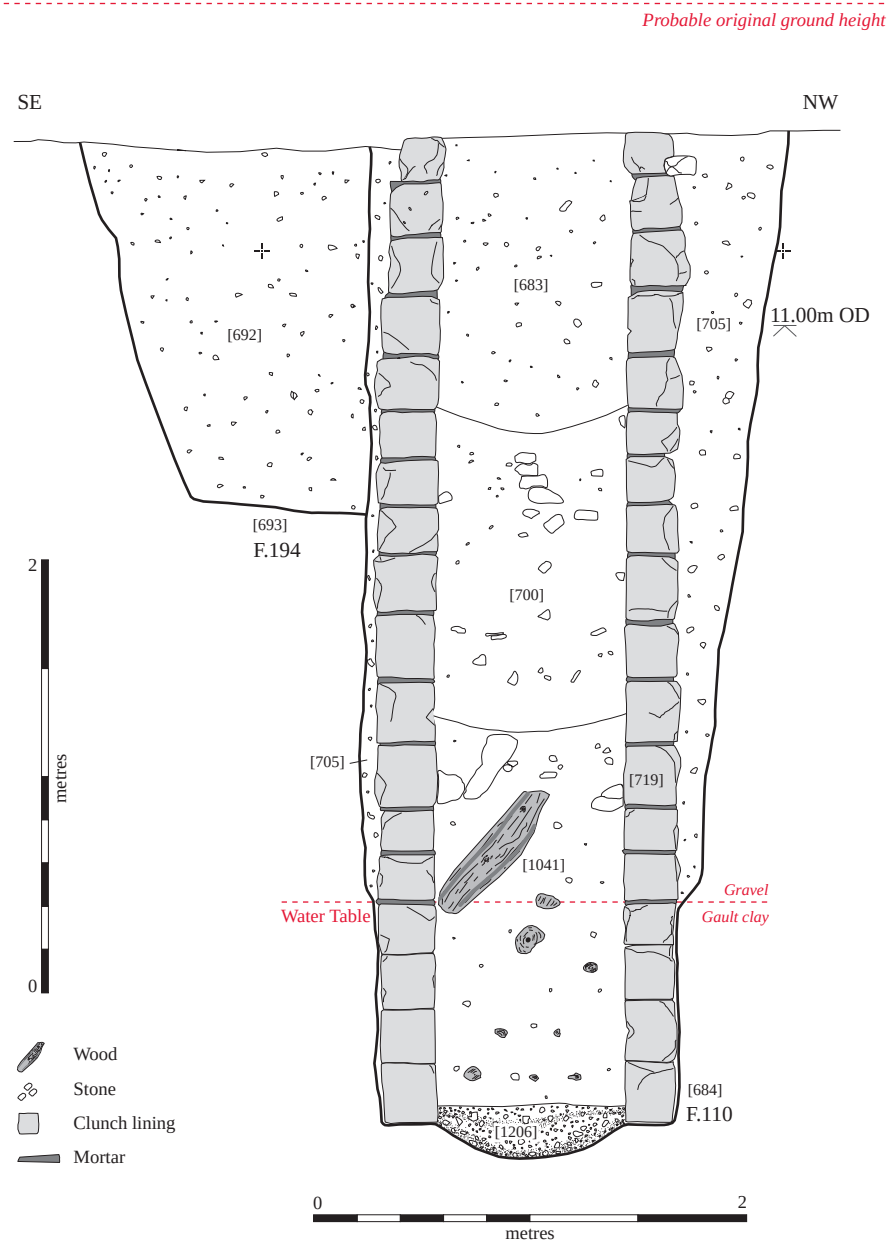
Table 3: Identified medieval buildings (see Figure 10)

Accessory buildings, situated to the rear of the principal dwellings that occupied the heads of their respective plots, were much more widely represented at the site. **Buildings 1** and **3**, for example, most probably represent ancillary kitchen buildings. Both comprised relatively ephemeral earth-fast post-built structures that were situated in close proximity to domestic bread ovens (**F.49**-**F.51** in the case of the former, **F.345** in the case of the latter). **Building 4** may also have fulfilled a similar function but was rather more substantially constructed, employing a mortared clunch sill wall (**F.207**) to support a timber-framed structure above. In contrast, **Building 2**, although situated in a comparable location to the rear of a primary frontage structure, was constructed very differently. This building was partially cellared, its floor lying *c*. 0.5m below the contemporary surface level. Three substantial timber joists (two of which were robbed by **F.299** and **F.300**) appear to have supported an original plank floor, which in the 15th century was replaced by a well-laid metalled surface (**F.298**). Given the substantial nature of its foundations, **Building 2** may itself have been of two storeys, with its lower portion acting as a workshop or storage area. Also partially cellared, but less substantial in scale, was **Building 6**. This structure appears to have been post-built, but fewer details of its form could be discerned as it had been extensively robbed in the 15th century (by **F.216**). Given its close association with a group of industrial features, **Building 6** was again most probably workshop or craft-related. A further accessory structure may also have been present in close proximity to **Building 6**. Although no definite evidence for the existence of this structure was

identified *per se*, the regular disposition of the surrounding features strongly suggests that they were arranged around the perimeter of a central building.

One notable feature of **Buildings 1** and **3** is the profusion of postholes by which they are represented. This is a consequence of their form of construction, since the lifespan of medieval buildings employing earth-fast techniques was typically only around twenty to forty years (Bowsher *et al.* 2007, 317–18; Horsman *et al.* 1988). Such structures therefore required frequent episodes of maintenance/rebuilding, with the result that their positions may also have gradually shifted over time. A second, equally common medieval construction technique that was notable by its absence from the Eastern Gate Hotel site was the utilization of earth-fast sill beams. This technology, which involved the construction of a timber-framed structure supported upon relatively ephemeral horizontal earth-fast timbers, began to be utilised *c*. 1180 (Walker 1999; Schofield & Vince 2003, 109). Because sill beams generate a less substantial archaeological footprint than postholes, their remains are consequently more susceptible to later truncation. It is therefore possible that the otherwise 'blank' space situated towards the head of *Plot III*, which closely corresponds to the position in adjacent plots that is occupied by accessory **Buildings 1**-**4**, may once have marked the location of just such a structure. The same may also be said of *Plot VI*, where the presence of buildings might have precluded the excavation of deep or substantial features such as pits, although such a scenario appears much less likely in this instance given the almost total absence of additional domestic features.

To the rear of the majority of accessory buildings lay an array of easily accessible features related to everyday, practical necessities. Prime amongst these were wells and cesspits. In general – especially within *Plots I-IV*, and to some extent *Plot V* – a high degree of spatial patterning is apparent, with these feature-types occupying a discrete zone that extended up to 20m behind the accessory buildings (Figure 10). The exceptions to this pattern, which lay towards the rear of *Plots V* and *VI*, were most probably non-domestic in nature, and will be discussed further below. In total, nineteen wells were constructed during Phase II, although only a small number of these are likely to have been in use contemporaneously. Within this group three different types have been identified, the distinction between them being determined by the nature of the material that was selected for their revetment, or lining (technically known as the 'steening'). Although the depth of the 3rd Terrace river gravels rendered access to the underlying Gault clay difficult – with the result that few wells were found to have penetrated any great depth below the water table, and only a small number of anaerobic, waterlogged contexts were encountered – a number of indicators of lining-type remained extant; in only one instance, however, (**F.575**) did remnants of the original organic lining remain *in situ* (see Darrah, below). The three identified categories comprised stone-lined (**F.110**), cask-lined (**F.154**, **F.337** and **F.501**) and wattle-lined (**F.128**, **F.213**, **F.292**, **F.326**, **F.328**, **F.339**, **F.364**, **F.429**, **F.456**, **F.474**, **F.490**, **F.528**, **F.534**, **F.560**, **F.575**). The relative value of these different materials was reflected in both their robusticity and exclusivity. As Chart 3 clearly illustrates, a stone-lining was structurally the most effective, but – because it was also the most expensive – it was consequently the most exclusive. A cask or barrel-lining was also desirable, though relatively uncommon, whilst the majority of wells were lined with wattle. As the least robust material-type the latter was also the most likely to fail, thereby necessitating the well's replacement.



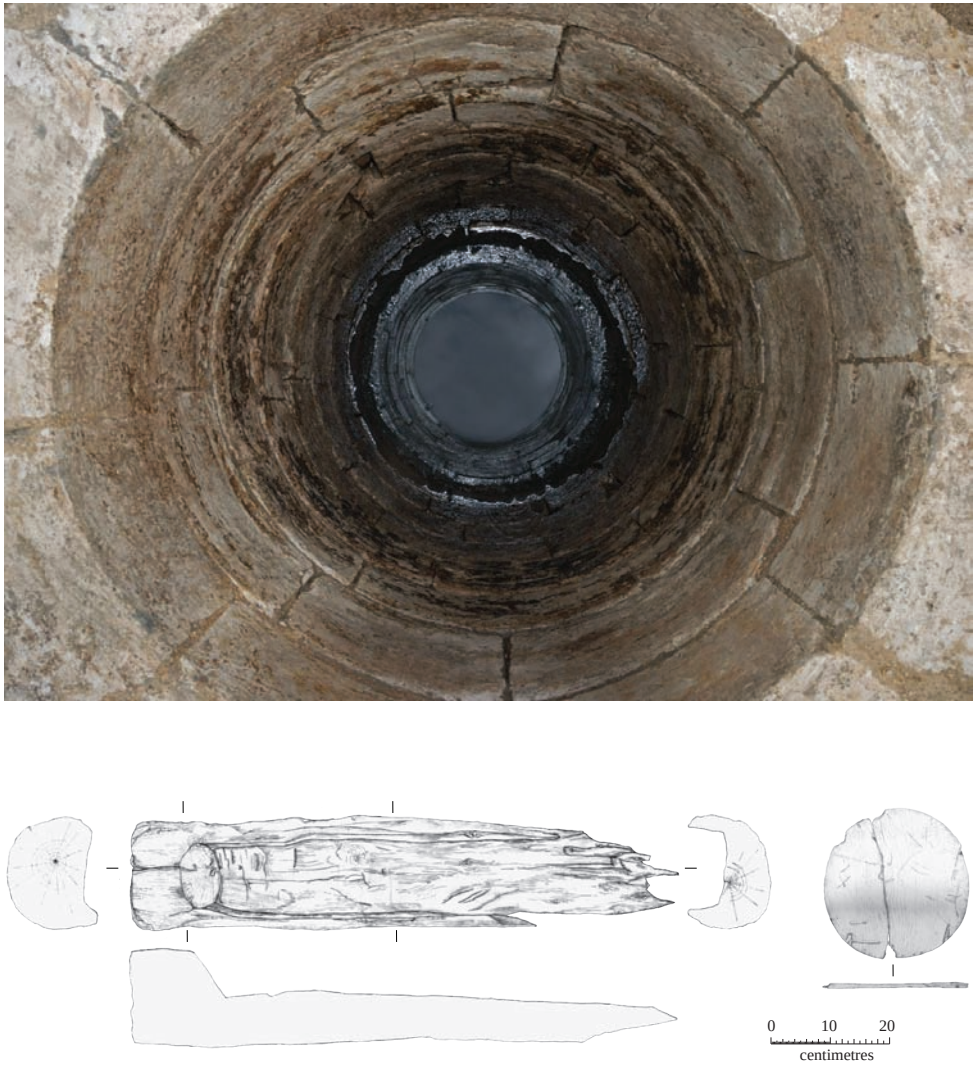


Figure 11. Section and photograph of well F.110, with wooden trough and bucket base below

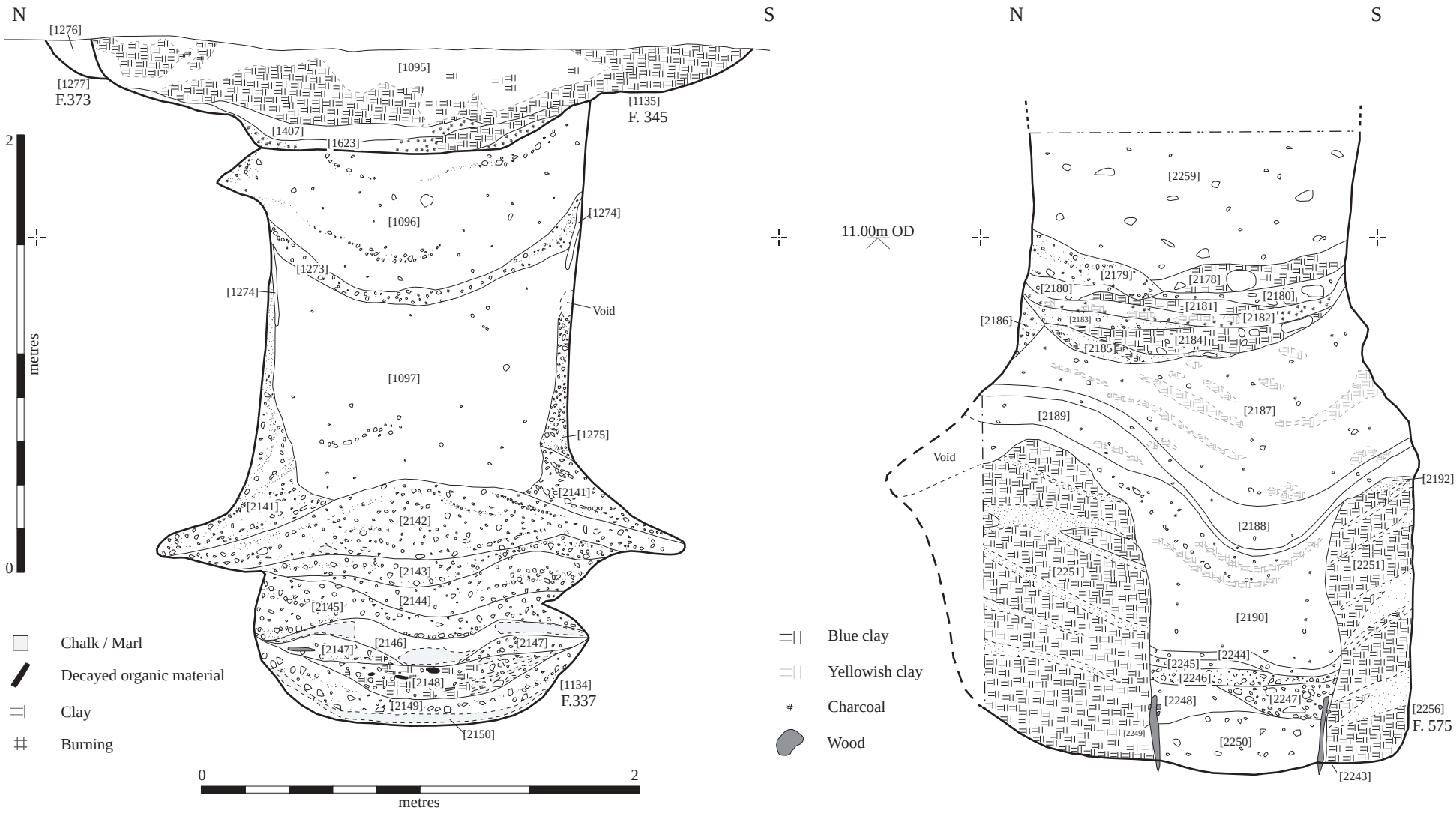


Figure 12. Sections of wells F.337 (left) and F.575 (right)

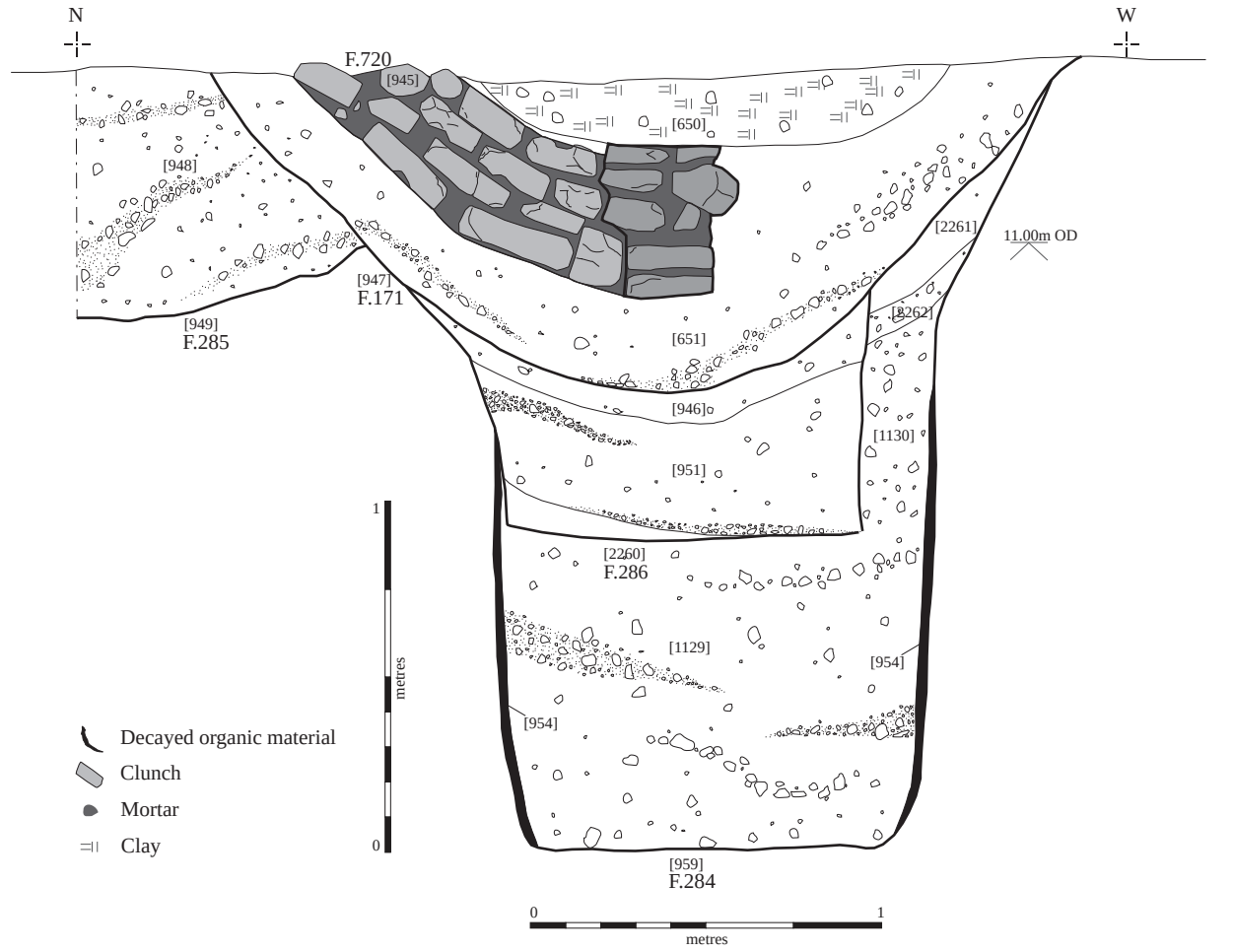


Figure 13. Section and photograph, facing south, of cesspits F.720, F.171, F.286 and F.284

Figure 14. Ovens F.68, facing east (left) and F.49-F.50, facing southeast (right)

Figure 15. Clay-lined tanks F.492, facing south (top) and F.405-06, facing south (below)

Figure 16. Stone-lined tank F.283, facing north (left), with detail of stone lining, facing west (top right) and probable kiln base F.169, facing west (bottom right)

Figure 17. Pits F.89-90 (top) and F.313 (bottom), both facing west

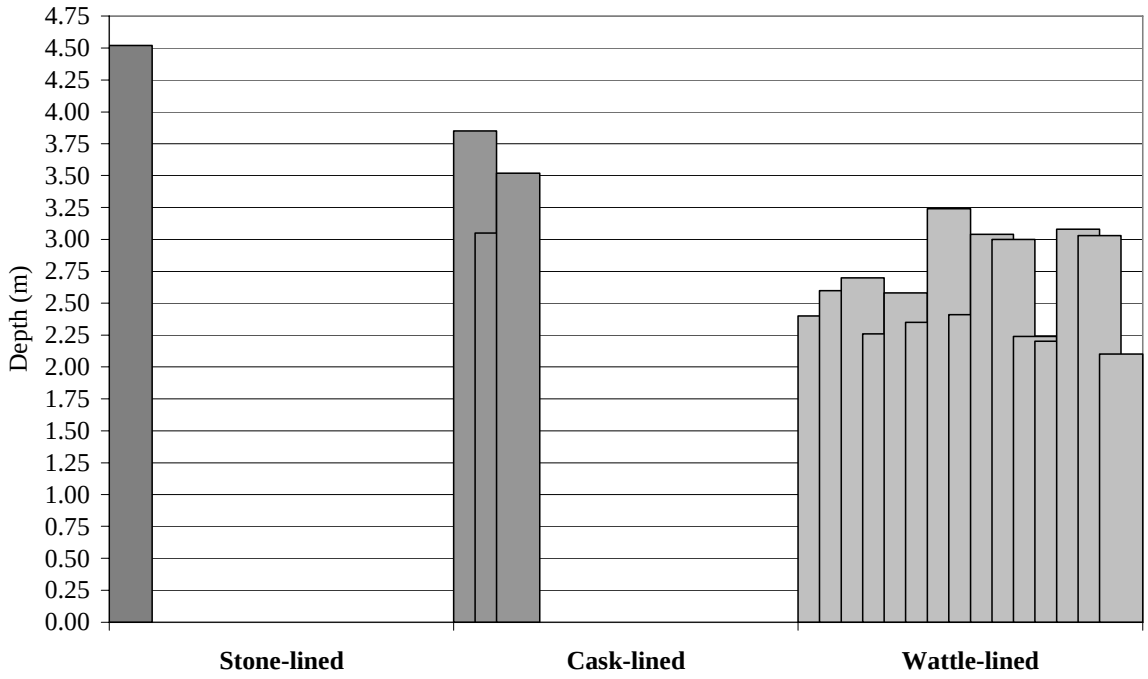


Chart 2: Relationship between well depth and construction material

It appears likely that only one or two wells functioned contemporaneously within any given plot. Thus in *Plot II*, for example, it seems that a gradual rearward progression occurred during the 13th to 15th centuries, with replacement wells being constructed in a broadly linear sequence that gradually extended back from the frontage (although the inherent difficulty of dating with sufficient precision the ceramics that were backfilled into these features once they had gone out of use precludes absolute certainty regarding the order of their abandonment). In the adjacent *Plot III*, the situation is complicated by the longevity of stone-lined well **F.110** (Figure 11). This feature continued in use from the late13th/early 14th century until the mid 15th century (its backfilling being most accurately dated by a number of fragments of cobbling waste; see further Mould, below). During this time it appears to have co-existed at any given moment with one of the three additional wells that were also situated within this property (**F.128**, **F.339** and **F.364**). Such a pattern may indicate that additional water was required – potentially for non-domestic purposes, over-and-above the quantity obtainable from a single well – which might also in turn account for the additional expenditure on a more reliable, and volumetrically more productive, stone-lined well in this plot. The lower number of wells in *Plots IV* and *V* is more difficult to explain, as the degree of activity in these properties was commensurate with that which occurred further to the west. Additional wells may have been situated outside the area of investigation, however, or a communal arrangement may have existed with neighbouring tenants (similar arrangements are recorded in tenancy documents pertaining to Cambridge's urban core during this period).

The longevity of the majority of wells is difficult to determine, as few contained primary construction deposits from which a secure *terminus post quem* can be derived. Moreover, the dearth of substantial waterlogged timbers also precludes detailed dendrochronological analysis. Nevertheless, the linear sequence of well replacement that developed in certain plots, combined with the close chronological

order of their backfilling, is indicative of a relatively short lifespan. For the majority of features, this was almost certainly measured in decades as opposed to centuries, and – in the case of wattle-lined wells, especially – a period of only around twenty to forty years usage was probably typical. The reason for most wells' eventual failure is clearly visible in section (Figure 12). Due to the depth of the 3rd Terrace river gravels at the site, few wells reached the aquifer situated at the uppermost horizon of the underlying Gault clay. Instead, they relied upon water seeping through the saturated gravels along planes formed by the junction of bands of different geological strata. As a result, these points of seepage rapidly became undermined, leading to extensive voids and areas of collapse. The rapidity with which the lining eventually failed was primarily determined by its robusticity. Cask-lined wells therefore appear to have been more successful than wattle-lined examples, although in one instance – **F.575** – a wattle revetment was very effectively reinforced via the addition of an outer clay-lining (Figure 12).

As with wells, the majority of cesspits appear to have been wattle-lined; only a single stone-lined example was identified (**F.720**; Figure 13). Although this pattern is relatively typical for the period, somewhat unusually wells outnumbered cesspits at the Eastern Gate Hotel site by a factor of more than 2:1. Although this discrepancy may in part be attributable to a relatively rapid turnover of wells (as outlined above), nine cesspits nevertheless remains a low number given the apparent density of medieval occupation at the site; moreover, this dearth is also replicated by a corresponding lack of cess-related deposits in secondary contexts such as pit fills (see de Varielles, below). The reason for this anomaly is unclear, but may potentially indicate that the principal period of occupation at the site was relatively short-lived, thereby resulting in a subsequent decline in the requirement for such features. Overall, the disposition of cesspits across the area was relatively uniform, especially in *Plots I-V*, the most notable exception being the absence of a cesspit in *Plot VI* (Figure 10). Perhaps most notably, a series of three successive cesspits was identified in *Plot IV* (Figure 13). Here, the sequence commenced with **F.284**, which was square in form and lined with wattle (the latter being represented archaeologically by a decayed organic deposit situated around the pit's perimeter). Although undated, this cesspit was most probably 14th/15th century in origin. **F.284** was subsequently recut by a similar, albeit somewhat smaller and shallower, square-shaped pit – **F.286** – which was in turn backfilled during the 16th century. The preceding sequence was then partially robbed, by **F.171**, before finally being capped by clunch-built cesspit **F.720**. Despite being relatively well constructed, this latter feature appears to have rapidly subsided into the earlier pits, eventually slumping at a precipitous angle of almost 45° (Figure 13). Clearly no longer of practical use, a clay 'plug' was inserted above this feature's remains, thereby bringing the sequence to a close.

Also of note is late 15th-early 16th century cesspit **F.111**, which appears to have served a dual function. Feeding directly into this feature was contemporary gully **F.325**, and – given this feature's regular, straight-sided profile – it most probably held a timber-lined drain. This indicates that the cesspit also functioned as a soakaway. A very similar arrangement also existed in *Plot V* during the late 15th/early 16th century, where brick-built drain **F.324** fed into soakaway **F.97**. The latter feature contained a minimum of 110 horn cores, along with 37 cattle metapodia, although no evidence of associated cess-rich material was identified; the faunal material appears most likely to have been introduced in order to increase the efficacy of the soakaway. Situated in

close proximity to **F.97** – and most probably broadly contemporary with it – was pit **F.540**, which contained in excess of 3200 oyster shells. Substantial deposits such as these, which were restricted to an exclusive set of material-types, are unlikely to have been domestic in origin. Instead, they most probably represent the by-products of craft/industrial activity. Significantly, a range of features that were potentially utilised for processes of this type – including daub-built ovens (Figure 14) and clay-lined tanks/troughs (Figure 15) – were identified across the site (see Figure 10).

In general, evidence of craft/industrial activity can be identified archaeologically via the close association of function-specific features – such as wells, ovens and tanks/troughs – whose co-relationship indicates that a multi-staged *process*, as opposed to a single repeated *action*, was being undertaken. Whilst an isolated oven, or group of ovens, is most likely to have been associated with domestic food production, for example, a more complex arrangement of features suggests that a commensurately more complex operation was being enacted. Just such a grouping of associated 'industrial' feature-types was present within the rear portion of *Plot VI* (Figure 10). Here, during the 14th century, ten clay-built ovens (**F.68**, **F.92**, **F.137-9**, **F.151**, **F.321**, **F.391**, **F.473** and **F.538**) and five clay-lined tanks/troughs (**F.81**, **F.198**, **F.347**, **F.356** and **F.376**) were created, along with two wattle-lined wells (**F.292** and **F.474**). The disposition of these features indicates that they were probably situated around the perimeter of a central building, of which no direct structural evidence remained. Although the usage of each individual oven and/or tank in the group appears to have been relatively short-lived, as indicated by their frequent intercutting, it is nevertheless likely that at least one example of each feature-type remained in contemporaneous use throughout. Within oven **F.151** a significant proportion of the original, collapsed daub superstructure was encountered. Examination of this material reveals that the oven initially comprised a flat-floored, dome-like structure with walls up to 0.05m thick. Wattle panels also appear to have been employed in its construction to provide internal reinforcement (see Timberlake, below). In contrast, the majority of clay-lined tanks were square or rectangular in form, although in one instance – **F.356** – a circular shaft had been employed. As the clay-lining did not continue all the way to the base of this feature, however, it is possible that this example represents a failed/abandoned well that was subsequently converted for secondary use.

By the early 15th century the majority of industrial features situated at the rear of *Plot VI* appear to have been abandoned; they were subsequently replaced – or perhaps superseded – by a second industrial complex located a short distance to the north. Here, substantial stone-lined tank **F.283** was created. Internally, this measured 5.1m by 1.05m in extent and 1.2m+ in depth. It was revetted with a single skin of mortared clunch blocks (Figure 16). In addition, situated close by was a heavily robbed and disturbed feature, **F.169**, which most probably represents the remnant of a pedestal-type kiln (Figure 16). An outer mortared clunch foundation surrounded the remnants of a flat-laid, heat-affected mortar surface, upon which a significant build-up of laminated layers of ash and soot had accrued. This latter material is likely to represent the base of a flue-system that had in turn surrounded a central (robbed) pedestal. Kilns of this type were widely used during the Late Medieval period (Musty 1974) and were employed for a range of heat-related processes, ranging from pottery production to corn drying. Also associated with this complex was contemporary wattle-lined well **F.326**. Despite the evident investment in these substantial, stone-built structures,

however, by the mid to late 15th century this second industrial complex had itself been abandoned. Elsewhere at the site, a further industrial zone may have been present towards the rear of *Plot V*. Here, two 14th century wells were encountered lying in apparent non-domestic association (Figure 10), although no other function-specific feature-types were identified. Similarly, additional clay-lined tanks were also identified within the rear portions of *Plots I* (**F.534**), *II* (**F.405** & **F.406**) and *IV* (**F.492**). Once again, however, no evidence of associated features – and hence of a pattern of 'process' as opposed to individual 'action' – was discernible.

The final Phase II feature-type to be identified – pits (Figure 17) – comprised both the most numerous and, in many instances, the most ambiguous of the various categories investigated. This is because fewer than half of these features could be assigned an identifiable function. Initially, the majority of pits are likely to have been utilised as gravel quarries (although the extracted material may only have comprised a by-product of their primary objective). Similar extraction-type activity probably continued throughout much of the period, but would have become increasingly inhibited by two factors. The first is a gradual build-up of horizontal strata overlying the natural gravel, thereby rendering access increasingly problematic. The second is a gradual increase in the overall number of pits; by the 14th century, for example, a pit excavated at random at the site would have been highly likely to encounter an existing feature. Indeed, as Figure 10 shows a relatively high proportion of pits did intercut, implying that the later examples were not primarily extraction-related. Overall, therefore, it appears that quarries account for approximately 25% (or more) of the total corpus of pits. A second function that can be identified in relation to certain pits is refuse disposal. Although very few features contained large deposits of 'robust' refuse – such as ceramics or faunal material – these artefacts would have been dwarfed in quantity relative to the amount of contemporary organic material that required disposal (see Brothwell 1982). Nevertheless, the majority of refuse appears to have been deposited 'opportunistically' within the backfill of features whose primary purpose had already been fulfilled. Primary refuse disposal probably accounted for only around 10% (or less) of the pits investigated.

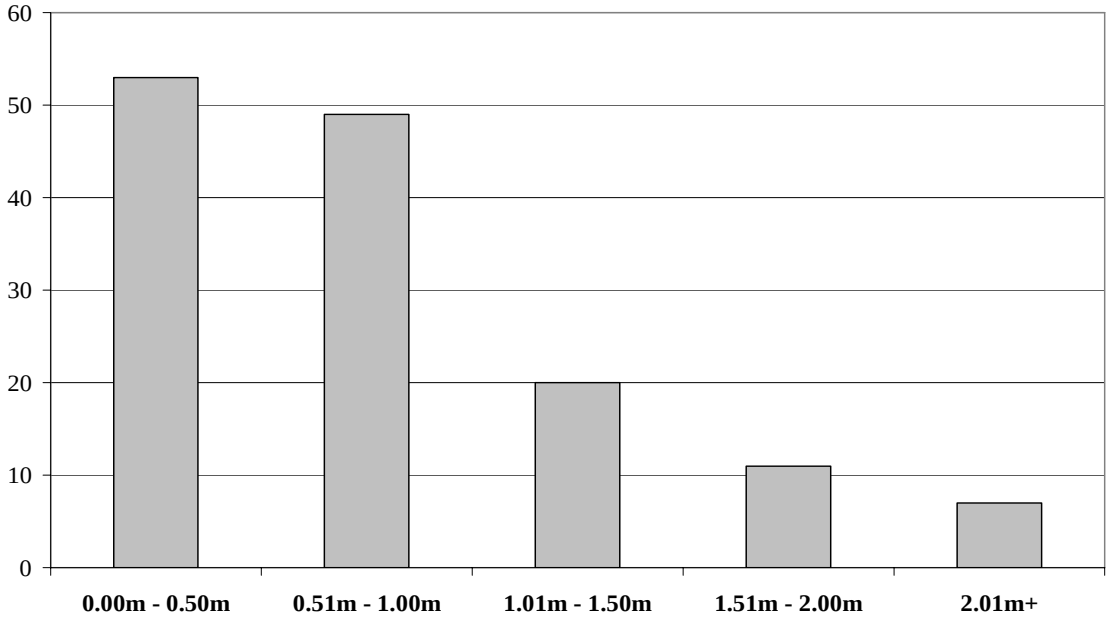


Chart 3: Number of pits by excavated depth

A final pit-category can be individuated. As Chart 3 demonstrates, a number of pits at the site were of considerable depth. Given the unstable nature of the 3rd Terrace river gravels, any feature extending below 1.5m in excavated depth would have required revetment were it not to have rapidly collapsed. A group of features of such depth can be identified that are further characterised by having regular, vertical sides (examples include **F.96**, **F.102**, **F.105**, **F.164**, **F.173**, **F.199**, **F.204**, **F.314**, **F.454**, **F.489**, **F.500**, **F.503** and **F.577**). This indicates that they were originally revetted – although no trace of any timber- or wattle-lining remained extant – and were most probably left open in order to fulfil a specialised function (or functions). This function may have been industrial/craft-related in nature, although that cannot now be determined with certainty. A notable concentration of pits of specialised function can be identified in *Plot II*, and to a lesser extent *Plot III* (Figure 10); significantly, both of these plots also contained a higher than average number of wells, implying that a relationship may have existed between water procurement and specialised activity. None of the specialised pits extended to the depth of the Gault clay, however, and so would not have been capable of retaining water. They thus appear to have comprised a distinct category, separate from clay-lined tanks, but – in common with the latter feature-type – the same basic form of specialised pit was potentially utilised for a variety of functions. Overall, pits of specialised function accounted a little under 10% of the combined pit assemblage.

Although very little horizontal stratigraphy survived from this period, due principally to the intensity of 19th century levelling/horticultural activity, some limited indication of the medieval ground height was identified in section. In *Plot I*, for example, the surface level towards the end of the period appears to have lain at 12.38m OD or higher. This indicates that an overall deposit build-up in excess of 0.7m occurred during Phase II. The additional material is likely to have principally consisted of a 'garden-soil' type layer. Deposits of this kind are frequently encountered at contemporary urban and suburban sites, where they represent an amalgamation of topsoil, upcast material and the disturbed upper horizons of underlying features (*e.g.* Coleman 2004, 303-04). Consistent with is pattern, in *Plot I* rare 'pinnacles' of homogenous dark brown clay silt – **[2312]** and **[2313]** – were identified in section.

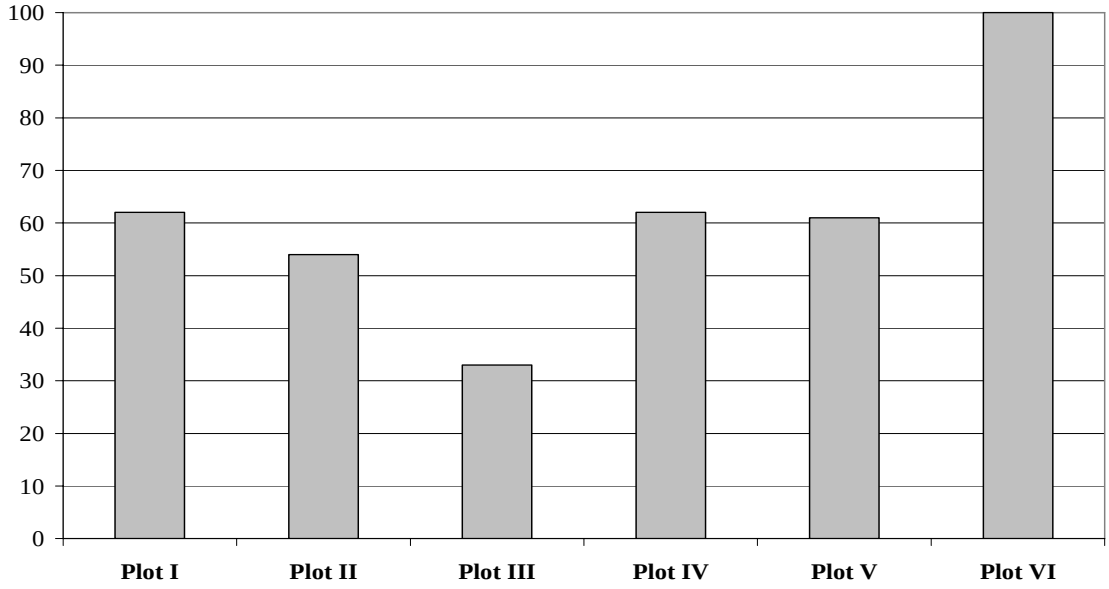


Chart 4: Number of Phase II features by plot

When viewed numerically, the distribution of Phase II features across the site appears relatively uniform; a clear mean of 62 features per plot can be identified (Chart 4). When contrasted with the site plan, however (Figure 10), these figures are revealed as somewhat counterintuitive. Although *Plot VI* was double the width of its compatriots, for example – and might therefore be reasonably assumed to have contained approximately double the number of features – these were in fact densely clustered at the rear of the property, in a manner atypical of the remainder of the site. Similarly, whilst *Plot III* appears on count alone to have comprised the area with the lowest level of activity, in plan there is little or no evidence of a diminution in the density of its features. Instead, the distinction may well be primarily structural in origin, as this was one of the few plots lacking an ancillary post-built structure. A general summary of the most pertinent activity within each plot is presented below.

Evaluation Trenches

Within evaluation Trenches 3, 10, 11 and 13, which were inserted to the east of the excavated area, no medieval features were identified and no residual medieval material culture was encountered. Due to the presence of extensive areas of 19th and especially 20th century truncation, however, these results cannot be regarded as definitive proof of the absence of medieval activity in this area. It is certainly possible that additional industrial features, similar to those encountered in *Plot VI*, were present towards the rear of the area, for example. Nevertheless, the trial-trenching evidence is strongly indicative of a marked diminution in the level of activity occurring to the east of the Eastern Gate Hotel excavation. Moreover, a very similar pattern was also encountered during a recent evaluation conducted at Intercell House, situated on the opposite side of Coldhams Lane (Figure 1, **6**). Here, a number of medieval gravel quarries were present but no evidence of contemporary occupation was identified (Atkins 2012b). This evidence indicates that the latter site lay within the outlying, unoccupied hinterland of Barnwell, where – following the establishment of intensive occupation within the settlement core – extra-mural activities such as gravel quarrying were principally undertaken.

Plot I

This plot appears to have been primarily domestic in focus throughout the medieval period. Notable features include undated ovens **F.49**-**51**, which were situated to the rear of probable kitchen **Building 1**, along with 16th century cesspit **F.26**, 14th-15th century clay-lined tank **F.534**, 14th-15th century specialised pit **F.314** and 14th-15th century well **F.328**. The presence of only a single well in this property is unusual, and highly atypical of the plots situated immediately to the east. As only a portion of *Plot I* lay within the area of excavation, however (Figure 10), it is possible that additional wells were also present beyond the limit of investigation.

Plot II

This plot appears to have been primarily domestic in focus, although it is likely that associated craft/industrial activity also occurred on a limited scale throughout much of the period. Running alongside partially-cellared 14th-15th century **Building 2** was a linear sequence of five successive wells; **F.490** (14th century), **F.528** (14th century), **F.501** (14th century), **F.534** (14th-15th century) and **F.429** (14th-15th century). A further notable feature of this plot is the presence of a distinct group of pits of specialised function – including **F.105** (16th century), **F.173** (14th-15th century), **F.199** (15th-16th century), **F.454** (16th century), **F.489** (15th century), **F.500** (undated) and **F.503** (14th-15th century). Many of these pits lay in close proximity to the above wells, and in several instances appear to have stratigraphically succeeded them. Also present was 16th century cesspit **F.111** and associated drain **F.325**, along with clay-lined tanks **F.5**, (undated), **F.10** (undated), **F.405** (14th-15th century) and **F.406** (14th-15th century). Significant ceramic assemblages were recovered from **F.429**, **F.501** and **F.528**, and a large faunal assemblage was present within **F.454**.

Plot Number	Cesspit (stone-lined)	Cesspit (wattle-lined)	Drain	Gully	Layer	Kiln	Oven	Pit	Pit/posthole	Posthole	Stakehole	Structural (beamslot)	Structural (construction cut)	Structural (foundation)	Structural (robbing)	Structural (surface)	Tank (clay-lined)	Tank (stone-lined)	Well (cask-lined)	Well (stone-lined)	Well (wattle-lined)
I	-	1 *12.5%*	-	-	-	-	3 *20%*	20 *11.9%*	-	25 *22.3%*	10 *90.1%*	-	-	-	-	-	1 *9.1%*	-	-	-	1 *6.6%*
II	-	1 *12.5%*	-	1 *33.3%*	2 *22.2%*	-	-	32 *19%*	5 *100%*	7 *6.2%*	-	2 *66.6%*	-	-	1 *50%*	-	4 *36.4%*	-	1 *33.3%*	-	4 *26.6%*
III	-	-	-	1 *33.3%*	-	-	-	25 *14.8%*	-	3 *2.7%*	-	-	-	-	-	-	-	-	-	1 *100%*	3 *20%*
IV	1 *100%*	5 *62.5%*	-	-	-	-	1 *6.6%*	30 *17.8%*	-	20 *17.9%*	-	-	-	-	-	-	1 *9.1%*	-	1 *33.3%*	-	1 *6.6%*
V(A)	-	1 *12.5%*	1 *100%*	1 *33.3%*	2 *22.2%*	-	-	17 *10.1%*	-	12 *10.7%*	-	-	-	-	-	-	-	-	1 *33.3%*	-	1 *6.6%*
V(B)	-	-	-	-	-	-	-	22 *13.1%*	-	-	-	-	-	-	-	-	-	-	-	-	2 *13.2%*
VI(A)	-	-	-	-	5 *55.5%*	-	1 *6.6%*	3 *1.8%*	-	9 *8%*	1 *9.1%*	-	1 *100%*	1 *100%*	-	-	-	1 *100%*	-	-	-
VI(B)	-	-	-	-	-	-	-	-	-	3 *2.7%*	-	-	-	-	-	-	-	-	-	-	-
VI(C)	-	-	-	-	-	1 *100%*	10 *66.6%*	19 *11.3%*	-	33 *29.5%*	-	1 *33.3%*	-	-	1 *50%*	1 *100%*	5 *45.4%*	-	-	-	3 *20%*
Total	**1**	**8**	**1**	**3**	**9**	**1**	**15**	**168**	**5**	**112**	**11**	**3**	**1**	**1**	**2**	**1**	**11**	**1**	**3**	**1**	**15**

Table 4: Phase II feature-types by plot, with percentages per feature-type in italics

Plot III

This plot most probably saw a very similar mixture of occupation and light craft/industrial activity to the adjacent *Plot II*. Its most notable feature comprised stone-lined well **F.110** (late 13th-mid 15th century), which appears to have been used contemporaneously with additional wells **F.364** (13th-14th century), **F.128** (14th-15th century) and **F.339** (14th-15th century). Stone-lined well **F.110** represented a substantial economic investment. Its constituent materials were purpose-made, in contrast to the majority of stone-lined wells which employed reused material (especially following the dissolution of the monasteries in the mid 16th century). In all, it contained in excess of 136 clunch blocks, although no timber baseplate was present. Typically, during the 13th/14th centuries stone-lined wells such as this were predominately restricted to urban contexts, where they may have been used communally by several properties. A similar, although less well-constructed, 15th century clunch-lined well has been excavated in Chesterton, however (Cessford with Dickens 2004, 132-3). This was less than half the depth of **F.110**. Close by to this feature were situated pits of specialised function **F.96** (undated), **F.102** (15th-16th century) and **F.204** (undated). In addition, to the rear of the property a distinct cluster of 13th to 15th century pits was present. Significant ceramic assemblages were recovered from **F.128** and **F.339**, and large faunal assemblages were present within **F.96**, **F.105** and **F.110**.

Plot IV

This plot appears to have been primarily domestic in focus throughout the medieval period. Notable features include wells **F.337** (14th-15th century) and **F.456** (14th century). Also present were wattle-lined cesspits **F.281** (14th-15th century), **F.284** (undated), **F.286** (16th century), **F.462** (15th century) and stone-lined cesspit **F.720** (16th century). Additional features of interest include oven **F.345** (14th-15th century) and clay-lined tank **F.492** (16th century). The latter comprised one of the last features to be inserted into a long-lived, discrete cluster of pits situated towards the rear of the property. The distinct absence of features to the south of this group suggests that a building may originally have been present in this location (although a partially-cellared structure was constructed here during Phase III, truncating any potential evidence). In this plot, significant ceramic assemblages were recovered from **F.456** and **F.545**.

Plot V

Activity in *Plot V* can be separated into potentially two distinct zones. The northern half of the property – *Plot V(A)* – appears to have been principally domestic nature (although this pattern may have altered during the late 15th/16th century). In this portion of the plot were situated wells **F.154** (14th-15th century) and **F.560** (14th century), which were located in close proximity to accessory **Building 4**. Also present were cesspit **F.443** (14th-15th century) and specialised pit **F.164** (14th-15th century). A significant ceramic assemblage was recovered from **F.560**. During the late 15th/early 16th century, brick-built drain **F.324** was created, which fed into soakaway **F.97**. This latter feature contained a large quantity of horncores, whilst adjacent pit **F.540** contained a significant quantity of oyster shells. Together, these features may presage a transition from principally domestic to associated industrial usage of the area, a pattern which also appears to have continued during the succeeding phase. To the rear of *Plot V* a second discrete zone can be identified; *Plot V(B*). Here were situated wells **F.213** (14th-15th century) and **F.575** (13th-14th century), along with specialised pit **F.577** (15th century) and a discrete and relatively regular cluster of additional pits. In parallel with the rear of the adjacent *Plot VI*, it is possible that a discrete zone of craft/industrial activity was situated in this area during Phase II. A later, partially-cellared Phase III building has removed any potential evidence of shallow features such as ovens and postholes, however.

Plot VI

Plot *VI* was most probably established during the late 13th or early 14th century, around a century later than activity first commenced within the five plots situated further to the west. Moreover, a very distinct spatial segregation is discernible between the rear of this plot – which appears to have functioned as a craft/industrial area, with little or no domestic association – and the frontage, which appears to have been the subject of only minimal activity. As *Plot VI* was almost double the width of its neighbouring properties, it is possible that this frontage zone was divided into two elements (*Plots VI(A)* and *VI(B)*). Such an interpretation is potentially supported by the location of **Building 5**, hard up against the property's western boundary. The function of this structure is

unclear however, as – with the exception of oven **F.649** – little or no evidence of domestic occupation was identified. A very similar pattern was also repeated within *Plot VI(B)*. To the rear of this property, however – in *Plot VI(C)* – a much more intensive pattern of activity was identified. Here, during the 14th century, nine clay-built ovens (**F.68**, **F.92**, **F.137-9**, **F.151**, **F.321**, **F.391** and **F.538**) and five clay-lined tanks (**F.81**, **F.198**, **F.347**, **F.356** and **F.376**) were established, along with two wells (**F.292** and **F.474**). The location of these features at the extreme southern end of the plot, along their regular, right-angled alignment to its probable terminus, all indicate that they may have been accessed via a back lane as opposed to being reached through *Plots VI(A)* or *VI(B)*. This would account for the apparent 180° rotation of the dominant frontage pattern prevalent in *Plots I* to *V*. Such a lane would also have provided rear access into the neighbouring properties, which by the 14th century may have been rendered difficult from the frontage due to the density of archaeological features discussed above. Subsequently, during the 15th century, the focus of industrial activity in *Plot VI(C)* appears to have shifted slightly to the north, where probable pedestal kiln **F.169** and large stone-lined tank **F.283** were established, along with well **F.524**. Also associated with this second phase of activity was **Building 6**. By the mid to late 15th century, however, activity in *Plot VI(C)* appears to have come to a close.

Phase III: Post-Dissolution Decline (1539-1807)

Relatively few features of identifiably late 16th, 17th or 18th century date were present at the Eastern Gate Hotel site (Figure 18), especially when compared to the plethora of remains that had been created during the preceding phase (*cf.* Figure 10). This result is potentially somewhat skewed, however, by the deep garden-soil deposit that had accrued during the main period of medieval occupation. As a result of this layer's presence, relatively few shallow features – such as pits and/or postholes less than *c.* 1m deep – that may have been created during Phase III would have 'registered' archaeologically. Consequently, the most prevalent Post-Medieval feature-type to be encountered comprised structural remains (Table 5). This is because in many instances the period's brick-built footings were both substantial enough, and robust enough, to survive later truncation. Despite this caveat, however, it is nevertheless apparent that a marked diminution occurred in both the number of features created and the quantity of material culture deposited during this phase. Only three Post-Medieval wells were identified, for example, representing 15% of the number that had been created during Phase II. Similarly, only nineteen Phase III features contained diagnostic or closely datable material culture; the various spotdates pertaining to these features are summarised in Appendix 2.

Feature Type	Number of Features	Percentage of Total
Cellar (brick-built) Cellar (stone-built)	3 1	6.1%
Cesspit (brick-built)	4	6.1%
Drain	8	12.1%
Gully	2	3.0%
Layer	7	10.6%
Pit	10	15.2%
Posthole	7	10.6%
Soakaway (brick-built)	3	4.5%
Structural (construction-cut) Structural (foundation) Structural (surface)	1 15 2	25.8%
Tank/soakaway (timber-lined)	1	1.5%
Well (brick & stone-lined) Well (lining not seen)	2 1	4.5%

Table 5: Phase III features by type

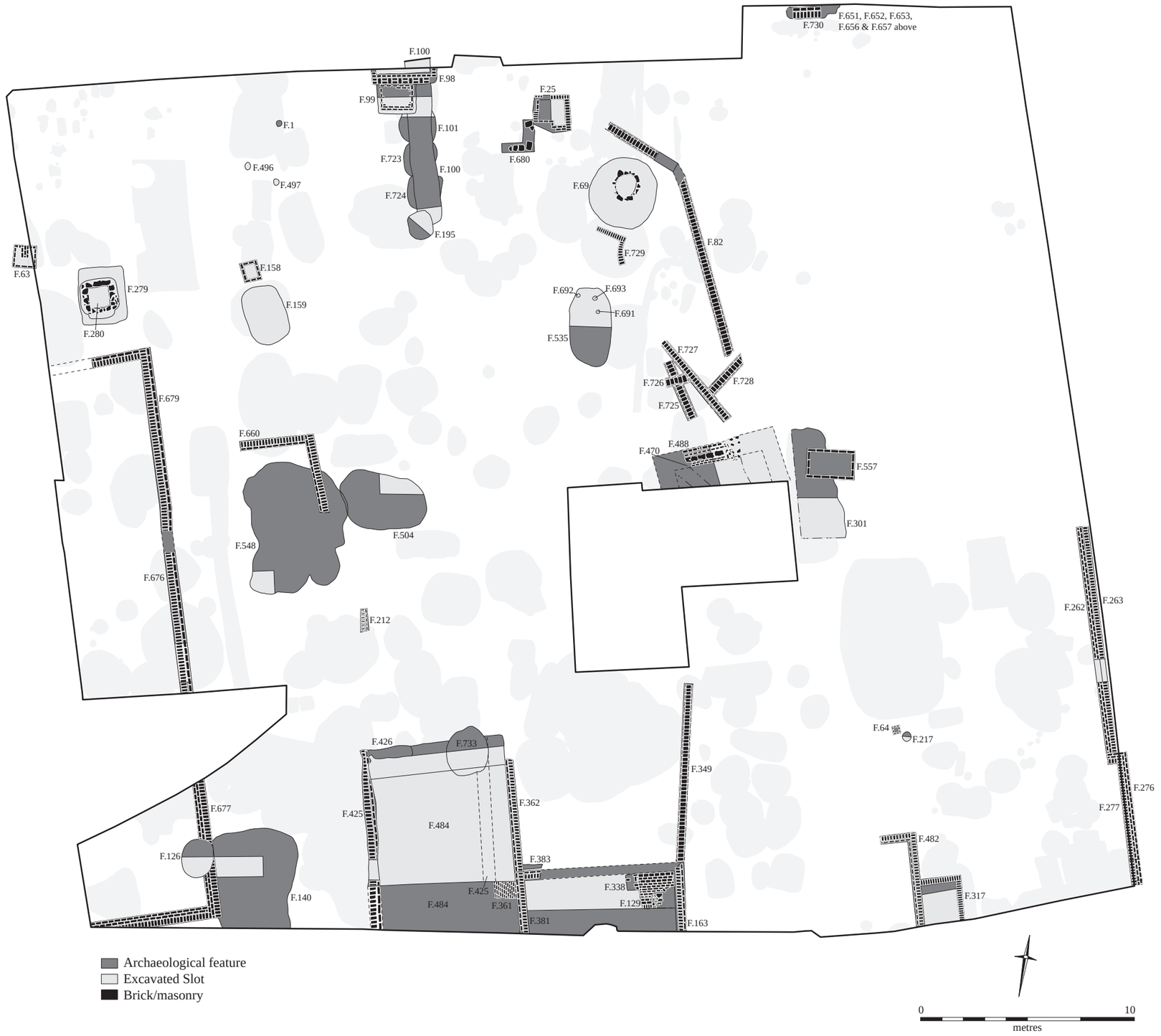


Figure 18. Phase III features

Figure 19. Phase III features with property boundaries and key feature-types highlighted

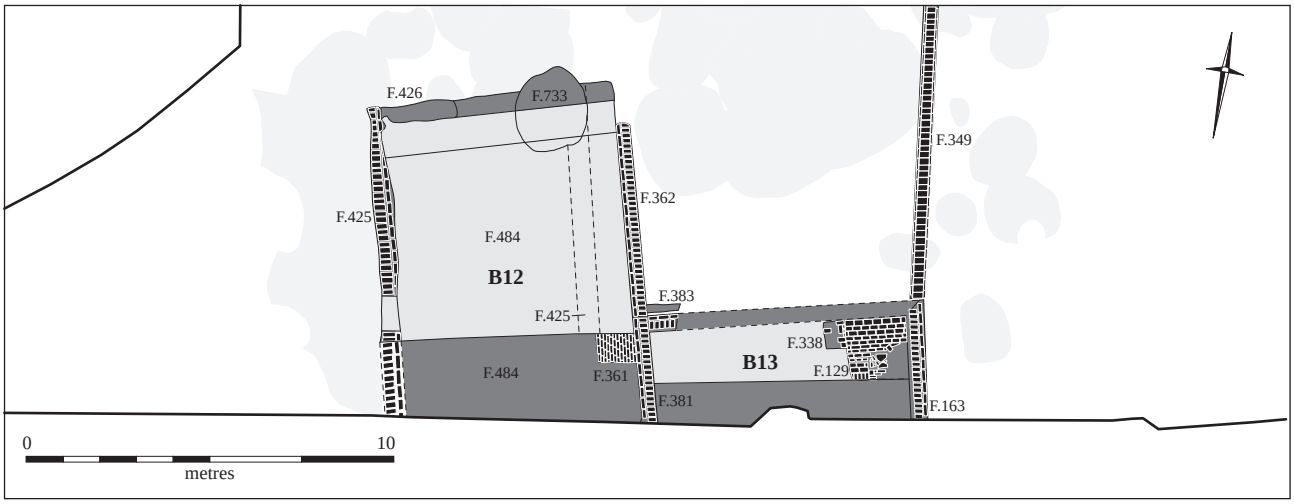


Figure 20. Post-medieval buildings 12 and 13, with photographs of Building 12, facing south (centre), west wall of Building 13 (bottom left) and floor of Building 13 (bottom right)

Whilst, in general, the relative density of occupation appears to have remained quite consistent across the site throughout Phase III, a number of significant changes pertaining to both the organisation and usage of the space occurred. Firstly, by the end of the period the earlier medieval plots had been amalgamated into three larger sub-groups (Figure 19). *Plots I*, *II* and *III*, for example, had been combined into a single, substantial property (*Plot A*), as had *Plots IV* and *V* (which formed *Plot B*). *Plot VI*, meanwhile, had been amalgamated with the remainder of the development area lying to the east, continuing all the way to Coldhams Lane (*Plot C*). The date at which these various amalgamations occurred is unclear, although their final state – as recorded at the commencement of Phase IV – is likely to represent the culmination of a gradual process of piecemeal accretion and apportionment that most probably commenced during the 15th or 16th centuries. Nevertheless, the former medieval plot boundaries appear to have retained at least a limited degree of significance throughout Phase III. Without exception, for example, the identified Post-Medieval buildings respected the pre-existing demarcations (Figure 19). To what degree such topographical distinctions can be relied upon as an indicator of an individual plot's autonomy, however, remains debatable; formal boundaries may have persisted in use long after adjoining plots had been brought into single ownership. A second change that can be discerned relates to the nature of the activities that were undertaken at the site. In contrast to the preceding phase, relatively little evidence of craft-based activity was identified (although this absence may in part be attributable to taphonomic factors). Instead, the dominant characteristic of the area appears to have been domestic in nature.

