Former Old Examination Hall, North Range Buildings, New Museums Site, Cambridge

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An Archaeological Excavation

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SUMMARY

Archaeological excavations by the Cambridge Archaeological Unit on the site of the Old Examination Hall, North Range Buildings, New Museums Site, Cambridge, between the 7th of November 2016 and the 16th of February 2017 revealed significant evidence relating to three phases of activity: domestic occupation of the site from c. 1050 onwards, the Augustinian friary of c. 1275/89–1538 and activity after the Dissolution in 1538.

The pre-friary domestic occupation of c. 1050–1275/89 probably related to one or two properties fronting onto Bene't Street/Wheeler Street (Vicus St. Benedicti). Over 130 pits, postholes, wells and other features were excavated and substantial assemblages of pottery, animal bone and other materials recovered.

There were two phases of activity associated with the friary. The first phase c. 1275/89–1320/40 was concentrated at the northern end of the site, comprising a small portion of a building, probably the southern side of the church, and a cemetery with 32 burials. Where sex could be determined all the individuals were male and most were adults and presumably friars although an infant and a juvenile are probably too young to be novices. 16 of the burials were accompanied by buckles: ten copper-alloy, four iron, one of elephant ivory that was probably manufactured in France and one of bone, some of which had preserved leather and textile. A perforated oyster shell may also represent a grave good.

The second friary phase c. 1320/40–1538 represents a major phase of building with possibly part of the friary church and three buildings from the eastern range of cloisters identified. Evidence from stone blocks reused at a later date indicate that the cloister had an open ?drop arch arcade, delicately moulded and probably resting on coupled capitals that is not paralleled in any surviving buildings in the British Isles outside Ireland. The best preserved building can be identified as the chapter house and contained six burials, four of which had copper-alloy belt buckles, plus evidence for a seventh translated burial or example of mos teutonicus. The presence of two skeletons identified as female (one full confidence and one probable) is highly unusual and it appears that one other young individual may also not have been a novice. There was also an impressive stone-lined well, located in the south-eastern claustral building. Finds densities were relatively low, significant discoveries include two styli (one of which unusually has its copper alloy point enclosed within a silver sleeve), a book clasp, ceramic building materials such as roof and floor tiles, moulded stone and decorated window glass.

There are a range of pits and other features linked to the Dissolution. The chapel and most of the eastern claustral range were demolished, but the southern claustral range and the stone lined well continued in use. In addition a substantial part-cellared L-shaped building was constructed, 'wrapped' around the south-eastern corner of the claustral range. Some of the southern claustral range and the L-shaped building were demolished in the late 16th–early 17th century, possibly c. 1574–92. The outer wall of the southern cloister remained as a boundary wall and a substantial

external oven was constructed. At some point before 1798 another large building was constructed, which at least in its later stages was probably part of some Green Houses associated with the University Botanic Gardens of c. 1762–1860s. The site was cleared in 1908–10, when the Old Examination Hall was constructed and some recording of earlier walls and burials took place.

INTRODUCTION

Archaeological investigations were undertaken in advance of the North Range Buildings development of the New Museums site in Cambridge, formerly occupied by the Old Examination Hall, by the Cambridge Archaeological Unit (CAU). The work was undertaken on behalf of the University of Cambridge and its Estate Management division. Following on from an initial monitoring visit on 22nd June 2016, when test holes within the standing building were examined (Cessford & Dickens 2016), and subsequent monitoring visits in August and September 2016 the main investigations took place between 7th November 2016 and 16th February 2017, with subsequent watching briefs (Figure 1; Appendix 1). During the excavations tours were undertaken for selected groups on 16th December (Department of Archaeology of the University of Cambridge, Cambridge Antiquarian Society and the Fen Edge Archaeology Group) and a public open day attended by approximately 600–700 individuals on the 17th of December (Figure 2). The work was undertaken as a condition of an application for planning permission, related to the construction of a Student Resources Centre. The main excavation area, located under the former Old Examination Hall, was an irregular rectangle *c*. 37m north-northwest–south-southeast by *c*. 12m west-southwest–east-northeast (although in places it was up to *c*. 15.5m) covering *c*. 556 square metres. The bulk of the area to the west of this had been so heavily truncated that no archaeology survived, however an area to the southwest where archaeological remains survived, but were heavily compromised, was also investigated. This covered *c*. 11m west-southwest–east-northeast by *c*. 3.3m northwest–south-southeast covering *c*. 33 square metres (Figures 3–6). The total area investigated was therefore *c.* 589 square metres. An additional area to the west of these excavations and covering *c.* 1438 square metres was the subject of some archaeological recording in the early 20th century. To set this in context the overall street block covers *c.* 23,590 square meters (*c*. 2.36 hectares), with the area north of the King's Ditch covering *c.* 18,900 square metres (*c*. 18.9 hectares). This means that these excavations comprised *c.* 2.4% of the overall street block and that all the archaeological recording and investigations that have ever taken place comprise *c.* 8.6% of the overall street block. The excavation was carried out and this report produced in accordance with an archaeological specification written by the CAU (Dickens 2016). The specification, subsequent amendments and evaluation were approved and monitored by Andy Thomas of the Historic Environment Team of Cambridgeshire County Council.

Location, Topography and Geology

The site (centred at TL 44942 58301; latitude 52.203880, longitude 0.11958763; postcode CB2 3QB) is located on the southern edge of the historic core of High/Late Medieval Cambridge, within the circuit of the medieval town boundary known as the King's Ditch. The Holocene and earlier geological sequence of the river Cam has

been investigated in detail by Boreham (Boreham 2002; Boreham 2013; Boreham & Rolfe 2009). Geologically the site is situated upon second terrace river gravels, which are underlain by Gault clay (British Geological Survey 1976).

The internal floors of the standing building prior to development lay at *c*. 10.4m AOD. Once 20th century deposits were removed the main phase of excavation commenced at a height of *c*. 8.3–8.4m AOD. The natural sequence consisted of Gault Clay (deposited 113.0±1.0 to 100.5±0.9 million years ago), which was observed at *c*. 5.8–6.1m AOD, river terrace gravels (deposited 50,000 to 15,000 years ago), whose upper surface lay at *c*. 7.6–7.7m AOD, and an overlying subsoil (Figure 8). The upper surface of the subsoil surface lay at *c*. 7.8–7.9m AOD. Although the subsoil contained relatively little material, small quantities of 10th–12th and 13th–14th-century pottery were present within it. Groundwater was encountered at *c*. 5.65–5.9m AOD.

Archaeological and Historical Background

The archaeological and historical background of the development area has previously been considered in detail in a desktop assessment (Appleby & Dickens 2013). As a consequence only information immediately pertinent to the excavation will be presented here. The site lies within a street block bounded by Bene't Street and Wheeler Street to the north (medieval *Vicus St. Benedicti*), Corn Exchange Street to the east (medieval *le Feireyerdlane*), Pembroke Street to the south (medieval *Langritheslane* or *Deudeneris lane*) and Free School Lane to the west (medieval *Lorteburnestrata*).

Previous archaeological work includes various 19th-century discoveries, generally along the Bene't Street frontage, with the earliest significant investigations being the recording of structural and human remains that largely relate to the Augustinian friary during construction works in 1908–10 (Duckworth & Pocock 1910; Cranage & Stokes 1921). Part of what appears to have been the King's Ditch was identified at the Department of Metallurgy on Pembroke Street (Taylor 1988) and a small scale excavation at the Old Cavendish Laboratory in 1991 revealed remains related to the Augustinian friary as well as occupation pre- and post-dating it (Hunter 1991). Small-scale works related to earlier phases of the New Museums re-development have also been undertaken (Newman 2016a; Newman 2016b). In the immediate vicinity large-scale excavations have been undertaken to the east of the site at Grand Arcade (Cessford 2007), whilst to the west smaller-scale but still significant investigations have been undertaken at Corpus Christi College (Cessford 2005).

Previous archaeological investigations in the vicinity have not revealed any significant Prehistoric, Roman, Early Saxon or Middle Saxon activity in the area, although a range of residual items and isolated features have been identified. In terms of the Post-Roman town it appears that it originated in the Middle Saxon period on Castle Hill. Occupation spread to the opposite side of the river in the mid-10th century, reaching the area of the New Museums site by *c*. 1050–1100. By this time Cambridge was a well-established and economically thriving town. In the late

12th–late 13th century the town was enclosed by the King's Ditch, possibly created as part of events during the Anarchy in 1143–44. The street block within which the site was located was acquired as the site of an Augustinian friary between *c*. 1275/89 and the 1330s. The Augustinian friary occupied the site until the Dissolution of the Monasteries in 1538. As this period constitutes the most significant archaeological phase the relevant documentary, archaeological and other evidence will be incorporated in the relevant section. Following the Dissolution the area reverted to domestic usage and was later occupied by the University Botanic Gardens from the 1760s. The area was redeveloped by the University in the early 20th century.

Methodology

In June 2016 three holes were dug through the floors of the Old Exams Hall to determine the likely maximum height of surviving archaeological deposits (Figure 7.1–2) (Cessford & Dickens 2016). Following this the Old Exams Hall was demolished during September and November 2016, the latter stages of this process included an on-site watching brief to ensure that only 20th-century structural remains and construction related deposits were removed. The site was then hand cleaned by the CAU. At this point it became clear that the previously proposed strategy, of excavating a single north-south aligned 3.0m trench plus monitoring of other piling, was impractical. This was principally due to the presence of a significant number of articulated skeletons in two areas of the site, which it was impractical to preserve *in situ*. In consultation with Andy Thomas of the Historic Environment Team, Cambridgeshire County Council, and other relevant parties it was agreed that the entire area would be excavated.

All features and layers were manually base planned at a scale of 1:20 and all features and layers metal detected. All features were at least 50 per cent excavated, apart from wall foundations which were investigated in sufficient detail to understand them. All graves and other features identified as containing human remains were 100 per cent excavated, as were any features containing significant artefactual assemblages. Additionally, 1.0m by 1.0m test pits were excavated through any homogeneous layers. Features and layers were recorded using the CAU modified Museum of London Archaeology Service system (Spence 1994). Context numbers are indicated within the text in square brackets (e.g. **[300]**); all features have been assigned feature numbers denoted by the prefix F (e.g. **F.100**). Feature numbers are generally used in discussion in preference to context numbers and all contexts have been assigned to features. Details of all features and contexts are provided in appendices at the end of the report (Appendices 2–3). Artefacts are referred to by catalogue number (e.g. **<100>**). Photographic recording was primarily digital. No features containing dense concentrations of charred plant remains were identified in the field, as a result a number of bulk environmental samples were taken to provide broad spatial coverage and from a range of feature types. One possible waterlogged feature was identified and sampled.

All work was carried out in strict accordance with statutory Health and Safety legislation, the recommendations of FAME (Allen & Holt 2010) and in accordance with a site specific risk assessment and the general CAU health and safety policy. The CAU site code is NRB16 and the event number is ECB4506 (planning ref. 15/0777/FUL). The human remains from the site were removed under a Ministry of Justice license (16-0278).

Archive

1112 contexts from 281 features were recorded during the archaeological excavations. Artefacts including pottery, coins and jettons, metalwork (copper alloy, iron, lead), worked stone, worked bone and ivory, vessel and window glass, ceramic building material, wood, moulded stone, animal and human bone and shell were recovered and bulk samples taken and processed. Additional soil samples were taken from the burials. The documentary records and accompanying artefacts have been assembled into a catalogued archive and are currently stored at the CAU offices, pending final deposition with the County Archaeology Office.

RESULTS

The results will be presented on a phase-by-phase basis. Three broad phases have been defined, which have been further subdivided into nine subphases.

Phase 1: Pre-friary activity *c.* 1050–1275/1337
- Subphase 1.1: domestic occupation *c.* 1050–1200
- Subphase 1.2: domestic occupation *c.* 1200–1275/1337

Phase 2: The Augustinian friary *c.* 1275/1337–1538
- Subphase 2.1: friary cemetery and associated features *c.* 1275/89–1320/40
- Subphase 2.2: friary cloisters *c.* 1320/40–1538

Phase 3: Post-friary activity *c.* 1538–2016
- Subphase 3.1: Dissolution related demolition *c.* 1538–45
- Subphase 3.2: post-Dissolution occupation *c.* 1545–1580/1620
- Subphase 3.3: a garden area *c.* 1580/1620–1760/63
- Subphase 3.4: Botanic Gardens and later *c.* 1760/63–1908/10
- Subphase 3.5: the Old Examination Hall *c.* 1908/10–2016

The extremely distinctive nature of the friary activity, with burials and massive structural remains, combined with a well defined stratigraphic sequence means that the three main phases were relatively easy to identify with few ambiguous features. When natural and 21st-century features are excluded there are 276 features spanning the three principal phases (Table 1). Nearly half the features pre-date the friary (136, 49.3%), somewhat under a third related to the Augustinian friary (81, 29.3%) and just over a fifth post-dating the friary (59, 21.4%). Nearly half the features are pits (131,

47.5%) and other common feature types comprise graves (42, 15.2%), walls (35, 12.7%) and postholes (31, 11.2%). In total these comprise 86.6% of the total features, with no other feature type represented by more than five examples.

Feature type	Pre-friary	Friary	Post-friary	Total	Total %
Arches	–	–	1	1	0.4
Benches	–	2	–	2	0.7
Buttresses	–	2	–	2	0.7
Cellars	–	–	5	5	1.8
Construction deposits	–	1	–	1	0.4
Culverts	–	–	2	2	0.7
Demolition deposits	–	–	1	1	0.4
Drain/footings	–	–	2	2	0.7
Floors	–	2	–	2	0.7
Graves	–	42	–	42	15.2
Gullies	3	–	–	3	1.1
Hedge lines	1	–	–	1	0.4
Ovens	1	–	1	2	0.7
Piers	–	4	–	4	1.4
Pits	86	2	12	100	36.2
Pits (charnel)	–	1	–	1	0.4
Pits (quarry)	29	–	–	29	10.5
Pits (specialised)	1	–	–	1	0.4
Postholes	10	–	21	31	11.2
Slumping	–	1	–	1	0.4
Soil layers	2	1	–	3	1.1
Walls	–	22	13	35	12.7
Wells	3	1	1	5	1.8
Total	**136**	**81**	**59**	**276**	
Total %	**49.3**	**29.3**	**21.4**		

Table 1: Numbers of features by phase, excluding natural and 20th-century features.

Phase 1: Pre-friary activity *c.* 1050–1275/1337

No Prehistoric, Romano-British, Early Saxon or Middle Saxon features were identified. The only material relating to these periods that was identified was a small quantity of Romano-British pottery in residual features. Features that pre-date the friary (Figures 9–11) can be sub-divided into those that contain 13th-century or later material, or are stratigraphically later than such features, and those that contain only 10th–12th-century material. Relatively few features can be definitely assigned to the 10th–12th centuries, a significant proportion of the features contain no datable material and can only be dated as generically pre-friary. The likelihood is that the

majority of these are 11th–12th century. The features have therefore been divided into two subphases:

Subphase 1.1: domestic occupation *c*. 1050–1200
Subphase 1.2: domestic occupation *c*. 1200–1275/1337

A range of pre-friary features were present, these were overwhelmingly dominated by pits (116; 85.3%) with smaller numbers of postholes (10), wells (3), gullies (3), hedge lines (1), ovens (1) and soil layers (2) (Table 2; Figure 10, see also Figure 20). These features are all broadly comparable in form and size to similar contemporary features investigated and described at the Grand Arcade site (Cessford 2007).

Relatively few features can be assigned to the 11th–12th century and even if the majority of those that cannot be assigned a specific date fall within this period 13th–14th-century features would remain more common (Table 2). It is possible that some of the Subphase 1.2 features relate to Subphase 2.1, although this appears improbable in all but a few instances.

Feature type	Subphase 1.1	Subphase 1.2	Unassigned	Total
Gullies	–	2	1	3
Hedge lines	–	–	1	1
Ovens	–	1	–	1
Pits	6	43	37	86
Pits (quarry)	4	23	2	29
Pits (specialised)	1	–	–	1
Postholes	–	4	6	10
Soil layers	–	–	2	2
Wells	1	2	–	3
Total	**12**	**75**	**49**	**136**
Total %	**8.8**	**55.1**	**36.0**	**49.3**

Table 2: Pre-friary feature types.

Some of the pits can reasonably be interpreted as quarry pits for gravel and sand, these are generally larger and deeper than the other pits and although some have been used for limited refuse disposal the density of material indicates that this was only a secondary *ad hoc* function. Most of the pits were, however, definitely not quarries, they have no obvious function but appear to be short-lived. No cesspits with their distinctive greenish staining were identified. Few of the pits showed any sign of being long-lived structures; the sole convincing exception being **F.376**, which appears have originally possessed some form of wooden lining. A number of postholes were identified, due potentially in part to later truncation no patterning or structures can be identified. Although no wooden linings survived the depth and

form of three features means that they can be identified as wattle-lined wells with reasonable confidence (**F.120**, **F.281** & **F.349**; Figure 10.2). Three gullies and a hedge line probably relate to internal divisions within properties.

In terms of material culture pre-friary deposits produced relatively small assemblages of material; the only significant assemblage is the pottery, which includes sherds of Crowland ware (Figure 11.5) and a complete Stamford ware lamp (Figure 11.1). Additionally there are some individually noteworthy items, particularly some decorated copper alloy tweezers (Figure 11.2). There was also a reasonably sized assemblage of animal bones and two samples from the fills of a 13th–mid-14th-century oven (**F.345**) and pit (**F.205**) produced moderate quantities of charred plant remains.

A Subphase 2.2 pier (**F.212**) contained eight small, fragmentary moulded stone fragments of early 13th-century date. These would appear to pre-date the establishment of the Cambridge Augustinian Friary and while the origin of this material is questionable it may well relate to a building in the same street block.

Documentary Evidence for Pre-Friary Plots, Craig Cessford & Rosemary Horrox

This section represents a provisional and tentative initial appraisal of the documentary evidence for the street block prior to the establishment of the Augustinian friary. Unlike other areas of Cambridge the layout of properties in the street block cannot be established with any great certainty or confidence. The documentary evidence, derived principally from the *Victoria County History* (Ellis & Salzman 1948, 287–88) and unpublished archival research by Rosemary Horrox (principally on documents held by St. John's College and deriving from the Hospital of St. John, supplemented by more general sources such as the Hundred Rolls), demonstrates that the street block that the Augustinian friary ultimately acquired all of had previously been occupied by a large number of 'domestic' properties. Although some of the documents are undated, there is no reason to assume that any are earlier than the 13th century. They therefore post-date the commencement of occupation at the site, as demonstrated by the archaeology, by over a century and represent a picture of 'mature' occupation.

The friary must have been occupying at least one plot in 1289, it expanded its landholding relatively rapidly and owned almost the entire street block by the 1330s. There is relatively little detail in the documents about the layout of the pre-friary plots; however it is likely that they were predominantly long rectangular *messuage* plots. There were properties fronting onto Bene't Street/Wheeler Street, on the northern side of the street block, and Free School Lane, on the western side of the street block. It is worth noting that properties on the north side of Bene't Street/Wheeler Street, east of the church, are very rarely given a southern boundary in deeds earlier than the late 14th century or are described as 'facing' the friary or the churchyard. In one case the southern boundary is explicitly described as the lane

leading to the corn market. This street only becomes a *via regia* later, the implication of this is that initially this was a relatively minor road.

There is no evidence that there were plots fronting onto the eastern or southern sides of the street block, although the absence of evidence is not necessarily conclusive. The relative paucity of documentation means that it is unlikely that the overall layout of the pre-friary properties can ever be accurately reconstructed. The properties that have been investigated archaeologically are definitely not any of those that are relatively well documented and cannot be linked to any of the documentary evidence.

In total 17 plots have been provisionally identified, however it is possible that in the case of the less well documented plots that two or more 'plots' are in fact the same property. Additionally a large part of the area is not covered by the identified documentary records. Of the 17 plots three probably or definitely front onto Bene't Street/Wheeler Street, nine probably or definitely front onto Free School Lane and the remaining three either cannot be located or do not appear to have a frontage on either of these streets.

The documents shed most light on Free School Lane, which was densely occupied by rectangular plots that ran back from the frontage for a distance of *c*. 31.1–36.5m. The Bene't Street/Wheeler Street frontage is less well represented in the documents. It was *c*. 116m long with documented plot widths of *c.* 7.3–19.5m. Evidence from elsewhere in Cambridge suggests that medieval plots were *c*. 7.0–8.5m wide, with the 19.5m wide plot probably representing two or more combined plots. This suggests that there were probably initially 10–12 plots fronting onto Bene't Street/Wheeler Street. Once allowance is made for plots that did not have a frontage on one of the main streets this suggests that there may have been 20–25 plots in the street block.

Although the friars appear to have already owned a plot by 1289 their earliest documented property (Plot 1) was acquired in 1290, nothing is definitely known about the location or size of this plot. The plot probably fronted onto Bene't Street/Wheeler Street, although even this is uncertain.

Plot 1: probably a messuage fronting onto Bene't Street/Wheeler Street

- June 1290 Sir Geoffrey de Picheford, who was Constable of Windsor and active in the service of Edward I, but is not known to have had any connection with Cambridge, obtained licence to alienate to the Austin Friars a messuage in Cambridge, subject to a rent of 7s. to the Crown (Rolls of Parlt. i, 62; Cal. Pat. 1281–92, 368; Inq. ad q.d. xii, 15). Sir Geoffrey apparently founded the house in memory of his son Arnulf and intended to enlarge the site, but died in 1299 before he had done so.

The next securely dated documentary evidence dates to 1292 and is a licence to enclose that presumably relates to a property that the friary already owned (Plot 2). At least part of this must have been located in the southern half of the street block, but cannot be otherwise located, and it is conceivably the same as Plot 1.

Plot 2: ground in the southern part of the street block, not necessarily a messuage or possessing a street frontage

- 7 April 1292 the prior and convent had licence to enclose a strip of ground 200ft. (*c*. 61.0m) long by 30ft. (*c*. 9.1m) wide, extending from their wall to the King's Ditch, provided that they made a gate at each end with a way between for the defence of the town (Cal. Pat. 1281–92, 482). The licence to enclose does not equate to a newly acquired plot, but to an existing plot. The requirement to maintain access to the 'perambulation' around the King's Ditch is standard for ditch-side properties.

In 1305 the friary acquired two more plots (Plots 3 and 4) One of these (Plot 3) can be identified as a messuage on the eastern side of Free School Lane at its southern end, which belonged to the Hospital of St. John and for which a substantial body of documentary evidence survives. The plot measured 120ft. (*c*. 36.5m) from front to back, 64ft. (*c*. 19.5m) on the street frontage and 35ft. (*c*. 10.7m) at the back. Nothing specific is known of Plot 4.

Plot 3 (aka Botolph 34): messuage fronting onto Free School Lane

- Undated: Richard Gudred to the hospital of St. John, his land parish of St. Botolph in *Lorteburstrate* between the land of William Billing and the King's Ditch (SJC, D 17.75). This must date to the creation of the hospital in *c*. 1195 or later.
- Undated: two releases of the above property to St. John's Hospital. Thomas de Radwintre, all rights in a messuage once of Richard Gudred in *Lortebirnstrate* for ½m paid for the grant and quitclaim (SJC, D 17.76). Hervey Gogging, all his land in St. Botolph's parish, which Richard Gudred held of him (SJC, D 17. 92). The name Hervey Gogging occurs in various Cambridge documents dating to between *c*. 1190–1220 and *c*. 1260–80, suggesting there was more than one individual of this name. A Thomas de Radwinter is mentioned in two Cambridge documents of *c.* 1250–70 and 1270–80.
- Undated: John, son and heir of Ralph Kayli, son of Stephen de Trumpington, to dn Richard, master of the hospital of St. John and the brethren there, all rights in the messuage which Ralph held in fee of the said hospital, for ½m. (SJC, D 17.77). A John de Kayly de Trumpington is mentioned in a Cambridge document of *c*. 1230–50.
- 29 September 1247: Peter Macton and Letia his wife, widow of Ralph Kayli, quitclaim to St. John's Hospital for ½m of all rights by way of Letia's dower from Kayli in the messuage in *Lurteburn* between the messuage of Walter de Waleden and the King's Ditch (SJC, D 17.78).
- Undated: Ralph, master of the hospital of St. John, and the brethren, to Safer le Wanter @ 4s p.a.; 20s gersum. All their land in *Lorteburnestrate* (St. Botolph's parish), for free disposal except to Jews or to another religious house: Abuttals: land once of Walter de Waledene/land of Margaret Bagge, *Via regia*/land once of Robert Saman (SJC, D 17.82). Endorsed: the writing of Saphar Gaunter in *Lurteburstrate*, afterwards held by Geoffrey Sittadoun. Now held by the Augustinians of the gift of John de Cambridge for 4s rent. Ralph is known to have been master of the hospital in 1257 and 1261.
- 1279: Sepehar le Gaunt a messuage in fee in *Lorteburulan*, which he bought from St. John's Hospital, to whom 4s (Rot. Hund 374).
- *c*. 1300–05 St. John's hospital rental: Geoffrey Sitadoun, a tenement late of Sefar le gaunter in *lurtleburlane*, 4s (SJC, C 7.1 fo.8v).
- 28 March 1305: License for alienation in mortmain by Geoffrey Syteadun of Waleden of a messuage to the Augustinians to enlarge their site (CPR 1301–07, 324).The messuage appears in later St. John's hospital rentals with the other Augustinian acquisitions in the parish of St. Bene't.

- 5 June 1337: Agreement between Alexander, master of the hospital of St. John, and Richard, prior of the Augustinians, concerning the rent to be paid for three properties held of St. John's Hospital and acquired by the canons, including a messuage acquired from Sitadoun which measured 120ft. (*c.* 36.5m) from front to back, 64ft. (*c*. 19.5m) on the street frontage and 35ft. (*c*. 10.7m) at the back (SJC, D 17.106–07).

Plot 4
One of two messuages adjoining their site were granted to the friars in (Cal. Pat. 1301–07, 324). It is possible that this plot is one of the other documented plots but this cannot be ascertained. This was a licence for alienation in mortmain by Geoffrey Syteadum of Walden and John de 'Over Market' of Cambridge. Both are names that can be found elsewhere.

In 1335 the friary acquired two more plots (Plots 5 and 6). One of these (Plot 5) fronted on to Bene't Street/Wheeler Street and belonged to St. John's Hospital. Nothing is known of Plot 6.

Plot 5: messuage fronting onto Bene't Street/Wheeler Street.
- *c.* 1300–05 St. John's Hospital rental William Purrok/Thurrok, 1d (SJH, D 2.2.1). The name William Thurrock appears in various Cambridge documents of 1299–1314.
- *c*. 1305–50 the same, a messuage next to the tenement of Robert [? .eyme] and the tenement once of Cecily de Overe (SJC, D 2.2.8).
- 26 June 1335: the king to the Austin friars, two messuages including one which he has of the gift of Robert de Cumberton (CPR 1334–38, 150)
- 5 June 1337: Agreement between Alexander, master of St. John's Hospital and Richard, prior of the Augustinians, concerning the rent to be paid for three properties acquired by the Augustinians and owing rent to the hospital. One was a messuage and a piece of land granted to the canons by the king which John Comberton had held of the hospital @ 1d, with a street frontage of 24' (*c*. 7.3m) (SJC, D 17.106–7). Abuttals: East the canons' church, West a messuage of Alice, widow of John de Cumberton (Comberton), North regia via, South the tenement of Simon and Mariota de Cesterton.

Plot 6
In 1335 Thurstan, bedell of the University, gave to the king a messuages for the use of the friars, to whom he promptly granted them (Cal. Close, 1333–37, 511, Cal. Pat. 1334–38, 150). This is part of the same royal grant as Plot 4.

In 1337 the Friars acquired four messuages covering 1½ acres. These appear to have included Plots 3 and 5 (see above) and two new plots (Plots 7–8). These two plots were adjacent to each other and fronted onto Free School Lane.

Plot 7: messuage on the east side of Free School Lane, immediately north of Plot 8.
- 1279: Adam le Barbour, a messuage which Henry vicar of St. Botolph's gave to him on his marriage to Henry's sister Aveline, Henry bought it of Simon de Cottenham, who bought it of the said Adam, who inherited from Geoffrey le Barbour his father, who inherited from Richard de Colchester his father; 2s to Sarre de Barnwell, 20d to the hospital of St. John, 2d to Nichola widow of Roger de Wikes for a certain wall pertaining to the messuage (Rot. Hund. 374)
- St. John's rentals:

- *c.* 1300–05 Simon attepond, a tenement late of Adam le Barbour in Lurtteburlane, 20d and 2 capons (SJH, C 7.1 fo.8v). One Simon Attepond a tanner is mentioned in a Cambridge document of 1332.
- *c.* 1305–50 William de Brunne, a hostel in Lortebornelane next to the tenement of the Augustinians and the tenement of Matilda daughter of Kyn le bleckester, 20d (SJC, D 2.2.8).
- 5 June 1337: Agreement between Alexander, master of St. John's Hospital, and Richard, prior of the Augustinians, concerning the rent to be paid for three properties acquired by the Augustinians and owing rent to the hospital. One is the messuage which the canons are to acquire from John de Brunne, clerk, and which Simon Bate of Bassingbourne once held of the hospital for 20d and 2 capons; it measured 102' (*c.* 31.1m) from front to back, 30' (*c.* 9.1m) on the street frontage and 40' (*c.* 12.2m) at the back (SJC, D 17.106–07). Abuttals: East the garden of canons, South the tenement of John and Margaret de Paunton, North tenement of the canons.
- 28 August 1337: Licence for the alienation in mortmain by John de Brunne to the Augustinians of a messuage containing 60' (*c.* 18.3m) by 20' (*c.* 6.1m) (CPR 1334–38, 501–02). In later St. John's Hospital rentals the property is absorbed into the Augustinians' site.

Plot 8: messuage on the east side of Free School Lane, immediately south of Plot 7.

- 1279: William le Bleckestre, a messuage in Lortteburalane, bought of Thomas de Winepol, Leticia his wife and Margaret her sister, which Leticia and Margaret inherited from John le Paumer; 9d to Lerticia and Margaret, ½d hagable (Rot. Hund., 378). An earlier entry for the same property describes William as the son of Benedict of Harleton and the property as part of a messuage (Rot. Hund., 377).
- 3 April 1338: Licence for the alienation in mortmain by John de Paunton and Margaret his wife to the Augustinians of a messuage measuring 60' (*c.* 18.3m) by 40' (*c.* 12.2m) and rendering ½d hagable, in part satisfaction of the canons' licence to acquire 1½ acres to enlarge their dwelling place (CPR 1338–40, 43). A document of 1339 in St. Benet's Parish mentions Margaret the daughter of Robert de Fereby and widow of John Attehil of Paunton.

In 1376 the friars were pardoned, on condition of praying for the souls of Edward III and Queen Philippa, for having acquired without licence a messuage and toft in Free School Lane, i.e. Lurteburghlane (Cal. Pat. 1374–77, 393). The messuage (Plot 9) was sometime of Robert Lynn and the toft was once of William Cooper. It explicitly adjoined the friars' house and can probably be identified with one known from several documents:

Plot 9: messuage somewhere on the east side of Free School Lane.

- Undated: Joan, widow of Bartholomew Gogging, to Master Thomas de Bermingham, clerk, a messuage and rents, including 15d from William de Dunton for the messuage once of Andrew Treweman (Corpus, C.B. fo.21). Abuttals: messuage of M.Laurence de Leke and messuage of Thomas le Coupere. The name Bartholomew Gogging occurs in various late 13th-century documents, including examples dating to between 1273 and 1296. A Bartholomew Gogging was mayor of Cambridge three times, the last in 1272, in 1279 he held five houses, a booth and 22 acres and in 1290 he was accuse of murder (Gray 1922, 7).
- 1326–26 de Cambridge rental: messuage once of Andrew Trewman in Lorteburghlane.
- 1376–77 de Cambridge rental: brothers of St. Augustine, a place in Lurteburghlane, 15d rent of assize.

There is a plot (Plot 10) north of Plot 3, it is unclear when this plot was acquired by the friary and this may be the same as one of the other poorly understood plots.

Plot 10: messuage on the east side of Free School Lane, immediately north of the parish boundary with St. Botolph. Its identification relies on the identification of its southern boundary with the northern boundary of Plot 3.

- Undated: John, son of Roger Crocheman to William son of Roger, a messuage between the land of Richard Gudred and the land of the said William, rendering 15d p.a (SJC D17.103). The name John Crocheman occurs in several Cambridge documents of *c.* 1210–50.
- Undated: William, son of Roger, to Radulf the clerk, my son, all that land between the land of Richard de Colecestre and the land of the said Radulf, rendering 15d and 1d oblation at Christmas; gersum - a gold ring worth 2s (SJC D17.104). Simon, the parson of St. Bene't's headed the witnesses.

There are also five plots just known from abuttals, these are denoted by letters rather than numbers to differentiate them. Of these four front onto Free School Lane (Plots A, B, F & G) and two possibly fronting onto Bene't Street/Wheeler Street (Plots C &D).

Plot A: messuage fronting onto Free School Lane, located north of Plot 3 and known from abuttals.

- Undated: land of William Billing.
- 1247: messuage of Walter de Waleden.
- *c.* 1300–05: tenement of Thomas once Cupere of Trumpington.
- 1337: tenement of William le Couper.

Plot B: property fronting onto Free School Lane, located south of Plot 3 and known from abuttals.

- Early references: King's Ditch.
- Undated [grant to Gaunter]: land of Margaret Bagge.
- 1337: garden of the Augustinians.

Plot C: messuage east of Plot 3, possibly fronting onto fronting onto Bene't Street/Wheeler Street, known from abuttals.

- Undated: land once of Robert Saman
- 1337 garden of the Augustinians

Plot D: messuage west of Plot 5, fronting onto Bene't Street/Wheeler Street.

- 5 June 1337: a messuage of Alice, widow of John de Cumberton (Comberton),

Plot E: tenement south of Plot 5, either fronting onto Free School Lane or lacking a street frontage.

- 5 June 1337: the tenement of Simon and Mariota de Cesterton.

Plot F: messuage somewhere on the east side of Free School Lane.

- Undated: pre-1326 messuage of M.Laurence de Leke abutting Plot 9.

Plot G: messuage somewhere on the east side of Free School Lane.

- Undated: pre-1326 messuage of Thomas le Coupere abutting Plot 9.

Phase 2: the Augustinian friary *c.* 1275/89–1538

The Order of St. Augustine (also known as the Augustinians and the Austin Friars) originated in Italy from various small eremitical communities in the early 13th century. These were part of the mendicant movement, which sought to bring the religious ideals of the monastic life into an urban setting allowing the religious to serve the needs of the People of God in an apostolic capacity. These communities amalgamated in 1243–44 and in 1255–56 the Order of Hermits of Saint Augustine was formally created under papal authority. The Augustinians came to England in 1248, establishing a priory at Clare in Suffolk. This was soon followed by friaries in London (1253) and then in Oxford (1266) and Cambridge (1289), the latter two representing the order's desire to further the study of theology and to maintain high standards of scholarship.

Although the Augustinian friary was the latest friary of the major orders to be founded in Cambridge its location was in many ways the best of all the Cambridge friaries. Friars needed market places to fulfil their preaching function and the Augustinian friary was ideally located for this. In order to avoid competition between friaries in the same quarter of a town, Pope Clement IV's bull *Quia plerumque* of 1268, fixed a minimal distance of about 570 meters between two mendicant churches (le Goff 1970, 932). Despite being founded after this date the Augustinian friary in Cambridge broke this rule.

By 1300, there were 22 Augustinian friaries in Britain and by the end of the 14th century there were 34 in England. Around 1350 there were more than 700 friars, although by the Dissolution there were only 317. A royal pittance (a gift or bequest to a religious community or a small charitable gift) of 20s for three days provided in 1289 indicates that there were 20 Augustinian friars at Cambridge. By 1297 the pittance suggests that there were 36, whilst in 1328 their number had apparently risen to 70. In 1302 the friary was granted the right of burial for patrons etc.

Chapters of the national province were held at the Cambridge friary in 1316, 1322 and 1323, indicating that it was one of the leading friaries in the country. In 1318 the Pope declared the Cambridge friary an Augustinian *studium generale* or international study house, with full papal privileges in the granting of ecclesiastical degrees in theology. To have attained the necessary high academic standards for this papal recognition, the *studium* at Cambridge must already have been operating for a number of years before that date. By 1319 it appears that a church had been built (Ellis & Salzman 1948, 287). In 1348 seven friars were licensed as 'limitors' and twelve (which includes the seven limitors) were licensed as 'penitentiaries'. Unfortunately after this there are no indications of the number of friars until 1538, when there were only four reflecting the fact that the Cambridge friary had effectively begun to dissolve itself.

The archaeological deposits associated with the friary can be divided into two subphases:

Subphase 2.1: friary cemetery and associated features *c*. 1275/89–1320/40
Subphase 2.2: friary cloisters *c.* 1320/40–1538

The first Subphase (2.1) spanning the late 13th–mid 14th century was concentrated at the northern end of the site, comprising a cemetery with 32 excavated burials and a building. It is also possible that some pits to the south of this and assigned to the Subphase 1.2 may in fact be contemporary with Subphase 2.1. The second subphase (2.2) represents a major phase of building linked to the eastern range of the cloisters. The best preserved building can be identified as the chapter house and contained six burials, plus evidence for a seventh translated burial or '*mos teutonicus*'. Additional elements of this subphase were recorded in 1908–10, which can be identified as the southern and western ranges of the cloister.

Subphase 2.1 *(c*. 1275/89–1320/40)
The first subphase of friary activity (Figures 12–15) comprises parts of a major building (Building 1) and a cemetery at the northern end of the site, plus inferential evidence for some form of land division and a pathway.

Building 1 comprises substantial wall footings (**F.251–52** & **F.341**: Figures 12–13). These footings appear to be projecting features, such as buttresses, from a substantial building located largely to the north of the investigated area. Whilst it is impossible to say anything substantive about this structure, it is almost certain that the friary church was located to the north of the investigated area on a west–east alignment. It is probable that Building 1 is a very small portion of this structure. Friary churches typically started as simple two-cell structures, expanding to have a large broad aisled nave to allow large groups to listen to preaching, without private chapels or large transepts. These were effectively vast rectangular halls, with known British examples 27–42m long by 13.2–17.3m wide.

Only part of the cemetery, with 32 burials investigated (Table 3), was revealed in the investigated area, and its northern and western boundaries are unknown (Figures 12, 14–15). When allowance is made for the truncated portions of graves the cemetery must have covered a minimum of *c*. 11.8m by 7.0m. If, however, the contemporary friary church was located only a short distance to the north then it cannot have extended very much further in this direction. The 1908–10 investigations suggest that it did not extend much further to the west, the only potential evidence of it from that period comprising a row of three skeletons. The cemetery did not extend further east than later wall(s) **F.338–39** and **F.351**, which means that there cannot have been any rows of graves beyond those identified. The southern boundary of the cemetery is slightly problematic, as there is a *c*. 1.7m wide gap and then a *c*. 1.5m wide zone with further burials. The most likely explanation is that the further burials are part of the same cemetery and that the *c*. 1.7m wide gap represents a path (cf. Gilchrist & Sloane 2005, 36–37). There is no evidence that the southern boundary of the cemetery was demarcated by any feature such as a ditch or fence and it is probable that such a feature would have been identifiable if

originally present. At most the cemetery can have covered *c*. 15m by 10m and the maximum total number of burials is likely to have been *c*. 50. Whilst it is impossible to accurately estimate how long the cemetery was in use for, the number of burials and other factors suggest a period of several decades. A span of *c.* 30–50 years indicated by other evidence appears entirely acceptable. This suggests a burial rate of around one individual per annum, although interment would also have taken place elsewhere such as within the church.

Although there was a range of variation, with different religious orders having distinct traditions of burial, there were broad similarities in the treatment of those who died in religious houses. The body would be washed and clothed and the hands of the deceased were often placed over their chest, as if praying. The main events usually took place in the morning; there would be a service in the church, after which the body was transported on a bier to the cemetery. Typically the grave was dug whilst the community stood around it, after which the body would be lowered into the cut and the hole backfilled.

The burials were all west–east aligned extended supine inhumations in simple earth cut graves, with the head to the west. The legs were generally extended, although in one instance where an individual broke both legs soon before death they were slightly flexed (**F.332**; Figure 31.1). A variety of arm/hand positions were identified, whilst some post-depositional movement may have occurred the arm/hand positions nonetheless appears to be meaningful (Figures 14–15). In some cases the arms were placed along the side of the body, whilst in others they were crossed, with the hands over either the area of the pelvis, abdomen or chest. The location of arms and hands in burials is somewhat problematic as there may have been some post-depositional movement, in addition there are a 'multitude of variations' although some with an 'obvious artificiality' are almost certainly meaningful (Gilchrist & Sloane 2005, 15–16). There are possible links to chronology, gender and area of religious institution (Gilchrist & Sloane 2005, 152–53) and those that appear to mimic prayer are clearly symbolic (Atzbach 2016). The leg and arm/hand positions at the Augustinian friary appear to be more deliberately positioned than in other contemporary investigated Cambridge parish and hospital cemeteries, where the burials appear to have been shrouded. There was a range of head positions, facing upwards or to the left or right. It is less clear if this is meaningful, those skeletons with the facing upwards are presumably still in the original position but it is unclear if those facing to the left or right are in their original position or have moved after interment. There is no convincing evidence for the use of coffins and it appears likely that most of the burials were clothed, with evidence for buckles and leather girdles, rather than shrouded. Burials with their arms by their sides may have been shrouded, although there is no conclusive supporting evidence for this.

The cemetery was predominantly arranged in three north–south aligned rows, plus a possible fourth row in the area removed and at least partly recorded in 1908–10. Although there were some irregularities, the rows were by and large neatly

organized and it appears that burial commenced in the central row. The eastern and western rows were later, with no evidence about their relative sequence. Where intercutting occurs this is usually minor, not affecting the earlier skeleton, and consistent with burial starting at the southern end of each row and proceeding northwards. There was also evidence for a few burials that pre- and post-date this main phase of burial. It appears that all the soft tissues of the disturbed skeletons had decomposed prior to disturbance, a process that took in the region of *c*. 10–50 years (Rodwell 1981, 157) with a typical figure of 25 years although it can take considerably longer (Meuser 2010, 137).

The probable cemetery sequence (including putative burials entirely truncated by later features) can be defined as:

1) Burials that predate the main phase of burial: **F.309** & **F.344**.

2) Burials in the central row of the excavated area: **F.315**, **F.336**, **F.312/354**, **F.346**, **F.314**, **F.334**, **F.333**, **F.367**, **F.348** (slightly intercuts **F.367**), **F.343**, **F.311** & **F.347**.

3) Burials in the western row of the excavated area: **F.237**, **F.215**, **F.217**, **F.198**, **F.196**, **F.140**, ?entirely truncated grave, **F.199**, **F.195** (slightly intercuts **F.199**), **F.216**, ?entirely truncated grave, **F.265** & **F.232** (slightly intercuts **F.265**).

4) Burials in the eastern row of the excavated area: ?entirely truncated grave, ?entirely truncated grave, **F.106**, **F.331**, ?entirely truncated grave, ?entirely truncated grave, **F.355** & **F.352**.

5) Burials that postdate the main phase of burial: **F.302**, **F.332** & **F.328** (slightly intercuts **F.332**).

Where sex could be determined the inhumations from the Subphase 2.1 cemetery were all male (18 full confidence, 5 probable and 3 possible, plus 6 indeterminate individuals), although some 'possibly' female disarticulated material was present. They were predominantly adult (26) with the oldest individual aged *c*. 48 years old. There were some sub-adults (4), a juvenile (aged *c*. 7.5 years old) and an infant (aged *c*. 6 years old) (see Figure 31.4). Prior to the Black Death it was customary for the orders of friars to normally accept novices in their late teens, this means that the infant and juvenile are extremely unlikely to have been members of the Augustinian order. One individual (**F.332**; Figure 31.1) suffered fractures to both femurs, which may well have led to their death soon after.

Sixteen of the burials were accompanied by buckles; ten copper alloy, four iron and two of skeletal materials (elephant ivory and bone) (Figures 14–15 & 31.3). Once allowance is made for later truncation *etc*. there are six burials where it can be convincingly demonstrated that no buckle was present, two where there probably was not one and eight where it is impossible to know. The buckles indicate that the bodies were buried in a clothed state, with surviving evidence for associated leather girdles (13 instances) and some evidence for textiles (three instances). It is feasible that even the burials where buckles were not present were also clothed; a girdle could either have been tied in a knot or looped through a slot in one end, obviating the need for a buckle.

The two youngest individuals either did not have a buckle (**F.106**; *c.* 6 years old; see Figure 31.4) or it is unknown if they had a buckle (**F.346**; *c*. 7.5 years old), suggesting that they were potentially excluded on grounds of their age (either because they were too young or because they were not members of the friary). Other individuals who lacked a buckle were aged *c*. 14 to *c.* 48 years old when they died, so it is clear that individuals of a wide range of ages might lack buckles. The youngest individual with a buckle was aged *c.* 13–14 years old when they died (**F.347**). This was one of the unusual buckles made of skeletal material (animal bone) and both individuals buried with buckles made from skeletal material were relatively young, although such a small sample may not be meaningful. Individuals with iron buckles were of a wide range of ages (*c*. 17–18 to *c*. 47), whilst those with copper alloy buckles appear to have generally been older (one aged *c*. 24, the rest *c.* 33 to *c.* 47). Arm/hand position also appears to be significant; of the seven individuals from the cemetery and chapter house (see below) with their arms completely or partially by their sides or in a mixed position five definitely have no buckle and one probably does not. Although conclusive evidence is lacking these individuals may have been buried in a shroud instead of clothing.

The choir and outdoor dress of the medieval Augustinian friars was a tunic of black woollen material, with long, wide sleeves, a black leather girdle and a large shoulder cape, to which is attached a long, pointed hood reaching to the girdle (belt). Their indoor dress consisted of a black tunic and scapular (a large length of cloth suspended both front and back from the shoulders of the wearer, often reaching to the knees), over which the shoulder cape is worn. A black habit with a black leather girdle fastened by a metal buckle is characteristic of Late Medieval depictions of Augustinians and appears to be particularly associated with the order. It is notable that no traces of other dress fastenings, for items such as leggings or shoes, was recovered. This indicates that these items lacked metal items, in the case of footwear this may indicate that they were buried in night shoes.

Evidence for clothing in the form of dress accessories is usually relatively rare, typically only 2–3% of burials (Gilchrist & Sloane 2005, 80–87). They do, however, appear to be more common at least some excavated Augustinian Friaries, most notably Hull and Leicester where buckles with woollen clothes and in some cases leather straps or belts indicate that many individuals were buried in habits (Gilchrist & Sloane 2005, 81). At Hull, which is unfortunately unpublished, *c.* 33–39 buckles were present in 255 burials, although it is unclear how many of these individuals were friars. The buckles were usually located near the waist and interestingly many common buckle types are absent and a restricted range of forms are present with asymmetrical double looped buckles apparently favoured (Gilchrist & Sloane 2005, 84–85). At Leicester eight of the 26 burials had copper alloy (five) or iron (three) buckles, which accompanied male, female and immature individuals (Clay 1981, 133, 135, 137–39). Most of these buckles were lying on the pelvis and slightly to one side, indicating a belt worn low over the hips. The two female burials had an annular buckle and an iron double buckle, both of which showed evidence of narrower

straps (*c.* 14mm) than the other buckles would have had (20mm+). The buckles appear to be 14th–late 15th/early 16th century. Leather fragments indicated three different types of belts: wide belts with decorative slashing/stitching, belts with stud impressions and narrow belts (Allin 1981, 158–60).

The only other item that appears to possibly have been deliberately placed in a grave is an oyster shell (**F.216**), which is likely to have been deliberately pierced. Some unidentified ironwork may also represent deliberate placed item, although this is highly questionable. The absence of chalices and patens indicates that the individuals buried were not priests, indicating that these were buried in the church as was common practice. The bones in one of the graves (**F.352**) had been heavily disturbed (Figure 15.8–9); it is unclear what the reason for this, but it definitely predated the truncation of the grave by a later wall at the start of Subphase 2.2.

To the south of the cemetery there appears to have been an open area, where no activities that left archaeological traces took place. As previously mentioned it is possible that some features assigned to Subphase 1.2 belonged to Subphase 2.1, there are however no convincing examples of this and the number of such features is likely to have been negligible at most.

F.	Fill	Skeleton	Cut	Buckle	Arms	Comments
106	1014	1866	1867	None	By sides	
140	1000, 1001, 1002, 1138	1139	1140	None	Crossed, abdomen	
195	1346	1355	1347	Unk.	Unk.	
196	1351, 1352	1353	1354	Unk.	Unk.	
198	1313, 1363	1314, 1364	1315, 1365	None	Crossed, pelvis	
199	1366	1367	1368	Unk.	Unk.	
215/342	1424, 1912	1425	1426, 1913	Unk.	Unk.	
216/364	1427, 2002	1428	1429, 2003	1430, CuA	Crossed, abdomen	Buckle 14th, pierced oyster shell 1431
217	1432	1433	1434	Unk.	Unk.	
232	1489	1490	1491	None	Crossed, abdomen	
237	1204, 1515	1516	1205, 1517	Unk.	Unk.	
265	1601	1602	1603	1638, CuA	Crossed, abdomen	Buckle mid-14th–mid-15th
302	1734	1735	1736	1737, CuA	Crossed, chest and abdomen	Buckle 14th-early 15th
309	1765	1767	1768	Unk.	Crossed, abdomen?	Partly disturbed
311	1781	1782	1783	1788, iron	Crossed, abdomen	Buckle medieval
312/354	1784, 1971	1785, 1972	1786	None	By sides?	
314	1796	1797	1798	1803, Elephant ivory	Crossed, chest	Buckle *c.* 1350–1400, probably French
315	1799	1800	1801	Prob. none	By sides	
328	1823	1824	1825	Prob. none	Crossed, abdomen?	
331	1013, 1872	1873	1874	1882, CuA	Crossed, pelvis	Buckle 14th
332	1878	1880	1881	1879, CuA	Crossed, abdomen	Buckle 14th
333	1883	1884	1885	1899, iron	Crossed, pelvis	Buckle medieval
334	1886	1887	1889	1888, CuA	Crossed, abdomen	Buckle mid-14th–mid-15th
336	1893	1894	1895	1898, CuA	Crossed, abdomen	Buckle 14th
343	1916	1918	1919	1953, iron	Crossed, chest	Buckle medieval
344	1012, 1931	1932	1034	1933, CuA	Crossed, pelvis?	Buckle mid-14th–15th
346	1954	1935	1955	Unk.	Unk.	
347	1943	1945	1946	1944, bone	Crossed, abdomen	Buckle *c.* 1350–1400
348	1947	1948	1950	1949, iron	Crossed, abdomen	Buckle 14th–15th
352	1964	1965, 1966, 1967, 1968	1969	1970, CuA	Unk.	Heavily disturbed, buckle later 14th
355	1974	1975	1976	None	Mixed	
367	2009	2011	2012	2010, CuA	Crossed, pelvis	Buckle 14th

Table 3: Burials in the subphase 2.1 cemetery, for detail on the human remains see Table 35.

Subphase 2.2 *c.* 1320/40–1538

Subphase 2.2 represents the most significant structural phase (Figures 16–21). The precise dating of the start of Subphase 2.2 is uncertain, although the general evidence from it and the preceding subphase indicates that it dates to the mid-14th century. This subphase represents the main and long lasting phase of friary building and is likely to have been constructed after almost all the street block had been acquired in the mid-1330s, at which point the friary could create a large cohesive church and cloisters. Reused moulded stone in later contexts suggests a major phase of claustral construction *c.* 1320–40. There is also documented slightly later building work in 1356, when protection was given to the friars servants employed with a cart and three horses in the counties of Cambridge and Huntingdon fetching victuals and stone and timber for the repair of their church (Cal. Pat. 1354–58, 439). One scenario is that the cloisters were constructed and the repair work was undertaken on the church subsequently.

Within the investigated area the mid-14th-century construction works principally relate to the eastern range of the cloisters, with some evidence linked to the southern range of the cloisters and probably the friary church. Most of the encountered remains relate solely to below ground footings. There are several instances where there is evidence of sequence with sets of abutting footings, all these relationships relate to short-term constructional sequences and the buildings were constructed as a single campaign, albeit one lasting years if not decades.

The foundations typically consisted of a carefully dug vertically sided flat bottomed trench *c.* 0.45–1.2m wide by *c.* 1.0–1.4m deep. The trenches were dug to a depth of *c.* 0.1–0.2m into the natural gravels, below the general disturbance from pits etc. Where deeper features with soft fills were encountered these were carefully re-excavated and the foundation trench dug to the level of natural gravels. Relatively short lengths of foundation of perhaps *c.* 10m were dug and then backfilled prior to the next section being dug, presumably due to the instability of such deep vertically sided trenches and there was very little evidence of collapse or weathering of the sides. The trenches were then backfilled with repeated thin *c.* 50mm thick layers containing gravel, mortar and clay in varying proportions, which were carefully compacted before the next layer was added. At a depth of *c.* 0.1–0.2m beneath the contemporary ground/floor level, layers of roughly shaped blocks of mortared clunch were laid. In selected locations, such as corners and buttresses, stronger Lincolnshire Limestone, possibly Ketton rag, was employed instead of Clunch. At this stage the next length of trench was started, in general these cut slightly into the backfill of the previous stage, with at least three such junctions identified.

There appears to have been no typical or standard method for constructing substantial foundations for stone buildings in mid-14th-century in Cambridge and those at the Augustinian friary represent just one possibility. The broadly contemporary foundations at Clare College, begun *c.* 1338, were constructed from a mixture of Clunch blocks, red bricks and Clunch rubble. (Cessford 2015b), while

those at the Old Schools which were started in *c*. 1370 comprised lime-mortared Clunch fragments (Newman 2009).

At the northern end of the site the earlier structure Building 1, interpreted as part of the friary church, was modified, creating Building 2. Wall **F.252** was demolished, but walls **F.251** and **F.341** remained in place, at least as footings. These were both extended southwards (**F.250** & **F.339**; Figure 13). There is also evidence for a west–east aligned return wall footing (**F.327**) and the footings for buttresses associated with the south-western corner of the building (**F.338** & **F.340**). This created a substantial square or rectangular structure with internal dimensions of *c*. 4.8m by 4.3m+. Building 2 was presumably some form of structure projecting from the southern body of the friary church; possibilities include a transept, porch, tower or chantry chapel. No internal deposits relating to Building 2 survived.

To the west of Building 2, and partly defined by elements of it, was the northernmost space in the eastern claustral range (Building 3). The western side of Building 3 was defined by a wall **F.385** (also recorded in the 1908–10 investigations) and two large freestanding piers **F.183** (Figure 17.2) and **F.206** with a gap of *c*. 2.2m between them, whilst its eastern side was defined by wall **F.351**. The southern side of Building 3 was defined by the northern wall of Building 4. Overall these walls created a building with internal dimensions of *c*. 5.8m wide by 14.3m+ long. No internal deposits relating to Building 3 survived. The function of piers **F.183** and **F.206** is uncertain; it is also unclear if they existed in isolation or if there was another pair of piers to the west, forming a square in the cloister walkway. The piers presumably acted as foundations for some form of structure, such as a tower or archway. A combination of these piers and the buttresses for Building 2 would have had a significant impact upon the internal space of Building 3, compromising its usefulness for many functions. One possibility given its location is that Building 3 was the sacristy, where altar furnishings, vessels, candlesticks etc. were stored, as the limitations of the space would not have been particularly problematic for this.

The construction of Buildings 2 and 3 involved considerable disturbance to a number of burials of the Subphase 2.1 cemetery, some of which must have been of relatively recent date when the building works occurred. Such disturbance is common at medieval monastic sites (Gilchrist & Sloane 2005, 196) and may have been particularly common at urban friaries, where constraints would typically limit the options available. Only one relatively small charnel deposit (**F.397**) associated with this disturbance was identified. There must either have been more substantial charnel pits elsewhere on the site, possibly located to the west in the area removed in 1908–10, or some form of charnel house.

To the south of Building 3 the next building in the eastern claustral range Building 4 was the best preserved and can be definitely identified as the chapter house (Figures 18–19). The northern side of Building 4 consisted of walls **F.125** and **F.335** plus buttress **F.337**, whilst its southern side consisted of walls **F.231**, **F.249** and **F.257** plus buttress **F.258**. No evidence for the western side of the structure survived, but a wall with a doorway was recorded in 1908–10 and it is likely that there would

have been a doorway with a pair of flanking windows giving access to cloister walk. The eastern end of the building has also been removed in 1908–10, with no record. In a friary the chapter house was second in importance only to the church; all brethren gathered here every morning to listen to a chapter of the rule being read out (hence the buildings' name), discuss day-to-day business, listen to confessions and witness punishments. Building 4 was *c*. 6.7m wide and 11.5m+ long, and in all likelihood was *c*. 15–20m long internally.

Although no floors survived inside Building 4, there were floor makeup layers (**F.396**) and some evidence that the inside of the structure had a tiled floor. Along the southern side of the building there was evidence for two phases of foundations for a bench (**F.305–06**), the bench was initially 0.6m+ wide and was later widened to *c.* 1.1m. There may well have been similar benches along the northern wall; unfortunately the 20th-century disturbance was deeper in this area, so comparable evidence did not survive. Assuming that there were benches along both sides and allowing a width of *c.* 0.5m per individual this gives a rough capacity for 60–80 individuals to attend chapter sitting on the benches, broadly comparable to the 70 friars documented in 1328.

Six burials were present within Building 4 (Table 4; Figures 16, 18–19), these were all west–east aligned extended supine inhumations with the head to the west. Although many aspects of burial in the chapter house would have been similar to those in the earlier Subphase 2.1 cemetery, there may have been some preparation of the grave in advance as the tile floor would have had to be lifted, possibly involving specialist labour. It is also likely that greater care was taken to ensure that the digging of the grave did not make a mess within the chapter house. The intramural location of the burial means that it would have been a rather different experience to burial in the earlier extra mural cemetery. After the ceremony the chapter house floor would have to be reinstated, either by relaying the tile or by placing some form of marker over the grave. There is no apparent overall arrangement of how the burials were organized spatially. As with the earlier cemetery burials a variety of arm/hand positions were identified, there is again no convincing evidence for the use of coffins and it appears likely that most if not all of the burials were clothed. In contrast to the earlier Subphase 2.1 cemetery the burials from the Subphase 2.2 chapter house included both females (1 full confidence, 1 probable) and males (1 full confidence, 1 probable) plus individuals of indeterminate sex (2). Burial within chapter houses originated around the 11th century and was largely confined to the heads of institutions. This practice declined during the 13th century, as the focus for high status burial in religious communities shifted to the church. Chapter houses remained a focus for the burial of relatively important individuals after this time, but was of secondary status. It is generally believed that burial in the chapter house was restricted to friars, so the presence of women is remarkable. Relatively few burials have been excavated from friary chapter houses, but it does appear that identifiable women are lacking (Gilchrist & Sloane 2005, 67–8). Female burial in predominantly male burials grounds at religious institutions is known in other contexts and appears

to have increased in the 14th–16th centuries (Gilchrist & Sloane 2005, 65–6). Such burials are probably linked to close associations, through patronage, religious role or family ties (Gilchrist & Sloane 2005, 65–6). Both adults (4) and juveniles (2) were present; this is not unusual as a relatively high proportion of the burials known from friary chapter houses are of children and subadults (Gilchrist & Sloane 2005, 67–8). The juveniles were aged *c*. 10–11 and 11–12 years old; after the Black Death the various orders of friars began to accept novices at a younger age than previously, so it is entirely conceivable that the older of these two individuals was a novice (see below). The oldest individual was a male aged *c.* 55 years old, which is older than any individual from the Subphase 2.1 cemetery.

Four of the burials had copper alloy belt buckles, whilst the other two burials were definitely not accompanied by belt buckles. The two individuals that lacked buckles were the mature adult female (**F.146**; Figure 31.5) and the youngest individual in the chapter house aged *c.* 10–11 (**F.190**; Figure 19.1), suggesting that this absence may be due to them not being members of the Augustinian order. An individual that was only slightly older (**F.230**; *c*. 11–12 years old; Figure 19.2–4) did have a buckle, which compares to a youngest age of *c.* 13–14 years old for an individual accompanied by a buckle in the Subphase 2.1 cemetery. The 'probably female' individual (**F.310**) did have a buckle, suggesting that either women could be buried in a clothed state in the chapter house, this sex attribution is incorrect or that the individual managed to pass as a male friar.

The only other item that may have been deliberately included in a grave was a copper alloy jetton of *c*. 1500+, although this could be an accidental inclusion. The same grave also contained a silver penny deposited *c*. 1500–1540s, this was an incidental inclusion, but confirms that the use of the chapter house and burial within it continued into the 16th century. In addition to the six burials there was a further grave-shaped cut (**F.189;** Figure 19.5), which almost certainly represents either a burial that was subsequently dug up and 'translated' elsewhere (Gilchrist & Sloane 2005, 197–99) or '*mos teutonicus*', where when a foreigner died the flesh was boiled off so that the bones could be sent home for burial and the soft tissues were buried in a full grave (Litten 1992, 37). The initial digging of **F.189** must have taken place prior to the rebuilding of the bench along the southern wall, *c.* 1320/40–1500. If the burial was 'translated' the stratigraphic evidence indicates that this may have either occurred while the chapter house was still in use or at the time of the Dissolution, a time when the practice is known to have taken place (Gilchrist 2003, 408; Poulton & Woods 1984, 52).

Whilst it is possible that there were originally more burials within the chapter house the total is unlikely to have been significantly higher. The total is unlikely to exceed ten and there may only have been the six/seven identified. Given the long time period of burials in the chapter house, spanning around two centuries, burial there was an infrequent occurrence, in contrast to the Subphase 2.1 cemetery, and can only have accounted for a very small proportion of the inhabitants of the friary.

F.	Fill	Sk.	Cut	Buckle	Arms	Comment
146	1163	1164	1165	None	By sides	Coin and jetton, *c.* 1500+
189	1332	N/A	1334	N/A	N/A	No skeleton
190	1335	1458	1459	None	By sides	
191	1336	1460	1461	1465, CuA	Crossed, pelvis and abdomen	Buckle late 14th–15th
230	1481	1482	1483	1507, CuA	Mixed	Buckle 14th–early 15th
260	1591	1863	1592	1864, CuA	By sides	Buckle only pin fragments
310	1015, 1016, 1770	1771	1772	1787, CuA	Crossed, abdomen and pelvis	Buckle 14th–15th

Table 4: Burials from the Subphase 2.2 chapter house Building 4, for details of the human remains see Table 36.

To the south of Building 4 was a square structure Building 5, which represents both the southernmost element of the eastern claustral range and the easternmost element of the southern claustral range. The northern wall of Building 5 was formed by the southern wall of Building 4. Its western wall consisted of walls **F.128–129**, which were also recorded in 1908–10, whilst its eastern wall was **F.224** and its southern wall was **F.226**. Part of the eastern wall of Building 5 was removed by a later robber pit (**F.187**), which probably relates to the removal of some significant structural element such as a doorway. Building 5 had an internal space *c.* 7.8m by *c.* 7.2m in extent. Within this space was a substantial pier base (**F.212–213**) and a well (**F.193**). The pier base was *c.* 1.2m square and over 1.2–1.4m deep; the most likely possibility is that it relates to the core of a set of stairs leading to a dormitory on the first floor of the eastern claustral range. These stairs would have projected by a minimum of around 0.6m and more probably 0.9m. Given that the friars' dormitory probably lay over Buildings 3 and 4 it is likely that these were the day stairs, by which the friars accessed the dormitory. Beds in the dormitory were probably *c.* 0.9–1.0m wide, although perhaps taking up at least *c.* 1.5m to allow access, by *c.* 1.9m long. The *c.* 30m long dormitory could therefore have held around 40 friars. The well **F.193** in Building 5 was a substantial and well-built structure, *c.* 1.5m by 1.4m in extent with an internal square mortar faced shaft 0.8m by 0.8m in extent and must originally have been *c.* 3.2–3.5m deep below floor level (Figure 20). Based upon parallels elsewhere Building 5 may also have served as a warming room, although no supporting evidence for this survives.

The main part of the southern claustral range was recorded in 1908–10, when some of it still survived as standing remains (Figure 21). This included a doorway at its eastern end leading onto the cloisters and two waggon headed vaults with arched doorways at its eastern end. Projecting southwards from the eastern end of the southern claustral range there was additional structure Building 6, represented only by a single short length of wall footing **F.145**. As a result it is impossible to say anything meaningful about Building 6.

Although medieval friary cloisters varied considerable it is probable that the Cambridge Augustinian friary was of two storeys, which is supported by the scale of the foundations. The chapter house was usually located in the east range, which has been confirmed in this instance by excavation and there was probably a long hall-like dormitory on the second storey. The day stairs were often located at the southern end of the eastern range, and it is likely that pier **F.212–213** relates to this. The southern range was usually the refectory, a hall where meals were served, whilst the western range was often a guest house or priors lodgings.

The wall footings of the western claustral range was recorded in 1908–10, no detail was recorded apart from a doorway leading into the cloisters. This range had an internal width of around seven metres. It appears that the western claustral range, or possibly a building projecting southwards from it survived until 1746 (Figure 27.1). Initially believed to be the refectory more recently it has been suggested that this may have been either the infirmary or guest hall. Although much altered it was a large two-storied hall, originally of five bays with projecting buttresses. The upper storey had a row of openings with equilateral arches, blocked and filled with smaller windows.

The excavations have focussed upon the cloisters and little is known about the wider friary precinct. It appears that the friary may always have rented out parts of the street block to generate financial income. In the 1420s there were between 6 and 18 shops 'under' (leaning against or built into) the wall of the Augustinian friary and some stables and in 1538 there were 14 tenants subletting six stables, seven gardens and two houses. It is likely that these were located along Free School Lane, so the structural remains uncovered in the early 1990s (Hunter 1991) may relate to these buildings rather than the friary proper.

From 1391 onwards during the Great Western Schism (1378–1414), the Continental Augustinian Provinces of the Roman Obedience stopped sending students to Paris which was control of the Avignon papacy, initially leading to an increase in numbers studying in Cambridge and Oxford, primarily from Italy and Germany. As only one religious of an Order could be promoted to Doctor of Divinity at Cambridge each two years this influx of foreign students soon declined as new Continental universities, such as those at Bologna and Padua, were established. This presumed upsurge in numbers at the Friary may have had a significant impact on the site, although there is no evidence for any rebuilding etc. in the investigated area. From the 1490s onwards the Cambridge Augustinians had close links with the Reformation movement in Germany, which had a profound impact albeit one that has also left no clear archaeological traces.

The investigations revealed two groups of burials; those from the Subphase 2.1 cemetery and those from the Subphase 2.2 chapter house. Neither of these two groups necessarily represents all the burials originally from that group and both groups are probably predominantly but not exclusively comprise friars and novices. Additionally those two groups probably only represent a small proportion of the burials from the friary, as there would originally have been spatial differences with

burial in various areas of the friary complex, plus changes over time. Friaries are effectively complex multi-local burial grounds. In terms of the Augustinian friary at Cambridge several potential groups of burials may be postulated:

1) Burial within the Subphase 2.1 church, probably with significant spatial distinctions within the church.
2) The Subphase 2.1 cemetery south of the church, which was partially excavated.
3) Possible other Subphase 2.1 burial grounds for lay patrons/benefactors, servants etc.
4) Burial within the Subphase 2.2 church, again probably with significant spatial distinctions within the church.
5) Burial within the Subphase 2.2 chapter house, which was partially excavated.
6) An external Subphase 2.2 cemetery where the majority of the friars were probably buried.
7) An external Subphase 2.2 cemetery for lay patrons/benefactors, servants etc., assuming that this was separate from the contemporary cemetery for friars.

In terms of local contemporary comparative assemblages, only a small number of skeletons have been recovered from the other friaries in Cambridge, including the Carmelite friary (six inhumations: Addyman & Biddle 1965, 88–89; plus disturbed remains: Hughes 1908, 139) and the Franciscan friary (four inhumations; Salway 1996). Larger contemporary comparative assemblages from Cambridge exist for the Hospital of St. John the Evangelist (Cessford 2015ab) and the parish of All Saints by the Castle (Craddock & Gregory undated; Denston & Garlick undated). Further afield relatively few English Augustinian friaries have produced significant numbers of skeletons, the only meaningful groups being from Hull and Leicester. The 'excellent assemblage' from the Hull Augustinian friary of 255 individuals has unfortunately never been published (Gilchrist & Sloane 2005, 239). The burials come from the church, cloister alleys and garth and northern cemetery. The male to female ratio is 144:56 and there are 32 subadults. Fifteen have costume elements and 10 have buckles and other dress accessories. The Leicester Augustinian friary produced 26 skeletons; from the chapter-house (6), the east cloister alley (10), the cloister garth (2) and south of the church (8); (Gilchrist & Sloane 2005, 241; Stirland 1981). Excluding the area south of the church the male to female ratio was 11:2 and 39% were subadult. Seven had hands placed on chest as if in prayer and 8 of 18 had belts, probably part of habits. One particularly pertinent comparator from a different order of friars is probably Norwich Franciscan Greyfriars, where the presence of a *studium* has been linked to an unusual demographic profile with a high proportion of subadults and young adults interpreted as linked to the presence of a high proportion of postulant friars and scholars (Soden 2010).

Phase 3: post-friary activity 1538–2016

Due to early 20th-century truncation relatively little archaeology survived for the period after the Dissolution of the Friary in 1538. Despite this five subphases of activity can be identified and some significant remains were recovered (Figures 22–25):

Subphase 3.1: Dissolution related demolition *c.* 1538–45
Subphase 3.2: post-Dissolution occupation *c.* 1545–1580/1620
Subphase 3.3: a garden area *c*. 1580/1620–1760/63
Subphase 3.4: Botanic Gardens and later *c.* 1760/63–1908/10
Subphase 3.5: the Old Examination Hall *c.* 1908/10–2016

Subphase 3.1: Dissolution related demolition c. 1538–45

The first phase of post-friary activity relates to the demolition of parts of the friary complex and the reuse and expansion of other elements. This began in 1538 and it appears that the main initial phase was completed by 1545 when a 'good deal' of slate from the friary was used for the new steeple at Great St. Mary's and at the same time much of the friary was demolished (Cranage & Stokes, 1921, 56). The buildings interpreted as part of the friary church (Building 2) and the northern part of the eastern claustral range (Building 3) were demolished in the mid-16th century. There were numerous pits and postholes in the area that had been occupied by Building 3, these serve no obvious function and are probably a combination of robber cuts and other demolition related features, such as postholes for scaffolding.

The chapter house (Building 4) was also largely demolished during the mid-16th century, its tiled floor was entirely removed as was the superstructure for the benches. A 0.3m+ horizon of demolition related material (**F.398**) was deposited over the internal space. The only cut features related to this phase were four postholes of unknown function. The one element of the chapter house that was retained was its southern wall and buttress, which were retained as the northern wall of Building 5.

Building 5 was not demolished but Building 6, which projected southwards from the eastern end of the southern claustral range, was.

Subphase 3.2: post-Dissolution occupation c. 1545–1580/1620

Building 5 was not demolished at the Dissolution and the large well (**F.193**) continued in use and the substantial pier base (**F.212–13**) was reinforced by a brick arch (**F.214**), connecting it to the southern wall. A substantial rectangular culvert built from reused stone and with an arched brick roof (**F.142–43**; Figure 24), which had previously been investigated and recorded in 1908–10, was inserted into the building, as was a footing of some kind (**F.188**, **F.194** & **F.393**). This footing respects, and potentially links, the well and the culvert. There were also a number of postholes, indicating a timber structure or structures of some kind. Overall the impression is that Building 5 was converted for use in some form of industrial use, potentially because of the presence of the earlier well.

A new L-shaped structure (Building 7) constructed to the south and east of Building 5, effectively 'wrapped' around it (Figure 22). This structure had deep, but relatively narrow, rammed clunch foundations (**F.137**, **144**, **161**–**63** & **181**) suggestive of a single storey timber building of some kind. The southern part of Building 7 was *c*. 12.4m long by *c*. 3.4m wide internally, with a possible doorway in the southern half of the eastern end. The eastern part was *c.* 9.5m long internally by *c.* 3.4m wide. The northern 2/3 of the eastern part of Building 7 was semi-cellared (**F.202**), with walls constructed from reused moulded stone, a tiled floor and an entrance in the south-western corner consisting of four steps made from reused stone (Figure 25). This was a substantial well-built structure that presumably acted as some form of cool/cold storage space, with internal dimensions of *c*. 6.7m long by *c*. 1.4m wide. At some point the semi-cellared area was modified and a thick deposit of clay laid over the tiled floor, perhaps because it suffered from damp or water issues. Whilst it may be primary, it is possible that the semi-cellared element represents a secondary insertion into Building 7. The eastern part of Building 7 and the semi-cellared element was apparently directly accessible from Building 5 to the west, via a doorway, although this cannot be conclusively demonstrated. Projecting eastwards from the eastern side of Building 7 was another stone-lined cellar **F.203**, *c*. 1.8m wide internally and of unknown length, and an associated short length of wall (**F.167**).

Subphase 3.3: A garden area c. 1580/1620–1760/63

The occupation of Subphase 3.2 continued until the late 16th–early 17th century. Well **F.193** was then backfilled and Buildings 5 and 7 demolished. Part of the eastern wall of Building 5 was removed by a robber pit (**F.187**), this probably relates to the removal of some significant structural element. The southern wall of the southern claustral range continued to be retained as a boundary wall and the western claustral range continued in use. This situation is depicted on the earliest reliable map of Cambridge by Hammond in 1592, whilst a slightly less reliable map by Lyne in 1574 appears to show the three sides of the cloisters intact (Figure 26.1). This suggests that Buildings 5 and 7 may have been demolished *c*. 1574–92, which is compatible with the archaeological evidence.

At some point a well was added (**F.127**), this was ultimately substantially robbed and then backfilled with concrete in 1908–10 and logistical issues meant that it could not be investigated in detail. Although its construction cannot be accurately dated it may well represent a replacement for the earlier well (**F.193**). Based on the presence of pottery dating to the *c*. 1650–1700 it appears that a pit (**F.110**) belongs to this subphase.

A substantial oval oven (**F.158**) with a scorched clay base and mortared clunch block walls *c*. 1.6m wide and 1.1m long was constructed after Building 7 was demolished. This was an external freestanding structure, located a few meters south of the upstanding southern claustral wall, taking advantage of the sheltered location. The late 16th-century maps already mentioned and Loggan's map of 1688 (Figure

26.3) depict this as an open garden area and this oven dates to the late 16th–late 18th century.

Subphase 3.4: Botanic Gardens and later c. 1760/63–1908/10

The area was re-developed as part of the University Botanic Gardens, which were established in the 1760s (see Willis & Clark 1886, vol. 3, 145–90). The oven (**F.158**) was demolished and a substantial *c*. 0.8m wide west–east aligned mortared red brick wall (**F.160**) with 0.5m wide walls running southwards (**F.401–04**) constructed (Building 8). This wall was also recorded in 1908–10 and must represent part of a large building depicted on Custance's plan of 1798 (Figure 26.4). This wall is also depicted on various early 19th-century plans, such as that of Baker in 1830, and there is evidence that it was substantially rebuilt in the 19th century. Building 8 had been demolished by the 1880s, but is recorded by Willis and Clark as being the 'Green-Houses of Botanic Garden' (*c*. 1762–1860s) (Willis and Clark 1886, vol. 4, fig. 29). Throughout this the southern wall of the southern claustral range continued as a free standing boundary wall, until it was demolished in the early 20th century (Figure 27.3).

Subphase 3.5: the Old Examination Hall 1908/10–2016

The construction of the Old Examination Hall in 1908–10 had a major impact on the site. The building constructed at this time was not recorded, except where localised areas of disturbance were investigated to confirm that they were early 20th century or later (**F.111**, **F.261** & **F.392**).

FINDS AND ENVIRONMENTAL EVIDENCE

In total just under 21,000 pieces of material weighing over 400kg, were recovered (Table 5). Material not covered in individual specialist reports comprises three pieces of undiagnostic ironworking slag, weighing 270g, from a mixture of pre-friary and friary contexts, plus a single small fragment of clay tobacco pipe stem recovered from the backfilling of well **F.187**.

Material	Qty.	Wt. (g)
Animal bone	6952	93347
Human bone	10054	103332
Brick	69	27336
Glass	97	352
Metal	212	3099
Moulded stone/stone	35	Not weighed
Pottery	1630	28764
Shell	306	2766
Slag	3	270
Tile	1338	79332
Worked bone/ivory	10	625
Worked stone	269	40083
Total	**20975**	**379306+**

Table 5: total finds recovered, excluding material from soil samples and watching briefs.

Buckles Associated with Skeletons, Craig Cessford with Esther Cameron, Andy Hall, Quita Mould, Ian Riddler & Justin Wiles

In total 20 buckles were recovered overlying the pelvic areas of skeletons, indicating that they fastened girdles. These comprised 14 copper alloy buckles (10 from the Subphase 2.1 cemetery and four from the Subphase 2.2 chapter house), four iron buckles (all from the Subphase 2.1 cemetery) and two buckles made from elephant ivory and animaa bone (both from the Subphase 2.1 cemetery). The copper alloy and iron buckles were studied by Andy Hall and Justin Wiles and those made from skeletal materials by Ian Riddler. The associated leather was studied by Quita Mould and the textiles by Esther Cameron. With measurements length is recorded first and then width. All the iron buckles are in poor condition and require x-raying. Additionally a number of buckles, at least some of which were associated with skeletons, were recovered in 1908–10.

Elephant Ivory and Bone Buckles, Ian Riddler

Two belt buckles, one made of elephant ivory and the other of bone, are both impressive finds. One of the buckles **<556>** has an oval frame with a tongue groove and lateral knops in front of the tongue rest (Figure 15.6). The integral buckle plate is

rectangular in shape and is bifurcated along most of its length, allowing a strap to be secured with two copper alloy rivets, each of which has a rectangular head. The copper alloy buckle pin is secured on a shaft, also of copper alloy, which runs laterally through most of the buckle from one side, but does not emerge on the other side. The upper surface of the buckle is lightly embellished with notches set between narrow parallel lines, providing a cable-like effect. The buckle has been skilfully produced from elephant ivory and the Schreger lines characteristic of this material (Rijkelijkhuizen 2008, fig 3.7) are visible on the exterior of the frame in particular.

The second buckle **<624>** is made of animal bone, to a similar but slightly different design. The buckle frame is oval and includes a tongue rest, but lacks any lateral knops. The thin copper alloy pin was secured on a lateral shaft of iron, which no longer survives. This was inserted laterally through one side of the buckle, as with the ivory example. The integral plate has lightly curved edges and the upper surface is decorated with lateral incised lines, with a light lateral groove behind the pin rest. The plate is bifurcated and was secured to a strap with three small copper alloy rivets.

The dating of the buckles can be established by reference to the form of their frames and plates. Oval lipped frames occur in London contexts within ceramic phases 11–12, and predominantly in phase 11 *c.* 1350–1400 (Egan & Pritchard 1991, 70, 74–75). The fact that the Cambridge buckles are made of different materials, may be imported items and occur in a different depositional context (i.e. accompanying burials rather than in refuse deposits) means that their date may differ somewhat from that ascribed to the London buckles. With that broad dating in mind, the two buckles can be placed in the later part of an enduring tradition for the use of bone or ivory in the manufacture of belt equipment. Several buckles of bone of early Anglo-Saxon date are known, alongside more elaborate contemporary Merovingian examples (Riddler 1991, 47; Marzinzik 2003, 55–56; Lemoine et al 2010). Within the British Isles there are only sporadic finds thereafter of antler, bone or ivory buckles until the 12th century. An important example with a trapezoidal frame and integral plate came from the grave of a female at Golden Lane in Dublin dated to *c.* 670–870 (Scully 2008, 96, fig 20.1307:1; Harrison & O'Floinn 2014, 162). A second example from Dublin, with a rectangular frame and long integral plate, is thought to have come from a context of 11th-century date, and unprovenanced examples now at Alnwick Castle are probably also of Irish origin (Curriculum Development Unit 1978, 61; MacGregor 1985, fig. 60e). Slightly more prosaic examples of bone buckles with integral plates have been found at Goodmanham, Wharram Percy, Westminster and York, and are probably of 10th- to 12th-century date, although the Wharram Percy example was recovered from a Late Medieval context (Andrews & Milne 1979, 128, fig 70.31; MacGregor 1985, 105; Riddler 2012, 197). An elaborate walrus ivory belt buckle of late 12th-century date was found alongside the hoard of chessmen from the Isle of Lewis and is possibly of Scandinavian origin (Robinson 2004, 35–36; Stratford 1997, 41, fig 36).

These buckles, mostly equipped with integral frames, form a useful background to the Late Medieval series. Late Medieval bone buckles are known from France in particular (Chazottes & Thuaudet 2014). They occur in several forms, both with and without integral plates. Of the latter type, those with long rectangular plates are common (Chazottes & Thuaudet 2014, 189–90, fig. 3). Buckles with shorter integral plates, closer in form to the pair from Cambridge, have been found at Goltho and Douai, and there are also several unprovenanced examples (Chazottes & Thuaudet 2014, fig. 5). One of the Goltho buckles is unstratified, whilst the other, which forms a close parallel for the Cambridge bone buckle, was found on cobbles beside a building abandoned in the late 14th or early 15th century (Beresford 1975, 26, 77). The Douai bone buckle now lacks its frame and its iron spindle passes through both edges of the plate, but its simple decoration is similar to the Cambridge bone buckle; it came from a context of the second half of the 14th century (Chaoui-Derieux 2010, 67, fig. 9).

All of these comparable buckles appear to have been made from bone and buckles made from elephant ivory form a much more exclusive commodity. Late Medieval buckles of this material are likely to have been made in France. From the late 13th century onwards France was a major producer of objects of elephant ivory, whilst comparatively little was produced in this material in England (Stratford 1987, 108–09). In a French text of *c.* 1250 the patenostriers are listed as producing buttons and buckles, as well as rosary beads, and it seems likely that the ivory buckle was made in a French workshop, probably in Paris, before eventually finding its way to Cambridge (MacGregor 1991, 377).

Leather, Quita Mould

The leather has been identified and a basic record for the site archive has been made. The basic record includes measurement of relevant dimensions and species identification where possible. All measurements are in millimetres (mm). No allowance for shrinkage has been made. + indicates an incomplete measurement. The information gathered has been summarized below, this is followed by a detailed catalogue of the leather remains. Leather species were identified by hair follicle pattern and thickness usi,ng a low-powered magnification. Where the grain surface of the leather was heavily worn identification was not always possible. The term bovine has have been used when uncertainly arose between mature cattle hide and immature calfskin.

17 burials contained the remains of leather associated with buckles; 13 from the Subphase 2.1 cemetery, with a further four in the Subphase 2.2 chapter house,. Much of the leather was associated with copper alloy dress accessories, principally buckles and buckle plates, two were associated with buckles of iron (**<2074>, <2110>)**, with a single example of a buckle with an integral buckle plate carved from bone (**<624>)**. Fragments of possible textile were recognised amongst the leather, and minerally preserved organic remains were present on some of the metal fittings, while some of this was leather, some was likely to be textile.

Where sufficient leather survived for the form to be discernible, all came from parallel-sided straps, which may be assumed to be girdles (belts) worn around the waist or hips. Many had the leather strap preserved between the two sheets of the buckle plate (eight examples), often protruding from the end of the buckle plate for a distance. Two double buckle frames from burials in the chapter house (**<2056>** & **<2073>**), had remains of the straps that had been attached by being wrapped around the central pin bar. Single framed buckles, lacking buckle plates, were also found with fragments of leather broken from straps that had wrapped around the pin bar but were no longer *'in situ'*. Two examples were notably well preserved (**<2062>** & **<2112>**), both having lengths of strap still in place passing through the buckle frame with the buckle pin protruding through the pin hole. Each also had leather preserved in their buckle plates, and it was interesting that the width of the strap within the plates was slightly wider than that passing through the buckle frame: **<2062>** width in frame 15mm, in plate 18mm; **<2112>** width in frame 17mm, in plate 19mm. Other burials (**<2107>** & **<2108>**), contained strap fragments that varied slightly in width, so that it may be that the slight tapering in width of the straps toward the 'free' end was intentional.

The straps appeared to be undecorated; none could be seen to have any surface decoration nor crease lines (impressed lines made with a heated tool) running along the edge. While the straps ranged in width from 7–30mm, 13 of the 19 measurable examples fell between 15–20mm wide, being roughly between ½ and ¾ in. wide. The widest strap was associated with a large double framed buckle **<2042>** from a burial in the chapter house. The 30mm wide strap was noticeably wider than the buckle plate to which it was attached, extending beyond both sides of the 21mm wide plate. The narrowest strap fragment, just 7mm wide, was found occurring separately in a burial with a mount attached to straps 16mm wide and a single buckle frame **<2105>**.

Two burials (**F.302 <2069>** & **F.331 <2105>**) each had a copper alloy buckle and a separate decorative mount. A crescentic mount **<2105>** was attached to two straps, one placed above the other. The lower strap, 3mm thick, comprised a terminal with a straight cut end with cropped corners. The strap beneath also appeared to be a terminal of similar thickness (3mm), aligned in the same direction. Similarly, a square-shaped mount **<2069>** of pyramidal type (Egan & Pritchard 2002, 198, nos. 1066–76) was attached to two straps lying one above the other, each 2mm thick. Again, both straps had a straight cut terminal with cropped corners. The lower strap was cut slightly smaller than the other, appearing skived (bevelled) to reduce the total thickness of leather beneath the metal mount. In each case, both straps were of similar thickness and they do not appear to represent a strap and its lining, but rather two straps. The mounts had not been used to join two separate lengths of strap to extend the length of the belt, but appear to have acted as a strap end to a strap of double thickness.

This group comes from burials that are believed to predominantly be friars. The burials are closely comparable with the buckles and their associated leather

straps recovered from the burials at the Augustinian friary at Leicester (Clay 1981, 133, fig. 48 nos. 22–32, fig. 50 nos. 65–67). When discussing these leather belt fragments Allin quotes John Nichols an 18th-century historian, who described the Augustinian friars in Leicester as, when 'in the choir, and when abroad, they had over the former (i.e. their habit) a cowl, and a large hood, both black, which was girt with a black leather thong' (Allin 1981, 158). This would suggest that the belts worn by the Friars with their habits were narrow, which would match the straps found in the burials at Cambridge. The strap remains found with the buckles at Leicester came from both male and female burials and the Leicester cemetery contained both the friars and their lay patrons (Clay 1981, 133). Friaries commonly received burials of the richer members of society (Allin 1981, 158; Daniell 1997, 93) so, perhaps, one should not assume that the leather straps and textile remains come from the religious garments of the friars but, potentially, may come from rich patrons who also chose to be buried in these garments as a sign of their piety (Daniell 1997, 155–56). The majority of the High/Late Medieval population were buried in shrouds, the presence buckles and girdles implies that the person was buried in clothing (in this case the 'ecclesiastical' clothing, the habit), rather than in a shroud. The two forms of burial (shrouded and clothed) are largely exclusive and at this date it is unusual to be buried in clothing, with the practice apparently largely restricted to clergy, high status individuals and a few others.

The leather is desiccated and some has distorted during the drying process. It is generally in good condition and chestnut/dark brown in colour. While it needs to be handled with care, it appears stable and robust and does not require any consolidation or conservation.

Much of the surviving dried leather has soil adhering to the surfaces obscuring any surface detail. In addition, the surfaces of the leather are worn so that little grain pattern is visible. The nature of the leather, its thickness and condition, all indicate that the straps are made of a vegetable tanned bovine leather. The leathers used varied in thickness from 2–5mm, the majority over 80%, being 3–4mm and likely to be of cattle hide, those 2mm thick (15%) being thin enough to be of calfskin. Medieval straps are usually of bovine leathers, as seen in the examples from the City of London (Egan & Pritchard 1991, 37).

Textiles, Esther Cameron

Initial examination indicated that five of the buckles were associated with possible textile remains. These were examined at up to x50 magnification, using a Wild M8 binocular microscope. Two proved not to be textiles **(<2056>** & **<2073>**), whilst the traces of textile on three of the buckles (**<2108>**, **<2109>** & **<2110>**) are too poorly preserved for proper description. One of these **<2110>** could be made of animal fibre, which raises the question of it being a penitential cilicium or 'hair cloth' frequently used in monastic contexts for wrapping the dead (Walton Rodgers 2012). However, the cilicium is characterised by plied yarns and thread counts of two or three per

centimetre, whereas the textile attached to **<2110>** does not have plied yarns and has a higher thread count, which suggests a cloth more akin to worsted (Munro 2012).

Catalogue of Buckles Associated with Burials

Copper Alloy Buckles from Subphase 2.1 Cemetery Burials, Andy Hall & Justin Wiles with Esther Cameron and Quita Mould

<2053> [1430] F.216: A copper alloy buckle with oval or D-shaped lipped frame with v-shaped notch for the pin and slightly offset opposing bar. The plate is formed from folded rectangular copper alloy sheet with a rectangular slot for the pin. The plate is recessed for the frame. There is an oval aperture with groove on the reverse and obverse at the end of the slightly tapering plate. This has two small rivets at the back end but there is also an additional, later, centrally placed crude rivet probably to affect a repair. Dimensions 47.5x30.9mm, weight 13g. Again this appears to have a plate normally associated with frames with forked spacers (see above). 14th century.

Leather: Leather strap within the buckle plates and protruding slightly from the ends. Surviving length *c.* 31+mm, width 20mm, 3mm thick, worn, no grain pattern visible, presumed bovine.

<2062> [1638] F.265: copper alloy buckle with oval, lipped frame (Figure 15.2–4). The pin and rectangular plate are intact. The frame has a v-shaped seat or notch for the pin on the outside edge with the opposing bar slightly offset to the back end of the frame. Fragments of leather remain within the plate (19mm in width) and attached to the pin. The plate is formed of a folded sheet with a rectangular slot for the pin. Two rivets are located at the end of the plate. The pin is flanged with a transverse ridge. The buckle measures 38mmx24mm, weight 9g. Dating from the mid-14th–mid 15th century. Little evidence of use wear.

There are three pieces of leather:

1) Fragment of strap passing through the frame, with the pin passing through a central pin hole. Surviving length 13+mm, width 15mm, thickness 3mm. No grain pattern visible presumed bovine.

2) Strap fragment within buckle plates and protruding out of the ends. Surviving length c. 27+mm, width 18mm, 3mm thick, presumed bovine.

3) Small leather fragment, separate in box, no measurable length, width 15mm, 3mm thick.

<2069> [1737] F.302: two fragments of a copper alloy buckle of annular form, with partial pin attached. Heavily distorted and fragmentary. Measuring 35mm approx. diameter and weighing 7g. Found with a copper alloy rectangular mount of shallow pyramidal form, with a single integral rivet. Measuring 11x12mm, weight 2g. This is attached to a double layer of leather strap or belt. Dating to the 14th–early 15th century.

At least seven leather fragments are present:

1) Square, pyramidal sheet mount with central separate rivet attached to two separate layers of leather strap with a combined thickness of 4mm. The lowest (outermost) strap has a straight cut end with rounded corners (probably worn cropped corners) and is slightly smaller, appearing bevelled to reduce its thickness. The surviving length is that of the mount 17mm, width 17mm, 2mm thick. The inner strap, closest to the mount, protrudes slightly beyond the mount. Surviving length *c*. 21+mm, width 17mm, 2mm thick. The mount appears to be attached to the end of two straps as a 'strap end' rather than used to decorate a length of strap or cover the join between two pieces.

2) At least six leather fragments separate in the box, no widths preserved, but 3mm thick.

<2105> [1882] F.331: copper alloy oval or D-shaped buckle. The frame thickens towards the middle and has a rectangular notch or recess for the pin. The opposing bar is slightly offset. The pin is intact and appears to have fused tightly within the frame notch. Similar buckles are recorded within the London corpus and are dated to the 14th century (Egan & Pritchard 2002, 70). This buckle and pin display very little use wear. Measuring 23x31mm, weight 9g. A crescent shaped copper alloy mount was found in association with the buckle. Measuring 19.2x12.3mm, weight 2g. This was recovered attached via two rivets to a single or possibly a double thickness of leather strap.

Approximately 14 fragments of leather were preserved, two differing widths present suggest a tapering strap:
1) Double thickness of leather strap attached to the crescentic mount by two integral, round, flat-headed rivets. The lower strap has a straight end with cropped corners indicating it to be a terminal. The upper strap, closest to the mount, also appears to have slightly tapering sides, the end is now slightly broken but had been straight, which would suggest a second terminal, rather than a join to extend the length of the strap. Surviving length *c.* 20+mm, strap width16mm, 3mm thick. Bovine.
2) Fragment of strap broken at each end across two central buckle pin holes. Surviving length 14+mm, width 7mm, 3mm thick, presumed bovine.
3) Fragment of strap 4mm thick.
4) Multiple (*c.* 11) small fragments.
<2107> [1888] F.334: copper alloy buckle with oval or D-shaped frame, with pin and rectangular plate intact. The simple frame has a v-shaped seat or notch for the pin on the outside edge with the opposing bar slightly offset. The plate is formed from a folded sheet with a rectangular slot for the pin. There are a pair of short v-shaped notches on the front from the pin slot towards the back end of the plate. Traces of a leather strap (19.5mm in width) are present within the plate and are attached with two round rivets positioned towards the end of the plate. The pin has a small flange. The buckle measures 43x19mm, weight 10g. Mid-14th–mid 15th century.
Nine fragments of leather are present:
1) Leather present within the buckle plate. Surviving length c. 23+mm, width taken from buckle plate 20mm, 3mm thick.
2) Strap fragment with curved profile broken across a central pin hole. Surviving length *c.* 22+mm, width 15mm, 3mm thick, no grain pattern visible presumed bovine.
3) Seven other fragments, separate in box, with no measurable dimensions.
<2108> [1898] F.336: copper alloy buckle with oval or D-shaped frame, the pin and short rectangular plate are intact with leather adhering to the plate. The frame is lipped on the outside edge with a V-shaped notch for the pin. The opposing bar is slightly offset. The plate is formed from a rectangular sheet of copper alloy with a rectangular notch for the pin. The upper surface of the plate may have traces of tinning or another coating. The pin has a flanged transverse ridge. Of note is the lack of any obvious rivet holes to secure the leather strap (width 17.5mm) within the plate. One explanation is that the plate has an integral pin, an example being from London (Egan & Pritchard 2002, 77, 316). The frame measures 31.9x21.5mm, weight 8g. 14th century.
Several pieces of leather survive:
1) Leather present within the buckle plates and protruding out of the end. Surviving length *c.* 27+mm, width 12mm, *c.* 4mm thick, presumed bovine.
2) Separate fragment surviving length *c.* 12+mm, width 14mm, 4mm thick, presumed bovine.
On the back of the plate is a mineralised textile impression, the weave indistinguishable, with s-spun threads (to the eye these look z-spun, but as the impression is a mirror image of the original this indicates s-spun). With the buckle are two detached fragments of textile, 10mm by 10mm and 20mm by 10mm, both curved as though from a fold. The condition is poor, the threads thinned and partly unravelled by insect attack (approximately 50% of the surviving 'textile' consists of insect pupae cases), the weave indistinguishable.
<2109> [1933] F.344: copper alloy D-shaped buckle of unusually narrow form. The frame has a rectangular notch or recess for the pin. The pin has a slight transverse ridge. Although no leather is attached to the buckle the strap would have a maximum width of 12mm. An unusual buckle possibly not used with a belt, although its position within the grave contradicts this. A similar buckle made of iron is recorded from York (Ottaway & Rodgers 2002, 2892). Dimensions 30.2x20.4mm, weight 5g. Dating to the mid-14th–15th century.
Eight fragments of leather are present:

1) Leather *c.* five small fragments, separate in box. Fragments have curved profiles so likely to have been wrapped around the buckle pin bar. No complete width surviving, or useful length measurements.
2) Leather fragment with original edge 3mm thick.
3) Leather fragment with original edge 4mm thick.
One small fragment of textile 8mm by 5mm survives. Its condition is poor, the threads thinned and broken by insect attack, the weave indistinguishable.
<2111> [1970] F.352: copper alloy buckle with oval or D-shaped frame (Figure 15.8–9). The pin and rectangular plate are intact. The frame is lipped on the outside edge with a V-shaped seat or notch for the pin. It appears slightly misshapen. The opposing bar is offset. The plate is formed from folded rectangular sheet copper alloy with rectangular notch for pin. The buckle plate is also recessed for the frame. The end of the plate has a centrally positioned aperture of circular form with angled grove pointing towards the pin on both the upper and lower surfaces. The back end of the plate is also slightly concave in shape with two protruding rivets fixing a leather strap fragment within the plate (of 17mm width). Any decoration to the upper surface may be obscured by corrosion. The pin has distinct flanges. Interestingly the plate matches a type used on buckles with composited rigid plates, however, this buckle frame lacks the integral forked spacer that normally accompanies this type of buckle (Egan & Pritchard 2002, 79). The frame measures 47x22mm, weight 12g. This appears to be an interesting hybrid, dating to the later 14th century.
Two pieces of leather in good, robust condition are present:
1) Leather strap present between the buckle plates and protruding from the ends. Surviving length *c.* 38+mm, width 16mm, 4mm thick, some grain pattern visible presumed bovine, good condition.
2) Leather fragment, separate in box, extending into a curling strip 6mm wide at one end, from one side of the buckle pin slot. Surviving length *c.* 26+mm, width 16mm, 3mm thick.
<2112> [2010] F.367: copper alloy buckle with rectangular frame and rectangular sheet copper alloy plate intact. The frame has a thick outside edge with two filed grooves towards the top and bottom and three grooves towards the middle, the central one acting as a seat or guide for the pin. The sides of the frame are very thin and slightly convex in form. The pin is intact and of simple form. The plate is possibly decorated to the upper surface and there is the suggestion of parallel diagonal lines to the reverse. The plate is attached to a fragment of leather strap (20mm in width) with two rivets towards the rear of the plate. Similar to examples for both York (Ottaway & Rogers 2002, 2839), and London (Egan & Pritchard 2002, 96). The frame measuring 20x21mm, and the plate 25x18mm, weight 14g. Leather attached to plate and pin. 14th century, with little use wear.
Six pieces of brown, dry leather in good robust condition are present:
1) Leather strap passing through buckle frame with pin passing through the central pin hole. Surviving length *c.* 32+mm, width 17mm, 4mm thick, bovine leather good condition.
2) Leather strap between buckle plates and protruding out of the end. Surviving length *c.* 31+mm, width 19mm, 5mm thick, worn bovine, some grain pattern visible, good condition.
3) Leather strap fragment, separate in box, with tear-drop shaped central pin hole present, broken each end. Surviving length 31+mm, width 17mm, 3mm thick, presumed bovine.
4) Three very small leather fragments, separate in box, no dimensions present.
<2117> [1879] F.332: copper alloy oval or D-shaped buckle (Figure 31.3). The frame thickens towards the middle and has a deep rectangular notch or recess for the pin. Slightly offset and narrowed opposing bar. The pin has moulded, ridged section to the upper surface towards the base. Traces of leather present around the pin. Similar to **<2105>** (see above). The frame measures 22.9x29.3mm, weight 10g. 14th century.
Five pieces of leather are preserved:
1) The collared buckle pin has leather attached to it, the pin appears to pass through a pin hole in the remains of the strap. Surviving length not relevant, surviving width 14mm, 4mm thick.
2) Curved piece, apparently broken from one side of the slotted strap that wrapped around the pin bar. Surviving length *c.* 10+mm, 2mm thick.