Building Number	Building Type	Construction Type	Date	Plot Number	Plot Group
B5	Primary – frontage dwelling	Brick-built	17th century?	VI	C
B7	Accessory	Masonry footing	17th-18th century?	IV	B
B8	Primary – frontage dwelling	Brick-built	18th century	III	A
B9	Accessory – workshop?	Brick-built	17th-18th century	V	B
B10	Accessory	Brick-built	17th-18th century	I	A
B11	Accessory	Brick-built	17th-18th century	II	
B12	Accessory – partially cellared	Brick-built	17th century?	III	
B13	Accessory – partially cellared	Brick-built	Late 16th-18th century	IV	B
B14	Accessory	Brick-built	18th century	VI	C

Table 6: Identified Post-Medieval buildings (see Figure 19)

Consistent with this pattern, a wide variety of structures were identified during this phase and the building coverage – or relative percentage of the site covered by buildings (Conzen 1968, 123) – was much greater at this time than had previously been apparent during Phase II (Figure 19). But aside from their multiplicity, perhaps the most notable aspect of the buildings that were constructed during Phase III is the predominance of brick as their primary structural material (Table 6). This pattern is represented very clearly in the case of **Building 5**. Formerly a Late Medieval timber-

framed structure, founded upon a mortared clunch sill wall, **Building 5** appears to have been converted into a brick-built structure at some time during the 17th century; its rebuild employed the same lime-mortared, handmade red bricks that were used almost ubiquitously across the site during this period. This process of conversion formed part of a much more widespread, national pattern of rebuilding that has been identified in many other towns and cities across Britain, such as Norwich, Kings Lynn, Taunton and Exeter (Schofield and Vince 2003, 104-9; see also Brunskill 1990; Johnson 2010, 87-112). More locally, in the Barnwell Gate suburb – at the Christ's Lane site – the earliest building to be reconstructed in brick employed material imported from the Low Countries during the 16th century (Newman 2007, 64-5). Such transitions – which have been referred to as comprising a 'Brick Threshold' (Lucas 1997) – were much more common during 17th century, however, with particularly intensive episodes of 'great rebuilding' occurring both before and after the English Civil War (Platt 1994). At the Eastern Gate Hotel site, the majority of the Phase III buildings appear likely to have originated during one of these latter two periods.

Situated towards the frontage of *Plot IV*, **Building 7** was represented by the partial remnant of an 'L-shaped' mortared clunch foundation. Relatively ephemeral in form, this structure most probably comprised an accessory building situated to the rear of a principal frontage dwelling. It dates on stratigraphic grounds to the 16th century or later. Adjacent to **Building 7**, at the head of *Plot III*, lay **Building 8**. In contrast to its near neighbour, **Building 8** represents the rear portion of a substantial, cellared frontage dwelling. Constructed during the late 17th/early 18th century, cellar **F.98** extended to a minimum depth of 2.2m. Unfortunately, this building could not be investigated in detail as it primarily extended beyond the limit of excavation. Elsewhere at the site, a rather different type of structure was identified in *Plot V*. Here, a substantial brick-faced wall with a clunch rubble core – **F.488** – was present. This represents the remnant of a small, partially-cellared structure with a rammed clay floor, the latter of which was situated approximately 1.5m below the contemporary ground level (at 11.19m OD). Although most probably 17th century in origin, **Building 9** was extensively truncated during the mid 20th century and little of its original form or function can now be determined. Nevertheless, given its location in the centre of the plot, along with its contemporaneity to an adjacent area of potential industrial-type activity (discussed further below), the structure appears most likely to have been functional as opposed to domestic in nature. Two further structures – **Buildings 10** and **11** – occupied similar locations within *Plots I* and *II*. In both instances, their foundations were substantial – extending up to 1.1m in depth – and, in the case of **Building 10** in particular, their footprints were potentially quite sizable. Indeed, the latter building – which measured 26.6m by *c*. 7.2m in extent – was of sufficient scale to have comprised a barn or similar, storage-related structure.

To the rear of *Plots III*, *IV* and *VI* (and thus also within *Plots A*, *B* and *C*), four further buildings were present (Figure 19). Their disposition, extending back into their respective plots for differing distances, strongly implies that all four respected a single, uniform boundary, the location of which equates almost precisely with the putative back lane previously identified during Phase II. Moreover, these structures also appear to have been largely domestic in nature, potentially comprising small labourer's cottages. The earliest, **Building 13**, was most probably constructed during the late 16th/early 17th century. Partially-cellared in form, its construction utilised a large number of reused, unmoulded clunch blocks (Figure 20), although the majority

of these were subsequently robbed during Phase IV. A partial remnant of **Building 13**'s flat-laid brick floor – **F.129**, which had been repaired/relaid on several occasions – lay at 10.95m OD (approximately 1.7m below the contemporary ground height). Immediately adjacent to this building, during the 17th century a second partially-cellared structure – **Building 12** – was constructed. Although larger in area than its compatriot, this building was very similar in form. Entirely brick-built (Figure 20), it contained a contemporary internal well – **F.733** – that appears to have been connected to a hand pump as opposed to remaining an open shaft. **Building 12**'s initial floor height lay at *c*. 11.0m OD but during the 18th century the primary surface was removed, the cellar partially backfilled and a second, tile-built floor (**F.361**) introduced at 11.45m OD. At the rear of *Plot VI* two additional structures, **Buildings 14** and **15**, were also present. Although again most probably 17th-18th century in date, and highly comparable in terms of both size and location to **Buildings 12** and **13**, neither of the former of structures had been cellared, and their remains were consequently very heavily truncated.

Although, based upon the above evidence, it appears at first sight that the number of buildings in use at the site increased markedly during the 17th century – especially towards the rear of the various properties – this impression may be deceptive. It is possible, if not indeed probable, that a number of these 'new' structures represent the replacement/reconstruction of a pre-existing, potentially Phase II, building utilising newly available structural materials. In such a context, partially-cellared **Buildings 12** and **13**, for example, would have almost certainly have removed all trace of any shallower, timber-built antecedents. Similarly, were a structure such as **Building 10** to have replaced a timber-framed forebear, then this initial, putative structure might well have employed an earth-fast or sill wall-based technology. Any such remains would then have been eminently prone to truncation during the insertion of substantial brick-built footing **F.676**-**9**. The area within which such conjectural, 'undetected' medieval buildings are most likely to have been situated is at the rear of the properties. Here, there is circumstantial evidence indicating that a back lane was in existence by the early 14th century. This laneway would have provided a probable secondary frontage for the medieval plots, albeit one of much lesser significance than Newmarket Road itself. Yet this area also saw the greatest level of subsequent truncation, both in the form of Post-Medieval brick-built structures (**Buildings 12**-**14**) but also mid 20th century terracing associated with the construction of a loading bay. Therefore, any potential evidence of pre-existing buildings located in this area might very well have been removed without trace.

In addition to buildings, three wells were present at the site during Phase III. Two these, **F.69** and **F.280**, were situated towards the northern end of the excavated area. Both were primarily constructed from reused clunch blocks, intermixed with smaller quantities of handmade red brick, and both were most probably inserted during the late 16th/early 17th century. In *Plot V*, well **F.69** was roughly circular in form. Although partially robbed during Phase IV, by **F.70**, the lower portion of its shaft was relatively well-preserved (Figure 21). This was constructed from an admixture of mortared brick fragments and trimmed clunch blocks, the majority of which showed signs of weathering and/or bore traces of residual mortar from a previous use. This evidence implies that the blocks were most probably salvaged from a nearby structure following the dissolution of the Barnwell Priory in 1538. No moulded or decorated fragments were identified. Despite its relatively robust construction, this well only

appears to have remained in use for around a century as it was backfilled in *c*. 1660-1700. To the west, in *Plot I*, contemporary well **F.280** was rather different in form. Square as opposed to circular in plan, this structure employed a higher quotient of reused clunch ashlar in its construction (Figure 22). The use of this latter material may in part have determined its form, since within a square well the constituent blocks did not require additional modification prior to their reuse. As in well **F.69**, the majority of blocks showed evidence of weathering and/or residual mortar traces. Unlike **F.69**, however, **F.280** continued in use throughout Phase III. During the mid to late 18th century, its formerly open shaft was vaulted over, by **F.279** (Figure 22), and a hand pump was most probably installed. The well finally went out of use during the mid to late 19th century, when it was backfilled with clay.

Although a third 17th century well was also identified – **F.733**, which was located within **Building 12** – few details of its form or extent could be determined. This is because during the early 19th century, when **Building 12** was demolished, the well-shaft was extensively robbed and the resultant void backfilled with a mixture of clay and rubble (thereby precluding augering). Whilst three Post-Medieval wells represents a remarkably low number for an area as sizable as the Eastern Gate Hotel site, the total number that were actually present during this period is potentially underrepresented. As the primary frontage buildings were reconstructed in their new, brick-built form, for example, it is likely that the opportunity was taken to sink additional well-shafts in much closer proximity to the street-front (potentially even within several of the structures themselves). As a result, fewer wells would then have been required within the property tails. Moreover, the gradual amalgamation of properties that occurred during Phase III indicates that a reduced population was present; overall, therefore, fewer wells would have been required than had been necessary during the settlement's medieval apogee.

Other Post-Medieval features of note included four brick-built cesspits. These cesspits, which represent the below-ground remnants of external latrine structures, almost exclusively occurred in direct association with buildings. Thus **F.99** (backfilled during the 18th century) was associated with **Building 8**, **F.25** (backfilled during the 17th century) with **Building 7** and **F.317** (also backfilled during the 17th century) with **Building 14**. One additional brick-built cesspit – **F.63** – was situated at the immediate western edge of the excavated area. Consequently, this feature – which was backfilled at the end of the 18th century, and included a significant assemblage of glass and ceramics within its matrix – may also have been associated with an otherwise unidentified structure. A second significant feature-type that occurred exclusively during this period consisted of brick and tile-built drains. Six examples have been identified, all of them situated within *Plot V* (**F.82**, **F.349** and **F.725-8**; Figure 19). These features each had flat-laid peg tile bases along with mortared, brick-built sides, and can be dated on typological grounds to the 17th-mid 18th century (Cessford & Dickens *in prep*.). A minimum of three successive phases of drain could be individuated stratigraphically, thereby indicating that they were associated with a relatively long-lived sequence of activity. Also potentially related to this same sequence was semi-circular flat-laid tile foundation **F.729**, which closely resembles a vat base. Overall, therefore, it appears probable that some form of fluid-based craft/industrial activity was undertaken in this area between the mid 17th and mid 18th centuries.

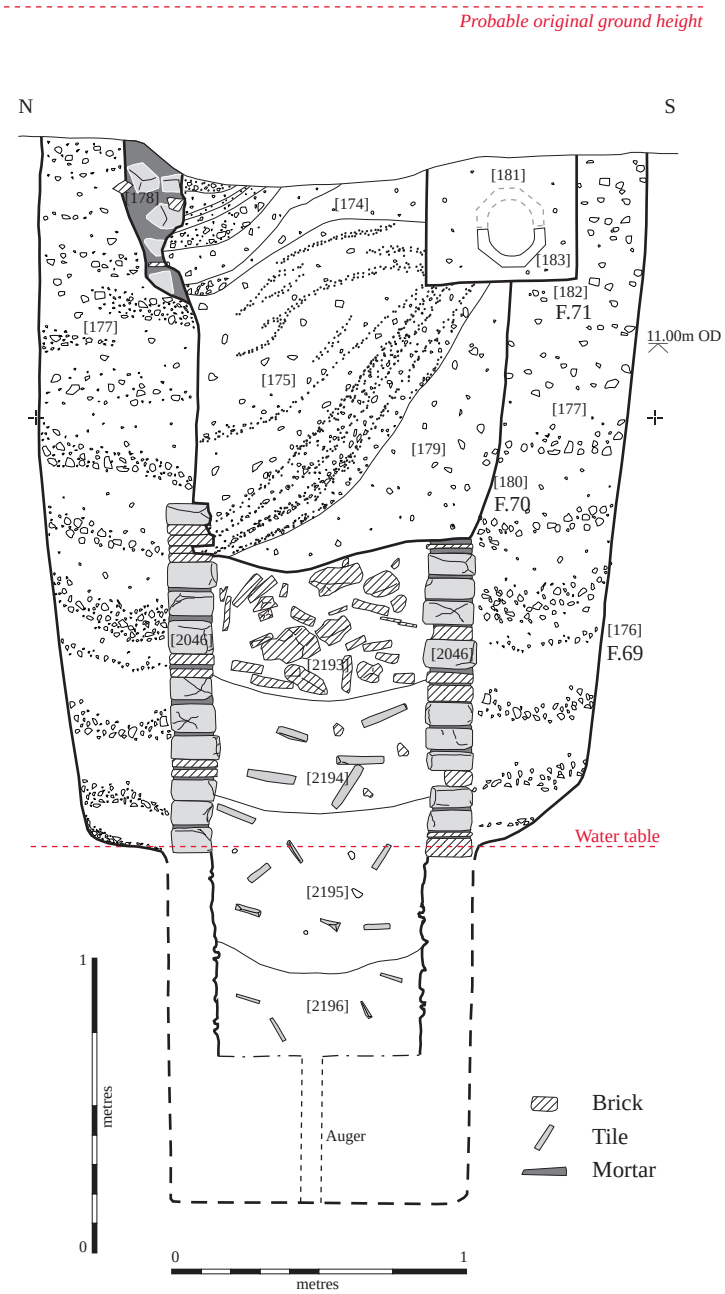


Figure 21. Section and photograph of well F.69

Figure 22. Well F.280, facing south

Although the brick and tile-built drains were exclusively restricted to *Plot V*, in the adjacent *Plot IV* – which also formed part of the subsequently amalgamated *Plot B* – 17th century tank/soakaway **F.535** was present. This feature – within which postholes **F.691-3** were identified, suggesting the presence of an original plank-built revetment – may well have been associated with a similar type of craft-based activity. Elsewhere, however, relatively few pits were encountered (although, as previously highlighted above, this dearth may in part be a result of selective preservation). Where such features were identified, some appear to have had a structural association – such as 17th century **F.548**, which seems to have been related to the foundation of **Building 11** – and others may have functioned as planting beds within more formal open spaces (such as late 18th century **F.159**). By the end of Phase III, the general ground surface at the site appears to have lain approximately 0.3m higher than it had during preceding phase (in excess of *c*. 12.7m OD). This evidence, combined with the lower number of features and smaller quantities of material culture encountered, as well as the overall pattern of gradual plot amalgamation, indicates that a lesser degree of activity took place during Post-Medieval times than had been prevalent during the preceding medieval period.

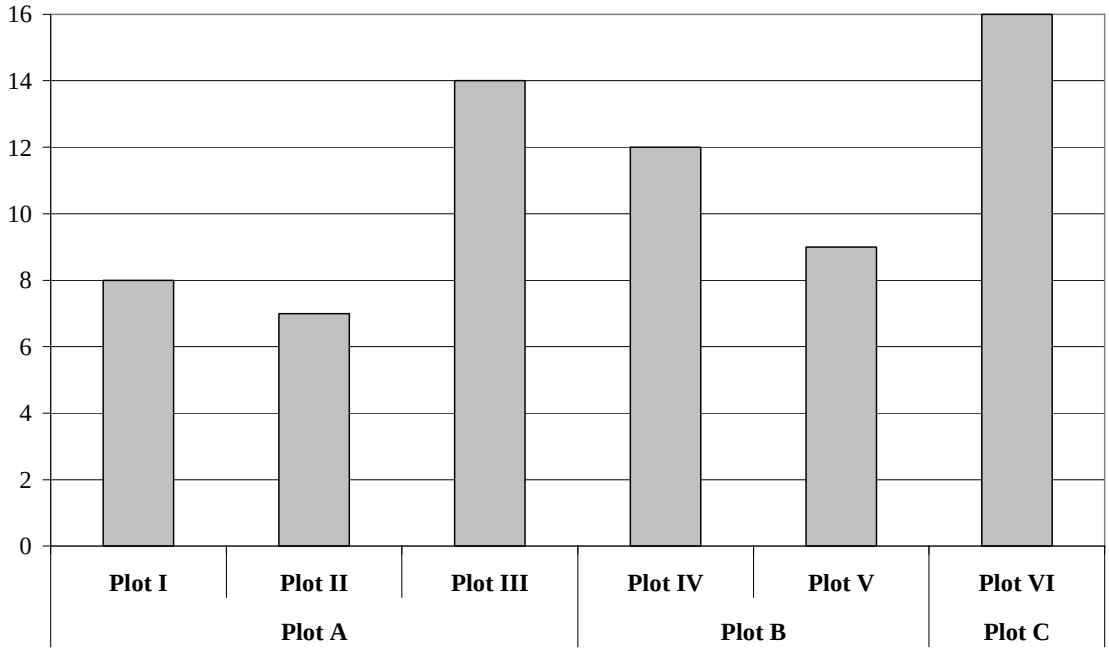


Chart 5: Number of Phase III features by plot

As Chart 5 indicates, the number of features occurring per plot during this phase was much more variable than the relatively consistent pattern previously identified during Phase II (Chart 4). Due to the lower overall quantity of features present during Phase III, however, it is possible that these apparently pronounced differences represent the exacerbation of otherwise relatively negligible variations. A general summary of the most pertinent activity within each plot is presented below.

Evaluation Trenches

Within the evaluation trenches inserted to the east of the excavated area, no Post-Medieval features were identified and no residual Post-Medieval material culture was encountered.

Plot Group	Plot Number	Cellar (brick-built)	Cellar (stone-built)	Cesspit (brick-built)	Drain	Gully	Layer	Pit	Posthole	Soakaway (brick-built)	Structural (construction cut)	Structural (foundation)	Structural (surface)	Tank /soakaway (timber-lined)	Well (brick and stone-lined)	Well lining not seen)
A	**I**	-	-	1 *25%*	-	-	-	1 *10%*	1 *14.3%*	1 *33.3%*	1 *100%*	3 *20%*	-	-	1 *50%*	-
	II	-	-	-	-	-	-	3 *30%*	2 *28.6%*	1 *33.3%*	-	1 *6.6%*	-	-	-	-
	III	2 *66.6%*	-	1 *25%*	-	1 *50%*	-	5 *50%*	1 *14.3%*	-	-	2 *13.3%*	1 *50%*	-	-	1 *100%*
B	**IV**	-	1 *100%*	1 *25%*	-	1 *50%*	1 *14.3%*	-	3 *42.8%*	1 *33.3%*	-	2 *13.3%*	1 *50%*	1 *100%*	-	-
	V	-	-	-	7 *87.5%*	-	-	-	-	-	-	1 *6.6%*	-	-	1 *50%*	-
C	**VI**	1 *33.3%*	-	1 *25%*	1 *12.5%*	-	6 *85.7%*	1 *10%*	-	-	-	6 *40%*	-	-	-	-
Total		**3**	**1**	**4**	**8**	**2**	**7**	**10**	**7**	**3**	**1**	**15**	**2**	**1**	**2**	**1**

Table 7: Phase III feature-types by plot, with percentages per feature-type in italics

Plot A (formerly Plots I, II and III)

By the conclusion of Phase III, former medieval *Plots I, II* and *III* had been amalgamated into a single unit (*Plot A*). Throughout this phase, the area appears to have remained primarily domestic in focus, although the large number of accessory buildings (some of which – such as **Buildings 10** and **11** – resemble potential storage areas or workshops) indicates that additional craft-based or agrarian-related activities may also have been undertaken. In total, along with the rear portion of a cellared frontage structure (**Building 8**), three accessory buildings were present in *Plot A* (**Buildings 10**, **11** and **12**). The latter appears to have been residential in focus; associated with this structure was well **F.733**. To the north of **Building 10** a further, square brick and stone-lined well – **F.280** – was also present. It was most probably constructed during the late 16th/early 17th century. Other notable features included 18th century brick-built cesspits **F.63** and **F.99**, and probable planting bed **F.159** (late 18th century). Two of these latter features – **F.63** and **F.159** – contained substantial late 18th century ceramic and glass assemblages.

Plot B (formerly Plots IV and V)

By the conclusion of Phase III, former medieval *Plots IV* and *V* had been amalgamated into a single unit (*Plot B*). Although domestic occupation appears to have continued in this property throughout the Post-Medieval period, the majority of the archaeological remains that were identified appear to have been industrial in origin. Towards the head of this plot were located accessory **Building 7** and associated brick-built cesspit **F.25** (17th century). Also present were accessory **Building 13** (which was partially-cellared and may have been residential in focus) and **Building 9** (which probably functioned as a workshop or processing area). This latter structure is likely to have been associated with brick and peg-tile built drains **F.82**, **F.349** and **F.725-8**, along with related peg-tile vat base **F.729**. Also contemporary with these features was brick and stone-lined well **F.69** and probable soakaway **F.535**. The precise nature of the activity being undertaken at this time is unclear, although similar vat bases have previously been associated with the processes of both dyeing and brewing. No large or significant ceramic or faunal assemblages were identified from these plots.

Plot C (formerly Plot VI)

By the conclusion of Phase III, former medieval *Plot VI* had been amalgamated into a larger unit (*Plot C*) that included the remainder of the area stretching east from the site up to Coldhams Lane. It appears to have transitioned from predominately industrial to domestic usage during this period. At the head of this property, frontage structure **Building 5** was present; during the 17th century, this structure – which had originally been constructed during Phase II – was rebuilt in brick. Towards the rear of the plot, accessory **Buildings 14** and **15** were also identified. These were less well preserved than the highly comparable structures situated at the rear of adjacent plots, as these examples showed no signs of having been cellared. Associated with **Building 14** was brick-built cesspit **F.317** (17th century). Also present within this plot were boundary/garden walls **F.262-3** and cellar/soakaway **F.557**. No large or significant ceramic or faunal assemblages were identified.

Phase IV: An Expanding 19th Century Suburb (1808-1968)

In contrast to the preceding Post-Medieval pattern of diminution and stagnation at the site, Phase IV corresponds to a significant increase in the level of activity being undertaken. Archaeologically, this increase is represented both by the wide variety of features that were encountered (Table 8; Figure 23) and also the relatively sizable material assemblage that was recovered. Whilst such an increase comprises a relatively common occurrence nationally at this time – a consequence, in part, of the 'consumer revolution' that saw ever greater levels of industrial mass-production throughout the 19th century – it is nevertheless apparent that a number of significant changes took place at the Eastern Gate Hotel site during this period.

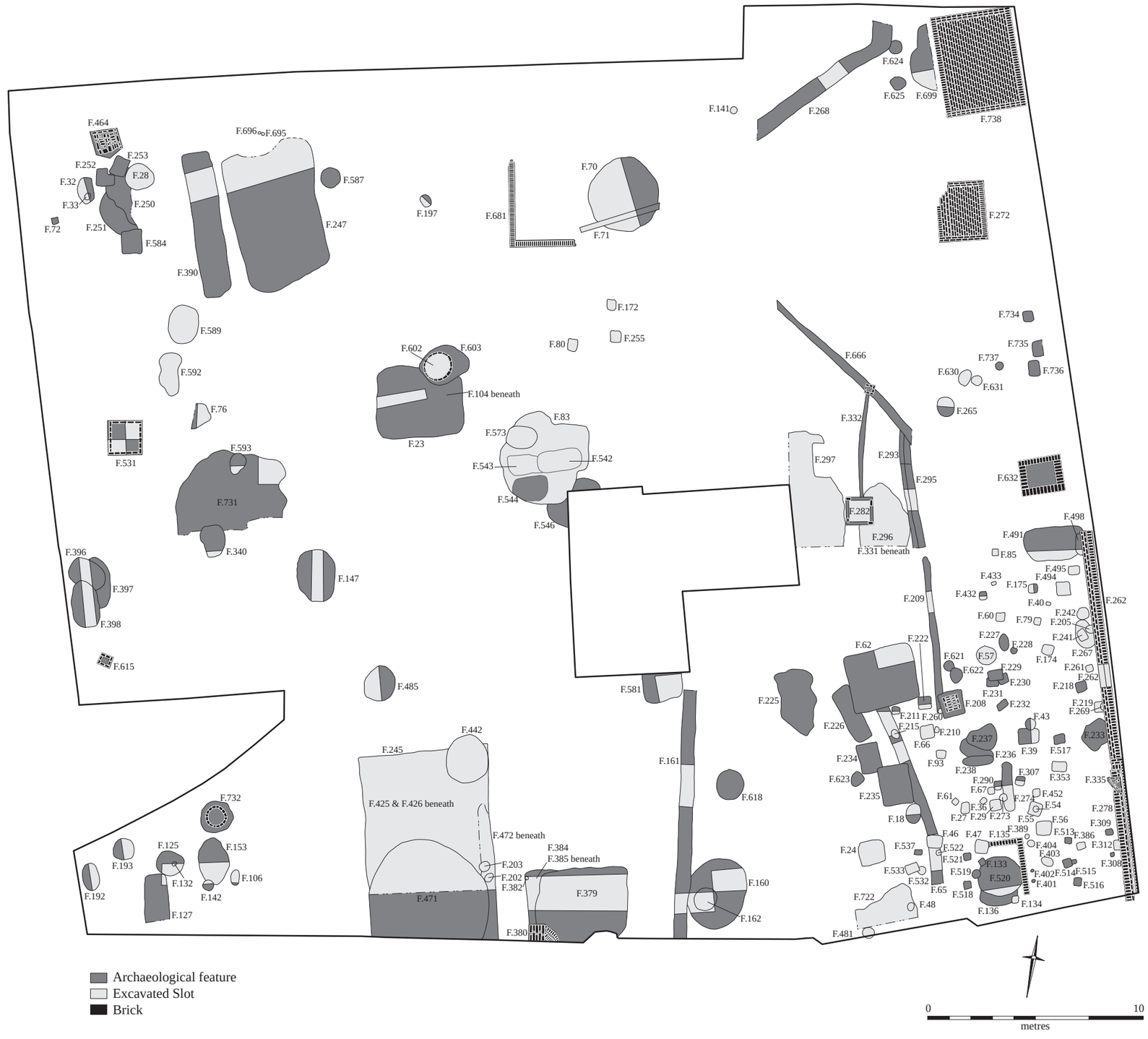


Figure 23. Phase IV features

Figure 24. Phase IV features overlain on the 1885 1st. Edition OS map, with key feature-types highlighted

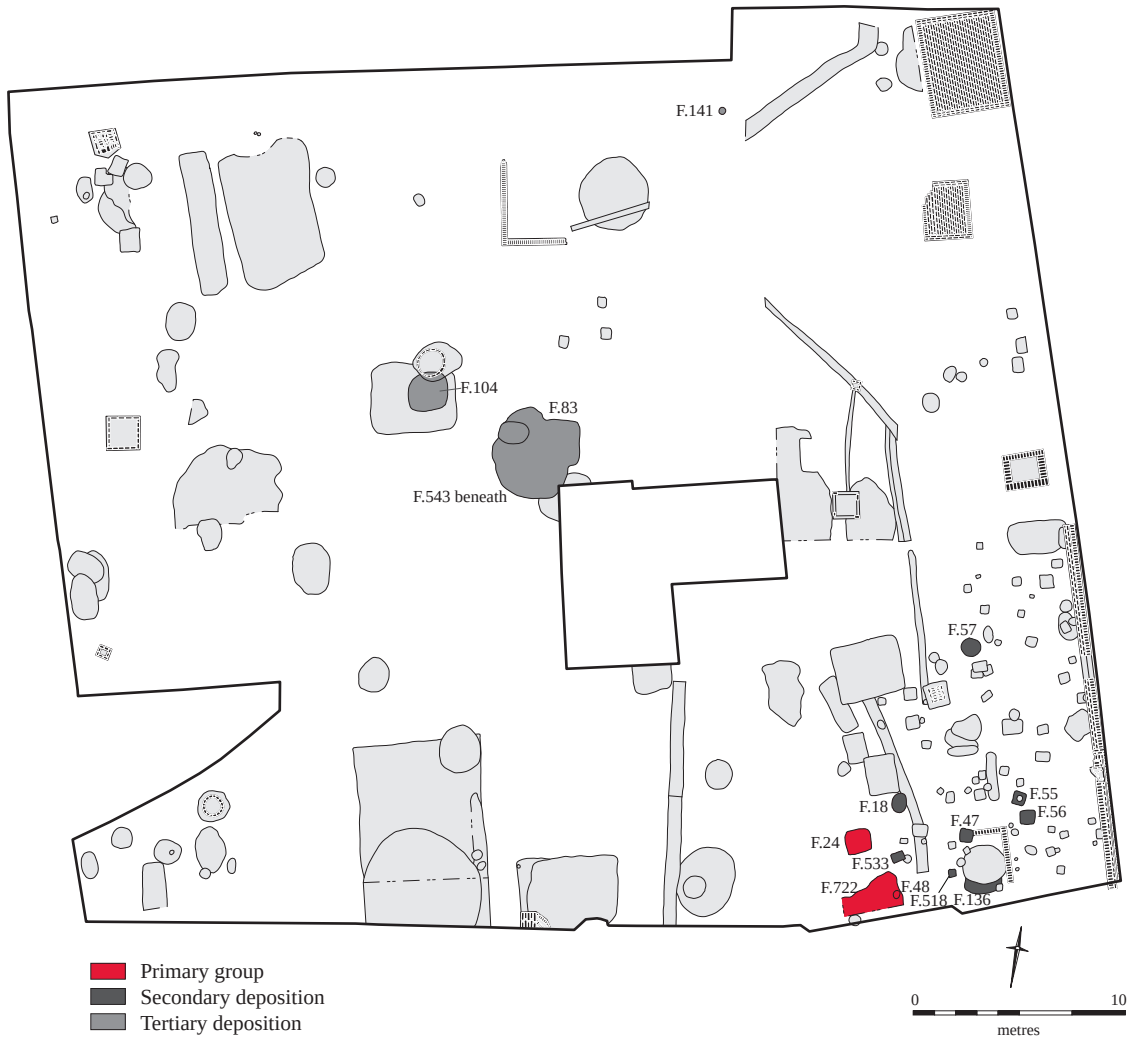


Figure 25. Distribution of Trinity Hall pottery assemblage with photograph of selected elements

Feature Type	Number of Features	Percentage of Total
Cellar (brick-built)	2	1.0%
Cesspit (brick-built)	2	1.0%
Drain	6	2.9%
Layer	15	7.2%
Pit	58	28.0%
Posthole	93	44.9%
Service trench	3	1.5%
Soakaway (cask-lined)) Soakaway (brick-built)	4 5	4.3%
Structural (construction-cut) Structural (foundation) Structural (robbing) Structural (surface)	1 8 7 1	8.2%
Well (brick-lined)	2	1.0%

Table 8: Phase IV features by type

Although the property boundaries employed during this phase remained consistent from those extant at the conclusion of Phase III (*Plots A, B* and *C*), the plots' topography altered markedly and the level of building coverage at the site increased significantly (Figure 24). Moreover, the range and quantity of material culture that was deposited also allows a more nuanced, fine-grained understanding of the developmental sequence to be obtained (the various spotdates pertaining to this phase are summarised in Appendix 2). Nevertheless, despite an overall increase in the number of features identified during Phase IV, a marked bias in the ratio of the different feature-types encountered is also apparent. Consonant with the gradual accrual of horizontal stratigraphy previously highlighted above (Phase III), only a limited range of shallow feature-types were identifiable archaeologically. A significant exception to this pattern occurred in *Plot C*, however. Here a plethora a postholes was encountered, thereby indicating that the localised ground height in this plot had been at least partially lowered during the early 19th century. Yet across the remainder of the site, much the most notable absence – in direct contrast to the preceding phase – comprised structural remains. The dearth of 19th century foundations and/or additional construction-related deposits is particularly pronounced when the site plan is overlain on the 1885 1st Edition Ordnance Survey map (Figure 24). From this comparison it is immediately apparent that a large number of late 19th century structures left no discernable archaeological footprint. Their absence from the record is most probably the result of a combination of factors. Firstly, their foundations appear to have been relatively shallow and insubstantial (in contrast to the majority of footings identified during Phase III). Secondly, the wholesale demolition of these structures which occurred during Phase V appears to have been consistently thorough.

A further, significant component of the Phase IV sequence – as identified during the initial trench-based evaluation – comprised substantial made-ground and/or horticultural deposits that were introduced all across the area at this time (and which removed the majority of the preceding archaeological strata). Associated with the widespread topographical reorganisation of the plots that took place from around the 1820s onwards, two particular processes appear to have been enacted. Directly pertaining to the erection of the structures themselves, compacted layers – often containing relatively sizable quantities of brick and rubble hardcore – were

introduced. These deposits, or 'rafts', appear to have been utilised in preference to deep trench-built footings, a practice that potentially represents a response to issues of subsidence generated by the large number of substantial underlying medieval pits. Concurrent with the aforementioned structural reorganisation of the space, within the rear portions of *Plots A* and *B* large open gardens were established (Figure 24). Here, the preceding Phase III buildings were comprehensively demolished and the pre-existing deposits extensively worked and homogenised.

Archaeologically, a number of features associated with the demolition/clearance of former Phase III structures were identified. These included **F.161**, **F.245**, **F.379**, **F.384-5**, **F.425-6** and **F.471-2**, all of which pertained to **Buildings 12** and **13** (Figures 19 and 24). Despite the relatively substantial scale of these features, however, only one of them – **F.161** – contained any closely datable material culture; this consisted of pottery post-dating 1835 (see Appendix 2). In general, the paucity of material within the remaining features is broadly indicative of an early-mid 19th century date for their backfilling. This interpretation is further corroborated by cartographic evidence, which indicates that **Buildings 12** and **13** probably remained extant in 1830, but are very likely to have been demolished shortly thereafter (see further below). In addition, former Phase III wells **F.69** and **F.733** were also extensively robbed around this time (by **F.70** and **F.442** respectively). Elsewhere at the site, however, it appears likely that **Building 8** – and potentially also **Building 5** – was retained in use throughout this period, although numerous structural alterations were no doubt undertaken. Moreover, in *Plot C* two adjacent cellars were constructed in *c*. 1820-30. The first of these, **F.738**, measured internally 4.32m by 3.22m. It had double-skin walls, constructed from mid pinkish yellow unfrogged bricks, and its floor – which was paved with Yorkstone slabs – lay at 10.85m OD. To its rear lay **F.272**. This second structure was entirely brick-built, employing near identical materials to its neighbour, but was rather smaller in scale. It measured 2.15m by 2.15m in extent, and its floor lay at 12.42m OD.

Lying at the rear of *Plot C*, in excess of 70 square postholes were identified (Figure 24). These features, which can be dated on ceramic grounds to *c*. 1820-77, comprised elements within a series of relatively ephemeral timber-built, multi-partitioned structures. The initial phase of their construction is likely to have been completed by *c*. 1850, although several episodes of repair/alteration were potentially conducted after this date. By 1885, however, the timber buildings had been replaced by a series of regular, brick-built structures (Figure 24). Arranged in broadly quadrangular form about a central open yard, the latter buildings appear to represent a development of, as opposed to a replacement for, the preceding structures. Also located within this central yard-area were two barrel-lined soakaways (**F.57** and **F.265**) and a number of drains (**F.65**, **F.209**, **F.295**, **F.332** and **F.666**).

In addition to the above, two 19th century wells were also present within *Plot A*. Both of these comprised brick-built, dome-topped structures that were designed to operate as reservoirs for hand-operated pumps. The first, **F.602**, measured in excess of 8.4m deep, while the second – **F.732** – was not investigated archaeologically because the uppermost portion of its backfill contained fragments of asbestos. An additional pump was also marked on the 1885 map, situated within *Plot C*, although no corresponding well was identified in this location (Figure 24). It therefore appears likely that water was relayed to this pump via a pipe, which may in turn have been connected to a well

situated in greater proximity to the street frontage (or else alternatively to the mains water supply). Also identified during this phase were a small number of features associated with probable industrial-type activity. Firstly, in *Plot B*, to the rear of the Bell Inn, substantial timber-lined pit **F.83** was present (Figure 24). Measuring 4.5m in diameter by 1.85m+ deep, at the base of this feature four further timber-lined tanks were encountered (**F.542-4** and **F.573**, which varied between 0.87m and 2.05m in length and 0.48m+ and 0.55m+ in depth). Although the precise function of this complex is unclear, it appears likely to have been industrial in origin; **F.83** was backfilled in 1886-90. A relatively similar revetted pit was also present in *Plot A*. Here, **F.390** – which measured 6.75m by 1.44m in extent and 2.48m+ in depth – also appears to have originally contained a timber-lining. Unfortunately, it could not be closely dated. The remainder of the Phase IV pits appear most likely to have been associated with the *ad hoc* disposal of refuse/construction material, although some – such as **F.731**, for example – may have been explicitly structural in association. Finally, other 19th century features of note included brick-built cesspits **F.531** and **F.464** in *Plot A*, and brick-built soakaways **F.632** and **F.208** in *Plot C*.

One particularly large and significant ceramic assemblage was deposited during Phase IV. Primarily contained within **F.24** and **F.722** in *Plot C*, but also reincorporated to a lesser degree into a series of secondary and tertiary contexts (Figure 25), this group comprised 4,528 sherds, weighing 159.2kg and representing a minimum of 518 vessels. The most significant aspect of the assemblage comprised elements derived three collegiate dining services, all of them associated with Trinity Hall. These wares were highly distinctive, thereby allowing the subsequent diffusion of the material across the site to be traced with confidence (Figure 25). An admixture of domestic and collegiate material, this group initially appears to have been utilised as hardcore during the process of constructing the complex of brick-built structures situated at the rear of *Plot C*. Manufacturer's stamps date the latest material in the assemblage to 1877 (see further Cessford, below).

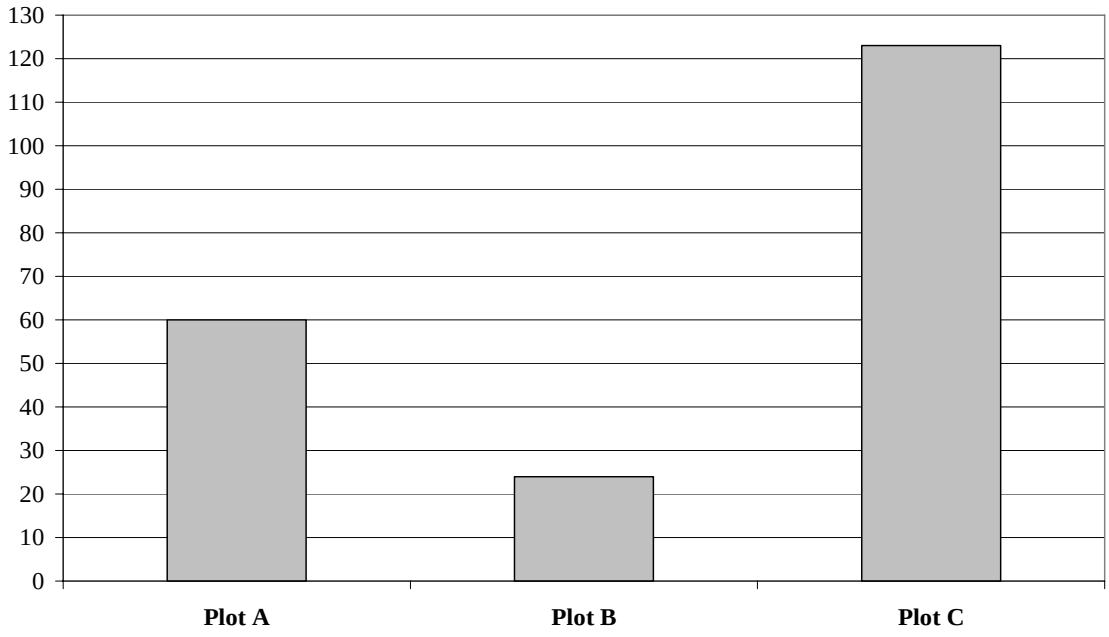


Chart 6: Number of Phase IV features by plot

As Chart 6 demonstrates, the majority of the identified Phase IV features were situated within *Plot C*. This distribution is somewhat skewed, however, by the disproportionate number of postholes that were present within this plot. If these features were to be excluded, then – with 44 features – *Plot C* would constitute an approximate mean between *Plots A* and *B*. A general summary of the most pertinent activity within each plot is presented below.

Evaluation Trenches

Within evaluation Trench 3, which was situated towards the far eastern end of the development area (Figure 4), two pits whose surface deposits contained 19th century ceramics were encountered (but not excavated). By 1811, when the first reliable map of this area was produced – see further the discussion section, below – occupation was already well-established in this area. Indeed by 1885, when the 1st Edition Ordnance Survey map was produced, the density of buildings present in this portion of the site rendered it largely indistinguishable from the area of excavation itself, situated further to the west.

Plot A

This property appears to have remained primarily in domestic occupation throughout Phase IV (see further the discussion section, below). During the early-mid 19th century the majority of the preceding Phase III buildings were demolished, and the topographical layout of the plot was reorganised. By 1885 a number of additional structures had been constructed, although significant open yard/garden spaces remained, most notably at the rear of the plot. Two dome-topped brick-lined wells were identified in this property (**F.602** and **F.732)**, along with two brick-built cesspits (**F.464** and **F.531**). Also present was substantial linear pit **F.390**, which appears to have served a specialised – and potentially industrially-associated – function. No large or significant assemblages were recovered from this plot.

Plot B

This property remained in constant use as a public house throughout Phase IV (see further the discussion section, below). At its rear, the former Phase III buildings were demolished during the early 19th century and this area was subsequently transformed into an open garden. Within this latter space, in 1886-90, timber-lined pit of specialised function **F.83** was inserted; at its base, four timber-lined tanks were present (**F.452**, **F.543**, **F.544** and **F.573**). The backfill of this feature contained a relatively sizable finds assemblage. No other features of significance were identified.

Plot C

This property appears to have operated as commercial premises throughout much of Phase IV (see further the discussion section, below). Towards the head of the plot, two brick-built cellars were identified (**F.272** and **F.738**). The latter was most probably associated with a frontage structure. Elsewhere, at the rear of the plot, a series of insubstantial timber-built structures – represented archaeologically by a plethora of square postholes – were present; these buildings were most probably constructed around the middle of the 19th century. By 1885, however, the structures had been replaced by two rows of brick-built buildings that were arranged around a central courtyard. Two barrel-lined soakaways were also present (**F.57** and **F.265**), along with two further brick-built examples (**F.208** and **F.632**) and five drains (**F.65**, **F.209**, **F.295**, **F.332** and **F.666**). Apparently associated with the conversion of these buildings from timber into brick was a substantial ceramic assemblage – primarily located within pit **F.24** and spread **F.722** – which was probably utilised as hardcore. This contained a significant number of collegiate vessels derived from three different services associated with Trinity Hall.

Plot Number	Cellar (brick-built)	Cesspit (brick-built)	Drain	Layer	Pit	Posthole	Service Trench	Soakaway (cask-lined)	Soakaway (brick-built)	Structural (construction cut)	Structural (foundation)	Structural (robbing)	Structural (surface)	Well (brick-lined)
A	-	2 *100%*	-	7 *46.7%*	26 *44.8%*	10 *10.8%*	-	2 *50%*	2 *40%*	1 *25%*	3 *37.5%*	4 *57.1%*	1 *100%*	2 *100%*
B	-	-	1 *16.7%*	3 *20%*	11 *19%*	4 *4.3%*	-	-	-	-	2 *25%*	3 *42.9%*	-	-
C	2 *100%*	-	5 *83.3%*	5 *33.3%*	21 *36.2%*	79 *84.9%*	3 *100%*	2 *50%*	3 *60%*	3 *75%*	3 *37.5%*	-	-	-
Total	**2**	**2**	**6**	**15**	**58**	**93**	**3**	**4**	**5**	**1**	**8**	**7**	**1**	**2**

Table 9: Phase IV feature-types by plot, with percentages per feature-type in italics

Phase V: Late 20th Century Warehousing (1968-present)

From the late 1940s onwards the character of the surrounding area began to change, as light industrial warehouses and workshops gradually intruded into a neighbourhood formerly dominated by domestic housing. At the site itself this process of transformation commenced first at the eastern end of the development area, where, by 1951, a series of small industrial units had been constructed at a differing orientation to the proceeding buildings. Little had changed in 1960, when a subsequent edition of the Ordnance Survey map was produced, but by 1968 a significant transformation had occurred. An aerial photograph taken in October of that year reveals that construction was well advanced at the site by this time (Figure 26). A tyre depot occupying the majority of former 19th century *Plots A* and *B* had already been completed, and associated buildings within adjacent *Plot C* had also been constructed, whilst work upon further warehouses situated immediately to the west and east had also commenced. In addition, to the south of the site Harvest Way was in the process of construction, while, to the north, the new dual-carriageway had also been established. These developments were all undertaken prior to the completion of nearby Elizabeth Way and its associated flyover in 1971.

Archaeologically, the impact of the warehouses' construction was considerably more profound within the eastern half of the development area, where a series of substantial concrete stanchions were constructed. Extending up to 5m in depth, and situated on average around 10m apart, these stanchions were found to have subdivided the preceding strata into small 'islands' of surviving archaeological deposits. Moreover, the presence of two phases of industrial development in this area – compared to only a single phase further to the west – had also had a substantive impact upon those areas not directly affected by the 1968 works. Within the area of excavation itself, the majority of foundations pertaining to the preceding 19th century structures were found to have been removed at this time and a substantial layer of hardcore introduced above their remains. A series of trench-built, reinforced concrete footings were then constructed, averaging around 1.2m in depth (**F.264**, **F.556**, **F.639**-**41**, **F.663**-**4**, **F.675**, **F.678**, **F.706**-**7** and **F.710**), along with central cellar/boiler room **F.668** (see Figure 5). Also present were ten modern service trenches, three drains and three brick-built soakaways. Overall, therefore, in contrast to the eastern half of the area, within the excavated site itself late 20th century construction had had relatively little impact upon any but the most recent elements of the archaeological sequence.

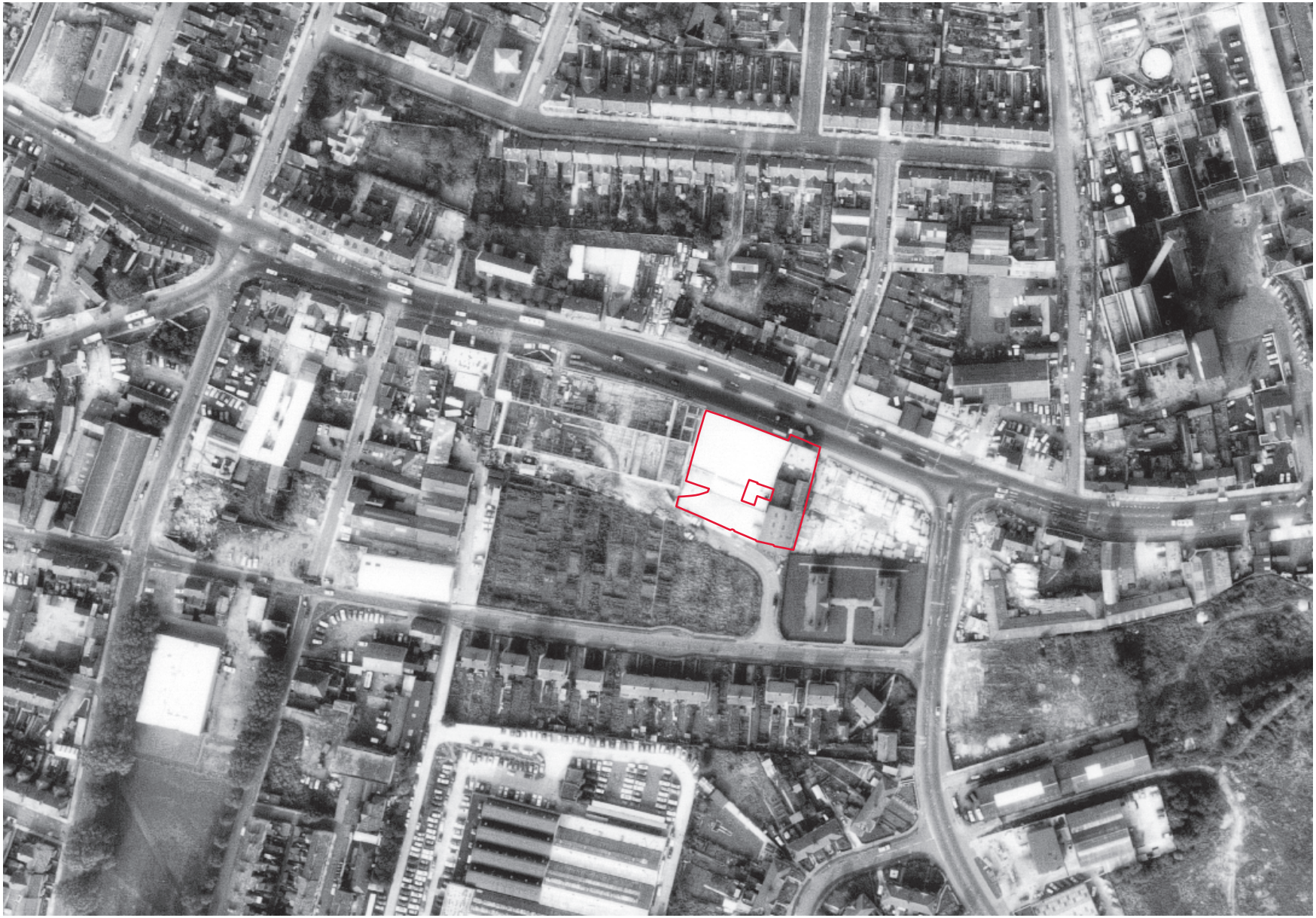


Figure 26. Aerial photograph taken October 1968, showing the site during development to its present state (RC8-E 260 17/10/68 original scale 1:6000)

- Material Culture -

A relatively substantial material culture assemblage – comprising 17,708 items, weighing in excess of 700kg – was recovered during the excavation conducted at the Eastern Gate Hotel site. This assemblage – which includes metalwork, metalworking debris, wood and timber, leather, pottery, glass, clay tobacco pipe, worked bone, worked and burnt clay, worked stone, moulded stone, ceramic building materials, flint and miscellaneous materials – has been subdivided by material type and is discussed in detail below.

Coins (Martin Allen)

Two coins were recovered during the course of the excavation. These comprised:

<123>, **F.199**, **SF 45**.Edward I (1272-1307) silver penny, class 9b, London mint, 1300. Weight 1.42g.

<127>, **[052]**. George III (1760-1820) copper penny, 1797. Weight 25.59g.

The Edward I penny (recovered from the surface of 15th/16th century **F.199**) was originally probably deposited in the 14th century. This coin seems to be relatively unworn, and is of about the full official weight for its date of issue (1300). After the reductions of the official weight standards of the English coinage in 1344-51 pre-1344 silver pennies tended to be reduced significantly below their original weight by clipping (Allen 2005, 57-9). The copper penny of 1797 (recovered from a modern service trench) is of a type that remained in circulation in large quantities until the 1860s and was demonetised in 1869 (Dyer & Gaspar 1992, 511; Dyer 1996).

Metalwork (Andrew Hall & Grahame Appleby)

A moderately-sized metalwork assemblage was recovered. These artefacts have been subdivided by material type, are disccused in detail below.

Copper alloy

Overall, the copper alloy is in poor condition with heavy corrosion present on many if the individual items (copper salts are also present of several pieces, indicative of active corrosion). The presence of a screw on collar (**<118>**) demonstrates the presence of modern material within the assemblage.

<87>, **F.105**, **[1717] (16th century)**. A cast, copper alloy cruciform brooch, measuring 126mm in height by 42mm maximum width, and weighing 68g. The brooch is in unconserved condition and therefore surface decoration and specific stylistic attributes may be obscured. The brooch is incomplete, as comparison with published examples suggests a section of the foot may be missing (West 1998). In addition, side knobs were originally fixed to either side of the head panel, but are now missing. Stylistically, the brooch belongs to Mortimer Type D (500-550AD), with a rectangular head-plate of slightly flared narrow wings, surmounted by a top knob with bifurcated terminal (see Martin 2011). Below the bow are a pair of side mounted, flattened lappets. Heavy cast bands of horizontal moulding surmount a foot in the form of a stylised, elongated horse's head. The reverse is heavily concreted with corrosion products that obscure detail of the catch-plate, however this corrosion may have preserved traces of fibres or fabric therein. On initial inspection, no stamped or incised decoration was visible on the front. However, the x-ray suggests feint ring and dot motifs around the head-plate wings. Comparison with published examples suggests a date within the first half of the 6th century.