3) Three small leather fragments, separate in the box, no measurable dimensions.

Iron Buckles from Subphase 2.1 Cemetery Burials, Andy Hall & Justin Wiles

<2074> [1788] F.311: iron buckle with circular frame and pin in poor condition. Measuring 41mm in diameter, weight 18g. Medieval.

Several pieces of leather are preserved:

1) Small areas of leather present on the encrusted iron frame.

2) Small fragments, separate in box, no width surviving but 3mm thick and 4mm thick, good condition, worn grain surface preserved, presumed bovine.

<2079> [1953] F.343: iron buckle frame in poor and fragmentary condition, heavily corroded. Of D-shaped form, with possible pin attached. Measuring 35x46mm, weight 21g. Medieval.

<2106> [1899] F.333: An iron buckle in poor condition, heavily corroded. Possibly an oval shaped frame. Measuring 38x33mm, weight 10g. Medieval.

<2110> [1949] F.348: A heavily corroded iron buckle with plate and pin (Figure 14.2–4). The frame is oval or D-shaped with a rectangular plate. A portion of leather strap in preserved within the buckle plate. Traces of additional organic material (possibly wood) are preserved on the reverse. Dimensions 41x29mm, weight 16g. 14th–15th century.

Two pieces of leather are present:

1) Leather strap present between the buckle plates. Surviving length *c.* 23+mm, width 28mm, 4mm thick. No grain pattern visible but presumed bovine. Well preserved.

2) Leather fragment separate in box, no relevant dimensions, 4mm thick, no grain pattern visible.

Textile: traces of mineral preserved textile on one face of the plate as well as on the outer curve of the frame. The largest preserved fragment measures 12mm by 10mm, but its condition is poor, the weave indistinguishable. The evidence suggests that the threads of the two systems (warp and weft) are relatively coarse (System 1 thread count possibly 12 per cm estimated from 0.5cm; System 2, no thread count), have different spin directions and are probably of animal fibre. Thread count is the number of warp threads or weft threads per unit of measurement (for instance centimetres), but when it is unclear which is warp and weft they are referred to as Systems 1 and 2 (see Walton & Eastwood 1984, 10).

Elephant Ivory and Bone Buckles from Subphase 2.1 Cemetery Burials, Ian Riddler with Quita Mould

<556> [1803] F.314: near complete buckle with integral plate, made from elephant ivory, with an oval frame that includes an indented pin rest at its centre, lightly modelled lateral mouldings leading to the rectangular plate (Figure 15.6). The copper alloy pin is secured by a lateral shaft of copper alloy that passes through one side of the buckle and does not emerge on the other side. The plate is bifurcated and is decorated by three bands of narrow paired lines with spaced triangular notches running between them, creating a cable effect. The strap was originally secured by two copper alloy rivets with rectangular heads.

<624> [1944] F.347: near complete bone buckle with integral plate, originally including a copper alloy wire pin, which is now separate. Oval frame with indented pin rest at the centre and a rectangular slot on the inner edge for the pin, which was secured on an iron shaft set in a lateral perforation drilled from one end of the buckle only. The outer edge of the plate is decorated with a lateral groove and two raised mouldings, with bands of triple incised lateral lines set just below the pin and along the inner edge of the plate. The strap was secured by three small copper alloy rivets.

Small areas of leather adhering to the copper alloy rivet shanks on the inside of the buckle plate, revealed due to a fracture in one of the integral buckle plates. No leather dimensions were preserved, but the gap between the two plates is 3mm. Similarly, the strap width is likely to have been the same as the bone buckle plates, 17mm.

Copper Alloy Buckles from Subphase 2.2 Chapter House Burials, Andy Hall & Justin Wiles with Esther Cameron and Quita Mould

<2042> [1465] F.191: a cast copper alloy double oval frame buckle with the frame thickening to middle on either side. The central bar is slightly narrower and projects slightly above and below the frame. There are filing marks present along the outside edge of the frame. There appears not to be a seat or notch for the pin. The pin is missing however the trapezoidal sheet copper alloy plate is present, there are two rivets towards the back end with leather still adhering within the plate. Dimensions 45.4x40.7mm, weight 16g. Late 14th–15th century.

There was some surviving leather:

1) Leather strap between the folded buckle plate, wider than the plate and protruding slightly from the end. Surviving length 20+mm, width 30mm, 4mm thick, good condition, no grain pattern visible, surfaces worn.

2) Minerally preserved leather also present at both corners of the lower face of the buckle plate.

<2056> [1507] F.230: small double oval copper alloy buckle frame (Figure 19.2–4). There are decorative grooves on both sides of the frame. The pin is intact and two fragments of leather strap still remain. Dimensions 28.9x24.9mm, weight 7g. 14th–early 15th century.

Leather: strap remains wrapped around the central pin bar with the pin protruding from the central pin slot. Much of the outer surface is green from the copper alloy corrosion products, but the interior is brown. Surviving length *c.* 14+mm, width 16mm, 3mm thick, no grain pattern visible, presumed bovine.

Putative textiles: on the back of the buckle part of the leather is raised into a lump with what appears to be a second organic layer on top. Close inspection shows that the lump is a local distortion caused by the formation of a corrosion blister underneath the leather. A band of mineralised tissue across the top resembles part of a plant root. The lump therefore represents corrosion, a leather strap and a plant root.

<2104> [1864] F.260: a length of heavily corroded copper alloy pin? In three fragments found with small fragments of leather. Weight 1g.

Two pieces of leather survive:

1) Two small formless fragments of leather, no relevant length or width dimensions. 9+mm by 6+mm and 2mm thick, 12+mm by 11+mm delaminated, no grain pattern present

<2073> [1787] F.310: small double oval copper alloy buckle frame with slightly asymmetrical loops. The upper portion of one of the loops shows signs of wear. Traces of leather and what looks like an iron pin remain. Similar buckles are published from London and the author suggest they may have been used as shoe buckles (Egan & Pritchard 2002, 86). However, the position within the grave suggests it was used as a belt or strap around the waist area. Width of leather strap 10m. Dimensions of buckle 25.6x19.4mm, 3g. Dating to the 14th–15th century.

Eight pieces of leather survive:

1) Leather strap remains wrapped around the pin bar with slit from the pin slot visible. Surviving length 12+mm, width 9mm, 2mm thick (estimated).

2) Seven leather fragments, separate in the box. The three largest are curved in profile and appear to be from the area of strap that wrapped around the pin bar from either side of the central pin slot. The largest fragment surviving length 14+mm, width from strap side to the slot 6mm, 2mm thick

Putative textiles: there is a blister of iron corrosion-product beside the hinge, visible both front and back. There are fibres attached to the blister which are randomly orientated and have no twist. These fibres resemble collagen (probably from the leather strap) more than textile.

Copper Alloy Buckles etc. Discovered in 1908–10, Craig Cessford

Some copper alloy buckles were discovered in 1908–10 associated with burials, at least in some cases. In 1908 'Two very plain copper or brass buckles were found. To these a few crumbling relics of what

might have been leather girdles were still adherent' (Duckworth & Pocock 1910, 24) and 'several buckles and remnants of clothing' were recovered in 1909 (Duckworth & Pocock 1910, 24). The list of accessions for 1910–12 for the Cambridge University Museum of Archaeology & Anthropology records 'Six bronze buckles with fragments of leather belts attached; one large annular, two stout oval, one small D-shaped with oblong chape, one small oblong with strap-loop and chatelaine-hook, and one double, oblong with square chape, and an oval slide with an oblong strap-loop: found, together with fragments of a friar's brown cloth habit, on the site of the Austin friary, Benet Street, Cambridge, 1910. The Cambridge Antiquarian Society' (28th annual report, 10). These were:

1) 1910.270: complete annular buckle with projecting finial at outside edge. Plain pin rests in notched constriction of the circular frame. The pin retains small piece of leather from the belt.
2) 1910.271: stout oval buckle with fragment of leather belt attached.
3) 1910.272: stout oval buckle with fragment of leather belt attached.
4) 1910.273: small D-shaped buckle with oblong plate and a fragment of leather belt attached.
5) 1910.274: bronze double-loop buckle with remains of a suspension hook. Rectangular frame, with decorative stepped sides, separately asymmetrically by the pin bar. The pin bar extends blow the frame to form a swivelling hook, now partially broken. Remains of leather belt affixed around the rectangular loop.
6) 1910.275A: double buckle, oblong with a square plate with fragment of leather belt attached.
7) 1910.275B: oval slide buckle with an oblong strap-loop with fragment of leather belt attached.
8) 1910.275C: fragment of a friar's brown cloth habit.
9) 1910.275D: lead disc, possibly a token, very worn with what may be impressions of textile pressed into one face.
10) 1910.275E: bronze Nuremberg jetton.

Later in 1923 '3 bronze buckles & 1 strap end … all found with skeletons at Friars' (Peas Hill) were acquired form the Redfern collection. William Beales Redfern/Redfarn was born in 1840, while his family lived on St. Andrew's Street in Cambridge. He studied art with J.F. Herring and was a keen antiquarian, with a private museum. In 1875 he started to record the ancient buildings of Cambridge that he feared would be lost, publishing a volume of *Old Cambridge* in 1876 and *Ancient wood and iron work in Cambridge* in 1887, as well as various articles in the *Proceedings of the Cambridge Antiquarian Society* about items from his collection. In 1875 he formed the Bijou amateur dramatic club, he bought St. Andrew's Hall in St. Andrew's Street, which he rebuilt in 1896 as the New Theatre. Redfern was mayor of Cambridge four times (1884–88) and in 1887 was made Deputy Lord Lieutenant of Cambridgeshire in 1887. In the 1891 census was described as an artist, painter, sculptor and theatrical manager. He was managing director of the New Theatre until his death on 21st August 1923 aged 82, when he left effects worth £37,605 7s 6d. It appears that Redfern acquired the buckles in 1908–10 and they were presented to the museum when he died:

11) 1923.1597A: bronze buckle.
12) 1923.1597B: bronze buckle with single looped oval frame, pin intact, with rectangular buckle plate, which contains part of a leather belt.
13) 1923.1597C: bronze buckle with single looped D-shaped frame, pin intact, with rectangular buckle plate. The leather belt remains riveted between the buckle plate, but does not protrude beyond.
14) 1923.1597D: roughly square strap end, with traces of leather belt held between the rivets.

By the late 20th century six buckles, a chape, two tokens and a fragment of cloth had been mounted on Perspex using glue, plus two other items that had become detached. The numbers of surviving identifiable buckles indicates that some are missing and although it is possible to suggest how the buckles relate to those originally documented it is impossible to be certain. As the recent investigations recovered buckles from non-burial contexts at the friary it is also possible that some of

the buckles in the museum collection were not from graves. The buckles that are present appear to be 1910.270, 1910.272, 1910.273, 1910.274, 1910.275A?, 1923.1597B and 1923.1597D. All appear to be of 13th–15th-century date. The large 45mm diameter circular/annular buckle is rather different to those recovered from graves during the recent investigations, as is a locking buckle. One of the examples has a crescent shaped mount that is closely paralleled by the recent discovery (**<2105>**).

Pottery, David Hall & Craig Cessford

The pottery was predominantly 10th/12th–16th/17th century in date; there was also a small amount of Romano-British material, but no 18th–20th-century material (Table 6). In addition to this material 13 sherds weighing 88g were recovered from processed samples. The Romano-British pottery comprised five sherds weighing 80g, these were all from residual contexts and abraded, comprising coarsewares plus a single sherd of Samian ware.

The 10th–12th-century pottery is dominated by the typical triumvirate of wares found in southern Cambridgeshire; with St. Neots-type ware and Thetford-type ware dominating plus some Stamford ware (Table 7). Most of the forms and fabrics are typical of these wares and some of the St. Neots-type ware is probably Pre-Conquest in date. In addition, a number of coarsewares appear to have begun to be produced around the mid/late 12th century, overlapping with the principal 10th–12th-century wares, these are difficult to differentiate categorically from some 13th-century material. Two sherds from Crowland ware bowls were discovered (Figure 11.5). The fabric is similar to Stamford Ware, but pink, and with a brown glaze on both sides. Embossed on the outside of one sherd are continuous rows of lattice-like panels, separated by horizontal rows of 'rouletting'. Probably 12th century, this represents the first identification of this fabric from Cambridge as far as the authors are aware. Also of note is a complete Stamford ware lamp (Figure 11.1).

A relatively small assemblage of 13th–15th-century pottery was recovered (888 sherds weighing *c*. 13.2kg, MSW 14.8g), mostly consisting of forms and fabrics typical of sites in and around Cambridge (Table 8). These will not be discussed in detail as, much larger assemblages have been recovered from the town. Very little of the assemblage can be firmly associated with the Augustinian friary itself, as much of the material either stratigraphically predates the friary or may be residual. The only convincingly associated material is a small group of fresh unabraded material that derives from the makeup of the chapter house floor (**F.396 [1487]**). This comprises fragments from a Grimston ware face jug (Figure 28.3), an Essex Redware jug with raised strips and a pinched base, an Ely ware jug in a fabric imitating Grimston ware and a coarseware bowl in a buff sandy fabric. Even in this case it is impossible to tell if the pottery relates to the friary community itself, or to workmen employed in the construction of the chapter house.

The relatively small 16th–17th-century assemblage (231 sherds, *c*. 7.3kg) consists principally of a range of unglazed plain wares, various wares produced in Ely and imported stonewares (Table 9). This material is typical of sites in Cambridge and none is of particular significance. The bulk of the material was probably

deposited at the Dissolution or in its aftermath *c*. 1538–45. Although some of it is rather later the complete absence of certain pottery fabrics and the paucity of clay tobacco pipe suggests that none of the investigated features post-date *c*. 1600–20. One noteworthy piece was a sherd of polychrome tin glazed earthenware (**F.193 [1773]**). This has predominantly blue decoration, plus some yellow, green and brown, and comes from a large upright vessel with slight bulge, almost certainly an *albarello* or jar. With a pale fabric it was probably produced in the Netherlands and dates to the early 17th century. Evidence for such vessels is rare in Cambridge, although another more complete example was recovered from a nearby group (McCarthy 1974, 90, fig. 7.2).

Period	Qty.	Wt. (g)
Romano-British	5	80
10th–12th century	506	8204
13th–15th century	888	13158
16th–17th century	231	7322
Total	**1630**	**28764**

Table 6: All pottery by broad period.

Ware	Number	Per cent of principal wares by number	Weight (g)	Per cent of principal wares by weight	MSW (g)
St. Neots type	238	52.2	2580	34.7	10.8
Thetford type	182	39.9	4546	61.1	25.0
Stamford	36	8.6	309	4.2	8.6
Principal 10th–12th-century wares	*456*		*7435*		*16.3*
Mid/late 12th-century coarsewares	25		314		12.6
Crowland ware	2		10		5.0
Total	**483**		**7759**		16.1
Mid/late 12th–13th-century coarsewares	23		445		19.3

Table 7: 10th–12th-century pottery.

Fabric	Count	Weight (g)	MSW (g)	Date
Bourne D	2	18	9.0	1430+
Coarseware, brown	58	982	16.9	Variable, 13th–15th
Coarseware, buff	164	2173	13.2	Variable, 13th–15th
Coarseware, grey	406	5809	14.3	Variable, 13th–15th
Coarseware, orange	5	34	6.8	Variable, 13th–15th
Coarseware, pink	46	804	17.5	Variable, 13th–15th
Coarseware, red	4	46	11.5	Variable, 13th–15th
Coarseware, misc.	14	338	24.1	Variable, 13th–15th
Developed St. Neots-type	40	595	14.9	13th
Developed Stamford	27	320	11.9	13th-14th
Ely ware	23	310	13.5	Predominantly 14th, some 15th
Ely Grimston ware	8	152	19.0	14th
Essex greyware	1	4	4.0	15th
Essex redware	46	908	19.8	14th–15th, some definitely 15th
Essex redware, Hedingham	17	251	14.8	
Finewares, misc.	10	144	14.4	Variable, 13th–15th
Grimston ware	7	144	20.6	Predominantly 14th, some 15th
Hunts. wares	1	30	30.0	
Scarborough	6	58	9.7	13th-14th
Seigburg stoneware	1	6	**6.0**	14th–15th
Surrey Borders	2	32	16.0	14th
Total	**888**	**13158**	14.8	

Table 8: 13th–15th-century wares, dating relates to material in Cambridge and this site in particular rather than more generally.

Ware	Number	Weight (g)	MSW (g)
Plain greyware	52	1356	26.1
Plain redware	64	1944	30.4
Broad Street gritty red earthenware	2	168	84.0
Glazed red earthenware	39	1152	29.5
Glazed red earthenware with scrafitio, possibly from Essex	1	42	42.0
Late Essex Redware, Hedingham	8	328	41.0
Ely bichrome	2	124	62.0
Ely fineware	6	15	2.5
Frechen stoneware	21	1486	70.7
Raeren stoneware	3	126	42.0
Iron glazed	14	221	15.8
Iron glazed, brown glaze with yellow slip wheel medallions	10	106	10.6
Miscellaneous	9	254	28.2
Total	**231**	**7322**	**31.7**

Table 9: 16th–17th-century wares.

Earlier Discoveries, Craig Cessford

In terms of pottery recovered from the street block prior to the current investigations, the majority of the material held by the Museum of Archaeology & Anthropology is of minimla importance, comprising relatively small quantities of poorly contextualised material that parallels fabrics and forms from the recent excavations (Z 1103, Z 16566 A–C, Z 16568 A–C, Z 26865–71, Z 26875–80, Z 30848–52, Z 36587, 1994.279 & 2006.725). The only significant group is an early 17th-century assemblage from the Barclays Bank site in Bene't Street with over 140 vessels (McCarthy 1974). This material closely parallels the much smaller assemblage recovered from the backfilling of well **F.193** and is of considerable significance. There is also a small quantity of pottery from the 1991 excavations at the Old Cavendish Laboratory (115 sherds, 1799g) spanning the 10th/12th–16th/17th centuries. This is all of fabrics and forms similar to those from the more recent investigations and there are no particularly noteworthy pieces.

Coins and Jettons, Martin Allen

Despite extensive metal detecting only two copper alloy jettons and one silver coin were recovered. One jetton was recovered from general deposits associated with the Dissolution (**<2004>**), while the silver coin (**<2102>**) and the second jetton (**<2024>**) were recovered from the same grave (**F.146**) dating it to *c.* 1500–38 (Figure 31.5). Additionally a single jetton was recovered from the Old Cavendish Laboratories in 1991.

<2004> spot find **104**: Nuremberg, copper alloy jetton, anonymous Lion of St. Mark type (*c.* 1500–70) (cf. Mitchiner 1988, 362–64, nos. 1113–20a), 26mm diameter, 7.98g. From a general spread of material associated with the Dissolution.

<2024> F.146 [1524]: Nuremberg, copper alloy jetton, anonymous Rose/Orb type (large orb) (*c.* 1500–1580s) (cf. Mitchiner 1988, 377–81, nos. 1190–1226), 24mm diameter, chipped, 1.15g. This jetton

was found in close association with skeleton, it could conceivably be a deliberate inclusion in the grave. Although this is uncertain the fill in the immediate vicinity of the skeleton was relatively 'clean' and contained only sparse material culture inclusions.

<2102> F.146 [1163]: England, Edward IV, 1st reign (1461–70) or 2nd reign (1471–83), silver penny, York archiepiscopal mint, quatrefoil by neck of portrait on obverse, heavily clipped and worn, 0.45g. Probably deposited in the first half of the 16th century, no later than the debasement of the English coinage in the 1540s. From the upper fill of a grave, probably re-deposited from elsewhere with domestic refuse as there was a considerable amount of other material in this fill.

CAB91 <045> [008]: copper alloy jetton, Nuremberg, Hans Krauwinckel II (fl. 1586-1635), Rose/Orb type, Gotes Reich Bleibt Ewick legend on reverse, 22 mm, same dies as Mitchiner 1988, no. 1951. Weight 0.91g (chipped).

Metalwork, Craig Cessford, Andy Hall & Justin Wiles

The metalwork, including coins and jettons and buckles associated with skeletons, comprised iron (139 items), copper alloy (23 items), lead (12 items) and white metal (probably silver) (2 items) (Table 10). The most significant material is a collection of copper alloy and iron buckles from burials, which are dealt with as a group (see above). Other individually significant items include some copper alloy tweezers (Figure 11.2), a white metal (probably silver) finger ring (Figure 11.4) and a mount that is probably the central boss from a leather book binding (Figure 28.1). With measurements length is recorded first and then width. Identification and interpretation of a number of the copper alloy and iron items would benefit from x-raying.

	Pre-friary	Friary	Post-friary	Mixed	Total
Iron	28	66	29	16	139
Copper alloy	3	13	7	–	23
Lead	–	4	8	–	12
White metal/silver	–	1	1	–	2
Total	**31**	**84**	**45**	**16**	**176**

Table 10: Metalwork by phase by count of 'items' rather than fragments, including coins/jettons and buckles associated with burials.

	Pre-friary	Friary	Post-friary	Mixed	Total
Items	11	12	6	1	30
Nails	12	30	19	6	67
Unidentifiable	5	20	4	9	38
Total	28	62	29	16	135

Table 11: Ironwork by phase, by count.

White Metal

<2061> [1502] F.255: a plain white metal wire hoop of 15mm diameter, with three neatly spiralled lengths of smaller gauge wire wrapped around (Figure 28.5). Possibly a silver finger ring. Weight 0.5g. A similar example is illustrated from London and dated to the 16th century (Egan 2005a, 53).

Although initially assigned to a pre-friary pit the ring probably derives from a Subphase 3.1 feature on the edge of later modern disturbance that was not recognised.

Copper Alloy

Small quantities of copper alloy items were recovered from pre-friary and post-friary contexts. The only noteworthy items were a complete set of tweezers decorated with a diamond pattern (Figure 11.2) and a strip with wigglework incised decoration from pre-friary pits, plus a very fine and decorative square or diamond shaped mount that is probably the central boss from a leather book binding (Figure 28.1) from a Dissolution context.

Phase 1 Pre-Friary

<2063> [1643] F.277: a group of 13 small and heavily corroded fragments of thin sheet, probably from one item. Weight 1g. Undated. Phase 1.

<2076> [1869] F.330: a fragmentary length of strip with faint traces of wigglework incised decoration to one surface. Probably a binding strip. Measuring 61 by 5mm, weight 1g. Medieval in date. Subphase 1.2.

<2113> [2064] F.383: a complete set of tweezers formed from a strip. The other surface of both sides are decorated with a pair of incised zig zags forming a diamond pattern. Medieval in date. Subphase 1.2.

Phase 2 Friary

<2057> [1489] F.232: a heavily corroded flat and irregular shaped object. Measuring 15mm width, weight 1g. Undated. Subphase 2.1.

<2139> [1773] F.193: three fragments of plain strip, slightly curved, probably from a single item. Of 6mm width, weight 0.6g. Undated. Subphase 2.1.

Phase 3 Post-Friary

<2021> [1122] F.135: a very fine and decorative mount of square or diamond shape (Figure 28.1). With a central raised square boss, surmounted by a centrally positioned round finial and hollow at the back. The four corners each have a leaf shaped projection with rounded terminal with a pierced lug on each side. Three of the original copper alloy rivets are in situ, projecting down 4mm below the plate. The upper surface although covered in corrosion products, is well decorated with incised lines, possibly representing foliate patterns. This is most likely a mount from a leather book binding and probably the central boss. Measuring 40mm in width, weight 26g. A similar example is illustrated from Norwich (Margeson 1993. 75). A number of books from the friary are held in the Vatican library (Crook 1983; Ker 1978). These had arrived in Rome by 1545 and may have been sold by the last prior, who had to pay a large fine to the university. They appear to be physically similar to contemporary college collections and are mainly good quality large library books, some of very high quality, procured by various means, some rebound while they were still at the Cambridge friary. Alternatively, this could be a fine harness mount. Further examples of similar form are listed within the PAS website catalogue (SUSS-CBF7E7). Later Medieval in date. Although potentially from the upper fill of a Subphase 1.2 pit this item probably derives from overlying Subphase 3.1 Dissolution related deposits.

<2046> [1328] F.187: a folded sheet lace chape? Measuring 28mm in length, weight 1g. Medieval in date. Subphase 3.1.

<2097> [1305] F.408: a small rectangular plate pierced with three circular holes (incomplete) found with a tiny right angle strip. Measuring 8 by 9mm, weight 0.5g. Post-Medieval in date. Intrusive in a Phase 1 deposit.

<2000> spot find **100**: An oval or D-shaped buckle with short rectangular plate intact. The frame thickens slightly towards the outside edge of the frame. A smooth (well worn?) notch sits centrally for the pin, which is missing. The plate is decorated on the upper surface with raised areas and at least five small perforations. Corrosion obscures what may well be a zoomorphic motif similar to the lion passant regardant example from London (Egan & Pritchard 2002. 111). A further parallel is recorded on the PAS website (NMS-DFA309). Two domed headed rivets are positioned towards the end of the plate. The reverse is noticeably narrower than the front with a single perforation centrally positioned. Measuring 39x25mm, weight 9g. Possibly a little earlier than many of the other buckles from the site, with a 13th-century date suggested. Unstratified find that could derive from wither Subphase 1.2 or Subphase 3.1 deposits.
<2101> spot find **101**: a fragment of casting spill. Measuring 32 by 13mm, weight 14g. Subphase 3.1.
<2002> spot find **102**: a cast narrow buckle with two asymmetrical loops, one oval and the other smaller and rectangular. Dimensions 20.8x44mm, weight 6g. Probably Post-Medieval. Subphase 3.1.

Iron

Iron objects were recovered from pre-friary, friary and post-friary contexts. The ironwork could be broadly divided into items, nails and unidentifiable fragments, the latter two categories were discarded following assessment. Noteworthy pre-friary items include a fine tapering iron rod, an arrowhead, a small axe shaped tool, a key and a knife. Items from friary period deposits included a key, a staple, a possible punch or awl and a horseshoe. The most interesting item is a finely made socketed hammer head (Figure 28.4), from a context associated with the construction of the friary and possibly for stone working.

Phase 1 Pre-Friary

<2031> [1278] F.177: a short length of rectangular strip or plate, measuring 46 by 32 by 10mm, weight 48g. Subphase 1.2.
<2051> [1399] F.209: a fine tapering rod, turned over through 90 degrees. The terminal slightly flattened. Measuring 94mm in length, weight 7g. Medieval in date. Subphase 1.2.
<2059> [1512] F.236: a short length of strip, measuring 42mm in length, weight 8g. Found with a much larger section of plate or strip, slightly dome shaped in cross section. Measuring 79 by 45mm, weight 89g. Medieval in date. Subphase 1.2.
<2064> [1667] F.281: an arrowhead with a lozenge shaped blade and a well formed long socket. Measuring 75 by 20mm, weight 15g. Medieval in date. Subphase 1.1.
<2065> [1691] F.288: a short length of strip, measuring 42mm in length, weight 12g. Subphase 1.2.
<2066> [1703] F.292: a small axe shaped tool? With body thickening at one end, but with no apparent socket present. The blade appears to be incomplete. Measuring 80 by 26mm, weight 75g. Subphase 1.2.
<2083> [2055] F.349: a hook or architectural fitting with triangular shaped plate extending to a turned over tapering point. Measuring 117 by 55mm, weight 176g. Subphase 1.2.
<2085> [2024] F.371: a key with solid square section stem, with rectangular bit and bow missing. Measuring 101 by 30mm, weight 39g. Medieval in date. Subphase 1.2.
<2089> [2087] F.390: a complete knife, with tapering tang (of rectangular cross section) and offset, straight triangular section blade. Measuring 154mm in length, weight 36g. Medieval in date. Subphase 1.2.

Phase 2 Friary

<2043> [1456] F.193: a heavily corroded key with solid stem projecting beyond the rectangular bit. The circular bow is incomplete. Close in form to an example from Norwich (Margeson 1993. 162). Measuring 123 by 40mm, weight 75g. Later Medieval or Early Post-Medieval in date. Subphase 2.1.

<2044> [1773] F.193: a rectangular shaped staple, similar to published example from York (Ottaway & Rogers 2002, 2829) and Denny Abbey (Christie & Coad 1980. 254). Probably used to hold other structural metalwork in place. Measuring 84 by 56mm, weight 90g. Found in association with a binding strip or hinge strap with a turned over terminal, slightly wider in the middle and tapering to a point. Traces of mineralised wood attached to the strap. Measuring 142 by 25mm, weight 49g. Medieval in date. Subphase 2.1.

<2084> [1964] F.352: a tool, possibly a punch or awl. Heavily corroded but probably of square section tapering to a point. Measuring 96mm in length, weight 42g. Later Medieval in date. Subphase 2.1.

<2092> [1960] F.406: a socketed hammer head with rectangular face, centrally positioned socket of sub rectangular shape, and slightly splayed, chisel like claw without the central notch (Figure 28.4). The hammer head is pyramidal in form with the socket at the apex. Measuring 79 by 23 by 25mm, weight 111g. A finely made tool possibly for stone or metalworking and of medieval date. Requires further work to trace parallels. Subphase 2.1. This resembles a 'pitching-hammer' with one side flat and the other pitched, which was used by the banker masons with the pitcher and the punch for the harder stones (Mark Samuel pers. comm.; Clifton-Taylor & Ireson 1983, 91). It might have been discarded due to becoming too light through wear to be effective.

<2099> [1026] F.409: a strip angle binding with a right angle bend. With one gradually tapering terminal and the other sharply tapering to a triangular point. Similar to examples from Castle Acre in Norfolk (Coad & Streeten 1982. 231). Measuring 104mm in length, weight 34g. Medieval in date. Subphase 2.2.

<2101> [1506] F.409: a horseshoe fragment, measuring 120 by 90mm, weight 190g. Of Late Medieval date. Subphase 2.2.

<2103> [1902] F.106: three nails and an unidentified concretion, ranging from 27 to 51mm in length. Mineralised wood of 26mm thickness survives around the shank of the nails. Total weight 32g. From a Medieval grave context and therefore probably coffin nails. Subphase 2.1.

Phase 3 Post-Friary

<2011> [1010] F.103: a group of three objects including a small knife with square section long tang aligned to the top of the blade, which is slightly curved with the tip absent. Measuring 115mm in length, weight 34g. Found with a fragment of knife blade of curved form. Also recovered was a knife handle with copper alloy end cap and four small rivets along its length, presumably for the attachment of two bone or similar scales. Very similar to an example from Norwich Greyfriars (Emery 2007, 187). The latter measuring 85 by 15mm, weight 19g. 16th–17th century. Subphase 3.1.

<2018> [1042] F.113: a length of binding strip, with two perforations. Appears to form a right angle turn at one end. Measuring 105mm in length, weight 18g. Post-Medieval in date. Subphase 3.1.

<2022> [1163] F.146: a rectangular strip, turning through 90 degrees. Probably a coffin fitting/binding strip. Medieval in date. Subphase 3.2.

<2032> [1300] F.182: a short length of rectangular section bar, tapering to a cutting? edge at one end. Possibly part of a small tool such as a chisel. Measuring 38 by 19mm, weight 21g. Post-Medieval in date. Subphase 3.1.

Lead

All the lead recovered derives from either Subphase 2.2 features or Subphase 3.1 deposits associated with the Dissolution. The Subphase 2.2 material included two fragments of lead window came, possibly early examples of 15th–16th-century milled came.

Phase 2 Friary

<2023> [1163] F.146: a y-shaped fragment of window came, possible of early milled type (see **<2055>** below). Measuring 51mm in length, weight 6g. Found with a triangular sheet off-cut. Measuring 38mm in length, weight 16g. Later Medieval in date. Subphase 2.2.

<2048> [1332] F.189: a triangular sheet off-cut. Measuring 130mm in length, weight 23g. Subphase 2.2.

<2049> [1335] F.190: a fragment of sheet lead off-cut tapers to a point at both ends. Length 80mm, width 9mm, weight 18g. Subphase 2.2.

<2055> [1481] F.230: a length of window came, possibly an early example of milled came, without the reeding within the channel, similar to Type B from Nonsuch palace (Egan 2005b, 351). Dating to the 15th or 16th century. Measuring 50mm in length, weight 6g. Found with a thin lead sheet off-cut. Measuring 69mm in length and 13g. Subphase 2.2.

Phase 3 Post-Friary

<2003> spot find **103**: an irregularly shaped fragment, probably casting spill. Length 67mm, weight 48g. Subphase 3.1.

<2005> spot find **105**: a small fragment of casting spill, length 34mm, weight 8g.

<2006> spot find **106**: setting of length 86mm length, weight 322g, for a square sectioned bar 20 by 20mm. Subphase 3.1.

<2007> spot find **107**: a small fragment of casting spill. Dimensions 43 by 39mm, weight 35mm. Subphase 3.1.

<2008> spot find **108**: a small irregularly shaped fragment of sheet. Dimensions 23 by 28mm, weight 9g. Subphase 3.1.

<2009> spot find **109**: a weight with off centre, circular piercing. Circular in plan rectangular in section. Radius 24mm, thickness 14mm, weight 56g. Subphase 3.1

<2010> spot find **111**: a small globular droplet. Weight 2g, diameter 7mm. Subphase 3.1.

<2091> [1243] F.398: an irregularly shaped fragment, probably casting spill. Dimensions 65 by 30mm, weight 51g. Subphase 3.1.

Worked Stone, Craig Cessford

The worked stone comprised Niedermendig quernstone fragments, a whetstone and roof tile. A relatively small assemblage of 21 fragments of Niedermendig quernstone fragments weighing 2466g was recovered. All the fragments were recovered from friary or post-friary contexts. There were no particular concentrations of quernstone and none of the fragments are particularly noteworthy. A single whetstone was recovered from a pre-friary context (**F.398**).

225 pieces of Collyweston stone roof tile weighing 25.8kg were recovered, based upon holes and other diagnostic elements a minimum of 38 tiles are represented. All the roof tiles appear to have just a single hole and no fragments preserve evidence for the overall shapes or sizes of the tiles. All the fragments were found in friary Subphase 2.2 or post-driary contexts. To judge from Dissolution period deposits stone tiles were definitely in use on Subphase 2.2 roofs. It is also possibly the stone tile was used on Subphase 2.1 roofs, as fragments were found in Subphase 2.2 grave fills, although it is conceivable that these derive from Subphase 2.2 roofs.

Worked Bone, Vida Rajkovača, Craig Cessford & Ian Riddler

The pre-friary objects were studied by Vida Rajkovača and Craig Cessford, who also identified the friary period objects which were studied by Ian Riddler. There are a number of worked bone objects, but also a number of bone specimens evidently modified and utilised which do not appear as finished objects. In total 10 items are reported upon. The pre-friary objects comprise two double ended implements, a toggle or buzz bone (Figure 11.3), a possible attempt to manufacture a skate and two crudely shaped objects that may be gouges. These are all typical objects of the period. The friary period objects comprise two styli (Figure 28.2) and two buckles (Figure 15.6), the latter being relatively unusual objects.

Phase 1 Pre-Friary

<939> [2093] F.390: pit, 13th–early 14th century. A double ended implement fashioned from a cattle-sized limb bone shaft fragment with high polish from wear against the hand and against the loom. It has a rounded end and a slightly chipped working end, measuring 107mm in length and 11mm in width. It has a flattened cross-section. This class of tool is characterised by one broad end and one pointed end, the broad end is frequently scooped out on one or both faces creating an inverted finger nail-shaped cavity. Sections are usually subrectangular and the tools have wear related polished surfaces. Of uncertain function, but could be linked to weaving, smoothers, burnishers or styli (Andrews and Penn 1999; MacGregor 1985, 189). Eight examples were recovered from the nearby Grand Arcade site from 11th–15th-century features, although most appear to be 11th–12th century.

<940> [2094] F.390: pit, 13th–early 14th century. Very similar to double ended implement **<939>**, this object was also made from a cattle-sized limb bone fragment. The finish is even more refined and the working end is preserved. The object measures 85.7mm in length and 9.5mm in width.

<695> [2026] F.371: pit 13th–early 14th century. A toggle or buzz bone cf. Margeson 1993, 213−15) (Figure 11.3). Fashioned from a juvenile pig 3rd metatarsus (distal end unfused), measuring 61mm in length. Aside from an area with high polish in the middle of the shaft, there are no chop or other visible marks. It is pierced mid-shaft with a hole *c.* 4mm in diameter. Probably simple musical instruments, they would have been threaded with twine or leather and twisted in the hand, when released it would have made a buzzing sound (Riddler in Wallis 2004, 63). Buzz bones begin in the 10th century, are common finds of the 11th and 12th centuries and continue throughout the medieval period and beyond. Two examples were identified at the nearby Grand Arcade site, one from 12th and 14th-century pits.

<936> [2024] F.371: pit 13th–early 14th century. A horse left radius with signs of attempt to be modified into a skate, an artefact type with 12th–17th-century parallels (Andrews & Penn 1999; Margeson 1993, 218−19; MacGregor 1985, 141−44; Riddler in Wallis 2004, 61−62). Clear chop marks are visible all around the proximal and distal ends of the shaft, with further shallow scoop marks on the anterior of distal shaft, creating a flat surface. The object, if it was indeed intended to be turned into a skate, appears unfinished, though it is possible that the object could have had different use.

<937> [2064] F.383: pit 13th–early 14th century. A fragment of cattle/horse-sized pelvis (illium) that was chopped and the point was used as a crude gouge. Clear polish is visible on the point and some wear and weathering around the working end.

<938> [2088] F.390: pit 13th–early 14th century. Proximal end of the horse right tibia was chopped obliquely, mid-shaft, and the sharp end created as a result of chopping was utilised as a crude point or a gouge. Similar to examples from Anglo-Scandinavian levels at Thetford, York and Northampton, albeit made from cattle metapodials, and they may have a craft function (MacGregor 1985, 174–75, fig. 93a–b).

Phase 2 Friary

Two belt buckles are dealt with in the section on buckles associated with burials (see above). The two bone styli illustrate part of the variation in form that can be seen within this Late Medieval object type. Both objects are made of bone and have been lathe-turned. The smaller example **<876>** includes a circular knop and bands of circumferential lines along its shaft, whilst the longer example **<202>** has an oval knop and there is no decoration on the shaft (Figure 28.2). The smaller stylus was originally equipped with a lightly indented bone point, but this has snapped away. The larger stylus has also been damaged in this area and its copper alloy point, which was enclosed within a silver sleeve, has fractured.

Bone styli are common finds of the Late Medieval period. The Winchester series of bone styli span the period from the late 12th century to the 16th century and that appears to be the date range for the object type as a whole (Brown 1990, 734; Rees et al 2007, 286; Riddler 2001, 278). They are invariably made of bone and are lathe-turned, but there is some variation in their lengths, in the form of the knop at the apex, and in the material used for their pointed terminal. In some cases, the point is made of bone, as occurs here and with styli from Ipswich, London and York (Riddler 1998, 272; Riddler et al forthcoming; MacGregor et al 1999, 1975, fig. 930.8042). More commonly, however, points of iron or occasionally of copper alloy were inserted into perforations drilled into the shaft of the stylus. The additional provisioning of a silver sleeve above the point, seen with one of the styli **<202>**, is a very unusual and opulent feature for the object type. A less ornate silver-gilt sheath had been placed on a bone stylus from Southwark and led Egan to speculate that it belonged to an aristocratic household or was designed to impress and to underline the gravitas of the person whose business was being transacted (Egan 2005, 123).

The function of these objects has been discussed at length and has moved increasingly towards an interpretation of them as styli. They were previously viewed as pins,but this idea has been overturned and they are commonly regarded nowadays either as styli or parchment prickers (Brown 1990, 734–35; MacGregor et al 1999, 1975; Riddler 1998, 272; Riddler 2001, 278). It seems very unlikely that they served as parchment prickers, however, a function that would limit them, in effect, to ecclesiastical scriptoria. Instead, they conform very well with William Horman's 16th-century description of writing implements as '*Poyntillis graphia of yron and poyntillis of syluer bras boone or stone: hauinge a pynne at the ende*' (MacGregor et al 1999, 1976). The fact that they have been found in both ecclesiastical and secular contexts endorses this interpretation, as does their broad similarity with bone styli of Roman date (Deschler-Erb 1998, 143–44 and taf 22; Gostenčnik 2005, 41–74). Five similar items were discovered at the nearby Grand Arcade site, which is purely secular and domestic in character (Cessford 2007).

<202> [1163] F.146: incomplete bone stylus, lathe-turned with a lightly tapered shaft of circular section leading to a silver sleeve with a decorative upper edge forming a continuous triangular pattern (Figure 28.2). The sleeve encloses a fragmentary copper alloy point. The shaft is surmounted by a double moulding, with an acorn knop at the terminal.

<876> spot find **110 [1435] F.409**: incomplete bone stylus with a lightly tapered shaft of circular section, decorated with three bands of triple lateral lines, with a double moulding above, surmounted by a globular terminal. Lathe-turned and originally equipped with a bone point, which has fractured away. Highly polished.

Window and Vessel Glass, Vicki Herring

With the exception of four vessel fragments and a single fragment of intrusive modern window glass, the entire glass assemblage comprises 13th–14th-century window quarry fragments (Figure 29). The vessel glass has been recorded as a minimum number of vessels, and by type. The window glass has been organised by individual quarries with colour, decoration and edges noted.

Window Glass

With the exception of a single fragment of intrusive, modern window from context **[1802]**, all of the window glass is 13th–14th century (Table 12). All of the fragments are in relatively poor condition with a deep, heavy patina, making the shade of green difficult to determine in some cases. These fragments are labelled merely as green. All but 17 of the quarry fragments show signs of enamelled grisaille decoration. There was no grisaille visible on any of the more deeply coloured green, blue and red quarry fragments. Together these pieces most likely represent a pale green/green grisaille window with coloured parts and border similar to grisaille lancet windows such as those in the North Transept of Lincoln Cathedral (Cowen 2008).

Locally, similar examples of grisaille window quarries have been found in excavations of a Dominican Priory building at Emmanuel College in 1993 (Dickens, 1999, 74–75, fig. 3) and Cambridge Folk Museum excavations in 2003 (Cessford with Dickens 2005, 92, fig. 13.2). Further afield, other friary sites such as excavations of the Thetford Dominican friary (Bellamy 1999) have also produced comparable grisaille fragments of the same date.

The presence of mortar adhering to the surfaces of many of the quarries suggests that they have become mixed with other building materials. This could explain the presence of this early glass across all contexts as it was re-used/redistributed across the site. A small quantity of window glass (three contexts) came from Subphase 2.1 features. A more significant number came from Subphase 2.2 (29 contexts) and 3.1 (26 contexts) features.

Cat.	F.	Con.	Length (mm)	Width (mm)	Thick. (mm)	Colour	Description
124	106	1014	14.1–10.8	10.8–5.4	2	Pale green	Fragments x4. No edges. No visible paint. Very heavily patinated.
132	110	1036	85.6	50.3	4.1	Very pale green/painted	Almost complete quarry. Grozed edges. Brown painted grisialle decoration. Thick patina.
132	110	1036	82	39.7	5.8	?Blue	Fragments x2 - refitting. Part of one fire rounded edge. No visible paint. Very thick patina.
132	110	1036	47.3	49.2	3.8	Amber brown	Quarry corner fragment. 2 grozed edges. Possible faint fragments of paint. Mortar adhering to surface. Very thick patina.
132	110	1036	24.5	20.7	2.7	Green/painted	Quarry fragment. One grozed edge. Fragments of brown painted decoration - possible grisaille. Very thick patina.
132	110	1036	45.6	27.2	3.8	Green/painted	Quarry fragment. One grozed edge. Fragments of brown painted decoration - possible grisaille. Very thick patina.
132	110	1036	42.9	30.2	3.6	Green/painted	Almost complete quarry. Diamond shaped. Grozed edges. Remnants of painted decoration. Very thick patina.
204	146	1163	47.6	36.3	4.1	Very pale green/painted	Quarry fragment. One curved, grozed edge. Brown painted grisaille decoration. Thick patina.
204	146	1163	59.4	32	3.7	Very pale green/painted	Quarry fragment. One grozed edge. Brown painted grisialle decoration. Very thick patina. Mortar adhering to both surfaces.
204	146	1163	27.8	22.8	2.2	Very pale green/painted	Quarry fragment. Possible faint traces of brown paint. Thick patina.
204	146	1163	32.2	23.3	4.4	Deep blue green	Incomplete rectangular quarry. Three grozed edges. No visible sign of paint. Thick patina. Mortar adhering to both surfaces.
204	146	1163	52.9	25	2.9	Deep Blue Green	Incomplete rectangular quarry, 4 refitting pieces. Three grozed edges. No Visible sign of paint. Thick patina.
204	146	1163	32	30.4	3.3	Very pale green/painted	Quarry fragment. Traces of brown grisaille decoration. Thick patina. Mortar adhering to both surfaces.
204	146	1163	31.1	9.6	3.4	Green/Painted	Quarry fragment. Trace of brown painted decoration. Very thick patina.
204	146	1163	25.7	25.4	2.5	Very pale green/painted	Quarry fragment. Part of one grozed edge. Traces of brown painted decoration. Thick patina.
286	146	1163	25.2	12.1	4.9	Pale green?/painted	Fragment. Brown painted decoration - glass colour and detail not discernible - possible grisaille. Very heavily patinated.
214	152	1186	10.3	11.7	2.5	?Pale green	Quarry fragments x2. Very heavily degraded.
273	187	1328	16.5	16.4	2	?Pale green/painted	Quarry fragments x4. Brown painted grisaille decoration. Very heavily patinated.
273	187	1328	39.8	21.5	2.3	Green	Almost complete rectangular quarry fragment. Two definite grozed edges. No visible sign of paint. Heavily patinated.
281	189	1332	38.4	37.9	2.9	Green/painted	Quarry fragment. Rectangular. 3 grozed edges. Brown painted grisaille decoration. Thick patina.
281	189	1332	51.1	36.3	4.9	Green/painted	Quarry fragment. Part of one grozed edge. Brown painted decoration. Very thick patina.
281	189	1332	54.1	41.8	3.6	Green/?painted	Quarry fragment. Part of two grozed edges. Possible traces of paint. Very thick patina.

281	189	1332	26.2	22.7	3.5	Pale green/painted	Quarry fragment. Diamond or triangular. Two grozed edges terminating in a point. Brown painted grisaille decoration. Very thick patina.
283	190	1335	41.8	34.7	3.6	Green	Quarry fragment. One grozed edge. No visible signs of painted decoration. Very thick patina.
283	190	1335	27.3	22.7	4.6	Green/painted	Quarry fragment. Part of one grozed edge. Traces of brown painted decoration. Thick patina.
283	190	1335	22	21.6	2.4	Pale green/painted	Quarry fragments x4. 2 refitting. Rectangular. Brown painted grisaille decoration. Very thick patina.
283	190	1335	39.8	32.3	3.4	?Green/painted	Quarry fragment. Part of two grozed edges - opposing. Faint traces of brown painted decoration. Very thick patina.
283	190	1335	26	26.3	4.4	?Green/painted	Quarry fragment. Possible corner. Small amount of possible grozing. Brown painted grisaille decoration. Very thick patina.
283	190	1335	50.8	33.9	3.5	Green/painted	Quarry fragment. Brown painted grisaille decoration. Very thick patina.
288	191	1336	47.1	16.5	4.3	Pale Green	Quarry fragments x2 refitting. Part of two grozed edges. No Visible signs of painted decoration. Very thick patina.
288	191	1336	31.6	23	3.3	?Green/painted	Quarry fragment. Part of one grozed edge. Traces of brown painted decoration. Thick patina.
288	191	1336	23.4	23.8	5.2	?Green/painted	Quarry fragment. Part of one grozed edge. Traces of brown painted decoration. Very thick patina.
288	191	1336	32.8	19.6	3.6	Red	Quarry fragment. Two grozed edges culminating in a point. Diamond or triangular shaped quarry. No visible signs of painted decoration. Very thick patina.
359	224	1462	40.6	17.7	3.6	Deep blue green	Almost complete, rounded rectangular, slightly curved quarry. Grozed edges. No visible signs of paint. Very thick patina.
359	224	1462	51.6	22.4	2.8	Deep blue green	Almost complete rectangular quarry. Grozed edges. No visible signs of paint. Very thick patina.
368	230	1481	24.9	16.9	3.6	?Green/painted	Quarry fragment. Part of one grozed edge. Brown painted decoration. Mortar adhering to both surfaces. Badly degraded and crumbly.
368	230	1481	44.3	32.2	4	?Green	Quarry fragment. Part of one grozed edge. No visible evidence of painted decoration. Some mortar adhering to both surfaces. Very thick patina.
368	230	1481	28.9	21.2	3.9	Green/painted	Quarry fragment. Part of one grozed edge. Lines of brown painted decoration. Thick, shiny black patina.
368	230	1481	39.3	34.8	4.7	Green/painted	Quarry fragment. Part of 2 grozed edges forming a corner. Brown painted decoration - Grisaille? Very thick, shiny black patina.
373	230	1482	38.9	24	2.5	Green/painted	Quarry fragments x2 refitting. Very faint traces of brown painted decoration. Very thick patina.
385	237	1515	23.5	13.9	2.5	?Pale green/painted	Quarry fragments x2 refitting. Brown painted decoration. Very heavily degraded and patinated.
652	352	1964	12.6	9.1	2.6	?Pale green	Edge fragment. Grozed edge. Very heavily patinated.
796	398	1243	59.3	30.5	5.3	Green/Painted	Almost complete quarry. Brown painted decoration, possibly grisaille. Thick patina.
796	398	1243	32.6	19.6	4.1	Green/painted	Quarry fragment. One edge. Brown painted decoration, possibly grisaille. Thick patina.

796	398	1243	58.4	26.5	3.8	Green	Complete quarry. Rectangular with slight curve in long side. Grozed edges. Mortar adhering to one surface. No paint visible. Thick patina.
796	398	1243	35.6	17.5	3.5	Pale green/painted	Quarry fragment. Rectangular. 3 grozed edges. Brown painted grisaille. Thick patina.
796	398	1243	31.7	23.3	3.9	Pale green/painted	Quarry fragment. No edges. Brown painted grisaille decoration. Very heavily patinated.
796	398	1243	20	14	4	Pale green/painted	Quarry fragment. No edges. Brown painted grisaille decoration. Very heavily patinated.
796	398	1243	16.4	15.4	4.2	Pale green/painted	Quarry fragment. No edges. Brown painted grisaille decoration. Very heavily patinated.
796	398	1243	14.5	13.7	3.8	Pale green/painted	Quarry fragment. No edges. Brown painted grisaille decoration. Very heavily patinated.
796	398	1243	12.6	12.8	3.8	Pale green/painted	Quarry fragment. No edges. Brown painted grisaille decoration. Very heavily patinated.
796	398	1243	22.7	19.5	4.8	Pale green	Quarry fragment. Part of two well grozed edges remain. No paint visible. Thick patina.
796	398	1243	24.9	19.1	4.4	Green	Quarry fragment. Possible brown painted decoration faintly visible. Very thick patina.
796	398	1243	33.5	11.4	2.4	Pale green	Quarry fragment. Triangular. No edges. Faint brown painted decoration. Very heavily patinated.
796	398	1243	26.3	13.8	1.8	Very pale green/painted	Quarry fragment. No edges. Fragment of brown painted grisaille. Dark patina.
796	398	1243	34.8	27.3	3.2	Green/painted	Quarry fragment. One curved, grozed edge. Brown painted decoration - possible grisaille. Thick patina.
796	398	1243	25.2	20.6	2.9	?Pale green/painted	Quarry fragment. No edges. Traces of brown painted decoration. Thick patina obscures colour of glass.
796	398	1243	31.8	16.7	4.3	?Green	Quarry fragment. Part of one grozed edge. No evidence of paint. Very thick patina.
796	398	1243	30.6	29.4	4.1	Reddish brown/?painted	Quarry fragment. One curved, grozed edge and one possible part of curved, grozed edge. Possible faint traces of brown painted decoration. Very thick patina.
796	398	1243	59.3	17.9	3.6	Green/?painted	Fragment. Curved edge with fire rounded rim and slight ridge. Possible black painted decoration visible. Thick patina.

Table 12: 13th–14th-century window glass fragments.

Earlier Discoveries, Craig Cessford

Some glass found prior to construction of Old Cavendish Laboratory in 1872 was reset in a panel in one of the side chapels of King's College (Wayment 1988, 135). Consisting of potmetal, paint and stain and dating to the 15th and early 16th centuries it depicts architectural features, heraldry, figures and inscriptions. Quarries with painted and stained upper edges and in King's College Chapel may also be from the Augustinian friary. The Cambridge University Museum of Archaeology & Anthropology holds 12 boxes of window glass recovered during building work in 1908–10 (Z 41520):

Box 1: Two pieces of white glass. Large circle, once painted but paint now corroded away, medieval. Fragment of painted drapery, 19th or 20th century.

Box 2: Fragment of painted glass with naturalistic foliage, 19th–20th century.

Box 3: Two pieces of white glass. One, now broken into three pieces, with a censor painted in silver stain. Foot of a standing person. Both Late Medieval, possibly 15th–early 16th century.

Box 4: Pieces of glass, with green foliage.

Box 5: Multiple fragments of white glass, heavily pitted, some cut in the modern period. One piece of white glass painted with foliage, 14th century. One piece of flash ruby glass, heavily corroded.
Box 6: Multiple, small fragments of glass, mostly medieval.
Box 7: Long rectangular pieces of glass, mostly white with greenish tinge, painted with geometric patterns that appear like bricks. Some might be modern, or in excellent condition.
Box 8: Multiple fragments, some of white glass, some of ruby glass. Some with painted decoration. Medieval, probably 14th century.
Box 9: Four pieces of glass, probably border pieces, with traces of leading and painted decoration.
Box 10: Multiple fragments of glass, mostly white but one flashed ruby, with some painted detail.
Box 11: Fragments of glass, some border pieces, one with a painted fleur de lis. Medieval.
Box 12: Fragments of glass.

Vessel Glass

Four drinking vessels are represented by 17 shards of glass, and all are most likely to be of medieval date, though they are too fragmented for their full forms to be identified. The colour and preservation of the two clear glass vessels suggest that they are possibly soda glass, and both appear to be imported. The slight honey tinge and bubbles in the very thin walled fragments from general soil layer **[1305] F.408** suggest an Eastern Mediterranean origin (Tyson 2000, 14), while the fragment of colourless glass with painted vertical, white enamel lines (3mm thick and at 1mm intervals) **[1773] F.193** from the post-friary backfilling of a well is possibly later 15th–16th century Venetian (Tyson 2000, 15). The two remaining vessels, an unstratified piece from **[1006]** and **[1015] F.310** from a grave in the chapter house, probably represent 14th century English potash goblets (Tyson, 2000). They are very fragmented and thickly patinated, making it impossible to determine exact forms.

Ceramic Building Materials, Philip Mills

1490 fragments, weighing over 106kg, of ceramic building material (CBM) were studied from the site. The stratified material comprised 1455 fragments, weighing over 103kg, with 237 corners and a minimum number of tiles (MT) of 123 and a tile equivalent (TE) of 5179%. The material was examined by context group, with fragments being recorded by sherd families based on fabric and form. The fabric series used is as Mills (forthcoming).

The peg tiles recovered are all in fabrics consistent with a 13th–14th-century date. Similarly the ridge tiles are in fabrics and forms which are consistent with 13th–14th-century styles. The line impressed decoration is introduced in the early 14th century and continues into the 16th century. Plain mosaic tiles are introduced in the 12th century and continue into the 16th century. The bricks are handmade and irregular, this and the sizes are suggestive of 13th–16th-century dates. The material is thus consistent with a 14th-century date.

Table 13 shows the breakdown of the assemblage by context type. The majority of material was recovered from pits, followed by graves. This is in line with other sites of the period where pits appear to be used for the deposition of large quantities of CBM. The breakdown of the assemblage by context type by phase group is shown in Tables 14–17. In the pre-friary phase the largest group of material

come from pits, but there is also a substantial amount from layers. The majority of the material from the friary Subphase 2.1 comes from graves. Graves are also an important deposition group in the friary Subphase 2.2 although pits also seem to be important. In the post-friary phase pits are the largest group, followed by demolition.

Feature type	No.%	Wt.%	Mt%	TE%	CNR%	MSW(g)	MPR
Layer	2.5	1.3	4.9	2.9	2.5	38.00	25.00
Demolition layer	6.3	4.3	2.4	1.9	1.7	49.31	33.33
Floor	1.6	0.5	0.8	0.5	0.4	23.33	25.00
Pit	44.2	36.2	43.1	41.5	38.0	58.17	40.57
Posthole	2.9	0.8	2.4	1.4	1.3	20.00	25.00
Grave	32.5	19.4	21.1	17.4	15.2	42.38	34.65
Wall	2.1	7.2	6.5	10.1	13.1	248.43	65.63
Oven	0.9	3.2	8.1	7.2	8.0	254.38	37.50
Construction layer	1.2	0.7	0.8	0.5	0.4	43.41	25.00
Drain	1.5	0.8	1.6	1.4	1.3	35.82	37.50
Well	3.5	12.9	2.4	4.8	7.6	261.78	83.33
Cesspit	0.3	0.3	0.8	0.5	0.4	74.75	25.00
Culvert	0.1	2.4	–	–	–	2486.00	–
Cellar	0.5	10.0	4.9	9.7	10.1	1290.00	83.33
N/AVG	**1455**	**103447**	**123**	**5176**	**237**	**71.10**	**42.08**

Table 13: The overall CBM assemblage by feature type.

Feature type	No.%	Wt.%	CNR%	TE%	MT%	MSW(g)	MPR
Layer	24.66	21.14	37.50	37.50	40.00	38.00	25.00
Pit	71.92	73.80	56.25	56.25	53.33	45.48	28.13
Oven	0.68	0.43	–	–	–	28.00	–
Cesspit	2.74	4.62	6.25	6.25	6.67	74.75	25.00
N/AVG	**146**	**6470**	**16**	**400**	**15**	**44.32**	**26.67**

Table 14: CBM by feature type from pre-friary Phase 1 deposits.

Feature type	No.%	Wt.%	CNR%	TE%	MT%	MSW(g)	MPR
Pit	0.43	2.39	6.25	6.25	8.33	237.00	25.00
Grave	99.57	97.61	93.75	93.75	91.67	41.98	34.09
N/AVG	**232**	**9934**	**16**	**400**	**12**	**43.82**	**33.33**

Table 15: CBM by feature type from friary Subphase 2.1.

Feature type	No.%	Wt.%	CNR%	TE%	MT%	MSW(g)	MPR
Demolition	1.1	0.9	–	–	–	48.75	–
Floor	6.9	2.5	2.0	2.3	4.2	23.33	25.00
Grave	69.5	46.8	41.2	48.9	62.5	42.76	35.07
Wall	4.3	6.1	19.6	23.2	16.7	90.60	62.50
Construction	4.9	3.3	2.0	2.3	4.2	43.41	25.00
Well	13.2	40.3	35.3	23.2	12.5	193.83	83.33
N/AVG	***348***	***22116***	***51***	***1076***	***24***	***63.55***	***44.83***

Table 16: CBM by feature type from friary Subphase 2.2.

Feature type	No.%	Wt.%	CNR%	TE%	MT%	MSW(g)	MPR
Demolition	11.9	6.6	2.6	3.0	4.2	49.33	33.33
Pit	73.7	49.9	51.9	57.6	61.1	60.32	43.18
Posthole	5.8	1.3	1.9	2.3	4.2	20.00	25.00
Wall	2.1	9.4	13.6	8.3	5.6	406.27	68.75
Hearth/oven	1.6	5.1	12.3	11.4	13.9	273.25	37.50
Drain	3.0	1.2	1.9	2.3	2.8	35.82	37.50
Well	0.7	6.8	–	–	–	887.00	–
Culvert	0.1	3.8	–	–	–	2486.00	–
Cellar	1.1	15.9	15.6	15.2	8.3	1290.00	83.33
N/AVG	**729**	**64927**	**154**	**3300**	**72**	**89.06**	**45.83**

Table 17: CBM by feature type from the post-friary Phase 3.

Supply

The CBM comprises Eastern Counties source and Ely types, which include alluvial, Kimmeridge and Gault sources.

Eastern Counties Source

Brick, LZ11, B1.1: a handmade sand moulded brick (288x130x55mm/11½x5x2⅛in) with a fairly regular shape, fairly regular and sharp arrises, upper surface shows striations and straw marks, slightly sunken sanded margins, creasing in stretcher and header surfaces with a rough sandy base with root marks. This is only present in the friary Subphase 2.2.

Brick LZ11, B1.2: handmade tapering brick formed in a sand mould. It is 251mm long and 52mm thick (10x2in) with width tapering from 140 to 90mm (4½ to 3in). It is irregular with irregular rounded arrises, upper surface striations with sandy irregular base. This is only noted in the friary Subphase 2.2.

Brick LZ11, B3.0: There is no complete example of this type, the only piece noted being 80mm wide by 33mm thick, with rounded irregular arrises and hand made. This is only noted in the post-friary phase.

Ridge tile, TZ11: There are examples of ridge tile identified in this fabric, including one with pyramid crest decoration from [1026] and 'pie crust cresting with black surfaces from **[1068]**.

Ely type Alluvial Source

Products from these sources are described as displaying a range of mottled hues (Lucas 1993).

Brick, LZ15.2, B1.2**:** a handmade sand moulded brick (288x130x55mm/11½x5x2⅛in) with a fairly regular shape, fairly regular and sharp arrises, with sunken margins. This is only present in the post-friary phase.

Brick, LZ15.2, chamfered brick: this is a chamfered brick with fairly regular arrises with chamfer along stretcher. This is only noted in the post-friary phase.

Floor tile, FL5.1: these are plain mosaic tiles, which are used in Britain from the early to mid-13th century onwards. These are *c*. 115–120x118–120x24mm (*c.* 8x8x1in.). These are present at 0.9% of the friary Subphase 2.2 and 2% of the post-friary phase. There were 33 floor tiles with plain yellow glaze, 22 tiles with green glaze and 30 floor tiles with no extant glaze.

Line impressed decorated tile, FL5.1: This technique is introduced in the beginning of the 14th century and continues to middle of the 16th century. There was a single decorated tile with a central glazed stripe with three flower motifs stamped down the stripe (Figure 29.6).

Ely Kimmeridge Sources

LZ17: There are fragments of brick and floor tile in this fabric, but nothing complete.

TZ17, peg tile. P1.0 are peg tile with round peg holes. They make up 0.7% of the pre-friary material, 1.7% of the friary Subphase 2.1 material, 0.3% of the friary Subphase 2.2 material and 0.1% of the post-friary material. P2.0 are peg tiles with squared peg holes. They make up 0.7% of the pre-friary material 0.4% of the friary Subphase 2.1 material, 0.6% of the friary Subphase 2.2 material and 0.1% of the post-friary material. There is a large enough fragment to determine the identity two peg holes from the post-friary phase.

TZ17.1, peg tile: P1.0 are peg tiles with round peg holes. They make up 3.4% of the pre-friary assemblage, 1.4% of the friary Subphase 2.2, and 1.8% of the post-friary phase. P1.2 are peg tiles with two round peg holes in the upper corners. These made up 0.3% of the friary Subphase 2.2 and 0.1% of the post-friary phase. P2.0 are peg tiles with square peg holes. These made up 0.1% of the post-friary phase and 0.9% of the friary Subphase 2.2.

Ely Gault Sources

LZ42.1: There are fragments of brick in this fabric.

LZ42.5: There is a single fragment of brick with traces of mortar in this fabric.

TZ42.1, peg tile: P1.0 are peg tiles with round peg tiles. They occur only in the friary Subphase 2.1.

TZ42.1, crested ridge tile: These are in a green glaze a number of different crest shapes are noted (Figure 29.7–9). These occur in the post-friary phase at 0.3%. They include wave crest (Mills forthcoming RT1.3; a crested ridge tile with wave shaped crests with a thick green glaze on surface), stepped crest (a crested ridge tie with green glaze surfaces with a stepped crest) and perforated ridge tile (aa dark green glazed ridge tile with pin perforation). This occurs in friary Subphase 2.2 at 3% and post-friary at 0.2%.

TZ42.2, peg tile: P1.0, peg tiles with round peg holes. These occur in the post-friary phase at 0.7%.

TZ42.2, crested ridge tile: these occur at the post-friary phase at 0.14%. No extant crests were present.

TZ42.3, peg tile: P1.0, Peg tiles with round peg holes that occur in the post-friary phase at 0.3%. P1.2, peg tile with two round peg hole that occur at post-friary phase at 0.1%

P2.0: Peg tiles with square peg holes that occur at 0.3% in the friary Subphase 2.2.

TZ42.5, peg tile: P1.0, peg tiles with round peg holes that occur in the post-friary phase at 0.1%. Peg 1.1, peg tiles with a single round peg hole that occur in the friary Subphase 2.1 phase at 0.4%.

TZ42.6, peg tile: P2.1, Peg tile with squared peg hole that occurs in the post-friary phase at 0.3%.

Functional Analysis

Table 18 shows the breakdown of the assemblage by form type. Tiles are the most common CBM type noted, with there being only evidence of peg tile used. Tables 19–22 show the breakdown of the form types by phases. Floor tiles only have a minimal presence until friary Subphase 2.2, which suggest their initial use in friary Subphase 2.1, and there strong presence in the post-friary phase indicating the existence of decorated floors in the friary Subphase 2.2. Ridge tile are most common in the friary Subphase 2.2, indicating that these are likely to be from the friary Subphase 2.1 roof.

Function	No.%	Wt.%	Cnr%	MT%	TE%
Brick	7.6	26.0	21.5	8.9	12.6
Floor tile	5.8	18.7	32.5	25.2	34.8
Peg tile	4.3	5.3	10.1	15.4	11.6
Ridge tile	5.2	6.6	2.1	3.3	2.4
Tile	77.0	43.4	33.8	47.2	38.6
N	**1455**	**103447**	**237**	**5176**	**123**

Table 18: CBM forms for the overall assemblage.

Function	No.%	Wt.%	Cnr%	MT%	TE%
Brick	0.7	0.2	–	–	–
Floor tile	0.7	1.0	–	–	–
Peg tile	6.2	9.0	25.0	26.7	25.0
Ridge tile	8.9	7.5	6.3	6.7	6.3
Tile	83.6	82.3	68.8	66.7	68.8
N	**146**	**6470**	**16**	**15**	**400**

Table 19: CBM forms from the pre-friary Phase 1.

Function	No.%	Wt.%	Cnr%	MT%	TE%
Brick	4.3	1.9	–	–	–
Peg tile	3.4	8.2	31.3	25.0	31.3
Ridge tile	1.7	4.4	6.3	8.3	6.3
Tile	90.5	85.5	62.5	66.7	62.5
N	**232**	**9934**	**16**	**12**	**400**

Table 20: CBM forms from friary Subphase 2.1.

Function	No.%	Wt.%	Cnr%	MT%	TE%
Brick	1.4	21.3	31.4	8.3	18.6
Floor tile	2.6	7.3	25.5	20.8	30.3
Peg tile	4.0	6.5	13.7	20.8	16.3
Ridge tile	13.2	20.6	3.9	4.2	4.6
Tile	78.7	44.3	25.5	45.8	30.2
N	**348**	**22116**	**51**	**24**	**1076**

Table 21: CBM forms from friary Subphase 2.2.

Function	No.%	Wt.%	Cnr%	MT%	TE%
Brick	12.9	33.8	22.7	12.5	13.6
Floor tile	10.2	27.2	41.6	36.1	44.7
Peg tile	4.4	4.1	5.2	9.7	6.1
Ridge tile	1.6	2.1	0.6	1.4	0.8
Tile	70.6	32.7	29.9	40.3	34.8
N	**729**	**64927**	**154**	**72**	**3300**

Table 22: CBM forms from the post-friary Phase 3.

There are five animal prints noted on tile fragments. This comprises 0.85% of TZ17, 0.14% of TZ17.1, 1.23% TZ42.3 and 2.60% of TZ42.5% and 0.40% of the overall tile assemblage. This is a high number of animal prints from a medieval tile assemblage. The fragments are **[1055]** TZ17, **[1978]** TZ17.1 and **[1243]** TZ42.5 (x2) tile fragments with dog prints and **[1705]** TZ42.3 tile fragment with a possible rat print.

There were 46 fragments which showed evidence of reuse, i.e. with mortar over breaks (3.1% of the assemblage). The breakdown by phase is given in Table 23, with the highest level of reused material coming unsurprisingly from the post-friary phase. Table 23 also shows the breakdown by phase of mortar on material. There is a clear rise in traces of mortar, on roof tile, with the friary phases and suggest that the roof tiles were fixed with both pegs and mortar, whilst earlier tiles did not use mortar to the same extent. Finally Table 23 also shows the number of tile fragments with patches of glaze on them by phase group. The majority of glaze traces on roof tile by far is on the material from the pre-friary phase, which strongly suggest that the presence of glaze patches was going out of favour in the 14th century.

Phase	Reused No.%	Reused No.	Mortar No.%	Mortar No.	Glaze No.%	Glaze No.
Pre-friary Phase 1	–	147	19.8	131	84.0	131
Friary Subphase 2.1	0.40	235	65.6	218	2.3	218
Friary Subphase 2.2	2.30	351	63.9	288	0.7	288
Post-friary Phase 3	5.0	738	47.8	550	16.0	550

Table 23: Breakdown by phase of reused material, mortar on tile and presence of glaze patches on roof tile.

Some specific noteworthy contexts were:
[1031] F.143 sample from post-friary culvert: brick lZ15.2 form B1.2 with mortar traces.
[1345] F.193 material probably from friary Subphase 2.1 roof: a group of crested ridge tile with dark green glaze in fabric TZ42.1 (Figure 29.7–9). This suggest that green ridge tile was a feature of the roof, and that varied crests were used at the same time.
[1356] F.202 *in situ* floor tiles from post-friary cellar: traces of green glaze on a couple but mainly plain mosaic tile fabric LZ15.2 FL5.1.
[1415] F.214 sample from arched brick footing support: brick fabric LZ15.2 form B1.2.
[1748] F.305 probably from floor/bench of first phase of chapter house. Plain mosaic floor tile fabric LZ15.2 form FL5.1 one with traces of yellow glaze but the other with worn or not glazed.
[1343] F.393 tiles in base of footing/drain, probably reused: 22 fragments roof tile in fabric TZ17.1, one example of reuse. 15 fragments have round peg holes present, much higher than the overall level in the assemblage suggesting these were deliberately selected for reuse.

Earlier Discoveries, Craig Cessford
The Cambridge University Museum of Archaeology & Anthropology holds several boxes of floor tile recovered during building work in the early 20th century(Z 16298 A and Z 16298 B. There are some plain square floor tiles with yellow or green glazed upper surfaces: 120mm by 120mm by *c.* 20mm thick. One larger floor tile 150mm long, probably square but incomplete. 30mm thick with yellow glaze. Possible crude pre firing cross. There are also some decorated floor tile that have been incised and then glazed. These are 140mm by 140mm and 25mm thick. One depicts and eagle and one has a pattern of four 'flowers'. These have a centre and five 'petals' within a double circle that has smaller circles within it. There are also at least two tiles depicting figures.

Discussion
There is a small amount of ceramic building material from the pre-friary phase, which includes a possible early brick. It is of interest that the highest quantity of roof tile with glaze splashes are from the pre-friary phase, suggesting that this habit of tile making was in decline in the 14th century. It is also of interest that the use of mortar on roof tile appear to be increasingly used in the construction of the friary

than was perhaps the case for earlier medieval tiled buildings in Cambridge. It would appear that at least part of friary during Subphase 2.1 had ceramic roof tiles with dark green glazed crested ridge tiles of varied type (Figure 29.7–9). The majority of the roof tile was externally red in friary Subphase 2.1, in contrast perhaps with the yellow tiles (fabrics TZ 42.1 and TZ42.2) which are more common in the pre-friary material but still common in the later phases. There are enough floor tiles to suggest decorated yellow and green flooring as well as one example of a line impressed tile presumably from the friary Subphase 2.1 building. Line impressed tile are noted in the decorated tiles from the 1908–10 tiles, although there is also an inlaid tile, perhaps from the later phase of the friary. There is a much larger than usual incidence of animal prints in this assemblage, which usually suggest that production is being carried out alongside agricultural activities. The range of fabrics from a single structure suggest that roofing was commissioned from more than one supplier, either because initial demand was higher than could be met by a single supplier or that work was carried over a long period of time.

Fabric Code	Phase	No. %	Wt. %	MNR %	RE %	CNR %	MSW	MPR	N no	N Wt.	N Mt	NtE	NCNR
LZ1	2.2	0.9	20.9	8.3	18.6	31.4	1543.33	100.00	348	22116	24	1076	51
LZ11	3	0.1	2.3	1.4	1.5	2.6	1490.00	50.00	729	64927	72	3300	154
LZ15.2	1	0.7	1.0	–	–	–	67.00	–	146	6470	15	400	16
LZ15.2	2.1	4.3	1.9	–	–	–	19.10	–	232	9934	12	400	16
LZ15.2	2.2	3.2	7.6	20.8	30.3	25.5	152.73	65.20	348	22116	24	1076	51
LZ15.2	3	21.1	56.6	43.1	54.5	58.4	238.56	58.06	729	64927	72	3300	154
LZ17	1	0.7	0.2	–	–	–	10.00		146	6470	15	400	16
LZ17	3	0.5	0.6	1.4	0.8	1.3	90.75	25.00	729	64927	72	3300	154
LZ42.1	3	0.7	0.1	1.4	0.8	0.6	11.80	25.00	729	64927	72	3300	154
LZ42.3	3	0.5	1.3	1.4	0.8	1.3	203.25	25.00	729	64927	72	3300	154
LZ42.5	3	0.1	0.3	–	–	–	189.00	–	729	64927	72	3300	154
TZ11	1	2.1	2.8	–	–	–	61.00	–	146	6470	15	400	16
TZ11	2.2	0.3	0.3	–	–	–	63.00	–	348	22116	24	1076	51
TZ11	3	0.4	0.1	–	–	–	24.33	–	729	64927	72	3300	154
TZ17	1	4.8	4.2	–	–	–	38.71	–	146	6470	15	400	16
TZ17	2.1	23.3	28.8	16.7	18.8	18.8	52.96	37.50	232	9934	12	400	16
TZ17	2.2	10.3	9.8	16.7	13.9	11.8	59.94	37.50	348	22116	24	1076	51
TZ17	3	11.0	6.9	11.1	9.8	8.4	55.91	40.63	729	64927	72	3300	154
TZ17.1	1	54.8	54.7	40.0	37.5	37.5	44.23	25.00	146	6470	15	400	16
TZ17.1	2.1	44.8	30.3	33.3	37.5	37.5	28.95	37.50	232	9934	12	400	16
TZ17.1	2.2	59.2	30.3	41.7	27.9	23.5	32.48	30.00	348	22116	24	1076	51
TZ17.1	3	48.0	19.6	25.0	20.5	17.5	36.31	37.50	729	64927	72	3300	154
TZ42.1	1	13.0	10.4	13.3	12.5	12.5	35.26	25.00	146	6470	15	400	16
TZ42.1	2.1	15.5	20.6	33.3	25.0	25.0	56.81	25.00	232	9934	12	400	16
TZ42.1	2.2	18.1	22.8	8.3	7.0	5.9	80.03	37.50	348	22116	24	1076	51
TZ42.1	3	0.5	0.5	–	–	–	76.25	–	729	64927	72	3300	154
TZ42.2	1	11.6	8.6	13.3	12.5	12.5	32.71	25.00	146	6470	15	400	16
TZ42.2	2.1	2.6	3.4	–	–	–	56.17	–	232	9934	12	400	16
TZ42.2	2.2	0.3	0.2	–	–	–	46.00	–	348	22116	24	1076	51
TZ42.2	3	0.3	0.3	–	–	–	101.00	–	729	64927	72	3300	154
TZ42.3	1	6.2	6.4	6.7	6.3	6.3	45.67	25.00	146	6470	15	400	16
TZ42.3	2.1	8.6	11.0	8.3	6.3	6.3	54.55	25.00	232	9934	12	400	16
TZ42.3	2.2	2.3	2.1	–	–	–	58.88	–	348	22116	24	1076	51
TZ42.3	3	6.0	4.9	11.1	8.3	7.1	72.73	34.38	729	64927	72	3300	154
TZ42.5	1	2.1	5.5	13.3	12.5	12.5	118.00	25.00	146	6470	15	400	16
TZ42.5	2.1	0.9	4.0	8.3	12.5	12.5	199.50	50.00	232	9934	12	400	16
TZ42.5	3	9.9	5.7	4.2	3.0	2.6	51.14	33.33	729	64927	72	3300	154
TZ42.6	1	4.1	6.3	13.3	18.8	18.8	68.33	37.50	146	6470	15	400	16
TZ42.6	2.2	5.5	6.0	4.2	2.3	2.0	70.26	25.00	348	22116	24	1076	51
TZ42.6	3	0.7	1.0	–	–	–	126.60	–	729	64927	72	3300	154

Table 24: Summary of CBM fabrics by phase.

Moulded Stone, Mark Samuel

The un-cleaned architectural fragments had dried out naturally, making recording possible after removal of dirt by brush (Figure 30.1). Only enough dirt/mortar was removed to allow recording of mouldings where these existed. Multiple coats of whitewash had survived in several cases, and such finishes proved extremely loose and vulnerable; washing would have been problematic. Identification of building stone was likewise problematic, and the opinions given below are illustrative only. 31 items had been set aside for assessment; five were judged to be of no significance and were discarded immediately and a further four were discarded after assessment. This left 22 items, of which 15 derive from a single post-medieval structure (**F.202**) where they had been used as facing blocks. With the exception of **F.212** (eight items) and **F.203** (three items), the remaining contexts contained no more than one or two items. One architectural fragment **(<31>**) appeared to had been recovered in the early 20th century. Most of the architectural fragments showed no evidence of post-demolition adaptation or recutting. Soft chalky mortars, applied during re-use, had to be removed in some cases to allow the nature of the architectural fragments to be understood.

No form of cataloguing was carried out prior to my arrival; however reference numbers were chalked by me for recording purposes. Such architectural fragments (where retained) will eventually be assigned conventional finds numbering. Each item was individually inspected from all angles and its 'importance' rated on a scale of 1–4 using a recording sheet developed for this purpose. Items rated 3–4 were recommended for 'substitute archiving' (comprehensive recording). Items rated 1–2 were only recorded on the site assessment sheet. Items rated 0 were discarded without further record (see above). Five items were given a 'substitute archive' status at this stage; future mobility or lack of it being the main criteria for selection; this was judged the best means of using the additional time allocated for this 'block'. The moulding profile allows the relationship between individual items to be determined. Non-identical mouldings may derive from the same building campaign. There are several other means whereby architectural fragments can be related to one another. The most important are the marks made by tools; these are more easily recognized than described, but various attempts have been made to classify and date them through their association with mouldings (Samuel 2001, 153–54). Therefore, tool marks (even when not associated with mouldings) can be illustrative of date. Given the conditions, photography could only play a very limited role in recording. 'Project-use' images of grouped stones were taken of the material by site staff. These are oblique perspective shots and though satisfactory as a general record, they cannot directly complement the drawn record. Simple orthogonal shots were taken by me using a smart phone for project use only. These can form the guide for proper studio photography.

The building stone seemed fairly typical of Late Medieval Cambridge. Twenty-two instances of Burwell stone (aka Clunch) were seen (71%); an incidence probably higher in reality. At least three of the ten examined stone were probably

Lincolnshire limestones (other than the Ketton series). It is probable that these 'non-Ketton' oolites derive from the Barnack region, but only one undated occurrence of Barnack rag was apparent. No particular association with date could be sensed, but there was little opportunity to see such trends. More might be achieved after cleaning of the assemblage.

F.142 (two stones) and early 20th-century discovery (one stone): two flamboyant traceried windows of intermediate scale are represented. **<026>** employing a simple chamfered mullion (*c*. 1320–60). The 'stray' tracery fragment is large enough to have derived from the friary church.

F.202 (fifteen stones): dominated by three massive (and more or less identical) apex blocks, virtually intact (Figure 30.2; see also Figure 25). They represent an open ?drop arch arcade, delicately moulded and probably resting on coupled capitals. The blocks owe their survival to the large flat bed that formed the upper margin of the arcade (later employed as facing). The Wave moulding (second variety) used in pairs was quite closely dated to after *c*. 1320 by Morris (1978, 23, fig. 2.d). Waves may occur with the simple chamfered window moulding (Morris 1978, Astley sqq 1343; fig. 2.g). The mouldings were intended to present on one side only. Other fragments in this feature derive from this arcade, but only one is particularly informative (**<020>/<021>**). This was originally cut as a simple chamfered plinth block, but was subsequently set upside-down. Wear and evidence of scratched gaming boards ('Nine Mens Morris') can be seen in the stylobates of Italian cloister arcades (pers. obsvn.) (Figure 30copper a.4). Both are present here.

F.203 (three stones): this contained a sill (**<028>**) from a glazed chamfered window, ?14th century.

F.212 (eight stones): the group was small, fragmentary and greatly obscured by mortar. It is, however, of interest because all are early 13th-century. These were reused in a Subphase 2.2 pier base, probably for a set of stairs, in the early/mid-14th century.

These architectural fragments are valuable in that they can in several instances be associated with the claustral area that has formed the current excavation. The arch apices are of national importance in that they throw light on a type of structure not, to the authors' current knowledge, represented in any surviving buildings in the British Isles other than Ireland. The arcade can be seen to have stood on coupled colonnettes (the moulding allows of no other interpretation); surviving intact until the Dissolution. This sort of arcade was very much an archaism by the 14th century. After the Black Death, open colonnades were replaced by fenestrated arcades except in the most impoverished religious houses. The tight dating of this feature is of particular value in illustrating a cloister date to within twenty years. As positive proof of both date and purpose, this can be seen as an important contribution to the understanding of the excavation which deserves to be finessed. The window types represented are what might be expected in a foundation of this period, but are less a confirmation of exact date than the arcade. They 'go along with' probabilities, rather than prove anything. The absence of vaulting or

15th–16th-century material are illustrative of a simple church; few improvements carried out throughout its history. It must however be remembered that this is a very small and random sample.

The opportunity arises to enhance understanding of the site by linking the cloister arcade fragments to the excavated foundations. There may be evidence of buttresses, and given that the arch interval can be judged to within centimetres; this knowledge can be compared to the excavated foundations. This sort of evidence, expressed graphically, would enhance any reconstruction images produced for publicity purposes, especially as the evidence lends itself well to CAD expression.

Earlier Discoveries, Craig Cessford

In terms of previously discovered material there are three arches reset into the basement of the standing building plus some loose material. The RCHM(E) describes this as 'three clunch doorways with two-centred heads, one of two continuous stop-chamfered orders, 13th or 14th century, another of one chamfered order within a square casement-moulding with quatrefoils in the spandrels, *c.* 1400, and the third originally of two continuous moulded orders but with only the inner order and the lower courses of the outer order surviving, 13th-century. The fragments consist of moulded stones from door-jambs and an arch-respond, 14th century' (RCHM(E) 1959, no. 63, 299).

During the excavations at the Old Cavendish laboratory in 1991 'a clunch fragment of tracery for an elaborate multi-light window was discovered. It was Gothic in style and probably originally came from a late 13th century to mid-14th century context. Mortar adhering to it, however, suggested that it was re-used and subsequently dumped. All these factors make it a dubious candidate on which to base uncorroborated speculation about the architecture of the friary' (Hunter 1991, 13).

Stone Petrology, Simon Timberlake

The majority of the stone present at the site, both in terms of moulded fragments and roughly squared blocks and rubble in foundations consisted of Clunch. Some of the moulded stone was probably Lincolnshire limestones, but not from the Ketton series. This material was not subject to specialist petrological study. The only other material was some distinctive roughly shaped blocks (**[1321] F.186** (Figure 17.1) and **[1412] F.213**) that had been employed in the upper foundation courses in selected locations such as buttresses, at corners etc.). This proved to be a Lincolnshire Limestone, possibly Ketton rag. Well cemented sparry bioclastic oolite. Certainly of Lincolnshire Limestone, probably Ketton Rag (Upper Lincs. Limestone), from Ketton in Rutland. (BGS GeoScenic P750087). Based upon surviving buildings it has traditionally been argued the Ketton Stone was used in Cambridge from the late 15th century, but that the earliest substantial use was in 1635 (Purcell 1967, 48–53). The evidence indicates that substantial quantities of Ketton Stone were employed in *c.* 1320–40. This is supported by a number of discoveries from other sites in Cambridge of typologically dated fragments, such as a vertical jamb from a window with a vertical chamfered rebate of *c.* 1320–1400, that support the idea that it was in relatively widespread use by the 14th century. Based upon surviving buildings it has traditionally been argued the Ketton Stone was used in Cambridge from the late 15th century, but that the earliest substantial use was in 1635 (Purcell 1967, 48–53). The evidence indicates that substantial quantities of Ketton Stone were employed in *c.* 1320–40. This is

supported by a number of discoveries from other sites in Cambridge of typologically dated fragments, such as a vertical jamb from a window with a vertical chamfered rebate of *c.* 1320–1400, that support the idea that it was in relatively widespread use by the 14th century.

Wood, Iona Robinson Zeki

Seven pieces of waterlogged wood were recovered from the base of well **F.193 [1777]**. Each discrete piece of wood was examined and recorded off-site on 19th January 2017 using the CAU wood-recording form, a development of the Fenland Archaeological Trust *pro forma*. Species identification was undertaken at the time of recording, as distinct morphological traits which enabled identification through visual inspection were found to be present throughout the entirety of the small assemblage. The dendrochronological potential of the wood was assessed following Historic England Guidelines (English Heritage 1998, 15). The condition of wood was assessed using the 0–5 scale developed by the Humber Wetlands Project (Van de Noort et al 1995, table 15.1), where '0' represents an item in such poor condition that no analysis of woodworking, woodland management or dendrochronology is possible and '5' represents an item in excellent condition worthy of all the aforementioned forms of analysis and of museum conservation if warranted.

The assemblage comprised one sizeable item and six much smaller pieces of split oak timber (Table 25). The arc of the growth rings in all of these items indicated a source-tree of large diameter. Given the similarities of the pieces examined, in particular in terms of the breadth/thickness of their split faces, but also in regard to the pattern of their growth rings, it is likely that they were originally part of the same timber or set of timbers from the same parent log. The smaller fragments could represent fractured elements of the ends/sides of the largest piece (Timber A). The pieces were in poor to moderate condition (scores 2–3); the decay to the split faces and cross-cut ends meant that these surfaces were dulled and eroded and did not preserve any toolmarks, if such signs were ever present. The extent of the weathering of the pieces can be taken as indication of prior use, as can the presence of empty nail-holes (Timber B). Located in a context associated with the backfill of the well, it is possible that these items represent the discard of broken-up old timber associated with the well-head. In the absence of toolmarks to comment further on woodworking technology and having undertaken species identification on all pieces recovered, no further analytical work is needed. None of the items have potential for dendrochronological dating (<35 growth rings present in each case). The items were discarded.

	Length Breadth Thickness (mm)	Source-tree diameter (mm)	Cond.	Species and wood characteristics	Woodworking and other features
A	L: 808 B: 206 T: 19	>388	3	*Quercus sp.*, heartwood, *c.* 30 growth rings, 3–4mm apart, 2 small knots, decayed faces/edges	2 tangentially-split broad faces, 1 radially-split narrow edge, 1 tapered-out/broken narrow edge, 1 end cross-cut (?sawn) at a slight angle to the grain, 1 end warped, tapered-out/broken
B	L:213 B:61 T:15	>122	2	*Quercus sp.*, heartwood, 15 growth rings, 3mm apart, decayed and fractured faces/edges	2 tangentially-split broad faces, bot h narrow edges broken, 1 end cross-cut (?sawn), 1 end broken/torn, broad face has 1 through-hole from a nail/tack (hole diameter 6mm, 15mm deep) and 2 shallow indentations with iron oxide stained 'halos' from tacks pushed part-way into the board (square hole cross-section 3x3mm, 4mm deep)
C	L: 434 B:100 T: 16	>100	3	*Quercus sp.*, heartwood, *c.* 30 growth rings, 3mm apart, decayed and fractured faces/edges	2 tangentially-split broad faces, 1 end cross-cut (?sawn) at an angle, 1 end and both narrow edges broken
D	L: 591 B: 78 T: 20	>156	3	*Quercus sp.*, heartwood, 34 growth rings, 3mm apart, decayed and fractured faces/edges	2 tangential-split broad faces, 1x radially-split narrow edge, 1 narrow edge broken/torn, 1 end cross-cut (?sawn), 1 end broken/torn
E	L: 347 B: 38 T: 22	>76	3	*Quercus sp.*, heartwood, 10 growth rings, 3mm apart, decayed and fractured faces/edges	2 tangentially-split broad faces, both narrow edges and ends broken
F	L: 514 B: 30 T:18	>60	3	*Quercus sp.*, heartwood, 8 growth rings, 3–4mm apart, decayed and fractured faces/edges	2 neat tangentially-split broad face, all other edges very uneven/fractured
G	L: 516 B: 61 T: 32	>122	3	*Quercus sp.*, heartwood, 12 growth rings, 2–4mm apart, decayed and fractured faces/edges	3 tangential-split faces, 1 narrow edge broken/torn, both ends broken

Table 25: Timber from **F.193 [1777]**. All dimensions given are maximum measurements, 'cond.' = condition score.

Animal Bone, Vida Rajkovača

With almost 95kg of bone and amounting to some 7784 fragments, the assemblage is a typically substantial collection of faunal waste from medieval Cambridge. Following zooarchaeological analyses, some 3749 assessable specimens were recorded, 1927 (51.4%) of which were assigned to species or family level (Table 26). Of further 828 fragments which came from heavy residues following the processing of environmental bulk soil samples, 306 assessable specimens were recorded and only 35 were identified to species (11.4%). Although heavily dominated by the bone material pre-dating the friary (3208 specimens, *c.* 85%), the assemblage also contained small quantities of faunal waste associated with the friary and those post-dating the friary. The following gives a brief characterisation of the material by phase with a view to highlighting the potential for further study of the assemblage.

NISP	Pre-friary			Friary 2.2	Post-friary	Total
	10–12th	13–14	Unk.			
NISP ID to species	121	1511	17	74	204	1927
Total NISP	209	2964	35	125	416	3749

Table 26: Number of Identified Specimens by phase.

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). Age at death was estimated for the main species using epiphyseal fusion (Silver 1969) and mandibular tooth wear (Grant 1982; Payne 1973). Where possible, the measurements have been taken (Von den Driesch 1976). Sexing was only undertaken for pig canines, based on the bases of their size, shape and root morphology (Schmid 1972: 80). Withers height calculations follow the conversion factors published by Von den Driesch & Boessneck (1974). Taphonomic criteria including indications of butchery, pathology, gnawing activity and surface modifications as a result of weathering were also recorded when evident. Butchery marks were located by zone, position of the cut and direction of the mark, multiple occurrence, depth and the implement type, and the function of the mark was assessed. Undiagnostic fragments were assigned to a size category.

Bone was recorded as having a moderate to quite good level of preservation (Table 27). There were no apparent differences between phases and fragmentation was what had affected the assemblage more than any other factor. Only six specimens were complete and possible to measure. 136 specimens (3.6% of the site assemblage) were recorded as gnawed, a low percentage indicative of quick deposition of the bone waste. Looking at the butchery evidence, overall, 243 specimens (*c.* 6.5%) were affected by butchery. If we break this number by phase, just over 6% of the pre-friary material was affected, 2.4% of the material contemporary with the Friary and over 10% of that from post-friary contexts.

Preservation	Pre-friary	Friary	Post-friary
Good	19	–	65
Quite good	1668	61	223
Moderate	1493	64	127
Quite poor	28	–	1
Total	**3208**	**125**	**416**

Table 27: Preservation, fragment count by phase.

Pre-Friary

Pre-friary material was split into three sub-sets. Only a small quantity of bone came from contexts dated to the 10–12th century, with the overwhelming majority being securely dated to the 13–14th century (Table 28). Aside from a more varied selection of species in the later sub-set, there were no marked differences between these two subphases with the relative importance of the main species almost identical in these two sub-sets. Ovicapra were the preferred species throughout, and sheep and goat were positively identified. This was followed by cattle and pigs. Domestic range is completed with horse, dog and cat, as well as poultry. An interesting fallow deer metatarsus and two 1st phalanx specimens were recorded from **F.373 [2033]**, most likely from the same individual and counted as one specimen. Roe deer was represented by a single radius. Where possible, birds were identified to species. Others were only tentatively identified or assigned to a family.

For the three main 'food species', the skeletal element count shows a slight bias towards skull elements, mandibles and loose teeth, compared to those elements corresponding to meat-bearing joints, though this prevalence is not sufficient to suggest meat was exported from site. It is more likely a sign that animals were brought to site as whole. Looking at the ageing data, the sheep cohort was dominated by adult individuals, whilst cattle and pigs were represented with a number of neonate and juvenile elements. Mandibular tooth wear offered very similar results. Cattle and pig mandibles were dominated by those killed in their 1st or 2nd year. Tooth wear data for ovicapra, on the other hand, reflected the slaughter of animals all across the age range (Figure 32.1), with a proportion of animals being maintained into maturity. With an exception of a few instances of *osteochondritis dissecans* visible on proximal surfaces of cattle metapodia, and a few cases of eburnation on joints, pathologies were rare. Cat remains were often found in articulation, or were represented by bone groups, evidently from one or two individuals (e.g. from well **F.120**). Skinning marks were recorded on buccal side of mandible fragment from pit **F.236**.

Butchery was most commonly observed on skulls, when horn cores were removed by chopping or sawing, as well as on vertebrae of larger domesticates, when carcasses were split into left and right portions. The latter butchery action was recorded all across Cambridge, in almost all of the assemblages involved in our

comparison. It would be more difficult to state with certainty if these carcasses were split on site, or brought in as prepared.

There were four features in particular with substantial quantities of bone waste. The single largest bone deposit came from a quarry pit **F.390** (*c.* 20kg of bone, or 21% of the site assemblage by weight; NISP=847, or 22.6% of the sub-set by NISP count, 13th–14th century), followed by pits **F.381** (NISP=284), **F.349** (NISP=247) and F.373 (NISP=171). These generated a combined total of 1594 specimens, 41.3% of the pre-friary material. These four features did not only differ quantitatively, but also qualitatively, producing a remarkably varied range of species, especially birds. Also worthy of note is a cow vertebral column from **F.270** which was found in articulation, probably at least partly fleshed when it was deposited (Figure 32.2).

	10–12th			13–14th			Unk.			
Taxon	**NISP**	**%NISP**	**MNI**	**NISP**	**%NISP**	**MNI**	**NISP**	**%NISP**	**MNI**	**Total NISP**
Cow	34	*28.1*	2	436	*28.8*	18	5	*29.4*	1	475
Sheep/goat	52	*43*	3	688	*45.5*	55	9	*52.9*	1	749
Sheep	4	*3.3*	1	34	*2.2*	6	–	–	–	38
Goat	3	*2.5*	1	4	*0.3*	2	–	–	–	7
Pig	12	*10*	1	179	*11.8*	11	1	*5.9*	1	192
Horse	8	*6.6*	1	40	*2.6*	2	1	*5.9*	1	49
Dog	–	–	–	10	*0.7*	1	–	–	–	10
Cat	3	*2.5*	1	32	*2.1*	3	–	–	–	35
Fallow deer?	–	–	–	1	*0.07*	1	–	–	–	1
Roe deer	1	*0.8*	1	–	–	–	–	–	–	1
Badger?	–	–	–	1	*0.07*	1	–	–	–	1
Rabbit	–	–	–	2	*0.16*	1	–	–	–	2
Chicken	–	–	–	27	*1.8*	4	–	–	–	27
Pheasant?	–	–	–	1	*0.07*	1	–	–	–	1
Galliformes	2	*1.6*	1	25	*1.7*	2	–	–	–	27
Goose	2	*1.6*	1	17	*1.1*	2	1	*5.9*	1	20
Anseriformes	–	–	–	3	*0.2*	1	–	–	–	3
?Raptor	–	–	–	4	*0.3*	1	–	–	–	4
?Wader	–	–	–	1	*0.07*	1	–	–	–	1
Mallard	–	–	–	2	*0.16*	1	–	–	–	2
?Lapwing	–	–	–	1	*0.07*	1	–	–	–	1
?Snipe	–	–	–	1	*0.07*	1	–	–	–	1
Frog/toad	–	–	–	2	*0.16*	1	–	–	–	2
Sub-total to species	**121**	*100*	–	**1511**	*100*	–	**17**	*100*	–	**1649**
Cattle-sized	41	–	–	560	–	–	9	–	–	610
Sheep-sized	47	–	–	706	–	–	6	–	–	759
Mammal n.f.i.	–	–	–	59	–	–	3	–	–	62
Bird n.f.i.	–	–	–	122	–	–	–	–	–	122
Fish n.f.i.	–	–	–	6	–	–	–	–	–	6
Total	**209**	–	–	**2964**	–	–	**35**	–	–	**3208**

Table 28: Number of Identified Specimens and the Minimum Number of Individuals for all species from pre-friary contexts; the abbreviation n.f.i. denotes that the specimen could not be further identified.

Friary

Contexts associated with friary were not rich in animal bone, with only 125 assessable 125 recorded (Table 29). In part this is because animal bone from highly mixed contexts, particularly grave fills, was not retained. Only two features contained animal bone: layer associated with construction **F.409** and the floor **F.396**. A very limited range of species was identified, made up entirely of domestic sources of food, dominated by ovicapra and cattle. Bone related to the friary activities must have been deposited elsewhere.

	Friary Subphase 2.2		
Taxon	**NISP**	**%NISP**	**MNI**
Cow	23	*31.1*	2
Sheep/goat	32	*43.3*	5
Pig	5	*6.7*	1
Horse	11	*14.9*	1
Dog	1	*1.3*	1
Galliformes	2	*2.7*	1
Sub-total to species	**74**	*100*	–
Cattle-sized	22	–	–
Sheep-sized	21	–	–
Mammal n.f.i.	5	–	–
Bird n.f.i.	3	–	–
Total	**125**	–	–

Table 29: Number of Identified Specimens and the Minimum Number of Individuals for all species from friary Subphase 2.2 contexts; the abbreviation n.f.i. denotes that the specimen could not be further identified.