<108>, **SF 01 (Unstratified)**. Copper alloy button of machined and pressed two piece construction, with intact loop; heavily corroded, diameter 18mm; weight 3g. 19th century.

<109>, **F.658**, **SF 02 (20th century)**. A small circular Tomback or Hessian button with intact loop; 18.5mm diameter, weight 3g. 18th-19th century.

<110>, **F.464**, **SF 04 (19th century)**. Cast copper alloy book clasp/mount of rectangular form, sprung back plate to the reverse and hook at one end, with serrated decoration at opposing end. Chamfered edges to the upper surface, with three or partly pierced holes. Length 41mm, max. width 25mm, weight 17g. 16th or 17th century. Similar examples are recorded from Norwich and York (Margeson 1993, 74-75; Ottaway & Rogers 2002, 2937, no. 14640).

<111>, **F.464**, **SF 05 (19th century)**. Cast copper alloy circular ring or buckle frame with oval cross-section with the frame worn thin in one section, possibly due to pin or strap. Maximum diameter 28mm, weight 4g. Medieval to Post-Medieval.

<112>, **F.247**, **SF 10 (19th century)**. Tapering copper alloy tube or pipe with a slightly raised collar at the widest end, possessing circumferential bands; weight 15g, max. length 83mm, max. diameter 15mm. Probably 19th century or later.

<113>, **F.660**, **SF 13 (17th century)**. Small, cast copper alloy crotal bell rumbler of small size, measuring 25mm in diameter. Such finds are common on rural sites as they are often interpreted as animal bells for sheep/goats. Suspension loop intact. Some traces of decoration to lower half of bell; however, it is badly damaged (and contains soil). Common form; 16th-17th century.

<114>, **F.504**, **SF 15 (16th-17th century)**. Plain, circular copper alloy button, 27mm in diameter with intact loop; weight 6g. 18th-19th century.

<115>, **SF 17 (Unstratified)**. Circular stamped copper alloy mount with raised central boss surrounded by a quatrefoil motif. Other decoration is difficult to discern due to heavy corrosion; weight 8g. A similar example is published from York, dating from the 15th century (Ottaway & Rogers 2002, 2906).

<116>, **F.659**, **SF 18 (20th century)**. Copper alloy, irregular shaped casting spill; weight 10g. Undated.

<117>, **F.583**, **SF 20 (15th century)**. Fragment of circular sheet copper alloy disc with a central perforation, possibly backing plate from furniture attachment; weight 4g, diameter 46mm. Likely to be Post-Medieval.

<118>, **F.583**, **SF 22 (15th century)**. Tapering and curved length copper alloy off-cut; weight 4g. Undated.

<119>, **F.583**, **SF 24 (15th century)**. Copper alloy mount formed from stamped copper alloy sheet. Of domed sexfoil shape made to resemble a flower-head, pierced twice for attachment to leather strap or belt. The edge has been trimmed polygonally. This is a well documented and commonly encountered form of mount. Parallels from London (Egan & Pritchard 2002,187-193). This form of mount date from the mid 14th to the late 15th century. Weight 2g, max. diameter 22mm.

<120>, **F.28 [072] SF 32 (19th century)**. Small copper alloy pin with wrapped wire globular head. Complete, measuring 27mm in length, weight <1g. 16th-17th century.

<121>, **SF 33 (Unstratified)**. A machine-stamped copper alloy, domed button cover with four small perforations and machine-turned decoration to outer border; diameter 16mm, weight 2g. 19th-early 20th century.

<122>, **F.160** [**583**], **SF 39 (19th century)**. Small round copper alloy button with intact loop. Undecorated, with a diameter of 21mm; weight 6g. 18th-19th century.

<124>, **F.56**, **[125]**, **SF 50 (19th century)**. Fragment of copper alloy folded sheet, thickness less than 1mm, weight 1g. Undated.

<126>, **[1967] (Unstratified)**. Cast copper alloy military belt buckle, with raised lettering '+ Militia + West Essex Regiment' on central ring, with adjacent rectangular strap loop. A decorative piece from the uniform of the 56th Regiment of Foot (West Essex Regiment); founded 1755, the regiment was re-numbered and re-named the 2nd Battalion, Essex Regiment in 1881 following the Childers Reforms, it being the junior county regiment (the 44th East Essex Regiment being re-numbered the 1st Battalion). 19th century AD.

<128>, **F.30**, **[149] (19th century)**. A round plain copper alloy button of 18mm diameter, with an intact loop, but heavily corroded. 19th century.

<129>, **F.69**, **[177] (17th century)**. Cast copper alloy strap loop of rectangular form with two small rivet holes to the reverse. The outer surface of the frame is decorated with two bands of incised, diagonal chevrons and a raised central bar; max. length 25mm, width 15mm, weight 4g. Of Late Medieval or Post-Medieval date.

<130>, **F.86**, **[280] (14th-15th century)**. A length of bent copper alloy wire of 1mm gauge, weight 1g. Undated.

<131>, **F.90**, **[276] (14th-15th century)**. Folded copper alloy overlapping sheet chape of tapering form, fragmentary and corroded; tip missing, length 53.3mm, weight 7g. Several examples are published from York (Egan & Pritchard 2002: 2904), which date from the 14th and 15th centuries.

<132>, **F.96**, **[308] (Medieval)**. Irregular shaped copper alloy strip of triangular cross-section resembling a blade fragment; heavily corroded, weight 5g, length 50mm, width 12mm. Undated. Found in association with a small copper alloy with a flattened wrapped wire head; complete, measuring 38mm in length – 15th-16th century?

<133>, **F.105**, **[2044**] **(16th century)**. Irregular shaped fragment of sheet copper alloy of thin gauge, *c.* 1mm thick, folded and distorted; weight 21g, max. length 117mm. Post-Medieval.

<134>, **F.110**, **[700] (15th century)**. Three copper alloy pins. The largest measures 46mm in length, with head formed from wrapping a short length of wire around the shaft. A second pin of similar manufacture

measures 41mm in length. The third, smaller pin, has a rounded head, again formed from wrapped wire, length *c*. 22mm;all weigh less than 1g. Found in association with the pins is a small rotary casket key formed from folded copper alloy sheet. The key has a rolled, hollow stem with a simple square-shaped bit formed from a riveted folded sheet. The bow is triangular in shape and pierced, presumably for suspension; weight 3g, length 37mm in length. Probably Late Medieval-early Post-Medieval.

<135>, **F.111**, **[360]**, **[365**] **(16th century)**. Heavily corroded and fragmentary sheet copper alloy with surviving right-angle; weight 3g. Post-Medieval.

<136>, **F.114**, **[372] (15th-16th century)**. Two copper alloy pins with globular wire-wrapped heads; length 50mm and 65mm, weights less than 1g. 15th-16th century.

<137>, **F.136**, **[1497] (19th century)**. Damage and heavily corroded, hollow copper alloy door or furniture knob or handle; weight 25g, diameter 42mm, height 36mm. 19th or early 20th century.

<138>, **F.151**, **[1173] SF 47 (Medieval)**. Copper alloy ring of 41mm diameter, possibly a frame for a annular brooch or buckle. Pin missing, but is suggested by traces of corrosion; weight 12g. Similar sized examples have been recorded from York and date to the 14th-15th century (Ottaway & Rogers 2002, 2887, no. 12880).

<139>, **F.156**, **[542**] **(Medieval)**. A wrapped copper sheet lace chape, or needle case, measuring 49mm in length, weight 2g. Late Medieval-early Post-Medieval.

<140>, **F.161**, [**546] (19th century)**. A bent length of copper wire of *c*. 1mm gauge; weight 1g. Undated.

<141>, **F.167**, **[640] (Medieval)**. Strip of sheet copper alloy folded over, probably an off-cut from a large sheet; weight 5g. Undated.

<142>, **F.171**, **[651] (16th century)**. Fragment of copper alloy pin or needle, head missing, tapering to a point; length 60mm, weight <1g. Late Medieval - Post-Medieval.

<143>, **F.197**, **[696] (19th century)**. Copper alloy ring, possibly a curtain ring, with a circular cross-section; 27mm in diameter, weight 2g. 19th-20th century.

<144>, **F.204**, **[717] (Medieval)**. Fragment of a circular copper alloy frame of *c*. 15cm diameter. No obvious decoration to surfaces; weight 7g, width 12mm, max. length 58mm. Undated.

<145>, **F.211**, **[759] (Medieval)**. A fragment of a cast copper alloy, hollow object, possibly a large bell or thick walled vessel. There is a chamfered integral aperture of circular shape. The object itself is again circular with a maximum diameter of *c*. 10-12cm. Of Late Medieval or Post-Medieval date.

<147>, **F.313**, **[1058] (Medieval)**. Possible annular brooch frame dating from the 12th-13th century; pin missing. The top of the loop is of thicker gauge to the bottom and has been cast to simulate a twisted wire/cable. Weight 5g, max. diameter 23mm. Similar examples are recorded from York and a close parallel is recorded from London (Egan & Pritchard 2002, 253, no. 1325; Ottaway & Rogers 2002, 2912).

<148>, **F.328**, **[1069] (14th-15th century)**. Fragment of copper alloy rectangular-shaped binding strip with rounded and single 4mm circular perforation centrally placed towards the terminal. Length 67mm, width 18mm; weight 12g. Medieval or early Post-Medieval.

<149>, **F.535**, **[066] (17th century)**. A group of five complete and one incomplete small copper alloy pins, all with wrapped wire globular heads of varying length ranging from 38mm to 21mm; weights <1g each. Found is association with a copper alloy folded sheet tubular lace chape, measuring 27mm in length, max. diameter 4mm; weight 1g. Similar examples are recorded from London (Egan & Pritchard 2002, 281). 14th-16th century.

<150>, **F.535**, **[067**] **(17th century)**. Shank from a copper alloy pin; 18mm in length, but incomplete, weight <1g. Late Medieval to Post-Medieval.

<151>, **F.256**, **[858] (14th-15th century)**. A small complete copper alloy pin with wrapped wire globular head; length 25mm, weight <1g. 15th-17th century.

<187>, **F.110**, **[683**] **(15th century)**. A small diamond-shaped off-cut of copper alloy sheet; length 19.4mm, width 19.5mm, weight 3g. Probably medieval.

<234>, **F.57**, **[126**] **(19th century)**. A cast copper alloy arm of circular cross-section from a locking buckle (see Margeson 1993, 26, no. 139). Weight 5g. Residual; 16th-17th century.

<235> F.96 [310], **[1154] (Medieval)**. A rim or base fragment of a cast copper alloy vessel of approximately 12cm diameter. The alloy appears to have a high tin content. Possibly a rim fragment of a fine bowl or the base of a footed vessel such as a candlestick; weight 8g.

<1251>, **F.26**, **[066] (16th century)**. A small copper alloy pin with a wrapped wire head of globular form, measuring 24mm in length, weight less than 1g. Crummy suggests (1988, 7) that such shorter length pins were more common in the 16th to 17th century.

<1252>, **F.103**, **[1714] (Medieval)**. A length of copper alloy strip of 1.7mm thickness with two perforations of 4mm and 3mm diameter. Overall length 70mm, width 15mm; weight 11g. Undated.

<1261>, **F.454**, **[1676] (16th century)**. A fragment of a sheet copper alloy vessel with possible repair with three in situ rivets and associated copper alloy plate. Possibly a large fragment from a bucket; max. length 102mm, max. width 50mm; weight 28g. Post-Medieval.

<1263>, **F.454**, **[1677] (16th century)**. A heavily corroded and burnt fragment of copper alloy sheet of irregular shape, 29mm by 34mm, weight 4g. Undated.

<1264>, **F.454**, **[1861**] **(16th century)**. A folded sheet copper alloy buckle plate of rectangular shape measuring 30mm in length and 17mm in width; slot for pin within frame recess. These are common finds within Late Medieval contexts (Egan & Pritchard 2002, 22). 14th-15th century.

<1272>, **F.525**, **[1906] (14th-15th century)**. A small copper alloy X-shaped fragment of casting waste; length 13mm; weight 2g. Undated.

<1495>, **F.4**, **[010] (14th-15th century)**, **Environmental sample <4>** .Corroded small fragment of copper alloy, the hook-end of a book clasp, measuring 12.8mm by 8.5mm. Similar examples are known from Norwich (Margeson 1993, 75, Figure 40, no. 425). 16th to 17th century.

<1496>, **F.4**, **[010] (14th-15th century)**, **Environmental sample <1>**. Small, corroded semi-circular fragment of thin copper alloy found in the same context as the book-clasp fragment above (**<1495>**), max. width 14.3mm. No obvious decoration is apparent due to the corrosion. This fragment may be part of the clasp identified above as they are of approximately the same width.

<16621>, **F.96**, **[310] (Medieval)**, **Environmental sample <26>**. Small copper alloy pin with wire-wound globular head, measuring 31.6mm. Found in association with two small, refitting fragments of a 'spatulate-end' pin or tack *c*. 20mm long, max. width 4.3mm. The pin is similar to **<1251>**; 16th to 17th century.

Lead

Sixteen pieces of lead were recovered, ten of which are irregularly shaped pieces of miscellaneous scrap, off-cuts or casting spill (total weight 840g). The remaining six pieces are catalogued below.

<091>, **F.69**, **[2195] (17th century)** An irregular shaped lead disc, max. diameter 20mm and 3.3mm thickness; weight 10g. Lead token, or pan weight, with indistinct chequer-board pattern to one side. 15th-16th century AD (see Egan 2005, 167-172).

<092>, **F.70**, **[179] (19th century)**. A large lead pot repair of oval shape with flat surface and raised cylinder with irregular surface (inside of vessel?); weight 65g. Of unknown date, but possibly residual Romano-British?

<102>, **SF 16 (Unstratified)**. Small lead pistol ball, diameter 12.5mm, weight 10g. Post-Medieval.

<103>, **F.583**, **SF 19 (15th century)**. Irregular shaped lead plate with central, punched perforation; crude washer or seal? Weight 5g, diameter 22mm. Undated.

<104>, **F.583**, **SF 21 (15th century)**. A square-based pyramidal-shaped lead pan weight of 22g (0.8oz); height 9mm, length/width 22mm. Late Medieval-early Post-Medieval.

<125>, **SF 51 (Unstratified)**. A rounded conical lead weight with circular base, with a vertical perforation for suspension, max. diameter 23mm, height 13mm, weight 34g (1.2oz). Medieval or early Post-Medieval in date.

Ironwork

Some 480 fragments of ironwork, with a total weight of 9.4kg, were recovered, the vast majority from features (472 pieces; 9.25kg; see Table 10). An additional 550g of ironwork was also recovered from processed environmental samples. An initial assessment of the ironwork shows the assemblage consists of a significant number of nails (*c*. 155, weight 2.7kg), with the number of nails from **F.69**, **F.76**, **F.140** and **F.171** notably higher. In addition to the nails, casket/bucket fragments, a large pipe washer/collar?, staples, brackets, tools (including at least one chisel), bone-handled knives, forks and keys, were also recovered. A full assessment of this assemblage will be required, including X-raying of some pieces to aid further identification.

Overall, this metalwork assemblage is rather poor in terms of quality, preservation and object range. Despite this statement, the recovery of book clasps and decorative pieces dating to the medieval and early Post-Medieval periods may attest to the earlier vibrancy of the area when Barnwell Priory provided a focus for market and trade related activity. It is unsurprising, therefore, that in relative terms the 'quality' of the assemblage diminishes from the Post-Medieval period onwards and reflects the reliance on iron nails, fittings and tools. Curiously, the recovery of a uniform belt buckle of the West Essex Regiment is intriguing as no record of this unit being stationed in Cambridge can be found, although southeastern Cambridgeshire may have been a recruiting area for the unit and the buckle may have belonged to a discharged soldier.

F.	Count and Weight	
15	Quantity	1
	Weight (g)	3
16	Quantity	6
	Weight (g)	79
26	Quantity	44
	Weight (g)	279
32	Quantity	4
	Weight (g)	2
49	Quantity	1
	Weight (g)	81
50	Quantity	1
	Weight (g)	8
52	Quantity	5
	Weight (g)	52
60	Quantity	1
	Weight (g)	11
69	Quantity	48
	Weight (g)	532
70	Quantity	2
	Weight (g)	9
76	Quantity	13
	Weight (g)	62
79	Quantity	7
	Weight (g)	498
85	Quantity	1
	Weight (g)	59
86	Quantity	1
	Weight (g)	15
91	Quantity	1
	Weight (g)	21
92	Quantity	7
	Weight (g)	120
96	Quantity	37
	Weight (g)	322
97	Quantity	2
	Weight (g)	6
98	Quantity	2
	Weight (g)	48
103	Quantity	2
	Weight (g)	40
104	Quantity	5
	Weight (g)	45
105	Quantity	11
	Weight (g)	197
106	Quantity	3
	Weight (g)	28

F.	Count and Weight	
110	Quantity	19
	Weight (g)	715
111	Quantity	2
	Weight (g)	20
114	Quantity	1
	Weight (g)	7
116	Quantity	4
	Weight (g)	31
128	Quantity	1
	Weight (g)	5
140	Quantity	11
	Weight (g)	99
141	Quantity	1
	Weight (g)	8
149	Quantity	2
	Weight (g)	26
150	Quantity	10
	Weight (g)	68
154	Quantity	4
	Weight (g)	58
155	Quantity	18
	Weight (g)	196
160	Quantity	35
	Weight (g)	680
161	Quantity	2
	Weight (g)	41
164	Quantity	1
	Weight (g)	32
165	Quantity	4
	Weight (g)	37
166	Quantity	1
	Weight (g)	9
171	Quantity	21
	Weight (g)	1364
181	Quantity	3
	Weight (g)	14
199	Quantity	3
	Weight (g)	1343
203	Quantity	1
	Weight (g)	19
211	Quantity	3
	Weight (g)	196
216	Quantity	2
	Weight (g)	120
217	Quantity	2
	Weight (g)	25

F.	Count and Weight	
275	Quantity	1
	Weight (g)	5
282	Quantity	1
	Weight (g)	8
292	Quantity	4
	Weight (g)	13
321	Quantity	1
	Weight (g)	12
326	Quantity	3
	Weight (g)	48
337	Quantity	2
	Weight (g)	15
340	Quantity	1
	Weight (g)	8
345	Quantity	3
	Weight (g)	27
388	Quantity	1
	Weight (g)	26
405	Quantity	1
	Weight (g)	34
424	Quantity	7
	Weight (g)	42
431	Quantity	1
	Weight (g)	43
441	Quantity	1
	Weight (g)	9
442	Quantity	2
	Weight (g)	33
454	Quantity	27
	Weight (g)	1011
465	Quantity	1
	Weight (g)	8
474	Quantity	9
	Weight (g)	695
483	Quantity	3
	Weight (g)	62
487	Quantity	1
	Weight (g)	8
489	Quantity	3
	Weight (g)	73
525	Quantity	2
	Weight (g)	36
535	Quantity	39
	Weight (g)	550
568	Quantity	2
	Weight (g)	23
577	Quantity	1
	Weight (g)	14

Table 10: List of features containing ironwork

Metalworking Debris (Simon Timberlake)

A moderately-sized assemblage of metalworking debris – comprising 79 fragments, weighing 7480g – was recovered (Table 11). This material ranges in date from the 13th to the 19th centuries, and is broken down by phase in a detailed catalogue at the end of this report.

Phase	Count	Weight (g)
II	23 (29.1%)	1428 (19.1%)
III	18 (22.8%)	1776 (23.7%)
IV	38 (48.1%)	4276 (57.2%)
Total	**79**	**7480**

Table 11: Metalworking debris assemblage by phase

The medieval (Phase II) material seems to be fairly typical of 14th-15th century small-scale blacksmithing that we find in or close to the centre of Cambridge. This work served the needs of colleges, religious institutions and local markets, with the forges operating relatively small hearths fuelled mostly by charcoal, and from the 15th century onwards with coal as well. This early use of coal was first noted in the metalworking debris recovered from St. John's Triangle (see Timberlake in Newman 2008b) and the Old Divinity School site (Cessford 2012). Its use in blacksmithing presents no particular problem as regards the dating; coal was being mined underground in some quantity within the coalfield at Coleorton, near Ashby-de-la-Zouche in Leicestershire as early as the 15th century (Hartley 1994), whilst coal from northeast England was also then being shipped to Kings Lynn, and from there by barge to Ely and Cambridge. However, the use of charcoal as a fuel in secondary smithing, as well as in the primary forging of iron bloom, was still then the norm rather than the exception. This being the case, it would be very interesting to know the real reason behind the use of a more expensive fuel. The availability and import of coal into Cambridge might well reflect an overall shortage of local woodland, therefore of coppice charcoal within the Fenland area. Alternatively this might indicate an affordable preference for coal within the fireplaces of the relatively wealthy Cambridge colleges and religious institutions. Good quality high temperature smithing operations involving the production of composite iron objects would undoubtedly have been easier when using a reasonably high quality coal. This may have been more common in some urban centres where important customers could have afforded to pay more for iron goods.

Medieval iron smithing debris was ubiquitously distributed across the site within pits and wells, and most likely represents the dispersal of waste from smithies working outside and independently of the abbey. For them Barnwell priory would still have been an important customer (albeit a declining one) during the first half of the 15th century. Evidence for this increased ironworking activity around the margins of the priory was also noted to the west of here at the Cambridge Regional College site, Brunswick; a site adjacent to Midsummer Common (Atkins 2012a). This produced 14th-15th century smithing hearth debris as well as iron bloomery slag, the latter seemingly derived from the smelting of ore brought into Cambridge either from the Wansford/ Castor near Peterborough, or the Rockingham Forest area of neighbouring Northamptonshire. This rather unusual scenario seems to reflect the importance of this area of Cambridge as a local iron production centre (at the height of the suburb's importance), or alternatively it might have been a trial encouraged by the availability of a much better quality fuel. The occurrence of slag smithing hearth bases (SHBs) of various different sizes with a variable iron content attests to the variable efficiency of these both coal and charcoal-fired hearths within the 14th/15th century forges. Not surprisingly the very few 13th/14th century examples of SHBs from Newmarket Road were all made using charcoal, and most likely reflect a greater loss of iron to the slag. On the other hand, by the early 16th century we might be expecting an increased amount of forge debris (as was noted at St John's Triangle; Newman 2008b); the production of this reflecting the presence of slightly larger hearths and also the use of both charcoal and coal as a fuel.

The rather more restricted spread of iron smithing slag across the site during the 17th-18th centuries (Phase III) may reflect the relative decrease in importance of the area at this time, or perhaps just

the moving of the forges to the margins. However, a rather similar total weight of slag seems largely to be made up of fragments from a large hearth base found within **F.317**, most likely this was derived from a local iron foundry rather than a smithy. Characteristically the smithing slag of this period is associated with more furnace and fuel slag and vitrified furnace linings with the calcined remains of shale, slate and brick. Such debris is indicative of higher temperature coal-fired hearths that by now are using much larger amounts of deep-mined coal. Both this and the evidence for re-melted slag pools within some of the larger SHBs was also noted from 17th-century contexts at St John's Triangle (see Timberlake in Newman 2008b).

During the 19th century (Phase IV) the somewhat higher incidence (deposition) of iron smithing slag across this site might be interpreted as an indication of increasing industry within this area, yet given that at the time Barnwell was being subsumed by the city of Cambridge, this level of redeposited iron slag within rubble would not be thought of as unusual. There can be little doubt though that towards the end of the 19th century this side of Newmarket Road was indeed becoming increasingly industrial. To the east lay brick pits, with ironworks and a ropeworks to the southwest of here, whilst in between areas of new housing on Newmarket Road there may have been the small workshops of traditional blacksmiths and farriers. Such iron forges were fuelled both by coal and by coke, and once more we find vitrified hearth linings scattered amongst such waste, along with SHBs and fuel slag. Amongst the metalworking debris was some large pieces of glassy slag; perhaps slag from a small blast furnace produced within one of the local ironworks.

Phase II Catalogue

F.154, **[0674]**, **<608>**, 14th-15th century: A piece of vitrified furnace lining associated with iron smithing; weight 18g. Also recovered from fill **[0672]** of this feature (**<1193>**) was a broken fragment from the centre of a small smithing hearth base (40mm diameter; weight 50g). Poorly magnetic, and probably associated with a coal-fired hearth.

F.171, **[0651]**, **<674>**, 16th century: Two small iron slag smithing lumps, probably proto-smithing hearth bases; weight 118g.

F.204, **[0717]**, **<722>**, 15th-16th century: A small and poorly formed iron smithing hearth base with some traces of charcoal fuel inclusions; weight 280g.

F.314, **[1055]**, **<879>**, 14th-15th century: A fragment of iron smithing slag, possibly a slag smithing lump or proto-smithing hearth; weight 154g.

F.326, **[2213]**, **<1191>**, 15th century: An iron slag smithing lump coated with clay (70mm x 35mm; weight 96g). Contains charcoal inclusions.

F.339, **]2056]**, **<963>**, 14th-15th century: One piece of dense but unvitrified iron smithing slag (slag smithing lump). Poorly magnetic. Of a different type to furnace slags above; weight 140g.

F.364, **[2127]**, **<1172>**, 13th-14th century: Six fragments from an irregular-looking iron smithing hearth base. Largest fragment *c.* 70mm diameter. Total weight 208g. Moderately magnetic and iron-rich.

F.501, **[1931]**, **<1075>**, 14th-15th century: Two adjoining fragments of one and another complete (small) smithing hearth base associated with secondary iron smithing (largest: 120mm x 90mm x 40mm (thick) + weight 222g; smallest weighs 86g) Of note is the low iron content of the slag. The complete one includes small fragments of charcoal. There are pieces of a fired clay hearth lining adhering to the underside of the larger one.

F.502, **]1792]**, **<1087>**, 14th-15th century: Seven broken-up fragments of highly magnetic and sub-vitreous to metallic iron smithing slag (30g). Probably from a coal-fired hearth.

F.528, **[1881]**, **<1199>**, 13th-14th century: An iron slag smithing lump coated with clay (50mm diameter; weight 44g). Contains charcoal inclusions.

Phase III Catalogue

F.69, **[2194]**, **<380>**, 17th-18th century: Four fragments of iron smithing slag, which includes three slag smithing lumps (slightly magnetic) and one fragment of furnace slag (vitrified hearth lining); weight 180g.

F.100, **[0698]**, **<474>**, 17th-18th century: A piece of glazed slag, perhaps melted and fused hearth lining. Probably associated with iron smithing; weight 54g.

F.215, **[0798]**, **<784>**, 17th-18th century: Five fragments of vitrified furnace slag with inclusions of calcined shale/slate, flint and brick or clay; weight 262g.

F.317, **[1582]**, **<1063>**, 17th century: Eight large fragments of furnace slag, some slightly magnetic, and probably ironworking debris (largest: 130mm x 70mm x 90mm; total weight of all 1.28 kg). Perhaps from a very large hearth, possibly an iron foundry. These include some large pieces of calcined to semi-vitrified

shale, either from the coal fuel or from a shale lining. Maybe from material imported into the site from local ironworks?

Phase IV Catalogue

F.28, **[0071]**, **<309>**, 19th century: A piece of conglomeratic furnace slag with inclusions of calcined shale and flint (melted and vitrified furnace lining?); weight 124g.

F.60, **[0154]**, **<352>,** 19th century: One small fragment of iron smithing slag; weight 10g. Also present within this context were two large lumps of relatively modern-looking industrial slag which may have been re-used as building material or rubble fill: (a) 120mm x70mmx70mm (750g) with a crystalline black glassy layer on top, and (b) 180mm x 90mm x 95mm (2.25 kg). The type of slag and process which produced this could not be deduced, though this appears to be both large scale and relatively modern, perhaps associated with refining. It seems likely this slag was brought into the area as rubble infill. The lower fill of this feature – **[2196]**, **<382>** – contained four fragments of furnace slag, mostly of fused hearth material with inclusions of shale from coal; weight 136g.

F.67, **[0168]**, **<359>**, 19th century: Three pieces of furnace slag with inclusions of calcined shale/slate and flint, possibly from vitrified hearth lining, and one piece of coke; weight 190g.

F.79, **[0197]**, **<397>**, 19th century: Seven pieces of furnace slag associated with iron smithing(?): some of this being fused hearth lining with inclusions of calcined flint, also coal shale fragments ; weight 258g.

F.160, **[0563]**, **<633>**, 19th century: Seven pieces including probably at least two pieces of iron smithing slag, four pieces of furnace slag or fuel slag and one piece of thin corroded iron plate; weight 282g. From the lower fill of this feature – **[0587]**, **<641>** – a single piece of furnace slag with calcined flint and burnt coal shale or slate was recovered; weight 46g.

F.282, **[0979]**, **<818>**, 19th century: A fragment of furnace slag, possibly associated with iron smithing; 10g.

F.290, **[0994]**, **<825>**, 19th century: A fragment of furnace slag, possibly associated with iron smithing; 16g.

F.388, **[1312]**, **<950>**, 19th century: Three fragments of iron smithing slag; weight 40g.

F.389, **[1341]**, **<951>**, 19th century: Seven fragments of iron smithing slag associated with vitrified furnace lining with calcined flint inclusions. Slightly magnetic; weight 164g.

Wood and Timber (Richard Darrah with Richard Newman)

A relatively small assemblage of wood and timber, comprising a total of 126 fragments, was recovered from the Eastern Gate Hotel site. This material was derived from six separate features, all of them wells. Five of these were backfilled during the medieval period, between the 13th/14th to mid 15th centuries, and the sixth towards the end of the 17th century (Table 12). Much the largest assemblage was recovered from stone-lined well **F.110**, which was backfilled during the mid 15th century. The various groups are discussed below on a feature-by-feature basis.

Feature	Number of Fragments	Date Backfilled	Phase	Significant Elements
F.575	10	13th/14th century	II	Ten sails derived from a wicker-lining
F.128	1	Late 14th/early 15th century	II	A barrel stave
F.337	1	Late 14th/early 15th century	II	A plank fragment
F.501	10	Late 14th/early 15th century	II	Several fragments from a decayed reed basket
F.110	95	Mid 15th century	II	Part of a wooden, trough, a bucket base, five tongue-and-grooved board fragments and two structural timber remnants
F.69	9	Late 17th century	III	Four fragments from a tub

Table 12: Summary of wood and timber assemblage by feature, arranged in date order

F.575, (13th/14th century): This feature comprised the only well at the site within which elements of the original organic lining had been preserved. This is because it was the only wattle-lined well in which the central shaft had been packed around with clay, thereby allowing it to retain a much higher quotient of

water (Figure 12). In all, 10 vertical sails were recovered (<**01**>-<**10**>, also labelled ***A***-***E***); no horizontal rods had survived. All of the sails consisted of coppiced oak, between 11 and 17 years of age, which had been felled in late spring or early summer. Several of the fragments had been pared and thinned with a billhook, and had multi-faceted points. The sails varied between 210mm and 440mm in surviving length and 40mm and 70mm in diameter. The use of oak in a wattle lining is unusual, but is paralleled in a single 14th century well at Grand Arcade (Cessford & Dickens *in prep*.). **F.575** also appears most likely to have been constructed during the 14th century.

F.128, (late 14th/early 15th century): From this well an oak barrel stave (<**11**>), measuring 630mm in length and 120mm in width, was recovered. It has a secondary rectangular hole, measuring 60mm long by 30mm wide, indicating that the barrel (or this portion of it) was reused prior to its discard.

F.337, (late 14th/early 15th century): From this well a radially-faced oak board with a single peg hole (<**13**>), was recovered. It measured 0.95m by 0.31m by 0.03m in extent, and had most probably been imported. Original function unclear.

F.501, (late 14th/early 15th century): From this well several very badly degraded remnants of a reed basket were recovered (<**25**>). No form or structure could be identified, and this material has been discarded.

F.110, (mid 15th century): This feature comprised the only well at the site deep enough to have penetrated the Gault clay, and consequently it contained the largest quantity of waterlogged wood and timber encountered. In the first instance, a hollowed-out oak trough (<**86**>) was recovered (Figure 11). This was positioned vertically within the back-filled well shaft, with the result that its uppermost portion – projecting above the water table – had decayed. The remainder measured 0.91m+ in length, 0.19m in width and 0.15m in depth. Roughly squared externally, its interior had been relatively crudely hollowed-out, with numerous toolmarks evident. It was composed of fast-grown oak, *c*. 30 years old at the time of felling, and most probably functioned as an animal feeding trough (although it could also have been utilised within a craft/industrial process). Also present was <**14**>, a bucket base, split into two halves, that measured 260mm in diameter and 17mm thick (Figure 11) This had a chamfered edge and was originally affixed to a bucket via three peg holes situated equidistantly around the rim; it had later been repaired via the addition of a series of nails. Two partial structural timbers were identified (<**12**> and <**24**>). The first consisted of a split timber of unidentified species measuring 230mm by 110mm by 40mm in extent. The second consisted of sawn and axe cut fast-grown oak post with a simple lap joint. It measured 480mm by 150mm by 120mm in extent. Also present in this assemblage were five tongue-and-grooved oak boards (<**34**>, <**41**>, <**44**>, <**46**> and <**58**>). These varied between 70mm and 100mm in width, and 10mm and 19mm in thickness. They almost certainly represent imported timber (most probably from the Baltic) and should be provenanced and dated dendrochronologically. (It is notable in this context that there is a reference to "eastern boards (wainscots)" being sold at the adjacent Stourbridge Fair in 1425 (Ditchfield 1913, 168), although similar material was also being widely imported into England at this time). A further 21 separate plank fragments were also recovered (<**16**>, <**33**>, <**35**>, <**37**>, <**39**>, <**40**>, <**43**>, <**47**>, <**48**>, <**49**>, <**52**>, <**54**>, <**56**>, <**57**>, <**60**>, <**64**>, <**67**>, <**69**>, <**71**>, <**73**>, <**79**> and <**83**>), several of which require species identification. In addition, 27 fragments were identified as deriving from a single, badly decayed Elm plank, which largely refitted (<**15**>, <**17**>, <**20**>, <**21**>, <**22**>, <**23**>, <**38**>, <**42**>, <**45**>, <**50**>, <**55**>, <**62**>, <**63**>, <**65**>, <**68**>, <**70**>, <**72**>, <**75**>, <**76**>, <**77**>, <**78**>, <**82**> and <**85**>). Few details were discernable, and this material has been discarded. Three split oak laths were also identified (<**18**>, <**19**> and <**59**>), and have again been discarded. Finally, 35 fragments of roundwood were present in this feature (<**62**>, <**84**> and <**88**>), a number of which require further species identification.

F.69, (late 17th century): Several artefacts were recovered from this well. Firstly, four staves derived from a squat tub measuring *c*. 0.5m in diameter were identified (<**32**>). These had been reused from a minimum of two separate casks. Each stave had a croze groove situated around 25mm from its base, and had been backed on its outer face. They varied between 180mm and 200mm in length, 65mm and 90mm in width and 15mm and 20mm in thickness. Also present was <**28**>, a degraded oak fragment with a split face and two nails that denote where it was originally joined to a second timber. It measured 230mm by 100mm by 100mm in extent. In addition, plank fragments <**27**> and <**31**> were identified, along with split roundwood fragments <**26**>, <**29**> and <**30**>.

Overall, the wood and timber assemblage recovered from the Eastern Gate Hotel site is relatively typical of its period. The low number of anaerobic contexts at the site precluded the survival of material within the majority of features, however, rendering the assemblage as a whole of relatively limited significance. At Grand Arcade, for example – a large excavation situated within the contemporary Barnwell Gate suburb of Cambridge – 96 features containing waterlogged wood and timbers were encountered (Cessford & Dickens *in prep*.). Nevertheless, the group recovered from stone-lined well **F.110**, in particular, is of regional interest, and its importance is increased by the contemporary material from Grand Arcade with which it can be compared. It is therefore recommended that species identification be undertaken for selected non-oak fragments in the assemblage (21 samples), supplemented by dendrochronological analysis for seven additional

items (<**11**>, <**13**>, <**32**>, <**34**>, <**44**>, <**46**>, and <**58**>). This will allow the significant material to be dated and provenanced, as well as improving the overall regional chronology for Cambridge.

Leather (Quita Mould)

A small group of leather – <**089**>, comprising 12 fragments in total – was recovered from fill **[1041]** of medieval well **F110**. The following assessment has been made following examination of the leather on 3/07/2012. The leather was identified and diagnostic pieces dated. A basic record (as defined in the RFG & FRG Guidelines 1993) of the assemblage was made, including measurement of relevant dimensions and species identification where possible. The basic record in the form of an object catalogue is provided below. All measurements are in millimetres (mm); + indicates an incomplete measurement. No allowance has been made for shrinkage. Any shoe sizing has been calculated according to the modern English Shoe-Size scale. Leather species were identified by hair follicle pattern using low powered magnification. Shoes soles and sole repairs are assumed to be of cattle hide unless stated otherwise.

The group comprised shoe parts of turnshoe construction, principally soles and repair patches, known as clumps. The leather is of medieval date and likely to date to the second half of the fourteenth through to the third quarter of the fifteenth century; the long toe on a forepart clump repair (8) and the tunnel stitching present on the fragment of rand (4) might suggest a mid 15th century date for the group. Insufficient remains for the style/s of the shoe uppers to be determined. The nature of the parts present and the secondary cutting on several of the individual items suggests it to be cobbling waste produced when repairing and refurbishing old shoes for resale.

All the leather has been examined and a basic record is provided below. No further work is considered necessary. The leather provides dating evidence and evidence for the cobbling trade.

Catalogue of Material

1. *Forepart of turnshoe sole for right foot, adult size*. Torn away obliquely across the upper waist and the toe and right side cut away. Edge/flesh seam, stitch length 5-6mm. Heavily worn, with a hole worn through the centre of the tread. Length 157+mm, tread width 77mm, upper waist width 34mm

2. *Waist and seat area of turnshoe sole for right foot, small adult/adolescent size*. Sole has a medium waist and seat, the edge of the seat is worn away. Edge/flesh seam, stitch length 6mm. Heavily worn stitching on grain side from repair. Horizontal slashes on flesh side from poor fleshing during hide preparation. Length 98+mm, max width 50+mm, waist width 39mm, seat width 48mm

3. *Tread area of turnshoe sole, possibly left foot, adult size*. Tread area broken away across the upper waist, now curled and distorted. Edge/flesh seam, stitch length 6mm. Slashes on flesh side from poor fleshing. Length 122+mm, tread width 84mm

4. *Seat area of turnshoe sole, worn on right foot, adult size*. The left side of the seat is present, the right side is worn away, broken from the rest of the sole. Edge/flesh seam, stitch length 5-6mm. Horizontal slashes on flesh side from poor fleshing. Also matching length of rand 10mm wide with tunnel stitching to attach a clump seat repair. Length 65+mm, max width 56+mm

5. *Fragments of shoe upper*. Four fragments broken from shoe upper including the bottom of an edge/flesh side seam, stitch length 4mm, and the lasting margin, stitch length 5mm. Cattle hide 2.24mm thick.

6. *Broken upper patch*. Broken upper repair patch or possibly a broken heel stiffener, with tunnel stitching present along the remaining edges on the flesh side. Cattle hide 3.29mm thick. Length 100mm, width (height) 24+mm.

7. *Forepart clump repair for left foot, large adult size*. Toe area broken off and heavily worn with hole at tread. Tunnel stitching around the edge on the flesh side. Length 159+mm, tread width 105mm

8. *Forepart clump repair for left foot, large adult size*. Complete forepart clump with long, extended, outward-curving, pointed toe, toe extension estimated c. 60mm. Not heavily worn. Tunnel stitching around the edge on the flesh side. Length 205mm, tread width 100mm

9. *Seat clump repair for right foot, large adult size*. Complete seat repair not heavily worn. Tunnel stitching around the edge on the flesh side. Length 121mm, width 85mm

10. *Seat clump repair for left foot, large adult size*. Cut away down the right side, tunnel stitching present on flesh side on the left side. Length 119mm, width 86mm.

11. *Clump repair fragment, adult size*. Piece torn from a large clump repair piece probably the base of a forepart repair. Length 56+mm, width 80mm

12. *Clump seat repair, adult size*. Irregularly-shaped seat repair with two areas of the original edge with tunnel stitching on the flesh side, the other sides have secondary cuts. A row of five grain flesh stitches with no thread impression runs obliquely across the centre indicating it has been cut from another item. Length 89mm, width 76mm.

Pottery (Craig Cessford, David Hall & Richard Newman)

A relatively substantial ceramic assemblage – comprising 10,882 sherds, weighing 297.7kg – was recovered from the Eastern Gate Hotel site. This was composed of a wide variety of material spanning the Roman to Modern periods (Table 13). The assemblage is assessed on a period-by-period basis, below.

Period	Count	Weight (g)	MSW (g)
Roman (1st to 4th century)	12 (0.1%)	126 (<0.1%)	10.5
Early Anglo-Saxon (5th to 7th century)	19 (0.2%)	36 (<0.1%)	1.9
Saxo-Norman (10th to 12th century)	43 (0.4%)	679 (0.2%)	15.8
Medieval (13th to 15th century	3195 (29.4%)	51214 (17.2%)	16.0
Post-Medieval (16th to 17th century)	701 (6.4%)	17884 (6.0%)	25.5
Modern (18th-20th century)	6912 (63.5%)	227729 (76.5%)	32.9
Total	**10882**	**297668**	**27.3**

Table 13: The Eastern Gate Hotel ceramic assemblage by period

Roman (David Hall & Richard Newman)

A single sherd of Samian ware, weighing 13g, and 11 sherds of indeterminate greyware, weighing 113g, were recovered. All of these fragments are small and heavily abraded, and occurred residually within later features. They therefore appear most likely to have been introduced during manuring associated with agricultural activity, either during the Roman period itself or later, when the area comprised part of the medieval open field system surrounding Cambridge.

Anglo-Saxon (David Hall & Richard Newman)

A small assemblage of Early to Middle Saxon (*c.* 5th to 7th century) pottery was recovered, totalling 19 sherds weighing 36g. This material was principally derived from contemporary ditch **F.16** (11 sherds, weighing 24g) and its later recut **F.17** (2 sherds, weighing 3g). In addition, a small quantity of residual material was also recovered from later features **F.5** (1 sherd, weighing 1g) and **F.388** (5 sherds, weighing 8g); see Figure 6 for the relative distribution of the material. The assemblage exclusively consists of handmade mineral-tempered wares, containing frequent quartzite inclusions, none of which appear to be Iron Age in origin (Matt Brudenell *pers. comm.*). Although the sherds cannot be closely dated, the absence of any Ipswich ware indicates that this assemblage as a whole is likely to predate *c.* 725–40. The fragments cannot be assigned to any particular ware of the period, and are probably of relatively local production.

Saxo-Norman (David Hall & Richard Newman)

Relatively few Saxo-Norman ceramics were recovered (43 sherds, weighing 679g), especially when this group is contrasted with the size of the succeeding medieval assemblage. Nevertheless, the Saxo-Norman material is dominated by the triumvirate of 10th–12th-century wares that are found ubiquitously on sites across southern Cambridgeshire (Table 14).

Ware	Count	Weight (g)	MSW (g)
Thetford-type	6 (14.0%)	81 (11.9%)	13.5
St Neots-type	35 (81.3%)	582 (85.7%)	16.6
Stamford	2 (4.7%)	16 (2.4%)	8
Total	**43**	**679**	**15.8**

Table 14: Saxo-Norman ceramics by fabric

As Table 14 demonstrates, the assemblage is dominated by St. Neots-type ware (Denham 1985; Hurst 1956; Hurst 1976, 320–23), with a smaller quantity of Thetford-type ware (Hurst 1957; Hurst 1976, 314–20; Rogerson & Dallas 1984, 117–23) and Stamford ware (Hurst 1958; Hurst 1976, 323–36; Kilmurry 1980) also present. The disproportionate dominance of St. Neots-type ware is relatively unusual, as Thetford-type ware is most often approximately equal in quantity within other contemporary Cambridgeshire groups. The small size of the assemblage, however, may serve to exaggerate an otherwise minimal distinction. Similarly, few diagnostic, closely datable sherds were identified. Nevertheless, because Saxo-Norman material was exclusively encountered in direct association with diagnostically 13th century or later fabrics, they were most probably deposited towards the end of the 12th century. At around this time, a transition in ware-types occurred between characteristically 'Saxo-Norman' and 'medieval' fabrics. This transition is typically dated to *c*. 1200, but more probably took place within the period spanning *c*. 1175-1225. Given this association, the predominance of St. Neots-type ware within the assemblage may indicate that this ware comprised the longest lived of the dominant 12th century fabric types (although once again the small size of the assemblage renders any such identification tenuous).

Medieval (David Hall, Craig Cessford & Richard Newman)

A relatively substantial assemblage of medieval pottery – comprising 3,195 sherds, weighing 51.2kg – was recovered. This is composed of the typical range of coarsewares, finewares and material that is intermediate between the two (Table 15).

Type	Count	Weight (g)	MSW (g)
Coarsewares	2491 (77.9%)	40315 (78.7%)	16.2
Intermediates	117 (3.7%)	2230 (4.4%)	19.1
Finewares	587 (18.4%)	8669 (16.9%)	14.8
Total	**3195**	**51214**	**16.0**

Table 15: Medieval ceramics by type

Ware	Count	Weight (g)	MSW (g)
Coarse Brown	128	2086	16.3
Coarse Buff	290	6587	22.7
Coarse Grey	1040	14654	14.1
Coarse Pink	209	3203	15.3
Coarse Red	207	2618	12.6
Medieval Ely	617	11131	18.0
Total	**2491**	**40315**	**16.2**

Table 16: Medieval coarsewares by fabric

Figure 27. Medieval and post-medieval ceramics. A) Medieval Ely ware jug from F.456, B) Brill/Boarstall jug from F.429, C) Dutch Glazed Red Earthenware chafing dish from F.111 and D) tin-glazed earthenware candlestick from F.548

Much the most significant constituent of the medieval ceramic assemblage is the coarsewares (Table 16). However, the majority of coarsewares found in Cambridge are poorly understood and come from a range of as yet unidentified sources in southern Cambridgeshire, Essex and the Fenland (Spoerry 2005; Spoerry *in prep*.). Although a range of brown, buff, grey pink and red fabrics have been identified, it is unlikely that these bear any relation to individual centres or even methods of production. The principal coarseware fabric that can be provenanced with any degree of certainty is Medieval Ely ware, which was manufactured at Potters Lane and elsewhere in Ely from at least the early 12th century onwards (Hall 2001; Spoerry 2008). This material has been sub-divided into two categories: Medieval Ely ware, which constitutes the bulk of the material, and; Ely-Grimston ware, which is rather higher quality material that deliberately imitates Grimston ware. A distinction has also been made between 13th–14th century Medieval Ely ware and 15th century Late Medieval Ely ware (Spoerry 2008); however, the distinction is of limited applicability and has not been adopted here. Medieval Ely ware does occur in some 15th-century contexts, but declines in significance after the 14th century. In total, Medieval Ely ware constitutes 24.8% of the coarseware assemblage by count and 27.6% by weight. This can be closely compared to its relative proportion at Grand Arcade (16–20% by count) and Christ's Lane (23% by count) (Cessford and Dickens *in prep*.), and contrasts with the only previously published assemblage from Cambridge where it totalled only 8% (Edwards & Hall 1997, 157). Values in the range of 20% accord well with the suggestion that Cambridge was a key market for Medieval Ely ware, and is in line with other sites on the South Cambridgeshire fen edge (Spoerry 2008, 70). Cambridge represents something of a transitional zone for Medieval Ely ware, as further to the south it is much less common and is indeed absent entirely from some sites (Spoerry 2008, 72). The most significant individual coarseware vessel comprises a rilled Medieval Ely ware jug with a rod handle that was recovered from **[2116]** in well **F.456 <1202>** (Figure 27A). Other large and/or significant coarseware groups were recovered from Phase II wells **F.128**, **F.339**, **F.501**, **F.528** and **F.560**, plus pit **F.545**.

Ware	Count	Weight (g)	MSW (g)	Date range	Source
Grimston	21	881	41.9	12th to 15th century, with a 14th century *floruit*	Norfolk
Ely-Grimston	10	262	26.2	14th century	Cambridgeshire
Pink Shelly Ware	76	855	11.2	13th century	Northamptonshire
Developed Stamford	5	84	16.8	13th to 14th century	Lincolnshire
Developed St Neots	5	148	29.6	13th to 14th century	Various sources
Total	**117**	**2230**	**19.1**		

Table 17: Medieval intermediate wares by fabric

The intermediate wares (Table 17) were dominated by Pink Shelly ware from Northamptonshire, which represents a late development of the Saxo-Norman St. Neots-type tradition during the 13th century. Similarly, developed forms of both St. Neots-type ware itself and contemporary Developed Stamford ware were also identified. Also present was a small quantity of Grimston ware from Norfolk (Leah 1994). A single fragment derived from a Grimston ware face jug was identified. Vessels of this type have long been recognised from Cambridge (see McCarthy and Brooks 1988, 268–69) and it has been argued that the town lay 'outside the marketing boundary' for Grimston ware "but fragments of these very distinctive face jugs have been found" (Leah 1994, 117). In reality, however, a range of Grimston products reached Cambridge including lamps, skillets, bowls and jars, and while jugs are common the majority are not anthropomorphically decorated face jugs.

By the end of the 14th century Essex redwares, and to a lesser extent Essex greywares, had become the most common types of fineware in use in Cambridge; this material accounts for 73.4% of the total Eastern Gate Hotel fineware assemblage by count and 58.3% by weight (Table 18). The growth in this industry reflects its significant role in supplying London (Pearce *et al.* 1982), and

there is archaeological evidence that redwares were reaching Cambridge prior to *c.* 1370 (Newman & Evans 2011, 190). This included small quantities of material from Harlow (Davey and Walker 2008) and Mill Green (Pearce *et al.* 1982; Cotter 2000, 180–82), but the most common fabric that can easily be distinguished is Hedingham ware (175 sherds, weighing 2177g and representing 40.6% of the Essex Red ware assemblage by count and 43.1% by weight). Typical Hedingham ware products included distinctive rounded stamped strip jugs with twisted rod handles, rows of cartwheel stamps and applied strip decoration (Cotter 2000, 75–80; Walker 2012). The Hedingham pottery industry was based in north-central Essex. Its main products included decorated and glazed fine wares, mainly jugs, and, typically, grey-firing coarse wares, produced between the 12th–14th centuries. The industry comprises some fourteen known production sites, most of which are clustered around the triangle formed by the settlements of Sible Hedingham, Gosfield and Halstead, with evidence for two production sites further west. The northern half of Essex, south-west Suffolk and south Cambridgeshire appear to be the main areas of Hedingham ware distribution, and it is widely but sparsely distributed around the Fens. Coastal distribution is also significant. Cambridge-type Sgraffito ware is broadly a form of Essex redware; it is relatively uncommon, and its fabric and inclusions do not match known Essex fabrics (Cotter 2000, 166–70). Although it is unlikely to have been produced in Cambridge, this is the location where it was initially identified and from which it is best known (Bushnell & Hurst 1952; Dunning 1950; Edwards & Hall 1997, 158). Its distribution suggests a North Essex or South Cambridgeshire origin.

Ware	Count	Weight (g)	MSW (g)	Date range	Source
Blackborough End-type	1	25	25	13th century	Various sources
Brill/Boarstall	70	1904	27.2	13th to 15th century, with a 13th century *floruit*	Buckinghamshire
Dutch Glazed Red Earthenware	42	1139	27.1	15th to 16th century	Holland
Essex Grey	6	75	12.5	15th century	Essex
Essex Red	431	5053	11.7	Late 13th to 15th century, with a 15th century *floruit*	Essex
Hertfordshire Fineware	9	139	15.4	13th to 15th centuries	Hertfordshire
Lyveden/ Stanion	1	18	18	13th to 14th century, with a 13th century *floruit*	Northamptonshire
Rouen	1	1	1	13th to 14th century	Northern France
Saintonge	1	3	3	13th to 14th century, with a 14th century *floruit*	Southern France
Scarborough	1	5	5	13th to 14th centuries	Yorkshire
Cambridge-type Sgraffito	1	35	35	15th century?	North Essex or South Cambridgeshire
Surrey Borders	21	254	12.1	14th to 15th century, with a 14th century *floruit*	Surrey
Toynton	2	18	9	14th century	Lincolnshire
Total	**587**	**8669**	**14.8**		

Table 18: Medieval finewares by fabric

The most unusual component of the medieval assemblage comprises two small sherds of imported finewares from France. The first of these is Rouen ware (Barton 1965; Platt & Coleman-Smith 1975; Vince 1999). Although small, this sherd is nevertheless typical, being derived from a thin-walled jug with an off-whitish brown fine sand tempered fabric and lustrous dark green glaze.

Moreover, it bears characteristic decoration in the form of a vertical applied strip with small square roller-stamped impressions. Based upon parallels to material excavated at Southampton (Platt & Coleman-Smith 1975 Fig. 189 No.1052) and Pevensey Castle (Vince 1999, 2), the fragment probably dates to the late 13th or early 14th century. The second imported sherd is derived from a Saintonge ware jug (Deroeux & Dufournier 1991). It has a fine buff fabric, and bears a trail of painted reddish-brown slip decoration. Although it appears to lack the extensive polychrome decoration that usually typifies Saintonge ware, the sherd was most probably derived from the lower, largely unglazed portion of a vessel. Moreover, green- and mottle-glazed Saintonge wares – or Saintonge-type wares – are also known (Deroeux & Dufournier 1991), and towards the end of the 14th century the quantity of glaze used appears to have diminished (Vince 1999, 4). This sherd therefore appears likely to be 14th century in date. At this time, Saintonge ware was widely distributed at port sites across England (such as Southampton, Portsmouth and Kings Lynn). Neither fabric has previously been identified in Cambridge, however (although a Post-Medieval Saintonge ware jug has been excavated from a 17th century pit at Hostel Yard, Corpus Christi; Cessford 2005). Although this absence may in part reflect a general failure to identify imported material prior to the late 20th century, it is nevertheless significant to note that recent large-scale urban and suburban excavations undertaken in the city have not identified any comparable material (*e.g.* Newman 2008b; Cessford 2012; Cessford & Dickens *in prep*.).

Both French imports were recovered from broadly contemporary 14th or, at the latest, early 15th century contexts (the Rouen ware from oven **F.321** and the Saintonge ware from well **F.154**), but these were situated in different properties and there appears to have been no direct association between them (moreover, the presence of single sherds, as opposed to multiple fragments, suggests that in both instances the material could potentially have travelled from its original point of deposition). Notably, as with Rouen ware, Saintonge wares predominately appear to have been imported as a by-product of the wine trade with Bordeaux (Deroeux & Dufournier 1991, 163-77), which particularly flourished in England after the loss of Normandy in 1204 (Clarke 1983, 19). As such, their presence at the site may potentially be associated with the existence of two important nearby medieval fairs (Midsummer Fair and Stourbridge Fair; see further the discussion section, below), which would have comprised the primary point of dissemination for wine in the region. Such an interpretation must be approached cautiously, however, as it has been noted that "the presence of imported pottery on inland sites is as likely to be a reflection of the purchasing power of the owners as it is to reflect the ease with which these vessels could be obtained" (Schofield & Vince 2003, 166). Yet since no other particular indicators of status have been identified at this date, and the distribution of the material is not limited to one particular plot, at present the proximity of the fairs appears to comprise the most likely context for the introduction of fragments of French wine jugs to the site.

Additional finewares identified within the medieval assemblage include Brill/Boarstall ware (Farley 1982; Ivens 1981; Ivens 1982; Jope 1954; Jope & Ivens 1981), Surrey Borders ware (Perace 1992), Hertfordshire fineware (Turner Rugg 1995), Scarborough ware (Farmer & Farmer 1979; Farmer & Farmer 1982), Toynton ware and Dutch Glazed Red Earthenware (Baart 1994; Cumberpatch 2003). These wares are typically well represented within contemporary assemblages in the Cambridge region. Vessels of note included a near complete Brill/Boarstall jug that was recovered from basal fill **[2229]** in well **F.429 <1000>** (Figure 27B) and the base of a Dutch Glazed Red Earthenware chafing dish from **[360]** in cesspit **F.111 <541>** (Figure 27C). Compositionally, across the assemblage as a whole a notable bias can be discerned towards material with a 14th century *floruit*, along with a commensurate decline in the quantity of diagnostically 15th century material. This is exemplified by the absence of fabrics such as Siegburg stoneware, which was imported from Germany. Although pottery from Seigburg is known to have been present in Cambridge by *c*. 1370 (Newman & Evans 2011, 190), the majority of the identified material dates to the late 15th century. Therefore, whilst caution must be exercised – given that the bulk of the coarsewares (and thereby the bulk of the assemblage) cannot be closely dated – there nevertheless appears to be a pattern of 13th and especially 14th century dominance, followed by a diminution of material during the 15th century.

Post-Medieval (David Hall, Craig Cessford & Richard Newman)

In the first half of the 16th century the pottery types in use throughout the country underwent what has been referred to as a 'Post-Medieval ceramic revolution' (Gaimster 1994; Gaimster & Nenk

1997; Perace 2007), consisting of radical changes in form, fabric and glaze. In Cambridge itself, local products from Ely changed markedly and were supplemented by significant quantities of German stoneware, plus smaller amounts of tin-glazed earthenware and a few other wares. The Post-Medieval assemblage from the Eastern Gate Hotel site is largely typical of the wares found at other sites in Cambridge, and the bulk of the material does not merit detailed consideration.

Provenance	Ware	Count	Weight (g)	MSW (g)
Ely Products	Babylon-type Iron-Glaze	58	1038	17.9
	Ely Bichrome	16	63	3.9
	Ely Fineware	26	440	16.9
	Glazed Red Earthenware	307	9491	30.9
Probable Ely Products	Plain Buff	8	171	21.4
	Plain Grey	54	1069	19.8
	Plain Red	158	3687	23.3
Other Sources	Frechen Stoneware	17	390	22.9
	Raeren Stoneware	11	184	16.7
	Iron-Glazed	12	211	17.6
	Midlands Yellow-type	4	36	9
	Staffordshire-type Earthenware	7	68	9.7
	Staffordshire-type Slipware	12	327	27.2
	Tin-Glazed Earthenware	11	709	64.5
	Total	**701**	**17884**	**25.5**

Table 19: Post-Medieval ceramics by fabric

Post-Medieval coarsewares were produced at a range of relatively local sites; the most common forms were jars, jugs and bowls. A substantial proportion of the material was either produced at kilns near the river Great Ouse in Ely (Cessford *et al.* 2006, 46–71, 81–85) or is of similar forms and fabrics and was presumably produced relatively locally. Although some Glazed Red Earthenware most probably arrived at the site during the early 16th century, production at Ely increased markedly from the mid 16th century onwards (*ibid*., 46-54). Glazed Red Earthenware comprises a red bodied coarseware with a shiny glaze and was the commonest form of coarse pottery regionally during the 16th to mid 19th centuries (*ibid*., 53–54, figs. 39–46). It occurs in a wide range of forms; the products found include bowls, jugs, cisterns, pancheons, basting dishes and pipkins. A substantially complete Glazed Red Earthenware bowl was recovered from **[1059] F.323**. Some of the material produced in Ely had a green glaze on the outer surface and clear glaze inside, thus making it bichromatic (*ibid*., 56, fig.48). In the 17th century Glazed Red Earthenware produced at Ely was increasingly slip-decorated, often in imitation of Staffordshire-type slipware (*ibid*., 81–85).

Babylon-type ware comprises a red earthenware with a black iron-based glaze. Much of the material found in Cambridge was manufactured in Ely (Cessford *et al.* 2006, 56–58, fig.49), but a significant quantity has a browner fabric and a lighter, browner-coloured glaze indicating that it comes from a different source. A substantially complete tyg in this latter fabric was recovered from **[1676] F.454**. Other forms identified include cups and small jugs. Babylon ware is a local variant of the Cistercian ware tradition that developed in the late 15th century at sites such Wrenthorpe, West Yorkshire, and Ticknall, Derbyshire. Small quantities of actual Cistercian ware did reach East Anglia (Cotter 2000, 184–85), and astamp decorated tyg was recovered from **[47] F.19 <290>**. Babylon ware probably ceased production in the late 16th–early 17th century but other kilns in East Anglia continued to produce similar iron-glazed vessels.

Broad Street Fineware was made from clay that fired off-white or light pink and was used to produce fine thin-walled delicate vessels (Cessford *et al.* 2006, 58, fig.50). The vessels were lead-glazed, usually with copper added to give a specked green colour and some were bichrome. This

ware is visually similar to those of the Surrey white-ware industries (Perace 1999; Perace & Vince 1988). In the early 16th century there was a peak of production of fine drinking vessels (Perace & Vince 1988, 17, 88–89). The most interesting vessel in the present assemblage comprises a wave-decorated Broad Street Fineware cup (**[1931] F.501 <1074>**). It is only in the 16th century that significant quantities of German stoneware appeared in Cambridge. In the early 16th century products from Langerwehe and particularly Raeren began to arrive, later in the 16th century Frechen overtook these sources in significance. As is usual for Cambridge, the only forms present were jugs. The tin-glazed earthenware comprises a mixture of material from the Low Countries and England and occurs in small quantities from the late 16th century onwards (Archer 1997; Crossley 1990, 259-60 and 264-66). The most significant tin-glazed earthenware comprised a partially complete 17th century plain candlestick that was most probably manufactured in London (**[1971] F.548 <1127>**; Figure 27D). Other material found in small quantities in the late 16th–mid 17th centuries includes bowls and dishes with a fine off white to pale buff fabric and golden yellow glaze; these are part of the Midlands Yellow-ware tradition (Brears 1971, 31–36).

Modern (Craig Cessford)

A considerable quantity of 18th–20th century pottery was recovered from the Eastern Gate Hotel site, totalling 6,912 sherds weighing 227.7kg (Table 20). This material can be broadly divided into five groups; whilst some pottery occurs in low quantities in numerous features the bulk of the assemblage derives from four 'feature groups' (Cessford 2009). These include two late 18th–early 19th century assemblages (**F.63** and **F.159**), a late 19th century group (**F.83**, plus **F.543**–**44**) and most significantly an assemblage containing a significant component linked to Trinity Hall College (**F.24** and **F.722** plus other features). With the exception of the assemblages from two specific features there is very little material that is 18th century and no definitely 20th century material is identifiable in the assemblage.

Source	Date	Count	Weight (g)	MNI
Non-feature groups	*c*. 1760–1900	271	6979	83
F.63	*c*. 1780–1810	315	7638	36
F.159	*c*. 1780–1810	1078	16961	54
F.83	*c*. 1886–90	707	36363	124
F.543–44	*c*. 1886–90	13	587	7
F.24, **F.722** etc.	*c*. 1874–85	4528	159201	518
	Total	**6912**	**227729**	**822**

Table 20: Overall pottery assemblage

a) Small assemblages recovered from a range of features (MNI 83 assuming no vessel is represented in more than one feature; 271 sherds weighing 6979g; Table 21). This material is overwhelmingly of the common fabrics and forms of the period and is of limited significance, beyond providing dating evidence. This material accounts for 3.9% (by count) or 3.1% (by weight) of the overall assemblage; this is not uncommon as 'feature groups' often account for *c*. 90–95% of assemblages of this period. As is common on sites in Cambridge there are a small number of pieces of college-related pottery:

- **F.548 [1325]** blue transfer-printed plate with King's College chapel, 19th century (3 sherds, 75g).
- **F.160 [587]** blue transfer-printed floral pattern plate, Henry Hudson cook at Trinity College *c*. 1813–38 (1 sherd, 11g).
- **F.202 [710]** plate with brown transfer-printed crest, on rear [KI]TCHEN DE[PT] / [T]RINITY COL[LEGE] / CAMBRI[DGE] dating to 1888 or later (1 sherd, 4g).
- **F.76 [186]** Shell edged with symmetrical scalloped rim, no impressed lines and blue edge lines. Gilt hand-painted name Ship… Henry Shippey cook at St. John's *c.* 1813–37 (4 sherds, 40g)

b) Two unrelated late 18th–early 19th century assemblages (**F.63** and **F.159**). Both assemblages are dated by the presence of pearlware, which came into use in the mid 1770s and had achieved a dominant position by the 1780s. As they possess a significant number of pearlware vessels (MNI 8 and 10 respectively) a date of *c.* 1780–1810 is most likely. Both are moderately sized assemblages

for the period, dominated by a range of creamware and pearlware linked principally to dining and tea drinking, as is typical of the period. The rather larger assemblage (**F.159**) contains several interesting elements, particularly a Wedgwood dining service.

Fabric	Count	Weight (g)	MNI
Black basalt	1	4	1
Bone china	38	297	11
Chinese export porcelain	1	6	1
Creamware	51	631	12
Iron glaze	1	12	1
Late glazed red earthenware	27	1889	11
Late unglazed earthenware	12	186	6
Lead glaze	1	5	1
Mocha	33	493	12
Nottinghamshire/Derbyshire-type stoneware	6	164	3
Staffordshire-type slipware	3	52	3
Staffordshire-type white salt glazed stoneware	6	16	1
Sunderland-type earthenware	8	850	3
Tin glazed earthenware	2	9	1
Utilitarian Continental stoneware	21	627	1
Utilitarian English stoneware	55	1519	14
Westerwald stoneware	5	219	1
Whiteware	287	4879	79
Yelloware	11	399	5
Total	**271**	**6979**	**83**

Table 21: Breakdown by fabric of all non feature group material: MNI counts assume that no vessels are represented in more than one feature.

F.63: (MNI 36; 315 sherds weighing 7638g; Table 22). This material was deposited in a brick-lined soakaway. Its distribution indicates that it was deposited as the first act in the backfilling/demolition of the feature. There was a small quantity of soft paste porcelain teabowls that are likely to have been several decades old when deposited, including a matching pair, and these may be 'heirlooms'. It is notable that both **F.63** and **F.159** lack of any mid 18th century Chinese export porcelain, which usually occurs in small quantities in assemblages of this period.

Fabric	Count	Weight (g)	MNI	Comment
Creamware	202	5300	18	Principally a heterogeneous group of dining vessels
English soft paste porcelain	17	171	3	Tea bowls
Late glazed red earthenware	3	548	2	Kitchen vessels
Late unglazed earthenware	8	714	2	Flowerpots
Pearlware	74	663	10	Tea wares
Staffordshire-type slipware	11	242	1	Cup
Total	**315**	**7638**	**36**	

Table 22: Breakdown by fabric for **F.63**

F.159: (MNI 54, 1078 sherds weighing 16961g; excluding a small quantity of intrusive medieval material; Table 23). This material was added as a 'percolation' fill at the base of a planting bed. The dining wares include a set of shell-edged creamware plates (MNI 7) of various sizes with underglaze green decoration. These have Rococo-inspired asymmetrical, undulating scalloped rims with impressed curved lines; this pattern was fashionable *c.* 1775–1800 and produced until *c.* 1810 (Hunter and Miller 1994). Josiah Wedgwood was the earliest documented Staffordshire potter to use shell-edge motifs, introducing it in the mid-1770s and at least four of the plates bear the Wedgwood mark. There were also two sauceboats and their associated lids in the same pattern. This emphasis on a matching service and the presence of two sauceboats indicates a considerable

emphasis on genteel dining. One of the plates and one of the sauceboats are marked with the initials IH, suggesting that they were made by J. Heath of Hanley *c*. 1770–1800. The presence of two different manufacturers suggests that at the service was purchased over time, probably beginning with the Wedgwood vessels then shifting to Heath when the shell-edge motif was rapidly adopted by many other English potteries in the 1780s, undercutting Wedgwood's prices. This emphasis on cost is supported by the fact that edged wares were the least expensive tablewares available with colour decoration *c*. 1780–1860.

Other notable elements in the assemblage are a stoneware tankard with an ale measure mark, in compliance with the act for ascertaining the measures for retailing ale and beer of 1700 which covered vessels of up to a quart capacity used in inns and other commercial establishments and was in force until 1876 (*cf*. Bimson 1970). There was also most of a black basalt teapot and a tin-glazed earthenware ointment pot, which appears to have been deliberately trimmed for reuse and subsequently burnt. This was a mid 18th–early 19thcentury container for Singleton's golden eye ointment, an early patent medicine, and the pot was manufactured in Vauxhall or Mortlake (*cf*. Archer 1997, 390; Tyler *et al.* 2008). This ointment consisted of red mercuric oxide in a base of beeswax, lard, Japan wax and coconut oil and was used to treat 'All Eye Troubles and Diseases' (Homan 2005). This discovery is paralleled by a find from the Grand Arcade site in Cambridge, which had also been deliberately trimmed for reuse (Cessford and Dickens *in prep.*).

Fabric	Count	Weight (g)	MNI	Comment
Black Basalt	37	429	1	Teapot
Creamware	853	10942	28	Principally dining vessels, includes green underglaze service and Wedgwood vessels
English stoneware	36	2307	5	Bottles/jugs and a tankard with an ale measure mark
Iron glaze	2	111	2	Bowl and tankard
Late unglazed earthenware	3	347	1	Flowerpot
Mocha	9	68	1	Child's cup
Mottled glazed red earthenware	25	1284	1	Bowl, possibly from Tyneside
Nottinghamshire/Derbyshire-type stoneware	17	845	3	Kitchen vessels
Pearlware	69	381	8	Tea wares
Red bodied earthenware	8	69	1	Cup with fine red glaze with machine turned decoration
Tin glazed earthenware	19	178	3	Drug jars and Singleton's ointment pot
Total	**1078**	**16961**	**54**	

Table 23: Breakdown by fabric for **F.159**

c) Late 19th century assemblage **F.83** (MNI 124, 707 sherds weighing 36363g; Table 24), plus **F.543–44** (Table 25). This represents moderately sized assemblage for the period, probably dating to *c*. 1886–90. The assemblage appears in most respects to be a typical domestic assemblage of the period with few distinguishing characteristics. This material was deposited as a discrete fill as part of the backfilling of a large pit. The fact that none of the vessels are marked ENGLAND, as required by the provisions of the protectionist Tariff Act of 1890, commonly called the McKinley Tariff, which raised the duty on imports to the USA, suggests that the deposit predates this date. There were at least five vessels from a black transfer-printed dining service marked WEDGWOOD VICTORIA, this pattern was also found in several other features at the site suggesting possible links. Complete vessels included three blacking bottles, a spouted ink bottle and a Keiller marmalade jar. There were two pieces of collegiate pottery; a sherd in a blue transfer printed Egg & Dart pattern associated with Trinity Hall (1 sherd, 4g) which probably derives ultimately from a large assemblage deposited elsewhere (see below) and a piece from a plain dish associated with the Hudson family of college cooks *c*. 1793–1888 (3 sherds, 278g).

Fabric	Count	Weight (g)	MNI	Comment
Bone china	76	1020	10	Tea wares
Creamware	1	10	1	?Residual
Glazed red earthenware	1	51	1	?Residual
Late glazed red earthenware	76	7934	3	Kitchen vessels
Late unglazed earthenware	41	651	7	Flowerpots
Lead glazed earthenware	15	494	2	
Mocha	13	266	5	Cups and bowls
Nottinghamshire/Derbyshire-type stoneware	10	2389	2	Kitchen vessels
Sunderland-type earthenware	1	395	1	Kitchen vessel
Utilitarian English stoneware	72	8584	13	Mainly bottles
White bodied stoneware	4	102	1	Candlestick
Whiteware	397	14467	78	Wide variety
Total	**707**	**36363**	**124**	

Table 24: Breakdown by fabric for **F.83**

F.543–**44** are part of a complex of pits underlying **F.83** and apparently backfilled immediately prior to it as part of the same overall process. Although they contained relatively little material, what they did posses was of some interest. The assemblage is dated to post 1873 by the presence of a Keiller marmalade jar, while the letter code on the jar suggests it was produced in 1886–87. Also present were parts of at least four college-related vessels including the Egg & Dart pattern also present in **F.83** (2 sherds, 20g), a black transfer printed plate with a floral border depicting Gonville & Caius College (1 sherd, 6g) and a blue transfer printed willow pattern serving dish with the name J. Fuller (4 sherds, 98g).

Fabric	Count	Weight (g)	MNI	Comment
Late glazed red earthenware	1	3	1	
Whiteware	12	584	6	
Total	13	587	7	

Table 25: Breakdown by fabric for **F.543–44**

d) Late 19th century assemblage **F.24**, **F.722** etc. (MNI 518, 4528 sherds, weighing 159,201g; Table 26). This assemblage was recovered from several discrete features; however given the marked homogeneity and distinctive elements of the material it appears to effectively represent a single depositional episode and will be treated as such. In total it accounts for 65.5% (by count) or 69.9% (by weight) of the overall assemblage. This group includes a large number of dining related vessels associated with Trinity Hall (MNI 158; Table 27) plus some other colleges (MNI 12; Table 28) and some non-collegiate material (MNI 299; Table 29). The Trinity Hall ceramics represent the largest and most significant single assemblage of college-related pottery recovered in Cambridge to date. Based upon cross-fits and mean sherd weights it appears that the ceramics were used to backfill at least one extant pit (**F.24 [060]**) and then generally spread over a quite substantial area as a form of hardcore as part of a construction episode (**F.722**). Smaller quantities of material were also present in a range of nearby features. Whilst some of these may represent primary deposition it seems likely that most represent later disturbance and re-deposition of material from the spread (**F.18 [043], F.47 [109]**, **F.55 [123]**, **F.56 [124]**, **F.104 [331]**, **F.136 [1497], F.141 [475]** and **F.533 [1951]**). There was also a very small amount of associated material in other features including pit **F.83** (see above). Given the degree of later truncation and other factors it is likely that a significant proportion of the original assemblage was not recovered. The latest dating evidence from the pottery is a Minton mark of 1871 and a Copeland date stamp of 1877; several other strands of evidence support a date in the late 1870s.

Source	Count	Weight (g)	MNI
Trinity Hall pottery	2798	94491	158
Other collegiate pottery	53	1769	12
Other ceramics	1677	62941	299
Total	**4528**	**159201**	**518**

Table 26: General breakdown of all pottery from **F.24**, **F.722** etc.

Service	Count	Weight (g)	MNI	Forms
Egg & Dart	1699	59849	112	Plates, slops bowls, sauceboats, serving dishes plus lids and drainers/stands
Plain Aul Trin	311	13751	33	Plates, bowls, dishes, serving dishes and drainers/stands
Hand painted rim	49	2750	5	Plates
Plain with black text	86	5774	8	Kitchen vessels
Miscellaneous plain sherds	653	12367	0	Various
Total	**2798**	**94491**	**158**	

Table 27: Breakdown of Trinity Hall pottery from **F.24**, **F.722** etc. by service

College/Cook	Count	Weight (g)	MNI	Forms
Clare Hall	43	1545	8	Plates, serving dish lids, other lids, drainer/stand
J. Fuller	9	165	3	Plates and serving dish
Owen	1	59	1	Serving dish lid
Total	**53**	**1769**	**12**	

Table 28: Breakdown of non-Trinity Hall collegiate pottery from **F.24**, **F.722** etc.

Fabric	Count	Weight (g)	MNI	Comment
Blue bodied earthenware	12	490	3	
Bone china	298	3520	42	Mainly teaware
Late glazed red earthenware	53	4674	3	Kitchen vessels
Late unglazed earthenware	44	1771	6	Flowerpots
Lead glaze	1	29	1	
Mocha	13	216	3	
Refined red bodied earthenware	3	70	1	
Sunderland-type earthenware	3	1107	3	Kitchen vessels
Continental tin glazed earthenware	13	649	2	Moutarde de Maille mustard jars
Utilitarian Continental stoneware	5	307	2	Nieder-Selters-type mineral water bottles
Utilitarian English stoneware	463	27553	67	Mainly bottles and jars
White feldspathic stoneware	16	3566	2	
Whiteware	739	17679	163	A wide range of forms
Yelloware	14	1310	1	Kitchen vessel
Total	**1677**	**62941**	**299**	

Table 29: Breakdown by fabric of non-collegiate pottery from **F.24**, **F.722** etc.

There were elements of three dining services plus a group of vessels linked to food preparation that can all be linked to Trinity Hall. The most common service is decorated with a blue transfer-printed Egg & Dart pattern around the rim; some also have a transfer-printed crest of Trinity Hall. Some of these vessels had the transfer-printed name TRINITY HALL on the underside and/or a diamond registration mark indicating that the design was registered on the 5th of March 1845. The second most common service consisted of plain vessels bearing the blue transfer-printed name AUL TRIN. The third dining-related service consists of plates with a central blue transfer-printed college crest and hand-painted gilt and blue lines around the rim. Some vessels from all three services have makers' marks indicating that they were produced by COPELAND. There were also some plain kitchen bowls with several black transfer-printed names on them including Trinity Hall, Aul Trin and a partial name ..ller. At least some of these latter vessels were produced by Minton. There were also a smaller number of vessels linked to Clare Hall and individuals named J. Fuller and Owen. There was also a considerable body of non-collegiate pottery. Notable material in this group includes two French Moutarde de Maille mustard jars, three Nieder-Selters-type mineral water bottles from Germany (*cf.* Cotter 2000, 293) and five matching stoneware jars manufactured by Powell of Bristol with their associated lids.

In terms of significance, the Trinity Hall-related ceramics from **F.24**, **F.722** etc. are of considerable importance, both in terms of the light they shed on mid 19th century dining at a Cambridge college and also the mechanisms by which the material came to be deposited at a non-collegiate site. The other assemblages are of more limited significance. **F.159** is an intriguing group which has the potential to shed considerable light on the household that created it, particularly in conjunction with a consideration of the other types of material from the same feature and if it can be linked to a particular occupier of the property. The same holds true to a more restricted extent for **F.63**. **F.83** is the feature group with the least inherent interpretive potential, whilst the rest of the assemblage is of very minor importance.

Glass (Vicky Herring & Craig Cessford)

The excavation at the Eastern Gate Hotel site produced a total of 1575 individual fragments of glass collected from 46 features. The vast majority of the collection (99%) consists of vessel glass representing a minimum of 316 individual vessels of which 88.6% are utility bottles for food/drink, the remaining 11.4% representing 7 drinking glasses, 24 pharmaceutical bottles, 2 perfume bottles, 2 ink bottles and a single vase/bowl. The remainder of the collection is made up of 15 window glass fragments and a single piece of cullet. The collection has been visually assessed on a feature-by-feature basis noting diagnostic elements that indicate type, form, and date and techniques of manufacture. Vessel glass is quantified as a minimum number of vessels represented in each feature; these vessels are then divided by type and function. The utility bottles are mostly of English origin and are to be taken as such unless otherwise specified; they are also of cylindrical shape unless otherwise stated. The overall results are summarised by feature below.

F.18: This pit contained fragmented glass from 9 vessels relating to food and drink, all of which was of mid. 19th century manufacture. Of the two Hamilton (Torpedo) bottles, one retains some embossing which reads: ….WATERS……IP STONE & CO……1801. Two colourless body fragments of fluted glass are all that remains of a ketchup/catsup bottle making it difficult to ascertain any detailed information about its form and manufacture. All of the vessels were moulded and of cylindrical form. One of the utility bottles of 'black' glass has a daisy within a circle embossed on the underside of the base.

Feature	Object	Type/form	Colour	Date
F.18	Vessel	1-2. Utility Bottle	Light green	Mid 19th century
		3-4. Utility Bottle	Black	
		5-6. Hamilton Bottle	Light green	
		7. Wine – 'Hock/Rhine' style	Black	
		8. Wine – 'Bordeaux' style	Olive green	
		9. Food- Ketchup/catsup	Light green	

Table 30: Breakdown by type/form of glass from **F.18**

F.24: This large and mixed group of vessel glass contains 186 individual fragments representing a minimum of 47 vessels, all mid-late 19th century in date and dominated by 20 cylindrical, black glass utility bottles that probably contained alcoholic beverages. A single green glass utility bottle is embossed: FRIEDRICHSHALL C.OPPEL & CO on the base and contained Friedrichshall Bitter Water. There are also 12 colourless glass food/sauce bottles and 5 'Hamilton' soda water bottles plus 3 blue glass pharmaceutical bottles and 1 colourless phial. Other items include a red glass utility bottle, a green glass vase or bowl, a green glass perfume bottle, a colourless glass ink bottle, and an unidentified green glass vessel.

Feature	Object	Type/form	Colour	Date
F.24	Vessel	1-20. Utility bottle	Black	Late 19th century
		21. Utility bottle – Bitter water	Green	
		22. Utility bottle	Red	
		23-27. Hamilton bottle	Green	
		28-39. Food - Sauce	Colourless	
		40-42. Pharmaceutical bottle	Blue	
		43. Pharmaceutical Phial	Colourless	
		44. Perfume	Green	
		45. Vase/bowl	Green	
		46. Ink	Colourless	
		47. Unidentified	Green	

Table 31: Breakdown by type/form of glass from **F.24**

F.46: A single mid-late 19th century black glass utility bottle.

F.47: This group contains 12 vessels all of mid-late 19th century manufacture. It consists of 4 black glass utility bottles as well as 2 sauce bottles and a 'Hamilton' soda water bottle representing vessels used for food and drink. There are also 2 colourless pharmaceutical bottles and 3 unidentified vessels.

Feature	Object	Type/form	Colour	Date
F.47	Vessel	1-4. Utility bottle	Black	Mid-late 19th century
		5. Hamilton bottle	Green	
		6-7. Food - sauce	Colourless	
		8-9. Pharmaceutical bottle	Colourless	
		10. Unidentified	?	

Table 32: Breakdown by type/form of glass from **F.47**

F.55: All of the 5 vessels collected from this pit are related to drinking. Fragments of two utility bottles, likely containing ales and two wine bottles are represented here alongside an incomplete, heavy, lead glass tumbler. The tumbler was press moulded and fire polished while the bottle glass appears to have been either free blown or blown into a mould suggesting a mid 19th century date of manufacture.

Feature	Object	Type/form	Colour	Date
F.55	Vessel	1. Wine/champagne	Olive green	*c*. 1840-70
		2. Wine – 'Hock/Rhine' style	Black	
		3-4. Utility Bottle	Black	
		5. Drinking glass - tumbler	Colourless	

Table 33: Breakdown by type/form of glass from **F.55**

F.56: This group is all mid-late 19th century in date and consists of 4 vessels of mixed function. These are a single green glass utility bottle plus three clear glass vessels; a wine glass, perfume bottle and utility bottle of unidentified function.

Feature	Object	Type/form	Colour	Date
F.56	Vessel	1. Utility bottle	Green	Mid-late 19th century
		2. Utility bottle	Colourless	
		3. Drinking glass - wine	Colourless	
		4. Utility Bottle	Colourless	

Table 34: Breakdown by type/form of glass from **F.56**

F.57: All three vessels from this soakaway are of moulded, mid to late 19th century manufacture. The Utility and Hamilton bottles retaining some embossing, al though the embossing on the underside of the base of the utility bottle is too fragmented to make out and the Hamilton only retains the words:…STREET…ST…. The exact form of the blue opaque glass decanter cannot be fully determined as the majority of the body is not present. It is pressed moulded and has a glass tipped pontil scar and flared and fire rounded rim.

Feature	Object	Type/form	Colour	Date
F.57	Vessel	1. Bottle/decanter	Blue opaque	Late 19th century
		2. Hamilton bottle	Light green	
		3. Utility Bottle	Black	

Table 35: Breakdown by type/form of glass from **F.57**

F.63: This group contains 42 fragments representing a minimum of 6 individual vessels mostly related to the consumption of alcohol. These vessels are 3 black glass utility bottles dating to c.1780-1820 and a plain 'rummer' glass of early 19th century manufacture. There are also two pharmaceutical phials.

Feature	Object	Type/form	Colour	Date
F.63	Vessel	1-3. Utility Bottle	Black	Mid 19th century
		4. Drinking glass - rummer	Colourless	
		5-6. Pharmaceutical phial	Colourless	

Table 36: Breakdown by type/form of glass from **F.63**

F.66: Fragments of two bottles both of which are of late 19th century, moulded construction and neither of which are associated with the consumption of food and drink. A small fragment of a blue, hexagonal bottle most likely contained a pharmaceutical product or poison. The more complete of the two vessels is a pouring ink attributed to the late 19th century London based 'Hyde & Co.'. The cylindrical bottle has a fire polished pouring lip and embossed body: HYDE, 61 FLEET ST, LONDON.

Feature	Object	Type/form	Colour	Date
F.66	Vessel	1. Ink - Hyde	Light green	Late 19th century
		2. Pharmaceutical	Blue	

Table 37: Breakdown by type/form of glass from **F.66**

F.69: Unfortunately the glass from this feature is extremely fragmented and consists only of relatively non-diagnostic body shards. The well has been dated to the 17th century and the quality of most of the glass, which is heavily patinated, suggests that this date is conceivable for its manufacture and deposition. An olive green utility bottle base shard from a free blown vessel with high base kick is the only fragment in this group with no patina suggesting that it is possibly intrusive, though there are not enough diagnostic elements to be certain of its date. A natural coloured, heavily patinated window shard is possibly of 'cylinder' manufacture but has no further diagnostic features.

Feature	Object	Type/form	Colour	Date
F.69	Vessel	1-2. Utility bottle	Olive green	17th century
		3. Utility bottle	Green	
	Window	?Cylinder	Blue/green	

Table 38: Breakdown by type/form of glass from **F.69**

F.76: This pit contained only one fragment of a colourless, lead-based drinking glass. The bucket bowl and short, plain stem divided by a flattened knop identify this as a 'rummer' of early 19th century date (*c.* 1820s) (Bickerton, 2000).

F.83: This group is all mid-late 19th century in date. There are 82 vessels in all (453 fragments) 29 of which are black glass utility bottles that probably contained alcoholic beverages, one is embossed: PIL…, and another: …AL. There were a significant number of clear glass soda water bottles; Codd bottles were the most common (18) followed by 'Hamilton' bottles of which there were 8. Of the Codd bottles at least 9 appear to have been deliberately smashed to retrieve the marble from them and one stray marble was recovered. Eleven are identical and embossed: CODD PATENT 6 / BARNETT & FOSTER AGENTS LONDON but have no actual supplier's name. One is embossed: CODD'S PATENT LONDON SE / SYKES MACVAY & Co MAKERS CASTLEFORD (1860s to 1888) and there is a smaller example embossed: CODD'S PATENT 4 LONDON SE. The torpedo shaped 'Hamilton' bottles include 2 embossed: CAMBRIDGE, one embossed: SUPERIOR and one with the letters ...MAS'S. The Codd bottle was invented by Hiram Codd of Camberwell in 1872 and patented in 1875 and became the dominant form in the 1880's (Talbot 1974); this suggests that this deposit dates to *c*. 1880-1900. Other clear glass vessels include 3 pharmaceutical Phials, (one embossed: …PITAL CAMBRIDGE and a complete example embossed: BB&Co), 3 colourless tumblers, 3 food/sauce bottles, 3 footed glasses, a jug, a complete glue bottle embossed: THE MEND-ALL CEMENT, and a single utility bottle of unknown function. There is a complete green glass Lea & Perrins Worcestershire sauce bottle, and a complete green glass pharmaceutical bottle embossed: KAY'S COMPOUND ESSENCE OF LINSEED / STOCKPORT / KAY BROTHERS. This was for linseed cough compound, predominately used domestically for laxative use. The firm was established in 1866 and received letters patent for its linseed product in 1873. There was also an ornate green glass vase with gilt decoration. There are 3 blue glass pharmaceutical bottles, one of which is complete and embossed: NUBIAN and which has traces of a black residue still adhering to the inside. Two vessels are of red glass, one a utility bottle and one a drinking glass decorated with a grape pattern suggesting that it was used for wine.

Feature	Object	Type/form	Colour	Date
F.83	Vessel	1-29. Utility bottle	Black	Mid-late 19th century
		30. Utility bottle	Colourless	
		31. Utility bottle	Red	
		32-50. Codd bottle	Green	
		51-58. Hamilton bottle	Green	
		59-61. Food – sauce	Colourless	
		62. Food – Lee & Perrins		
		63-65. Drinking glass – tumbler	Colourless	
		66-68. Drinking glass – footed		
		69. Drinking glass – wine	Red	
		70-72. Pharmaceutical Phials	Colourless	
		73-75. Pharmaceutical bottle	Blue	
		76. Pharmaceutical bottle – 'Kays'	Green	
		77. Glue bottle	Colourless	
		78. Jug	Colourless	
		79. Vase	Green	

Table 39: Breakdown by type/form of glass from **F.83**

F.93: A single vessel fragment representing the 'blob' top of a 'Hutchinson' type bottle. This form of closure was patented in 1879 thus dating this vessel to the late 19th century (*c*. 1879-1905).

F.98: A top/neck fragment of free blown, olive green utility bottle with a single applied collar below the lip is the only glass from this feature. The form of the bottle cannot be determined but the size and position of the applied collar, and the heavily patinated condition suggest an 18th century date for this piece.

F.99: Parts of three utility bottles were collected from cellar F.99, one of which appears to be significantly later than the others and therefore is likely to be intrusive. The two olive green bottles are free blown and patinated, and though body form cannot be identified due to the fragmented nature of the pieces, the applied collar on the top/neck shard suggests an 18th century date of manufacture. The colourless bottle is more uniform and cylindrical and though body form is again uncertain, this vessel appears to be of 19th century date.

Feature	Object	Type/form	Colour	Date
F.99	Vessel	1. Utility bottle	Olive green	18th century
		2. Utility bottle		
		3. Utility Bottle	Colourless	19th century

Table 40: Breakdown by type/form of glass from **F.99**

F.100: Two fragments of glass, representing one, free blown, green Utility bottle of 18th century manufacture. The precise form of this vessel cannot be ascertained from the fragments available but the fragment of top does display a single applied collar below the lip. Both fragments have a thick patina.

F.101: An undiagnostic body fragment of a free blown, olive green, utility bottle.

F.102: Two pieces of natural blue/green, patinated, window glass, one of which has the remains of one edge. Pit F.102 has been dated to the 15th/16th century and while there is no visual diagnostic evidence to accurately date these window fragments, there is also no evidence to suggest that they would not be of a similar date.

F.104: This pit contained the remains of two vessels, as well as a small fragment of blue/green window glass. The two vessels are utility bottles of early 19th century date, represented by 4 fragments, one of which displays a disc pontil scar.

Feature	Object	Type/form	Colour	Date
F.104	Vessel	1. Bottle/decanter	Olive green	*c*. 1800-30
		2. Hamilton bottle		
	Window	?Cylinder	Blue/green	

Table 41: Breakdown by type/form of glass from **F.104**

F.106: This feature contained only a small fragment of colourless window glass of 19th century or later manufacture.

F.110: The two small shards of glass collected from Well F.110 are from two, free blown, cylindrical, 17th or 18th century utility bottles, one black and one green in colour.

F.114: The top and neck of a free blown, olive green utility bottle. The bottle has a thick patina over a slender, tapering neck with thin, single applied collar below the lip. Although the body form cannot be ascertained the shape of the neck and collar suggest this bottle was manufactured in the 17th or 18th century. It's presence in this 15th/16th century pit is therefore likely to be intrusive.

F.154: No vessel glass was present in well F.154, only 5 shards of window glass possibly of 'cylinder' construction. All of the fragments are incredibly degraded and highly patinated, and are scratched and weathered on the surfaces. Three of the fragments have grozed edges, one of which is an almost complete rectangular shape of 36x27x3mm. One shard is encrusted in places suggesting the possibility that it was painted and also has a regular curved (concave), though not grozed, edge suggesting it was cut to an unusual shape. The degraded, fragile, condition of these fragments suggests that they are likely to be early post medieval in date.

F.159: This group of 23 vessels is dominated by 20 black glass utility bottles that were probably used principally for alcohol. They form a coherent group dated *c*. 1780-1820 but most probably to the 1780's and this dating is not contradicted by the other material. Four of these vessels have wider necks and rims and were probably for the storage of vinegar or oil. There is also a single, colourless, footed glass, probably for wine drinking, a pharmaceutical phial and some form of fine vessel that can not be identified.

Feature	Object	Type/form	Colour	Date
F.159	Vessel	1-16. Utility bottle	Black	*c*. 1780-1820
		17-20. Utility bottle – wide neck		
		21. Drinking glass - footed	Colourless	
		22. Pharmaceutical phial	Green	
		23. Unidentified	Green	

Table 42: Breakdown by type/form of glass from **F.159**

F.160: Nineteen fragments of early to mid 19th century vessel glass representing a minimum of 6 bottles (5 utility and 1 pharmaceutical). With the exception of one very tiny fragment of what may be a moulded bottle of rounded rectangular shape, the remaining utility bottles are cylindrical and regular in shape suggesting that they are possibly mould blown. Three bases of black glass show high base kicks, one of which has a disc pontil scar, the other two having none. The only top/neck present in this collection has an applied top and collar. The pharmaceutical bottle has clearly visible mould seams and measurements in roman numerals embossed along one face.

Feature	Object	Type/form	Colour	Date
F.160	Vessel	1. Pharmaceutical bottle - octagonal	Pale blue/green	Early-mid 19th century
		2-5. Utility bottle	Black	
		6. Utility bottle	Colourless	
		7. Utility bottle	Olive green	
		8. Utility bottle – ?Rounded rectangular	Olive green	

Table 43: Breakdown by type/form of glass from **F.160**

F.161: This feature contained 38 fragments of glass representing a minimum of 21 vessels, all of which are, black or green, free blown, cylindrical utility bottles of late 18th or early 19th century manufacture. The majority of this group is made up of bases, the thickest and strongest part of the bottle and thus the most likely to survive. All of the base fragments show pontil scars, and the top/neck fragments have a single applied collar below a rounded off lip. This is a relatively large dump of drink related bottle glass most likely the refuse or waste from a commercial establishment rather than a domestic property.

Feature	Object	Type/form	Colour	Date
F.161	Vessel	1-17. Utility bottle – Cylindrical FB	Black	Late 18th/early 19th century
		18. Utility bottle – Cylindrical FB	Green	
		19-21. Utility bottle – Cylindrical FB	Olive Green	

Table 44: Breakdown by type/form of glass from **F.161**

F.172: A single body shard from a cylindrical utility bottle of 'black' glass.

F.197: A minimum of two vessels from 5 fragments of black and olive green glass. Both are cylindrical utility bottles of 19th century date.

F.290: A single body shard of 19th century, olive green, cylindrical utility bottle.

F.301: The two fragments of black glass utility bottle from this spread are both from free blown vessels of unknown body form. The top/neck piece has a single applied collar below the lip and is heavily patinated. The base shard has grozing along one edge suggesting possible re-use before deposition. The shape of these bottles cannot be ascertained from the surviving fragments making their date of manufacture uncertain.

F.311: This small top/neck shard of olive green glass represents a utility bottle of unknown form. The applied collar and the thick patina suggest an 18th century or earlier manufacture.

F.331: An incomplete drinking glass was the only glass found in this layer. It is a rummer of early 19th century date (*c*. 1820) (Bickerton 2000). The bowl is incomplete but appears to be of 'round funnel' shape, the stem is short and plain with a collar under the bowl, and the foot is solid conical.

F.337: A single, very badly degraded fragment of medieval window glass, natural blue/green in colour with one rounded edge remaining suggesting possible 'crown' method of manufacture.

F.340: A relatively undiagnostic base fragment from a 19th century, black glass, utility bottle.

F.358: An edge piece of natural blue/green window glass, thickly patinated and with bubbles and imperfections. Possibly medieval in date.

F.397: This pit contained 3 fragments of the same olive green, cylindrical utility bottle. This bottle was possibly blown in a mould and has an applied top and collar dating it to the mid to late 19th century.

F.398: Alongside a single base fragment of black glass, cylindrical utility bottle this pit contained a piece of cullet. The cullet is also of black glass suggesting it originated as one or more black glass utility bottles, and has some iron pan residue attached to it. This was most likely discarded as an unusable waste piece.

Feature	Object	Type/form	Colour	Date
F.398	Vessel	1. Utility bottle	Black	Early 19th century
	Cullet		Black	

Table 45: Breakdown by type/form of glass from **F.398**

F.442: Two free blown, late 18th/early 19th century, cylindrical utility bottles, one represented by a single body shard and the other in 4 base fragments.

Feature	Object	Type/form	Colour	Date
F.442	Vessel	1. Utility bottle	Green	Late 18th/early 19th century
		2. Utility bottle	Black	

Table 46: Breakdown by type/form of glass from **F.442**

F.481: A minimum of 2 vessels are represented in the 6 glass fragments found in this pit. Both vessels are heavily patinated, free blown, cylindrical utility bottles probably manufactured sometime between c.1780-1840.

Feature	Object	Type/form	Colour	Date
F.481	Vessel	1-2. Utility bottle – Cylindrical FB	Olive green	*c*. 1780-1840

Table 47: Breakdown by type/form of glass from **F.481**

F.482: Nine fragments of glass representing a minimum of 6 vessels, all free blown utility bottles of late 18th/early 19th century manufacture.

Feature	Object	Type/form	Colour	Date
F.482	Vessel	1-4. Utility bottle – Cylindrical FB	Black	*c*. 1780-1840
		5-6. Utility bottle – FB	Green	

Table 48: Breakdown by type/form of glass from **F.482**

F.485: This pit contained 10 utility bottles, and is unusual in that, with one exception, all of the vessels are represented by bases. One vessel only consists of a neck/shoulder section and this is of green glass as opposed to the black glass of all of the base fragments. Some of the bases show the remains of disc pontil scars. The shape of the bases suggests that the bottles were most likely of cylindrical form and of late 18th or early 19th century manufacture.

Feature	Object	Type/form	Colour	Date
F.485	Vessel	1. Utility bottle – Cylindrical FB	Green	*c*. 1780-1840
		2-10. Utility bottle – Cylindrical FB	Black	

Table 49: Breakdown by type/form of glass from **F.485**

F.535: A single, natural blue/green coloured fragment of early, heavily patinated window glass.

F.543: This feature was mixed, though only three shards of glass were recovered. Two of these are vessels, one a body shard from a utility bottle of unknown form, and the other a moulded octagonal pharmaceutical bottle base with lozenge shaped indent. The remaining fragment is a very light green shard of window glass

with very thin patina and few imperfections. Grozing along one side shows less wear than the rest of the fragment suggesting possible re-use. All of the glass from this pit is of late 19th or later manufacture.

Feature	Object	Type/form	Colour	Date
F.543	Vessel	1. Utility bottle	Light green	Late 19th century
		2. Pharmaceutical bottle	Light green	
	Window	?Cylinder	Light green	

Table 50: Breakdown by type/form of glass from **F.543**

F.573: An edge shard and a corner shard of colourless, even window glass from the late 19th century or later.

F.722: This large group is made up of 324 individual fragments representing 43 vessels, all of mid-late 19th century manufacture, and is dominated by 16 black glass utility bottles. Eight colourless glass vessels are sauce bottles, one of which contained Lea & Perrins Worcestershire sauce. There are 7 clear glass soda water bottles. These were principally 'Hamilton' bottles, 2 of which were 'Schweppes' company, 1 a 'Daily?? of Leamington' and one an unidentified King's Lynn bottler. There is also a single Codd bottle. Other items include a red bottle of unidentified function, a colourless perfume bottle, a colourless utility bottle of unidentified function and 8 colourless pharmaceutical bottles.

Feature	Object	Type/form	Colour	Date
F.722	Vessel	1-16. Utility bottle	Black	Mid-late 19th century
		17. Utility bottle	Colourless	
		18. Utility bottle	Red	
		19-25. Hamilton bottle	Colourless	
		26. Codd bottle	Green	
		27-34. Food – sauce	Colourless	
		35-42. Pharmaceutical bottle	Colourless	
		43. Perfume bottle	Colourless	

Table 51: Breakdown by type/form of glass from **F.722**

The collection as a whole is very fragmented with most pieces, especially the earlier vessel fragments, retaining very few diagnostic elements. Where larger fragments survive they are usually bases or base fragments of utility bottles which are the thickest and heaviest part of the bottle and therefore the most likely to survive. The form of the bottle as a whole cannot always be determined from the base alone. Although vessels relating to food and drink make up the majority of the entire collection the glass types are generally grouped by function within most features. For instance while many features contain vessels relating only to food and drink, others, most notably posthole **F.66**, have pharmaceutical bottles only and most of the early wells have no vessel glass at all, only very degraded window glass. The later and larger groups of the 19th century are more mixed, though the food and drink vessels still dominate. This suggests that the 17th/18th century glass, in particular, was possibly discarded in groups from within specific types of establishment, whereas by the late 19th century as glassware was more common the deposits become more mixed and from establishments selling varieties of goods. Structure F.83 is one example of this as it contained a very large 19th century collection of mixed glass suggesting an establishment such as general store/pharmacy. More colourless vessels are also present in the later collections as the ability to achieve the temperatures required to make it existed by this time. Scientific analysis of the collection, especially chemical composition of the window glass, could provide further insights and dating information.

Clay (& Meerschaum) Tobacco Pipe (Craig Cessford)

A relatively small assemblage of clay tobacco pipe was recovered, with 384 fragments weighing 1072g and 13.98m of stem. This consists of mouthpieces (38 pieces, 57g), stem fragments (273 pieces, 650g), heels/spurs (16 pieces, 64g) and bowls (57 pieces, 301g), plus a single other object made of pipe clay (4g) and a meerschaum pipe bowl (35g). The presence of clay tobacco pipe in a

context indicates a date of *c*. 1580–1910. Bowls have been categorised using the Oswald general typology (1975). Information on makers derives largely from Cessford (2001), although subsequent unpublished research has modified some of the identification and dating of manufacturers. There was only one significant assemblage (**F.83**), with all other features only producing a few fragments apiece. The overall assemblage represents at least 63 clay pipes (MNI), 37 of which come from **F.83**. Excluding **F.83**, which is discussed below, the bowl forms represented are type 5 (2 examples, *c*. 1640–60), type 10 (2 examples, *c*. 1700–40), type 22 (1 example, *c*. 1730–80), type 12 (1 example *c*. 1730–80) and general 19th century forms (6 examples, 4 of these are decorated with oak leaves on the front and rear of the bowl and one has a fluted bowl). The only maker's mark comprises the initials TC on the spurs of two pipes; based upon the dates of the features these were probably produced by Thomas Cleaver I (active *c*. 1839–52).

The only significant assemblage was from **F.83** dated to *c*. 1886–90. One of the general fills **[220]** of this feature contained parts of at least 15 pipes (MNI count based upon mouthpieces, bowl count MNI 12). The bowls are all small examples of late 18th–19th century type and the bowls include examples with fish scale decoration (MNI 2), pronounced fluting (MNI 2), acorn decoration (MNI 1), petals/foliage with the stem shaped like a stem/trunk (MNI 1), ornate decoration with the initials WS on the spur and an example with ribbing on front and rear of the bowl, two balls at the heel/spur location and the name J CLEEVER / CAMBRIDGE on the stem, produced by John Cleever II (*fl.* 1865–83) who worked on Newmarket Road. There was also a small finial shaped like a dog's head made from pipe clay. There was also a discrete cluster of clay tobacco pipe fragments **[243]** which contained parts of at least 22 pipes (MNI count based upon mouthpieces, bowl count MNI 7). The bowls include plain examples MNI 2), a cross keys design on the side of the bowl (MNI 2) and fish scales (MNI 2). At least five of the mouthpieces were painted red and one was of a flattened design, as were two in the general fill. In total there was 372.9cm of stem in **[243]** (16.95cm per mouthpiece) and 421.8cm in **[220]** (28.12cm per mouthpiece). The material from **F.83** represents the largest late 19th century group recovered from Cambridge and sheds significant light on the latter stages of the local industry. The pattern of material and the preponderance of mouthpieces in **[243]** in particular is intriguing, and suggests some form of primary deposition. The scale, with at least 37 pipes represented, probably represents disposal of material at a level greater than the individual household and could represent an inn or similar establishment.

Figure 28. Meerschaum pipe bowl from **F.24**

The meerschaum pipe (**[060]**, **F.24**; Figure 28) depicts a winged skeleton holding a scythe and with skulls around its feet. It is substantially complete, with just the head of the skeleton and the stem portion of the pipe missing. Meerschaum or sepiolite is a soft white mineral that has been used for making pipes since 1723. The mineral was extracted from near Eskişehir in Turkey and then shipped to central European manufacturing centres such as Vienna. Meerschaum is initially soft and well suited to complex carving; it is then hardened by exposure to solar heat or drying in a

warm room. Meerschaum pipes were an expensive premium product; they are relatively rare discoveries archaeologically, especially in comparison to clay tobacco pipes. Their use is usually evinced archaeologically through associated amber, carved bone, vulcanite and plastic mouthpieces rather than the pipes themselves. The angel of death is probably a depiction of Abaddon 'the destroyer' (Revelation 9, 7–11).

Worked Bone (Richard Newman & Vida Rajkovača)

A relatively small worked bone assemblage – consisting of seven items, weighing 81g – was recovered. The material spanned the 15th to 19th centuries, and included a flute fragment, three awls/bodkins, two undecorated knife handles and a gaming counter. In date order, the items comprise:

F.489, **[1680]**, **<1319>**, Phase II (15th century): A fragment derived from an awl or bodkin; the point is broken. It measures 95mm+ long and 7mm wide, tapering to 4mm. It is circular in profile, and composed of the splinter of a cattle-sized limb shaft with elements of cancellous bone still visible. It weighs 5g.

F.489, **[1682]**, **<1325>**, Phase II (15th century): A polished flute fragment with two complete surviving perforations. These consist of a sub-rectangular window located towards the proximal end of the shaft, along with a circular tonehole. A second, partial tonehole is also present. The fragment measures 81mm in length with a maximum width of 20mm towards the proximal end, which then tapers to 14mm. The window is 6mm in length and 5mm wide. The tonehole is circular and 4mm in diameter. The flute is composed of the mid shaft of a left tibia derived from a sheep/goat, with the perforations positioned on the posterior face. It most probably belongs to the category of small sheep bone flutes as it has no surviving evidence of a thumbhole, a feature which tends to be present on larger examples (Leaf 2006, 15). It weighs 18g.

F.454, **[1676]**, **<1312>**, Phase II (16th century): A complete awl or bodkin. It measures 112mm long and 6mm wide, tapering to 1mm at its point. It is circular in profile, and composed of the splinter of a cattle-sized limb shaft with elements of cancellous bone still visible. It weighs 5g.

F.69, **[177]**, **<1745>**, Phase III (17th century): A shaft fragment derived from a probable awl or bodkin. It measures 114mm long and 11mm wide, tapering to 7mm. It is oval in profile, and composed of the splinter of a cattle-sized limb shaft with elements of cancellous bone still visible. It weighs 13g.

F.535, **[184]**, **<1112>**, Phase III (17th century): A near complete hand-carved but undecorated knife handle. It measures 100mm long and 20mm wide, tapering to 15mm. A fragment of the handle is missing towards the recessed end where the blade originally emerged, thus revealing the centrally drilled tang-hole. It is composed of a heavily-worked cattle- or horse-sized metapodial, and weighs 34g.

F.46, **[107]**, **<1810>**, Phase IV (19th century): A circular machine-cut gaming counter, which measures 25mm diameter and less than 0.5mm in thickness. Its thinness and flatness are suggestive of it being derived from a scapula blade. It weighs <1g.

F.83, **[220]**, **<1811>**, Phase IV (19th century): A partial undecorated knife handle fragment with a dished blade recess and centrally drilled tang-hole. The narrower side near the recessed end has a partially drilled perforation, *c.* 1mm diameter, which may relate to its manufacture. It measures 55mm+ long and 11mm+ wide. It is composed of a heavily-worked cattle-sized metapodial, and weighs 5g.

Worked and Fired Clay (Simon Timberlake)

A total of five fragments of worked clay, weighing 152g, were recovered. These consisted of fragments derived from a possible loomweight – of uncertain shape, but most likely Anglo-Saxon in date – which was re-deposited within medieval well **F.339**.

F.339, **[2062]**, **<968>**: Five fragments of moulded and burnt clay, probably all from the same object, although none appear to be re-fitting (the largest piece is 50mm x 40mm x 70mm and the total weight is 152g). These have a light yellowish-buff brown exterior with a dark grey to black reduced interior. The suggestion of a flattened moulded top and barrel-like sides with the impression of a stick hole perforation pierced from the exterior indicates a possible loom weight (size perhaps under 100mm).

In addition to the above, a further 730 fragments of burnt clay daub, weighing 55.9kg, were recovered. By far the largest quantity of material was present within medieval oven **F.151** (although this group may have been derived from several sources). The largest of these pieces, several of which were moulded, came from a daub-built oven, which seems likely to have consisted of a flat-floored dome-like structure with walls up to 40-50mm thick. Straw and chaff as well as flint and the ubiquitous dried lumps and fragments of crushed burnt clay had been used in the manufacture of the daub for this, and some of the other oven linings examined. Nevertheless,

the composition of daub varied between structures, suggesting different makers, sources of clay, and probably also periods of use.

F.31, **[0142]**, **<468>**: 92 buff-coloured burnt clay daub fragments (1.054 kg). The largest piece shows traces of an external surface (60mm x 60mm x 20mm). No wattle impressions, but plenty of 3D mix of chopped straw and chaff within clay, along with occasional flints and broken-up fragments of previously burnt (pink-red) daub. Probably from an oven structure.

F.68, **[0172]**, **<362>**: Four small pieces of buff-white to pink burnt clay daub (26g) There is evidence for some inclusions of re-used clay and organic material (wheat chaff?).

F.86, **[0280]**, **<405>**: A single fragment of hard-fired pinkish-cream coloured burnt clay daub with impression of chaff and also reddened flint inclusion. Also evident is a subsequent secondary surface layer of buff coloured clay applied to the exterior, with the impression of organic, either reeds or straw adhering (10g).

F.96, **[0303]**, **<4217>**: A highly-fired fragment of reddish-brown burnt clay daub. A quite different fabric – this piece may have become detached and burnt in a hearth (10g).

F.151, **[0525**], **<1247>**: A total of 537 fragments of buff to cream-yellow coloured baked chalky daub, weighing 50.5kg, were present within this feature; a sample of four large diagnostic pieces (total weight 2.928 kg) was retained. The largest piece is 200mm x 120mm x 60mm (1.058 kg), whilst another of the pieces (160mm x 160mm x 110mm: 1.052 kg) appears to be part of the moulded triangular corner of an (oven?) structure with an internal angle of 120˚, one side of the latter being a flat face which might be forming the floor or roof of this structure. The clay appears to be burnt, but is not particularly reddened, nevertheless it is very porous on account of the ubiquitous hollow impressions of straw, chaff and other plant inclusions, and in places by flat surfaces formed by adhering mats of woven or else laid thin wattle reinforcement. There appear to be few inclusions of re-used clay or daub or flint. The fabric of this is very different to that seen in **F.345**. Almost certainly part of an oven structure, although there are no obviously burnt and reddened fire-stained surfaces within any of the fragments recovered. At least four internal or external surfaces were noted. The one angled piece does suggest this was part of a flat-floored elongated daub-built dome structure with walls up to 40-50mm thick. However, the exact shape and dimensions of the whole structure might be better determined from the original excavation plan and records.