Post-Friary

Though somewhat more abundant than material associated with friary contexts, animal bone post-dating the friary amounted to 416 specimens, or only 11.1% of the site assemblage (Table 30). Despite small numbers, the sub-set showed a relatively broad range of species, especially birds. Like in the rest of the assemblage, ovicapra amounted just over half of the identified species' count. Cattle, pig and chickens appear to have made a significant contribution to the diet, as these three species collectively make up further 40% of NISP. In terms of economic data, younger individuals were of cattle and pig, while those with fused epiphyses were sheep/goat. Looking at the two ageable mandibles from the sub-set, both were of adult sheep (3–4 years and 4–6 years). This seems to hint at adult sheep being brought to site (instead of being reared on site or in the vicinity) and the prevalence of meat-bearing elements in the skeletal element count certainly seems to support this notion. As for the cattle and pigs, almost all elements are represented, suggesting these were reared locally. The characteristic which differentiates this sub-set from others is a greater proportion of bone was affected by butchery. In addition to being more common, butchery marks were cruder with a greater degree of sawing

involved in managing larger carcasses. There were four main bone deposits: **F.103**, **F.110**, **F.193** and **F.400**. These features collectively produced NISP=335 or *c.* 80% of the sub-set.

	Post-friary		
Taxon	**NISP**	**%NISP**	**MNI**
Cow	45	*22*	2
Sheep/goat	96	*47*	6
Sheep	7	*3.4*	2
Pig	15	*7.3*	1
Horse	1	*0.5*	1
Dog	2	*1.0*	1
Red deer	1	*0.5*	1
Rabbit	6	*3.0*	1
Chicken	19	*9.3*	3
Galliformes	3	*1.5*	1
Goose	1	*0.5*	1
Anseriformes	1	*0.5*	1
Teal?	2	*1.0*	1
Wader?	1	*0.5*	1
Mallard	1	*0.5*	1
Corvid?	1	*0.5*	1
Wood pigeon?	1	*0.5*	1
Frog/toad	1	*0.5*	1
Sub-total to species	**204**	*100*	–
Cattle-sized	71	–	–
Sheep-sized	98	–	–
Mammal n.f.i.	9	–	–
Bird n.f.i.	16	–	–
Fish n.f.i.	18	–	–
Total	**416**	–	–

Table 30: Number of Identified Specimens and the Minimum Number of Individuals for all species from contexts post-dating the friary; the abbreviation n.f.i. denotes that the specimen could not be further identified.

Summary

There is now a growing body of data on animal use, husbandry strategies and food supply in Cambridge during the medieval and Post-Medieval periods. In the table below a number of significant contemporary assemblages are listed (Table 31). Relative importance of the three main livestock species is often taken as an important parameter when comparisons of economic strategies are carried out and this is used as a basis for the discussion of site economy and status. Original datasets were consulted for each of the assemblages and percentages are replicated as they were given in reports. In the top row of the table are the three sites from the immediate vicinity, all showing very similar ratio of species. Ovicapra dominate, closely followed by cattle, with pigs typically represented by 7% of the assemblage.

Although not offered in this table, a brief look at the full range of identified species shows the Hostel Yard material showed a limited range of species, mostly made up of domesticates (Swaysland 2005), whilst Bradwell's Court and Grand Arcade had remarkably varied lists of species which included fallow deer and a selection of wild birds (Higbee 2007a; Higbee 2007b).

At the very centre of town, St. John's Triangle (Higbee 2008) and the Divinity School assemblages (Rajkovača 2012a), while underlining the importance of ovicapra, show much higher percentages for cattle and pigs especially. Both also had moderately broad range of wild and bird species. Presence of fallow deer, also recorded at Bradwell's Court and St. John's Triangle, is a clear sign of high status. It is especially important that this find pre-dates the friary and it is not surprising that the site in the very centre of town has access to higher status food.

Moving away from the town and looking at the rural outskirts, the faunal signatures from the two sites, Church End (Swaysland 2004) and Neath Farm (Rajkovača 2012b), were radically different from those recorded in town. With a limited range of species, lack of wild or bird species, a dominant cattle component and lower numbers for pigs, these assemblages stand in contrast to results acquired from the town centre. Though economic data may not be sufficient for an in-depth study of food provision, it is possible that the town was supplied by small farms not too far from the town centre.

Looking at the specific percentages for the New Museums assemblage, the site's economy appears to have more in common with St. John's Triangle and the Divinity School sites, than with any other comparable assemblage. These variations are subtle, yet it is possible that these numbers are hinting at certain economic and cultural preferences not visible otherwise. The example of cat skinning is interesting and there is another more extensive example from nearby (Luff 1996). This was probably associated with an English law of 1363, which stated that no common people should wear fur apart from lambskin, coney, cat and fox (Ewing 1981).

Taxon	Hostel Yard		Bradwell's Court		Grand Arcade
	11–12th	14–15th	11/12th–13/14th	13th–16th	11th–16th
Cow	28.9	23.5	31.4	20.3	26.3
Sheep/goat	46.4	41.6	34.3	25	44.6
Pig	7.2	4.5	7.1	7.9	7.2
Taxon	**St. John's Triangle**	**Divinity School**			
	Medieval	**10th–13th**	**13th–16th**		
Cow	16.6	33.5	29.4		
Sheep/goat	46.4	46.9	49.2		
Pig	9.4	19.6	21.4		
Taxon	**Church End**			**Neath Farm**	
	10–11th	**12–14th**	**15th**	**10–12th**	**12–15th**
Cow	32.6	39.9	54.1	30.0	43.6
Sheep/goat	34.1	32.2	12.5	40.0	12.8
Pig	6.0	5.6	4.2	–	4.0
Taxon	**New Museums**				
	Pre-friary Subphase 1	**Pre-friary Subphase 2**	**Friary**	**Post-friary**	
Cow	28.1	28.9	31.1	22.0	
Sheep/goat	48.8	48.1	43.3	50.4	
Pig	10.0	11.9	6.7	7.3	

Table 31: Percentage of NISP for the three main food species with comparable assemblages from similarly dated sites across Cambridge. Percentages are taken as they were given in relevant reports.

Faunal Remains from Heavy Residues

Bone recovered as heavy residues following the processing of bulk soil samples totalled 306 specimens, 35 of which were assigned to species (Table 32). The majority of the material was made up of crumbs of unidentifiable mammalian bone, though the percentage of fish bone recovered from later phases was higher than that recorded from the hand-recovered assemblage. This illustrates the importance of environmental sampling and it is recommended that fish material is identified to species.

Taxon	NISP			
	10–12th	13–14th	15th	16th
Cow	1	7	1	–
Sheep/goat	–	1	2	–
Pig	–	1	–	2
Cat	–	9	–	–
Rabbit	–	–	1	–
Frog/toad	2	3	.	5
Sub-total to species	**3**	**21**	**4**	**7**
Cattle-sized	1	7	5	4
Sheep-sized	1	40	25	16
Rodent-sized	–	2	3	–
Mammal n.f.i.	9	31	13	18
Bird n.f.i.	1	17	5	5
Fish n.f.i.	–	3	19	46
Total	**15**	**121**	**74**	**96**

Table 32: Animal bone recovered as heavy residues: Number of Identified Species from all environmental samples by phase; the abbreviation n.f.i. denotes that the specimen could not be further identified.

Recommendations

Further identifications of all bird and fish species is recommended as part of the full site analysis. Some 70 cattle and ovicaprid horn cores may be an indication of a level of specialisation. An in-depth study of spatial distribution of waste, as well as of butchery actions may help resolve this question.

Human Bone, Benjamin Neil

Thirty-two individuals from the Subphase 2.1 cemetery and six individuals from the Subphase 2.2 chapter house comprise the human osteological assemblage from the current excavations. A full assessment was carried out on the remains from the individual inhumation features. This disarticulated remains from charnel contexts were not studied.

Sex estimation was accomplished using a multifactoral process of identifying the dimorphic dimensions of the os coxae and the skull (where available) using methods outlined by Buikstra et al (1994), Bruzek (2002), Phenice (1969), Scheuer (2002), Singh & Potturi (1978), and White et al (2012). Each individual will be assigned according to the categories in Table 33.

Term	Read as	Meaning
Fem.	Female	Analyst has full confidence in the determination of sex for the remains
Male	Male	
(Fem.)	Probably Female	Analyst does not have full confidence in the determination, but feels the remains are probably the stated sex
(Male)	Probably Male	
Fem.?	Possibly female	Analyst does not have confidence in the determination, but feels the available evidence hints at the stated sex
Male?	Possibly male	
Indet.	Sex indeterminate	The remains have been analysed, but are lacking sufficient diagnostic morphology for a determination of sex

Table 33. Terms used in sex estimation in this report.

Age at death estimation was preferably based on data sets derived from British populations using methods based on changes in the pubic symphysis (Brooks & Suchey 1990), auricular surface (Buckberry & Chamberlain 2002) and the acetabulum (Calce, 2012). The degree of ectocranial suture closure (Meindl & Lovejoy 1985) was also recorded in supplementation. Where applicable, the degree of dental development and epiphyseal union was used to estimate age and recorded following criteria outlined by Ubelaker (1999) and Buikstra et al (1994) respectively. Assessment of prenatal through to young adult development was based on methods and data outlined by Scheuer & Black (2000) and Schaefer et al (2009). Where multiple methodologies for one individual were used, the estimations were calculated as a geometric mean (central tendency). Isolated fragmented bone will often have ambiguous or unobtainable morphological information thus age is indeterminate; however, where these fragments exhibited developmental, degenerative and dimensional characteristics that were clearly not neonate, infant or juvenile, the inference was adult. Each individual was assigned according to the categories in Table 34.

Neonate	Infant	Juvenile	Sub-adult	Adult	Young Adult	Young Middle Adult	Old Middle Adult	Mature Adult
<6months	0–4 years	5–12 years	13–18 years	18+ years	18–25 years	26–35 years	36–45 years	46+ years

Table 34. Age categories used in this report.

Stature was estimated using data compiled by Trotter (1970), with a primary preference for the femur and thereafter, the humerus. Isolated fragmented bone was recorded according to zonation criteria set out by Knüsel & Outram (2004). Any taphonomic and post mortem alteration was noted. The overall completeness of a skeleton was calculated according to the percentage of elements present, using data outlined by Rowbotham et al (2017). This was estimated by the amount of material

representing different areas of the body. A complete skeleton comprises of: skull 12%, torso 36%, arms 16% and legs 36%.

Results

The following two tables (Tables 35–36) summarise the data from individual inhumation contexts within the cemetery and chapter house.

F.	Cond.	Age	Sex	Stature (cm)	Compl. %	Pathology/trauma, additional individuals and taphonomy
106	Good	Infant *c.* 6 y/o	Male?	Indet.	95	Bilateral cribra orbitalia Enamel hypoplasia Disarticulated adult (female?) individual present in the grave fill
140	Good	Young Middle Adult *c.* 32 y/o	Male	169.94 +/- 3.27	85	Increased expression of left clavicle deltoideus over right Cortical striations over left and right femurs Reactive bone (periostitis?) over interosseous surface of right tibia Possible Osteomyelitis over the anterio-distal aspects of left and right tibiae
195	Good	Adult	Indet.	Indet.	26	Enthesophyte formations on anterior table of the patellae and over the calcaneal tuberosities
196	Good	Adult	(Male)	169.94 +/- 3.27	37	Porosity around both the femoral fovea capitis Bilateral medial deviation of the hallux
198	Good	Mature Adult *c.* 48 y/o	Male	180.89 +/- 3.27	85	OA: marginal lipping between C6–C7; extensive spicule formation between T5–T6; new bone buttressing from T7–T12. Sharp ridges around left and right femoral condyles and along anterior border of the left tibial talar facet. Related posterolateral lipping of both calcanei and tali Enthesophyte formations on anterior table of the patellae, the tuberosities of the tibiae and posterior calcanei Schmorl's nodes from inferior T5 - superior T12 and superior L1 - superior L3 Notable expression of the para-articular processes on T5,T7 and T8–T12 Reactive new bone on the anteriomedial surface of the left tibia (periostitis?) Ankylosis (symphalangism?) of a single intermediate/distal phalanx of left foot
199	Good	Adult	Indet.	Indet.	22	None observed
215	Good	Adult	Indet.	Indet.	25	Possible gout: right intermediate foot phalanx
216	Good	Old Middle Adult *c.* 38 y/o	Male	178.74 +/- 3.27	85	Lateral deviation of the spinous processes: T5,T6, T8,T9 towards left, T7 towards right Small, superiorly pointing spicule on the odontoid process of C2 (involving apical ligament?) Incomplete fusion of S1 neural arch: Spina Bifida Occulta S4–S5 curvature appears exaggerated: near 90° bifida related? Ankylosis (bilateral symphalangism?) of a single left and right intermediate/distal phalanx of the feet: possibly the small toes Distal phalanges on both feet are spiculated: possible osteochondroma CU staining over anterior surface of T12 body
217	Good	Adult	Indet.	Indet.	25	Enthesophytes along medial edge of left linea aspera of femur (adducts and assists lateral rotation of thigh) Notable anterior curvature of both femora; qualification for Chinese ancestry? Small multiple foci over right calcaneus and distal end of the 1st proximal phalanx Gout (?): Cortical thinning, exostosis and sharp lipping over and around the distal articular surface of the right 1st metatarsal
232	Good	Old Middle Adult *c.* 42 y/o	Male	167.32 +/- 3.27	99	AMTL: (29) Slight dental calculus Bilateral cribra orbitalia Porotic Hyperostosis noted over palatine process, glabella & occipital bone; bilateral macroporosity (1–1.5mm) inferior to frontal temporal lines Trauma: Possible mechanical extraction and associated trauma of (29): full alveolar resorption with a healed residual bone spur. Anterior displacement/fracture of the coccyx

						OA: bilateral porosity around inferior margins of glenoid fossa; minor lipping around inferior margin of right glenoid fossa with associated inferoposterior porosity of right humeral head margin Activity related (?) Asymmetric clavicles: left exhibits deeper costoclavicular impression and larger acromial end; notable expression of the para-articular processes between T4–T10; Moderate enthesophytes (traction spurs) over right ulna olecranon; enthesophytes over the left and right 1st proximal foot phalanges Non-fusion of S1 sacral laminae- interrupted by L5 spinous process? Bilateral femoroacetabular cam impingement, characterised by localised hypertrophy around the anterosuperior margin of the femoral neck, creating a plateau between head and greater trochanter
237	Good	Mature Adult *c.* 46 y/o	Male	167.56 +/- 3.27	35	Cortical thinning (without eburnation) of right femoral head, exposing trabecular bone, superior to fovea capitis
265	Good	Young Middle Adult *c.* 34 y/o	Male	163.99 +/- 3.27	98	Slight dental calculus Enthesophyte formations on anterior table of left patella Pes Anserinus Syndrome? Characterised by a solitary inferiorly pointed osteochondroma on the medioproximal metaphysis of the right tibia OA: Large periarticular osteophyte affecting the left naviculocuniform articulation
302	Mod. – Good	Old Middle Adult *c.* 37 y/o	(Male)	175.41 +/- 3.27	98	Anteriorly directed enthesophyte on odontoid process for attachment of the apical ligament Medium to considerable dental calculus accumulation OA: spondylophyte on right side of T8 body; marginal lipping around the posteror margin of the right radial tuberosity; periarticular osteophytes affecting talus, calcaneus and navicular bones of right foot Medially directed enthesophytes over lesser trochanter and linea aspera of left femur (adducts and assists lateral rotation of thigh) Inferiorly pointing enthesophytes over anterior table of left patella and associated superiorly pointing enthesophytes over the left tibial tuberosity: involves the ligamentum patellae: asymmetric: not as evident on right side. Cortical delamination/erosion over distoposterior surface of right humerus and aneteromedial surface of the tibiae CU staining over sacrum
309	Good	Old Middle Adult *c.* 36 y/o	Male	173.01 +/- 4.05	70	Porotic hyperostosis over superoposterior parietals and the occipital planum; mild sclerotic reactions over right parietal with associated mediolateral sulci (vascular impressions) Trauma: labial/occlusal chip to (9), occlusal chip to (10) Well defined linear enamel hypoplasia from (6) to (11) Occlusal caries on (18) and (2) Post mortem damage to legs
311	Good	Mature Adult *c.* 47 y/o	Male	176.84 +/- 3.27	98	Slight dental calculus Eburnation of the anterior surface of the odontoid process of C2 Trauma: non-united fracture of 10th or 11th right rib; misaligned healed mid shaft fracture of 6th (?) right rib; overlapped healed mid shaft fracture of right 5th or 7th right rib OA: fusion between left articular facets and left bodies of C2–C4; large spondylophytes on the left side of T8–T11 bodies; flowing spondylophytes (DISH) and body fusion between T11–T12, preserving intervertebral space. Bilateral marginal lipping of the glenoid fossae. Bilateral macroporosity of the acromioclavicular joints. Macroporosity and eburnation of the right sternoclavicular joint. Eburnation within the left humeroradial joint. Marginal lipping around the left radial and ulna heads Minor enthesophytes over left ulna olecranon Superiorly/inferiorly directed enthesophyte formations on anterior table of the left patellae Eburnation over the patellar surface of right femoral lateral condyle and associated lateral facet of the right patella
312	Good	Sub-Adult *c.* 14 y/o	Indet.	Indet.	98	Buccal pit on (31) Tuberculosis: hypervascularization of thoracic vertebrae: lumbar less affected; bilateral hypervascularisation / cortical discontinuity around the anteromedial aspect of the femoral necks. Bilateral cold abscesses over sacral tuberosities and the ventral surfaces of S3–S5; cold abscesses (tubercular osteomyelitis) over right

						humeral supracondylar crest, the pronator ridge of left ulna and associated lateral surface of left radius Bilateral periostitis of the humeral deltoid tuberosities and periostitis of five sternal rib ends Cut mark located on the posterior surface of the right tibia, proximal to the soleal line; periostitis on medial border, mid diaphysis
314	Good	Young Adult *c.* 21 y/o	Male	179.46 +/- 3.27	98	Slight dental calculus Bilateral cribra orbitalia Fusion between T3 –T4 neural arches, bodies are unaffected: healed trauma or anomaly? Schmorl's nodes between T5–T11 Lumbarization of the sacrum: S1 and S2 are non-fused; S1 has a defined spinous process with cleft Hypervascularization / cortical discontinuity (?) around superior aspect of both femoral necks; also around the posterior talar facet margin of both calcanei [1796] contains an additional adult represented by a fragmented portion of frontal bone (zone 1)
315	Good	Young Adult *c.* 21 y/o	Male	168.51 +/- 3.27	73	Slight dental calculus Bilateral elongated styloid processes: may have resulted from metastatic/dystrophic clacification or ectopic ossification Bilateral buccal pits on (18) and (31) (Tuberculosis?) hyperascularization (?) between T9–T11 on left side of bodies Osteochondroma of left metatarsophalangeal joint: characterised by small hamartoma within the proximal facet of the 1st proximal phalanx and an associated round 7.06mm cortical defect exposing trabecular bone in the head of the 1st metatarsal.
328	Good	Sub-Adult	Male?	170.24 +/- 4.05	53	None observed
331	Good	Old Middle Adult *c.* 37 y/o	Male	177.33 +/- 4.05	63	Slight dental calculus; AMTL: (17) Scaphocephaly: sagittal synostosis with slight ectocranial keel and expression of the sagittal sulcus crests, increasing in intensity towards the cruciform eminence; Large periapical abscess involving (3) on lingual and labial surfaces of the alveolar process Large occlusal caries on (3) 3.33mm max diameter Alveolar resorption initiating for (32) OA: slight marginal lipping around right radial tuberosity, slight modification of the right acromioclavicular articulation, minor spondylophytes on anterior borders of T3–T10 bodies Schmorl's nodes nodes from T6–T12, L1, L2 and L4 Bilateral spondylolysis of L5 (taphonomically damaged) Sacral asymmetry: slight left wedging around the transverse plane (with notable left side compression of the sacral plateau), probably related to the L5 spondylolysis; may have caused slight lower scoliosis and a functional leg length discrepancy Localised purple staining over L5
332	Mod. – Good	Young Adult *c.* 24 y/o	(Male)	160.00 +/- 4.05	79	Trauma: High energy, bilateral femoral mid shaft butterfly fractures, directed from the front. No evidence of healing
333	Mod. – Good	Young Middle Adult *c.* 34y/o	Male	170.65 +/- 3.27	89	AMTL: (2) Minor bilateral cribra orbitalia - greater expression in right Cribra cranii over supraorbital ridge Notably thick diploe OA: minor spondylophytes on anterior borders of T3–T11 and L2–L5 bodies greatest expression between T5–T6 Enthesophyte formations on anterior table of right patella Spur on the medioposterior metaphysis of the right fibula Minor longitudinal cracking and mottling
334	Good	Old Middle Adult *c.* 44 y/o	Male	169.7 +/- 3.27	80	Slight–medium dental calculus Well defined linear enamel hypoplasia from (6) to (11) and significantly on (22) OA: macroporosity of the right acromioclavicular and sternoclavicular joints; flowing spondylophytes (DISH) on the right side from T6–T11; marginal osteophyte around medoinferior margi of left patella; bilateral eburnation over

						lateral condyle (patellar lip) with associated eburnation on the patellae Bilateral enthesophytes over the lateral aspect of the iliac crest CU staining over anyterior surface of L5/S1. Localised purple staining over right radius and proximal right humerus
336	Good	Mature Adult *c.* 47 y/o	Male	171.13 +/- 3.27	99	Slight–medium dental calculus; AMTL: (16) Remnant metopic suture Cribra orbitalia in right orbit Enamel hypoplasia on maxillary incisors (6) and (11) Interdental caries between (30) (31) and (4) (5). Occlusial caries on (1) Trauma: two small healed depression fractures on the outer table of the frontal bone; largest is 29mm medial of left temporal line, 65mm superior of the supraorbital margin; sclerotic bone healing is seen within the depression; the smaller depressed fracture is 32mm medial of right temporal line, 43mm superior of right supraorbital margin. Fracture outlines are curvilinear/crescent shaped, directed from above. (9) has an occlusial chip with worn edge. Un-sided, well healed rib shaft fracture OA: marginal lipping around the proximal head of the left ulna; macro/microporosity over the pisiform facet of left triquetral; bilateral macroporosity involving the acromioclavicular and sternoclavicular joints. Eburnation between right inferior and superior articular facet of C2–C3 respectively. Spondylophytes between C2–T1: bodies of C5–C6 are macroporotic; degenerative changes between the left inferior and superior C6–C7 facets respectively. Minor spondylophytes between bodies of T2–T12. Large spondylophytes on anterior body of L3 and L4. Eburnation over the head of the right proximal foot phalanx Symphalangism of a left hand intermediate-distal phalangeal joint Schmorl's nodes between T3–L2 6th lumbar vertebra with a right diarthrodial joint articulating with the sacral ala Enthesophyte formations on anterior table of right patella Gout on the medial side of the left proximal foot phalanx CU staining over left bodies of T5/T6, manubrium, right side of the occipital bone (around superior nuchal line) and around the left lunate and radial lunate facet
343	Mod. – Good	Sub-Adult *c.* 17–18 y/o	Male	178.03 +/- 3.27	99	Slight dental calculus Fine cribra cranii/ porotic hyperostosis confined to the parietal bones, (superior to the superior temporal lines) and occipital planum. Bilateral buccal pits on (18) and (31) Extensive dental hypoplasia Hyperascularization of the anterior surface of C6/C7 bodies: Tuberculosis? **[1917]–[1916]** contain the disarticulated remains of a probable young adult male Loacalised staining over the articulation surfaces of C1 and C2, and both petrous bones: specific and needs aetiology: pathologic?
344	Good	Young Middle Adult *c.* 34y/o	Male	171.84 +/- 3.27	95	AMTL: (2) (15) Occlusal trauma of (14); V shaped labial-lingual occlusal groove on (28) Periapical abscesses involving (3) and (19); the latter with periostitis localised around the alveolar margin OA: macroporotic and spiculated C5–C7 endplates; minor spondylophytes over thoracic and lumbar bodies. Large spondylophytes on the right side of T1–T2 bodies and T11–T12 bodies A supra-acetabular cyst on the left pelvis Eburnation of the right radiocapitellar joint Osteoma/harmatoma on the lateral side of the right radial head: irregular oval shape, max dimension: 6.76mm
346	Good	Juvenile *c.* 7.5 y/o	Indet.	Indet.	14	None observed
347	Mod.	Sub Adult *c.* 13–14 y/o	Male?	Indet.	99	Slight dental calculus Very slight bilateral cribra orbitalia Localised bilateral periostitis over the zygomata, including the masseteric origin, the posterior aspect of the temporal squamae, the mandibular fossae, the mastoid processes, the occipital condyles, the occipital protuberance and anterior tables of the patellae Enamel hypoplasia on (8) and (9)

						Bilateral hypervascularization / cortical discontinuity of the femoral necks
348	Good	Young Middle Adult *c.* 35 y/o	Male	177.32 +/- 3.27	98	Medium to considerable dental calculus; AMTL: (19) (30) Mesial caries on (13) with slight periapical infection Dental trauma on (17) distolingually: edges are worn Complete alveolar resorption for (18) and partial for (30) Slight porotic hyperostosis over superior calotte of skull Schmorl's nodes: T4, T5, T7–T9 and T11 Mild periostitis over anterior surface of right femur Atypical, bilateral sulci on the lateral border of the tibiae: sulci crests appear to be formed by sclerotic bone Symphalangism (?) or traumatic ankylosis (?) of the right foot first intermediate-distal phalangeal joint
352	Good	Young Middle Adult *c.* 33 y/o	(Male)	167.08 +/- 3.27	53	AMTL: (14) Bilateral cribra orbitalia Porotic hyperostosis over the superior aspect of the calotte Porotic and spiculated palatine process 4.82mm diameter depression in the outer table of the right parietal located 37.17mm from bregma Notable asymmetry in deposition of dental calculus, which is medium to considerable on the right side Significant asymmetric occlusial wear affecting the right dental arcade: polished and faceted Large periapical buccal and labial abscess affecting (3) Possible femoroacetabular cam impingement of the right femoral head Bilateral medial torsion (anteversion) of the femora
355	Good	Young Middle Adult *c.* 29 y/o	Male	177.02 +/- 4.05	63	Slight–medium dental calculus; AMTL (?): (1) (16) Porotic hyperostosis over the supraorbital ridge, extending over the zygomatic processes; mild cribra cranii over the calotte Atypical bilateral mediolateral sulci over parietals c. 25mm anterior of the parietal foramen Schmorl's nodes involving 5 thoracic vertebrae OA: slightly porotic vertebral endplates and cortical rim granulations Black staining over the right triquetral, hamate and capitate
367	Good	Mature Adult *c.* 46 y/o	(Male)	173.98 +/- 3.27	95	Obelionic deformation/craniosynostosis characterised by obliteration and flattening of the obelionic suture, and bossing of the occipital planum Noted bilateral expression of the flexor digitorum sublimis insertion onto the intermediate hand phalanges OA: minor bilateral lipping of the glenoid fossae; lipping around the posterior margin of the left humeral head with macroporosity inferior to the margin; macroporosity between the right humeral head and the greater tubercle. Degeneration of the right sternoclavicular joint with an anterosuperior periosteal reaction and the left acromioclavicular joint. Severe macroporosity and speculation of C5 inferior endplate, C6 endplates and C7 superior endplate; severe on T11 inferior and T12 superior; moderate on all endplates from L1–L5. Minor spondylophytes on right anterior bodies of L2/L3 Schmorl's nodes from T7–T12 and L1–L3 Bridging osteophyte of the right anterosuperior sacroiliac joint Superiorly pointed enthesophyte formations on the anterior table of the patellae; a proximal enthesophyte on a left intermediate phalanx Osteoma/Harmatoma on the medial border of the left MT3 5.94mm diameter, 28.38mm from distal end Mild sclerotic reaction over the plantar margin of the left MT4 CU staining around the 2nd right distal metacarpal and a right proximal phalange

Table 35. Inhumations in the Subphase 2.1 cemetery, for additional information see Table 3.

F.	Cond.	Age	Sex	Stature (cm)	Comp. %	Pathology /Trauma and taphonomy
146	Good	Mature Adult *c.* 48 y/o	Fem.	157.84 +/- 3.72	98	Medium accumulation of dental calculus; AMTL of (15) (16) (19) Minor OA in shoulder and vertebrae Schmorl's nodes from T4 to L3 Osteomylitis(?) of left and right tibiae and fibulae, taking a swollen appearance Rugosity of the deltoid tuberosities of the humeri and the interosseous borders of the ulnae with enthesophyte formations over the former Cu staining distomedial right tibia
190	Good	Juvenile *c.* 10–11 y/o	Indet.	Indet.	99	Cortical discontinuity (cribra? abnormal vascularisation?) anterior side of both femoral necks
191	Good	Mature Adult *c.* 55 y/o	Male	178.74 +/- 3.27	99	Periapical abscess of (6) with indications of diffuse infection; extensive AMTL (9)–(32) with alveolar resorption Calotte exhibits possible diffuse sclerotic reactions confined to the posterosuperior aspect of both parietal bones: appears as nodular bone OA Moderate changes of the vertebrae and sacroiliac joint; T11–T12 are ankylosing Schmorl's nodes C2, T8, T9, T11 Clavicles have notable expression of the pectoralis major rugosities Trauma: compression/oblique fracture of left radius: healed with medial displacement
230	Good	Juvenile *c.* 11–12 y/o	Indet	Indet.	97	Slight dental calculus Cribra cranii superior to the right acoustic meatus Caries along the gingival margin of (70) RM_1 Left auricular surface is characterised by subchondral erosion and reactive new bone: possibly JRA (juvenile rheumatoid arthritis) or JSpA (juvenile spondyloarthropathy) Possible lytic lesion on the right femoral greater trochanter Large, sharply defined, smooth walled, scalloped edge alterations that immediately penetrate the medullary cavities of the left arm and clavicle: no evidence of a systemic response (such as periostitis) that would suggest an obvious pathology. Differentially, tuberculosis, cystic lesions, tumours or fungal/bacterial granulomatous lesions need consideration. Could be a pseudopathology where a localised dissolutive taphonomic process has mimicked large/coalescing lytic/cystic/ lesions
260	Mod. –good	Young Adult *c.* 23 y/o	(Male)	171.17 +/- 4.05	88	Porotic hyperostosis (healed?) over superior aspect of calotte Marked sulci (venous impressions?) over outer table of right parietal Bilateral spondylolysis of L5 and grade 1 anterolisthesis; possible hyperlordosis at L5 (posterior and left lateral wedging of body) OA: Spondylophytes on L4 & L5 L2, L3 & L4 observation: bowed defect to the cortical rim ridge on the right side of the bodies (not cupids bow) possible cause: herniated annulus fibrosus with osteological response? Sacral midline cleft (complete): spina bifida occulta Anterior medial squatting facet: left tibia. Antero-posterior compression of the skull causing green bone stress fractures near the oblelion Black mottling/taphonomic erosion over both legs
310	Mod.	Young adult *c.* 24 y/o	(Fem.)	175.38 +/- 3.72	98	Slight dental calculus Mild porotic hyperostosis over anterior aspects of both parietal bones Slight bilateral cribra orbitalia Linear enamel hypoplasia: well defined over maxillary incisors and (5) Delineated cortical erosion over frontal bone: 10mm wide curvilinear arc from left pterion to right mid coronal with occasional focal destructions to expose dipole: no macroscopic evidence of a systemic response (such as periostitis) that would suggest an obvious pathology. There is taphonomic evidence for cortical delamination around margins. Moderate cortical defects over surface of both armsOA: spondylophytes between T8-T9, marginal lipping around left femoral caput Schmorl's nodes from T8-L1 Bilateral medially bowing tibial curvature

Table 36: Inhumations in the Subphase 2.2 chapter house, for additional information see Table 4.

Discussion

This report follows the full assessment of the human remains from individual inhumation contexts. Apart from the mention of an additional three individuals (from **F.106**, **F.314** & **F.343**), this report does not discuss the disarticulated remains from charnel contexts, which should be assessed for demographic information.

The Subphase 2.1 cemetery assemblage stands out for its singular representation of the male sex, which is concurrent with the friary context of the site (Table 37). The greatest proportion of the individuals fall within the broader middle adult range. The Subphase 2.2 chapter house assemblage (Table 38) was noted for the two females and may be worth investigating the potential familial relationships within this group; the absence of middle adults lends to this suggestion.

Table 39 illustrates the central tendency for stature values within each age category within the Subphase 2.1 cemetery assemblage. Table 40 illustrates the actual values of those measurable individuals within the Subphase 2.2 chapter house assemblage.

Sex	Infant	Juvenile	Sub Adult	18+ adult	Young Adult	Young Mid Adult	Old Mid Adult	Mature Adult	Total
Male	–	–	1	–	2	6	5	4	18
Probable Male	–	–	–	1	1	1	1	1	5
Possible Male	1	–	2	–	–	–	–	–	3
Indeterminate	–	1	1	4	–	–	–	–	6
Total	***1***	***1***	***4***	***5***	***3***	***7***	***6***	***5***	***32***

Table 37: Demographic summary for the Subphase 2.1 cemetery.

Sex	Juvenile	Young Adult	Mature Adult	Total
Male	–	–	1	1
Probable Male	–	1	–	1
Female	–	–	1	1
Probable Female	–	1	–	1
Indeterminate	2	–	–	2
Total	***2***	***2***	***2***	***6***

Table 38: Demographic summary for the Subphase 2.2 chapter house burials.

Sex	Infant	Juvenile	Sub Adult	18+ adult	Young Adult	Middle Adult	Mature Adult
Male	Indet.	Indet.	174.09	Indet.	169.14	173.28	174.02

Table 39: Geometric mean values (in cm) for stature in the Subphase 2.1 cemetery.

Sex	Juvenile	Young Adult	Mature Adult
Male	Indet.	171.17 +/- 4.05	178.74 +/- 3.27
Female	Indet.	175.38 +/- 3.72	157.84 +/- 3.72

Table 40: Stature values (in cm) for the Subphase 2.2 chapter house burials.

This well-preserved assemblage offers exciting insights into the community dynamics of this population over time, which have the potential to support or challenge the conceptual roles within Augustinian friary life. This could be supplemented by the incorporation of skeletons recovered in 1908–09 (see below).

Activity: the assemblage supports the notion that in the majority, the older individuals had habitually subjected their bodies to abnormal stresses on joint margins (nine individuals in the cemetery, one in the chapter house), which in analysis may infer specific repetitive motions of the body. There are indications of other activity related stress and trauma, such as the occlusal groove on a right premolar from skeleton **F.344**.

Dental disease: there is significant evidence for oral pathology within this assemblage. Analysis will find that caries and specifically acute abscesses have important implications on the mortality of four individuals from the cemetery. 17 individuals were recorded with dental calculus, which has great potential in analysis. Bacterial DNA from this source can inform on disease and systemic health (for example, diabetes and atherosclerosis). Microfossils within calculus can also inform on diet. The presence of foreign objects within dental calculus, such as thread fibres may inform on types of clothing material, for example. The six individuals with enamel hypoplasia should be analysed in conjunction with other indicators of developmental stress.

Diet and systemic stress: around 23% of the assemblage was noted for cribra orbitalia and in relation porotic hyperostosis. Beyond the discrete diagnosis of a systemic disorder in the individual, the conditions have implications for a wider aetiology of circumstances such as malnutrition and analysis should be carried out in relation to this.

Pathology: there are numerous examples of degenerative conditions resulting from developmental anomalies and infection within this assemblage; analysis should be carried out to fully characterise the functional implications of these disorders, such as the two cases of spondylolysis. Six individuals have periosteal lesions, two of which have osteomyelitis. A third individual **F.146** (Figure 31.5) with osteomyelitis deserves a radiographic image of its right leg. The three individuals assessed for possible tuberculosis and an individual with possible healed syphilis need analysis to confirm these assessments. Five individuals are noted for sclerotic reactions, the genesis of which have varied aetiologies, for example in response to trauma, infection and developmental anomaly.

Trauma: analysis of the ten individuals with traumatic bone and tooth injuries should be carried out to fully characterise mechanism and implication. For example, skeleton **F.344** appears to have suffered an acetabular labrum tear that became cystic. Two individuals **F.230** and the disturbed individual **F.352** were assessed with possible femoroacetabular cam impingements. Attention should be paid to skeleton **F.332**; there are a number of attributes that indicate that this individual suffered bilateral butterfly fractures to the femurs, which would have had significant implications of imminent mortality, (see Figure 31.1). Both legs were in anatomical position at the femoroacetabular and tibiofemoral joints though rotationally displaced inferior to the fracture, thus right side was presented posteromedially and the left was presented posterolaterally. However, other mechanisms should not be ruled out and differential analysis should be made to consider a post-mortem praxeological/accidental/taphonomic causation. Analysis of a cut mark located on the posterior surface of the right tibia from the individual in **F.312 [1785]** needs differential analysis.

Other anomalies: two individuals were assessed with cranial synostosis and should be analysed for clinical significance. Femoral and tibial bowing (**F.217** and **F.310** respectively) needs full metric analysis, which may have ancestral and pathologic aetiologies. Three individuals were assessed for gout, which has a wider inference on the individuals' systemic health.

Earlier Discoveries, Craig Cessford

In August 1908 a number of human remains were disinterred during the excavation of the foundations of the Examination Hall. The published plan shows nine skeletons that are probably from this area, out of 'twenty-three skulls, crania and calvariae which were associated with other bones of the respective skeleton'. In the autumn of 1909 further excavations were commenced to the west of the earlier work, more skeletons including six in a row with a few at right angles to them were recorded. The plan shows 11 skeletons in this area so it appears that a minimum of 34 skeletons were recovered, although the total may be more than this.

Various sets of human remains are held in the Duckworth Collection of the University of Cambridge. These include material from the Examination Hall donated in 1908 (Camb A27 & Camb B28), the New Exam Hall donated in 1909 (5401A, 5402A, 5403A, 5404A, 5405A, 5406A, 5407A, 5408A, 5409A & 5614A) and from the New Lecture Rooms donated in 1910 (5615A & 5620/21), plus undated material from Bene't Street Exam Hall (EU 1 1 0007 & EU 1 1 0011). This material can be linked to the skeletons recovered in the early 20th century, although it is apparently impossible to link particular remains to individual skeletons on plans etc.

There are also some other skeletons from Bene't Street (EU 1 1 0001, EU 1 1 0003, EU 1 1 0004, EU 1 1 0005, EU 1 1 0006, EU 1 1 0008, EU 1 1 0009, EU 1 1 0010, EU 1 1 0012, EU 1 1 0013, EU 1 1 0014, EU 1 1 0015, EU 1 1 0016, EU 1 1 0017, EU 1 1 0018, EU 1 1 0019, EU 1 1 0020, EU 1 1 0021, EU 1 1 0022, EU 1 1 0024, EU 1 1 0026, EU 1 1 0027, EU 1 1 0029, EU 1 1 0030, EU 1 1 0032 & EU 1 1 0033A). The date that these were donated to the collection is unknown and whilst they may derive from the friary it is possible that they come from St. Benet's churchyard, which may have been larger in the medieval period than its current iteration.

There are also some human remains from Benet Street, Mortlock's Bank or House (0779A). There is a record that beneath Mortlock's House (Nos. 15 and 16 Bene't Street) 'a number of human bones &c., relicks [sic] of the Friars' ancient burying ground were discovered; but soon decomposed by the accession of air' (Browne 1974, 23; 6). While the discovery is undated, it occurred 'when the

preceding building was torn down by a Mr Finch, ironmonger, in order to build a new brick house' (Cranage & Stokes 1921); this is most likely to have occurred between the mid-18th and mid-19th century.

Inhumation Related Sampling, Craig Cessford

Teeth from a number of skeletons have been sampled for potential aDNA and stable isotope analysis, in conjunction with the Wellcome Trust funded research project *After the Plague: health and history in medieval Cambridge* (Table 41) and additional sampling ribs is also scheduled to take place In addition 74 soil samples from the vicinity of skeletons were taken for potential parasite analysis. They were taken in accordance with guidelines supplied by Piers Mitchell (Mitchell 2014). The samples comprised 58 from 21 burials in the cemetery and 16 from 6 burials in the chapter house, with both samples from the sacrum and 'control' samples from the head and feet areas (Table 42). None of these samples have yet been analysed.

Burial	Sk.	Type	Teeth
146	1164	aDNA	LLPM1
190	1458	Isotope	LLM1, URM2
190	1458	aDNA	URI1
191	1460	aDNA and isotope	URM2, URM3, URM1, LLPM1
230	1482	Isotope	LRM1, LLM2
230	1482	aDNA	URI1
232	1490	Isotope	ULM2, LRM3
232	1490	aDNA	LRC
265	1602	Isotope	LRPM2, ULM3
265	1602	aDNA	ULM2
302	1735	Isotope	URM2, URM3
302	1735	aDNA	LLPM2
310	1771	Isotope	LRM2, LLM3, URM1
310	1771	aDNA	ULC
311	1782	Isotope	URM3, LRPM2
311	1782	aDNA	LRM1 or 2
314	1797	aDNA	LLPM1
314	1797	Isotope	URM1, URM2, URM3
315	1800	Isotope	ULM3, URM2
315	1800	aDNA	ULC
328	1824	aDNA	Petrous bone (left side)
260	1863	Isotope	ULM1, ULM2, ULM3
260	1863	aDNA	LLC
106	1866	Isotope	RLM1
106	1866	aDNA	URI1
333	1884	Isotope	URM3, URM1, LLM2
333	1884	aDNA	LLI1
334	1887	aDNA	LRC

336	1894	aDNA	LRC
336	1894	Isotope	LLM1, LLM2, LLM3
343	1918	Isotope	URM3, ULM2, ULM1
343	1918	aDNA	URM2
344	1932	Isotope	LRM2, LRM3
344	1932	aDNA	LRPM2
347	1945	Isotope	URM1, URM2, URM3
347	1945	aDNA	URPM2
348	1948	Isotope	ULM2, ULM3
348	1948	aDNA	ULI1
352	1965	Isotope	LLM3, LLPM2
352	1965	aDNA	URI1
354	1972	Isotope	URM1, URM2, URM3
354	1972	aDNA	ULM2
355	1975	Isotope	LRM3, LLM2, LLM3
355	1975	aDNA	URM2
367	2011	aDNA	LRM1 or 2
331	1873	Isotope	RURM1, LLM2
331	1873	aDNA	URM2

Table 41: Teeth sampled for potential stable isotope and aDNA analysis.

Sample	Context	Feature	Location	Phase
171	1866	106	Head	2.1
172	1866	106	Sacrum	2.1
173	1866	106	Foot	2.1
102	1364	198	Sacrum	2.1
103	1364	198	Foot	2.1
104	1428	216	Foot	2.1
105	1428	216	Sacrum	2.1
106	1428	216	Head	2.1
120	1490	232	Head	2.1
121	1490	232	Sacrum	2.1
122	1490	232	Foot	2.1
123	1602	265	Head	2.1
124	1602	265	Sacrum	2.1
125	1602	265	Foot	2.1
131	1735	302	Head	2.1
132	1735	302	Sacrum	2.1
133	1735	302	Foot	2.1
141	1782	311	Head	2.1
142	1782	311	Sacrum	2.1
143	1782	311	Foot	2.1
147	1785	312	Head	2.1

148	1785	312	Sacrum	2.1
149	1785	312	Foot	2.1
150	1797	314	Head	2.1
151	1797	314	Sacrum	2.1
152	1797	314	Foot	2.1
153	1800	315	Head	2.1
154	1800	315	Sacrum	2.1
208	1800	315	Foot	2.1
158	1873	331	Head	2.1
159	1873	331	Sacrum	2.1
160	1878	332	Head	2.1
161	1878	332	Sacrum	2.1
162	1878	332	Foot	2.1
167	1884	333	Head	2.1
168	1884	333	Sacrum	2.1
169	1887	334	Head	2.1
170	1887	334	Sacrum	2.1
164	1893	336	Head	2.1
165	1893	336	Sacrum	2.1
166	1893	336	Foot	2.1
179	1918	343	Head	2.1
180	1918	343	Sacrum	2.1
181	1918	343	Foot	2.1
175	1932	344	Head	2.1
176	1932	344	Sacrum	2.1
177	1932	344	Foot	2.1
186	1945	347	Head	2.1
187	1945	347	Sacrum	2.1
188	1945	347	Foot	2.1
182	1948	348	Head	2.1
183	1948	348	Sacrum	2.1
184	1948	348	Foot	2.1
189	1975	355	Head	2.1
190	1975	355	Sacrum	2.1
191	2011	367	Head	2.1
192	2011	367	Sacrum	2.1
193	2011	367	Foot	2.1
115	1164	146	Head	2.2
116	1164	146	Sacrum	2.2
107	1458	190	Foot	2.2
108	1458	190	Sacrum	2.2
109	1458	190	Head	2.2

110	1460	191	Foot	2.2
111	1460	191	Sacrum	2.2
112	1460	191	Head	2.2
117	1482	230	Head	2.2
118	1482	230	Sacrum	2.2
119	1482	230	Foot	2.2
156	1863	260	Head	2.2
157	1863	260	Sacrum	2.2
138	1771	310	Head	2.2
139	1771	310	Sacrum	2.2
140	1771	310	Foot	2.2

Table 42: Samples taken from vicinity of skeletons for potential parasite analysis.

Shell, Craig Cessford

A small assemblages of shell was recovered, the bulk of this was oyster shell (284 pieces, MNI *c.* 120 oysters) which was recovered from pre-friary, friary and post-friary contexts. There were no significant concentrations of oyster shell and the only noteworthy item was a single possibly pierced example which may have been a grave good (**F.216**). There was also a small quantity of mussel shell (15 pieces, MNI 5) from pre-friary and friary contexts and some land snails (7 pieces, MNI 5).

Environmental Remains Ellen Simmons

In total 35 flotation samples were taken during the excavations (Table 43). The nature of the friary phase deposits meant that there were no features suitable for meaningful environmental sampling. The bulk of the features sampled pre-dated the friary (30 samples), with a few that post-dated the friary (5 samples). With the exception on one post-friary well no waterlogged deposits were encountered, and even in this instance the waterlogged survival appeared to be relatively poor. No obvious significant concentrations of charred material were observed within during excavation; as a result a selection of features were sampled with the principal criteria being the presence of reliable datable material. Given the relatively low perceived potential only ten samples were processed; six that pre-date the friary and four that post-date it.

Sample	Context	Feature	Processed	Context	Phase
100	1070	120	–	Pit/cesspit fill	1.2
101	1123	135	–	Pit fill	1.2
113	1328	187	Yes	Pit fill	3.1
114	1452	187	Yes	Pit fill	3.1
126	1702	292	–	Pit fill	1.2
127	1703	292	–	Pit fill	1.2
128	1704	292	–	Pit fill	1.2
129	1705	292	Yes	Pit fill	1.2
130	1549	245	–	Pit fill	1.2
134	1512	236	–	Pit fill	1.2
135	1759	236	–	Pit fill	1.2
136	1668	281	Yes	Pit fill	1.1
137	1684	308	–	Pit fill	1.2
144	1773	193	Yes	Well fill	3.2
145	1775	193	–	Well fill	3.2
146	1775	193	Yes	Well fill	3.2
155	1793	313	–	Pit fill	1.1
163	1876	241	–	Pit fill	1.2
174	1940	345	Yes	Oven fill	1.2
178	1941	345	–	Oven lining	1.2
185	1956	349	–	Pit fill	1.2
194	2032	373	–	Pit fill	1.2
195	2035	373	–	Pit fill	1.2
196	2043	376	Yes	Pit fill	1.1
197	2044	376	–	Pit fill	1.1
198	2026	371	–	Pit fill	1.2
199	2083	388	–	Pit fill	1.2
200	2082	388	–	Pit fill	1.2
201	2072	381	Yes	Pit fill	1.2
202	2070	381	–	Pit fill	1.2
203	2085	389	–	Pit fill	1.1
204	2088	390	–	Pit fill	1.2
205	2033	390	Yes	Pit fill	1.2
206	2094	390	–	Pit fill	1.2
207	2093	390	–	Pit fill	1.2

Table 43: All environmental samples taken.

Results

The preservation of charred cereal grains was variable; with a moderate proportion of grains retaining epidermis and exhibiting low levels of distortion, while the majority of grains were puffed and distorted and identifiable by gross morphology only. Wood charcoal fragments present in the medieval sampled contexts were well

preserved with low incidences of vitrification or mineralisation. The majority of the wood charcoal fragments present in the Post-Medieval sampled contexts were vitrified, whereby charcoal takes on a glassy appearance resulting in anatomical features becoming fused and difficult to identify. The low concentration of charred plant remains and wood charcoal in the Post-Medieval sampled contexts is therefore likely to be due to poor conditions for preservation of charred plant remains. Low proportions of intrusive roots were present in all the sampled contexts, indicating a reduced likelihood that any charred material present will be intrusive.

Ten bulk sieving (BS) samples and one general biological analysis (GBA) sample were provided for assessment. Six of the sampled contexts were dated to the medieval period (11th/12th–13th/mid-14th century), and four of the sampled contexts were dated to the Post-Medieval period (mid-16th–early 17th century), pre and post-dating the friary. The samples were processed for the recovery of macroscopic plant remains and wood charcoal and assessed in order to determine the concentration, diversity, state of preservation and suitability for use in radiocarbon dating, of any palaeoenvironmental material present. A further aim of this assessment was to evaluate the potential of any palaeoenvironmental material present to provide evidence for the function of the contexts, the economy of the site or for the nature of the local environment.