F.166, **[632]**, **<666>**: A single piece of buff coloured burnt clay, probably exfoliated from the outside of an oven or other structure (60mm x 45mm x 8mm (thick); weight 32g).

F.292, **[1000]**, **<836>**: Eight fragments of fairly undiagnostic yellow-cream to pinkish coloured burnt clay daub (100g). This contains small inclusions of hardened clay/ re-used daub and the impressions of straw chaff. One of the pieces shows fire-reddening on the inside and sooting on the outside – the thickness of this piece being about 40mm. Probably fragments of a daub-built oven. Within fill **[1002]** (**<837>**) were four more fragments similar to the above (58g). Finally, within fill **[999]** (**<832>**) were two fragments of buff-cream coloured burnt clay daub, probably broken off from the bottom lip or else top of an oven (60mm long and between 8mm and 25mm thick; weight 78g). This has traces of pinkish clay as inclusions alongside straw and chaff, as well as soot stains, similar to <836>.

F.345, **[1407]**, **<923>**: 86 pieces of grey to yellowish-red/brown and slightly burnt to apparently unburnt clay daub (2.2kg). There is little evidence of any structure to this clay daub; there being no inclusions of wattling, and only small amounts of straw and chaff or other organic, yet slightly more in the way of hardened clay lumps (perhaps broken-up and re-used daub) and minor amounts of grey and pinky red burnt flint.

Worked Stone (Simon Timberlake)

A moderately-sized assemblage of worked stone – comprising 14 fragments, weighing 27.6kg – was recovered. This included a probable Prehistoric flint hammerstone, five medieval whetstones plus fragments derived from six contemporary rotary querns as well as part of a large granite millstone of probable 19th century date (Table 52).

As a whole, this assemblage is indicative of a considerable level of re-deposition, as well as the subsequent re-use of quern (along with moulded stone) as building stone. Like the moulded stone, this relatively uncommon assemblage of probably medieval lava quern may have been associated with the prestigious and moderately wealthy establishment of Barnwell Priory. Meanwhile the small amount of imported quartz schist whetstone (see Hansen 2009) maybe associated with the *in situ* domestic rubbish that was deposited at the site. The possible scythe stone is an interesting find, as it provides an example of the far-reaching trade of the Blackdown Hills mining industry. The single fragment of granite millstone is probably quite unrelated to the domestic assemblage outlined above. Such large stones were sometimes used in the 19th century for grinding mined coprolites. Workings for these existed just a short distance away on Coldham's Common (Grove

1976). This example appears to have been broken up and then used as rubble for infill or foundations.

Feature	Context	Type	Date of Manufacture	Date of Deposition	Weight (g)
15	0034	Whetstone	Medieval	15th century	302
60	0154	Rotary quern	Medieval	19th century	1610
69	0177	Whetstone	Medieval?	17th-18th century	84
110	0684	Whetstone	Medieval	13th-14th century	280
136	1497	Whetstone	Medieval	14th-15th century	74
194	0692	Rotary quern	Medieval?	16th century	432
247	1966	Rotary quern	Medieval	19th century	838
298	1007	Rotary quern	Medieval	15th-16th century	1052
378	1452	Whetstone	Medieval	14th-15th century	146
378	1452	Rotary quern	Medieval	14th-15th century	1018
565	2095	Rotary quern	Medieval?	14th century	1432
583	0300	Rotary quern	Medieval	15th century	42
Unstrat.	1967	Hammerstone	Prehistoric	19th century	930
Unstrat.	1967	Millstone	19th century?	19th century	19330

Table 52: Worked stone assemblage by type

Hammerstone

[1967], **<255>**: A round/oval-shaped hammerstone made from a flint cobble. This appears to have been well-used at one end only, and is flattened at the base, with a well-developed pounding facet. It seems unlikely this had been used for preparing flint nodules, and it may have had some partly domestic purpose. Possibly slightly burnt on one side, but not cracked. Of uncertain date, though most likely Prehistoric. Recovered during machine from 19th century overburdern. Dimensions: 90mm x 80mm. Weight: 930g.

Whetstones

F.15, **[0034]**, **<281>**: A broken mid-section fragment (90mm x 40-50mm x 30-33mm (thick); weight 302g) from a large medium-coarse grained whetstone, possibly a scythestone, manufactured from a pale yellow-green micaceous and glauconitic (also slightly calcareous) sandstone. The origin of this stone may have been the Upper Greensand (Albian, Cretaceous) Blackdown Sand of East Devon, the Whetstone Beds of which were quarried and mined from the Late Medieval right up to the Post-Medieval period in order to manufacture these 'Devonshire batts' (scythestones) (Stanes & Edwards 1993). The rectangular cross-section and lozenge-shape of these scythestones matches the inferred size and shape of the current example; most probably the central broken portion of a c.300mm long bat. Another possible source for this stone could have been the Kentish Rag (Lower Greensand), although the latter quarries were not particularly noted for producing this type of object (or objects from a similar lithology), although they were a source of Medieval hones (Shaffrey 2009). This example shows evidence for considerable use (and also an even amount of wear) on all four of its sides, and several of its edges.

F.69, **[0177]**, **<374>**: A rectangular broken section of a well-used whetstone made from a slightly micaceous pale coloured sandstone (50mm x 27mm x 25mm; 84g). The lithology of this is similar to **<570>**.

F.110, **[0684]**, **<516>**: Part of a squarish broken tablet of light-grey quartz schist whetstone. Dimensions: 70mm-100mm x 60mm x 25mm (thick). Weight: 280g. Probably a crude blank 'cut-off' from an undressed imported Norwegian 'rag' stone (see **<948>**) which appears to have been worked along two edges only (for sharpening).

F.136, **[1497]**, **<570>**: A tapering (slightly conical-shaped) cylindrical whetstone cut from a slightly micaceous and minor carbonate-cemented sandstone (50mm x 35-25mm diameter; weight 74g).

F.378, **[1452]**, **<948>**: The broken end of a relatively little-used and crudely prepared rectangular light-grey quartz schist whetstone. Dimensions: 20-30mm x 25mm x 85mm (broken). Weight: 146g. There is evidence for some sharpening/polishing use along one side and at least two edges. This 'light-grey quartz

schist' whetstone appears to be of a type common in England during the Early Medieval period, and was most probably imported from Eidsborg in Upper Telemark, Norway where there was a well-established whetstone quarrying industry. These whetstones were regularly traded across the North Sea from the port of Skien to trading ports such as Ipswich on the east coast of England from the 9th – 11th centuries (Viking period) onwards (Hansen 2009). In the 13th-century the standard dimension of these exported blanks was approximately 50mm x 30mm x 300mm, which matches moderately well with some of the dimensions of the above broken piece. It would appear that many Norwegian 'rag' whetstones were imported as undressed mullions, and were then finished-off within workshops in urban centres in England. For this reason many of the commonly found rough fragments may simply have been broken or off-cut pieces from the production of larger items, thereby ending up after relatively little use within typical domestic waste contexts (see Ellis & Moore 1990, 280). This example from Newmarket Road, Cambridge – alongside other similarly rough pieces from the Grand Arcade excavation (see Timberlake in Cessford 2009) – may fit into this category.

Rotary Querns

F.60, **[0154]**, **<353>**: A probable rotary quern fragment made (unusually) from a shelly ooidal limestone, most probably in this case Barnack Stone, or else a similar facies of the Lincolnshire Limestone (Inferior Oolite). The fragment (170mm x 120mm x 40mm (thick); weight 1.61 kg) appears subsequently to have been broken down to size and shape in order to be re-used as building stone, and as a result both the upper and lower surfaces are covered in a thin layer of mortar. The original grinding surface has been worn smooth, and is flat to very slightly concave in profile. The quern use of this seems most likely to be Medieval, and most probably therefore was part of a small hand mill (perhaps only 300mm in diameter).

F.194, **[0692]**, **<686>**: A fragment of the furrowed (dressed) surface of the upper stone of a lava quern (dimensions: 95mm x 75mm x 40mm; weight 432g). The thick-set (10mm wide) but closely-spaced furrows matches that of **<1150>**, and in fact this may be part of the very same quern.

F.247, **[1966]**, **<793>**: A fragment of an interesting-looking lava quern (170mm x 100mm x 40mm (thick); weight 838g). In this case it would appear that another quern has been re-fashioned from an originally much larger but clearly worn-down stone which possessed wide (20mm) furrows and ridges. What was presumably then a broken fragment of this largish millstone was re-cut to form a smaller circular quern (perhaps an upper stone?) well-dressed on its grinding surface with sets of anti-clockwise arranged furrows (each set consisting of c. x9-10 5mm-wide ridges and 2-3mm wide furrows). There were traces of an axle hole present, confirming the very small diameter (*c*. 200mm) of this stone.

F.298, **[1007]**, **<855>**: A squared-off fragment of a now thin and probably well worn-down fragment of lava quern (140mm x 140mm x 34mm (thick); weight 1.052 kg) Probably part of an upper stone, possibly with the a tiny fragment of the edge of the original axle hole still visible in one corner. Traces of now very worn/weathered and perhaps wide-spaced furrows can still be seen amongst the pitting on one face. Some of this pitting may be erosional. This was almost certainly re-used as building stone/flat tile, given that traces of mortar are still present within the pitted surface.

F.378, **[1452]**, **<947>**: A similar-sized fragment of lava quern to the above (<855>), but of a slightly different (and denser) lithology (dimensions: 150mm x 130mm x 35mm; weight 1.018kg). With no diagnostic features present it is uncertain whether this was part of an upper or lower millstone. However, this also appears weathered, and possibly also slightly burnt. There is no obvious evidence of re-use but this is inferred.

F.565, **[2084]**, **<1150>**: A fragment of a large and probably upper millstone (quern) made of lava from the Niedermendig or Mayen quarries of Eifel, Germany (dimensions of fragment: 140mm x 90mm x 70-90mm (thick); weight 1.432 kg). The form of this with its anti-clockwise arrangement of well-incised furrow dressing seems more likely to be Roman than Medieval in date. There are some parallels with other large Roman millstones, for instance with the 100mm thick upper stone found at Woolaston villa in Gloucestershire (Watts 2002, 59), yet it needs to be explained how this arrived in a medieval context at the present site. Roman lava quern is extraordinarily resilient, and there are examples of its re-use as building stone, particularly in rubble-filled walling. However, a medieval date for its use cannot be eliminated, as lava querns were still being quarried and dressed in Niedermendig (Horter *et al.* 1951) and some in the form of pot querns were still being manufactured and imported into Britain (Watts 2002, 42).

F.583, **[0300]**, **<1192>**: A small undiagnostic fragment of a Niedermendig lava quern. (weight 42g). One exterior surface may be present.

[1967], **unstratified**, **<1215>**: Part of a large granite (possibly Shap granodiorite) block, perhaps a fragment of an industrial-sized quern. Now much-weathered and fragmenting (as a result of it having been burnt). On the surviving top surface can still be seen traces of wide and shallow tapering radial furrows; some up to 140mm long and 35-40mm (wide) with grooves of 25-30mm and 5mm deep. One possibility is that this is the base of a large millstone for the purposes of crushing rock – perhaps coprolite grinding? Postmedieval. The piece of granite is at least 300 mm square and high. Weight 19.3kg.

Moulded Stone (Richard Newman & Simon Timberlake)

A moderately-sized assemblage of moulded stone – comprising 34 fragments, weighing 141kg – was recovered. Within this group, a range of material of differing dates and lithologies has been identified (Table 53, overleaf). Prior to their reuse at the site, the majority – although not necessarily all – of these fragments are likely to have comprised part of the nearby priory of Barnwell. It is therefore potentially significant to note that a little under a third of the assemblage – comprising 11 fragments in total – was recovered from features of pre-Dissolution date (**F.52**, **F.90**, **F.151**, **F.199**, **F.284**, **F.292** and **F.528**). This indicates that ongoing construction works at the priory during the Middle Ages may have resulted in the wider dissemination of reusable stone blocks into the adjacent settlement. Much of the remainder of the assemblage was derived from foundations of 17th century and later date, and is likely to consist of material that was predominately salvaged from the monastery's upstanding ruins.

Two principal types of building stone were present at the site; these consisted of limestone and clunch. The majority of the limestone blocks were composed of hard bioclastic ooidal Barnack Stone. During the Middle Ages, Barnack Stone is known to have been quarried from the banks of the river Welland near Stamford (Gallois 1988; Alexander 1995, 115-6). This material was first used in Cambridge during the early to mid 12th century – at Holy Sepulchre Church and Stourbridge leper chapel – and was in frequent use in the town from the late 13th century onwards (Purcell 1967, 29-34). It is also likely to have comprised one of the principal fabrics utilised during the initial construction of Barnwell Priory, which commenced *c.* 1112. Notably, blocks of Barnack Stone previously recovered from the bed of Whittlesea Mere have been used to identify the presence of a sunken medieval barge (Hutchinson 1994, 121). This appears to have been a flat-bottomed, double-ended vessel measuring 9.0m long with a beam of 3.0m and a draught of less than 1.0m (Jenkins 1993a: Jenkins 1993b). Such vessels, with their valuable cargo, would have reached Cambridge via the extensive network of Fenland rivers. In addition, a small percentage of the limestone assemblage appears to have been derived from somewhat further afield. Two fragments of yellowish-cream coloured ooidal Ketton Stone were identified, for example. This material is first known to have been quarried commercially in Rutland during the 16th century (Bancroft-Turner & Frearson 2011, 7). It largely replaced Barnack Stone as the building stone of choice in Cambridge from this period onwards. These fragments may thus have been utilised for repairs made at Barnwell Priory shortly before its dissolution, by which time the Barnack Stone quarries had largely been exhausted. Alternatively, the fragments may have been derived from buildings situated elsewhere in Cambridge, as Ketton Stone was extensively employed in many of the new college buildings (*ibid*.).

The second principal material-type present within the moulded stone assemblage is clunch. This is a fine-grained chalk with a relatively high silica content. The quarrying and carving of clunch within the Cambridgeshire village of Burwell, as well as the neighbouring settlements of Reach and Isleham, was a significant local industry during the 14th and 15th centuries. Fresh clunch, especially that which was derived from the Totternhoe Stone or Burwell Rock horizon of the Lower Chalk, was relatively soft and grey when quarried but would rapidly harden and turn white upon exposure to air. At the quarry sites themselves the material was initially soaked in pits before being crudely cut into ashlar blocks for transport by barge (Garrow 2000; Newton 2010). Finer moulding work was then usually undertaken either at or close to the final site of construction, once the clunch had hardened sufficiently. Much more tractable than limestone, clunch was typically employed for detailed or intricate mouldings such as tracery. As such, therefore, this material was widely used throughout the region, at religious houses including Anglesey Abbey, Denny Abbey and Ramsey Abbey – the latter of whom owned at least one of the Burwell quarries during the late 14th century (Lethbridge 1929, 97-98) – as well as numerous religious and secular buildings in Cambridge (Purcell 1967, 24-28). As a result of the wide availability of local clunch, the tentative identification of imported Beer Stone within the assemblage is of note. A very hard fine-grained blue-grey to creamy-white chalk, which is much harder than Burwell Rock, Beer Stone was quarried in south-east Devon throughout the Middle Ages. A very good quality freestone, this material was widely employed in the construction of several of Southern England's greatest cathedrals (Rawlins 1957). The importation of such material indicates that it was to be employed within a structure of some pretension.

Feature Number	Context Number	Catalogue Number	Building Stone	Notable Patterns	Component element	Major element	Date range	Geological Provenance
043	0103	1248	Clunch		Ashlar	Wall	?	Burwell?
052	0115	331	Limestone		?Column	?Column	?Medieval	Barnack
052	0116	1239	Clunch		Colonette/ respond	?Window	?Medieval	Totternhoe or Burwell
052	0503	336	Clunch		Respond/roll	?	?Medieval	Beer Stone?
069	2045	1211	Clunch		Ashlar	Wall	?	Totternhoe or Burwell
069	2194	1214	Limestone		Fragment	?	?	Barnack
069	2195	1216	Limestone		Paviour	Floor/stair	?	Barnack
069	2195	1231	Limestone		Ashlar	Wall	?	Barnack?
090	0273	415	Limestone		Respond/roll	?	?Medieval	Barnack
099	2216	1217	Limestone		Ashlar	Wall	?	Ketton?
103	0329	1232	Clunch	Hollow chamfer	Tracery	Window	*c*. 1280-1340	Totternhoe or Burwell
104	0331	1212	Limestone	Cusped	Tracery	Window	*c*. 1280-1340	Barnack
104	0331	1213	Clunch	Cusp & dagger (complex)	Tracery (?reticulated)	Window	*c*. 1280-1340	Totternhoe or Burwell
129	0462	1237	Limestone		Voussoir	Arch	?Medieval	Barnack?
151	0644	597	Clunch		?Jamb	?Window	?Medieval	Totternhoe or Burwell
171	651	1221	Limestone		Ashlar	Wall	?	Barnack?
171	0651	1238	Limestone	Very badly damaged	Capital (?scalloped)	Column/pier	*c*. 1180-1300	Barnack
199	1481	1060	Limestone		Ashlar	Wall	?	Barnack or Clipsham
207	0732	1227	Limestone	Hollow & cusp	?Tracery	Window	*c*. 1280-1340	Ketton?
207	0732	1228	Clunch		Colonette/ respond	?Window	?Medieval	Burwell?
278	0935	1223	Limestone	Plain chamfer	Jamb	Door	*c*. 1180-1300	Barnack
284	0650	1226	Limestone	Three-quarter hollow	Mullion	Window	*c*. 1280-1340	Barnack?
284	0650	1229	Limestone		Voussoir	Arch	?Medieval	Barnack?
284	0650	1236	Limestone		Mullion	Window	Medieval	Barnack?
292	1608	839	Limestone		?Paviour	?Floor	?	Ketton?
292	1039	850	Travertine		Paviour	Floor/stair	?	Italy?
381	1287	1233	Limestone		Ashlar	Wall	?	Barnack
381	1287	1234	Limestone		Ashlar	Wall	?	Barnack?
381	1287	1235	Limestone	Plain chamfer	Jamb	Door	*c*. 1180-1300	Ketton?
528	1881	1198	Clunch	Octagonal	?Artefact		?Medieval	Beer Stone?
720	945	1230	Limestone		?Paviour	?Floor	?	Barnack?
/	1967	1219	Limestone		?Colonette	?Arcade	?Medieval	Barnack?
/	1967	1242	Limestone		?Colonette	?Arcade	?Medieval	Barnack?
/	1967	1224	Limestone		Jamb	?Door	?Medieval	Barnack?

Table 53: Breakdown of the moulded stone assemblage

This preliminary study has identified a number of moulded fragments of moderate architectural interest (Table 53). Their wider potential is somewhat limited, however, by the secondary – or, in several instances, tertiary – context of their deposition. Once divorced from their original location, moulded blocks must be regarded as relatively unreliable indicators of a structure's initial architectural form (Morris 2003). Nevertheless, given the Eastern Gate Hotel site's close physical – and historical – association with Barnwell Priory, about which relatively little architectural

information is known, several elements merit further detailed recording and analysis (including **<1232>** in **F.103**, **<1212>** and **<1213>** in **F.104**, **<1238>** in **F.171**, **<1227>** in **F.207** and **<1226>** and **<1236>** in **F.284**).

Ceramic Building Materials (Richard Newman)

A relatively small quantity of ceramic building materials – primarily consisting of peg tile, along with a small quantity of brick and rare floor tile fragments – was encountered during the excavation, the majority of which was discarded on site. Individually, the only significant item comprised an encaustic floor tile fragment that was recovered from pit **F.424**:

> **F.424**, **[1394]**, **<996>**: the surviving portion of this tile measures 93mm by 79mm by 28mm and weighs 266g; its original extent was probably around 140mm by 140mm. Impressed into its surface was a design that appears to have been sub-divided into four quadrants. The lower right-hand quadrant contained a stylised armorial shield, above which the feet of a probable heraldic beast are discernable. No other details remain. The tile itself is composed of a relatively coarse red earthenware fabric, with white slip inserted into the impressed decoration, and was coated with a yellowish glaze (producing a final brown and yellow result). It is most probably Late Medieval in date, and was recovered from a 15th/16th century context. This suggests that it may have been derived from nearby Barnwell Priory following its dissolution.

Flint (Lawrence Billington)

A total of 26 worked flints were recovered from the Eastern Gate Hotel site, alongside 18 unworked burnt flints weighing 34.3g (Table 54).

Feature	Context	Chip	Irregular waste	Secondary flake	Tertiary flake	Blade/let	Fabricator	Multiple platform flake core	Totals	Unworked burnt flint	Unworked burnt flint weight (g)
5	13					1			**1**		
16	39	2			1				**3**		
31	143				1				**1**		
31	146	1	1	2					**4**		
52	503			1					**1**		
86	280				1				**1**		
86	281			1					**1**		
111	36	2							**2**	1	18.8
138	900	1							**1**		
150	521			1					**1**		
164	2043				1				**1**		
199	2102									14	11.9
286	1129			1					**1**		
292	1039									1	0.2
292	1040					1			**1**		
307	1037						1		**1**		
363	1238							1	**1**		
454	1862									2	3.4
499	1700			1					**1**		
502	1792			1					**1**		
568	2090				1				**1**		
575	2190	1							**1**		
/	1967							1	**1**		
	Total	**7**	**1**	**8**	**5**	**2**	**1**	**2**	**26**	**18**	**34.3**

Table 54: Quantification of the flint assemblage

The assemblage is quantified by type and context in Table 54. The flint assemblage was thinly distributed with only one context, **[0146]**, producing more than a single worked flint. This, together with the condition of the flintwork, suggests that the entire assemblage represents residual pieces inadvertently incorporated into later deposits. The assemblage is largely made up of relatively undiagnostic débitage in the form of chips, waste flakes and two cores. Probable Mesolithic activity is represented by two fragments of carefully worked prismatic blades. Several of the other flakes exhibit similar technological traits to the blades including soft hammer percussion and regular dorsal scars and are likely to represent Mesolithic or earlier Neolithic pieces. The majority of the assemblage, however, is made up of expediently worked flake based material. These pieces are dominated by relatively thick and broad removals which have been struck from unprepared striking platforms using freehand hard hammer percussion. Generalised flake based material such as this is a characteristic element of assemblages from the later Neolithic to the Late Bronze Age, or even Iron Age (Ford *et al.* 1984; Young & Humphrey 1999). Some of the flintwork, notably a core from **[1238]**, shows evidence for knapping errors and an unstructured approach to reduction which is especially characteristic of post Early Bronze Age flintwork.

A single retouched tool, a fabricator, was recovered from **F.307**. This elongated rod-like tool was has been extensively retouched on its dorsal surface and bears the characteristic abrasion and polish at one end that is the defining characteristic of its class. Some uncertainty remains concerning how this distinctive use wear is formed but it is most commonly interpreted as resulting from use as a strike-a-light (*e.g.* Martingell 2003, 93). Fabricators are a feature of assemblages from the Mesolithic through to later prehistory but are most frequently found in later Neolithic and Early Bronze Age contexts (Edmonds 1995, 41).

Miscellaneous Materials (Richard Newman)

Shell: A single significant shell group was recovered, from pit **[1962] F.540**. Although it contained no datable material culture, this feature was most probably late 15th/early 16th century in origin given its apparent association with nearby soakaway **F.97**. In total, 3272 oyster shells, weighing *c*. 25kg, were recovered from this pit. As these are bivalves, this equates to a minimum of 1636 individual oysters; a minimal amount of mussel shell was also present. The shells were unburned and showed no other signs of having been utilised in an industrial process. Although many other features on the site contained small quantities of shell – principally oyster, with some mussel, cockle and land snail – there were no other large or significant assemblages (*i.e.* groups in excess of 100 shells). This indicates that although shellfish were probably consumed throughout the period of domestic occupation, they did not comprise a major part of the diet in any particular period.

Artist's Pigment: A small, square 'cake' of watercolour pigment **<90>** was recovered from backfill deposit **[0669]** in brick-built soakaway **F.63**. This deposit is relatively closely dated via the presence of associated glass and ceramic assemblages to *c*. 1780-1810 (see Cessford and Herring & Cessford, above). The block itself is dark reddish crimson in colour, and although fragmentary originally measured *c*. 18mm by 18mm by 8mm in extent. Small, hard blocks of soluble pigment in this form were first invented by William Reeves in 1780, and comprised the pre-eminent watercolour material of their day until superseded by the introduction of moist watercolours in porcelain pans during the 1830s (Barker 2000). In order to produce usable paint the artist would have dipped the cake into water and then rubbed it onto a suitable receptacle, such as an oyster shell or porcelain saucer.

Figurine: A small, mass-manufactured china figurine **<253>** was recovered during machining of the uppermost deposits at the site (**[1967]**). Although lacking a head, this statuette nevertheless clearly depicts a small boy in a nightshirt seated upon a chamber pot. It most probably comprised a late 19th century 'fairing'. Fairings are so named because they were often given away as prizes at late 19th century fairs, much as a goldfish might have been during the late 20th century. They first appeared in the mid 19th century and remained popular until the start of the First World War (Bristowe 1971). Although it is tempting to associate the fairing's presence with the site's proximity to Stourbridge Fair, such items occur almost ubiquitously in 19th century contexts across both Cambridge itself and the wider region; in all probability, no connection exists.

- Economic and Environmental Data -

In addition to the material culture discussed above, a reasonably sized assemblage of economic and environmental material was also recovered. This assemblage – which includes faunal remains and bulk environmental samples – has been subdivided by material type and is discussed in detail below.

Faunal Remains (Vida Rajkovača)

The vast amount of faunal material recovered from a swathe of over 170 cut features and a few occupation layers was studied in its entirety, the exception being a small portion of bone (<4kg in weight) from those features of uncertain date. Using the methods outlined below, from the assemblage with a raw count of 9239 fragments, the total of 4303 assessable specimens were recorded weighing 107,616g. It is comprised of the material recovered during the normal course of hand-excavation and the material from the heavy residues following the processing of the environmental bulk soil samples. With its 3133 assessable fragments, the hand-recovered material accounted for 72.8% of the assemblage by count and 99.3% by weight (Table 55). Five distinct phases of occupation were defined and ranged in date from the 13th until the 20th century. The material was quantified and considered by phase in order to study the site. The aim is to characterise the assemblage in terms of the relative importance of identified species; to study the disposal patterning across the site and between different feature types and to identify any variations between different phases of occupation. We will then discuss the potential the assemblage holds for future research within a regional framework.

Hand-recovered	**Phase I (Saxon)**	**Phase II (13th-16th c.)**	**Phase III (16th-18th c.)**	**Phase IV (19th c.)**	**Total**
Contexts	-	253	31	20	**304**
Fragments	-	2474	337	322	**3133**
Weight					**106,844g**
Heavy residues	**Phase I (Saxon)**	**Phase II (13th-16th c.)**	**Phase III (16th-18th c.)**	**Phase IV (19th c.)**	**Total**
Contexts	2	41	1	1	**45**
Fragments	38	1114	11	7	**1170**
Weight					**772g**

Table 55: Number of excavated contexts and the quantity of bone by fragment count and weight by phase from all features

Identification, Quantification and Ageing

The zooarchaeological investigation followed the system implemented by Bournemouth University with all identifiable elements recorded (NISP: Number of Identifiable Specimens) and diagnostic zoning (amended from Dobney & Reilly 1988) used to calculate MNE (Minimum Number of Elements) from which MNI (Minimum Number of Individuals) was derived. Identification of the assemblage was undertaken with the aid of Schmid (1972), and reference material from the Cambridge Archaeological Unit. Most, but not all, caprine bones are difficult to identify to species; however, it was possible to identify a selective set of elements as sheep or goat from the assemblage using the criteria of Boessneck (1969) and Halstead (Halstead et al. 2002). Ageing of the assemblage employed both mandibular tooth wear (Grant 1982, Payne 1973) and fusion of proximal and distal epiphyses (Silver 1969). Where possible, the measurements have been taken (Von den Driesch 1976). Withers height calculations follow the conversion factors published by Von den Driesch and Boessneck 1974. Taphonomic criteria including indications of butchery, pathology, gnawing activity and surface modifications as a result of weathering were also recorded when evident. The methodology followed general guidelines as outlined in English Heritage's publication (2002, draft 2012).

Preservation, Fragmentation and Taphonomy

Overall, the assemblage demonstrated quite a good level of preservation (Table 56) with a minimal number of specimens showing signs of severe surface exfoliation, erosion and weathering (61

fragments, or 1.4% of the assemblage). The assemblage was heavily processed in terms of butchery and highly fragmented with only 93 complete and measurable specimens recorded for all species from all phases (*c.* 2%). A small fraction of the assemblage was recorded with gnawing marks (124 specimens, or 2.9% of the assemblage). All were canine marks and a small percentage implies quick deposition of the material. The final note with regards to taphonomy deals with a small portion of bones being stained green. This could be a result of copper/bronze or vivianite staining. The former is brought about by the close contact between bone and copper or bronze, and the latter usually needs anaerobic conditions and the presence of iron. These are quite common from highly organic similarly-dated deposits from across the country (*e.g.* York).

Preservation	*Phase II (13th-16th c.)*		*Phase III (16th-18th c.)*		*Phase IV (19th c.)*	
	Contexts	**Fragments**	**Contexts**	**Fragments**	**Contexts**	**Fragments**
Good	6	16	2	27	3	11
Quite good	88	1172	14	192	5	262
Moderate	153	1265	15	118	11	47
Quite poor	6	21	.	.	1	2
Poor	.	.	.	.	.	.
Mixed	.	.	.	.	.	.
Total	253	**2474**	31	**337**	20	**322**

Table 56: Preservation categories: breakdown by phase. Hand-recovered material only

Taxon	**Phase II**	**Phase III**	**Phase IV**
Cow	148	17	5
Ovicaprid	72	6	23
Sheep	10	.	.
Pig	12	.	2
Horse	6	.	.
?Deer	1	.	.
Rabbit	.	.	1
Chicken	2	.	.
Domestic goose	8	.	.
Sub-total to species	**259**	**23**	**31**
Cattle-sized	102	25	19
Sheep-sized	74	9	22
Bird n.f.i.	1	1	1
Fish n.f.i.	4	.	.
Grand Total	**440 (17.8% of the sub-set)**	**58 (17.2% of the sub-set)**	**73 (22.7% of the sub-set)**
Mark Type	**Phase II**	**Phase III**	**Phase IV**
Blade insertions	19	1	.
Chop marks	187	19	2
Deep cut marks	114	23	7
Fine knife marks	139	22	44
Sawn	58	14	42
Scoop marks	17	1	.
Total	**534**	**80**	**95**

Table 57: Number of butchered specimens- breakdown by phase, listed by species and by mark type. The slightly higher numbers of butchered specimens by phase recorded under mark types is a result of multiple occurrences of marks being included in the count. The abbreviation n.f.i. denotes that the specimen could not be further identified

Butchery

The summary of butchery patterns is summarised in the table above (Table 57). The breakdown by phase gives the overall view of the species processed, and the section below illustrates the prevalence of crude chop marks over sawing, for instance. The numbers seemingly show larger quantities of bone being affected by butchery marks during the medieval period, compared to later periods. If these figures were viewed as percentages, it would seem that the first two phases were affected to a similar extent, whilst 19th century material shows an increase in processing of sheep carcasses, with fine knife marks and sawing being particularly common.

Provenance, character and the chronology of the material

The range of features generating animal bone waste was remarkably varied. Pits appear to have been the main receptacles for bone waste, followed by wells, tanks, ovens and cesspits (Table 58). With the exception of 16th century pit F.97 and the vast quantity of horn cores *c.*30kg in weight, it is assumed that the majority of the bone material represents domestic refuse thrown into pits and onto the surface and thus incorporated into the occupation.

Feature Type	Phase II	Phase III	Phase IV
Layer	3	1	1
Cesspit	6	1	.
Gully	2	.	.
Oven	7	.	.
Pit	75	7	14
Posthole	3	.	1
Robber cut	1	.	2
Tank	8	.	.
Well	19	1	.
Soakaway	.	1	1
Brick structure	.	1	.
Cellar	.	1	.
Linear	.	1	.
Spread	.	1	.
Timber-lined pit	.	1	.

Table 58: Number of features generating bone material by feature type and phase

The earliest bone evidence from site came from environmental samples from the two Saxon ditches F.16 and F.17. Judging by the numbers of contexts assigned to the medieval period, coupled with the abundance of faunal remains, the height of on-site activity took place during the period between the 13th and the 16th century.

Hand-recovered material

Medieval contexts (13th-mid 16th century)

The overwhelming majority of medieval bone came from pits, both by weight and by fragment count. Of 2474 assessable specimens assigned to this phase, a remarkable 1682 came from pits (67.9% of the sub-set) with a total weight of 73119g (67.9% of the entire assemblage). Wells were another major category with a total of 561 fragments (22.7% of the sub-set) and 13839g in weight (12.9% of the assemblage). Cattle and sheep seem to be represented in similar numbers within the NISP count whilst ovicapra are twice as common if we look at the minimum number of individuals (Table 59). This was followed by pigs, horse and a varied range of bird species.

Post-Medieval contexts (late 16th-18th century)

Albeit considerably smaller in numbers, the subsequent phase sees an apparent dominance of ovicapra, followed by cattle and pigs. The range of species identified from this period is similar enough to argue that not many changes took place in this phase, aside from a decrease in on-site activity.

19th century

Species range from this sub-set mirrors patterns of animal use recorded from preceding phases rather accurately. What differentiates this sub-set from other two is the presence of species such as turkey, haddock and mackerel, suggesting full identification of all bird and fish species is necessary.

Taxon	*Phase II (13th-16th c.)*			*Phase III (16th-18th c.)*			*Phase IV (19th c.)*		
	NISP	**%NISP**	**MNI**	**NISP**	**%NISP**	**MNI**	**NISP**	**%NISP**	**MNI**
Cow	437	*36.8*	16	40	*25.5*	2	19	*11*	1
Ovicaprid	427	*36*	25	51	*32.5*	4	49	*28.5*	4
Sheep	25	*2.1*	8	1	*0.6*	1	.	.	.
Goat	1	*0.1*	1	.	.	.	.	.	.
Pig	101	*8.5*	9	8	*5.1*	1	10	*5.8*	1
Horse	74	*6.2*	2	.	.	.	2	*1.2*	1
Dog	7	*0.6*	1	.	.	.	.	.	.
Cat	30	*2.5*	5	37	*23.6*	2	25	*14.5*	1
Rabbit	3	*0.2*	1	2	*1.3*	`	18	*10.5*	2
?Deer	1	*0.1*	1	.	.	.	.	.	.
Domestic goose	32	*2.7*	4	3	*1.9*	1	8	*4.6*	2
Chicken	13	*1.1*	2	5	*3.2*	1	9	*5.2*	2
Mallard	10	*0.8*	1	.	.	.	1	*0.6*	1
?Pheasant	1	*0.1*	1	.	.	.	1	*0.6*	1
?Wood pigeon	1	*0.1*	1	.	.	.	.	.	.
?Turkey	.	.	.	.	.	.	1	*0.6*	1
?Woodcock	.	.	.	.	.	.	1	*0.6*	1
?Swan	1	*0.1*	1	.	.	.	.	.	.
Galliformes	15	*1.3*	1	1	*0.6*	1	12	*7*	1
Waders	1	*0.1*	1	.	.	.	.	.	.
Passeriformes	1	*0.1*	1	.	.	.	.	.	.
Corvidae	3	*0.2*	1	.	.	.	10	*5.8*	2
Anseriformes	.	.	.	3	*1.9*	1	4	*2.3*	1
Rat	.	.	.	6	*3.8*	1	.	.	.
Amphibian	4	*0.3*	1	.	.	.	.	.	.
?Haddock	.	.	.	.	.	.	1	*0.6*	1
?Mackerel	.	.	.	.	.	.	1	*0.6*	1
Sub-total to order, family or species	**1188**	*100*	.	**157**	*100*	.	**172**	*100*	.
Cattle-sized	562	.	.	72	.	.	40	.	.
Sheep-sized	548	.	.	69	.	.	67	.	.
Rodent-sized	4	.	.	1	.	.	.	.	.
Mammal n.f.i.	8	.	.	.	.	.	.	.	.
Bird n.f.i.	114	.	.	35	.	.	38	.	.
Fish n.f.i.	50	.	.	3	.	.	5	.	.
Grand total	**2474**	.	.	**337**	.	.	**322**	.	.

Table 59: Number of Identified Specimens and the Minimum Number of Individuals for all species from all features. Hand-recovered material only. The abbreviation n.f.i. denotes that the specimen could not be further identified

Body parts

A brief look at the skeletal element count showed that all parts of carcass were recorded for the three main food species, with a slight prevalence of mandibular and skull elements from cattle and

pigs. Bird species such as chicken, geese and mallard ducks were only represented as partial carcasses.

Ageing, biometrical data and pathologies

Perhaps the only sub-set offering ageing data sufficient for further study was the medieval bone record, with a small number of some 23 mandibles recorded as assessable. A brief overview of the mandibular tooth eruption and wear shows that cattle were slaughtered as neonates or juveniles, as were the pigs with sheep being the only 'food species' maintained into adulthood. Mainly owing to the high fragmentation and butchery, biometrical data was scant offering little potential to investigate changes in size and shape of livestock species between periods. A few different forms of pathological changes and non-metrical traits were recorded in the assemblage. A few specimens were recorded with minimal eburnation around the proximal articulate surfaces and a case of osteomyelitis (bacterial infection) was also recorded. One cattle skull in particular exhibited a series of perforations, a condition which could be linked to damage caused by parasites or congenital in origin (Manaseryan *et al.* 1999). In addition, *osteochondritis dissecans*, a condition linked to trauma to the joint, was also commonly noted on proximal articulate surfaces of cattle metacarpi.

Contextual and spatial analyses and the nature of bone deposition

Zooarchaeological investigation is not complete without a thorough intra-site analysis of spatial patterning in bone deposition, between different feature types and phases of occupation. This will not only add to our understanding of changes in food procurement and consumption, but also offer a better definition of the site's urban or sub-urban character. Disappointingly, however, here Phase II is perhaps the only period with sufficient amount of data available for further study of spatial patterning. The preliminary work showed that, with the exception of the 16th century pit F.97, laden with cattle horn cores, pits and wells appeared to have been filled with domestic food refuse, diseased livestock and other domestic animals such as cats and dogs. A detailed study of location of cut/sawing marks on horn cores and cattle skulls from this particular feature will help us define this deposit further as horner's waste or a result of the trade in by-products between different trades. Aside from pit F.97, other large bone dumps came mainly from the northern half of the excavated area: F.96, F.105, F.110 and F.454. Combined with F.97, these deposits generated *c.*50kg of bone waste.

Material from heavy residues

A brief look at the summary table below highlights the emphasis on the environmental sampling with the purpose of recovering microfauna, bird and fish species. Of 1114 assessable specimens recorded from the Phase II, an incredible 413 were fish vertebra and skull elements (Table 60). Although it was not possible to recover any bone from the two Saxon ditches F.16 and F.17 by hand, a small amount heavily eroded material came from samples 6 and 7. Analysed material is heavily dominated by the bone collected from medieval features (13th-16th century).

Conclusion and recommendations for further study

Although not the most substantial faunal record of the date from Cambridge, the Eastern Gate Hotel assemblage certainly has sufficient potential to add to our understanding of food procurement, consumption and waste disposal, especially in medieval Cambridge. Showing a heavy reliance on sheep and cattle, with a broad range of other domestic/poultry and wild species, the assemblage fits with known local and period patterns perfectly. It rather fits so perfectly that its closest parallel, the Grand Arcade faunal record (Cessford & Dickens in prep.), displayed a remarkably similar species range which also included turkey, swan, and large numbers of fish vertebra, suggesting the presence of filleted fish and not just heads. These two contemporaneous assemblages have another shared trait: both have large proportions of the material disappointingly assigned to the period from the 13th to the 16th century without the earlier medieval facet. Despite this, when viewed against other urban (Grand Arcade) and rural (Cherry Hinton) assemblages from the area, the Eastern Gate Hotel site's faunal record can offer an insight into the medieval food sourcing in Cambridge. This would help us understand if the town had been supplied with food from rural areas or if there had been areas focusing on food production within medieval town boundaries.

In view of these preliminary findings, the recommendations are summarised below:

1. Further specialist analyses: All fish and avian fauna must be identified to species level. Worked bone analysis is to be complemented by a detailed study of butchery patterns with a view to understanding the chaîne opératoire of the bone working in its entirety.
2. Reporting: It is necessary to produce a full archive report including measuring and ageing datasheets, as the foundation upon which to build a publication text.
3. Spatial analyses and patterns of deposition: it is recommended to invest more analytical time in a detailed study of spatial distribution of species, skeletal elements by feature type, as well as between different property plots.

Integrative approach and assemblage's cumulative value: Recovery of such a rich faunal record from a well-researched locale coupled with clearly established period patterns provide an exclusive opportunity to take this research to an innovative, possibly experimental level. This can only be achieved by integrating the results from related studies of material culture and environmental data.

Taxon	*Phase I (Saxon)*			*Phase II (13^{th}-16^{th} c.)*			*Phase III (16^{th}-18^{th} c.)*			*Phase IV (19^{th} c.)*		
	NISP	**%NISP**	**MNI**	**NISP**	**%NISP**	**MNI**	**NISP**	**%NISP**	**MNI**	**NISP**	**%NISP**	**MNI**
Cow	.	.	.	4	*3.7*	1	.	.	.	.	.	.
Ovicaprid	1	*16.7*	1	16	*15*	1	.	.	.	.	.	.
Pig	.	.	.	2	*1.9*	1	.	.	.	.	.	.
Cat	.	.	.	3	*2.8*	1	.	.	.	.	.	.
Domestic goose	.	.	.	1	*0.9*	1	.	.	.	.	.	.
Chicken	.	.	.	1	*0.9*	1	.	.	.	.	.	.
Mouse	.	.	.	6	*5.6*	1	.	.	.	.	.	.
Vole sp.	1	*16.7*	1									
Amphibian	4	*66.6*	1	74	*69.2*	3	2	*100*	1	.	.	.
Sub-total to order, family or species	**6**	*100*	**.**	**107**	*100*	.	**2**	*100*	.	**.**	.	.
Cattle-sized	.	.	.	14	.	.	1	.	.	.	.	.
Sheep-sized	21	.	.	338	.	.	3	.	.	.	.	.
Rodent-sized	3	.	.	19	.	.	2	.	.	1	.	.
Mammal n.f.i.	7	.	.	209	.	.	.	.	.	2	.	.
Bird n.f.i.	.	.	.	14	.	.	1	.	.	.	.	.
Fish n.f.i.	1	.	.	413		.	2	.	.	4	.	.
Grand total	**38**	**.**	**.**	**1114**	.	.	**11**	.	.	**7**	.	.

Table 60: Number of Identified Specimens and the Minimum Number of Individuals from the heavy residues. The abbreviation n.f.i. denotes that the specimen could not be further identified

Bulk Environmental Samples (Anne de Vareilles)

Methodologically, all 62 bulk soil samples taken during the open excavation were processed through 300µm aperture meshes. The five samples that appeared to contain well preserved waterlogged plant remains were wet-sieved and the flots kept wet. The remainder were floated using an Ankara-type flotation machine and the remaining heavy residues washed over a 1mm mesh. The flots were dried indoors prior to analysis. J.Hutton sorted the >4mm fractions of the heavy residues by the naked eye. The flots were rapidly scanned under a low power binocular microscope (6x-40x magnification) to establish the ubiquity and state of preservation of the various items. Results of the scan can be found in CAU's archive. According to these results ten dry and three waterlogged samples were chosen for further analysis, to represent a selection of accurately dated feature types from the 13^{th} to the 16^{th} centuries AD. The 13 flots were separated through a stack of sieves (4mm, 2mm, 1mm and 300µm), and detailed sorting and identification of

plant parts were carried out under a low power binocular microscope in the G. Pitt-Rivers Laboratory, McDonald Institute for Archaeological Research, University of Cambridge. The 'grains per litre' calculations have been adjusted to account for the incomplete sorting of some samples. Nomenclature follows Zohary and Hopf (2000) for cereals, Stace (1997) for all other flora and an updated version of Beedham (1972) for molluscs. All environmental remains of the fully sorted samples are listed in Tables 76 and 77.

Preservation

The presence of seeds preserved through various pathways yet all present within the same feature is not uncommon in medieval urban sites. Deposits accumulate quickly and are usually rich in fresh and/or decomposing organic debris (high phosphorous concentrations). Such environments are conducive to the mineralisation of seeds (calcium phosphate replacement) and the preservation of organic matter in anoxic or low oxygen conditions (untransformed/waterlogged seeds) (Green 1979). Establishing the provenance of such seeds is not always unequivocal, as cultural deposits are often mixed with natural ones and different seeds will react differently to similar conditions (Green 1982, Keene 1982). Charred plant remains are more likely to be a result of direct human actions. The latter were not all well preserved, many assemblages containing adversely damaged specimens. The depositional histories of the charred plant remains are not the same across the site; whilst some seeds and grains appear to have weathered on the ground surface before randomly falling into features, others seem to have been discarded shortly after carbonisation and left undisturbed until excavated. Although all samples are considered in this report, only those with charred plant remains in good physical conditions were chosen for further sorting and identification.

Charcoal only occurred in low concentrations and rarely as fragments larger than 4mm across. There is little evidence of regular domestic fires, not even in cess pits in the form of ash where the latter may have been added to supress offensive odours. Ash, perhaps fly-ash, was recovered from oven/kiln **F.31**, along with vitrified charcoal. Molluscs were present in a few features, namely fresh/brackish-water specimens in well **F.154**. Shells were often grey, having either been unintentionally burnt or tainted by the surrounding soil matrix.

Results

13th-14th century wells F.575 [2187] and F.292 [1001]

Charred and three mineral-replaced seeds were recovered from these wells, representing in-filling episodes of the disused wells. **F.292** had a relatively low concentration of cereal grains, unlike **F.575** which contained almost 400 whole grains, 76% of which were free-threshing wheat type(s) (*Triticum aestivum sensu lato*). Cereal chaff was practically non-existent. Both assemblages, however contained numerous wild plant seeds. The latter appear to be a mix of ruderals, arable weeds and condiments. Opium poppy (*Papaver somniferum*) and small seeds of the cabbage family were present in both samples; they are indeed some of the more commonly found herbs on medieval sites (Greig 1991). Two of the brassica seeds were mineral-replaced which could indicate cess was also discarded into the features. Stinking chamomile (*Anthemis cotula*), field gromwell (*Lithospermum arvense*) and corncokle (*Agrostemma githago*) are amongst three of the more obvious arable weeds, whilst many of the other plants could have grown freely in the backyards.

14th-15th century pit F.78 [190] and well F.154 [673]

The pit and well were rich in charred cereal remains with a density of grain per litre of soil of 6 and 45 respectively. Chaff was rare although rye (*Secale cereal*) rachis nodes were present in both features. Wild plant seeds were common though not as numerous as cereal grains. The rushes and great-fen sedge seeds (*Eleocharis* sp., *Schoenus* sp. and *Cladium mariscus*) are a reminder of the economic value of such plants used in thatching, flooring, bedding, basketry, fuel for bread ovens, etc. (see Keene 1982, Rowell 1986). However, unlike at the Grand Arcade (de Vareilles and Ballantyne, forthcoming) and St John's Triangle (de Vareilles 2008) sites, the straw used in the aforementioned industries was not found in any of the samples.

(*Tables 61 and 62 follow*)

Sample Number		54	24	14	22	31	43	3	13	23	40
Context		2187	1001	190	673	1393	2102	36	66	740	1862
Feature		575	292	78	154	424	199	111	26	198	454
Feature description		Well	Well	Pit	Well	Pit	Tank	Cesspit	Pit	Tank	Pit
Date (century)		13th-14th	13th-14th	14th-15th	14th-15th	15th-16th	15th-16th	16th	16th	16th	16th
Sample volume - litres		12	5	8	12	25	6	16	94	15	15
Flot fraction examined -%		50%	100%	100%	50%	25%	50%	25%	100%	100%	100%
large charcoal (>4mm)		-		-	+			++		-	
med. charcoal (2-4mm)		-			++	-	-	++	++	+	+
small charcoal (<2mm)		+	+	++	+++	+	+	+++	+++	+++	++
vitrified vegetative charcoal/coal?				+	+	-		+++	+++		
estimated charcoal volume, including 'coal' - mililitres		<1	<1	<1	5	<1	<1	5	10	3	<1
Cereal grains and chaff											
Hordeum vulgare sensu lato	hulled barley grain (tail grain)	20	2	8	31	1	227 (5)	184	26	43	225
cf. *Triticum spelta* L.	possible Spelt grain					6					
T. aestivum sl.	free-threshing wheat (tail grain)	280	7	22	162	372	15 (3)	14	17	85	35
Triticum sp.	unspecific wheat	46	4		9	38	12		2	16	7
Hordeum / Triticum sp.	barley or wheat grain		1	7	17	15	44	29	14	52	47
Secale cereale L.	Rye grain	4		5	18	431			8		2
Hordeum / Secale sp.	Barely or Rye (tail) grain					37	10 (6)				
Triticum / Secale sp.	Wheat or Rye grain	15	3	1	21	235	1		7	6	4
Avena sp.	wild or cultivated Oat	1		2	6		2	213	1	20	
cf. *Avena* sp.	possibly oat	2		3	3			63	2	7	5
Hordeum / Avena sp.	Barley or Oat grains						1	58		6	
Total grains excluding fragments		**368**	**17**	**48**	**267**	**1135**	**326**	**561**	**77**	**235**	**325**
Density of grains to soil volume - grains/L		**61**	**3**	**6**	**45**	**182**	**109**	**140**	**1**	**16**	**22**
Indeterminate cereal grain fragments		+++	++	+++	+++	+++	+++	+++	+++	+++	+++
Hordeum vulgare rachis node	2-row barley rachis node						60	1			
Hordeum vulgare rachis node	barley rachis node						291				

Sample Number		54	24	14	22	31	43	3	13	23	40
T. aestivum sl. Hex. rachis	hexaploid free-threshing chaff				1		5				
T. aestivum sl. Rachis node	free-threshing wheat chaff	2			2	1	24		1		
Secale cereale L. rachis node	Rye rachis node			1	4				5		
Hordeum/ Triticum/ Secale awn fragment - Barley/ Wheat or Rye awn							++			2	
Avena sativa L. floret base (awn frag.)	cultivated oat floret base (awn)						1 (1)	3		1	
Wild / cultivated Poaceae root node					5	2	2	1			1
Wild / cultivated Poaceae culm node (internode) - grass straw		4 (2)			11	7	+++ (+++)	5	2	1 (2)	1 (1)
Wild plant seeds and other plant parts											
Ranunculus ficaria L.	Lesser Celandine										
R. acris/repens/bulbosus L.	Buttercup									1	
Thalictrum sp.	Meadow-rue										
Papaver cf. *somniferum* L.	Possible Opium poppy	12	1	1		4w/u				1	
Chenopodium album L.	Fat-hen								1		
Chenopodium sp.	Goosefoots	8			19		4		1	3	1
Atriplex patula L./*prostrata* Boucher ex DC - Oraches					6	15				1	
Montia fontana ssp. *minor* Hayw.	Blinks									1	
Stellaria media (L.) Vill	Common Chickweed										
Stellaria sp.	Chickweed						1			2	
Agrostemma githago L.	Corncockle seed (frags)	1	1			1	2			9	
Silene latifolia Poir.	White Campion	10					3	3	1	25, 1M	
Silene sp.	Campion	8	2, 1M							16, 3M	
Polygonum aviculare L.	Knotgrass					3				5	
Polygonum sp.	Knotgrass			1	3				1		
R. conglomeratus/ obtusifolius/ sanguineus - small seeded Dock		1	3		1	11	1	3	1	146	3
Rumex sp.	Dock	1	2			5				16, 18M	3
Indet. Small Caryophillaceae		3								2	
Malva sylvestris L.	Common Mallow									1	
Malva sp.	Mallow					1M					3

Sample Number		54	24	14	22	31	43	3	13	23	40
Capsella bursa-pastoris (L.) Medikus	Shepherd's-purse										1
Brassica nigra coarse textured type	Black mustard			1	1		2	1		25	1
Indet small Brassicaceae	small seed of cabbage family	22, 1M	3, 1M	1						180, 5M	1
Reseda lutea L.	Wild Mignonette	13									
Anagallis sp.	Pimpernels									1	
Potentilla sp.	Cinquefoils		1								
Vicia faba var. *major*	Broad bean							1			
Pisum sativum L.	Pea										1
Vicia / Pisum sp. >4mm across	vetch or Pea	1					1	8			1
Vicia / Lathyrus / Pisum sp. 2-4mm	Vetches / Wild Pea / Pea	2			3	3		15	1		
small Vicia / Lathyrus sp.	Vetches / Wild Pea <2mm				2				1	8	1
Medicago lupulina L.	Black medik		2			2				47	
large *Medicago / Melilotus* sp.	Medics or Melilots	30	57	12	15	18	5	*c.*350	12	*c.*1000	
Melilotus / Medicago / Trifolium sp.	Melilots, Medics or Clover	6	28			24					
Euphorbia peplus L.	Petty spurge									1M	
Apium graveolens L.	Celery						1				
Indeterminate Apiaceae	Carrot family seeds	2								3	2w/u
Hyoscyamus niger L.	Henbane					30, 1M, 3u/w				5M	1, +++w/ u
Lithospermum arvense L.	Field Gromwell	3	11			1		1		2	1
Stachys spp.	Woundworts	1								3, 1M	
Lamium sp.	Dead-Nettle									1, 6M	1M, ++ w/u
Mentha sp.	Mint		1							1	
Plantago lanceolata L.	Ribwort plantain									1	
Odontites verna (Bellardi) Dumort. - red bartsia		3		1	6	5				13	
Galium aparine L.	Cleavers									1	
small *Galium* spp.	small Cleaver seeds									2	
Sambucus nigra L.	Elder		1								

Sample Number		54	24	14	22	31	43	3	13	23	40
Carduus/ Cirsium sp.	Thistles							1		6	
Centaurea sp.	Knapweeds	2					8	1	2	2	
Lapsana communis L.	Nipplewort	2								4, 1M	
Picris echioides L.	Bristly oxtongue									1	
Artemisia sp.	Mugworts									4, 1M	
Anthemis cotula L.	Stinking Chamomile	58	12	1	4		1	13	7	92	2
Tripleurospermum inodorum (L.) Schultz-Bip. - scentless mayweed			4							2	
Eleocharis sp.	Spike Rushes				6					4, 1M	1
Schoenus nigricans L.	Balck bog-rush									1	
Schoenus sp.	Bog-rushes				2				1		1
Cladium mariscus (L.) Pohl	Great Fen Sedge	1	3	1	3					2	
Carex cf. *hirta* L.	Hairy sedge				2					1	
large trilete *Carex* sp.	large, triangular sedge seed		1								
small trilete *Carex* sp.	small, triangular sedge seed				2			1			1
small lenticular *Carex* sp.	small, flat sedge seed						2				
cf. *Lolium* sp.	Rye grass					1		5	5		
cf. *Bromus* sp.	Bromes	16						3			
Phleum sp.	Cat's-tails									3	
large Poaceae	large wild grass	10	7	5	17	11	14	87	6	54	11
medium Poaceae	medium wild grass		1			18		6	1	14	13
small Poaceae	small wild grass	4			2	10	2	3	3	6	
Indet immature embryoes	unripe seeds	+++		2						+++	+
Indet wild plant seed	non-identifyable seeds	7	1	2	4	7, 2M	2, 1M	7		21, 2M	2, 2M
Charophyte oogonia	algea 'seed'		-		++	+					
Total charred wild plant seeds (excluding immature embryoes)		**227**	**142**	**26**	**98**	**165**	**49**	***c*.509**	**44**	***c*.1734**	**49**
Indet. Bud											
Indet. Fruit stone											1 cf.
worm cast (insect chitin)										1M (1M)	

Sample Number	54	24	14	22	31	43	3	13	23	40
Fish scales (fish bone)						-	+			+ (+)
Fresh water snails										
Sphaerium sp.				++*						
Bithynia tentaculata				+++*						
Lymnaea palustris				++*						
Lymnaea truncatula		+ *		+++*						
Planorbis planorbis		+		++ *					+	
Planorbis leucostama				+++*					-	
cf. *Viviparus* sp.				- *						
Gyraulus albus				- *						
Catholic/ Unkown habitat										
Succinea sp.		- *		+ *					-	
Vallonia sp.		-							-	-
Vertigo sp.		- *							+	
Lauria/Pupilla sp.		-							+	
Trichia sp.									-	

Table 61: Plant-remains and other finds from the ten fully sorted dry bulk soil samples (Key: '-' 1 or 2, '+' <10, '++' 11-50, '+++' >50 items. M = mineral-replaced. w/u = waterlogged or untransformed)

Sample Number		27	42	47
Context		1041	1925	2169
Feature		110	501	490
Feature description		Well	Well	Well
Date (century)		15th	14-15th	14th
Sample volume - litres		0.5	0.5	0.5
Flot fraction examined -%		100%	100%	100%
large charcoal (>4mm)		-	+	-
med. charcoal (2-4mm)		+	+	+
small charcoal (<2mm)		++	++	+
estimated charcoal volume, including 'coal' - mililitres		<1	<1	<1
Cereal grains and chaff				
Hordeum vulgare sensu lato	hulled barley grain	1C		4C
T. aestivum sl.	free-threshing wheat	1C	4C	
Avena sp.	wild or cultivated Oat		1C	
Indeterminate cereal grain fragments			1C	
T. aestivum sl. Rachis node	free-threshing wheat chaff		1C	
Wild / cultivated Poaceae culm node - grass straw			+, 3C	
Wild plant seeds				
Ranunculus sp.	Buttercups	+	-	
Papaver somniferum L.	Opium poppy		+	
Urtica dioica L.	Common Nettle			+
Urtica urens L.	Small Nettle	+	+	++
Chenopodium murale L.	Nettle-leaved Goosefoot		+	+
Chenopodium album L.	Fat-hen	+	++	++
Atriplex patula L./*prostrata* Boucher ex DC	Oraches	-	+	+
Stellaria media (L.) Vill	Common Chickweed	++	++	++
Stellaria neglecta Weihe	Greater Chickweed	-		
Stellaria sp.	Chickweed	+		
Agrostemma githago L.	Corncockle seed (frags)	-		
Silene latifolia Poir.	White Campion	+	-	
Persicaria lapathifolia (L.) Gray	Pale Persicaria		-	
Polygonum aviculare L.	Knotgrass	++	++	+
Fallopia convolvulus (L.) A´ Löve	Black bindweed	-	-	
Rumex acetosella L.	Sheep's sorrel		-	-
R. conglomeratus/obtusifolius/sanguineus -	Dock	+	-	
Rumex sp. Type 1	Dock		-	-
Rumex sp. Type 2	Dock	-		-
Malva sylvestris L.	Common Mallow		+	
Malva sp.	Mallows	-		
Capsella bursa-pastoris (L.) Medikus	Shepherd's-purse	++	+	
Brassica / Sinapis sp.	Cabbages / Mustards (frags)	+	-	-
Sinapis sp. Pod frags	Mustard pod sections			+

Sample Number		27	42	47
Anagallis arvensis L.	Blue or Scarlet Pimpernel	+	+	-
Vicia / Lathyrus / Pisum sp. 2-4mm	Vetches / Wild Pea / Pea		1C	
large *Medicago / Melilotus* sp.	Medics or Melilots		2C	
Euphorbia peplus L.	Petty spurge			-
Vitis vinifera L.	Grape-vine			++
Pimpinella sp.	Burnet-saxifrages			1C
Apium graveolens L.	Celery	-		-
Torilis nodosa (L.) Gaertner	Knotted Hedge-parsley		-	
Hyoscyamus niger L.	Henbane	+	-	
Solanum nigrum L.	Black nightshade		+	-
Verbena officinalis L.	Vervain	+		
Ballota nigra L.	Black Horehound	-	+	-
Large *Lamium* sp.	Dead-Nettle	+	+	+
Lycopus europaeus L.	Gipsywort	-		
Mentha sp.	Mint	+	-	
Large *Salvia* sp.	Claries	-		
Plantago major L.	Greater plantain		-	-
Odontites verna (Bellardi) Dumort.	Red Bartsia		+	
Sambucus nigra L.	Elder	-	-	-
Carduus/Cirsium sp.	Thistles	++		
Centaurea sp.	Knapweeds	+		
Lapsana communis L.	Nipplewort		-	
Sonchus oleraceus L.	Smooth Sow-thistles	-	-	
Anthemis cotula L.	Stinking Chamomile	+	++	1C
Large indeterminate Asteraceae	Daisy family seed	-		
Juncus sp.	Rushes	+	+	+
Eleocharis sp.	Spike Rushes	-		-
Cladium mariscus (L.) Pohl	Great Fen Sedge		-	-
trigonous *Carex* sp. type1	trilete Sedge seed		-	-
trigonous *Carex* sp. type2	trilete Sedge seed		+	
large lenticular *Carex* sp.	flat Sedge seed	-	-	
large Poaceae	large wild/cultivated grass		-, 2C	1C
medium Poaceae	medium wild grass	1C		
small Poaceae	<2mm long wild grass	-		
Indeterminate wild plant seeds			1	1

Table 62: Plant-remains and other finds from the three fully sorted waterlogged bulk soil samples (Key: '-' 1 or 2, '+' <10, '++' 11-50, '+++' >50 items. M = mineral-replaced. w/u = waterlogged or untransformed)

14th century well F.490 [2169], 14th-15th century wells F.110 [1041] and F.501 [1925]

The assemblages from the three wells are very similar to the features described above, and suggest the wells were no longer providing fresh water when the deposits accumulated. Charred cereal remains were present, and the same range of wild plant seeds albeit waterlogged, not charred. The range of plants that only occurred waterlogged is surprisingly low, indicating that the same range

of wild plants grew on arable fields as well as disturbed ground/backyards. Buttercups (*Ranunculus* sp.), that can't withstand ploughing, were only found waterlogged, as well as grape seeds (*Vitis vinifera*), the fruit of which is often associated with sites of high social status (Green 1984). As well as condiments found in previous samples, seeds of celery (*Apium graveolens*) were found in **F.110** and **F.490**. Since the majority of waterlogged seeds presumably came from plants growing in the near vicinity of the wells, we can deduce that the ground in Plots II and III (and probably all other plots) was damp, nutrient-rich and densely vegetated with local ruderals.

15th-16th century pit F.424 [1393] and tank F.199 [2102]

The features were two of the most replete with charred cereal grains. **F.199** contained about as many barley rachis nodes as grains, within a matrix of heavily fragmented grass stems, cereal awns and frequent large culm nodes. Cereal ear bases (where the ear joins the main culm) were also common, suggesting that whole barley plants, along with some free-threshing wheat and a little cultivated oat, were burnt. **F.424**'s 1135 cereal grains consisted of at least 38% rye, 36% free-threshing wheat and only one definite barley caryopses. The sample also contained what appeared to be six spelt wheat grains (*Triticum spelta*). The latter cereal was prolific during the Roman period and it is not unusual to find the occasional seed on medieval sites (Greig 1991). It was not found in any other samples from this site however, though one would expect to find it in earlier rather than later medieval features. The absence of spelt chaff renders the presence of spelt doubtful. Both samples (along with **F.454**, see below) had wild plant seed to grain ratios of around 0.2, the lowest ratios recorded for this site. The lower the ratio the purer the crop, which is surprising for an ensemble of unthreshed barley plants in tank **F.199**. The wild plant seeds consisted of arable weed seeds, along with opium poppy, black mustard, celery and seeds of the nutrient-rich indicator henbane (*Hyoscyamus niger*).

16th century cesspit F.111 [36], tank F.198 [740] and pits F.26 [66] and F.454 [1862]

The highest density of grain to soil volume was found in the cess pit where oat (*Avena* sp.) and barley dominated. The lowest (1 grain/L) came from pit **F.26** where barley dominated the 77 strong grain assemblage. The size of the oat caryopses in the cess pit and the three floret bases of cultivated oat (*Avena sativa*) suggest the oats were not just an accepted contaminant but a cultivated crop. Mineral-replaced seeds were common in the tank but absent from the cesspit. The latter did not have seeds from waterlogged food plants or mineral-replaced faecal concretions, bran and seed-coat fragments, as were frequently found at the Grand Arcade site (de Vareilles & Ballantyne, forthcoming). A charred broad bean (*Vicia faba* var. *major*) and possibly other cultivated beans and peas were found charred in the cess pit, along with some arable weed seeds, including around 350 medic or melilot seeds (*Medicago/Melilotus* sp.). The tank had around eight times more wild seeds than cereal grains, 73% of which were from medics or melilots. **F.198** contained fine, light grey dust with <0.5mm rectilinear silica bodies – possibly ash with straw phytoliths?

Both pits had cereal assemblages dominated by barley grains with practically no chaff. Pit **F.26** had five rye rachis nodes and one free-threshing wheat rachis node. **F.26** had about twice as many cereal grains as wild plant seeds, both occurring in relatively low quantities. Conversely, **F.454** had almost six times more cereal grains than charred wild seeds. It also contained many waterlogged or untransformed henbane and dead-nettle (*Lamium* sp.) seeds (the two preservation pathways can be difficult to differentiate). Assemblages from this pit and the other barley-rich feature (15th-16th century **F.199**, see above) both lacked the high proportions of small brassica seeds and seeds of medics, melilots and/or clover. It is interesting that both samples had very similar arable weed seed assemblages (and indeed the same number of charred seeds) despite **F.199** containing whole barley plants and **F.454** barley grain without a single element of barley chaff. A possible fruit stone was found in **F.454**.

Conclusion

Interpreting assemblages from long-lived and densely occupied urban and sub-urban environments is challenging. Plant materials were used more widely within homes and within many more industries than is usual in today's Western world. All but some of the waterlogged and possibly mineral-replaced plant remains represent debris or waste from human activities. Unless from cess and purpose-built rubbish pits, the remains recovered refer to a time post-dating the features'

primary use, and can't therefore be related to their original functions. It is expected that waste from various activities were mixed and now form single archaeological contexts. Plant remains built up quickly and often preserve well. Deciphering why they preserved in a certain way and which activity they derive from can be ambitious. Hulled barley, free-threshing wheat, rye and oat were found across the four centuries sampled. Overall chaff was rare, allowing specific wheat and barley types to be identified in only three samples: 2-row barley from 15th-16th century **F.199** and 16th century **F.111**, and bread wheat (hexaploid) from **F.199** and 14th-15th century **F.154**. The low concentrations of chaff (in all features except **F.199**) despite elevated counts of arable weed seeds, suggest that the cereals were harvested, threshed and winnowed outside people's individual plots, perhaps communally in a public space, before being distributed. Households would then apparently finish cleaning their own portions of grain.

Oat is rarely found as abundantly as wheat and barley, presumably because its processing and/or use did not involve fire. Green suggests the lack of oat remains "may simply be accounted for by their being used for animal rather than human consumption." (1982, 45). The use of barley seemed to have increased through time; it was found in greater quantities than any other crop in four of the six 15th and 16th century samples. The crop was found in all ovens/kilns, suggesting it was not reserved for animal consumption. Not a single germinated grain was observed, and so there is no evidence for the manufacture of beer, although the latter was one industry for which barley was grown. The find of charred whole barley plants with relatively few arable weed seeds in **F.199** is enigmatic. Other food plants and those of economic value include broad bean, pea, grapes, black mustard, celery, mint, opium poppy, rushes and great-fen sedge. Results compare well to findings from sub-urban and urban Cambridge sites (*e.g.* Ballantyne 2002, de Vareilles 2008, de Vareilles and Ballantyne forthcoming), but differ to more rural sites, such as Neath Farm in Cherry Hinton (de Vareilles 2012) were evidence for condiments and exotic foods was missing.

The main arable weeds dominate throughout the four centuries: corncockle, black medic and other clover types, and stinking mayweed. Small brassica seeds are also common, though these may in fact represent crops of black mustard and/or other spices/vegetables of the cabbage family. Cultivated ground was damp and low in nutrients, a condition which seems to have exacerbated with time for nitrogenous plants (that grow well on poor soils) increase in the 16th century.

Evidence for cess was less prolific than at the Grand Arcade site where mineral-replaced faecal concretions, bran and seed-coat fragments were common (de Vareilles and Ballantyne forthcoming). Occasional mineral-replaced seeds were found in the Eastern Gate Hotel features, most of which came from 16th century tank **F.198**, but no direct evidence for animal and/or human cess. This site may have been less densely occupied and therefore 'cleaner' than sites closer to central Cambridge (*e.g.* Ballantyne 2002, de Vareilles 2008, de Vareilles and Ballantyne forthcoming). The samples analysed have given us an insight into people's daily lives in Barnwell during the 13th to the 16th centuries. All samples were rich in well-preserved plant remains, and have provided valuable additional comparative data to other medieval Cambridge sites. Further samples could be fully sorted to gain a more detailed understanding of how different areas were used. The east 'industrial' corner of the site, for example, produced some samples where straw and wild plant seeds appear to dominate and could relate to activities less 'domestic' in nature.

- Discussion -

The following discussion addresses the key themes that arise from each of the identified phases of activity, and places the excavation in its wider, regional context.

Pre-Settlement Activity

It has previously been noted that the "gravel terraces by the Cam, as at Barnwell, have probably never been entirely uninhabited since Neolithic times" (Fox 1923, 314). Just such a pattern is suggested at the Eastern Gate Hotel site by the recovery of worked flints spanning the Mesolithic to the Late Bronze Age/Iron Age (see Billington, above). This material exclusively occurred within residual contexts, however, and no definite archaeological features of this date were identified. Similarly, the small quantity of Roman material that was encountered – which comprised twelve abraded sherds of pottery – also occurred residually. Overall, therefore, this evidence indicates that usage of the area during earlier prehistory most probably occurred on a seasonal or transhumant basis, whilst in later prehistoric and Roman times it appears likely that the gravel terrace comprised part of a wider agricultural hinterland.

By the 6th century, in contrast, the level of activity at the site had increased. This is indicated archaeologically via the presence of *in situ* Anglo-Saxon pottery recovered from west-northwest by east-southeast aligned ditches **F.16** and **F.17**, plus a residual cruciform brooch and clay loom weight. Although limited in quantity this material nevertheless indicates that non-agrarian activities were being undertaken at this time, albeit with their focus most probably centred at some remove from the area of excavation. Moreover, it is also significant that from the general vicinity of Barnwell Cyril Fox previously noted the existence of unstratified Anglo-Saxon finds that are now in the Ashmolean Museum, along with an Anglo-Saxon interment "from Newmarket Road" (Fox 1923, 244-45). Based upon this – admittedly somewhat ambiguous – evidence, Fox postulated that a settlement may once have existed in close proximity to Barnwell during the Anglo-Saxon period (*ibid*., 244). This possibility is not entirely unfeasible, as recent archaeological fieldwork has demonstrated a contemporary origin for the nearby satellite villages of Chesterton (see Cessford with Dickens 2004) and Cherry Hinton (see Cessford with Dickens 2005a). Moreover, historical sources indicate that 20 *messuages* in Barnwell paid *hawgavel* – or 'high-gable' rent, an early form of house tax (Maitland 1898, 181) – in 1279 (Cam 1959, 109). It is therefore possible, although by no means certain, that these plots were in existence by the mid-late 11th century, although it should be noted that Barnwell itself – under this or any other name – was not recorded in Domesday book.

In addition to the above, based upon the same antiquarian evidence cited by Fox, it has also been suggested that an Early Anglo-Saxon burial ground was present at Barnwell (Meaney 1964, 63). This again is by no means unfeasible. Cruciform brooches, for example, are most commonly – although by no means exclusively – associated with sepulchral contexts (see Martin 2011). Moreover, aside from the 'Newmarket Road' interment cited above, fragments of Anglo-Saxon cinerary urn were dredged from the Cam at Strange's Boathouse, located around 500m to the west of the present site, in 1910 (Fox 1923, 244) and a possible Middle Saxon inhumation cemetery has also been excavated a little under a kilometre to the east (Newton 2007). Therefore, although the scale of Anglo-Saxon activity in the area remains unclear, its presence is nonetheless significant.

Medieval Barnwell: A Thriving Cambridge Suburb

It is apparent from the results of this excavation that the medieval settlement, or vill, at Barnwell was very successful. Ceramic evidence indicates that occupation commenced at the Eastern Gate Hotel site around the turn of the 13th century, although, as the excavated area appears to have been situated on the outermost fringe of the settlement – an interpretation supported by the results of both this investigation and a nearby evaluation situated on the opposite side of Coldhams Lane (Atkins 2012b) – this is unlikely to represent the earliest phase of occupation to have been established. The property plots that were set out *c*. 1200 were consistently narrow, with a distinctive bend, or twist, at their head. Significantly, this closely equates to the pattern generated by the individual strips – known as *lands* – that are characteristic of medieval open field agriculture in the period *c*. 850-1150 (see Ault 1972; Astill & Langdon 1997; Oosthuizen 2005; Gardiner & Rippon 2007). The systematic and repetitive practice of ploughing these lands generated a distinctive, elongated 'S' shape. Moreover, although subject to regional variation, the most common land-width was typically around 7m (Hall 1982, 5). Prior to the relocation of Barnwell Priory this area is known to have lain within the eastern fields of the Liberty of Cambridge, which were probably well-established at Domesday (see further Hesse 2007). Subsequently, these fields provided demesne lands for the priory as well as comprising part of the commons of the town. It is also notable that the remnants of an early plough soil – **F.633**, which was situated at the base of the site's stratigraphic sequence – were identified beneath the footings of **Building 5**. Overall, therefore, it appears probable that by the early 13th century a pre-existing settlement at Barnwell had expanded onto its former agricultural fringe, where a series of lands were converted into domestic property plots.

The resultant properties identified at the Eastern Gate Hotel site closely resemble 'burgage' plots, a property-type that occurred almost ubiquitously in urban and suburban contexts across England during the Middle Ages (see further Conzen 1960; Slater 1981). When situated in a borough, ownership of one of these plots of land conveyed various legal, trading and financial privileges. Within a typical burgage plot the head of the property was occupied by the primary domicile or dwelling house, which was frequently oriented at right-angles to the street. Behind this structure lay any potential accessory buildings – such as a kitchen or workshop, for example – which also serviced the household. Finally, extending to the rear of these buildings was the tail of the property. This portion of the plot was itself frequently sub-divided into an 'innerland zone', within which a variety of domestic or craft-based activities may have been undertaken, and a 'backland zone' that was often reserved primarily for horticultural use. This basic pattern is closely replicated at the Eastern Gate Hotel site, where each of these four zones is clearly identifiable. Significantly, an additional element that also appears to have been present is a back lane, which provided a secondary point of access to the rear of the plots. Laneways such as this typically developed in densely occupied areas where access into the rear portion of properties via the primary frontage had become constricted. They are a common element in well-developed market towns (Slater 2005, 37-8), and comprise a distinctively non-rural topographical feature. At the Eastern Gate Hotel site, archaeological evidence indicates that a back lane was in existence by the 14th century – when it provided access to the industrial features situated at the rear of *Plot VI* – but it did not necessarily comprise a primary element of the plots' layout.

A relatively sizable assemblage of medieval pottery – comprising 3,195 sherds, weighing 51.2kg – was recovered from the site. The most unusual component of this group consists of the small quantity of imported French finewares, which constitute a very rare discovery this far inland (Schofield & Vince 2003, 166). Overall, however, the assemblage is broadly typical of contemporary material recovered from other urban and suburban sites in the Cambridge region (*e.g.* Edwards & Hall 1997; Cessford *et al.* 2006; Cessford 2012; Cessford & Dickens *in prep*.). One potentially significant facet of its composition – as represented by the ratios of closely-datable fabric types, including Brill/Borstall ware, Lyvden/Stanion ware, Pink Shelly ware, Medieval Ely ware, Ely/Grimston ware, Surrey Borders ware and Toynton ware – is that it suggests activity reached its apogee at the site during the 14th century, following which there appears to have been a gradual decline (Chart 7). Caution must be exercised when viewing this data, however, because relatively few fabric-types can be dated with sufficient precision to be included in such an assessment, and the bulk of the assemblage has therefore been excluded. Nevertheless, additional support for such a pattern is to be found in the relative number of wells in use at the site over the same period. Due to their nature, wells are a primary indicator of the degree of intensive occupation within a settlement; moreover, because they were primarily backfilled immediately upon their abandonment, wells are also amongst the most closely-dated of the various feature-types encountered. As Chart 7 shows, at the Eastern Gate Hotel site the majority of wells most probably went out of use during the 14th-early 15th centuries; indeed, by the mid 15th century it appears that few, if any, remained extant. Therefore, since the majority of these features appear to have been relatively short-lived, their primary period of usage coincided very closely with that of the period of most intensive ceramic deposition. When taken in combination, this evidence – although it cannot be considered conclusive – is nevertheless strongly suggestive of a 14th century *floruit*, followed by a period of Late Medieval decline.

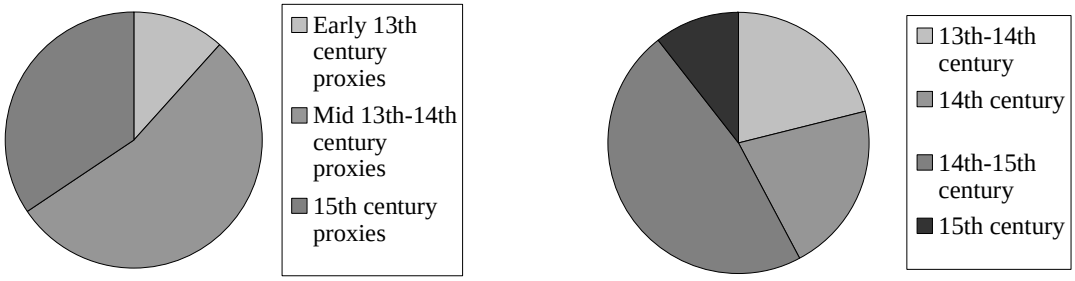


Chart 7: Quantities of closely-datable fabric types by century (left) and dates at which wells were backfilled (right)

In terms of diet, the remains of livestock species dominated the medieval animal bone assemblage. Cattle were the most common livestock species (36.8% NISP), closely followed by sheep/goat (36% NISP) and then pig (8.5% NISP). Less common mammals included horse, dog, cat, deer and rabbit. Cat bones were relatively abundant, implying that these animals may have been kept at the site during this period. Bird bones also account for a significant proportion of the identified material. Domestic goose was the most common species, whilst chicken was also fairly frequent (both were probably also kept at the site). Less common avian species included mallard, pheasant, wood pigeon and swan. Other food items – including broad beans, peas, grapes, carrots, black mustard, celery, mint and opium poppy, in

addition to free-threshing wheat, rye, barley and oat grains – were also identified within environmental bulk samples.

One very distinctive element of the medieval remains at the Eastern Gate Hotel site is the scale of craft/industrial activity that is represented. Such activity is significant as it comprises one of the primary indices for assessing the economic character of a settlement (see further Blair & Ramsay 1991; Schofield & Vince 2003, 121-50; Córdoba & Müller 2011). Unfortunately, the precise nature of the activities that were undertaken at the present site is hard to determine. This is because it was common for a small number of generic feature-types – such as clay-lined ovens and tanks – to be utilised for a wide range of differing purposes (Schofield & Vince 2003, 122). A variety of medieval crafts involved multi-staged processes that incorporated acts of heating and immersion, for example, including textile manufacture (Walton 1991), leather working (Cherry 1991) and horn working (MacGregor 1991). Two types of archaeological evidence may potentially assist in elucidating more precisely the nature of the activities that were undertaken. Firstly, certain processes may have left characteristic environmental residues – although, in this instance, bulk samples recovered from a range of industrial features yielded little but the remains of straw and great fen sedge that had been used as fuel (de Vareilles, above). Secondly, industrial by-products, such as waste material or artefacts utilised during the manufacturing process, may have been discarded nearby. In this regard it is notable that two adjacent late 15th/early 16th century features in *Plot V* contained sizable groups of material that appear unlikely to have been domestic in origin. The first, **F.97**, contained a minimum of 110 horn cores while the second, **F.540**, contained in excess of 3200 oyster shells.

Large groups of horn cores have most frequently been interpreted as waste material generated by horn-working activity (*e.g.* MacGregor 1989, 115-19; MacGregor 1991, 372-73). Horn-working waste, however, is typically distinguished by sawn material (Yeomans 2008) and within the present assemblage very few saw marks were identified. A second possibility is that these fragments represent the remains of butchery waste, although this again appears unlikely as only a very discrete range of element-types was present. It is therefore perhaps significant that horns frequently remained attached to animal hides when they were delivered to tanneries for processing, and very similar deposits of horn cores – often, as here, found in association with metapodia – are known from several excavated tannery sites (Serjeantson 1989, 136-7; Cherry 1991, 295-96). In addition, lime, which can be produced by burning large quantities of oyster shells, was frequently employed in the preliminary stages of the tanning process in order to remove the hair from skins (Cherry 1991, 296). This combination of evidence suggests that the two groups may represent waste material derived from a similar type of activity. A further signature of industrial tanning/tawing, however, is the presence of lined tanks/pits within which the hides were steeped and cured. Upwards of fifty such features are known from some large-scale tannery sites (Serjeantson 1989, 135). Yet no such tanks were identified within *Plot V*; indeed, few contemporary features at the site would have been suitable for such a process. It is thus notable that during the Post-Medieval period horn cores – bonded with clay – are known to have been used as structural material to revet pits and also as hardcore within drains (Armitage 1989, 152-55; see also Yeomans 2008). Thus, whilst no doubt originating as a by-product of industrial/craft activity, this material cannot necessarily be assumed to have been

directly related to activities that were undertaken within the property in which it was deposited. Instead, the fills of these features are perhaps more likely to represent the secondary or even tertiary reuse of waste that was generated elsewhere within the vill.

In a wider context, the archaeology at the Eastern Gate Hotel site is distinct from that of nearby satellite villages such as Chesterton (Cessford with Dickens 2005; Mackay 2009) and Cherry Hinton (Cessford with Dickens 2004; Slater 2012). Instead, it is much more closely akin to that encountered during suburban excavations situated in greater proximity to Cambridge's medieval core, such as those at Grand Arcade and the Christ's Lane Development (Cessford & Dickens *in prep*.) – although it remains distinct from that of truly urban sites situated in the town centre (*e.g.* Newman 2008b; Cessford 2012). These differences are very clearly demonstrated via a comparison of the layout and density of contemporary features excavated recently at Grand Arcade and Neath Farm, Cherry Hinton (Slater 2012), with those at the present site (Figure 29). The similarity between the regular, linear disposition of burgage plots at the Grand Arcade and Eastern Gate Hotel sites contrasts markedly with the more haphazard network of sub-rectangular enclosures at Neath Farm. Moreover, the ditched boundaries at the latter site are clearly distinct from the more ephemeral plot demarcations in the former locations. These differences are further underlined via a comparison of selected materials and feature-types between the three sites (Table 63).

Site	Investigated Area (Hectares)	Prehistoric Worked Flint (Count)	Roman Pottery (Count)	Saxo-Norman Pottery (Count)	Medieval Pottery (count)	Animal Bone (kg)	Fired Clay (kg)	Lava Quern (kg)	Wells (Count)	Buildings (Count)
Eastern Gate Hotel	0.19	21 *110.5*	12 *63.2*	43 *226.3*	3195 *16815.8*	94 *494.7*	55.9 *294.2*	6.4 *33.7*	19 *100*	7 *36.8*
Grand Arcade	0.70	25 *35.7*	121 *172.9*	3558 *5082.9*	12775 *18221.4*	479.2* *684.9*	0.5 *0.7*	13.3 *19.0*	37 *52.9*	16 *22.9*
Neath Farm	0.57	25 *43.9*	14 *24.6*	240 *421.1*	746 *1308.8*	23.2 *40.7*	29.6 *51.9*	0.9 *1.6*	7 *12.3*	8 *14.0*

Table 63: Quantities and densities per hectare (italicised) of selected materials and feature-types from three comparable Cambridge sites (* = estimated from percentage by count assigned to this phase)

In the first instance, it is apparent that the quantities of ceramic and faunal remains at the Grand Arcade and Eastern Gate Hotel sites are broadly comparable; the minor differences in size between the assemblages are potentially attributable to variations in the relative scale, location and methodology of the respective investigations. Similarly, the difference in the number of buildings encountered at the two sites is primarily a result of the increased proximity of the Eastern Gate Hotel excavation to the street frontage, where the majority of buildings were located. In relation to all three of these categories, however, the distinction between the two suburban investigations and that conducted at Neath Farm is dramatic. Thirteen times more pottery and animal bone were recovered from the Eastern Gate Hotel site, for example, whilst two-and-a-half times fewer buildings were encountered, despite the Neath Farm excavation being situated closer to the principal street frontage than the former site (see Figure 29).

Figure 29. 13th to 16th century features at Grande Arcade (left), Eastern Gate Hotel (top right) and Neath Farm (bottom right)

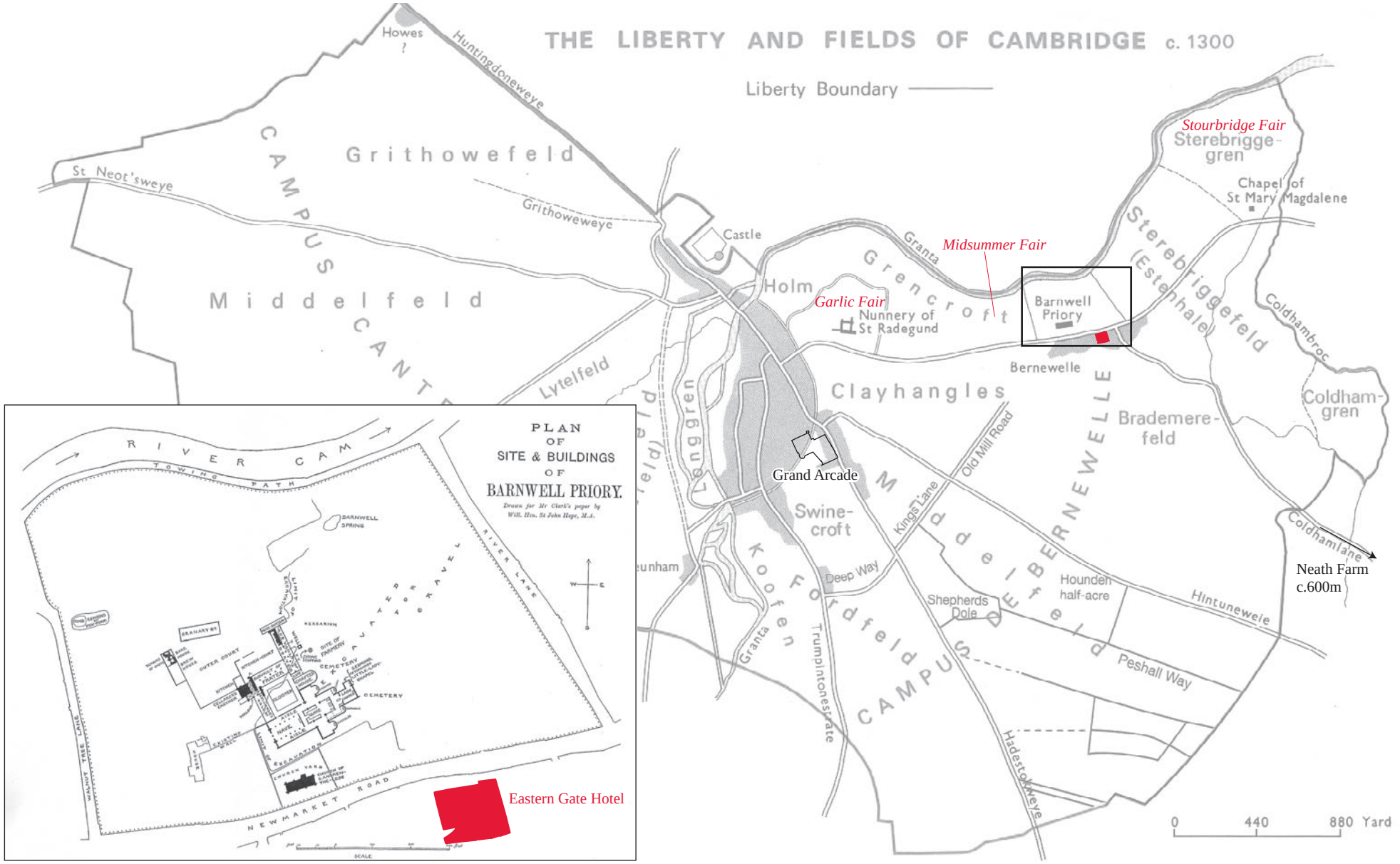


Figure 30. The site in relation to the Liberty of Cambridge c.1300 (after Lobel 1974, map 3) with, inset, J.W. Clark's reconstruction of the contemporary precinct of Barnwell Priory (after Clark 1893, Plate XLI). Note that the extent of the Barnwell suburb is probably under represented, and that Clark's reconstruction has been challenged (Haigh 1988a, 64-5)

In addition, the disparity in the number of wells between all three sites is also particularly marked. Although the lesser quantity at Neath Farm is commensurate with the lower density of occupation at that site, twice as many wells are represented at Eastern Gate in comparison to Grand Arcade. This difference does not appear to have been primarily related to the scale of on-site requirement, and may instead reflect the relative depths of Gault clay at the two sites; the 3rd Terrace river gravels present at Eastern Gate are likely to have rendered these wells more susceptible to failure, thereby necessitating frequent replacement. Finally, the relatively sizable differences in the quantities of burnt clay and quernstone fragments may be attributable to an increased level of craft/industrial activity at the Eastern Gate Hotel site, with the size of the latter assemblage also potentially indicating a stronger agrarian focus within the more distant, outlying suburb.

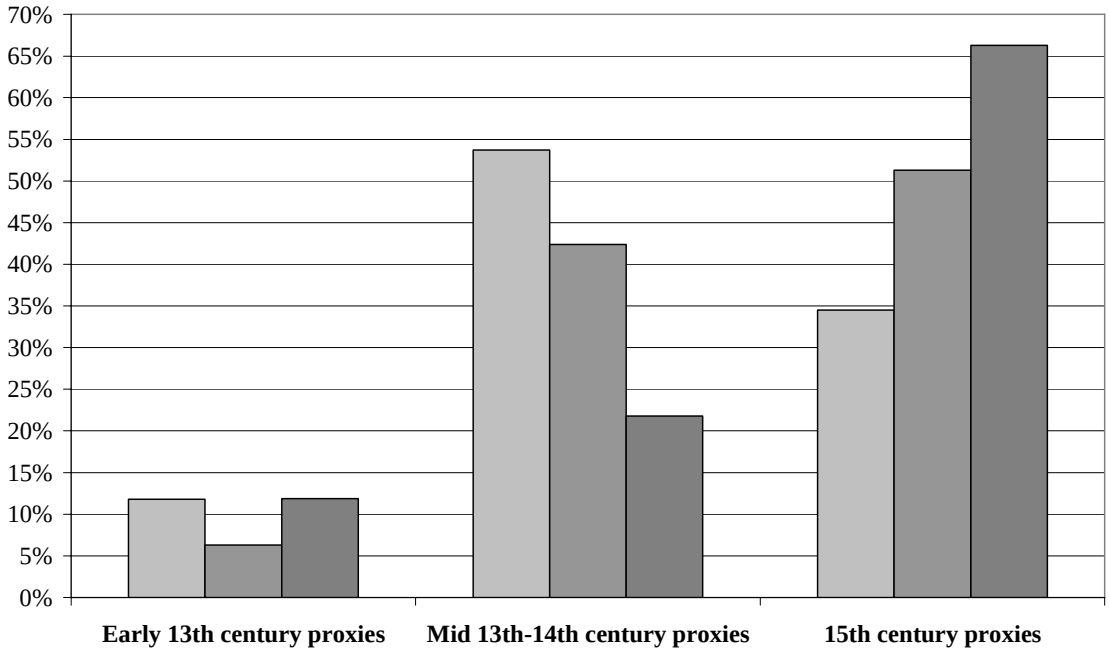


Chart 8: Relative percentage of closely-datable fabric types by period at Eastern Gate Hotel (pale grey), Grand Arcade (mid grey) and Neath Farm (dark grey)

A further contrast between the three sites can be identified when the relative quantities of closely-datable medieval fabric-types are examined by period (Chart 8). At both Grand Arcade and Neath Farm, for example, a gradual century-on-century increase apparent, indicating that the general level of activity at these sites is likely to have risen over time. As previously highlighted above, however, at the Eastern Gate Hotel site a marked increase in material occurred during the 14th century, followed by a notable decline during the 15th century. This pattern is atypical for sites in the immediate Cambridge area, and suggests that a site-specific as opposed to regional pattern is represented.

Historical Sources

In particular, two significant historical sources survive in relation to the medieval settlement at Barnwell (although further documents, pertaining to individual properties, are also likely to remain as yet unidentified within college archives). The first and most extensive of these is the *Rotuli Hundreorum*, or Hundred Roll. The

Hundred Roll comprises the record of a census of the population of England, and parts of Wales, which was commissioned by Edward I in the second half of the 13th century. Although many elements of the census were not completed, and other portions have not survived, the part pertaining to Cambridge – and, by extension, Barnwell – does remain extant. It was compiled in 1279. At this time, Barnwell was explicitly referred to as a "suburb belonging to the borough of Cambridge [*suburbium pertinens ad burgum Canterbr'*]" (Illingworth 1818, 393). Thus although separated from the urban core by around half-a-mile of open fields, it is clear that the settlement was regarded as sufficiently distinct from satellite villages situated a comparable distance from the town centre to merit special distinction. Nevertheless, despite its physical separation from Cambridge, Barnwell was not regarded as a distinct entity in its own right, but rather an adjunct of the nearby town.

In all, 95 *messuages* were recorded within the Barnwell suburb in the Hundred Roll (Cam 1959, 110; Lobel 1974, 11; Maitland 1898, 148; their records are presented in detail in Illingworth 1818, 393-401)[1]. A *messuage* is defined as a dwelling house together with its outbuildings, and each *messuage* can therefore be reasonably equated to an individual property plot similar to those identifed at the Eastern Gate Hotel site. A *vill* containing 95 properties is larger than most, if not all, of the known contemprary villages in Cambridgeshire (Lobel 1974, 11); indeed, the legal historian F. W. Maitland described the scale of the settlement at this time as "remarkable" (Maitland 1898, 148). By way of comparison, the Hundred Roll recorded 380 *messuages* within Cambridge itself at this date, with a further 60 *messuages* split beween the town's three remaining suburbs, which were situated outside the Barnwell Gate, the Trumpington Gate and Newnham repsectively (Cam 1959, 109-10). In 1279, therefore, the Barnwell suburb comprised a substantial residential component of the town, equating in size to as much as 25% of the urban core and 17.7% of the total occupied area. Although a significant proportion of the properties in the suburb were owned by Barnwell Priory, a number of wealthy local landholders – including Luke of St. Edmund's, William de Nonacurt, Phillip de Colville and Leonius Dunning – are also strongly represented in the record.

The second important historical source is the *Liber Memorandorum Ecclesie de Bernewelle*. This work, which incorporates a variety of documents pertaining to the running of, and holdings of, Barnwell Priory, was collated by a canon at the end of the 13th century. Book seven of this work details "the rents, tenants, villeins and their customs pertaining to the church of Barnwell" (Clark 1907, 282). This list was compiled in 1295, and details the tenures pertaining to 42 *messuages* that were owned by the Priory within the adjacent settlement. Following many of the original entries in the list a further addition has been made in a different hand. These additions relate to subsequent tenants of the *messuages*, and have been dated by Clark to 1309-1310 (Clark 1907, 319). Both sources contain important information regarding the tenure of properties in the vill, as well as other useful information, and provide a valuable

[1] It has been suggested that the Hundred Roll conflated the parishes of St. Andrew-the-Less, situated in Barnwell itself, and St. Andrew-the-Great, situated outside the Barnwell Gate – in much closer proximity to the King's Ditch – thereby exaggerating the size of the extramural settlement (Atkins 2012b, 9). This is not the case. Separate entries are present in relation to the Barnwell Gate suburb, and the historical documents for this area have also been reviewed in detail following the recent Grand Arcade investigation (Cessford & Dickens *in prep*.; see also Stokes 1915). To date, however, no detailed documentary research has been undertaken in relation to the outlying Barnwell suburb itself.

resource for future investigation. One example of this potential is shown in Table 64, which details the occupations of some of the principal tenants in the suburb as revealed by onomatological evidence contained within both the *Rotuli Hundreorum* and *Liber Memorandorum*. Although it should be noted that the named individuals did not necessarily reside within their respective property plots, as it was relatively common for principal tenants to sub-let *messuages* during the medieval period, nevertheless the association of such individuals with the settlement strongly underlines its distinctively suburban character.

Occupation	Reference	Date	Source
Merchant	Henr' Mercator	1279	*Rotuli Hundredorum*, 393
Carter	Osbertus Carectarius	1279	*Rotuli Hundredorum*, 393
Doctor	Magr' Nich' Medicus	1279	*Rotuli Hundredorum*, 395
Stonemason	Adam Cementar'	1279	*Rotuli Hundredorum*, 396
Smith	Willo Fabr'	1279	*Rotuli Hundredorum*, 396
Smith	Galfr' Fabr'	1279	*Rotuli Hundredorum*, 396
Cook	Eudo Cocus	1279	*Rotuli Hundredorum*, 397
Merchant	Walter Mercator	1279	*Rotuli Hundredorum*, 399
Carter	Mich Carectarious	1279	*Rotuli Hundredorum*, 399
Fuller	Rob le Fulere	1279	*Rotuli Hundredorum*, 399
Stabler	Alan le Stabler	1279	*Rotuli Hundredorum*, 400
Carpenter	Adam carpentarius	1295	*Liber Memorandorum*, 319
Stabler	Alani le stabler*	1295	*Liber Memorandorum*, 319
Fuller	Robertus le fulere*	1295	*Liber Memorandorum*, 319
Carter	Kokelini carectarij	1295	*Liber Memorandorum*, 319
Carter	Michael carectarius*	1295	*Liber Memorandorum*, 320
Cook	Iuo cocus*	1295	*Liber Memorandorum*, 320
Carpenter	Osberti carpentarij	1295	*Liber Memorandorum*, 320
Cook	Yuonis coci	1295	*Liber Memorandorum*, 321
Cook	Roberti Coci	1295	*Liber Memorandorum*, 321
Smith	Hugo faber	1295	*Liber Memorandorum*, 321
Doctor	Nicholai le Leche*	1295	*Liber Memorandorum*, 322
Coifmaker (?)	Sarra le Coifscere	1295	*Liber Memorandorum*, 322
Ropemaker	Thomas le Ropere	1295	*Liber Memorandorum*, 322
Tailor	Ricardus le Taylur	1295	*Liber Memorandorum*, 323
Smith	Galfridus faber*	1295	*Liber Memorandorum*, 323
Drug-grinder	Nicholaus triturator*	1309-10	*Liber Memorandorum*, 320
Ironmonger (?)	Galfridus de Hiremongere*	1309-10	*Liber Memorandorum*, 322

Table 64: Occupations of principal tenants in Barnwell as revealed by documentary sources (entries marked * represent the potential repetition of an aforementioned individual)

Few documents pertaining to the later medieval history of the suburb are known, although two 14th century tallages of the borough are recorded, from 1312 and 1340 respectively (Table 65). The first of these comprised a tallage of a fifteenth of all movables and a tenth of rents, the second of a ninth of all goods and chattels (Cooper 1852, 72 & 93). Whilst not directly comparable, therefore, the results of both tallages nevertheless indicate that the economic value of Barnwell was not commensurate with the relative size of its population (which during this period is likely to have equated to as much as 17% of the borough). Additional documents of relevance include Cambridge's subsidy rolls of 1314-15 and subsequent rental documents of 1483-1524, which record Barnwell ward as "the smallest, and the one that paid the least to the subsidy" (Cam 1959, 113). Cumulatively, this evidence suggests that the extramural

settlement had probably reduced in both scale and importance by the early 16th century, thereby corroborating the archaeological evidence recovered from the Eastern Gate Hotel site (although it is also potentially significant to note that Cambridge's other suburbs are known to have expanded by this time).

	1312		1340	
Location	**Persons Tallaged**	**Amount of Tallage**	**Persons Tallaged**	**Value of Movables**
Barnwell Ward	35	£3 2^{s} 10^{d}	24	£29 18^{s} 0^{d}
Cambridge	575	£100 11^{s} $6¼^{d}$	432	£429 11^{s} 6^{d}
Percentage of Total	**6.1%**	**3.1%**	**5.5%**	**7.0%**

Table 65: 14th century Cambridge tallages (data from Cooper 1852)

A Planned Monastic Development?

The presence of the adjacent priory very probably formed the primary factor in the creation of the medieval settlement at Barnwell. Its establishment formed part of a much wider phenomenon, as during the 12th and early 13th centuries many new settlements were founded – or planted – across the British Isles (see further Butler 1976; Beresford 1988). At this time of increasing urbanisation, the rental income derived from property was regarded as one of both the simplest and securest ways of generating increased income. Although many of the largest planned developments comprised royal or seigniorial foundations, numerous monasteries are also known to have established an associated settlement (Trenholme 1927; Slater 1987; Aston 2000, 149-52). At Tavistock, for example, between 1105 and 1185 the "abbot made the town to be raised [*abbas villam fecit levari*]" (Illingworth 1812, 81). Similarly the abbey at Burton, Staffordshire, was able to transform its local village into a borough and this subsequently grew to such an extent that by the mid 13th century several burghal suburbs had been appended to its original nucleus (Beresford 1988, 130).

In the wider East Anglian region numerous successful monastic towns were founded around this time, including Ramsey (Page 1932; DeWint & DeWint 2012), Bury St. Edmunds (Statham 1988), St. Neots (Tebutt 1978) and St. Ives (Moore 1985, 225-80; Spoerry 2005, 105). Many of these foundations represent the reorganisation and expansion of a pre-existing nucleus, however, as opposed to an apparently *de novo* foundation such as Barnwell. A much closer parallel, therefore, is the nearby market town of Royston (Slater 2004, 23-26; Plowman 2008). Here, in *c*. 1164-79 a chapel for three Augustinian canons was established a short distance to the southeast of the intersection of Ermine Street and the Icknield Way (Semmelman 1998, 15). As at Barnwell, its location is likely to have been influenced by the presence of an earlier hermitage, and there appears to have been no pre-existing settlement (Munby 1977, 97). Subsequently, in 1184, the chapel was raised to the status of a priory (Kingston 1906, 12; Page *et al.*1914, 436). Initially home to a community of just seven canons, the monastery was granted manorial rights as part of its founding charter and in 1188 was also granted the right to hold a weekly market by Richard I, in addition to the right to hold an annual fair during Whitsun week (Greene 1992, 174). As trade flourished, the priory's associated settlement expanded commensurately; moreover,

the “very regularly-planned” layout of the new town (Slater 2004, 25) appears to have been highly comparable to the *vill* at Barnwell.

Along the western side of Royston’s principal road, for example, directly opposite the monastic precinct, a series of short property plots were established (Plowman 2008, 180-81) – thereby closely mirroring the pattern at Barnwell. In addition, to the rear of these properties a newly-created laneway, Back Street, was laid out. This performed a dual role; it provided a secondary point of access into the plots but also, initially at least, demarcated the western boundary of the vill. Just such a feature also appears to have been replicated at Barnwell. Finally, one further parallel between the two settlements can be identified. As Royton expanded outwards from its initial core, most especially to the west of Back Street, the resultant plots appear to represent the remnants of *lands* appropriated from the preceding open fields (Slater 2004, 25-26). Not all planned developments were so successful, however. In 1246, seigniorial lord William de Sey secured grants of both a market and a fair for his manor of Linton, Cambridgeshire. By 1279 de Sey had 80 tenants, 35 of whom held burgage plots (Wright 1978, 81 & 96-7). Moreover, “at least some of them give the impression of being craftsmen or tradesmen” (Miller & Hatcher 1995, 178). Thus, although smaller than Barnwell, this settlement appears to have been relatively similar in terms of its composition. But whilst the market and fair continued to be held, and a number of craftsmen (mainly tanners) continued to reside in the village, no further mention of burgage tenure is recorded and the settlement “took no further steps along the road to burghality” (Miller & Hatcher 1995, 179). Linton’s occupational trajectory may not have been entirely dissimilar to that of the Barnwell suburb.

As a result of their close association, the history of Barnwell Priory is inextricably linked to that of the *vill* situated immediately outside its gates (for further details on the history of this institution, see Nichols 1786; Prickett 1837; Walcott 1871, 224-29; Clark 1891; Clark 1897; Clark 1907; Salzman 1948; RCHME 1959, 299-300; Haigh 1988b). The house of Canons Regular that was later to become Barnwell Priory was originally founded in *c*. 1092 (Salzman 1948, 234). Located close to the centre of the town, at the foot of the newly erected castle, it comprised a church dedicated to St. Giles that housed a community of six canons. This was one of the earliest monasteries in England to follow the Rule of St. Augustine, and was closely associated with the larger houses at Colchester and Huntingdon (Burton 1996, 45). Shortly after its foundation, however, its founder died (Clark 1907, 39-40). By *c*. 1111 the monastery had become “desolate and reduced to nothing” (Clark 1907, 40-41), but a new benefactor “seeing that the place where their house stood was insufficient for their needs and had no spring of fresh water”, acquired a fresh site for the canons to the east of the town (Salzman 1948, 234). This was selected because of the presence of a holy well – the eponymous ‘bernewelle’ – close to which lay an abandoned wooden oratory that had been dedicated to St. Andrew. The relocation of the monastery in this fashion was by no means unusual. Around a third of all Augustinian houses migrated to a new site, often – as at Barnwell – when they had outgrown either the space or the resources that were available in their initial location (Burton 1994, 132-34).

At its new site, the re-founded monastery flourished. Indeed such was the extent of its growth, by *c*. 1285 the complex covered a site of some thirteen acres (Lobel 1974, 11; Maitland 1898, 191; Figure 30). Based primarily upon the documentary records

contained within the *Liber Memorandorum Ecclesie de Bernewelle*, three major periods of construction can be identified within the priory sequence. These comprise:

I. 1112-1175: soon after the monastery's relocation, construction began of a "church of wondrous size and ponderous construction [*ecclesiam mire magnitudinis et ponderosi*]" (Clark 1907, 66). The priory's associated settlement may also have been established at this time, in order to provide additional revenue for the new institution. By 1154, work upon the monastic church was well advanced but had not yet been completed. Although no other buildings are mentioned at this date, a range of additional structures would have been required to fulfil both the domestic and ecclesiastical needs of the community. Evidence recovered from excavations conducted at similar monastic sites suggests that in their initial form these structures are likely to have been relatively temporary in nature, and many were probably constructed from timber (Greene 1992, 57-76; Burton 1994, 135).

II. 1175-1213: work recommenced upon the Priory church in 1175 (Clark 1907, 65-67). At this time, labourers "pulled down to the foundations the church which had been commenced [*ecclsiam inchoatam funditus evertit*]" (Clark 1897, xxi), and replaced it with a new Gothic structure. This appears to have been constructed on a less ambitious scale than its 'wondrously-sized' predecessor, but nevertheless comprised a substantial structure. The new church was consecrated in 1191 (Clark 1907, 66). The injection of new capital into the monastery in 1175 may have coincided with the establishment – or, alternatively, the expansion – of the priory's associated settlement.

III. 1213-1265: the most intensive period of construction occurred during the Priorship of Laurence de Stanesfield (*c*. 1213-1251). At this time a refectory, guest hall, almonry, infirmary, granary, stables, bakehouse, brewhouse, gatehouse and inner gate were built (Clark 1907, 97 & 222-23). Moreover, the parochial church of St Andrew-the-Less was also constructed around this time. Although it is not referenced in any surviving documentation, it can be dated on architectural grounds to the early 13th century (RCHME 1959 II, 263). This strongly indicates that by the early 13th century the *vill* itself was already well-established, as it is unlikely the Priory would have constructed a parish church had there been no extant lay community to constitute its parishioners.

As a result of the paucity of later historical documents, little is known of the architectural development of the monastery during the 14th and 15th centuries. Nevertheless, structural alterations and additions almost certainly continued during this period. Archaeologically, just such a pattern is indicated via the recovery of moulded stone fragments from contemporary contexts at the Eastern Gate Hotel site (Newman & Timberlake, above); these are very likely to represent waste material derived from works conducted at the adjacent priory.

Unlike the majority of religious houses in Cambridge, Barnwell Priory was not converted into a college following its dissolution in 1538. Instead, its remains were plundered for building materials – most notably for use in the college chapel at Corpus Christi (Willis & Clark 1886 I, 290) – and its agricultural holdings were converted into a farm (see Danckwerts 1980). In 1578, the extant Abbey House was established, although the present structure principally dates from the 17th century (RCHME 1959 II, 366). Although the subject of only limited archaeological investigation (most notably by John Bowtell in 1810-12; see Clark 1893), two small-scale excavations have recently been conducted at the former priory site. The first of these was undertaken in 1985 and encountered a substantial east-west aligned masonry foundation that may have been associated with the earliest phase of the monastic church (Haigh 1988a). The second investigation was conducted in 2002 and encountered a series of horizontal layers overlying a probable 12th or 13th century pit (Fletcher 2002). Architecturally, the only extant remnant of the main priory complex is the 'Cellarer's Chequer'. This building, which originally formed part of the western claustral range, contains numerous surviving 13th century features and is described in

detail in several published sources (see Clark 1891; RCHME 1959, 299-300; Haigh 1988b). Originally believed to have comprised a strongroom, or chequer, it is perhaps more likely to have functioned as part of the monastic kitchens. In *c*. 1806, when a watercolour depiction of the priory site was painted by Richard Relhan, a variety of structural remnants remained extant (Taylor 1999, Plate 6). In 1810-12, however, "deliberate and thorough destruction was put in hand" (Salzman 1948, 247), following which little if anything of the former structures survived.