The bulk sieving samples were processed by flotation for the recovery of charred plant remains and wood charcoal by the Cambridge Archaeological Unit, using a water separation machine. Floating material was collected in a 300μm mesh, and the remaining heavy residue retained in a 1mm mesh. The flots and heavy residues were air dried. A one litre sub-sample of the general biological analysis sample was processed by wash over for the recovery of plant remains preserved by anoxic waterlogging, broadly following the techniques outlined in Kenward et al (1980). The sample was disaggregated in water, before being processed by gently washing material through a stack of sieves of mesh sizes 1mm, 500μm and 250μm. Material from each size sieve fraction was stored distilled water in airtight glass jars and kept refrigerated, in accordance with English Heritage guidelines for the curation of waterlogged macroscopic and invertebrate remains (Robinson 2008). Ethanol was not added at this stage in order to avoid contamination of material potentially required for radiocarbon dating, but will be added should the material be put into storage. The samples were assessed in accordance with English Heritage guidelines for environmental archaeology assessments (Jones 2011). A preliminary assessment of the samples was made by scanning using a stereo-binocular microscope (x10–x65) and recording the abundance of the main classes of material present. Where more than thirty items of charred plant material were present this material was quantified using a scale of abundance (- = < 5 items, + = > 5 items, ++ = > 10 items, +++ = > 30 items, ++++ = > 50 items, +++++ = > 100 items). The plant material preserved by anoxic waterlogging was also quantified using a scale of abundance. Where less than thirty items of charred plant material was present this was identified and quantified in full.

Identification of plant material was carried out using modern reference material in the Department of Archaeology, University of Sheffield and various reference works (e.g. Cappers *et al* 2006). Cereal identifications and nomenclature follow Jacomet (2006). Other plant nomenclature follows Stace (2010). The composition of the bulk sieving samples is recorded in Table 44 and the composition of the general biological analysis sample is recorded in Table 45. The seed, in the broadest sense, of the plant is always referred to in these tables unless stated otherwise. The abbreviation *cf.* means 'compares with' and denotes that a specimen most closely resembles that particular taxa more than any other.

The preservation of charred cereal grains was variable, with a moderate proportion of grains retaining epidermis and exhibiting low levels of distortion while the majority of grains were puffed and distorted and identifiable by gross morphology only. Wood charcoal fragments present in the medieval sampled contexts were well preserved with low incidences of vitrification or mineralisation. However the majority of the wood charcoal fragments present in the Post-Medieval sampled contexts were vitrified, whereby charcoal takes on a glassy appearance resulting in anatomical features becoming fused and difficult to identify. The low concentration of charred plant remains and wood charcoal in the Post-Medieval sampled contexts is therefore likely to be due to poor conditions for preservation of charred plant remains. Low proportions of intrusive roots were present in all the sampled contexts, indicating a reduced likelihood that any charred material present will be intrusive.

Plant Macrofossils

Pre-friary, 11th–mid 14th-century contexts: a rich assemblage of over one hundred items of crop material, primarily cereal grain but also including chaff and wild or weed plant seeds was present in sample 174 from the 13th–mid-14th-century fill **[1940]** of oven **F.345**. Free threshing wheat (*Triticum nudum*) was the predominant crop type present, represented as both grains and rachis internodes. Some of the rachis internodes were identifiable as bread wheat (*Triticum aestivum*) indicating that the free threshing wheat grains are likely to be representative of bread wheat, although the presence of rivet wheat cannot be ruled out. A relatively high proportion of peas (*Pisum sativum*) were also present, along with a small proportion of oats (*Avena* sp.) and hulled barley (*Hordeum* sp.) grains. The high density wild or weed seed assemblage included the typical crop weeds field gromwell (*Lithospermum arvense*), thorow-wax (*Bupleurum rotundifolium*) and stinking chamomile (*Anthemis cotula*) along with rushes (*Juncus* spp.) and great fen sedge (*Claudium mariscus*), which are taxa commonly more associated with damp soils. Fragments of a charred amalgam of monocot stems were also present, which may be representative of charred hay or reeds.

A rich assemblage of over one hundred items of crop material, primarily cereal grain along with a small proportion of wild or weed plant seeds, was present in sample 205 from the 13th–mid-14th-century fill **[2093]** of pit **F.205**. Free threshing

wheat was the predominant crop type present, along with moderate proportions of oats and hulled barley. An oat floret base was identifiable as common oat (*Avena sativa*), indicating that at least some of the oat grains are representative of cultivated oats rather than wild oats growing as weeds. The relatively low density wild or weed seed assemblage included the typical crop weeds knotgrass (*Polygonum aviculare*), stinking mayweed and brome/rye grass (*Bromus* spp./*Loilium* spp.).

Low to moderate density assemblages of cereal grains and charred wild or weed plant seeds were also present in sample 136 from the 11th–12th-century fill **[1668]** of pit **F.281**, sample 129 from the 13th–mid-14th-century fill **[1705]** of pit **F.92**, sample 196 from the 11th–12th-century fill **[2043]** of pit **F.376** and sample 201 from the 13th–14th-century fill **[2072]** of pit **F.381**. The crop types and wild or weed seed taxa were similar to those present in the high density assemblages.

Post-friary, mid-16th–17th-century contexts: a seed of fig (*Ficus carica*) and a grape (*Vitis vinifera*) pip were present in the assemblage of plant macrofossils preserved by anoxic waterlogging in sample 146, from the late 16th–early 17th-century fill **[1775]** of well **F.193**. The assemblage of wild or weed plant seeds present in this deposit included a range of taxa commonly associated with fertile disturbed soils such as common/small nettle (*Urtica dioica/urens*), goosefoots (*Chenopodium* spp.), chickweed (*Stellaria media*) and dead nettles (*Lamium album/pupurum*). Also present were taxa commonly associated with damp soils, such as spike rushes (*Eleocharis* spp.) and sedges (*Carex* spp.). Grassland or pasture is suggested by the presence of lesser stitchwort (*Stellaria graminea*).

Very low densities of charred plant macrofossils were present in sample 113 from the 16th-century fill **[1328]** of pit **F.187** and sample 114 from the 16th-century fill **[1452]** of pit **F.187**. Free threshing wheat grains were the only crop type represented along with a small seeded grass seed (<2mm Poaceae).

Wood Charcoal

Pre-friary, 11th–mid 14th-century contexts: a moderately rich assemblage of just over fifty wood charcoal fragments greater than 2mm in size was present in sample 205 from context **[2093]**, the 13th–mid 14th-century fill of pit **F.390**. Low density assemblages of just over twenty wood charcoal fragments greater than 2mm in size were present in sample 136 from the 11th–12th-century fill [1668] of pit **F.281** and sample 201 from the 13th–14th-century fill **[2072]** of pit **F.381**. Preliminary examination of the wood charcoal fragments using low power microscopy indicated that these assemblages were composed of predominantly ring porous taxa, along with some diffuse porous taxa.

Post-friary, 16th–17th-century contexts: a rich assemblage of over one hundred wood charcoal fragments greater than 2mm in size were present in sample 144 from context **[1773]** the 17th-century fill of well **F.193**. Preliminary examination of the wood charcoal fragments using low power microscopy indicated that this

assemblage was composed of predominantly diffuse porous taxa, along with some ring porous taxa.

Mollusca and Invertebrate Macrofossils

A moderately rich assemblage of over one hundred snail shells (Mollusca) was present in sample 174 from context **[1940]**, the 13th–mid 14th-century fill of oven **F.345**. Some of the shells appeared to have been charred. A moderate concentration of invertebrate macrofossils (Coleoptera) were present in assemblage of material preserved by anoxic waterlogging present in sample 146 from the early 17th-century fill **[1775]** of well **F.193**.

Potential, Significance and Recommendations

Despite the majority of the sampled contexts containing only low densities of charred plant remains and wood charcoal, the presence of a small number of high density samples has the potential to provide evidence for the cultivation of a diverse range of crops, evidence for crop husbandry techniques and crop processing activities and evidence concerning the environment local to the site. The crop types present in the charred plant macrofossil assemblage from the 11th–mid-14th-century pre-friary sampled contexts included bread wheat (*Triticum aestivum*), hulled barley (*Hordeum* sp.), common oat (*Avena sativa*), rye (*Secale cereale*), pea (*Pisum sativum*) and flax (*Linum usitatissimum*). Free threshing wheat grains were also present in the mid-16th–early 17th-century post-friary sampled contexts, but the presence of bread wheat could not be confirmed due to a lack of diagnostic chaff. Fig (*Ficus carica*) and grape (*Vitis vinifera*) were also present in the waterlogged plant macrofossil assemblage from sample 146, the early 17th-century fill **[1775]** of well **F.193**.

The suite of crop types present in the pre-friary sampled contexts are typical for the medieval period in England. Bread wheat is the most common wheat present at medieval sites in England, with barley, rye, oats and legumes also frequently recovered (Moffett 2006, 47–50). The charred plant assemblage from High Medieval phases at Ashwell, West Fen Road, Ely, for example was dominated by free threshing wheat with hulled barley, rye and oats also present but in low concentrations (Ballantyne 2004, 192). It is not always possible however to identify the presence of cultivated common oat due to a lack of diagnostic chaff and legumes are also less frequently preserved as they are less likely to come into contact with fire (Moffett 2006, 53). Flax is also occasionally present in medieval archaeobotanical assemblages and is mentioned in documentary records as a source of oil and cloth (Green 1984, 109). Archaeological remains of grapes are frequent from high-status sites (Green 1984, 110) as are figs, which are likely to have been imported in dried or preserved form (Dyer 2006, 34).

The high density assemblages of charred cereal grain are likely to be representative of the accidental charring of crops during drying or parching. Parching enables easier removal of the chaff of hulled barley during crop processing, resulting in an increased likelihood of grains accidentally coming into contact with

fire (Hillman 1981, 153–54). Parching also enables more efficient milling, particularly in the case of free threshing wheat, is used to dry crops prior to storage following a damp harvest, to fumigate crops for insect pests and in the production of malt for brewing (Monk 1981, 217–18). Charred material cleaned out from a drying kiln or cooking hearth may therefore include a mixture of different crop types, along with chaff and wild or weed plant seeds which were either still present in a partially cleaned crop that was being dried, or are representative of crop processing bi-products used as fuel (Moffett 2006, 51).

The presence of wild or weed plant seeds in the charred plant remains assemblage has the potential to provide evidence for aspects of crop husbandry and crop processing as well as the nature of the local environment. The wild or weed plant seeds are likely to have been harvested along with the crops and charred as waste following removal during crop processing. The presence of stinking mayweed (*Anthemis cotula*) in particular is characteristic of medieval archaeobotanical assemblages. The increasing frequency of this species in archaeobotanical assemblages from the Romano-British period onwards has been related to the expansion of agriculture on to heavier clay soils, as has the presence of taxa commonly associated with damp soils such as rushes and sedges (Jones 1981, 111). The presence of seeds of rushes (*Juncus* spp.), sedges (*Carex* spp.) and great fen sedge (*Cladium mariscus*) may therefore indicate the cultivation of damp soils or wet field ditches in the vicinity of the site in the medieval period. Other sources of charred plant remains however include waste roofing or flooring material, turves, kindling and animal fodder and as such the seeds of rushes, sedges and great fen sedge may not represent crop weeds. Evidence for the use of great fen sedge in particular as a fuel in the medieval period has been found at West Fen Road, Ely and at other medieval sites in the region (Ballantyne 2004, 192).

There is some indication that ring porous taxa were less prevalent in the post-friary sampled contexts in comparison to the pre-friary sampled contexts. Where less than thirty wood charcoal fragments are present caution should be exercised, as it is unlikely that the charcoal assemblage will be entirely representative. Ring porous taxa which are frequently present in archaeological charcoal assemblages include oak (*Quercus* sp.), ash (*Fraxinus excelsior*) and elm (*Ulmus* sp.). Frequently present diffuse porous taxa include willow/poplar (*Populus*/*Salix*), birch (*Betula* sp.), alder (*Alnus glutinosa*), hazel (*Corylus avellana*), blackthorn (*Prunus spinosa*) the hawthorn/sorbus group (Pomoideae) and cherry (*Prunus padus*/*avium*). Palynological and documentary evidence indicates that the relatively sparse woodland that had not been cleared for agriculture by the medieval period in England was likely to have been managed as a valuable resource for timber and underwood (Rackham 1995, 85). In the 17th and 18th centuries woodland was still likely to have been managed, although evidence from Norfolk indicates that a large proportion of medieval woodland had been cleared for agriculture in some areas (Rackham 1995, 91).

It is therefore possible that the charcoal assemblage composition reflects a reduction in the availability of woodland trees such as oak, ash and elm between the medieval and Post-Medieval periods. Identification of a representative sample of the wood charcoal assemblage using high power microscopy would be necessary in order to confirm the full range of taxa represented as well as potentially providing evidence for wood diameter and whether the wood was dead/decaying or freshly cut/well-seasoned prior to burning.

Full sorting, identification and analysis of the charred plant macrofossil assemblage present in sample 174 from the 13th–mid-14th-century fill **[1940]** of oven **F.345** and sample 205 from the 13th–mid-14th-century fill **[2093]** of pit **F.205** would be recommended. It is likely that additional wild or weed seed taxa would be recovered following detailed sorting and it would be possible to identify to species some of the wild or weed seed taxa that could only be identified to genera during preliminary assessment. Diagnostic chaff may also be recovered, which would further confirm the presence of bread wheat and common oat as well as potentially providing evidence for the presence of rivet wheat and six row barley. Full analysis would therefore be expected to provide a fully quantified record of the crop types present at the site, as well as evidence for aspects of crop husbandry and crop processing and the potential collection of great fen sedge for use as fuel.

Full identification and analysis would be recommended of one hundred wood charcoal fragments greater than 2mm in size present in sample 205 from context **[2093]**, the 13th–mid-14th-century fill of pit **F.390** and all of the wood charcoal fragments greater than 2mm in size present in sample 144 from context **[1773]** the early 17th century fill of well **F.193**. This analysis would enable the identification of a representative sample of the woody taxa utilised for fuel and the investigation of how this may have varied over time. Potential evidence for the type of wood utilised (small or large diameter) and the condition of the wood prior to burning (decaying, freshly cut or well-seasoned) may also be recovered during identification. It would be recommended that the molluscan assemblage present in sample 174 from context **[1940]**, the 13th–mid-14th century fill of oven **F.345** be assessed by a specialist.

Context	1328	1452	1668	1705	1773	1775	1940	2043	2072	2093
Feature	187	187	281	92	193	193	345	376	381	390
Sample	113	114	136	129	144	146	174	196	201	205
Feature type	Pit	Pit	Pit	Pit	Well	Well	Oven	Pit	Pit	Pit
Date	16thC post-friary	16thC post-friary	11th–12thC pre-friary	13th–14thC pre-friary	17thC post-friary	17thC post-friary	13th–14thC pre-friary	11th–12thC pre-friary	13th–14thC pre-friary	13th–14thC pre-friary
Sample volume (litres)	10	20	10	10	10	9	10	10	10	10
Flot volume (ml)	63	300	4.3	6.8	100	6.8	28	2.5	6.3	22
% Intrusive roots	1	1	1	5	1	5	5	10	5	1
Cereals and other economic plants										
Pisum sativum (common pea)							++			
Linum usitatissimum (flax) seed								-		
Avena sp. (oat) grain			2	1			+		2	+++
Avena sativa (common oat) floret base										-
Hordeum sp. (barley) hulled indeterminate grains			1	1			-	+	3	+++
Hordeum sp. (barley) indeterminate grains			2	2					2	+
Secale cereale (rye) grain							-	-	1	-
Secale cereale (rye) rachis node							-			
Triticum aestivum (bread wheat) rachis node							+			
Triticum cf. *aestivum* (?bread wheat) rachis node							++			
Triticum nudum (free threshing wheat) grain	1	1	1				++	-	3	+++
Triticum cf. *nudum* (?free threshing wheat) grain			3	1			+++		1	+++
Triticum indet. (wheat indeterminate) grain			2	3			++	+		++
Cereal indeterminate grain				1			+	+	1	+

Context	1328	1452	1668	1705	1773	1775	1940	2043	2072	2093
Feature	187	187	281	92	193	193	345	376	381	390
Sample	113	114	136	129	144	146	174	196	201	205
Feature type	Pit	Pit	Pit	Pit	Well	Well	Oven	Pit	Pit	Pit
Date	16thC post-friary	16thC post-friary	11th–12thC pre-friary	13th–14thC pre-friary	17thC post-friary	17thC post-friary	13th–14thC pre-friary	11th–12thC pre-friary	13th–14thC pre-friary	13th–14thC pre-friary
Sample volume (litres)	10	20	10	10	10	9	10	10	10	10
Flot volume (ml)	63	300	4.3	6.8	100	6.8	28	2.5	6.3	22
% Intrusive roots	1	1	1	5	1	5	5	10	5	1
Total identifiable cereal and other economic plant material	**-**	**-**	**++**	**+**			**+++++**	**+++**	**++**	**+++++**
Wild/weed plant seeds										
Medicago spp./*Trifolium* spp. (medick/clover)							-			
Rumex crispus/conglomeratus/obtusifolius (curled/clustered/broad-leaved dock)										1
Polgonum arenastrum/aviculare (knotgrass)										1
Chenopodium spp. (goosefoots)								2		
Chenopodium album (fat hen)			1							
Lithospermum arvense (field gromwell)							++			
Bupleurum rotundifolium (thorow-wax)							-			
Centaurea sp. (knapweed)			1						1	
Anthemis cotula (stinking chamomile)			1				+++	2	2	2
Juncus spp. (rushes)							-			
Claudium mariscus (great fen sedge)							++			
Carex spp. (sedges)			1							
Bromus spp./Lolium spp. (brome/rye grass)										1
>2mm Poaceae (large seeded grasses)									1	

Context	1328	1452	1668	1705	1773	1775	1940	2043	2072	2093
Feature	187	187	281	92	193	193	345	376	381	390
Sample	113	114	136	129	144	146	174	196	201	205
Feature type	Pit	Pit	Pit	Pit	Well	Well	Oven	Pit	Pit	Pit
Date	16thC post-friary	16thC post-friary	11th–12thC pre-friary	13th–14thC pre-friary	17thC post-friary	17thC post-friary	13th–14thC pre-friary	11th–12thC pre-friary	13th–14thC pre-friary	13th–14thC pre-friary
Sample volume (litres)	10	20	10	10	10	9	10	10	10	10
Flot volume (ml)	63	300	4.3	6.8	100	6.8	28	2.5	6.3	22
% Intrusive roots	1	1	1	5	1	5	5	10	5	1
< 2mm Poaceae (small seeded grasses)	1			1			-	1	3	
Total identifiable wild/weed plant material	**-**		**-**	**-**			**++++**	**+**	**+**	**+**
Non seed plant material										
Charophyte oospore (stonewort)							-			
>2mm culm node/monocot stem	-	++			-		+			
<2mm culm node/monocot stem							++			
Charred amalgam of moncot stem fragments							-			
> 2mm vitrified charcoal	+++++	+++++			+++++	+++				
> 4mm wood charcoal fragments	1	1	0	1	45				3	10
> 2mm wood charcoal fragments	3	3	21	5	167		7	2	20	54
Charcoal (DP = predominantly diffuse porous. RP = predominantly ring porous)	DP	DP	RP some DP	DP	DP some RP		RP	DP	RP some DP	RP some DP
Intrusive plant material/non-plant material										
Mollusca	-		+		-	+	+++++ (some charred)			
Bone	-				-	-	-		-	
Fish bone	+									
Sample summary information										

Context	1328	1452	1668	1705	1773	1775	1940	2043	2072	2093
Feature	187	187	281	92	193	193	345	376	381	390
Sample	113	114	136	129	144	146	174	196	201	205
Feature type	Pit	Pit	Pit	Pit	Well	Well	Oven	Pit	Pit	Pit
Date	16thC post-friary	16thC post-friary	11th–12thC pre-friary	13th–14thC pre-friary	17thC post-friary	17thC post-friary	13th–14thC pre-friary	11th–12thC pre-friary	13th–14thC pre-friary	13th–14thC pre-friary
Sample volume (litres)	10	20	10	10	10	9	10	10	10	10
Flot volume (ml)	63	300	4.3	6.8	100	6.8	28	2.5	6.3	22
% Intrusive roots	1	1	1	5	1	5	5	10	5	1
Sample suitable for further analysis of charred plant material	No	No	No	No	No	No	Yes	No	No	Yes
Sample suitable for further analysis of wood charcoal	No	No	No	No	Yes	No	No	No	No	Yes
Charred material suitable for C14 dating	No	No	Yes (cereal grain)	Yes (cereal grain)	No	No	Yes (cereal grain)	Yes (cereal grain)	Yes (cereal grain)	Yes (cereal grain)
Retain flots	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes

Table 44: Composition of bulk sieving samples. Key - = < 5 items, + = > 5 items, ++ = > 10 items, +++ = > 30 items, ++++ = > 50 items, +++++ = > 100 items.

Context	1775
Feature	193
Sample	146
Feature type	well
Preliminary date	17thC post-friary
Total volume of soil processed (litres)	1
Cereals and other economic plants*	
Vitis vinifera (grape) pip	1
Ficus carica (fig) seed	1
Wild/weed plant seeds*	
Fumaria officinalis (common fumitory)	-
Urtica dioica (common nettle)	+
Urtica urens (small nettle)	-
Viola sp. (violets)	-
Chenopodium spp. (goosefoots)	+
Stellaria media (chickweed)	-
Stellaria graminea (lesser stitchwort)	-
Silene dioica (red campion)	-
Lamium album/pupurum (dead nettles)	-
Eleocharis spp. (spike rushes)	-
Carex spp. (sedges)	+
Non seed plant material*	
Wood fragments (> 2mm)	+
Wood fragments (< 2mm)	++++
Vitrified charcoal	+++++
Wood charcoal (> 2mm)	+
Wood charcoal (< 2mm)	++++
Charcoal (DP = predominantly diffuse porous. RP = predominantly ring porous)	RP & DP
Non plant material*	
Mollusca	-
Invertebrate macrofossils	+++

Table 45: Composition of general biological analysis sample. Key - = < 10, + = 11–50, ++ = 51–100, +++ = 101–200, ++++ = 201–500, +++++ = > 500 items, c = charred.

DISCUSSION

It is clear, from both archaeological and documentary evidence, that the street block where the Augustinian friary was established had been a densely occupied urban area for a considerable period before the friary was established. In common with other sites in Cambridge, such as the cemetery of the Hospital of St. John (Cessford 2015a), archaeology demonstrates the impact of the establishment of religious institutions upon the urban fabric. Additionally by effectively halting the development of earlier 'domestic' plots this phase of activity is in many aspects easier to understand than at sites where 'domestic' occupation continued throughout the medieval period (e.g. Cessford 2007).

Whilst the pre- and post-friary phases of archaeology are of some importance, it is the friary phase that is of greatest significance. The accurate reconstruction of the layout of the cloisters, the evidence for the architectural form and detail of the friary buildings and the recovery of two groups of predominantly adult male skeletons associated with the friary all represent important advances in our understanding of this site. Also significant are the identification of an instance of a translated burial or '*mos teutonicus*' in the chapter house and the burial of a woman in the chapter house.

This means that the Augustinian friary is now the most extensively investigated and best understood medieval friary in Cambridge. The associated material culture assemblages although relatively small include significant artefacts such as two styli, one of which unusually has its copper alloy point enclosed within a silver sleeve, and a book clasp. The most significant items are, however, undoubtedly the girdle buckles of copper-alloy (fourteen), iron (four), elephant ivory (one) and animal bone (one) plus associated leather and textile that were directly associated with skeletons. In conjunction with the evidence for careful arm/hand positioning it is clear that these have significant interpretative potential when combined with the evidence from the skeletons themselves.

Although discourse concerning medieval Cambridge rightly focusses upon the University, it must be remembered that this was in many respects not a rigidly bounded single institution or even group of institutions. As such the friaries and the University cannot be viewed as occupying separate spheres. Friars had a profound influence on universities, but were a rather uncomfortable fit into corporations of secular masters, given the religious nature of friaries, as it proved difficult to accommodate them into the overall system (Dobson 1999). As well as participating in university studies, each order had its own *studium* (school) and they were particularly active in the faculty of theology. Although the larger orders, notably the Franciscans and Dominicans, were more numerically important, the Augustinians also played a significant role. The University had a tendency to want to bring friars more closely under its control, as the numerical predominance of secular masters meant that they would dominate. The friars, however, had specific needs that conflicted with this and could always appeal to papal authority. Overall the pattern was one of peaceful coexistence, but with persistent underlying tensions. It is also

important to note the different orders of friars were not always in agreement and the situation should not be viewed as a simply dichotomy with friaries on one side and the various elements of the University on the other.

The intensity of later occupation on urban friaries has usually resulted in far greater damage to them than to rural monasteries. Archaeological investigations of friaries have also typically been small-scale and piecemeal and are hampered by the survival of fewer standing remains and the inapplicability of geophysics/aerial photography. As such the recent investigations of the Augustinian friary in Cambridge although limited in extent have made a significant contribution to the study of these urban institutions. In conjunction with the earlier work at the Augustinian friary in 1908–10 and supplemented by the smaller scale work at the Dominican friary (Dickens 1999) and the Franciscan friary (Salway 1996) this allows a re-appraisal of these institutions. This is particularly important as friaries have been described as 'in many ways the most distinctively and uniquely *urban* contribution made by the church in the long history of Christianity' (Dobson 1984, 110). As such they are an integral element of the archaeology of medieval Cambridge and should be considered as such. In this context it is useful to consider whether their archaeological remains are identifiable urban. Additionally there was an inherent tension between the commitment to poverty that friars espoused and the wealth that commitment generated (Dobson 1984, 112). The archaeological remains have the potential to shed considerable light upon this, both in terms of architectural remains (the quality of the moulded stone etc.) and items of material culture (the elephant ivory buckle from France, the bone styli with a silver sheath, Eastern Mediterranean and Venetian vessel glass etc.).

The post-friary development can be traced through a mixture of sources, including archaeology, documents and maps. As the only major religious institution in Cambridge that did not become the site of a later college the Augustinian friary follows a trajectory that has more in common with such sites in other urban centres.

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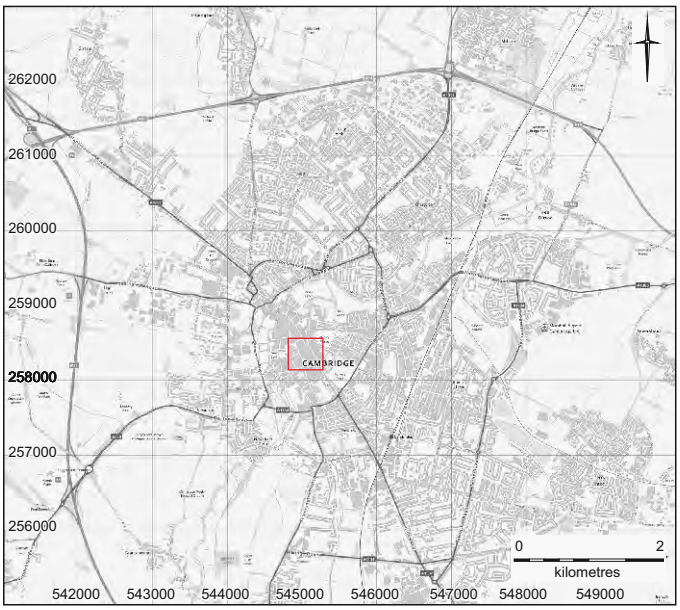


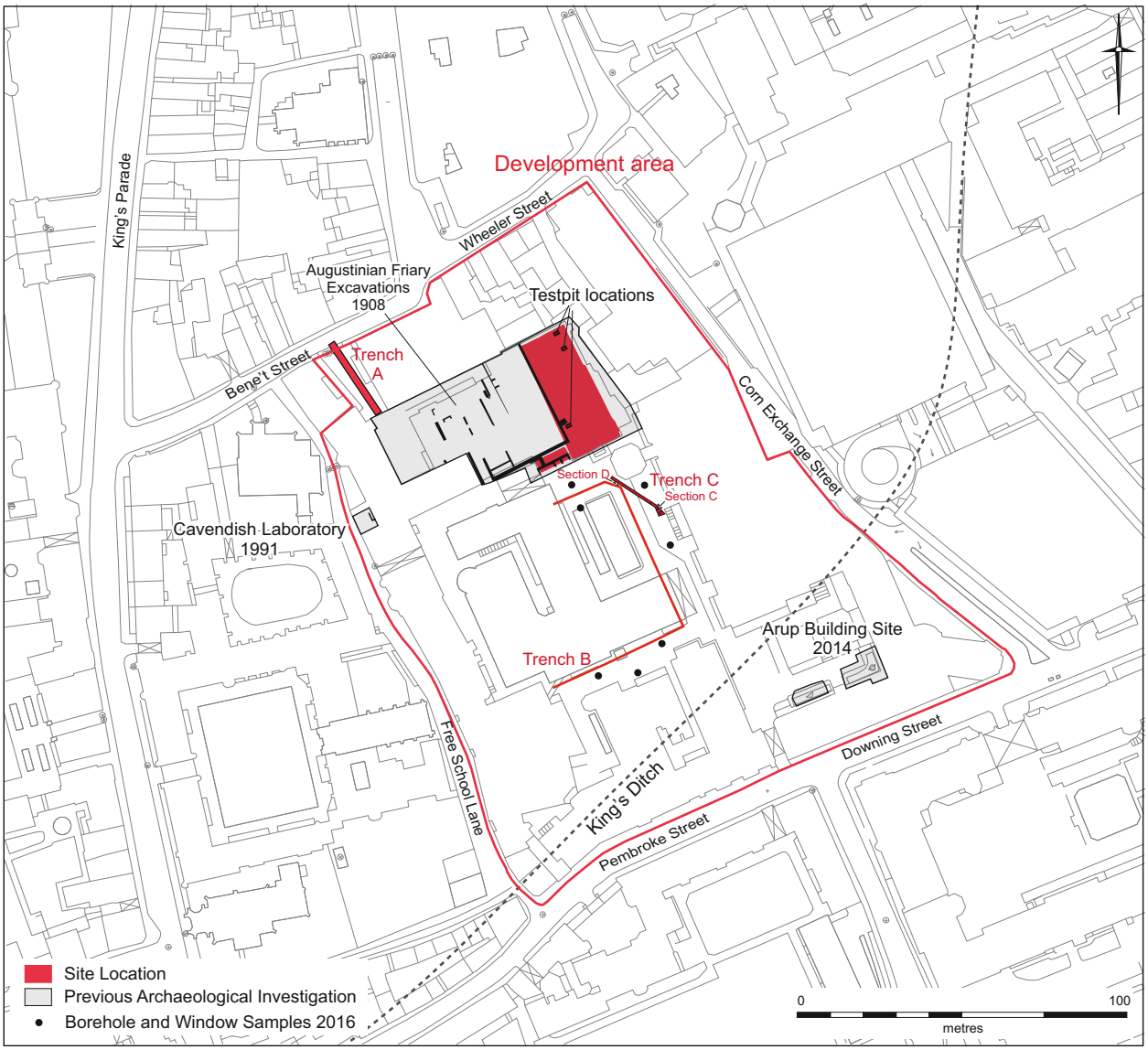


Figure 1. Location plan and plan of all archaeological investigations in the street block

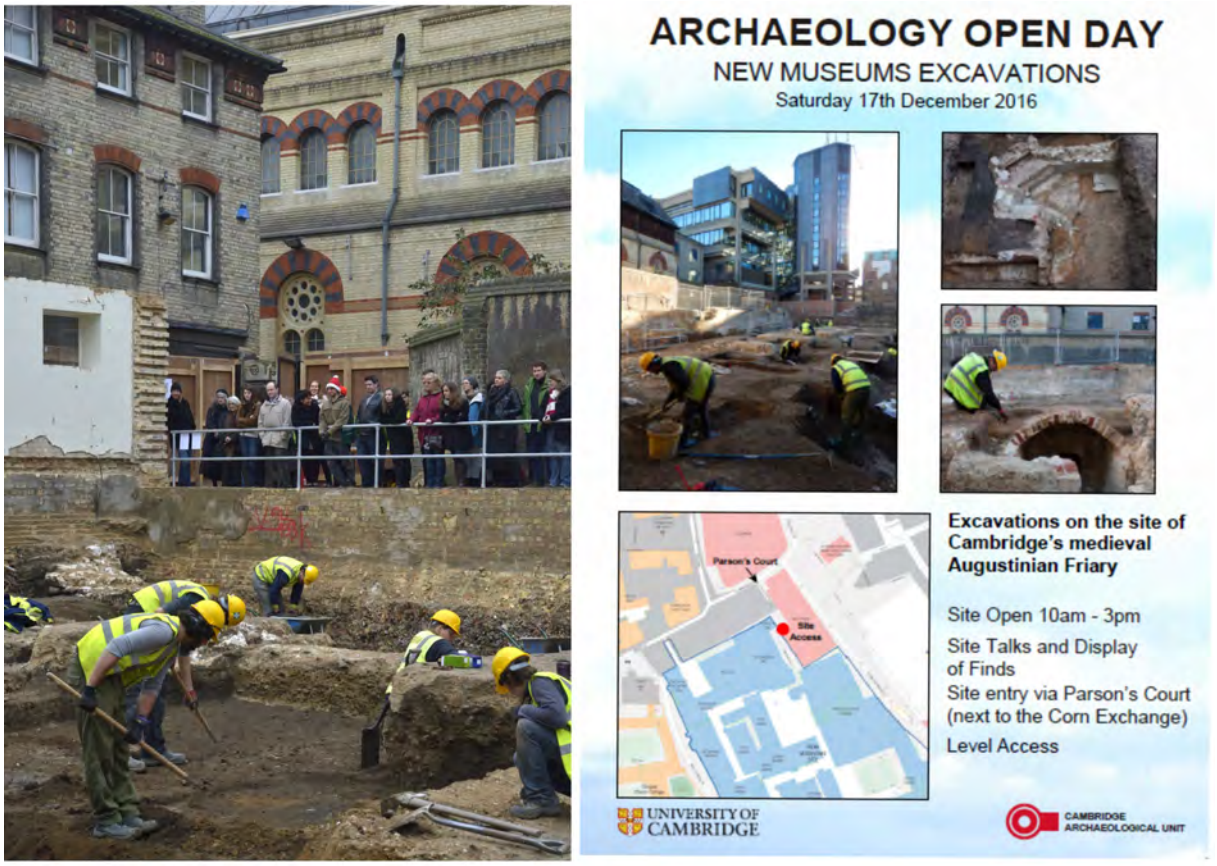


Figure 2. Photographs of site open days in December 2016 with flyer, photographs facing northeast (upper left) and east-northeast (lower)

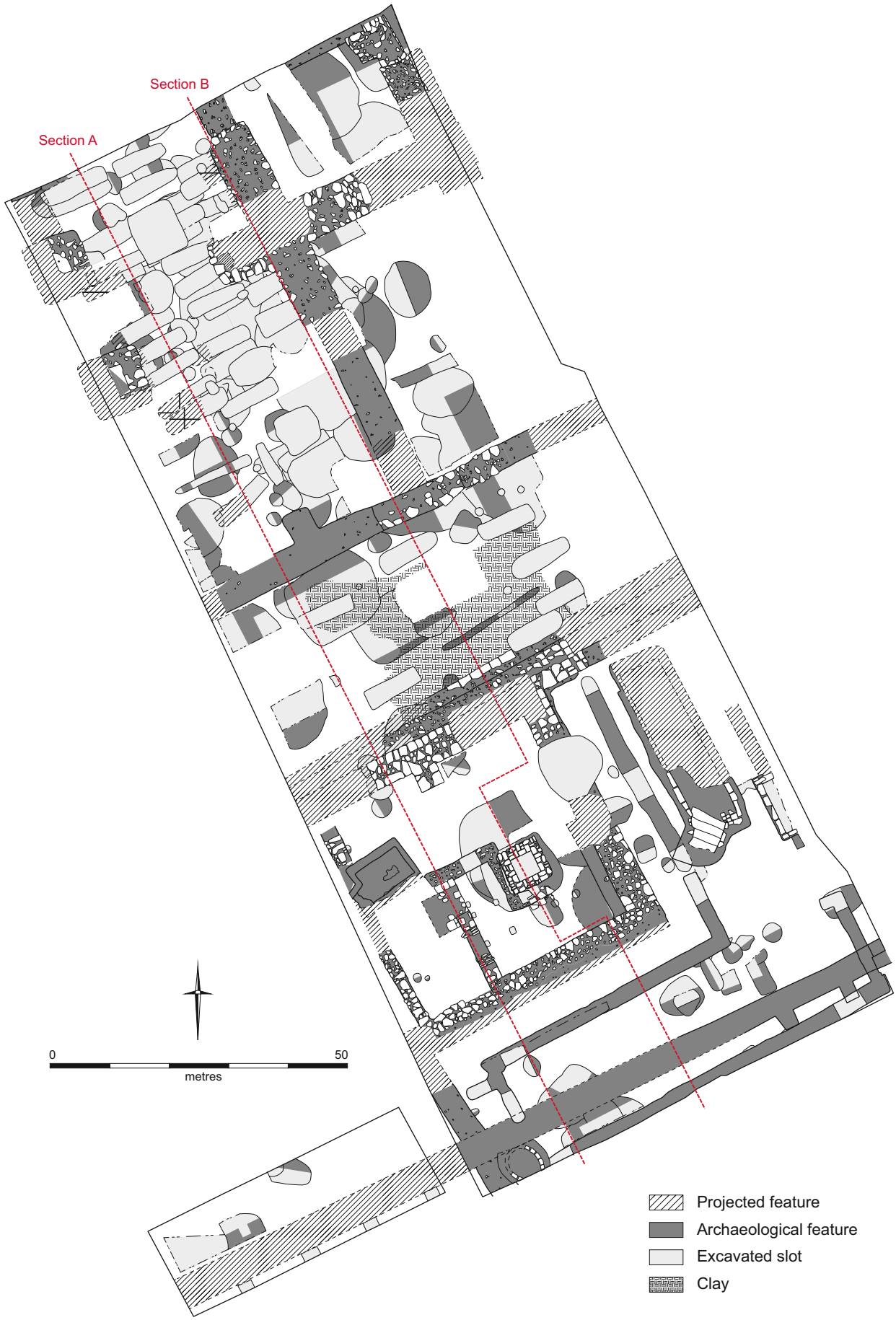


Figure 3. Plan of all features and excavated slots, excluding 20th century and natural features

Figure 4. Overall view of the excavations, facing southeast

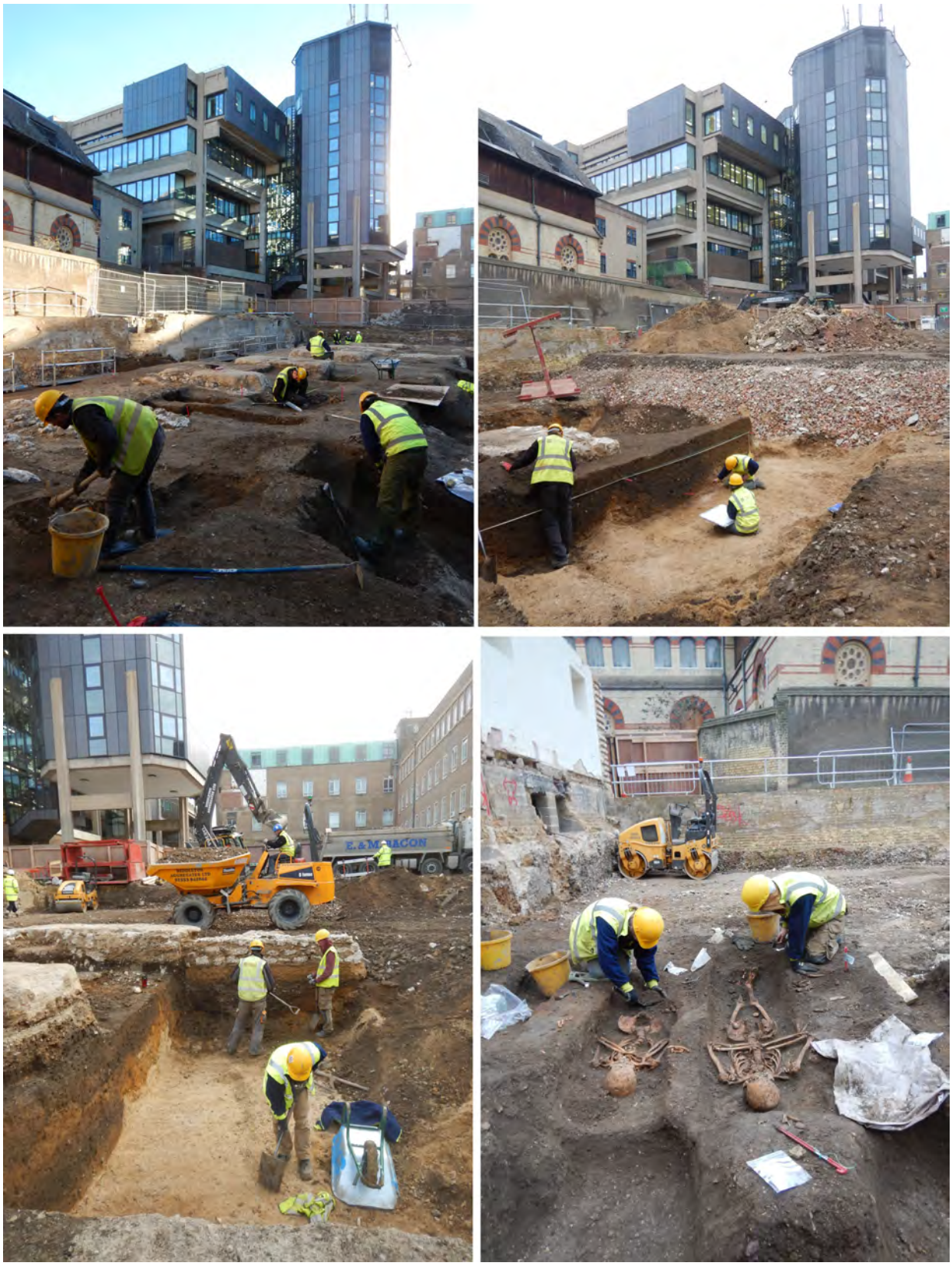
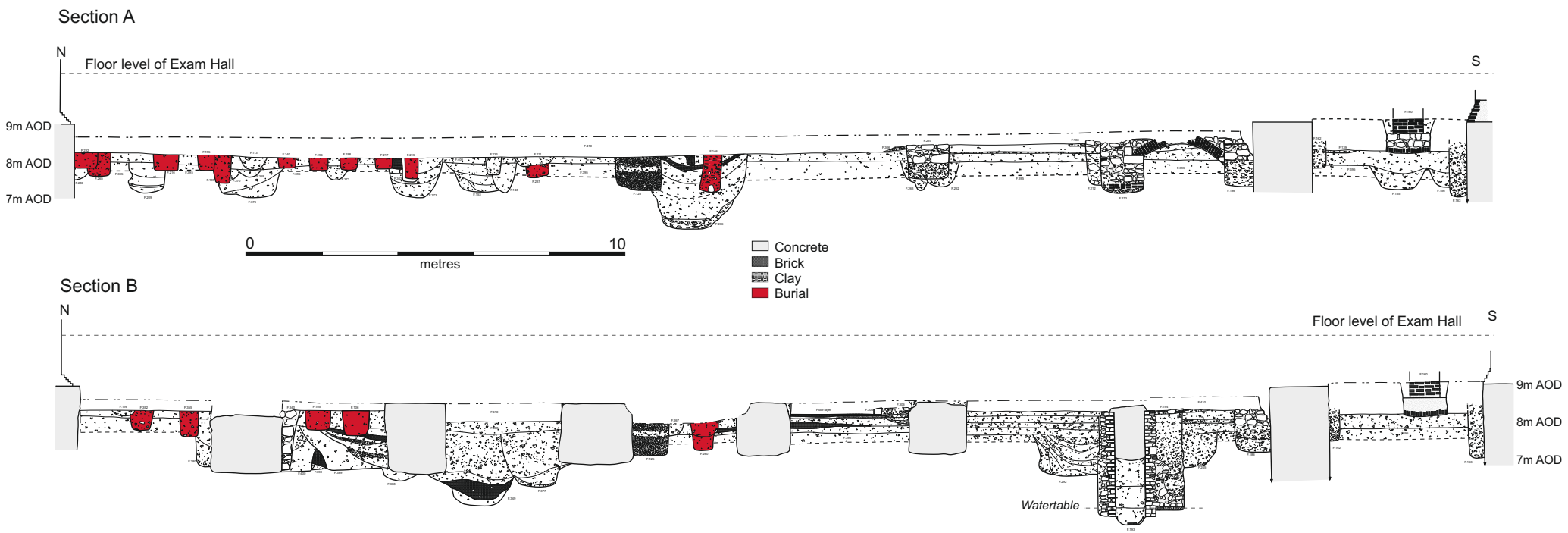
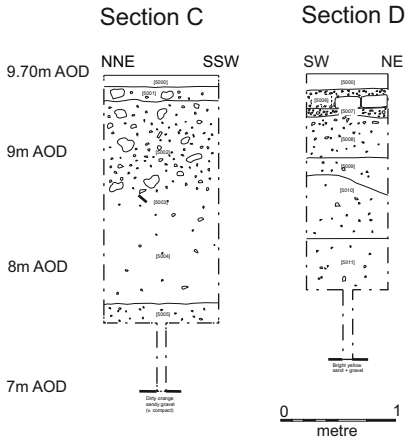
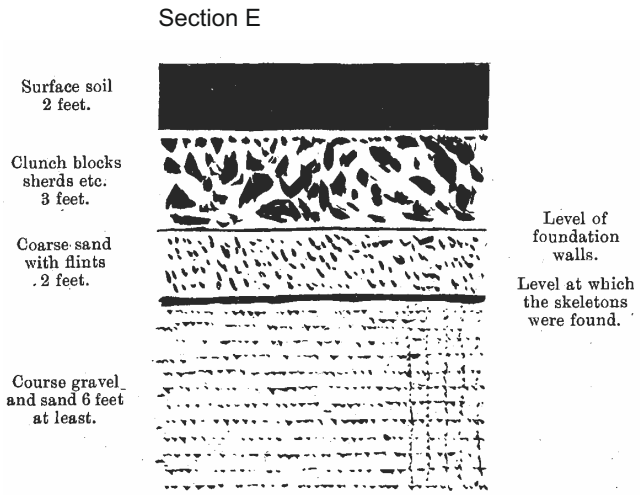


Figure 5. Selection of working shots of the excavations: general views at the start and end of excavations with the David Attenborough building in the background, facing southeast (upper left and right); view of excavations facing south-southeast (lower left); view of skeletons F.343 (left) and F.348 (right) in cemetery being excavated, facing east-northeast (lower right)





Watching Brief Sections



SECTION AT SITE OF AUGUSTINIAN FRIARY.
Aug. 1908.