A second major influence upon the development of medieval Barnwell is likely to have comprised the presence of a number of annual fairs in its immediate vicinity. During the early Middle Ages, fairs such as these were amongst the primary venues for the dissemination of foreign goods imported by alien merchants. They also acted as arenas for the sale of locally-produced merchandise for export (see further Moore 1985; Miller & Hatcher 1995, 166-76). As a result of their economic importance, during the 13th century in particular the practice of creating fairs by royal charter was widespread. The Crown made every attempt to initiate new fairs at this time, whilst also bringing existing ones under their jurisdiction. Between 1199 and 1350, for example, over 1500 charters were issued granting the right to hold a market or fair (*cf*. Hardy 1837, 1199-1216; see also the National Fairground Archive). Four chartered fairs were associated with medieval Cambridge (Cam 1959, 91-95; Taylor 1999, 113-20). One of these, Reach Fair, was situated at the junction of Reach Lode and the Devil's Dyke, around nine miles from the town (Wright 2002, 225-27). The three remaining fairs, however – Garlic Fair, Midsummer Fair and Stourbridge Fair – were all situated in relatively close proximity to the settlement at Barnwell (see Figure 30). Indeed, the two most significant – Midsummer Fair, which was of regional importance, and Stourbridge Fair, which was to become of international importance – took place almost immediately to the west and east of the *vill* respectively. As such, therefore, the inhabitants of medieval Barnwell were ideally placed to take advantage of the annual influx of both people and materials into the area.

Garlic Fair, the smallest and least significant of the three adjacent fairs, was operated by the nunnery of St Rhadegund at what is now the site of Jesus College (Cam 1959, 92). Rather more important was Midsummer or 'Barnwell' Fair. This had first originated with the annual midsummer festivities that were held at the 'bairn's well' prior to the establishment of Barnwell Priory itself (Clark 1907, 42). The priory's right to hold a fair at midsummer was later confirmed by a charter of King John in 1211 (Cam 1959, 92). By 1229 the fair extended over four days, and this was extended to fourteen days in 1394 (Cooper 1852, 40 & 249). Over the following century, however, increasing conflict with the town saw direct management of the fair gradually shift away from the priory; it passed entirely into the possession of the town following the monastery's dissolution in 1538. The third and most important fair was originally granted to the *leprosia* of St. Mary Magdalene at Stourbridge in the early 13th century (Cam 1959, 92; see also Ridout 2011). By 1279, the hospital itself had ceased to function, though the fair – which at this time extended over two days in the middle of September (Cooper 1852, 300) – continued to operate. In 1516 it extended from the 24th of August to the 29th of September, and was the largest and most important fair in England (Cam 1959, 93). It should be noted, however, that during the Middle Ages Stourbridge Fair lacked the importance it was to gain in Post-Medieval times (Moore 1985, 143). Instead, at this time trade along the Ouse largely

halted at St. Ives, which then comprised the largest fair in the region. Moreover, it has been observed that:

> "The importance of these fairs … such as the one at Stourbridge, outside Cambridge, faded at the end of the thirteenth and the first decades of the fourteenth century, just as that of the great Champagne fairs did in France, but trading mobility continued. It was concentrated now in the more permanent urban markets, which became the foci for much wholesale trade" (Childs 2006, 269).

The decline in economic importance of the surrounding fairs coincided with the diminution in power of Barnwell Priory itself, as the university rose to increasing prominence in the town. Although originally the preferred Cambridge residence of visiting Royals and state officials, for example, by the 15th century this role had been taken over by several colleges (Salzman 1948, 245-6). A second important factor in the settlement's Late Medieval decline comprised its close proximity to Cambridge. Initially, this had most probably acted as a boon to the vill's development. A charter of Henry I (1120-31), for example, forbade "that any boat shall ply at any hithe in Cambridgeshire, save at the hithe of my borough of Cambridge, nor shall any take toll elsewhere, but only there [*Prohibeo ne aquila navis applicet ad aliquod litus de Cantebrugeseira nisi in burgo meo de Cantebruge neque aliquis capiat alibi theoloneum nisi ibi*]" (Maitland & Bateson 1901, 2-3). At first, therefore, proximity to the town conveyed an important economic advantage. By 1210, however, four additional places in Cambridgeshire had obtained the right to hold a market, and seven further grants were made between 1210 and 1250 (Galloway 2005, 112). Thus the absence of a marketplace at Barnwell rendered the *vill* increasingly dependent upon the adjacent town, despite its relatively sizeable population. Moreover, this same period also represented a time of widespread suburban growth, when many new suburbs were created and/or incorporated into towns across England (see Keene 1976; Schofield & Vince 2003, 66-68). The cumulative impact of these various factors meant that – unlike many contemporary monastic foundations – Barnwell did not expand into an independent market centre, as at Royston, but somewhat unusually became instead a 'dislocated' suburb, separated from its parent town by around half-a-mile of open fields.

Subsequently, from around the late 14th century onwards, the suburb itself appears to have gradually declined in importance. A similar pattern of diminution was relatively common across rural England at this time, following the cumulative impact of the agrarian 'crisis' of 1315-22 and the Black Death of 1348-49, when the population of the country as a whole declined sharply (Hinde 2003, 25: Dyer 2010). A comparable pattern of Late Medieval 'urban decline' was also replicated at the majority of English towns (see Dyer 1991; Britnell 1993, 166-7; Swanson 1999, 17; Astill 2000). In the latter context, however, the processes involved appear to have been somewhat more complex. Thus at Grand Arcade, for example, although the overall number of features being created declined during the 15th century, the quantity of material culture being deposited increased and several new and innovative feature types were introduced (Cessford & Dickens *in prep.*). At the Eastern Gate Hotel site, however, both the number of features *and* the quantity of material culture declined sharply at this time. Moreover, during the succeeding Post-Medieval period the overall level of population in the area appears to have remained much lower than it had been at the end of the 13th century; Barnwell's decline, therefore, seems to have been both marked and long-lasting.

‘Bawdy-Barnwel’: The Post-Dissolution Period

Post-Medieval Barnwell was rather different in both scale and character to its medieval precursor. As discussed above, this change most probably represents the culmination of a gradual process that commenced during the Late Medieval period as opposed to a sudden and dramatic transformation, but it may well have been given additional impetus by the dissolution of Barnwell Priory in 1538 (see Walcott 1871, 224-29). Despite the general diminution in both the scale and extent of archaeological activity, however, features of this date were nevertheless present in all six of the former medieval property plots (Chart 9).

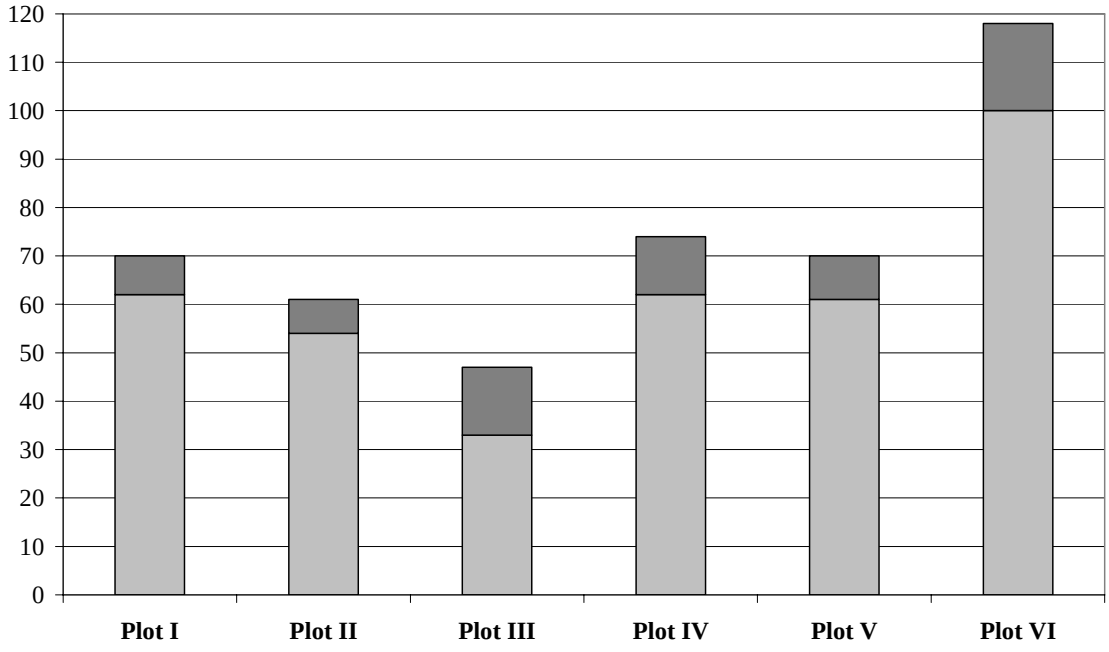


Chart 9: Number of Phase II (pale grey) and Phase III (dark grey) features per plot

By the end of Phase III, if not somewhat before, the earlier medieval plots had become amalgamated into three larger units. The first of these, *Plot A*, comprised former *Plots I, II* and *III*, the second, *Plot B*, consisted of *Plots IV* and *V* and the third, *Plot C*, of *Plot VI* and the adjacent land lying immediately to the east, as far as Coldhams Lane. This process of amalgamation also appears to have occurred gradually over the course of the period; in general, the former property boundaries were respected by the majority of 17th-18th century buildings, although it is possible that such alignments persisted for some time after ownership of the plots had been formally combined. At both a regional and national level, medieval property boundaries often remained remarkably consistent up until the mid 19th century; following this date, however, parcels of land were frequently transferred and elements within plots amalgamated or sub-divided (Slater 1981, 211). The pattern of amalgamation identified at the Eastern Gate Hotel site, therefore, whilst by no means unprecedented in the Cambridge area, is relatively atypical. It is indicative of a decline in the value of the earlier plots, such that – instead of being sub-divided into ever smaller portions, as frequently occurred in densely occupied, urban locations – they were gradually combined into larger units of a type more commonly associated with a rural milieu.

In general, the material culture in use at the site during this period differed very little from that prevalent contemporaneously across southern Cambridgeshire (*e.g.* Edwards & Hall 1997; Cessford 2012; Cessford & Dickens *in prep.*). Indeed, perhaps the most distinctive facet of the Phase III ceramic, glass and faunal assemblages is their relative paucity, especially when compared to the substantial quantity of domestic refuse that had been deposited during the preceding period. Moreover, although 17th century material is frequently difficult to individuate within contemporary assemblages, thus implying at times a potentially erroneous picture of Post-Medieval decline, at the present site a very similar pattern of diminution was replicated throughout the 16th to 18th centuries. Nevertheless, towards the close of the period two relatively sizable groups were deposited within *Plot A* (in probable planting bed **F.159** and brick-built soakaway **F.63**, respectively; see further Cessford, above). Neither of these latter assemblages was particularly distinctive, however, nor do they provide a wider insight into the contemporary activities being undertaken at the site at this time. Potentially somewhat more informative, therefore, are brick and tile-built drains **F.82**, **F.725-8** and **F.349** – along with associated vat base **F.729** – which were constructed in *Plot B* during the 17th/18th centuries (Figure 19). Very similar features are known elsewhere to have been associated with processes such as dyeing (Walton 1991, 332-8) and/or brewing (Schofield & Vince 2003, 140). Whilst additional evidence would be required in order to ascertain with certainty their role at this particular site, it is intriguing to note that a public house was present in *Plot B* by 1811 at the latest (see further below), thereby suggesting a possible connection to beer-making. Finally, at the rear of the site the construction of a series of structures – including, most notably, partially-cellared **Buildings 12** and **13** – indicates that the medieval backlane was retained, and potentially even increased in importance, during this phase.

Historically, the number of extant sources pertaining to this period is greater than the quantity available during the preceding phase, allowing a more nuanced picture of Post-Medieval Barnwell to be developed. Although a series of cartographic depictions of Cambridge's urban core were compiled from the late 16th century onwards (see Clark & Gray 1921; Baggs & Bryan 2002), Barnwell itself was situated at too great a remove to be included in these sources. Within larger-scale maps of the county of Cambridgeshire, however, the settlement was frequently depicted as a small village situated some distance outside the town (*e.g.* Speed's map of Cambridgeshire, 1610; Jansson's *Comitatis Cantabrigiensis*, 1646; Blome's map of Cambridgeshire, 1671; Simpson's map of Cambridgeshire, 1746; Bower's map of Cambridgeshire, 1751 and Ellis's 'Modern' map of Cambridgeshire, 1768). In addition, the total number of households in the settlement was also recorded with greater regularity than previously, thereby allowing its extent to be traced (Table 66).

	Phase II	***Phase III***			***Phase IV***
Location	**1279**	***c.* 1625**	**1749**	**1801**	**1841**
Barnwell	95	67	48	79	1953
Cambridge	534	/	1636	1691	4780
Percentage of Total	**17.7%**	**/**	**2.9%**	**4.7%**	**40.8%**

Table 66: Number of households in Barnwell relative to the total number in Cambridge (data from Maitland 1898; Cam 1959)

Supplementing the above record, during the second half of the 17th century the institution of a Hearth Tax led to a separate, detailed record being maintained (Evans & Rose 2000; Table 67). Although this is not directly comparable to census-derived data, as around 20% of Cambridge households were exempted (Evans & Rose 2000, xxxviii), nevertheless a series of detailed sources are available; for Michaelmas 1664, for example, a full list of tax payers' names has been published (*ibid*., 37-8). This material allows a more subtle pattern of expansion and contraction to be identified.

	1662		***1664***		***1666***		***1674***	
Location	**Entries**	**Hearths**	**Entries**	**Hearths**	**Entries**	**Hearths**	**Entries**	**Hearths**
Barnwell	30	89	69	128	57	134	52	131
Cambridge	1138	4313	1950	4439	1757	4787	1674	5161
Percentage of Total	**2.6%**	**2.1%**	**3.5%**	**2.9%**	**3.2%**	**2.8%**	**3.1%**	**2.5%**

Table 67: Hearth tax returns for late 17th century Cambridge (data from Evans & Rose 2000)

Overall, it is clear from the above data that in terms of both the number of individual households/Hearth Tax entries and, most especially, their relative percentage of the combined total for Cambridge, Barnwell was notably smaller in scale during the Post-Medieval period than in either the preceding or succeeding phases. Thus, although fluctuating somewhat in size between the early 17th and late 18th centuries, the settlement had clearly diminished quite significantly from its medieval apogee. It is unclear to what extent this diminution represents an outright contraction in its physical extent, however, or merely a reduction in the density of the settlement's population and a concomitant increase in the size of the respective plots. Certainly, the evidence of medieval plot amalgamation identified at the Eastern Gate Hotel site would be much more consistent with a pattern of reduced intensification as opposed to overall contraction. This would in turn suggest a transition from the broadly 'urbanised' topography identified within the medieval *vill* of the 13th and 14th centuries towards a more rural layout, with larger and more widely distributed plots. Usefully, in this regard, an early to mid 17th century document – which, unfortunately, lacks a precise date – recorded 'the names of every householder and the number of his family in Barnwell' (a total of 267 people, residing in 67 households) along with the occupations of each of the principal tenants. These individuals included "a farmer, 5 husbandmen, 20 labourers, a shepherd, a thatcher, 2 blacksmiths, 2 wheelwrights, 2 victuallers, a brewer [operating in *Plot B*?], 2 tailors, 2 bakers, a weaver, a cooper, a carpenter, a screenmaker, 7 'inmates' [in the local gaol], 2 sojourners and about 12 persons with no other specified occupation (Maitland 1898, 104). The composition of this group is distinctly rural in character, and can be contrasted with the identified occupations of some of Barnwell's principal tenants in 1279 (Table 64; although it should be noted that a significant proportion of the medieval inhabitants are also likely to have been engaged in agrarian activities).

The diminished scale and altered character of the settlement is also apparent within other historical accounts of the period. In 'A Step to Stir-Bitch-Fair', for example – a satirical poem written by Edward Ward in 1700 – the author recounts how he visited:

> "a renown'd Village which by all reports very deservedly gain'd the Ignominious Epithet of *Bawdy-Barnwel*, so call'd from the Numerous Brothel Houses it contains for the Health, Ease, and Pleasure of the Learned Vicinity" (Ward 1977, 3; emphasis added).

This extract raises two important issues. The first of these is the use of the word 'village'. Where the medieval settlement was distinctively suburban in character, and was indeed explicitly referred to as such in 1279, by the end of the 17th century it was regarded as predominately rural in nature (although officially it remained part of the suburb of Cambridge, as this was defined in 1561 as extending "one English mile around the town in every direction"; Cooper 1843, 168). A similar, rural sentiment is also repeated in other 18th century sources. For example:

> "This village [Barnwell] hath often been reduced by fire but the last, which happened on September 30th, 1731, consumed a great part thereof. The fire was so very fierce that the engine which was carried thither to extinguish it was destroyed therewith; for getting it into a farm yard, surrounded with houses and barns, the fire spread so fast that the people could scarcely get out without being burnt, nay, some were very much scorched in endeavouring to make their escape" (Nichols 1786, 78).

As well as confirming the bucolic nature of Barnwell's setting, Nichols' account also provides a potential explanation for the fluctuations in property numbers previously noted in Table 66 (although it should be noted that no evidence of widespread conflagration was identified at the Eastern Gate Hotel site itself). Finally, at the end of the 18th century – towards the close of Phase III – Barnwell was again described as a "pleasant little village" (Gray 1921, 77).

The second issue raised by the term 'Bawdy-Barnwell' pertains to the more disreputable economic activity of the settlement. Although distinctly comic and licentious in tone, 'A Step to Stir-Bitch-Fair' nonetheless forms part a long tradition of English satirical literature – in the manner of Alexander Pope and Jonathon Swift, for example – that ridiculed contemporary social *mores* in order to expose their underlying hypocrisy (see Selden 1978; Nokes 1988). Moreover, the location of the settlement – situated in close proximity to the town, but physically separated from it – parallels similarly liminal sites such as Southwark, outside the City of London, which, benefiting from a lower level of regulation than was exercised in the urban core, quickly established a level of long-lived notoriety. Southwark was famed for its theatres as well as its prostitution (Browner 1994), and it is notable that Cambridge's first permanent theatre – the Theatre Royal – was constructed in Barnwell in 1814 (Gray 1921, 75-76). Southwark was also associated with an annual fair, and in this regard it is particularly significant that during the Post-Medieval period Stourbridge Fair resurged in importance; in 1589, for example, it was described as "the largest and most famous fair in all England" (Maitland & Bateson 1901, 97). It now extended over a month in duration, from the 24th of August to the 29th of September, and attracted merchants and traders from across Britain and beyond (see further Ditchfield 1913; Cam 1959, 92-5; Ridout 2011). Perhaps the most famous contemporary description of Stourbridge Fair is that of Daniel Defoe, from his *Tour Through the Eastern Counties of England* of 1722:

> "It is impossible to describe all the parts and circumstances of this fair exactly; the shops are placed in rows like streets, whereof one is called Cheapside; and here, as in several other streets, are all sorts of trades, who sell by retail, and who come principally from London with their goods; scarce any trades are omitted – goldsmiths, toyshops, brasiers, turners, milliners, haberdashers, hatters, mercers, drapers, pewterers, china-warehouses,

> and in a word all trades that can be named in London; with coffee-houses, taverns, brandy-shops, and eating-houses, innumerable, and all in tents, and booths, as above. This great street reaches from the road, which as I said goes from Cambridge to Newmarket, turning short out of it to the right towards the river, and holds in a line near half-a-mile quite down to the river-side: in another street parallel with the road are like rows of booths, but larger, and more intermingled with wholesale dealers; and one side, passing out of this last street to the left hand, is a formal great square, formed by the largest booths" (Defoe 1888, 63-4).

Despite its nationally important economic role, however, for Cambridge at this time "Sturbridge Fair was more of a social than an economic event… [the town] had little more than a site to contribute to the greatest fair in Christendom" (Cam 1959, 94). At Barnwell itself, it is likely that many of the village's inhabitants provided accommodation, victuals and/or entertainment for the multitudinous 'coach-loads' of visitors (in such a context, for example, the possible 17th-18th century brewery in *Plot B* gains additional significance). As Defoe himself noted:

> "It is not to be wondered at if the town of Cambridge cannot receive, or entertain the numbers of people that come to this fair; not Cambridge only, but all the towns round are full; nay, the very barns and stables are turned into inns, and made as fit as they can to lodge the meaner sort of people: as for the people in the fair, they all universally eat, drink, and sleep in their booths and tents; and the said booths are so intermingled with taverns, coffee-houses, drinking-houses, eating-houses, cook-shops, etc., and all in tents too; and so many butchers and higglers from all the neighbouring counties come into the fair every morning with beef, mutton, fowls, butter, bread, cheese, eggs, and such things, and go with them from tent to tent, from door to door, that there is no want of any provisions of any kind, either dressed or undressed" (Defoe 1888, 66).

19th Century Re-suburbanisation

The passing of the Inclosure Act in 1807, followed by the formal award of property in Barnwell on the 20th of April 1811, made possible the subdivision and sale of the open fields surrounding the village. Within thirty years of this event Barnwell had been transformed into the largest of Cambridge's many suburbs. Between 1801 and 1841 alone, the population of the parish of St. Andrew-the-Less increased almost 4000%, from 252 to 9,486 (Cam 1959, 110). The majority of the new housing associated with this expansion was erected to the south of Newmarket Road, where a network of cramped, narrow streets and small terraced houses rapidly emerged. At the Eastern Gate Hotel site itself, the properties appear to have remained somewhat more rural in character. In 1811, for example, when a plan to accompany the Inclosure Award was compiled, details of the nature of the plots at the site – along with the names of their purchasers – were recorded (Figure 31; Table 68). At this time, *Plot A* comprised a domestic dwelling, *Plot B* a public house named 'The Bell' and *Plot C* – which had by this date been incorporated into a larger holding extending all the way to Coldhams Lane – functioned as a 'farm homestead'.

Plan No.	Property	Names of Proprietors	Description	Cost
37	*A*	Francis Forlew	Messuage and Premises	$1^s\ 9^d$
38	*B*	Stewards & Cotton	The Bell Public House and Premises	$1^s\ 8^d$
39	*C*	St. John's College	Farm Homestead and Premises	$2^s\ 19^d$

Table 68: Property allocations in 1811 (see also Figure 31)

The process of intensive post-inclosure suburbanisation that occurred at Barnwell during the early 19th century was also replicated at other sites situated around the perimeter of the town, including the Cambridge New Town (Bryan & Wise 2005) and West Cambridge 'bicycle suburb' developments (Guillebaud 2005; Guillebaud 2006; Guillebaud 2007). At Barnwell itself, the context of this expansion has been described as follows:

> "A prodigious amount of speculative building began in response to the pressing need arising from the great influx of labour attracted to Cambridge by the extensions then being carried out by the colleges, and later supplemented by the large number of navvies engaged in making the Eastern Counties Railway. A network of streets arose as if by magic, the demand for houses continued, congestion and overcrowding followed, and soon the name of Barnwell acquired a notoriety which even now [1921] has not entirely passed away" (Gray 1921, 79).

Consistent with the broader pattern of increased documentation and record keeping that occurred during the 19th century, a wide array of historical sources is available in relation to this phase. Of particular note are the census returns that were completed during the second half of the 19th century (Table 69). These provide a detailed breakdown of the tenants residing at the site, including their occupations as well as the constituent members of their households. Although a census was also conducted in 1841, it has not proved possible to individuate the later 19th century properties within this data; it appears likely that *Plot C* remained part of a much larger holding at this time, thereby rendering the adjacent properties very difficult to distinguish. By 1851, however, a long-lived layout consisting of three large plots (*A*, *B* and *C*; Figure 24) had been established. Their subsequent histories can be traced with some certainty.

Year	Property	Street No.	Principal Tenant	Occupation	Dependents
1851	*A*	-	William Dellar	Farmer	Wife & 3 sons
	B	-	William Gilbert	Butcher & Publican	Wife, 3 sons, 1 daughter & 1 apprentice
	C	-	John Hart	Farming Baliff	Wife, 2 daughters & 1 son
1861	*A*	78	Edward Wortley	Farmer	Wife, 2 daughters, 1 son & 1 servant
	B	81	George Burrell	Innkeeper	Wife, 3 sons, 4 daughters & 1 servant
	C	82	John Hart	Farmers Baliff	2 daughters & 1 grandson
1871	*A*	78	Edward Wortley	Farmer	Wife, 1 daughter & 2 sons
	B	79	George Burrell	Publican	2 sons & 2 daughters
	C	80	George Fletcher	Dairyman	Wife, 2 daughters, 1 son and 2 granddaughters
1881	*A*	78	Edward Wortley	Farmer	Wife, 1 son & 1 servant
	B	79	William Harmer	Publican	Wife, 2 sons, 2 daughters and 1 visitor
	C	80	Rebecca Fletcher	Cowkeeper / milkseller	2 daughters, 1 niece, 1 nephew & 1 servant

Table 69: Census returns for 1851, 1861, 1871 and 1881

As Table 69 makes clear, *Plot A* maintained a strong agricultural association throughout the period; it was tenanted by a succession of farmers, the majority of whom probably worked in the fields situated to the east of the suburb. *Plot B*, in contrast, remained in constant use as a public house, whilst – by 1871 at the latest – *Plot C* had been converted into an 'urban dairy' (see Jennings 2006; Otter 2006, 524-5). If the site were solely viewed through the prism of the archaeological remains encountered, however – without the benefit of additional historical context – few if any of these wider patterns of activity would be discernible. In *Plot B*, for example, although a relatively substantial late 19th century ceramic assemblage was recovered (from pit **F.83** etc.) there was little to indicate that this group was most probably inn-related. Aside from a relatively large number of clay tobacco pipe fragments, perhaps the strongest – but by no means an emphatic – indicator of a potential non-domestic origin for the material comprised the presence of several vessels derived from the same Wedgewood service (see Cessford, above). Overall, therefore, it seems likely that this group represents waste that was predominately generated by the 'household' as opposed to the 'establishment'. Similarly, in *Plot A* little if any indication of character is provided by the range of nondescript feature-types encountered, and/or their relatively minimal finds assemblages.

Archaeologically, it is *Plot C* that comprises much the most interesting of the three 19th century properties. Not only did this plot contain the largest overall number of features, but also a very substantial finds assemblage – within **F.24**, **F.722** etc. – which included in excess of 4,500 sherds of pottery weighing 159kg (see Cessford, above). By 1871, the newly installed Fletcher family appear to have maintained a small herd of cows in the backyard of this plot. These animals were most probably housed within a series of timber-built stalls, represented archaeologically by the profusion of postholes situated at the rear of the property (Figure 24). In *c*. 1877-80, however, the former cowsheds were replaced by more substantial, brick-built structures (of which little archaeological trace survived). It was at this time that the substantial ceramic assemblage associated with Trinity Hall was introduced (Figure 25), most probably as hardcore utilised within the construction process. (It is notable in this context that minimum building standards for dairies and cowsheds were defined in 1879 and 1885 (Otter 2006, 525), thereby indicating that the structures may have been replaced in direct response to a change in the law). By the mid to late 19th century, almost all of the milk consumed in Cambridge would have been supplied on a commercial basis in a manner similar to that occurring contemporaneously in London (Atkins 1977; Atkins 1978; Atkins 1980; Taylor 1971). As with the majority of London dairies, the premises in *Plot C* were no doubt relatively cramped and unsanitary, thereby rendering the milk it produced contaminated with bacteria and contributing to the spread of a variety of diseases (Atkins 1992). Interestingly, no direct association with dairy production was identifiable within the archaeological record. Although a substantial assemblage of material culture was recovered, this contained none of the elements specifically associated with dairying (see Yentsch 1991); indeed, this group probably had little or no association whatever with the tenants of the plot, being simply hardcore introduced to serve a secondary purpose unrelated to its previous use. Similarly, few if any of the feature-types identified could be assigned unambiguously to a particular, dairy-related function.

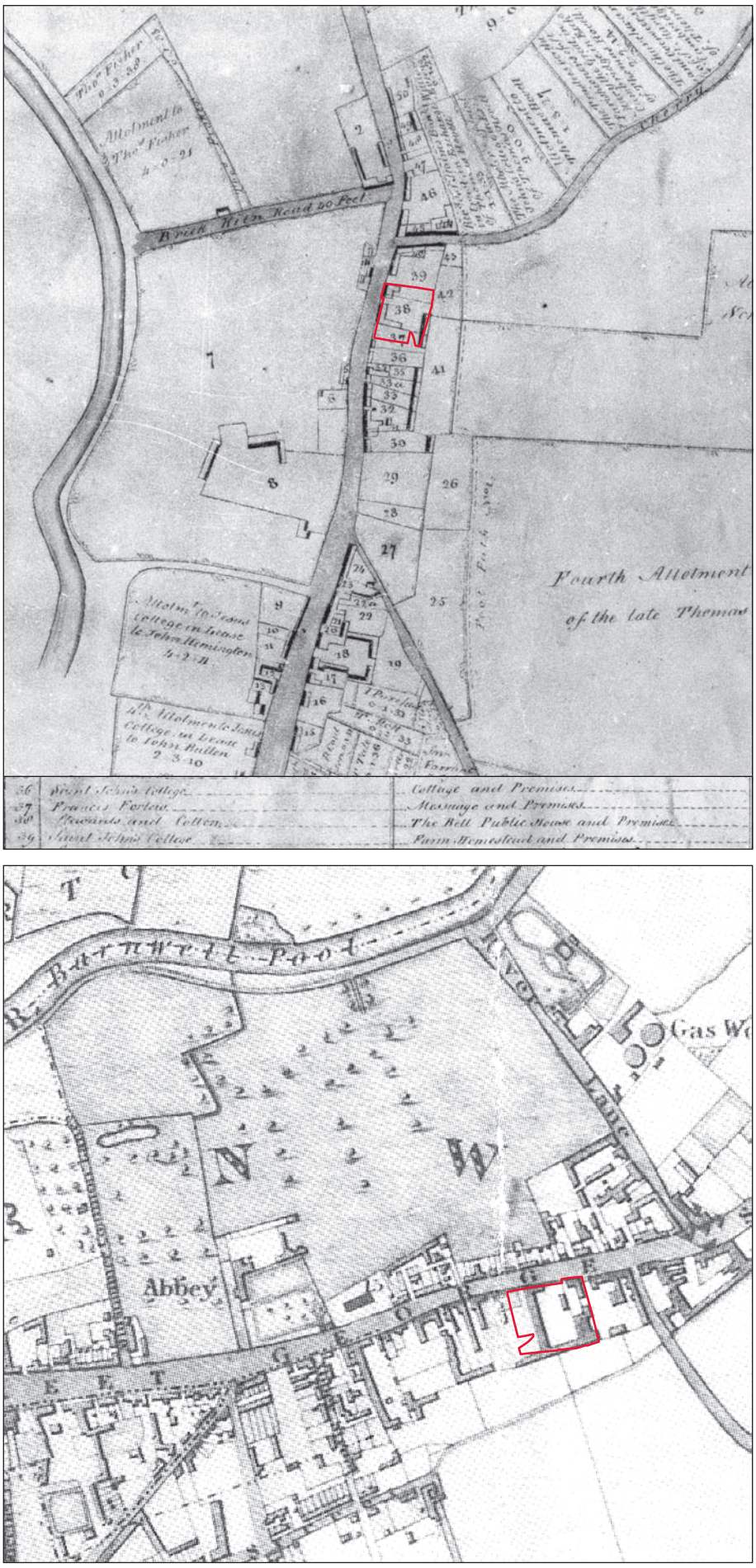


Figure 31. Inclosure Award map, 1811 (top) and Baker's map of Cambridge, 1830 (bottom)

Figure 32. OS 1:2500 1903 (top) and OS 1:2500 survey 1927 (bottom)

Figure 33. OS 1:2500 1951 (top) and OS 1:10560 1960 (bottom)

During the early 20th century, the preceding pattern of occupation at the site remained relatively consistent. In 1910, in response to the Finance (1909/10) Act, valuations of all Cambridge properties were recorded by the Commissioners of the Inland Revenue. By this time, *Plot A* had been renumbered as No. 176 Newmarket Road and was tenanted by one Arthur Lewis Garner. It had a gross annual value of £22 and a rentable value of £17 10s. *Plot B* remained The Bell public house, but had been renumbered as No. 178 Newmarket Road. It was tenanted by Albert George Harmer (probably the son of the former publican) and had a gross annual value of £48 and a rentable value of £38. Finally, *Plot C* appears to have remained in use as a dairy and had been renumbered as No.180 Newmarket Road. It was tenanted by Elizabeth Fletcher (again most likely a relative of the former tenant) and had a gross annual value of £35 and a rentable value of £28. Thus, although Barnwell itself was described at this time as "busy, squalid and crowded" (Gray 1921, 77), the properties situated at the Eastern Gate Hotel site appear to have remained comparatively open, and included substantial backyard areas. This contrasts markedly with the Grand Arcade site, where by this date the layout of the numerous properties had become increasingly complex and subdivided (Cessford & Dickens *in prep.*). At the Eastern Gate Hotel site, however, a very consistent pattern of stability is replicated within the historic map sequence (Figures 24, 31, 32 and 33). Between 1885 and 1960, for example, remarkably few additions or alterations to the topography of the area are discernible. The first significant change occurred in 1951, when a series of small industrial units were constructed immediately to the east of the area of investigation (Figure 33). Shortly thereafter, however, in 1968, all domestic occupation ceased and the area was solely given over to industrial warehousing (Figure 26).

Conclusion

Following on from a low level of activity during the 6th century AD – after which the area was incorporated into the eastern fields of the Liberty of Cambridge – at the end of the 12th or very beginning of the 13th century the Eastern Gate Hotel site underwent a complete transformation. It became incorporated into a substantial settlement associated with the adjacent Augustinian Priory of Barnwell (founded *c*. 1112) and a series of regular, burgage-type plots were established, within which a variety of domestic and craft-based activities were undertaken. Indeed, so successful was the monastery's extramural settlement, by 1279 it comprised the largest suburb in the borough – albeit one 'dislocated' from the town's urban core. Nevertheless, the physical layout and extent of Barnwell at this time remain unclear (although recent investigations conducted to both the west (Atkins 2012a) and east (Atkins 2012b) of the present site have identified areas lying outside the immediate settlement zone; Figure 1, **1** & **6**). Were the size of the property plots identified at Eastern Gate Hotel to have remained relatively consistent throughout the vill, then during the late 13th century occupation potentially extended over an area in excess of *c*. 3.5 hectares, with a frontage length of at least 665m. In addition, it is also likely that a number of secondary tracks or laneways were established, oriented both parallel to, and perpendicular to, the main highway. By the mid to late 14th century, however, the suburb appears to have entered a period of protracted decline, so that following the dissolution of the priory in 1538 little potentially remained to distinguish it from nearby villages such as Chesterton (see Cessford with Dickens 2004).

Archaeologically, the Eastern Gate Hotel excavation is significant because relatively few studies of 'failed' medieval settlements of this type have previously been undertaken (one exception being the former port at Hedon, East Yorkshire; Slater 1985). Moreover, a substantial documentary record is available that has not previously comprised the subject of detailed investigation, and a major excavation has recently been undertaken within Cambridge's Barnwell Gate suburb (Cessford & Dickens, *in prep*.) with which the present results can be directly contrasted. The medieval archaeology of Barnwell is therefore of particular significance, and should be published accordingly. Following the suburb's Late Medieval decline the scale of archaeological activity diminished commensurately, although the Post-Medieval and modern sequence remains of local interest. In particular, the substantial 19th century ceramic assemblage associated with Trinity Hall – as the largest of its type ever recovered – merits further, detailed analysis. Overall, therefore, the present excavation has succeeding in revealing the intriguing story of a 'dislocated' Cambridge suburb's medieval success, Late Medieval failure and partial 19th century recovery. This makes a significant contribution to the emerging history of occupation in the town.

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Appendix 1: Feature Concordance Table

The following table provides detailed information on each individual feature that was investigated during both the evaluation and excavation phases at the Eastern Gate Hotel site. A key to the categories of phasing used is also provided.

Key to Phasing	
II	Certain date, based principally upon material culture
II	Probable date, based upon stratigraphy, fill type, *etc*.
II	Likely date, based upon association, location, *etc*.

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
001	0001-0002	Posthole	Sub-oval	0.26	0.24	0.13+		III	III
002	0003-0004	Posthole	Sub-oval	0.34	0.33	0.05+		II	II
003	0005-0006	Posthole	Oval	0.25	0.22	0.11+		II	II
004	0010-0012	Pit	Sub-rectangular	1.03+	1.0+	1.11+	14th-15th century	**II**	II
005	/	Tank (clay-lined)	Sub-oval	1.12	0.72	0.06+		II	II
006	0022-0023	Pit	Heavily truncated	0.6	0.21	0.38+		*II*	II
007	0015-0016	Pit	Heavily truncated	0.45	0.3	0.3+		*II*	II
008	0017-0018	Pit	Heavily truncated	0.25	0.25	0.2+		*II*	II
009	0019-0020	Pit	Heavily truncated	1.0+	0.45+	0.52+		*II*	II
010	0007-0009	Tank (clay-lined)	Sub-oval	1.4	0.74	0.06+		II	II
012	0027-0028	Pit	Sub-oval	2.35	0.3+	0.93+	14th-15th century	**II**	IV
013	0029-0030	Pit	Sub-oval	1.2	0.4	0.85+		II	IV
014	0031-0033	Pit	Sub-oval	1.20+	0.68+	0.16+		II	II
016	0039-0040	Ditch	Linear, NW-SE	2.7+	1.0+	0.18+	Saxon	**I**	/
017	0041-0042	Ditch	Linear, NW-SE	3.6+	1.0+	0.46+		I	/
018	0043	Pit	Sub-circular	0.7+	0.41+	/	19th century	**IV**	C
019	0047-0049	Pit	Sub-rectangular	1.53	1.2+	0.81+	16th century	**II**	II
021	0045, 0051	Structural (robbing)	Linear, N-S	1.3+	0.83	0.4+		IV	A
022	0054	Pit	Irregular	1.6+	0.8+	/	19th century	**IV**	A
023	0330	Layer	Irregular	4.05	3.7	0.34		IV	A
024	0060-0061	Pit	Square	1.16	1.08	0.83+	19th century	**IV**	C
025	0062-0065, 0068	Cesspit (brick-built)	Sub-square	1.7	1.65	0.2+	18th century	**III**	IV

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
026	0385-0394	Cesspit	Sub-circular	3.3+	2.0+	1.35+	16th century	**II**	I
027	0069-0070	Posthole	Rectangular	0.45	0.37	0.12+		*IV*	C
028	0071-0073	Pit	Circular	1.25	1.16	0.14+	19th century	**IV**	A
029	0139-0140	Posthole	Square	0.51	0.48	0.33+	*18th century*	IV	C
030	0149-0151	Posthole	Rectangular	0.36	0.31	0.2+		*IV*	C
031	0141-0148	Pit	Irregular	2.55	1.66	0.29+		II	VI(C)
032	0078-0081	Pit	Oval	1.06	0.6+	0.07+		IV	A
033	0082-0083	Posthole	Circular	0.42	0.24+	0.4+	19th century	**IV**	A
034	0084-0085	Posthole	Circular	0.15	0.15	0.16+		II	VI(C)
035	0086-0087	Posthole	Circular	0.25	0.27	0.65+		II	VI(C)
036	0088-0089	Posthole	Oval	0.13	0.3	0.14+	13th-15th century	**II**	VI(C)
037	0090-0091	Posthole	Circular	0.3	0.13	0.18+		**II**	VI(C)
038	0092-0093	Posthole	Circular	0.33	0.17	0.1+	14th century	**II**	VI(C)
039	0094-0095	Posthole	Sub-square	0.4	0.22	0.2+	19th century	**IV**	C
040	0096-0097	Posthole	Circular	0.21	0.15	0.2+		IV	C
041	0098-0099	Posthole	Circular	0.2	0.12	0.15+		II	VI(C)
042	0100-0101	Posthole	Circular	0.35	0.14	0.13+		II	VI(C)
043	0102-0103	Posthole	Circular	0.4	0.2	0.3+		IV	C
044	0104-0105	Posthole	Circular	0.4	0.3	0.48+		II	VI(C)
046	0107-0108	Pit	Sub-circular	0.75	0.64	0.41+	19th century	**IV**	C
047	0109-0110	Pit	Sub-circular	0.52	0.52	0.41+	19th century	**IV**	C
048	0111-0112	Posthole	Circular	0.27	0.27	0.13+	19th century	**IV**	C
049	0200-0218, 0240	Oven	Irregular	3.01	1.64	0.36+		II	I
050	0226-0239, 0241	Oven	Irregular	1.8	0.96	0.21+		II	I
051	1022-1030	Oven	Irregular	1.24	0.50+	0.26+		II	I
052	0114-0117, 0503-0508	Pit	Sub-circular	3.0+	1.8	1.6+	15th-16th century	**II**	IV
053	0118-0119	Posthole	Circular	0.28	0.25	0.27+		*II*	VI(C)
054	0120-0121	Posthole	Circular	0.2	0.1	0.16+	19th century	**IV**	C

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
055	0122-0123	Pit	Sub-oval	0.6	0.9	0.12+	19th century	**IV**	C
056	0124-0125	Pit	Irregular	0.67	0.38	0.18+	19th century	**IV**	C
057	0126-0129, 0138	Soakaway (cask-lined)	Sub-square	0.97	0.97	0.91+	19th century	**IV**	C
058	0130-0131	Posthole	Sub-circular	0.3	0.3	0.7+		*II*	VI(A)
059	0135-0137	Posthole	Circular	0.33	0.3+	0.2+		*II*	VI(C)
060	0154-0155	Posthole	Square	0.34	0.35	0.21+	19th century	**IV**	C
061	0152-0153	Posthole	Sub-square	0.23	0.22	0.1+		IV	C
062	0156-0158	Pit	Square	3.05	2.7	1.45+	19th century	**IV**	C
063	0669-0671, 2365-2370	Cesspit (brick-built)	Irregular	1.1	1.15	0.9+	18th century	**III**	I
064	0159-0161	Drain	Square	0.3	0.3	0.2+	18th century	**III**	VI
065	0162-64, 0806-09, 1947-48	Drain	Linear, N-S	10.5	0.48	0.28+		IV	C
066	0165-0167	Posthole	Sub-oval	1.1	0.74	0.78+	19th century	**IV**	C
067	0168-0169	Posthole	Sub-square	0.33	0.38	0.12+		IV	C
068	0170-0173	Oven	Irregular	1.2	0.52	0.18+		II	VI(C)
069	0174-77, 1507-11, 2193-96, 2045-46	Well (brick & stone-lined)	Circular	3.0+	1.1+	3.84+	17th century	**III**	V
070	0174—75, 0178-80, 1502-06	Structural (robbing)	Linear	0.75+	0.75+	0.4+	19th century	**IV**	B
071	0181-0183	Drain	Linear	4.25+	1.3+	0.21+	*13th-15th century*	IV	B
072	0200-0201	Posthole	Circular	0.36	0.31	0.08+		*IV*	A
074	0204-0205	Stakehole	Circular	0.14	0.12	0.09+		*II*	I
075	0202-0203	Stakehole	Circular	0.08	0.07	0.08+		*II*	I
076	0185-0186	Pit	Oval	0.17	0.99	1.53+	19th century	**IV**	A
077	0187-0189	Posthole	Sub-circular	0.3	0.3	0.29+		*II*	VI(C)
078	0190-0191	Pit	Sub-circular	1.2	1.1	1.05+	14th-15th century	**II**	VI(C)
079	0196-0197, 0605	Posthole	Square	0.2	0.1	0.1+	19th century	**IV**	C
080	0192-0193	Posthole	Sub-rectangular	0.57	0.54	0.34+		IV	B
081	0194-95, 0602-04	Tank (clay-lined)	Sub-square	0.55+	1.64+	1.3+		II	VI(C)
082	0198-0199	Drain	Linear, N-S	/	0.4+	0.07+	18th century	**III**	V

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
083	0220-0223, 0242-43	Pit	Square	4.5	3.9	1.85+	19th century	**IV**	B
085	0626-0627	Posthole	Square	0.5	0.5	0.23+	*17th-18th century*	IV	C
086	0279-0282	Pit	Sub-circular	2.0+	1.65+	0.91+	14th-15th century	**II**	V(B)
087	0284-0288	Pit	Sub-circular	1.25+	/	0.56+	13th-15th century	**II**	V(B)
088	0289-0290	Pit	Circular	0.36	0.2+	0.26+		II	V(B)
089	0263-0270	Pit	Rectangular	1.58+	2.25	1.2+	14th-15th century	**II**	V(A)
090	0271-0278	Pit	Rectangular	1.72+	1.55	1.40+	14th-15th century	**II**	V(A)
091	0258-59, 0611	Pit	Oval	2.75	2.2+	1.0+	13th-15th century	**II**	VI(C)
092	0294-0297	Oven	Irregular	1.58	1.18	0.05+		II	VI(C)
093	0292-0293	Posthole	Sub-circular	0.32+	0.46	0.1+	19th century	**IV**	C
094	0298-0299	Structural (beamslot)	Linear, N-S	1.25	0.4+	0.2+		II	VI(C)
095	0301-0302	Posthole	Oval	0.12	0.25	0.15+		*II*	VI(C)
096	0303-10, 1154-61	Pit	Oval	3.1+	2.15+	1.88+		II	III
097	0336-0346	Pit	Circular	2.6+	0.6+	0.9+	16th century	**II**	V(A)
098	0311-0314	Cellar (brick-built)	Rectangular	0.9+	3.03	2.2+	18th century	**III**	III
099	0315-0319	Cesspit (brick-built)	Irregular	1.53	1.31	0.3+	18th century	**III**	III
100	0320-0323, 0698-0699	Gully	Linear, N-S	6.28+	2.06+	0.45+	17th-18th century	**III**	III
101	0324-0325, 1213-1218	Pit	Rectangular, with rounded corners	2.15	1.14	1.76+	17th-18th century	**III**	III
102	0326-0327	Pit	Sub-oval	1.10+	0.90+	2.26+	15th-16th century	**II**	III
103	0328-0329	Structural (foundation)	Linear, E-W	2.64+	0.55	0.55+		II	VI(A)
104	0331-0333	Pit	Sub-rectangular	3.36	1.2+	0.53+	19th century	**IV**	A
105	0334-0335, 1702-1725, 1784, 2044	Pit	Sub-circular	2.91	2.82	2.44+	16th century	**II**	II/III
106	0348-0349	Pit	Sub-oval	0.56+	0.40+	0.08+	19th century	**IV**	A
107	0350-0353	Treethrow	Irregular	1.7	0.75+	0.64+		*I*	/
108	0354-0355	Posthole	Sub-oval	0.6	0.23	0.17+	15th-16th century	**II**	V(A)
109	0356-0357	Gully	Linear, N-S	2.40+	0.30+	0.36+		II	V(A)

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
110	0683, 0684, 0700, 0705, 0719, 1041, 1206, 1305	Well (stone-lined)	Sub-oval	3.02	2.35	4.52+	13th-15th century	**II**	III
111	0034-0038, 0358-0365	Cesspit (wattle-lined)	Sub-rectangular	3.56	2.98	1.64+	16th century	**II**	II
112	0366-0367, 0538-0539	Pit	Sub-oval	4.22	2.37	1.05+		II	VI(C)
113	0368-0369, 0609-0610, 0904	Pit	Sub-oval	3.04	1.41+	0.7+	13th-15th century	**II**	VI(C)
114	0370-0372	Pit	Sub-oval	2.85	1.95	1.42+	15th-16th century	**II**	IV
116	0375-0379, 0411	Posthole	Square	0.42	0.4	0.57+		II	III
118	0395-0396	Posthole	Circular	0.3	0.3	0.25+		II	I
119	0397-0398	Pit	Sub-oval	1.60+	1.52	0.85+	13th-15th century	**II**	I
120	0399-0402	Pit	Sub-oval	0.72+	0.71+	0.64+		*II*	I
121	0403-0406	Pit	Sub-circular	1.83+	1.78+	1.54+	13th century	**II**	I
123	0412-0413	Posthole	Sub-circular	0.3	0.27	0.85+		*II*	IV
124	0414-0417	Posthole	Sub-oval	0.58	0.5+	0.44+		II	V(A)
125	0418-0419	Pit	Sub-oval	1.17	0.37+	0.8+		IV	A
126	0420, 0421, 0469	Pit	Sub-oval	1.62	0.82+	1.1+	16th-17th century	**III**	I
127	0422-0423	Pit	Sub-oval	0.53	0.22	1.02+	19th century	**IV**	A
128	0380-84, 0424-0428, 1207-12, 2035-37, 2176-77, 2199-2200	Well (wattle-lined?)	Circular	1.07	1.02	2.6+	14th-15th century	**II**	III
129	0462, 1202-1203	Structural (surface)	Heavily truncated	1.86+	1.6+	0.17+		III	IV
131	0466, 0614-0619	Pit	Sub-circular	1.02+	1.0+	0.91+	16th century	**II**	V(A)
132	0467-0468	Posthole	Sub-circular	0.17	0.15	0.44+		IV	A
133	1495-1496	Pit	Sub-oval	2.04	1.75	0.6+	19th century	**IV**	C
134	0473-0474	Posthole	Square	0.3	0.3	0.32+		IV	C
135	0472, 1315-1316	Structural (foundation)	'L' shaped	2.65+	0.22	0.15+	19th century	**IV**	C
136	1497-1498	Pit	Sub-square	1.75	0.82+	0.31+	19th century	**IV**	C
137	1180-1183	Oven	Sub-oval	1.48+	0.82+	0.16+		II	VI(C)
138	0900, 1175-1177, 1190-1191	Oven	Sub-oval	3.84	1.02+	0.24+	14th century	**II**	VI(C)
139	1184-1188	Oven	Sub-oval	1.23+	0.82+	0.04+		II	VI(C)
140	0527-0530	Pit	Sub-rectangular	4.57+	3.36	0.57+	16th-17th century	**III**	II

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
141	0475-0478	Posthole	Sub-oval	0.34	0.25	0.43+	19th century	**IV**	B
142	0479-0480	Posthole	Sub-circular	0.45	0.15+	0.26+		IV	A
143	0561-0567, 0591-0592, 0601	Pit	Sub-circular	1.38	1.01	0.81+		II	V(B)
144	0568, 0574	Pit	Sub-circular	1.04	1.02	0.41+		II	V(B)
145	0575-0581, 0600	Pit	Sub-circular	1.14	1.01	0.58+		II	V(B)
146	0498-0499	Pit	Heavily truncated	0.45+	0.25+	0.25+		*II*	V(A)
147	0606-0607	Pit	Sub-oval	2.52+	2.26	0.5+	18th-19th century	**IV**	A
148	0501-0502	Pit	Heavily truncated	1.0+	0.9+	0.33+		II	IV
149	0509-0513	Pit	Sub-oval	1.85+	1.25+	1.1+	14th-15th century	**II**	IV
150	0514-0524	Pit	Heavily truncated	2.05+	1.0+	1.62+		II	IV
151	0644, 0525-0526, 1173-1174	Oven	Sub-rectangular	1.3	1.0+	0.55+		II	VI(C)
152	0533-0534	Posthole	Sub-circular	0.37+	0.22+	0.42+		*II*	II
153	0535-0537	Pit	Irregular	1.96+	0.62+	0.25+	19th century	**IV**	A
154	0672-0679, 0960-0961	Well (cask-lined?)	Sub-circular	1.3	1.1	3.85+	14th-15th century	**II**	V(A)
155	0531-0532	Drain	Linear, NW-SE	7.1+	0.38	0.25+	19th century	V	/
156	0542-0543	Pit	Heavily truncated	0.4+	0.17+	0.63+		II	V(A)
157	0544-0545	Pit	Sub-oval	0.55	0.3	0.22+		II	IV
158	0595-0597	Soakaway (brick-built)	Rectangular	0.92	0.76	0.3+	17th-18th century	**III**	II
159	0598-0599	Pit	Sub-rectangular	2.65	1.91	0.62+	18th century	**III**	II
160	0582, 0590, 0593	Pit	Sub-oval	4.82	1.45+	0.93+	19th century	**IV**	B
161	0546-0553	Structural (robbing)	Rectangular	2.01	1.0+	1.4+	19th century	**IV**	B
162	0554-0559	Pit	Circular	1.04	1.02	0.78+	19th century	**IV**	B
163	0617	Structural (foundation)	Linear, N-S	3.25+	0.45+	0.88+		III	IV
164	0902-0903, 0908-0914, 1512, 1514, 1522, 2038-2043	Pit	Sub-circular	3.17	2.95	2.36+	14th-15th century	**II**	V(A)
166	0632-0636	Pit	Sub-oval	1.4+	1.0+	1.06+		II	IV
167	0637-0641	Pit	Sub-circular	1.75	0.5+	0.9+		II	IV
168	0256-0257	Posthole	Circular	0.33	0.3	0.07+		*II*	VI(C)

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
169	0249-0250, 0612-0613, 1515	Kiln?	Rectangular	2.46	2.40	0.21+		II	VI(C)
170	0645-0649	Pit	Sub-circular	2.55	0.55+	0.84+		II	IV
171	0651, 0946-0947	Structural (robbing)	Sub-circular	2.3	2.24	0.96+	16th century	**II**	IV
172	0652-0653	Pit	Sub-square	0.53	0.4	0.51+	19th century	**IV**	B
173	0655-0659	Pit	Sub-circular	2.3+	2.3+	1.72+	14th-15th century	**II**	II
174	0224-0225	Posthole	Sub-square	0.22	0.1+	0.1+		IV	C
175	0662-0665	Posthole	Square	0.62	0.6	0.52+		IV	C
176	/	Pit	Sub-circular	2.52	2.49	1.32+		II	I
177	/	Pit	Sub-circular	3.02	2.55	/		II	II
178	/	Pit	Irregular	3.0	1.57	/		II	I
179	/	Pit	Sub-circular	1.53	1.48	/		II	II
180	/	Pit	Sub-square	3.25	2.51	0.9+		II	II
181	0680-0682	Posthole	Sub-rectangular	1.04	0.55	0.45+	13th-14th century	**II**	VI(A)
182	/	Pit	Irregular	2,75	1.57	/		II	II
183	/	Pit	Sub-rectangular	1.75	1.06	/		II	II
184	/	Layer	Irregular	12.0+	9.57+	/		II	II
185	/	Pit	Sub-oval	2.02	1.25	1.31+		II	IV
186	/	Pit	Sub-oval	1.52	1.07	/		II	IV
187	/	Pit	Heavily truncated	1.08	0.99	/		II	IV
188	/	Pit	Heavily truncated	1.57	1.54	/		II	IV
189	/	Pit	Irregular	4.07	3.26	0.29+		II	IV
190	0667-0668	Pit	Sub-oval	1.2+	1.2+	0.96+	14th-15th century	**II**	III
191	0685, 0691	Service trench	Linear, NW-SE	14.0+	0.72	1.0+		V	/
192	0686-0688	Pit	Sub-oval	1.21	0.75	0.52+		*IV*	A
193	0689-0690	Pit	Sub-circular	1.06	0.97	0.15+		IV	A
194	0692-0693	Pit	Sub-oval	2.21	1.8	0.57+	16th century	**II**	III
195	0694-0695, 0701	Pit	Sub-rectangular	1.1+	0.6+	1.71+	18th century	**III**	III
197	0696-97	Pit	Sub-oval	0.71	0.4	0.24+	19th century	**IV**	A