Figure 6. Overall sections of the main excavation area, plus schematic section of the deposits observed in 1908-10 (Duckworth & Pocock 1910, fig. 1). For locations see figures 1 & 3

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Figure 7. Evaluation and watching brief: 1-2) Test hole within the standing building in June 2016; 3-4) watching brief at the entrance leading to Bene't Street (lower)

Figure 8. Photograph of the soil sequence, showing river terrace gravels at the base, subsoil in the middle and 'garden' soil at the top, facing east-northeast

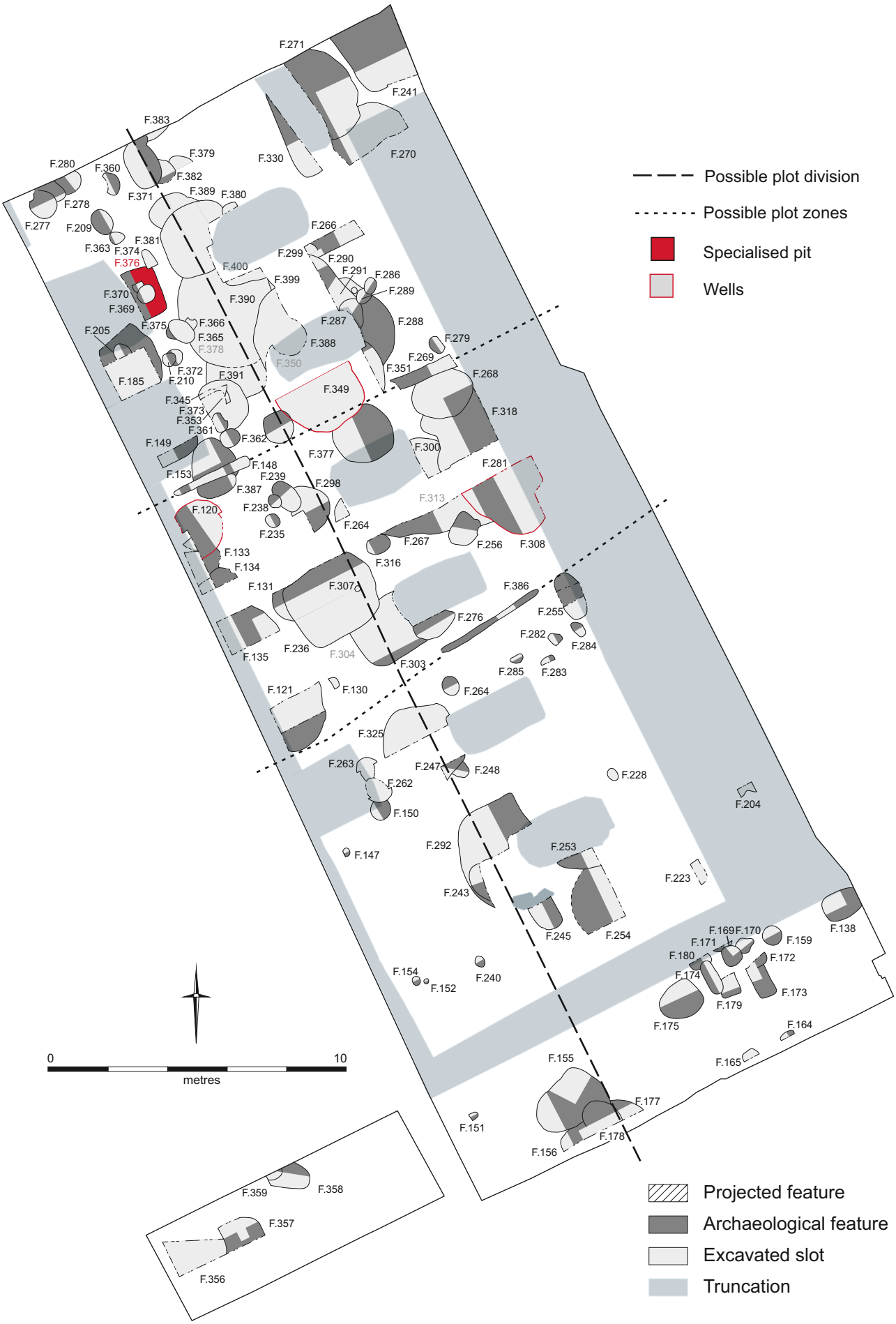

Figure 9. Plan of all Pre-Friary features, only 20th century truncation shown

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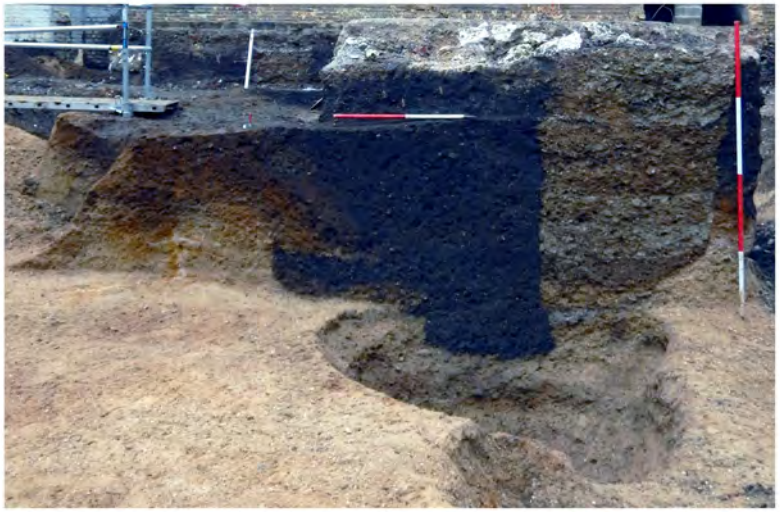

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Figure 10. Photographs of selected Pre-Friary features: 1) row of pits F.389, F.381 and F.390 facing east-northeast; 2) well F.349 in centre with earlier pit F.350 to left and later wall foundation F.351 to right, facing north-northwest; 3) oven F.345, facing northeast

Figure 11. Photographs of selected Pre-Friary objects: 1) Stamford ware lamp; 2) decorated copper-alloy tweezers; 3) worked bone toggle or buzz bone; 4) sherd of Crowland ware

Figure 12. Plan of Friary Sub-phase 2.1 features

Figure 13. Photograph of Friary Subphase 2.1 wall footings F.341, on right, and abutting later Friary Subphase 2.2 wall footings F.339, on left

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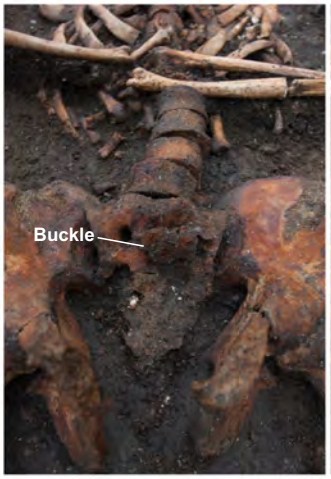

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Figure 14. Photographs of the Friary Subphase 2.1 cemetery: 1) burials F.348 and F.343 in the foreground of the working shot, facing northwest; 2-4) burial F.348 with detail of iron buckle; 5) burial F.343

Figure 15. Photographs of the Friary Subphase 2.1 cemetery: 1) burials F.196 and F.198, truncated by insertion of Subphase 2.2 pier F.183 2-4) burial F.265 with detail of copper-alloy girdle buckle showing surviving leather; 5-7) burial F.314 with detail of ivory?? girdle buckle; 8-9) disturbed burial F.352 with detail of copper-alloy girdle buckle

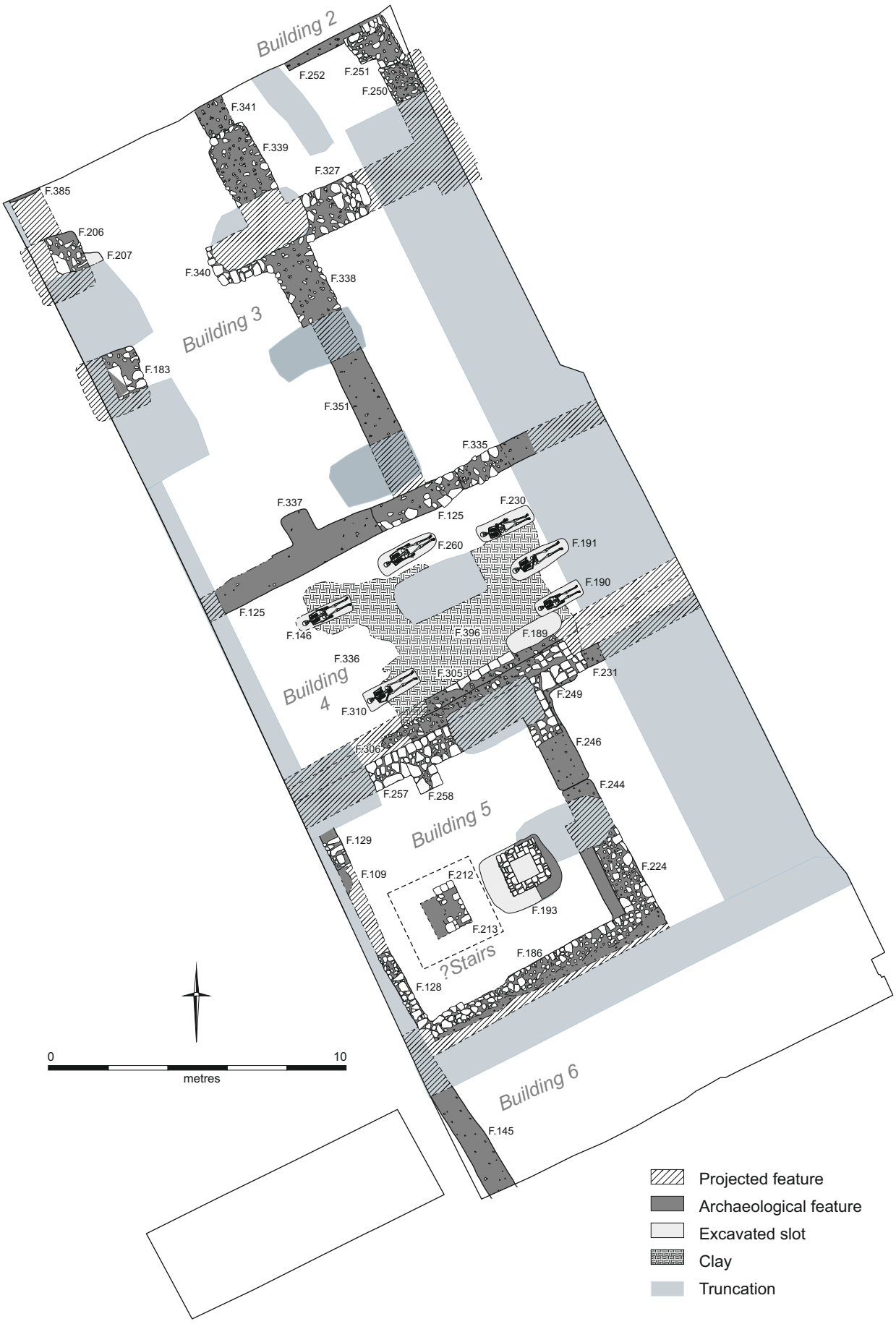

Figure 16. Plan of Friary Subphase 2.2 features

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Figure 17. Photographs of selected Friary Subphase 2.2 structural elements: 1) wall footings F.186, facing south-southeast, showing upper roughly worked clunch and lower banded gravel; 2) pier F.183, facing, north-northwest, with earlier pit and burial F.198 which it cuts through to the right

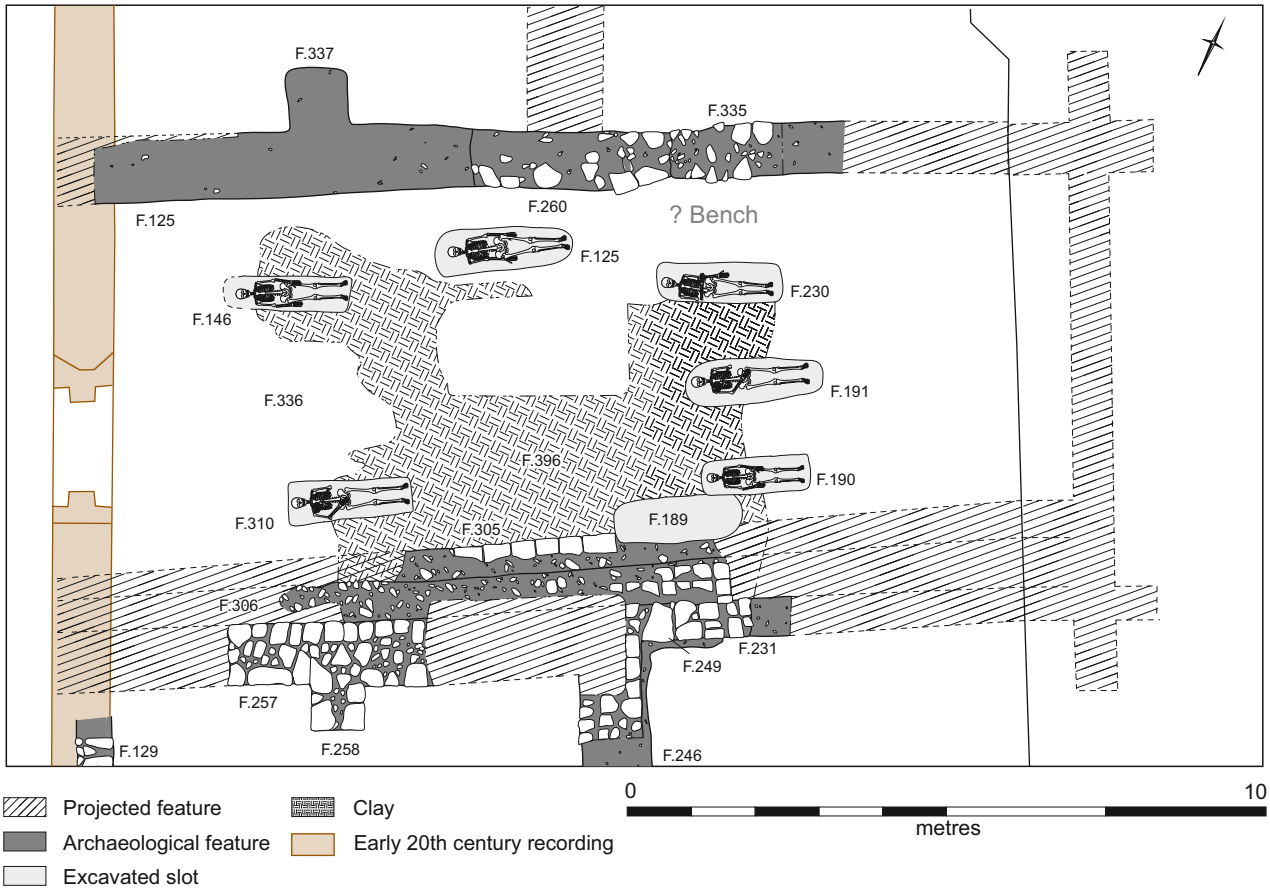

Figure 18. Plan and photograph, facing east-northeast, of Building 4, the chapter house, including details from early 20th century investigations.

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Figure 19. Photographs of selected chapter house burials: 1) view of burials F.190 on left and F.191 on right, facing west-southwest, showing that they are cut through the light coloured makeup deposits of the chapter house F.396 ; 2-4) burial F.230 plus detail of copper-alloy buckle; 5) cut of 'translated' burial or mos teutonicus F.189, part of burial F.190 lower right

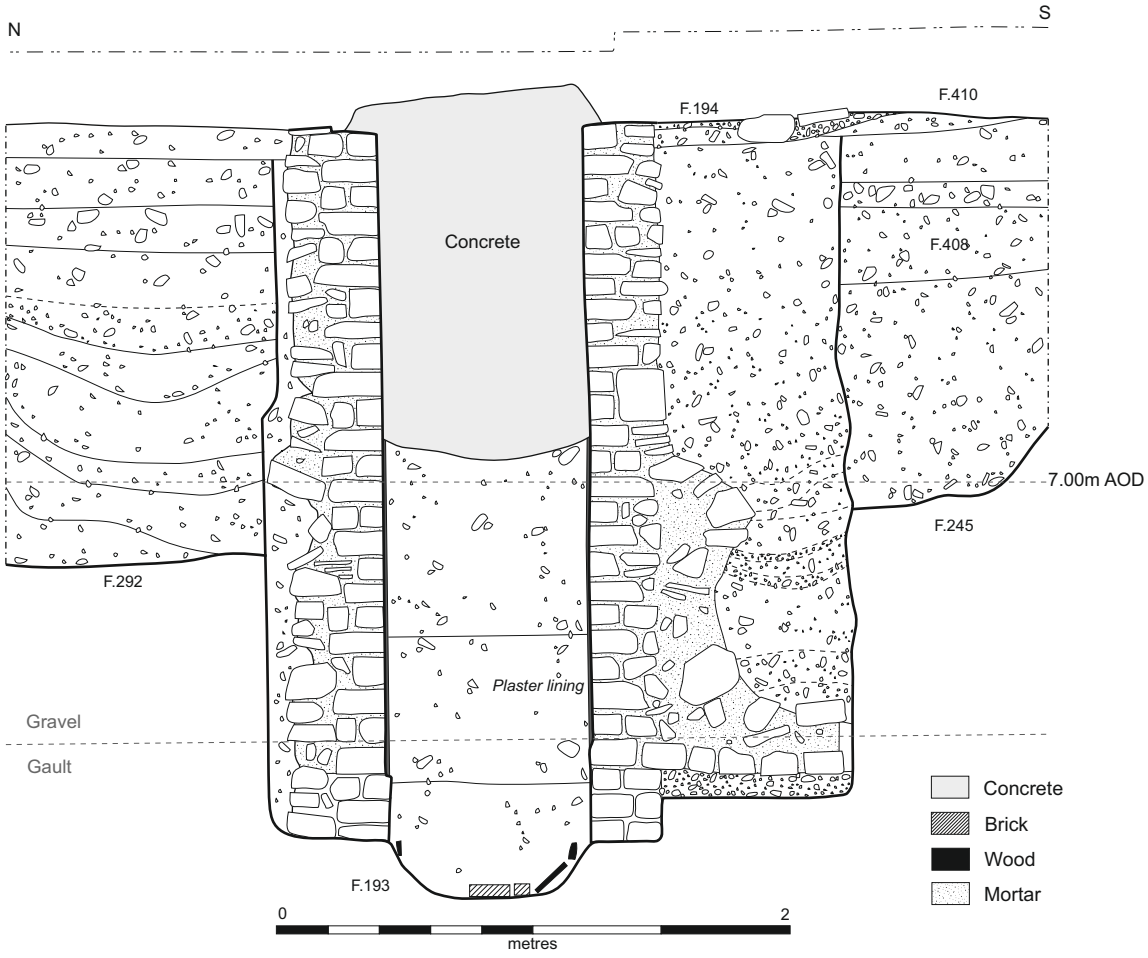


Figure 20. Photographs and section of well F.193: view, facing east-northeast, of outside of well structure plus Pre-Friary pits F.292 to the left and F.245 to the right (left); section (right)

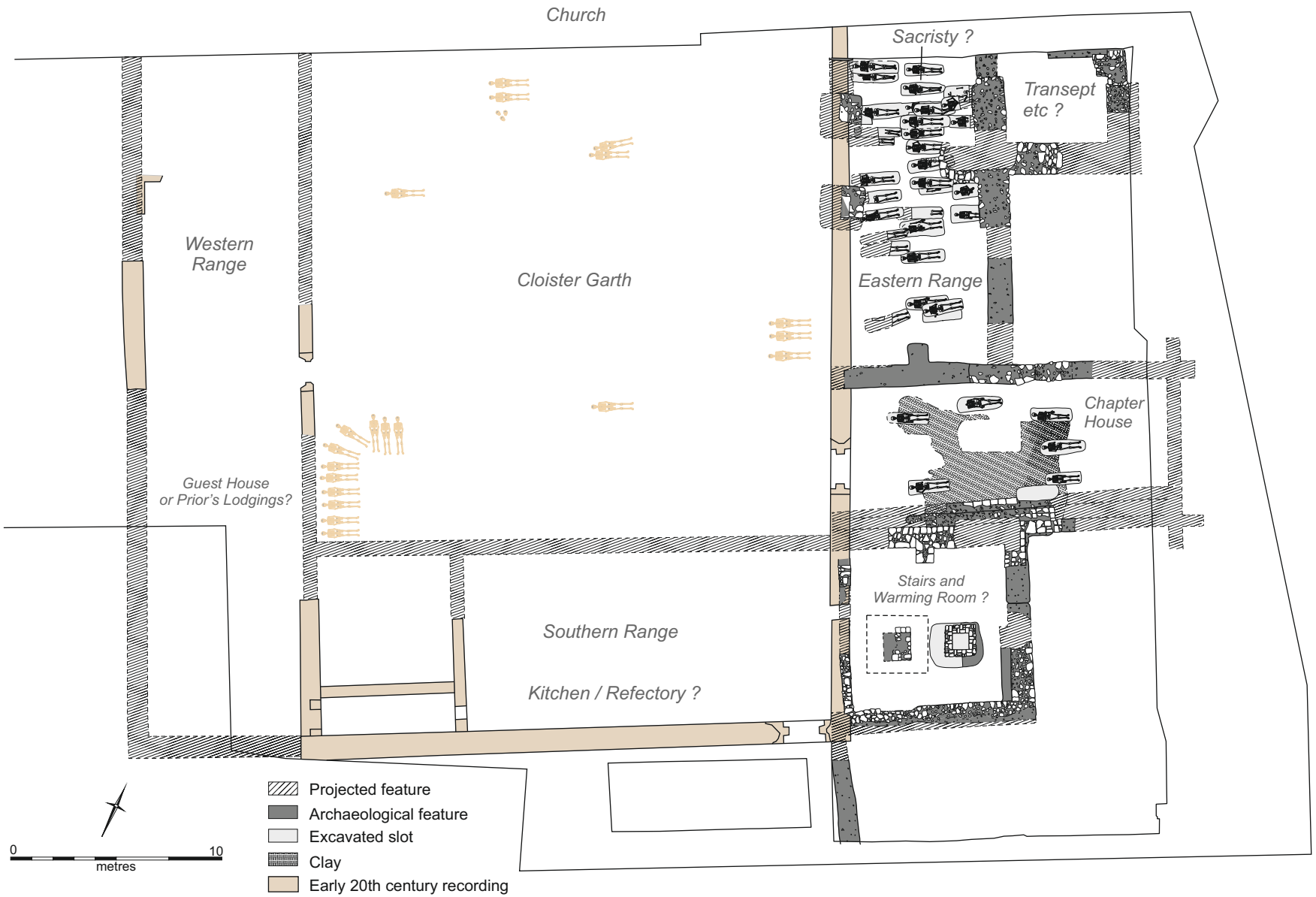


Figure 21. Plan of Friary cloisters, based upon 2016-17 investigations and 1908-10 records

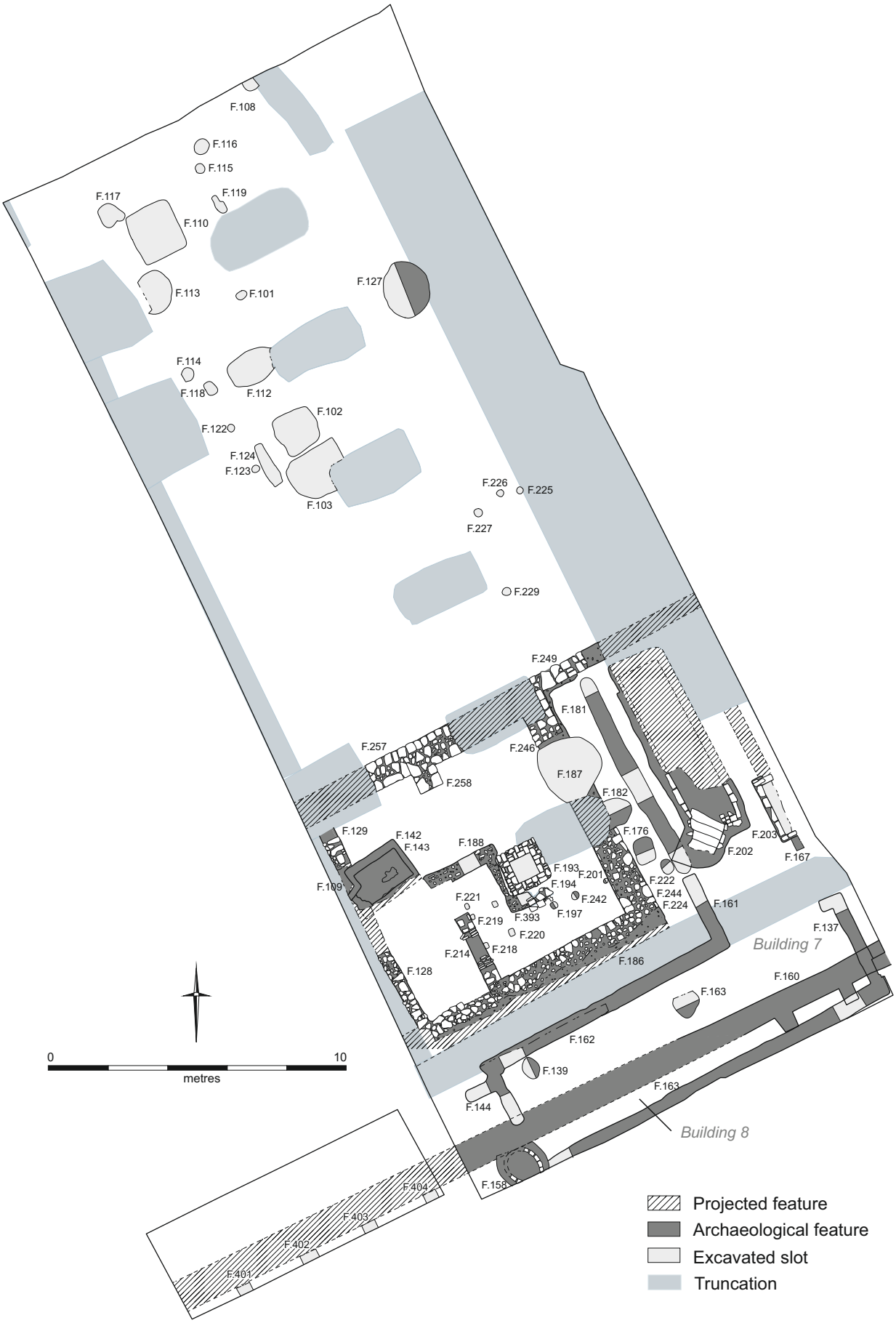


Figure 22. Plan of Post-Friary features

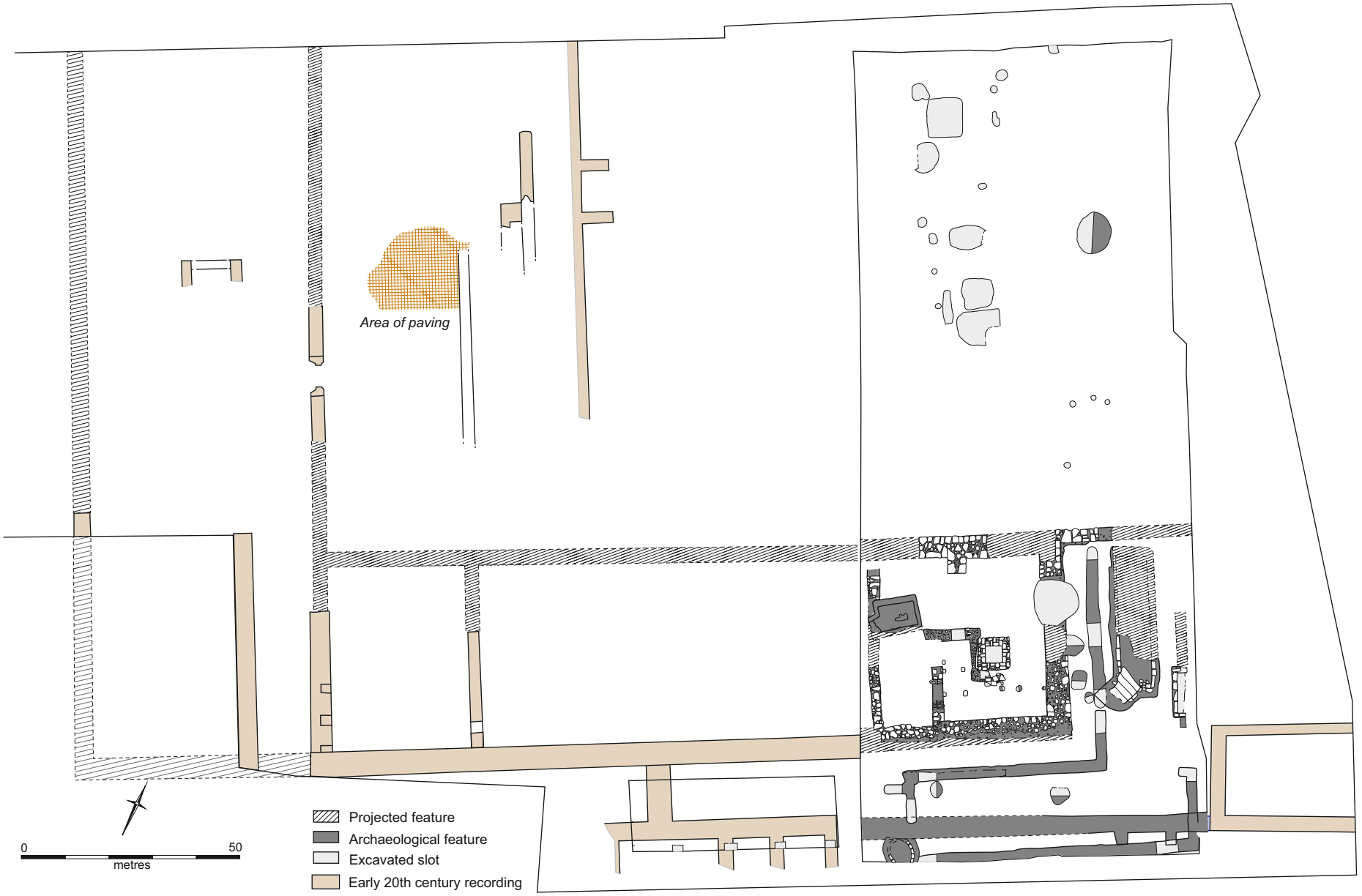


Figure 23. Plan of Post-Friary features, based upon 2016-17 investigations and 1908-10 records

Figure 24. Photographs of the Post-Friary Subphase 3.1 'culvert' F.142-43: view of culvert, facing east-northeast, (upper); in internal detail (lower)

Figure 25. Photographs of semi-cellared portion of Subphase 3.1 Post-Friary L-shaped Building 7: view of building facing west-southwest (upper); view of stairway facing south-southwest (lower)

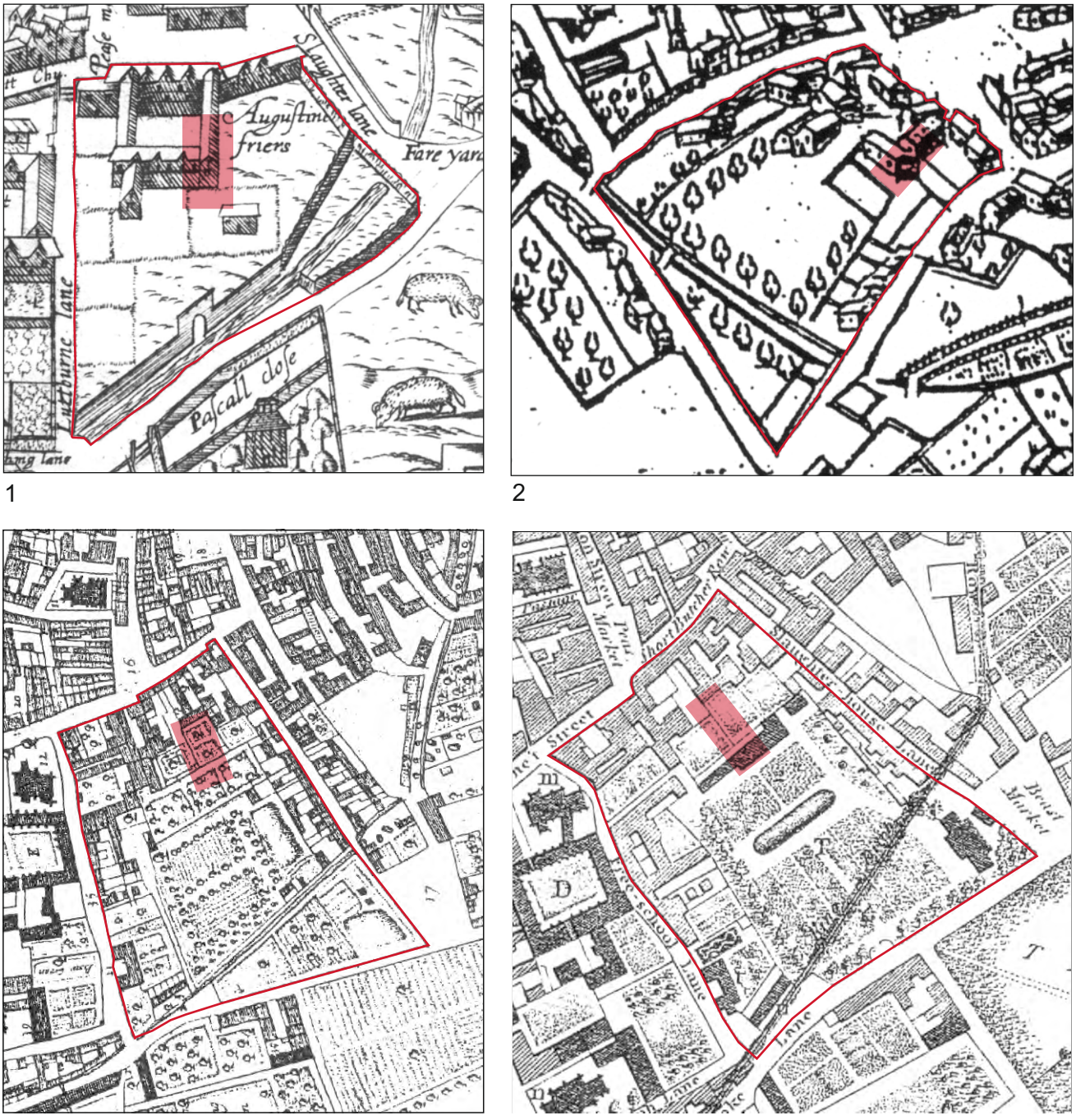
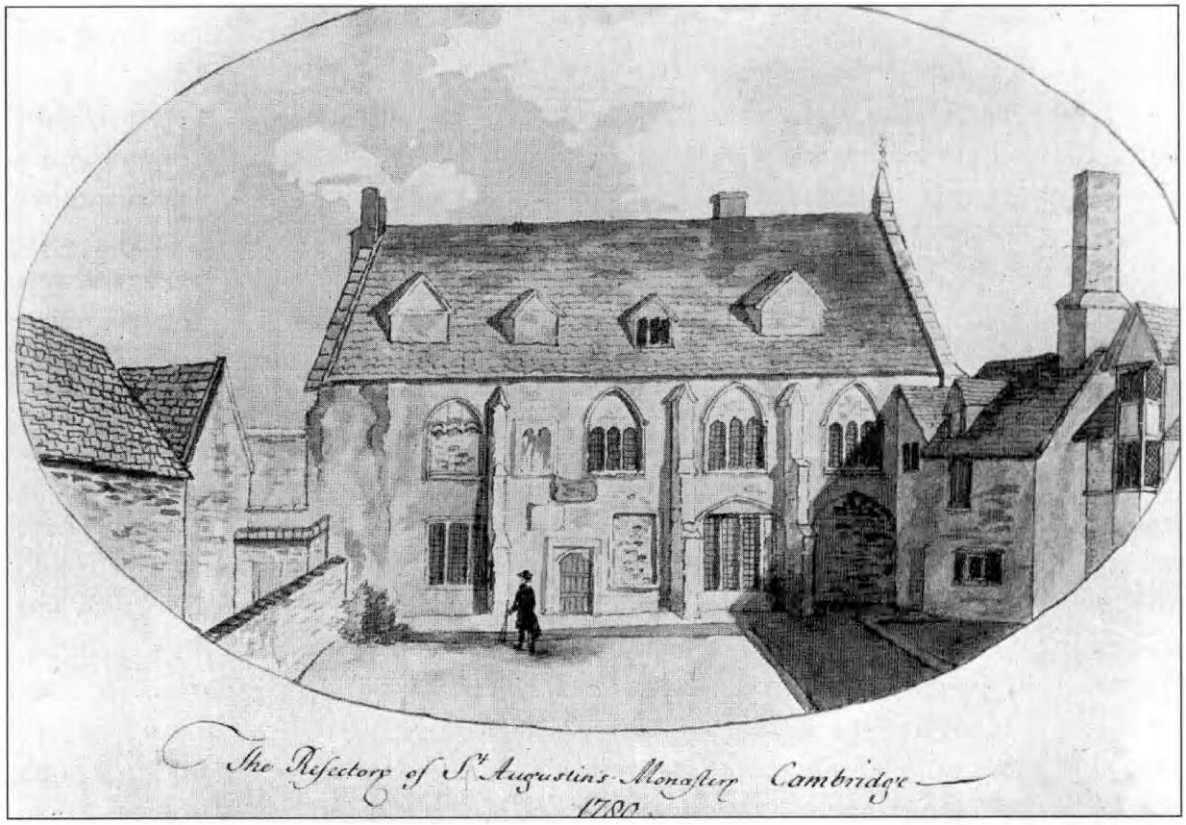


Figure 26. Historic map sequence: 1) Lyne, 1574; 2) Speed, 1610, based upon a plan by Hammond of 1592; 3) Loggan, 1688; 4) Custance, 1798



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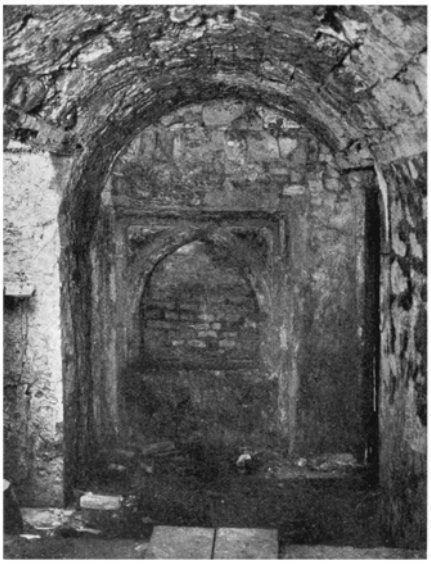

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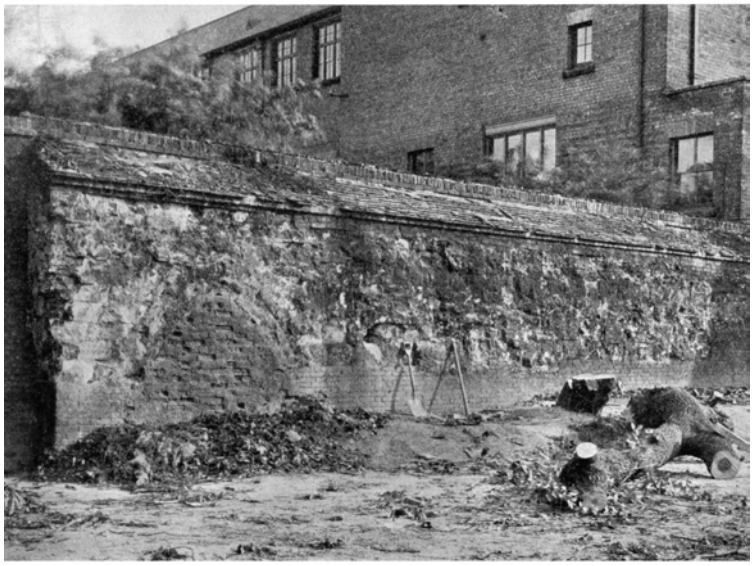

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Figure 27. Later images of surviving Friary structures: 1) depiction of the western claustral range in the 18th century; 2) early 20th century photograph of arch; 3) early 20th century photograph of wall of southern claustral range

Figure 28. Selected objects from the Friary: 1) copper alloy book clasp; 2) bone styli with copper alloy point enclosed within a silver sleeve; 3) Grimston ware face jug; 4) iron socketed hammer head, possibly a 'pitching-hammer'; 5) plain white metal wire hoop, possibly a silver finger ring

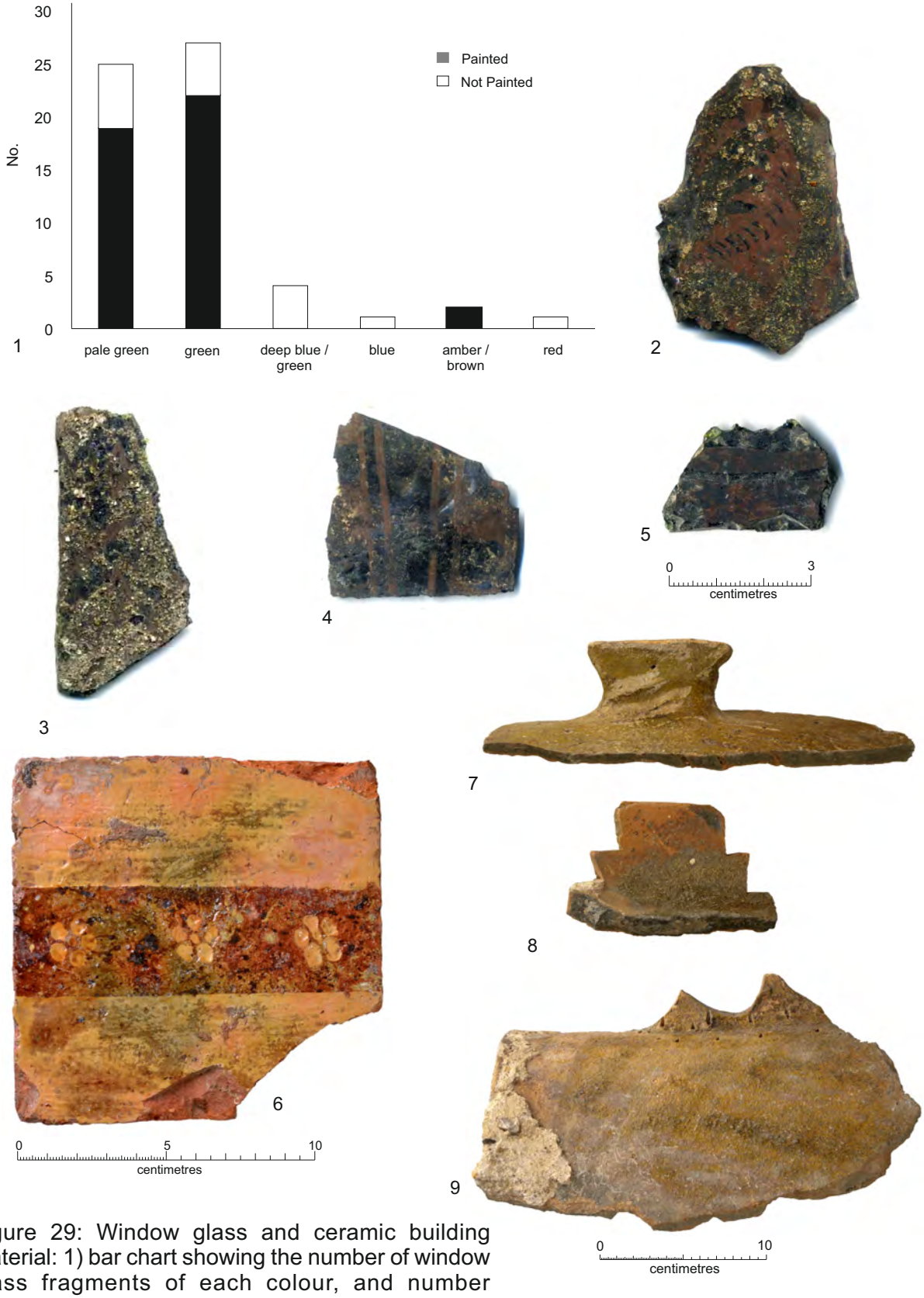

Figure 29: Window glass and ceramic building material: 1) bar chart showing the number of window glass fragments of each colour, and number of those which have grisaille decoration; 2–5) selection of 13th−14th century decorated window glass from various contexts; 6) unstratified (probably Dissolution) line impressed decorated tile in fabric FL5.1 with central glazed stripe with three flower motifs stamped down the stripe; 7−9) group of crested ridge tile with dark green glaze in fabric TZ42.1 all from construction of well F.193

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Figure 30: Moulded stone: 1) selection of re-used stone blocks; 2) one of three virtually intact apex blocks from an open ? drop arch arcade, block re-used in Building 7 F.202; 3) painted fragment of moulded stone, probably from a sculpture of some kind; 4) simple chamfered plinth block with incised gaming board

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Figure 31: Photographs of selected burials: 1–3) burial F.332 from the Subphase 2.1 cemetery, with fractures to both femurs plus detail of copper alloy buckle; 4) burial of infant F.106 aged *c.* 6 years old at time of death from the Subphase 2.1 cemetery, the youngest individual present; 5) burial F.146 from the Subphase 2.2 chapter house, the only skeleton that the analyst has full confidence is female

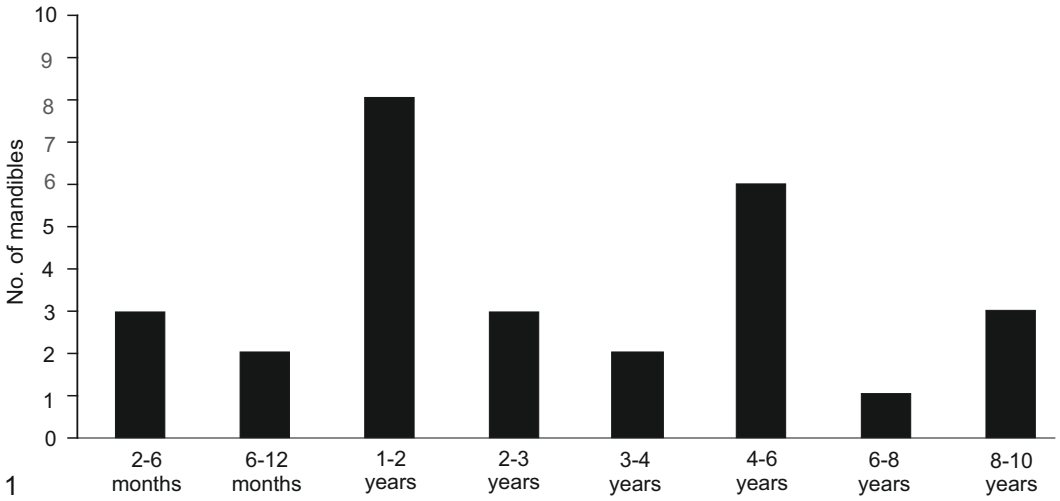

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Figure 32. Animal bone: 1) bar chart showing pre-Friary mandibular tooth wear data for ovicapra, based upon 28 mandibles; 2) articulated cow vertebral column from pit F.270

APPENDIX 1: WATCHING BRIEFS

Richard Newman, Charlotte deBruxelles & Craig Cessford

Three additional areas of watching brief on trenches totalling *c.* 158m in length were undertaken (see Figure 1). Whilst the main phase of excavation was in progress an informal watching brief was undertaken on a service trench in the access route from Bene't Street (Trench A; Figure 7.3–4). The trench was *c.* 2.5–3m wide and 2m+ deep, running for a length of *c.* 30m. Due to modern disturbance and other factors this revealed no archaeology.

Two phases of monitoring were undertaken during the installation of services in the southern portion of the New Museums site (see Figure 1). The first phase of work occurred between the 29th of June and 6th of July and the second between the 16th and 29th of August 2017. Whilst heavily disturbed by modern services, archaeological deposits were nevertheless observed in both locations.

The installation of main LV cables required the excavation of a *c.* 112m long trench that extended eastwards from the rear of the Balfour Building along the southern façade of the Cockcroft Building, then turned 90 degrees and ran north parallel to the Austin Building before finally returning again to the west (Trench B; Figure 1). It measured *c.* 0.5–0.6m in width and 0.9m in depth, reaching a maximum extent of 8.82m AOD. For the majority of its length, which ran along the access corridors between buildings, the trench was entirely disturbed by the presence of pre-existing services. To the north, however, in the final east-west oriented stretch, the degree of disturbance was relatively minimal.

In this location, a sequence of in-situ deposits was observed. Beneath a 0.18m thick layer of modern concrete (**[5016]**) lay a 0.12m thick layer of 20th-century tarmac (**[5017]**) and associated banded gravel and mortar bedding material that measured 0.09m thick (**[5018]**). This in turn overlay **[5019]**, a 0.32m thick layer of mixed mid-brown clay silt with frequent ceramic building material and occasional mortar flecks and gravel inclusions; this deposit is likely to represent disturbance caused during the construction of the adjacent buildings in the early 20th century. Finally, the lowest deposit in the sequence comprised **[5120]**; a homogenous layer of mid to dark brown humic clay silt with occasional to rare gravel and charcoal fleck inclusions that measured 0.34m+ thick. This well-worked horticultural-type deposit is likely to have been associated with the former Botanic Garden that previously occupied the site.

The next phase of work was associated with the insertion of a north-west to south-east aligned sewage pipe, which was located to the west of the David Attenborough Building (Trench C: Figure 1). The pipe trench measured 15.8m in length and 0.75m in width, apart from its southern end which flared out to 1.9m wide in order to incorporate a manhole to which the sewage pipe was connected. It was excavated to a depth of 2.0m. Given the trench's restricted width, and the unstable nature of the backfilled services that ran along the majority of its length, access was severely restricted. During the course of the sewage pipe's insertion, however, temporary shoring was installed in short sections, permitting three representative sections to be recorded (two of which are illustrated in Figure 6). In addition, the upcast spoil that was generated by the trench's excavation – which was undertaken with a mechanical excavator with a 0.75m wide toothless bucket – was also monitored and a sample of finds recovered.

At the southern end of the trench the sequence had been heavily disturbed by the presence of two manholes, which extended over 2.0m deep. Nevertheless, a pinnacle of surviving strata was observed (Figure 6). Underlying modern tarmac **[5000]** a 0.12m thick bedding layer **[5001]** composed of yellowish pink sandy mortar mixed with fragments of concrete was present. This material overlay a 0.80m deep modern pipe trench **[5003]** with a backfill **[5002]** composed of mixed and mottled mid grey brown clay silt with patches of grey blue gault clay and frequent gravels and ceramic building material fragment inclusions. This modern service trench cut **[5004]**, a 0.94m thick layer of mid to dark brown clay silt with relatively few inclusions save occasional gravel and charcoal as well as rare ceramic building material fragments. This may represent a horticultural soil associated with the former botanic garden and contained a few fragments of 18th–19th century flower pots. Beneath

[5004] lay **[5005]**, a mid-brown layer of clay silt with frequent lenses of ash and charcoal and occasional gravel inclusions. The limit of excavation at the base of the trench lay at 7.54m AOD, while augering revealed the presence of natural gravels at 6.94m AOD.

Towards the centre of the trench the edges of the excavation were highly unstable, preventing access. The sequence here was therefore recorded from the surface. Beneath modern tarmac **[5000]** lay **[5012]**, a 0.20m thick layer representing the remnants of an earlier flat-laid brick surface and an associated sandy gravel bedding deposit. Below this lay a 0.78m deep service trench that had been infilled with **[5014]**, a mid-orangey brown silty gravel with frequent pea-grit and occasional to rare CBM inclusions. Beneath this lay **[5015]** a 0.78m thick homogenous mid brown clay silt deposit, with occasional ceramic building material fragments and charcoal and rare ceramic and animal bone inclusions including 15th century pottery; this material probably represents the fill of a pit or pits. The limit of excavation in this location lay at 7.82m AOD; it was not possible to insert the auger due to safety concerns.