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
198	0737-0756	Tank (clay-lined)	Rectangular	1.55	0.8	1.15+	16th century	**II**	VI(C)
199	0764-0782, 1469-1481, 2101-2103	Pit	Sub-circular	3.27	3.12	2.39+	15th-16th century	**II**	II/III
200	0706-0707	Posthole	Circular	0.38	0.35	0.29+		II	V(A)
201	0708-0709	Pit	Sub-rectangular	1.35	0.2	0.26+	14th-15th century	**II**	V(A)
202	0710-0713	Soakaway (cask-lined)	Circular	0.41	0.34	0.15+	19th century	**IV**	A
203	0713-0715	Soakaway (cask-lined)	Circular	0.37	0.36	0.09+		IV	A
204	0717-0718	Pit	Linear, N-S	2.2	1.8	1.7+		II	III
205	0724-25	Posthole	Sub-circular	0.2	0.1	0.1+		IV	C
206	0726-0731	Pit	Irregular	1.2+	1.2	1.01+		II	V(B)
207	0732	Structural (foundation)	Linear, N-S	2.15+	0.22	0.08+		II	V(A)
208	0733-0736	Soakaway (brick-built)	Square	1.0+	1.0+	0.3+		IV	C
209	0816-17, 1985-16	Drain	Linear	0.3	0.35	0.05+		IV	C
210	0825-0826	Posthole	Sub-square	0.22	0.24	0.32+		IV	C
211	0759-0760	Pit	Sub-circular	0.74	0.5	0.45+		II	VI(A)
212	0761-0763	Structural (foundation)	Linear	0.85	0.39	0.26+		III	III
213	0788-97, 2237-42	Well (wattle-lined?)	Sub-circular	1.54	1.71	2.7+	14th-15th century	**II**	V(B)
214	0784-0785	Pit	Sub-oval	0.46	0.34	0.34+		*II*	V(B)
215	0788-0799	Posthole	Sub-circular	0.42	0.38	0.25+	19th century	**IV**	C
216	0812-13, 1869-71, 1983-84	Structural (robbing)	Sub-rectangular	7.5+	4.5+	0.18+	15th-16th century	**II**	VI(C)
217	0821-0822	Pit	Circular	0.4	0.45	0.34+	18th century	**III**	VI
218	0905-0906	Posthole	Square	0.3	0.3	0.13+		IV	C
219	0801-0802	Posthole	Square	0.5	0.45	0.58+		IV	C
220	0803-0804	Pit	Sub-circular	0.7	0.56	0.36+	13th-15th century	**II**	VI(A)
221	0810-0811	Posthole	Square	0.3	0.15	0.09+		*IV*	C
222	0814-15, 0868	Posthole	Square	0.63	0.65	0.42+		*IV*	C
224	/	Pit	Sub-circular	1.25	0.7	/		II	VI(C)
225	/	Layer	Irregular	2.8	1.8	/		IV	B
226	/	Pit	Irregular	2.65	0.85	/		IV	C

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
227	/	Posthole	Sub-circular	0.55	0.45	/		IV	C
228	/	Posthole	Sub-circular	0.35	0.3	/		IV	C
229	/	Posthole	Sub-circular	0.7	0.5	/		IV	C
230	/	Posthole	Sub-circular	0.45	0.4	/		IV	C
231	/	Posthole	Sub-circular	0.55	0.45	/		IV	C
232	/	Posthole	Sub-circular	0.5	0.3	/		IV	C
233	/	Pit	Sub-oval	1.35	1.2	/		IV	C
234	/	Pit	Irregular	1.0+	1.35	/		IV	C
235	/	Pit	Irregular	1.35	1.4	/		IV	C
236	/	Layer	Irregular	1.9	0.9	/		IV	C
237	/	Pit	Sub-oval	1.35	0.8	/		IV	C
238	/	Pit	Sub-oval	1.5	0.35	/		IV	C
240	0829-0830	Pit	Sub-oval	0.6	0.25	0.3+		*II*	VI(C)
241	0832-0831	Posthole	Square	0.6	0.4	0.2+		IV	C
242	0844, 0833, 0194	Pit	Circular	0.3	0.3	0.2+		*IV*	C
243	0838-0840	Pit	Sub-oval	0.5+	0.45+	0.27+		*II*	II
244	0848, 0850	Pit	Sub-oval	1.25+	1.0+	0.36+	14^{th}-15^{th} century	**II**	III
245	0843-0844	Structural (robbing)	Linear, N-S	1.7	1.0+	0.6+		IV	A
247	/	Layers	Irregular	6.55+	4.10+	/		IV	A
250	/	Layers	Irregular	3.0+	1.15	/		IV	A
251	/	Layers	Irregular	1.65	1.3	/		IV	A
252	/	Pit	Square	0.7	0.75	/		IV	A
253	/	Pit	Square	0.8	0.8	/		IV	A
254	0854-0855	Posthole	Circular	0.4	0.4	0.16+		*II*	V(A)
255	0856-0857	Posthole	Circular	0.34	0.25	0.24+		IV	B
256	0858-66	Pit	Sub-oval	2.4+	0.5	1.3+	14^{th}-15^{th} century	**II**	IV
260	0818-0820	Posthole	Square	0.24	0.24	0.34+	19^{th} century	**IV**	C
261	0869-0870	Posthole	Circular	0.2+	0.2+	0.32+		IV	C

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
262	0874	Structural (foundation)	Linear, N-S	10.7+	0.24+	0.33+	18th century	**III**	VI
263	0871-73, 0875, 0877-9	Structural (foundation)	Linear, N-S	10.7+	0.25+	0.26+	16th-17th century	**III**	VI
264	0876	Structural (foundation)	Linear, N-S	1.0+	0.1	0.25+		V	/
265	0880-0882	Soakaway (cask-lined)	Sub-circular	0.73	0.7+	0.79+		IV	C
266	0883-0887	Pit	Oval	2.0+	0.9+	0.82+		II	V(A)
267	194, 0891-0892	Pit	Oval	1.7	1.2	0.3+	19th century	**IV**	C
268	0893	Drain	Linear, N-S	8.0+	0.7+	/		IV	C
269	0894-0895	Posthole	Circular	0.4	0.4	0.22+		IV	C
270	0896-0897	Pit	Oval	0.55	0.25+	0.3+		II	VI(C)
272	0907	Cellar (brick-built)	Square	2.25	2.25	/		IV	C
273	0915-0916	Posthole	Oval	0.38	0.31	0.2+		IV	C
274	0917-0919	Structural (foundation)	Rectangular, N-S	2.22	0.63	0.07+		*IV*	C
275	0920-30, 1596-1602	Pit	Circular	4.0+	3.7	1.7+	14th-15th century	**II**	I/II
276	0931-0932	Structural (foundation)	Irregular	6.4+	0.23	0.48+		*III*	VI
277	0933-0934	Structural (foundation)	Linear, E-W	6.7+	0.18	0.7+		*III*	VI
278	0935-0936	Structural (foundation)	Linear, N-S	6.2+	0.35	0.4+		IV	C
279	0937-0941	Structural (construction cut)	Rectangular	2.65	1.55	0.55+		III	I
280	1351-1353	Well (brick & stone-lined)	Square	0.95	0.95	2.98+	19th century	III	I
281	0942-0944, 2047-54	Cesspit (wattle-lined)	Sub-circular	2.38+	2.0+	1.7+	14th-15th century	**II**	IV
282	0979-0984	Drain	Square	1.21	1.2	0.58+	19th century	**IV**	C
283	0986-93, 1004-5	Tank (stone-lined)	Sub-rectangular	6.27	2.22	1.21+		II	VI(A)
284	0954, 0959, 1129-30, 2261-62	Cesspit (wattle-lined)	Sub-square	1.5	1.23	0.62+		II	IV
285	0948-0949	Cesspit (wattle-lined)	Sub-rectangular	0.65+	0.43+	0.27+		II	IV
286	0946, 0951, 0959, 2260	Cesspit (wattle-lined)	Sub-rectangular	1.33	0.66	1.09+	16th century	**II**	IV
287	0952-0953	Pit	Sub-oval	0.6	0.2+	0.3+	16th century	**II**	I
289	0962-0964	Layers	Heavily truncated	4.9+	/	1.25+		*III*	IV
290	0994-0995	Posthole	Square	0.49	0.4	0.33+	19th century	**IV**	C
291	0996-0997	Posthole	Circular	0.4	0.48	0.07+		II	VI(C)

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
292	0998-1003, 1039-40, 1608, 1645-70	Well (wattle-lined?)	Oval	2.1	3.0+	2.26+	13th -14th century	**II**	VI(C)
293	0977	Service trench	Linear	1.0+	0.48	0.27+		IV	C
294	2258	Pit	Heavily truncated	2.45	1.05+	0.68	14th century	**II**	II
295	0971-0972	Service trench	Irregular	1.0+	0.52	0.23+		IV	C
296	0973-0976	Layer	Irregular	1.0+	3.0+	0.35+		IV	C
297	0965-0968	Layers	Irregular	1.0+	4.0+	0.57+		IV	C
298	1007-1010	Structural (surface)	Linear	6.5+	2.51	0.03+		*II*	II
299	1011, 1013	Structural (beamslot)	Linear	6.5+	1.03	0.24+	15th century	**II**	II
300	1009, 1012, 1014	Structural (beamslot)	Linear	6.5+	0.88	0.24+	15th century	**II**	II
301	0983-0985	Layer	Irregular	5.0+	2.5+	0.42+	18th century	**III**	VI
302	1031-1032	Stakehole	Circular	0.12	0.12	0.05+		II	I
303	1033-1034	Stakehole	Circular	0.1	0.1	0.04+		II	I
305	1015-1020	Layers	Irregular	0.78	1.0+	0.13+		IV	A
306	1021	Layers	Irregular	0.78	1.0+	0.12+		IV	A
307	1037-1038	Posthole	Square	0.44	0.42	0.29+		IV	C
308	1042-1043	Posthole	Square	0.4	0.25	0.1+	18th-19th century	**IV**	C
309	1044-1045	Posthole	Square	0.7	0.3	0.3+		IV	C
310	1046-1047	Pit	Irregular	0.6	0.35	0.7+		II	VI(C)
312	1050-1051	Posthole	Square	0.2	0.2	0.1+		IV	C
313	1058, 1108-15	Pit	Sub-rectangular	3.5	1.75+	1.05+	13th-15th century	**II**	III
314	1052-1057	Pit	Sub-circular	3.5	3.5	1.8+	14th-15th century	**II**	I
317	1566-68, 1581-83, 1866	Cesspit (brick-built)	Rectangular	2.25	1.4	1.08+	17th century	**III**	VI
318	1569-1570	Pit	Rectangular	2.25	1.4+	1.08+		II	VI(C)
319	1571-1572	Pit	Circular	0.7	0.68	0.25+		II	VI(C)
321	1573-1577	Oven	Irregular	0.85	1.16	0.14+	14th-15th century	**II**	VI(C)
323	1065-1066	Layer	Irregular	6.0+	1.0+	/	16th century	**II**	V(A)
324	0463-0465, 1063-1064	Drain	Curvilinear	2.5+	0.3	0.37+		II	V(A)
325	1060-1062	Gully	Linear, N-S	6.25+	0.63	0.65+	15th-16th century	**II**	II

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
326	1101-03, 1877-79, 2202-14	Well (wattle-lined?)	Circular	2.4	2.4	2.58+	15th century	**II**	VI(C)
327	1104-05, 1868	Pit	Sub-circular	1.52	0.75+	0.51+		II	VI(C)
328	1069-1071	Well (wattle-lined?)	Circular	1.0+	1.02+	2.35+	14th-15th century	**II**	I
329	1067-1068	Pit	Sub-circular	1.5	1.3+	0.85+	15th century	**II**	V(A)
330	1084-1085	Layers	Irregular	1.0+	1.05+	0.1+		II	VI(A)
331	1072-1074, 1082	Layers	Irregular	1.05+	1.57	0.21+	19th century	**IV**	C
332	1087-1088	Drain	Linear, N-S	2.3+	0.55+	0.22+		IV	C
333	1092-1093	Structural (construction cut)	Linear, N-S	0.5	0.22	0.45+		II	VI(A)
334	1090-1091	Pit	Rectangular	0.72	0.87	0.51+		II	VI(A)
335	1098-1099	Soakaway (brick-built)	Linear, N-S	0.8	0.75	0.28+		IV	C
336	0333, 1139-1153	Pit	Sub-rectangular	2.05+	2.0+	1.55+	15th century	**II**	III
337	1096-97, 1134, 1273-75, 2141-50, 2156	Well (cask-lined?)	Circular	1.3+	1.4+	3.05+	14th-15th century	**II**	IV
338	1100	Soakaway (brick-built)	Sub-square	0.62	0.48+	0.06+		III	IV
339	1106-07, 1179	Well (wattle-lined?)	Circular	1.43	1.45	2.1+	14th-15th century	**II**	III
340	1116-1119	Pit	Sub-circular	1.05	0.25+	0.96+	19th century	**IV**	A
341	1120-1124	Pit	Sub-oval	1.93	0.55+	0.96+		II	II
342	1125-1128	Pit	Circular	0.64	0.6	0.95+	14th-15th century	**II**	II
343	0950-51, 0955-57, 1131	Posthole	Circular	1.5	1.1	0.53+		II	IV
345	1095, 1406-10, 1623-40, 1671-76	Oven	Rectangular	1.8	0.36	0.27+	14th-15th century	**II**	IV
346	1138	Pit	Sub-oval	1.9	1.52	0.62+		*II*	IV
347	1162-65, 1302-03	Tank (clay-lined)	Sub-oval	0.75+	0.5+	1.05+	14th-15th century	**II**	VI(C)
348	1166-1167	Pit	Sub-oval	1.52	0.9	0.14+		II	V(B)
349	1168-1170	Drain	Linear, N-S	8.0+	0.32+	0.14+		III	V
351	0899, 1172	Pit	Rectangular	3.0+	2.52	0.68+		II	VI(C)
352	0628-0629	Pit	Sub-rectangular	1.6	1.0+	0.51+	14th-15th century	**II**	VI(C)
353	1178-1179	Posthole	Rectangular	0.65	0.4	0.23+		II	C
354	1198-1200, 1339	Tank (clay-lined)	Sub-oval	3.3+	1.6+	1.13+		II	I

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
356	1204-1205, 1257-1258, 1643-1644, 1783, 1785-1789	Tank (clay-lined)	Circular	1.64	1.62	2.19+	15th century	**II**	VI(C)
357	1282-1283	Pit	Irregular	0.37	0.32	0.27+		II	II
358	0025-0026, 1219-1220, 1355	Pit	Sub-rectangular	1.06	0.9+	0.95+	14th century	**II**	III
359	1225-1230	Pit	Sub-circular	1.9	1.45+	0.92+	14th-15th century	**II**	II
360	1231-1232	Pit	Sub-circular	0.82	0.8	0.5+	14th-15th century	**II**	II
361	1233-1235	Structural (surface)	Rectangular	2.08+	1.6	0.4+		III	III
362	1236-1237	Structural (foundation)	Linear, N-S	8.1+	0.48	0.26+		III	III
363	1238-1241	Pit	Sub-circular	1.7	1.45	0.82+	13th-14th century	**II**	III
364	1242-1251, 2117-2140, 2222-28	Well (wattle-lined?)	Sub-circular	2.04	1.9	3.24+	13th-14th century	**II**	III
366	1259-1260	Pit	Circular	0.71	0.3+	0.18+		II	I
367	1261-1262	Pit	Irregular	0.6	0.5	0.11+		*II*	I
368	1263-1264	Posthole	Oval	0.52	0.3	0.19+		*II*	I
369	1265-1266	Pit	Sub-oval	0.75	0.45	0.18+		*II*	I
370	1267-1268	Posthole	Sub-circular	0.47	0.44	0.15+		*III*	I
371	1269-1270	Posthole	Sub-circular	0.45	0.4	0.12+		*II*	I
372	1271-1272	Posthole	Sub-circular	0.51	0.45	0.21+		*II*	I
373	1276-1277	Pit/posthole	Sub-circular	0.36	0.34	0.16+		II	IV
374	1132-1133	Pit	Irregular	2.65	2.3	0.19+		*II*	III
375	1278-1281	Pit	Sub-circular	2.02	1.4	0.55+		II	III
376	1285-1286	Tank (clay-lined)	Rectangular	2.08	1.04	1.15+		II	VI(C)
377	1302	Posthole	Rectangular	0.8	0.76	0.16+		*II*	VI(C)
378	1449-1452	Pit	Circular	2.52	2.47	1.62+	14th-15th century	**II**	II
379	1288-1291	Structural (robbing)	Sub-rectangular	4.26	2.4+	1.24+		IV	B
380	1301	Structural (foundation)	Rectangular	1.7+	0.66+	0.42+		IV	B
381	1287	Cellar (stone-built)	'L' - shaped	1.63+	0.65	0.73+		III	IV
382	1298-1299	Posthole	Circular	0.14	0.14	0.18+		IV	B
383	1292-1293	Gully	Linear, E-W	0.72+	0.26	0.14+		III	IV
384	1294-1297	Layer	Heavily truncated	0.96+	0.64+	0.55+		IV	B

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
385	1304	Layer	Heavily truncated	0.72+	0.68+	0.14+		IV	B
386	1254, 1305-1307	Posthole	Sub-rectangular	0.4	0.2	0.22+		IV	C
388	1312-1314	Posthole	Circular	0.52	0.5	0.47+	*Saxon*	IV	C
389	1341-1342	Posthole	Circular	0.24	0.24	0.32+	19th century	**IV**	C
390	1343-1346	Pit	Rectangular	6.75	1.44	2.48+	19th century	**IV**	A
391	1347-1349	Oven	Sub-oval	1.6+	0.88	0.17+		II	VI(C)
392	1192-1193	Posthole	Circular	0.3	0.3	0.14+	14th century	**II**	I
393	1194-1195	Posthole	Circular	0.26	0.15+	0.15+		II	I
394	1196-1197	Posthole	Circular	0.21	0.12+	0.13+		II	I
395	1223-1224	Posthole	Circular	0.26	0.24	0.18+		II	I
396	1317-1321	Pit	Sub-oval	1.28	0.58+	1.1+	19th century	**IV**	A
397	1322-1324	Pit	Sub-oval	2.34	1.3+	0.56+	19th century	**IV**	A
398	1325-1326	Pit	Sub-oval	1.64	0.72	0.7+	19th century	**IV**	A
399	1331-1334	Posthole	Sub-rectangular	0.52	0.38	0.22+		II	I
400	1335-1338	Posthole	Circular	0.2	0.2	0.2+		II	I
401	1356-1357	Posthole	Sub-circular	0.15	0.1	0.1+		IV	C
402	1358-1359	Posthole	Circular	0.15	0.1	0.1+		IV	C
403	1360-1361	Posthole	Circular	0.4	0.4	0.35+		IV	C
404	1362-1363	Posthole	Circular	0.35	0.3	0.15+		IV	C
405	1368-1370	Tank (clay-lined)	Square	0.9+	0.2	0.36+	15th century	**II**	II
406	1364-1367	Tank (clay-lined)	Square	0.9+	0.2	0.36+	13th-14th century	**II**	II
407	1398-1399	Posthole	Sub-rectangular	0.5	0.75	0.13+	13th-15th century	**II**	I
408	/	Stakehole	Circular	/	/	/		*II*	I
409	/	Stakehole	Circular	/	/	/		*II*	I
410	1400-1401	Posthole	Irregular	0.8	0.55	0.26+		*II*	I
411	/	Stakehole	Circular	/	/	/		*II*	I
412	1411-1412	Posthole	Rectangular	0.8	0.5	0.2+		*II*	I
413	1413-1414	Posthole	Sub-circular	0.6	0.4	0.2+		*II*	I

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
414	1415-1416	Posthole	Circular	0.2	0.2	0.25+		*II*	I
415	1417-1418	Posthole	Circular	0.3	0.35	0.2+		*II*	I
416	1419-1420	Posthole	Sub-circular	0.4	0.4+	0.25+		*II*	I
417	/	Stakehole	Circular	0.07	0.07	/		*II*	I
418	/	Stakehole	Circular	0.1	0.1	/		*II*	I
419	1421-1422	Posthole	Sub-rectangular	0.5	0.4	0.27+		*II*	I
420	/	Stakehole	Circular	0.08	0.08	/		*II*	I
421	1371-1372	Pit	Sub-square	1.6	1.25	0.62+		II	V(A)
422	1373-1383	Pit	Heavily truncated	1.2+	1.3	1.0+	14th-15th century	**II**	II/III
423	1384-1385	Pit	Heavily truncated	2.6+	2.5+	0.34+		II	II
424	1390-1396	Pit	Sub-circular	5.0+	2.45	0.37+	15th-16th century	**II**	III
425	1386-1389	Structural (foundation)	Linear, N-S	1.5+	0.45+	0.14+		IV	A
426	2257	Structural (foundation)	Linear, E-W	1.45+	0.4+	0.15+		IV	A
427	1402-1403	Pit	Circular	1.8	0.9	0.18+		*II*	I
428	1404-1405	Pit	Oval	1.25	0.75	0.3+		*II*	III
429	1459-68, 2229-32	Well (wattle-lined?)	Circular	1.1	1.1	3.33+	14th-15th century	**II**	II
431	1483-1486	Pit	Sub-circular	1.47	1.47	0.6+		II	II
432	1423-1427	Posthole	Square	0.68	0.65	0.43+		IV	C
433	1428-1429	Posthole	Square	0.34	0.28	0.15+		IV	C
434	1430-1431	Pit	Oval	1.25	0.6	0.1+		*II*	V(A)
435	1432-1433	Posthole	Circular	0.21	0.2	0.09+		*II*	V(A)
436	1434-1435	Posthole	Oval	0.3	0.2	0.1+		*II*	V(A)
437	1436-1437	Posthole	Circular	0.14	0	0.08+		*II*	V(A)
438	1438-1439	Posthole	Circular	0.15	0.15	0.18+		*II*	V(A)
439	1440-1441	Gully	Linear, N-S	1.5+	0.4+	0.49+	13th-15th century	**II**	III
440	1442-1446	Pit	Heavily truncated	1.1+	1.1+	0.39+	13th-14th century	**II**	III
441	1447-48, 1494, 1525, 1768-70	Pit (animal disposal)	Sub-square	1.5	1.01	0.7+		II	VI(C)
442	1454-1455	Structural (robbing)	Circular	0.75+	0.6+	1.44+	19th century	**IV**	A

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
443	1457-1458	Cesspit (wattle-lined)	Rectangular	1.35	0.85	0.43+	14th-15th century	**II**	V(A)
444	1487-1488	Pit	Rectangular	1.0+	1.15+	0.48+		II	VI(C)
445	1489-1490	Pit	Circular	1.25	1.2	0.6+		II	VI(C)
446	1491-1493	Pit	Circular	0.27	0.25	0.41+		II	VI(C)
447	/	Posthole	Sub-circular	0.25	0.25	/		*II*	VI(C)
448	/	Posthole	Sub-circular	0.25	0.25	/		*II*	VI(C)
449	/	Posthole	Sub-circular	0.25	0.25	/		*II*	VI(C)
450	/	Posthole	Sub-circular	0.25	0.25	/		*II*	VI(C)
451	/	Posthole	Sub-circular	0.8	0.8	/		*II*	VI(C)
452	/	Posthole	Sub-circular	0.3	0.3	/		IV	C
454	1676-78, 1861-63	Pit	Rectangular	2.34	1.54	2.03+	16th century	**II**	II
456	1538-40, 2013-2034, 2115-6	Well (wattle-lined?)	Circular	1.2	1.4	3.04+	14th century	**II**	IV
458	1551-1558	Pit	Sub-oval	2.5	2.5	0.9+		II	II
459	1559-1565	Pit	Heavily truncated	0.4+	0.29+	0.36+		II	I
460	1688-89, 1625	Pit	Heavily truncated	1.25+	1.4+	0.72+	13th-14th century	**II**	I
461	0247-48, 0251, 0253-54	Structural (surface)	Heavily truncated	2.26	1.92	0.2+		II	VI(C)
462	1516-1521	Cesspit (wattle-lined)	Square	2.4+	2.25+	1.31+	15th century	**II**	IV
463	1523-1524	Posthole	Sub-oval	0.35+	0.25+	0.15+		II	IV
464	1526-1527	Cesspit (brick-built)	Sub-square	1.4	1.25	0.06+		IV	A
465	1528-1529	Posthole	Square	0.3	0.15	0.3+		*II*	I
466	1530-1531	Posthole	Square	0.5	0.4	0.34+		*II*	II
467	1532-1533	Posthole	Sub-circular	0.54	0.44	0.36+		*II*	I
468	1533-1534	Posthole	Irregular	0.55	0.85	0.18+		*II*	II
469	1536-1537	Posthole	Square	0.4	0.4	0.12+		*II*	II
470	1993-1998	Structural (foundation)	Linear, E-W	3.0+	0.9+	0.59+		III	V
471	1541-1542	Pit	Sub-circular	4.85	4.18	0.51+		IV	A
472	1543-1544	Structural (robbing)	Linear, N-S	5.02	0.63	0.74+	19th century	**IV**	A
473	1578-1580	Oven	Oval	1.56	0.33	0.18+		II	VI(C)

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
474	1641, 1864-1865	Well (wattle-lined?)	Sub-circular	1.75+	1.0+	3.0+	14th century	**II**	VI(C)
475	1584-1585	Posthole	Truncated	0.52	0.28	0.52+		II	VI(C)
476	1586-1587	Posthole	Circular	0.26	0.26	0.31+		II	VI(C)
477	1588-1589	Posthole	Circular	0.22	0.12	0.27+		II	VI(C)
478	1590-1591	Posthole	Circular	0.28	0.28	0.21+		II	VI(C)
479	1592-1593	Posthole	Circular	0.32	0.32	0.31+		II	VI(C)
480	1594-1595	Posthole	Circular	0.32	0.32	0.37+		II	VI(C)
481	1603-1604	Pit	/	0.25	0.3	0.15+	19th century	**IV**	C
482	1605-1607	Structural (foundation)	Linear, N-S	0.9	0.29	0.17+		III	VI
483	1609-1613, 1615, 1642	Pit	Sub-oval	1.6	2.5+	1.5+	16th century	**II**	III
484	1549-1550	Cellar (brick-built)	Rectangular	7.0+	0.75+	0.32+		III	III
485	1615-1616	Pit	Circular	1.45	1.35	0.3+	19th century	**IV**	A
486	1617-1619	Pit	Heavily truncated	1.77	2.25	0.66+	14th-15th century	**II**	V(A)
488	1990-1992	Drain	Linear, E-W	0.22	0.52+	0.19+		III	V
489	1680-1684	Pit	Sub-rectangular	1.35	1.3+	1.17+	15th century	**II**	II
490	1685, 1790, 1860, 2169-71	Well (wattle-lined?)	Circular	1.1	1.1	3.04+	14th century	**II**	II
491	/	Pit	/	2.7	0.9	/		IV	C
492	1761-1767	Tank (clay-lined)	Square	1.9	1.85	0.61+	16th century	**II**	IV
493	1686-1687	Posthole	Circular	0.4	0.4	0.37+		II	IV
494	1690-1691	Posthole	Square	0.65	0.65	0.27+		IV	C
495	1692-1693	Posthole	Rectangular	0.35	0.55	0.2+		IV	C
496	1694-1695	Posthole	Circular	0.3	0.1	0.35+		III	II
497	1696-1697	Posthole	Circular	0.2	0.2	0.08+		III	II
498	1698-1699	Posthole	Rectangular	0.75	0.55	0.11+		IV	C
499	1700-1701	Pit/Posthole	Square	0.5	0.76	0.13+		*II*	IV
500	1726-1737, 1808-1824, 1935-1946	Pit	Sub-circular	2.67	2.48+	3.04+		II	II
501	1728-60, 1920-34	Well (cask-lined?)	Sub-circular	2.42+	2.32+	3.52+	14th-15th century	**II**	II
502	1771-74, 1791-94	Pit	Sub-rectangular	2.8	2.7	0.79+	14th-15th century	**II**	III

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
503	1775-1782	Pit	Sub-circular	1.9	1.92	1.95+	14th-15th century	**II**	II
504	1829-42, 1915-16	Pit	Oval	2.15	0.95+	1.75+	16th-17th century	**III**	III
506	1843-1844	Posthole	Circular	0.3	0.29	0.15+	15th century	**II**	IV
507	1845-1846	Posthole	Circular	0.5	0.4	0.25+	14th century	**II**	IV
508	1847-1848	Posthole	Circular	0.2	0.3	0.2+		*II*	IV
509	1849-1850	Posthole	Circular	0.4	0.45	0.03+	14th century	**II**	IV
510	1851-1852	Posthole	Sub-oval	0.45	0.2	0.13+		*II*	IV
511	1853-1854	Posthole	Circular	0.45	0.46	0.28+		*II*	IV
512	1855-1856	Posthole	Circular	0.3	0.3	0.09+		*II*	IV
513	/	Posthole	Sub-square	0.35	0.25	/		IV	C
514	/	Posthole	Sub-square	0.4	0.35	/		IV	C
515	/	Posthole	Sub-square	0.25	0.2	/		IV	C
516	/	Posthole	Sub-square	0.4	0.4	/		IV	C
517	/	Posthole	Sub-square	0.5	0.3	/		IV	C
518	/	Posthole	Sub-square	0.45	0.45	/		IV	C
519	/	Posthole	Circular	0.45	0.45	/		*IV*	C
520	/	Posthole	Square	0.3	0.3	/		IV	C
521	/	Posthole	Square	0.35	0.3	/		IV	C
522	/	Posthole	Sub-circular	0.33	0.31	0.13+		*IV*	C
524	1872-1873	Pit	Irregular	0.49	0.3	0.1+	14th century	**II**	VI(C)
525	1874, 1904-10	Pit	Sub-rectangular	2.0+	3.7+	1.4+	14th-15th century	**II**	III
526	1875, 1911	Pit	Sub-circular	1.5	1.4	0.2+	14th-15th century	**II**	III
528	1880, 1883-84	Well (wattle-lined?)	Circular	1.25	1.25	2.2+	13th-14th century	**II**	II
529	1913-1914	Pit	Sub-rectangular	2.44	1.9	0.9+	14th-15th century	**II**	III
531	1917-1919	Cesspit (brick-built)	Sub-square	1.48	1.52	0.34+	19th century	**IV**	A
532	1949-1950	Posthole	Circular	0.55	0.5	0.19+		IV	C
533	1951-1952	Posthole	Sub-rectangular	0.6	0.4	0.34+	19th century	**IV**	C
534	1955-59, 2218-21	Well (wattle-lined?)	Circular	1.45	1.6	3.08+	14th-15th century	**II**	II

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
535	0066-77, 0184	Tank/soakaway (timber-lined)	Sub-rectangular	1.84	3.6	0.97+	17th century	**III**	IV
537	/	Posthole	Sub-circular	0.25	0.3	/		*IV*	C
538	1960-1961	Oven	Irregular	0.4	1.15+	/		II	VI(C)
539	/	Pit	Sub-oval	0.9	1.2	/		IV	C
540	1962-1963	Pit	Sub-circular	2.25	2.1	1.05+		II	V(A)
541	1964-1965	Pit	Sub-rectangular	1.0+	0.5+	0.9+		II	V(A)
542	/	Pit	Sub-rectangular	2.0+	1.0+	/		IV	B
543	1969-1970	Pit	Sub-rectangular	1.5	0.9	0.5+	19th century	**IV**	B
544	1968	Pit	Sub-rectangular	1.6	1.1	/	19th century	**IV**	B
545	2047-2054	Pit	Sub-oval	2.38+	2.0+	0.85+	13th-14th century	**II**	IV
546	/	Pit	Sub-circular	2.0+	1.4+	/		IV	B
547	2106-2114	Pit	Oval	1.5+	0.75+	0.86+	13th-14th century	**II**	IV
548	1971-1972	Pit	Sub-square	1.2+	1.1+	0.5+	17th-18th century	**III**	II
549	1973-1974	Posthole	Circular	0.22	0.22	0.19+		II	VI(C)
550	1975-1976	Posthole	Circular	0.3	0.3	0.29+		II	VI(C)
551	1977-1978	Posthole	Circular	0.33	0.32	0.2+		II	VI(C)
552	1979-1980	Posthole	Square	0.43	0.4	0.28+		II	VI(C)
553	1981-1982	Treethrow	Irregular	2.2	0.55+	0.39+		*I*	/
554	/	Posthole	Circular	0.3	0.3	/		II	VI(C)
555	1867, 1987	Posthole	Square	0.16	0.16	0.24+		II	VI(C)
556	1988-1989	Structural (foundation)	Linear, E-W	0.5+	0.32	0.43+		V	/
557	1999-2004	Cellar (brick-built)	Sub-rectangular	1.5	2.4	/		III	VI
558	2005-2010	Pit	Sub-oval	1.7	2.3	1.0+	15th-16th century	**II**	IV
559	2011-2012	Posthole	Sub-circular	0.6	0.6	0.4+		II	IV
560	2065-73, 2157-68, 2215-17	Well (wattle-lined?)	Circular	1.42	1.5	3.03+	14th century	**II**	V(A)
561	2063-2064	Pit	Sub-rectangular	2.6	1.4	0.22+	14th-15th century	**II**	V(B)
562	/	Pit	Sub-circular	2.45+	0.9+	/		*II*	IV
563	/	Pit	Sub-circular	1.25+	1.0+	/		*II*	V(A)

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
564	/	Pit	Sub-circular	1.75+	3.5+	/		*II*	V(A)
565	2084-85, 2094-95	Pit	Sub-circular	1.73	1.88	0.42+	14th century	**II**	V(B)
566	2096-97, 2086-87	Pit	Circular	0.7	0.7	0.37+		II	V(B)
567	2088-2089	Pit	Circular	2.12	0.17	0.28+	14th century	**II**	V(B)
568	2090-91, 2098-2100	Pit	Circular	1.63	1.4	0.31+		II	V(B)
569	2092-2093	Pit	Circular	0.86	0.4	0.17+	14th century	**II**	V(B)
570	2074-2075	Pit	Circular	1.7	1.6	0.25+		II	V(B)
571	2076-2081	Pit	Sub-circular	1.53	1.92	0.36+	14th century	**II**	V(B)
572	2082-2083	Pit	Irregular	0.96	1.45	0.21+		II	V(B)
573	2104-2105	Pit	Circular	0.87	0.75	0.48+	19th century	**IV**	B
575	2178-2192	Well (wattle-lined)	Sub-rectangular	1.1	1.2	2.4+	13th-14th century	**II**	V(B)
576	2197-2198	Pit	Sub-square	0.62+	1.5	0.12+		II	V(B)
577	2172-2175	Pit	Rectangular	2.1+	1.5+	2.1+	15th-16th century	**II**	V(B)
580	2252-2255	Pit	Circular	1.65	1.55	0.15+		*II*	V(B)
581	2235-2236	Pit	Sub-square	1.5+	1.0+	0.4+		IV	B
583	0300	Oven	Irregular	4.2+	3.8+	0.22+	15th century	**II**	V(A)
584	/	Soakaway (brick-built)	Sub-square	1.4	1.25	/		IV	A
585	/	Posthole	Oval	0.7m	0.6m	/		*II*	I
587	/	Pit	Circular	0.9	0.9	/		*IV*	A
588	/	Pit	Sub-oval	1.9	1.05	/		*II*	II
589	/	Pit	Sub-circular	1.75	1.05	/		*IV*	A
590	/	Pit/posthole	Sub-circular	1	0.9	/		*II*	I
591	/	Pit	Sub-circular	2.1+	1.3+	/		*II*	I
592	/	Pit	Irregular	1.90+	0.9+	/		*IV*	A
593	/	Pit	Sub-oval	1.0+	0.95	/		*IV*	A
594	/	Pit	Sub-circular	1.45	1.35+	/		II	IV
595	/	Pit	Sub-circular	1.75	0.95+	/		II	IV
596	/	Pit	Sub-oval	1.75	0.85+	/		II	IV

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
598	/	Posthole	Sub-circular	0.75	0.65	/		*II*	IV
599	/	Pit	Heavily truncated	0.85+	0.85	/		*II*	IV
600	/	Pit	Sub-rectangular	1.25+	0.75	/		*II*	IV
601	/	Pit	Sub-oval	1.3	0.85	/		*II*	III
602	/	Well (brick-lined)	Circular	2.3	2.3	8.4+		IV	A
603	/	Structural (construction cut)	Irregular	2.0+	1.7	/		IV	A
604	/	Posthole	Circular	0.5	0.5	/		*II*	IV
605	/	Posthole	Circular	0.45	0.45	/		*II*	III
606	/	Posthole	Sub-circular	0.5	0.45	/		*II*	III
607	/	Pit	Sub-circular	1.1+	1.05	/		*II*	IV
608	/	Pit	Sub-oval	1.35+	0.8	/		*II*	III
609	/	Posthole	Sub-circular	0.45	0.25+	/		*II*	V(A)
610	/	Posthole	Circular	0.45	0.4	/		*II*	V(A)
611	/	Posthole	Circular	0.5	0.5	/		*II*	II
612	/	Posthole	Circular	0.7	0.65	/		*II*	I
613	/	Posthole	Sub-circular	0.45	0.4	/		*II*	I
614	/	Pit	Sub-oval	2.2	1.75	/		*II*	I
615	/	Soakaway (brick-built)	Sub-square	0.6	0.5	/		IV	A
616	/	Pit	Sub-square	1.2	0.9+	/		*II*	IV
617	/	Posthole	Sub-circular	0.65	0.6	/		*II*	IV
618	/	Pit	Sub-oval	2.3	2.2+	/		IV	B
619	/	Pit	Circular	1.2	1.2	/		*II*	V(B)
620	/	Pit	Sub-circular	1.65+	1.5+	/		II	III
621	/	Posthole	Circular	0.45	0.45	/		*IV*	C
622	/	Posthole	Sub-circular	0.65	0.55	/		*IV*	C
623	/	Posthole	Sub-oval	0.65	0.55	/		*IV*	C
624	/	Posthole	Circular	0.6	0.6	/		*IV*	C
625	/	Posthole	Sub-circular	0.65	0.6	/		*IV*	C

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
626	/	Posthole	Sub-circular	0.7	0.6+	/		*II*	VI(A)
627	/	Pit/Posthole	Irregular	1.15	0.6	/		*II*	VI(B)
628	/	Posthole	Sub-circular	0.35	0.35	/		*II*	VI(B)
629	/	Posthole	Sub-circular	0.6	0.5	/		*II*	VI(B)
630	/	Posthole	Sub-oval	0.7	0.5	/		*IV*	C
631	/	Posthole	Sub-circular	0.45	0.4	/		*IV*	C
632	/	Soakaway (brick-built)	Square	1.85	1.7	/		IV	C
633	/	Layer	Heavily truncated	1.2+	0.7+	/	15th century	**II**	VI(A)
634	0654	Layer	Heavily truncated	2.15+	1.5	0.1+	15th century	**II**	VI(A)
635	0704	Layer	Heavily truncated	5.0+	1.75+	0.1+		II	VI(A)
636	0757-0758	Posthole	Sub-circular	0.22	0.21	0.25+	15th century	**II**	VI(A)
637	0841	Layer	Heavily truncated	3.2+	1.0+	0.5+	15th century	**II**	II
639	/	Structural (foundation)	Linear, E-W	26	7.7	/		V	/
640	/	Structural (foundation)	Irregular	2.8	1.4	/		V	/
641	/	Structural (foundation)	'I'-shaped	13.5	0.6	/		V	/
642	/	Stakehole	Sub-circular	0.15	0.11	0.18+		*II*	VI(A)
643	0630-0631	Posthole	Sub-circular	0.38	0.38	0.21+		*II*	VI(A)
644	0702-0703	Posthole	Circular	0.55	0.55	0.12+		*II*	VI(A)
645	0624-0625	Posthole	Sub-oval	0.4	0.22	0.2+		*II*	VI(A)
646	0622-0623	Posthole	Sub-circular	0.24	0.23	0.1+		*II*	VI(A)
648	0722-0723	Posthole	Circular	0.14	0.14	0.21+		*II*	VI(A)
649	0620	Oven	Irregular	0.32	0.26	/		II	VI(A)
651	0485-0488	Layer	Heavily truncated	0.18+	/	0.39+		*III*	VI
652	0457-0459	Layers	Heavily truncated	0.45+	/	0.09+		*III*	VI
653	0443-0445	Layers	Heavily truncated	2.44+	/	0.24+		*III*	VI
654	0446-0448	Layers	Heavily truncated	2.44+	/	0.17+		II	VI(A)
655	2263-2264	Pit/posthole	Sub-circular	0.54	0.54	0.15+		II	VI(A)
656	0440-0442, 0458-0459	Layers	Heavily truncated	2.44+	/	0.1+		III	VI

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
657	0429-0439, 0449-00455, 0483-0484	Layers	Heavily truncated	2.44+	/	0.6+		III	VI
658	/	Service trench	Linear, NNE-SSW	23.0+	0.8	/		V	/
659	/	Service trench	Linear, NW-SE	29.0+	0.65	/		V	/
660	/	Structural (foundation)	'L'-shaped	3.90+	0.6	/		III	II
661	/	Service trench	Linear, SW-NE	9.7+	0.7	/		V	/
662	/	Pit	Sub-oval	1.4+	1.3	/		II	IV
663	/	Structural (foundation)	Linear, N-S	6.35	1.15	/		V	/
664	/	Structural (foundation)	Linear, N-S	13	0.65	/		V	/
665	/	Soakaway (brick-built)	Square	1.15	1.05	/		V	/
666	/	Service trench	Linear, NW-SE	9	0.4	/		IV	C
667	/	Soakaway (brick-built)	Square	0.55	0.55	/		V	/
668	/	Cellar (concrete-built)	Sub-square	4.67	3.67	1.72+		V	/
669	/	Service trench	Linear, ENE-WSW	3.2	0.45	/		V	/
670	/	Drain	Sub-Square	1.1	0.85	/		V	/
671	/	Service trench	Linear, E-W	7.8+	0.8	/		V	/
672	/	Drain	Square	1.2	1.1	/		V	/
673	/	Service trench	Linear, N-S	12.2+	0.4	/		V	/
674	/	Service trench	Linear, N-S	9.0+	0.3	/		V	/
675	/	Structural (foundation)	Linear, N-S	6	0.85	/		V	/
676	/	Structural (foundation)	Linear, N-S	6.6+	0.45	1.1+		III	I
677	0046, 0050	Structural (foundation)	Linear, N-S & E-W	6.7+	0.8	1.1+		III	I
678	/	Structural (foundation)	Linear, N-S	40.0+	0.65	/		V	/
679	/	Structural (foundation)	Linear, N-S & E-W	10.7+	0.45	1.1+		III	I
680	/	Structural (foundation)	Linear, N-S & E-W	1.55+	0.55	/		III	IV
681	/	Structural (foundation)	''L'-shaped	3.85	0.25	/		IV	B
682	/	Soakaway (brick-built)	Square	0.8	0.8	/		V	/
683	/	Service trench	Linear, NNW-SSE	4.65+	0.45	/		V	/
684	2289-2290	Posthole	Circular	0.16	0.16	0.12+		*IV*	A

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
685	2284-2286	Structural (foundation)	Linear	/	0.44	0.34+		*IV*	A
686	2298-2299	Posthole	Sub-circular	0.22	0.22	0.2+		***IV***	A
687	0492-0493	Posthole	Sub-circular	0.14	0.13	0.35+		*II*	IV
688	0494-0495	Posthole	Sub-circular	0.3	0.27	0.34+		*II*	IV
689	0496-0497	Posthole	Sub-circular	0.11	0.1	0.23+		*II*	V(A)
690	0642-0643	Posthole	Sub-circular	0.3	0.25	0.46+		*II*	IV
691	0183-0184	Posthole	Sub-circular	0.16	0.16	0.21+		III	IV
692	0074-0075	Posthole	Sub-circular	0.16	0.15	0.15+		III	IV
693	0074-0076	Posthole	Sub-circular	0.31	0.24	0.13+		III	IV
695	2416-2147	Posthole	Sub-circular	0.13	/	0.37+		IV	A
696	2418-2419	Posthole	Sub-circular	0.1	/	0.15+		IV	A
697	1626-1628	Posthole	Sub-circular	0.33	/	0.34+		II	IV
698	1639-1640	Posthole	Sub-circular	0.15	/	0.22+		II	IV
699	2300-2304	Pit	Heavily truncated	5.3+	1.0+	1.05+		*IV*	C
700	2317-2319	Pit	Sub-circular	0.62	/	0.58+		*II*	I
701	2315-2316	Pit	Sub-circular	0.78	/	0.54+		II	I
702	2314, 2341	Pit	Sub-circular	0.32	/	0.38+		*II*	I
703	2339-2340	Service trench	Linear	0.72	/	0.44+		V	/
704	2333-2334	Pit	Sub-rectangular	2.92	/	0.64+		V	/
705	2337-2338	Posthole	Sub-circular	0.28	/	0.32+		V	/
706	2335, 2427-2428	Structural (foundation)	Linear, N-S	1.38+	/	0.86+		V	/
707	2347-2349	Structural (foundation)	Linear, E-W	0.64	/	0.78+		V	/
708	2352-2353	Posthole	Sub-circular	0.68	/	0.54+		*IV*	A
709	2379-2381	Pit	Sub-oval	1.78	/	0.28+		V	/
710	2383, 2430-2431	Structural (foundation)	Linear	0.38	/	0.22+		V	/
711	2358-2359	Posthole	Sub-circular	0.3+	/	0.14+		*II*	I
714	2392-2395	Pit	Irregular	1.96	/	0.46+		*II*	I
715	2398-2399	Posthole	Sub-circular	0.64	/	0.44+		*II*	I

Feature Number	Context Numbers	Type	Form	Length (m)	Width (m)	Depth (m)	Spotdate	Phase	Property
716	2396-2397	Posthole	Sub-circular	0.6+	/	0.26+		*IV*	A
717	2400-2403	Pit	Sub-rectangular	1.56	/	0.52+		V	/
718	2413-2414	Pit	Sub-circular	0.76	/	0.86+		V	/
719	2287-2288, 2433	Structural (surface)	Rectangular	1.96	/	0.14+		IV	A
720	0945, 0650	Cesspit (stone-lined)	Rectangular	1.5	1.23	0.41+		II	IV
721	0412-0413	Posthole	Circular	0.3	0.27	0.85+		II	V(A)
722	0291	Layer	Heavily truncated	2.88+	2.37+	0.32+	19th century	**IV**	C
723	/	Pit	Sub-rectangular	1.56	1.48	/		III	III
724	/	Pit	Sub-square	1.55	1.55	/		III	III
725	2435	Drain	Linear, NW-SE	2.95+	0.55	0.09+		III	V
726	2436	Drain	Linear, E-W	1.2+	0.5	0.09+		III	V
727	2437	Drain	Linear, NW-SE	4.65+	0.4	0.09+		III	V
728	2438	Drain	Linear, NE-SW	2.22+	0.4	0.09+		III	V
729	2439	Drain	Curvilinear	2.75+	0.25	0.09+		III	V
730	0328	Structural (foundation)	'L'-shaped	3.05+	0.53	0.05+		III	VI
731	0358	Layer	Irregular	5.13+	3.66+	0.19+	19th century	**IV**	A
732	/	Well (brick-lined)	Circular	1.46	1.42	/		IV	A
733	/	Well (structure not seen)	Circular	0.75+	0.6+	1.44+		III	III
734	/	Posthole	Square	0.45	0.45	/		IV	C
735	/	Posthole	Rectangular	0.70	0.50+	/		IV	C
736	/	Posthole	Rectangular	0.60	0.50	/		IV	C
737	/	Posthole	Circular	0.32	0.32	/		IV	C
738	/	Cellar (brick-built)	Rectangular	4.67	3.67	1.88+		IV	C

Appendix 2: Phase III and IV Comparative Spotdates

The following table provides a detailed breakdown of the spotdates derived from three closely-datable types of material culture – ceramics, glass and clay tobacco pipes – that were widely present within features dating to Phases III and IV at the Eastern Gate Hotel site. This combination of data potentially allows individual features to be dated with a relatively high degree of precision.

Feature	Phase	Type	Ceramic Spotdate	Glass Spotdate	Clay Pipe Spotdate
1	III	Posthole			1660+
25	III	Cesspit (brick-built)	18th		1580+
29	III	Posthole	1760-1820		
63	III	Soakaway (brick-built)	1780-1810	Early-mid 19th	
64	III	Drain	18th		
69	III	Well (brick & stone-lined)		17th	1660-1700
85	III	Posthole	17th-18th		
98	III	Cellar (brick-built)	1760-1820	18th	
99	III	Cesspit (brick-built)		18th	1730+
100	III	Gully	17th-18th	18th	1700-40
101	III	Pit	17th-18th		1700-40
158	III	Soakaway (brick-built)	1780-1810		
159	III	Pit	1780-1810	*c*. 1780-1820	1580+
301	III	Layer	1760-1820		
317	III	Cesspit (brick-built)	17th		
482	III	Structural (foundation)		*c*. 1780-1840	
504	III	Pit	16th-17th		
535	III	Tank (timber-lined)			1640-60
548	III	Pit	17th		
18	IV	Pit	1877+	Mid 19th	
24	IV	Pit	1877+	Late 19th	
27	IV	Posthole			1580+
28	IV	Pit	1835+		
46	IV	Pit		Mid-late 19th	
47	IV	Pit	1877+	Mid-late 19th	
54	IV	Pit	1877+		
55	IV	Pit	1877+	*c*. 1840-70	
56	IV	Pit	1877+	Mid-late 19th	
57	IV	Soakaway (brick-built)	1870+	Late 19th	Mid-late 19th
60	IV	Posthole	1820+		1580+
62	IV	Pit	1820+		
66	IV	Posthole	1820+	Late 19th	
70	IV	Structural (robbing)	1820+		1580+
76	IV	Pit	1820-40	*c*. 1820	
83	IV	Pit	1886-90	Mid-late 19th	Mid-late 19th
93	IV	Posthole		Late 19th	
104	IV	Pit	1877+	*c*. 1800-30	1580+
136	IV	Pit	1877+		1580+
141	IV	Posthole	1877+		
160	IV	Pit	1820+	Early-mid 19th	1839-52
161	IV	Structural (robbing)	1835+	*c*. 1780-1820	1580+
172	IV	Pit		19th	1580+
197	IV	Pit	1820+	19th	1660+
202	IV	Soakaway (barrel-lined)	1888+		
215	IV	Posthole	1835+		1580+
260	IV	Posthole	1877+		
267	IV	Pit	1877+		

Feature	Phase	Type	Ceramic Spotdate	Glass Spotdate	Clay Pipe Spotdate
290	IV	Posthole		19th	
331	IV	Layer		*c*. 1820	
340	IV	Pit	1830+	19th	
389	IV	Posthole	1828+	Mid-late 19th	
390	IV	Pit	1820+		19th
397	IV	Pit	1820+	Mid-late 19th	
398	IV	Pit		Early 19th	
442	IV	Structural (robbing)		*c*. 1780-1820	1580+
485	IV	Pit		*c*. 1780-1840	
531	IV	Cesspit (brick-built)	1835+		19th
533	IV	Posthole	1877+		
543	IV	Pit	1886-90	Late 19th	
573	IV	Pit	1835+		1580+
722	IV	Layer		Mid-late 19th	

Appendix 3: Oasis Form

OASIS ID: cambridg3-153867	
Project Details	
Project name	An archaeological excavation at the Eastern Gate Hotel site, Cambridge
Short description of the project	An open-area excavation conducted at the Eastern Gate Hotel site encountered an intensive and long-lived archaeological sequence. In the 6th century AD, a ditch was established and a cruciform brooch and clay loom weight were deposited. Subsequently, the area returned to agricultural usage until - in c. 1200 - five long-lived burgage plots were established. Linear in form, and with a distinctive twist at their head, each of these plots represents the occupation of a former land within the preceding open field. The newly-established properties were situated on the outer fringe of an extra-mural settlement that was founded following the relocation of Barnwell Priory in c. 1112. So rapid and successful was this settlement's growth, by the late 13th century the site comprised part of a substantial suburb - containing around 95 households - which was physically separated from Cambridge by over half-a-mile of open fields. By the early 14th century a sixth plot had been established, which was principally industrial in focus, and the level of activity at the site appears to have reached its zenith. By the 15th century, however, the suburb appears to have entered a period of decline. Although occupation continued throughout the Post-Medieval period, the settlement was reduced in scale to the size of a village. The former medieval plots were gradually amalgamated into three larger units. Then, following the inclosure of the surrounding fields in 1807, a process of re-suburbanisation commenced. Over the course of less than 40 years the population of Barnwell increased almost 4000% as a large number of buildings were constructed, and the site became incorporated into Cambridge's expanding suburban fringe.
Project dates	Start: 15-02-2012 End: 25-05-2012
Previous/future work	No / Not known
Any associated project reference codes	EGN 12 - Sitecode
Any associated project reference codes	ECB 3732 - HER event no.
Any associated project reference codes	ECB 3733 - HER event no.
Type of project	Recording project
Site status	None
Current Land use	Other 3 - Built over
Monument type	PIT Medieval
Monument type	BUILDING Medieval
Monument type	TANK Medieval
Monument type	OVEN Medieval
Monument type	WELL Medieval
Monument type	PIT Post Medieval

Monument type	BUILDING Post Medieval
Monument type	WELL Post Medieval
Significant Finds	BROOCH Early Medieval
Significant Finds	POTTERY Medieval
Significant Finds	COIN Medieval
Significant Finds	POTTERY Post Medieval
Significant Finds	GLASS Post Medieval
Significant Finds	CLAY TOBACCO PIPE Post Medieval
Investigation type	"Open-area excavation"
Prompt	Direction from Local Planning Authority - PPS
Project Location	
Country	England
Site location	CAMBRIDGESHIRE CAMBRIDGE CAMBRIDGE Eastern Gate Hotel
Postcode	CB5 8HF
Study area	1904.50 Square metres
Site coordinates	TL 46430 58891 52 0 52 12 30 N 000 08 35 E Point
Height OD / Depth	Min: 12.00m Max: 12.00m
Project Creators	
Name of Organisation	Cambridge Archaeological Unit
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Alison Dickens
Project director/manager	Alison Dickens
Project supervisor	Richard Newman
Type of sponsor/funding body	Developer
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Anglian Demolition and Asbestos, Ltd. & Merchant Place Developments
Project Archives	
Physical Archive recipient	Cambridgeshire County Archaeology Store
Physical Archive ID	EGN 12

Physical Contents	"Environmental","Glass","Industrial","Leather","Metal","Wood","Worked bone","Worked stone/lithics","Animal Bones","Ceramics"
Digital Archive recipient	Cambridgeshire County Archaeology Store
Digital Archive ID	EGN 12
Digital Contents	"Animal Bones","Ceramics","Environmental","Glass","Industrial","Leather","Metal","Stratigraphic","Survey","Wood","Worked bone","Worked stone/lithics"
Digital Media available	"Images raster / digital photography","Spreadsheets","Text"
Paper Archive recipient	Cambridgeshire County Archaeology Store
Paper Archive ID	EGN 12
Paper Contents	"Animal Bones","Ceramics","Environmental","Glass","Industrial","Leather","Metal","Stratigraphic","Survey","Wood","Worked bone","Worked stone/lithics"
Paper Media available	"Aerial Photograph","Context sheet","Matrices","Photograph","Plan","Report","Section","Survey "
Project Bibliography	
Publication type	Grey literature (unpublished document/manuscript)
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