The final section was recorded towards the northern end of the trench (Figure 6). Here, underlying tarmac layer **[5000]** was **[5006]**, a 0.16m thick layer comprised of a patchily-surviving portions of a flat-laid brick surface (representing a continuation of **[5012]** above). Beneath this lay **[5007]**, a mid-orange brown sandy mortar deposit with frequent gravel inclusions. It measured 0.10m thick and was probably associated with the modern brick surface. Beneath **[5007]** lay **[5008]**, a 0.35m thick dark brown clay silt layer with occasional inclusions of mortar, ceramic building material, charcoal and gravel. This may represent a horticultural soil associated with the former botanic garden. **[5008]** overlay **[5009]**, a 0.16m- 0.32m thick layer of pale greyish brown silty clay with off-white clay mottles, which sloped down toward the north-east. This is most likely the fill of a pit, and overlay two further deposits that are again likely to have been contained within a feature or features. The first was **[5010]**, a 0.54m thick layer composed of greyish brown clay silt with occasional gravel and small charcoal inclusions while the final deposit, **[5011]**, was composed of a greyish brown clay silt with frequent small off-white mortar and occasional gravel inclusions. The limit of excavation at the base of the trench lay at 7.82m AOD, while augering revealed the presence of natural gravels at 7.20m AOD.

Whilst the sequence exposed within the sewage pipe trench was limited in extent, it was nevertheless revealing. Firstly, extensive modern truncation was identified. The uppermost portion of strata, between 0.92m and 1.20m in depth, had been heavily and repeatedly disturbed. Below this horizon, however, the level of preservation was generally good. A probable horticultural soil survived in patches, associated with a widespread ground-raising event in the 18th century when a Botanic Garden was established at the site. Below this, the relatively homogenous deposits appear to mostly consist of the backfill of a series of pits into which little domestic refuse was incorporated. This pattern is consistent with features situated at some distance from the principal frontage, such as gravel quarries.

APPENDIX 2: FEATURE TABLE

For context specific descriptions see Appendix 3. This appendix does not include watching brief information (see Appendix 1). CBM – ceramic building material, Pt. – pottery.

F.	Type	Contexts	Phase	Dating evidence	L. (m)	W. (m)	D. (m)	Shape/comments
100	Void	–	–	–	–	–	–	Renumbered F.140
101	Posthole	1005, 1007	3.1	Stratigraphy	0.30	0.27	0.22	Subcircular
102	Pit	1008–09	3.1	Stratigraphy	1.40	1.38	0.13	Subcircular
103	Pit	1010–11, 1029	3.1	Pt.: 16th	1.82	1.45	0.82	Subcircular
104	Void	–	–	–	–	–	–	Renumbered F.344
105	Void	–	–	–	–	–	–	Renumbered F.331
106	Grave	1014, 1866–67, 1900–02, 1914–15	2.1	Pt.: 14th (some 15th–early 16th intrusive)	1.4+	0.88	0.49	Subrectangular
107	Void	–	–	–	–	–	–	Renumbered F.310
108	Pit	1017–18	3.1	Pt.: 15th–early 16th	0.4+	0.4+	0.30	Circular
109	Pit	1028, 1030	2.2–3.2	Stratigraphy	1.10	0.40	0.75	Subrectangular
110	Pit	1036–37	3.3	Pt.: 2nd half 17th	1.80	1.60	0.29	Rectangular
111	Modern	1038–39	3.5	Pt.:: 16th	0.76	0.45	0.35	Linear
112	Pit	1040–41	3.1	Pt.: 16th	1.60	1.10	0.23	Subrectangular
113	Pit	1042–45	3.1	Pt.: 16th	1.34	0.90	0.60	Oval
114	Posthole	1046–47	3.1	Stratigraphy	0.52	0.38	0.19	Subcircular
115	Posthole	1048–49	3.1	Pt.: 14th	0.35	0.35	0.18	Circular
116	Posthole	1050–51	3.1	Pt.: 14th	0.60	0.40	0.16	Circular
117	Pit	1052–53	3.1	Stratigraphy	0.85	0.80	0.10	Subcircular
118	Posthole	1054–55	3.1	Pt.: 14th–15th	0.65	0.45	0.12	Subcircular
119	Posthole	1056–57	3.1	CBM	0.68	0.37	0.37	Oval
120	Well	1064–71	1.2	Pt.: 13th–14th	1.9+	1.9+	1.50	Circular
121	Pit (quarry)	1072–75	1.2	Pt.: 13th	1.69+	1.80	1.40	Unknown
122	Posthole	1058–59	3.1	Pt.: 14th	0.28	0.28	0.16	Circular
123	Posthole	1060–61	3.1	CBM	0.26	0.26	0.16	Circular
124	Pit	1062–63	3.1	Pt.: 15th	1.51	0.38	0.20	Subrectangular
125	Wall	1077–81, 1115–20	2.2	Construction	5.7+	1.40	1.01	Linear
126	Void	–	–	–	–	–	–	–
127	Well	1082–84	3.3	Pt.: 13th–14th	0.90	0.8+	1.50	Circular
128	Wall	1085–87	2.2–3.2	Construction	2.8+	0.45	1.05	Linear
129	Wall	1088–90	2.2–3.2	Construction	1.1+	0.38+	0.90	Linear
130	Pit	1091–92	1.?	Stratigraphy	0.50	0.25	0.40	Subcircular
131	Pit	1097–1103	1.2	Pt.: 13th (some 15th intrusive)	1.60	1.60	1.32	Subcircular
132	Void	–	–	–	–	–	–	–

133	Pit	1106–11	1.2	Pt.: 14th	1.1+	1.0+	0.60	Oval
134	Pit	1112–14	1.2	Stratigraphy	1.2+	0.46+	0.46	Oval
135	Pit (quarry)	1121–26	1.2	Pt.: 14th	1.5+	1.4+	1.40	Unknown
136	Pit	1127–30	3.1	Pt.: 10th–12th	0.87	0.39+	0.20	Subcircular
137	Wall	1131–32	3.1	Stratigraphy	3.80	0.44	0.57	Linear
138	Pit	1133–34	1.?	Stratigraphy	0.87	0.48	0.18	Subcircular
139	Pit	1135–37	3.1	Stratigraphy	0.75	0.27	0.08	Oval
140	Grave	1000–02, 1138–40	2.1	Pt.: 14th	1.78	0.49	0.25	Subrectangular
141	Void	–	–	–	–	–	–	–
142	Culvert	1032–33, 1035	3.2	Brick type	2.38	1.58	1.28	Rectangular
143	Culvert	1031, 1034, 1153	3.2	Brick type	2.04	1.66	0.35	Rectangular
144	Wall	1154–57	3.1	Pt.: 16th	1.0+	0.40	0.40	Linear
145	Wall	1158–61, 1199	2.2	Stratigraphy	3.5+	0.90	0.50	Linear
146	Grave	1163–65, 1524	2.2	Pt.: 13th–14th, coin and jetton 16th	2.02	0.45	0.98	Rectangular
147	Pit	1166–67	1.?	Stratigraphy	0.34	0.25	0.09	Oval
148	Gully	1171–72, 1492–93	1.2	Pt.: 14th	2.45	0.28	0.22	Linear
149	Pit	1173–77	1.?	Stratigraphy	1.4+	0.43+	0.88	Oval
150	Pit	1182–83	1.?	Stratigraphy	0.48	0.48	0.20	Circular
151	Posthole	1184–85	1.?	Stratigraphy	0.32+	0.32	0.12	Oval
152	Posthole	1186–87	1.?	Glass: 14th (intrusive)	0.20	0.20	0.18	Circular
153	Pit	1188–92	1.2	Pt.: 14th	1.90	1.15+	0.61	Oval
154	Pit	1197–98	1.2	Pt.: 13th	0.32	0.32	0.09	Circular
155	Pit (quarry)	1200–01, 1281–85	1.2	Pt.: 14th–15th	2.0+	1.05+	0.40	Subcircular
156	Pit	1202–03, 1270–71	1.?	Stratigraphy	0.7+	0.3+	0.54	Subcircular
157	Void	–	–	–	–	–	–	Renumbered F.237
158	Oven	1207–10	3.3	Stratigraphy	1.58	1.06+	0.47	Elliptical
159	Pit	1211–12	1.?	Stratigraphy	0.64	0.32	0.24	Oval
160	Wall	1003, 2132	3.4	Brick type	10+	0.82	0.88	Linear
161	Wall	1213–14	3.1	Construction	2.80	0.50	0.70	Linear
162	Wall	1216–17	3.1	Stratigraphy	9.30	0.35	0.70	Linear
163	Wall	1218–19	3.1	Stratigraphy	12.80	0.45	1.40	Linear
164	Pit	1226–27	1.?	Stratigraphy	0.60	0.1+	0.14	Subcircular
165	Pit	1228–29	1.?	Stratigraphy	0.50	0.2+	0.30	Subcircular
166	Cellar	1235–37	3.1	Stratigraphy	2.39	0.7+	0.40	Rectangular
167	Wall	1238–39	3.1	Construction	0.45+	0.25+	0.40	Linear
168	Cellar	1240–41	3.1	CBM	2.39	0.7+	0.64	Linear
169	Pit	1246–47	1.?	Stratigraphy	0.70	0.65	0.15	Subcircular
170	Pit	1248–49	1.?	Stratigraphy	0.6+	0.59	0.12	Irregular

171	Pit	1250–51	1.?	Stratigraphy	0.70	0.17+	0.04	Oval
172	Pit	1252–53	1.2	Stratigraphy	0.52	0.35+	0.33	Unknown
173	Pit	1254–55	1.2	Pt.: 13th–14th	1.25+	0.60	0.18	Rectangular
174	Pit	1256–60	1.?	Stratigraphy	1.18	0.50	0.66	Rectangular
175	Pit	1261–64	1.?	Stratigraphy	1.46	0.84+	0.95	Suboval
176	Pit	1266–69	3.1	Pt.: 14th	0.82	0.68	0.43	Subrectangular
177	Pit	1276–80	1.2	Pt.: 14th	0.6+	0.34+	0.62	Subcircular
178	Pit	1272–75	1.2	Stratigraphy	1.15	0.7+	0.50	Subcircular
179	Pit	1286–87	1.?	Stratigraphy	0.8+	0.62	0.11	Rectangular
180	Pit	1288–89	1.?	Stratigraphy	0.74	0.35+	0.23	Rectangular
181	Wall	1290–95, 1445–46	3.1	Pt.: 14th	7.30	0.56	0.60	Linear
182	Pit	1299–1301	3.1	Pt.: 14th	0.85	0.45	0.46	Oval
183	Pier	1307–12, 1392	2.2	Pt.: 16th–17th (intrusive)	1.05+	1.03+	1.10	Subsquare
184	Void	–	–	–	–	–	–	Renumbered F.198
185	Pit (quarry)	1316–19, 1402–04	1.2	Pt.: 13th	1.48+	0.4+	1.20	Unknown
186	Wall	1321–24	2.2–3.2	Construction	8.80	0.8+	1.28	Linear
187	Pit	1302–03, 1325–29, 1452	3.1	Pt.: 16th	1.20	1.10	0.50	Subcircular
188	Wall	1330–31	3.2	Construction	4.6+	0.56	0.09	Linear
189	Grave (translated)	1332–34	2.2	Pt.: 14th	2.02	0.70	0.89	Subrectangular
190	Grave	1335, 1458–59	2.2	Pt.: 16th	1.66	0.95	0.30	Subrectangular
191	Grave	1336, 1460–61, 1465	2.2	Pt.: 14th–15th. Buckle late 14th–15th	1.90	0.72	0.85	Subrectangular
192	Void	–	–	–	–	–	–	Renumbered F.193
193	Well	1339–41, 1344–45, 1455–56, 1773–80	2.2–3.2	Pt.: 15th (construction, plus a little intrusive 16th), 16th–17th (backfilling), clay tobacco pipe (backfilling)	1.52	1.40	3.20	Rectangular
194	Footing	1342, 1361	3.2	Construction	0.70	0.45	0.10	Linear
195	Grave	1346–47, 1355	2.1	Pt.: 14th	0.9+	0.50	0.30	Subrectangular
196	Grave	1351–54	2.1	Pt.: 14th–15th	1.6+	0.60	0.48	Subrectangular
197	Posthole	1359–60	3.1	Pt.: 16th	0.23	0.22	0.16	Subsquare
198	Grave	1313–15, 1363–65	2.1	Pt.: 14th	1.82+	0.52	0.25	Subrectangular
199	Grave	1366–68	2.1	Pt.: 14th–15th	0.7+	0.48	0.17	Subrectangular
200	Posthole	1422–23	3.1	Stratigraphy	0.21	0.16	0.10	Subsquare
201	Posthole	1372–73	3.1	Stratigraphy	0.11	0.10	0.10	Subcircular
202	Cellar	1348, 1356, 1379–81	3.2	Moulded stone, Stratigraphy	7.5+	2.12	1.42	Rectangular
203	Cellar	1382–84	3.2	Moulded stone,	2.39	0.7+	0.64	Rectangular

				Stratigraphy				
204	Pit	1387–88	1.2	Pt.: 14th–15th	0.56+	0.38+	0.12	Irregular
205	Pit	1389–90	1.2	Pt.: 14th	0.56	0.45+	0.55	Subcircular
206	Pier	1393–95	2.2	Construction	1.25+	1.17+	0.72	Subsquare
207	Pit	1396–97	2.1	Stratigraphy	0.51+	0.48+	0.84	Subcircular
208	Cellar	1296–98	3.1	CBM, moulded stone	1.2+	1.0+	0.90	Rectangular
209	Pit	1398–1401	1.2	Pt.: 13th	0.85+	0.3+	0.50	Subcircular
210	Pit	1405–06	1.2	Pt.: 13th	0.50	0.50	0.30	Circular
211	Void	–	–	–	–	–	–	–
212	Pier	1410–11, 1420	2.2–3.2	Construction	0.66+	0.44+	1.04	Subsquare
213	Pier	1412–13	2.2–3.2	Construction	1.20	0.96+	1.16	Subsquare
214	Arch	1414–16	3.2	Brick type	2.68	0.48	0.58	Rectangular
215	Grave	1424–26	2.1	Pt.: 14th	0.9+	0.45	0.67	Subrectangular
216	Grave	1427–31	2.1	Buckle 14th	1.90	0.71	0.30	Subrectangular
217	Grave	1432–34	2.1	Pt.: 14th–15th	1.0+	0.55	0.52	Subrectangular
218	Posthole	1436–37	3.1	Stratigraphy	0.20	0.17	0.13	Subsquare
219	Posthole	1438–40	3.1	Stratigraphy	0.20	0.18	0.10	Subsquare
220	Posthole	1441–42	3.1	Stratigraphy	0.21	0.18	0.09	Subsquare
221	Posthole	1443–44	3.1	Stratigraphy	0.27	0.14	0.05	Subsquare
222	Posthole	1447–49	3.1	Stratigraphy	0.94	0.4+	0.30	Subcircular
223	Pit	1450–51	1.2	Pt.: 14th	0.4+	0.3+	0.50	Subcircular
224	Wall	1378, 1462–64	2.2–3.2	Pt.: 14th	2.8+	1.02	0.60	Linear
225	Posthole	1466–67	3.1	Pt.: 10th–12th	0.29	0.29	0.13	Circular
226	Posthole	1468–69	3.1	Stratigraphy	0.23	0.23	0.11	Circular
227	Posthole	1470–71	3.1	Pt.: 10th–12th	0.31	0.30	0.09	Circular
228	Posthole	1472–73	1.?	Stratigraphy	0.39	0.31	0.09	Subcircular
229	Posthole	1479–80	3.1	Stratigraphy	0.28	0.21	0.30	Oval
230	Grave	1481–83, 1507	2.2	Pt.: 14th (plus 17th intrusive), buckle 14th–early 15th	1.95	0.64	0.86	Subrectangular
231	Wall	1484–86	2.2–3.2	Construction	1.15+	0.60	0.70	Linear
232	Grave	1489–91	2.1	CBM	2.30	0.60	0.30	Subrectangular
233	Void	–	–	–	–	–	–	Renumbered F.258
234	Pit	1494–1501	1.2	Pt.: 14th	1.10	0.90	0.75	Oval
235	Posthole	1503–05	1.2	Pt.: 13th–14th	0.49	0.44	0.28	Oval
236	Pit (quarry)	1508–14, 1658–60, 1755–59	1.2	Pt.: 13th–14th	2.75+	2.5+	1.80	Subrectangular
237	Grave	1204–05, 1515–17	2.1	Pt.: 10th–12th	0.98+	0.52	0.28	Subrectangular
238	Pit	1518–19	1.2	Pt.: 13th–14th	0.55	0.50	0.15	Circular
239	Posthole	1520–23, 2013–15	1.2	Pt.: 14th–15th	1.10	0.76	0.70	Subcircular
240	Posthole	1525–26	1.?	Stratigraphy	0.38	0.30	0.24	Subcircular

241	Pit (quarry)	1527–33, 1875–77	1.2	Pt.: 14th (plus a little 1430+ intrusive)	2.2+	2.2+	1.30	Subrectangular
242	Posthole	1535–36	3.1	Stratigraphy	0.28	0.24	0.06	Subcircular
243	Pit	1537–39	1.2	Pt.: 14th–15th	1.45	0.6+	0.47	Subcircular
244	Wall	1540–46	2.2–3.2	Pt.: 12th–13th	0.8+	1.0+	0.30	Linear
245	Pit	1547–50	1.2	Pt.: 14th	0.95+	0.90	0.94	Oval
246	Wall	1551–53	2.2–3.2	Pt.: 14th–15th	3.20	1.13	0.47	Linear
247	Pit	1557–61	1.1	Pt.: 10th–12th	0.65+	0.6+	0.62	Subcircular
248	Pit	1562–63	1.1	Stratigraphy	0.59	0.33	0.10	Subcircular
249	Wall	1565–67	2.2–3.2	Construction	1.35+	0.70	0.90	Linear
250	Wall	1568–69	2.2	Construction	1.36+	1.08+	0.94	Linear
251	Wall	1570–72	2.1–2.2	Construction	1.64+	1.54	1.39	Linear
252	Wall	1573–75	2.1	Construction	2.8+	0.45+	0.30	Linear
253	Pit (quarry)	1576–77	1.2	Pt.: 10th–12th	1.2+	0.6+	0.15	Subcircular
254	Pit (quarry)	1578–79	1.2	Pt.: 13th–14th	1.85+	1.6+	0.34	Subcircular
255	Pit	1502, 1580	1.?	Stratigraphy	1.61	0.74+	0.16	Oval
256	Pit	1581–82	1.?	Stratigraphy	1.20	1.10	0.30	Irregular
257	Wall	1583–83, 1845	2.2–3.2	Construction	3.0+	1.02	0.70	Linear
258	Buttress	1587–88, 1708–09	2.2–3.2	Construction	0.85	0.80	0.65	Rectangular
259	Pit	1589–90	1.?	Stratigraphy	0.45	0.27	0.50	Oval
260	Grave	1591–92, 1863–64	2.2	Pt.: 14th–15th	1.90	0.72	0.50	Subrectangular
261	Modern	1593–94	3.5	Stratigraphy	0.65	0.65	0.48	Square
262	Pit	1595–96	1.?	Stratigraphy	0.96+	0.82	0.63	Suboval
263	Pit	1597–98	1.?	Stratigraphy	0.77+	0.74+	0.73	Suboval
264	Pit	1599–1600, 1911	1.2	Pt.: 13th	0.6+	0.6+	1.08	Subcircular
265	Grave	1601–03, 1638	2.1	Pt.: 13th–14th, buckle mid-14th–mid 15th	2.20	0.62	0.53	Subrectangular
266	Gully	1604–05, 1725–26	1.?	Stratigraphy	2.2+	0.58	0.28	Linear
267	Pit (quarry)	1606–08, 1610	1.1	Pt.: 10th–12th	0.69	0.39	0.53	Rectangular
268	Pit	1611–12, 1615, 1806–10	1.2	Pt.: 14th	1.2+	0.97+	0.86	Subcircular
269	Gully	1613–14	1.2	Stratigraphy	2.5+	0.40	0.10	Linear
270	Pit (quarry)	1616–19, 1627–27, 1639–40	1.2	Pt.: 13th–14th	0.9+	0.5+	0.60	Unknown
271	Pit (quarry)	1620–26	1.2	Pt.: 14th	2.1+	1.7+	0.85	Oval
272	Void	–	–	–	–	–	–	Renumbered F.270
273	Void	–	–	–	–	–	–	Renumbered F.270
274	Void	–	–	–	–	–	–	Renumbered F.270
275	Void	–	–	–	–	–	–	Renumbered F.270
276	Pit	1641–42	1.2	Pt.: 13th–14th	1.42	0.70	0.50	Oval
277	Pit	1643–44	1.?	Stratigraphy	0.85	0.80	0.20	Subcircular

278	Pit	1645–46	1.?	Stratigraphy	0.74	0.74	0.25	Subcircular
279	Pit	1648–49	1.?	Stratigraphy	0.40	0.34	0.03	Subcircular
280	Pit	1664–65	1.?	Stratigraphy	0.6+	0.4+	0.37	Unknown
281	Well	1666–70	1.1	Pt.: 10th–12th	1.5+	1.45+	1.92	Oval
282	Posthole	1674–75	1.?	Stratigraphy	0.40	0.38	0.12	Subcircular
283	Pit	1676–77	1.?	Stratigraphy	0.50	0.2+	0.08	Subcircular
284	Pit	1678–79	1.2	Pt.: 14th	0.56	0.35	0.23	Oval
285	Posthole	1680–81	1.?	Stratigraphy	0.42	0.26	0.07	Oval
286	Pit	1686–87	1.2	Pt.: 10th–12th	0.61	0.33	0.16	Subrectangular
287	Pit	1688–89	1.2	Pt.: 13th–14th	0.7+	0.44	0.12	Subcircular
288	Pit	1690–92, 2061	1.2	Pt.: 13th–14th	1.8+	0.45+	1.12	Subcircular
289	Pit	1693–94	1.2	Pt.: 10th–12th (plus some 1430+ intrusive)	0.58	0.58	0.50	Subcircular
290	Pit	1695–97, 1727–28	1.2	Pt.: 13th–14th	0.40	0.40	0.47	Subcircular
291	Posthole	1698–99	1.2	Stratigraphy	0.25+	0.25+	0.06	Subcircular
292	Pit (quarry)	1700–07	1.2	Pt.: 13th–14th	1.75	1.75	1.05	Circular
293	Void	–	–	–	–	–	–	Renumbered F.258
294	Pit	1711–13	1.?	Stratigraphy	0.68	0.6+	0.40	Oval
295	Void	–	–	–	–	–	–	Renumbered F.377
296	Void	–	–	–	–	–	–	Renumbered F.377
297	Void	–	–	–	–	–	–	Renumbered F.349
298	Pit	1719–21	1.2	Pt.: 13th–14th	1.50	0.9+	0.44	Subcircular
299	Pit	1722–24	1.?	Stratigraphy	0.36+	0.18+	0.23	Subcircular
300	Pit	1729–30	1.2	Pt.: 13th–14th	0.8+	0.5+	0.50	Circular
301	Pit	1731–33	1.1	Pt.: 10th–12th	0.91	0.88	0.24	Oval
302	Grave	1734–38	2.1	Pt.: 14th, buckle 14th to early 15th	1.90	0.62	0.20	Subrectangular
303	Pit (quarry)	1739–42	1.1	Pt.: 10th–12th	2.6+	2.0+	0.76	Oval
304	Pit	1743–46	1.1	Pt.: 12th–13th	2.3+	2.0+	0.58	Unknown
305	Bench	1747–49	2.2	Construction	5.0+	0.48	0.20	Linear
306	Bench	1750–54	2.2	Construction	6.0+	0.54	0.40	Linear
307	Posthole	1760–61	1.2	Stratigraphy	0.3+	0.3+	0.64	Subcircular
308	Pit (quarry)	1671–73, 1684–85, 1762–64	1.2	Pt.: 13th–14th	0.6+	0.5+	1.85	Oval
309	Grave	1765–68	2.1	Pt.: 13th–14th	1.88	0.49	0.30	Subrectangular
310	Grave	1015–16, 1770–72, 1787	2.2	Pt.: 13th, buckle 14th or 15th century	1.90	0.66	0.25	Subrectangular
311	Grave	1781–83, 1788	2.1	Pt.: 13th–14th, buckle medieval	2.09	0.58	0.25	Subrectangular
312	Grave	1784–86	2.1	Pt.: 14th–15th	2.00	0.60	0.25	Subrectangular
313	Pit	1789–95	1.1	Stratigraphy	1.6+	1.05+	1.45	Oval
314	Grave	1796–98, 1803	2.1	Pt.: 13th–14th	2.05	0.55	0.45	Subrectangular

315	Grave	1799–1801	2.1	Construction	2.03	0.61	0.20	Subrectangular
316	Pit	1804–05	1.?	Stratigraphy	0.50	0.1+	0.40	Oval
317	Void	–	–	–	–	–	–	Renumbered F.268
318	Pit (quarry)	1826–44, 1846–62	1.2	Pt.: 10th–12th	1.6+	1.1+	1.10	Oval
319	Void	–	–	–	–	–	–	Renumbered F.318
320	Void	–	–	–	–	–	–	Renumbered F.318
321	Void	–	–	–	–	–	–	Renumbered F.318
322	Void	–	–	–	–	–	–	Renumbered F.318
323	Void	–	–	–	–	–	–	Renumbered F.318
324	Void	–	–	–	–	–	–	Renumbered F.318
325	Pit (quarry)	1811–16	1.2	Pt.: 14th–15th	2.4+	1.25+	1.23	Subcircular
326	Void	–	–	–	–	–	–	–
327	Wall	1821–22	2.2	Pt.: 14th–15th	2.6+	1.42	1.24	Linear
328	Grave	1823–25	2.1	Feature type and Stratigraphy	0.9+	0.70	0.20	Subrectangular
329	Void	–	–	–	–	–	–	–
330	Pit (quarry)	1868–71	1.2	Pt.: 14th–15th	3.6+	0.6+	1.08	Subrectangular
331	Grave	1013, 1872–74, 1882	2.1	Pt.: 13th–14th, buckle 14th	1.18+	0.80	0.45	Subrectangular
332	Grave	1878–81	2.1	Pt.: 14th, buckle 14th	1.74	0.56	0.40	Subrectangular
333	Grave	1883–85, 1891	2.1	Buckle medieval	2.10	0.60	0.37	Subrectangular
334	Grave	1886–89	2.1	Pt.: 10th–12th, buckle mid 14th–mid 15th	1.54+	0.60	0.20	Subrectangular
335	Wall	1890–92	2.2	Construction	2.6+	0.80	1.40	Linear
336	Grave	1893–95, 1898	2.1	Pt.: 13th–14th, buckle 14th	2.10	0.55	0.30	Subrectangular
337	Buttress	1896–97	2.2	Construction	1.04	1.02	0.90	Square
338	Wall	1903–04	2.2	Construction	2.7+	1.42	1.61	Linear
339	Wall	1905–06	2.2	Construction	2.5+	1.42	1.25	Linear
340	Wall	1907–08	2.2	Construction	1.7+	1.02	0.70	Linear
341	Wall	1909–10	2.1–2.2	Construction	1.0+	1.04	0.81	Linear
342	Grave	1912–13	2.1	Pt.: 14th	0.8+	0.70	0.45	End of grave F.215
343	Grave	1916–19, 1953	2.1	Pt.: 13th–14th, buckle medieval	2.16	0.42	0.40	Subrectangular
344	Grave	1012, 1931–34	2.1	Pt.: 13th–14th, buckle mid-14th to 15th	1.80	0.55	0.40	Subrectangular
345	Oven	1939–42	1.2	Pt.: 14th	0.8+	0.2+	0.35	Oval
346	Grave	1935, 1954–55	2.1	Pt.: 13th	1.4+	0.56	0.50	Subrectangular
347	Grave	1943–46	2.1	Pt.: 12th	1.86	0.58	0.20	Subrectangular
348	Grave	1947–50	2.1	Pt.: 14th, buckle 14th or 15th	2.25	0.60	0.20	Subrectangular
349	Well	1717–18, 1920–28, 1956–58, 2055	1.2	Pt.: 13th–14th	2.4+	2.2+	1.94	Subcircular
350	Pit (quarry)	1929–30, 1936–	1.?	Stratigraphy	1.0+	0.8+	0.70	Subcircular

		38, 1959						
351	Wall	1951–52	2.2	Construction	3.05+	1.18	2.20	Linear
352	Grave (disturbed)	1964–70	2.1	Pt.: 14th–15th, buckle later 14th	1.2+	0.78	0.50	Subrectangular
353	Pit	1961–63	1.2	Stratigraphy	0.2+	0.2+	0.20	Unknown
354	Grave	1971–73	2.1	Pt.: 13th–14th	0.5+	0.4+	0.20	Part of grave F.312
355	Grave	1974–76	2.1	Pt.: 14th	1.1+	0.56	0.50	Subrectangular
356	Pit	1977–80	1.2	Pt.: 13th–14th	2.3+	1.3+	0.84	Oval
357	Pit	1981–85, 1997–99	1.2	Pt.: 13th–14th	1.£+	0.65+	1.10	Oval
358	Pit	1986–88	1.2	Pt.: 13th–14th	1.05+	0.90	0.42	Subrectangular
359	Pit	1989–90	1.?	Stratigraphy	0.6+	0.6+	0.58	Circular
360	Pit	1991–92	1.?	Stratigraphy	0.85	0.60	0.24	Oval
361	Pit	1993–94	1.2	Stratigraphy	0.64	0.64	0.25	Circular
362	Pit	1995–96	1.2	Pt.: 13th–14th	0.64	0.64	0.28	Circular
363	Pit	2000–01	1.?	Stratigraphy	0.42	0.38	0.05	Subcircular
364	Grave	2002–03	2.1	Pt.: 13th–14th	1.2+	0.63	0.18	End of grave F.216
365	Pit	2004–06	1.2	Pt.: 13th–14th	0.92	0.65+	0.27	Oval
366	Pit	2007–08	1.2	Stratigraphy	0.60	0.5+	0.13	Subcircular
367	Grave	2009–12	2.1	Pt.: 13th–14th, buckle 14th	2.00	0.50	0.20	Subrectangular
368	Void	–	–	–	–	–	–	Renumbered F.239
369	Pit	2016–17	1.?	Stratigraphy	0.65	0.55+	0.40	Irregular
370	Pit	2018–19	1.?	Stratigraphy	0.22+	0.16+	0.20	Unknown
371	Pit	2024–28	1.2	Pt.: 13th–14th	1.44	1.19	0.88	Subrectangular
372	Pit	2029–30	1.?	Stratigraphy	0.65	0.65	0.36	Subcircular
373	Pit (quarry)	2031–38	1.2	Pt.: 13th–14th	81.80	1.6+	1.10	Circular
374	Pit	2039–40	1.?	Stratigraphy	0.65+	0.30	0.05	Oval
375	Pit	2041–42	1.2	Stratigraphy	0.84	0.58	0.49	Subcircular
376	Pit (specialised)	2043–45	1.1	Pt.: 10th–12th	1.50	0.60	0.90	Subrectangular
377	Pit (quarry)	1714–16, 2020–23	1.2	Pt.: 13th–14th	1.*+	1.6+	0.84	Circular
378	Pit	2047–48	1.2	Stratigraphy	0.85	0.40	0.08	Oval
379	Pit	2049–50	1.?	Stratigraphy	0.65+	0.5+	0.22	Subcircular
380	Pit	2051–52, 2122	1.2	Pt.: 12th–13th	0.7+	0.35+	1.00	Unknown
381	Pit	2053–54, 2058, 2069–75	1.2	Pt.: late 12th/early 13th	0.2+	0.2+	0.90	Unknown
382	Pit	2056–57	1.2	Pt.: 13th–14th	0.74+	0.52+	0.19	Subcircular
383	Pit	2059–64	1.2	Pt.: 13th–14th	1.12	0.3+	0.54	Subcircular
384	Void	–	–	–	–	–	–	–
385	Wall	2065–66	2.2	Construction	0.2+	1.04	0.70	Linear
386	Hedgeline?	1555–56	1.?	Stratigraphy	3.0+	0.20	0.04	Linear
387	Pit	2067–68	1.2	Stratigraphy	1.38	0.70	0.78	Suboval
388	Pit (quarry)	2076–83	1.2	Pt.: 14th	2.15+	2.15+	1.37	Subcircular

389	Pit	2085–86	1.1	Stratigraphy	1.50	0.55+	0.42	Subcircular
390	Pit (quarry)	2087–97, 2110–16	1.2	Pt.: 13th–15th	3.4+	2.95+	1.25	Oval
391	Pit (quarry)	2098–2107	1.1	Pt.: 10th–12th, plus intrusive 15th	1.9+	1.9+	1.20	Oval
392	Modern	1020–21	3.5	Pt.: 10th–12th	0.33	0.33	0.15	Circular
393	Drain/Footing	1343, 1357	3.2	Pt.: 16th–17th	0.84	0.20	0.01	Linear
394	Natural	1230–34, 1242, 1244, 1265	Nat.	Pt.: intrusive 13th–14th	Unk.	Unk.	0.10	General layer
395	Subsoil	1094–95, 1320, 1419, 1663, 1710	Nat.	Stratigraphy	Unk.	Unk.	0.30	General layer
396	Floor	1477–78, 1487	2.2	Pt.: 14th–15th, plus intrusive 16th	5.8+	3.0+	0.10	General layer
397	Pit (charnel)	1004	2.1	Pt.: 14th–15th	0.40	0.25	0.13	Subrectangular
398	Demolition	1026, 1243	3.1	Pt.: 16th	Unk.	Unk.	0.30	General layer
399	Pit	2108–09	1.2	Pt.: 13th	1.5+	0.34+	0.96	Subcircular
400	Pit (quarry)	2117–21	1.2	Pt.: 13th	0.4+	0.4+	0.30	Unknown
401	Wall	2123–24	3.4	Construction	0.4+	0.45+	1.30	Linear
402	Wall	2125–26	3.4	Construction	0.4+	0.50	1.10	Linear
403	Wall	2127–28	3.4	Construction	0.4+	0.50	1.25	Linear
404	Wall	2129–30	3.4	Construction	0.4+	0.50	1.30	Linear
405	Modern	1027	3.5	Modern brick	0.80	0.40	0.70	Subrectangular
406	Soil	1661–62, 1960	1.2	Stratigraphy	Unk.	Unk.	0.20	General layer
407	Slumping	1650–57	2.2	Stratigraphy	3.0+	1.0+	0.40	Subcircular
408	Soil	1019, 1022–25, 1093, 1104, 1141–52, 1168–70, 1193–96, 1206, 1220–24, 1304–06, 1385–86, 1418, 1554, 2131	Nat.–2.1	Pt.: 13th–14th, 15th–16th (intrusive)	Unk.	Unk.	0.40	General layer
409	Construction	1178–81, 1337–38, 1349–50, 1369–71, 1374–77, 1417, 1421, 1435, 1453–54, 1457, 1474–76, 1488, 1506,	2.2	CBM	Unk.	Unk.	0.48	General layer
410	Modern	2133	3.5	Modern material	Unk.	Unk.	Unk.	General layer
411	Cemetery soil	1802	2.1	Pt.: 13th	10+	8+	0.20	General layer

APPENDIX 3: CONTEXT TABLE

This appendix should be used in conjunction with Appendix 2, which provides information on dating evidence, dimensions etc. at the feature level. This appendix does not include watching brief information (see Appendix 1).

Con.	F.	Type	F. type	Description
1000	140	Other	Grave	Disturbed bone
1001	140	Other	Grave	Disturbed finds
1002	Void	–	–	–
1003	160	Masonry	Wall	Mortared yellow brick
1004	397	Other	Pit (charnel)	Human bone
1005	101	Fill	Posthole	Mid greyish brown gravelly silt
1006	N/A	Other	Stray finds	Stray finds
1007	101	Cut	Posthole	See Appendix 2
1008	102	Fill	Pit	Light yellowish brown sandy gravel
1009	102	Cut	Pit	See Appendix 2
1010	103	Fill	Pit	Mid greyish brown gravelly silt
1011	103	Cut	Pit	See Appendix 2
1012	344	Fill	Grave	Mid grey sandy silt
1013	331	Fill	Grave	Mid grey sandy silt
1014	106	Fill	Grave	Mid grey sandy silt
1015	310	Fill	Grave	Mid grey sandy silt
1016	310	Fill	Grave	Mid grey sandy silt
1017	108	Fill	Pit	Dark grey clayey silt
1018	108	Cut	Pit	See Appendix 2
1019	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1020	392	Fill	Modern	Dark greyish brown sandy silt
1021	392	Cut	Modern	See Appendix 2
1022	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1023	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1024	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1025	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1026	398	Layer	Demolition	Light greyish brown gravelly silt
1027	405	Modern	Backfill	Backfill from early 20th century investigation of culvert
1028	109	Fill	Pit	Compacted clunch fragments
1029	103	Fill	Pit	Light brownish grey gravelly silt
1030	109	Cut	Pit	See Appendix 2
1031	143	Masonry	Culvert	Mortared red brick
1032	142	Masonry	Culvert	Mortared clunch blocks
1033	142	Layer	Culvert	Off-white lime mortar
1034	143	Fill	Culvert	Orange silty sand

1035	142	Cut	Culvert	See Appendix 2
1036	110	Fill	Pit	Mid/pale brownish grey mortary silt
1037	110	Cut	Pit	See Appendix 2
1038	111	Fill	Modern	Light grey silt
1039	111	Cut	Modern	See Appendix 2
1040	112	Fill	Pit	Brownish grey sandy silt
1041	112	Cut	Pit	See Appendix 2
1042	113	Fill	Pit	Mid greyish brown gravelly silt
1043	113	Fill	Pit	Dark greyish brown gravelly silt
1044	113	Fill	Pit	Light greyish brown gravelly silt
1045	113	Cut	Pit	See Appendix 2
1046	114	Fill	Posthole	Mid grey gravelly silt
1047	114	Cut	Posthole	See Appendix 2
1048	115	Fill	Posthole	Pale/mid greyish brown silty clay
1049	115	Cut	Posthole	See Appendix 2
1050	116	Fill	Posthole	Pale/mid greyish brown silty clay
1051	116	Cut	Posthole	See Appendix 2
1052	117	Fill	Posthole	Brownish yellow sandy gravel
1053	117	Cut	Posthole	See Appendix 2
1054	118	Fill	Posthole	Light grey sandy silt
1055	118	Cut	Posthole	See Appendix 2
1056	119	Fill	Posthole	Pale/mid brownish grey chalky mortary silt
1057	119	Cut	Posthole	See Appendix 2
1058	122	Fill	Posthole	Mixed grey silty clay
1059	122	Cut	Posthole	See Appendix 2
1060	123	Fill	Posthole	Mixed grey silty clay
1061	123	Cut	Posthole	See Appendix 2
1062	124	Fill	Pit	Mixed grey silty clay
1063	124	Cut	Pit	See Appendix 2
1064	120	Fill	Cesspit	Dark greyish brown sandy silt
1065	120	Fill	Cesspit	Orangey brown silty sand
1066	120	Fill	Cesspit	Dark greyish brown sandy silt
1067	120	Fill	Cesspit	Very dark greyish brown sandy silt
1068	120	Fill	Cesspit	Dark greyish brown sandy silt
1069	120	Fill	Cesspit	Greenish grey sandy silty
1070	120	Fill	Cesspit	Very dark greyish brown sandy silt
1071	120	Cut	Cesspit	See Appendix 2
1072	121	Fill	Pit	Dark greyish brown gravelly silt
1073	121	Fill	Pit	Mid greyish brown gravelly silt
1074	121	Fill	Pit	Light yellowish orange gravelly silt
1075	121	Cut	Pit	See Appendix 2

1076	125	Fill	Wall	Compacted light brown sandy gravel
1077	125	Fill	Wall	Compacted light orangey brown sandy gravel
1078	125	Fill	Wall	Compacted light greyish brown sandy gravel
1079	125	Fill	Wall	Compacted light yellowish brown sandy gravel
1080	125	Fill	Wall	Compacted light greyish brown sandy gravel
1081	125	Cut	Wall	See Appendix 2
1082	127	Fill	Well	Light yellowish brown silty gravel
1083	127	Fill	Well	Dark greyish brown gravelly silt
1084	127	Cut	Well	See Appendix 2
1085	128	Fill	Wall	Mortared clunch blocks
1086	128	Fill	Wall	Compacted light brown sandy gravel
1087	128	Cut	Wall	See Appendix 2
1088	129	Fill	Wall	Mortared clunch blocks
1089	129	Fill	Wall	Compacted light brown sandy gravel
1090	129	Cut	Wall	See Appendix 2
1091	130	Fill	Pit	Mid orangey brown gravelly silt
1092	130	Cut	Pit	See Appendix 2
1093	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1094	395	Layer	Subsoil	Mid orangey brown silt
1095	395	Layer	Subsoil	Light brownish orange silty sand
1096	131	Fill	Pit	Dark greyish brown silt
1097	131	Fill	Pit	Dark yellowish brown silty sand
1098	131	Fill	Pit	Dark greyish brown gravelly silt
1099	131	Fill	Pit	Mid orangeish brown sandy silt
1100	131	Fill	Pit	Mid brownish grey sandy silt
1101	131	Fill	Pit	Mid orangeish brown sandy gravel
1102	131	Fill	Pit	Dark brownish grey sandy silt
1103	131	Cut	Pit	See Appendix 2
1104	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1105	Void	–	–	–
1106	133	Fill	Pit	Mid brownish grey very sandy silt
1107	133	Fill	Pit	Mid/pale brownish orange sandy silt
1108	133	Fill	Pit	Mid brownish grey very sandy silt
1109	133	Fill	Pit	Mid/dark greyish brown sandy silt
1110	133	Fill	Pit	Mid/pale brownish orange silty sand
1111	133	Cut	Pit	See Appendix 2
1112	134	Fill	Pit	Mid brownish grey very sandy silt
1113	134	Fill	Pit	Mid/dark greyish brown sandy silt
1114	134	Cut	Pit	See Appendix 2
1115	125	Fill	Wall	Compacted mid orangeish brown sandy gravel
1116	125	Fill	Wall	Compacted mid/pale brown sandy gravel

1117	125	Fill	Wall	Mid orangeish brown silt
1118	125	Fill	Wall	Compacted mid/pale brown sandy gravel
1119	125	Fill	Wall	Compacted mid/pale brown sandy gravel
1120	125	Cut	Wall	See Appendix 2
1121	135	Fill	Pit	Mixed grey sandy silts
1122	135	Fill	Pit	Mid greyish brown sandy silt
1123	135	Fill	Pit	Mid orangeish brown sandy silt
1124	135	Cut	Pit	See Appendix 2
1125	135	Fill	Pit	Mid brownish orange gravelly silt
1126	135	Fill	Pit	Mir orangeish brown sandy silt
1127	136	Fill	Pit	Clunch fragments
1128	136	Fill	Pit	Dark brown sandy silt
1129	136	Fill	Pit	Mid brown silty sand
1130	136	Cut	Pit	See Appendix 2
1131	137	Fill	Wall	Pale brownish white gravelly clunch fragments
1132	137	Cut	Wall	See Appendix 2
1133	138	Fill	Pit	Dark orangeish brown sandy silt
1134	138	Cut	Pit	See Appendix 2
1135	139	Fill	Pit	Off-white clunch fragments
1136	139	Fill	Pit	Dark brown sandy silt
1137	139	Cut	Pit	See Appendix 2
1138	140	Fill	Grave	Mid brownish grey clayey silt
1139	140	Skeleton	Grave	Skeleton
1140	140	Cut	Grave	See Appendix 2
1141	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1142	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1143	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1144	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1145	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1146	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1147	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1148	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1149	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1150	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1151	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1152	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1153	143	Cut	Culvert	See Appendix 2
1154	144	Fill	Wall	Compacted mortary chalky mid brown gravel
1155	144	Cut	Wall	See Appendix 2
1156	144	Fill	Wall	Compacted mortary chalky mid brown gravel
1157	144	Cut	Wall	See Appendix 2

1158	145	Fill	Wall	Compacted mid brownish orange silty gravel
1159	145	Fill	Wall	Compacted clunch fragments with mid orangeish grey silty gravel
1160	145	Fill	Wall	Compacted mid brownish orange silty gravel
1161	145	Cut	Wall	See Appendix 2
1162	Void	–	–	–
1163	146	Fill	Grave	Mixed banded deposit with dark greyish brown clayey silt and pale grey mortary clunch fragments
1164	146	Skeleton	Grave	Skeleton
1165	146	Cut	Grave	See Appendix 2
1166	147	Fill	Pit	Mid grey silt
1167	147	Cut	Pit	See Appendix 2
1168	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1169	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1170	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1171	148	Fill	Gully	Dark greyish brown sandy silt
1172	148	Cut	Gully	See Appendix 2
1173	149	Fill	Pit	Mid/dark greyish brown silty sand
1174	149	Fill	Pit	Mottled mid brownish orange silty sand
1175	149	Fill	Pit	Pale brown silty sandy gravel
1176	149	Fill	Pit	Greyish brown silty sand
1177	149	Cut	Pit	See Appendix 2
1178	409	Layer	Construction deposits	Mixed brownish grey silt
1179	409	Layer	Construction deposits	Mixed brownish grey silt
1180	409	Layer	Construction deposits	Mixed brownish grey silt
1181	409	Layer	Construction deposits	Mixed brownish grey silt
1182	150	Fill	Pit	Dark brownish grey sandy silt
1183	150	Cut	Pit	See Appendix 2
1184	151	Fill	Posthole	Pale greyish brown silt
1185	151	Cut	Posthole	See Appendix 2
1186	152	Fill	Posthole	Light yellowish white mortary silt
1187	152	Cut	Posthole	See Appendix 2
1188	153	Fill	Pit	Mid orangeish brown sandy silt
1189	153	Fill	Pit	Mid-dark greyish brown sandy silt
1190	153	Fill	Pit	Mottled mid greyish brown sandy silt
1191	153	Fill	Pit	Mid orangeish brown gravelly sand
1192	153	Cut	Pit	See Appendix 2
1193	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1194	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1195	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1196	408	Layer	Soil layer	Mid/dark greyish brown sandy silt

1197	154	Fill	Pit	Mid orangeish grey silt
1198	154	Cut	pit	See Appendix 2
1199	145	Fill	Pit	Pale greyish white clunch
1200	155	Fill	Pit	Mid greyish brown sandy silt
1201	155	Cut	Pit	See Appendix 2
1202	156	Fill	Pit	Mid greyish brown sandy silt
1203	156	Cut	Pit	See Appendix 2
1204	237	Fill	Grave	
1205	237	Cut	Grave	See Appendix 2
1206	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1207	158	Fill	Oven	Mid greyish brown clayey silt
1208	158	Masonry	Oven	Mortared clunch blocks
1209	158	Fill	Oven	Mid/dark brown clayey silt
1210	158	Cut	Oven	See Appendix 2
1211	159	Fill	Pit	Dark brown sandy silt
1212	159	Cut	Pit	See Appendix 2
1213	161	Fill	Wall	Compacted light brownish white silty clunch
1214	161	Cut	Wall	See Appendix 2
1215	N/A	Other	Stray finds	Unstratified human bone
1216	162	Fill	Wall	Off white compacted mortary chalky gravel
1217	162	Cut	Wall	See Appendix 2
1218	163	Fill	Wall	Off white compacted mortary chalky gravel
1219	163	Cut	Wall	See Appendix 2
1220	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1221	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1222	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1223	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1224	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1225	Void	–	–	–
1226	164	Fill	Pit	Mid orangey brown sandy silt
1227	164	Cut	Pit	See Appendix 2
1228	165	Fill	Pit	Dark orangey brown sandy silt
1229	165	Cut	Pit	See Appendix 2
1230	394	Fill	Natural	Dark greyish brown clayey silt
1231	394	Cut	Natural	See Appendix 2
1232	394	Fill	Natural	Dark greyish brown clayey silt
1233	394	Cut	Natural	See Appendix 2
1234	394	Layer	Natural	Mid orangey brown sandy silt
1235	166	Fill	Wall	Mortared limestone blocks
1236	166	Fill	Wall	Mortared clunch blocks
1237	166	Cut	Wall	See Appendix 2

1238	167	Fill	Wall	Compacted clunch
1239	167	Cut	Wall	See Appendix 2
1240	168	Fill	Wall	Mortared red brick
1241	168	Cut	Wall	See Appendix 2
1242	394	Layer	Natural	Dark brown silt
1243	398	Layer	Demolition	Mid brownish grey silty mortary rubble
1244	394	Layer	Natural	Dark orangeish brown silt
1245	Void	–	–	–
1246	169	Fill	Pit	Mid-dark greyish brown sandy silt
1247	169	Cut	Pit	See Appendix 2
1248	170	Fill	Pit	Mid-dark greyish brown sandy silt
1249	170	Cut	Pit	See Appendix 2
1250	171	Fill	Pit	Mid-dark greyish brown sandy silt
1251	171	Cut	Pit	See Appendix 2
1252	172	Fill	Pit	Mid-dark greyish brown sandy silt
1253	172	Cut	Pit	See Appendix 2
1254	173	Fill	Pit	Dark greyish brown sandy silt
1255	173	Cut	Pit	See Appendix 2
1256	174	Fill	Pit	Mid-pale orangeish brown silty sand
1257	174	Fill	Pit	Pale orangeish brown silty sand
1258	174	Fill	Pit	Off white silty marl
1259	174	Fill	Pit	Mid-pale orangeish brown silty sand
1260	174	Cut	Pit	See Appendix 2
1261	175	Fill	Pit	Mid orangeish brown sandy clayey silt
1262	175	Fill	Pit	Orange and pale cream sandy clay
1263	175	Fill	Pit	Off white gravel
1264	175	Cut	Pit	See Appendix 2
1265	394	Layer	Natural	Mid orangey brown sandy silt
1266	176	Fill	Pit	Light brownish grey silt
1267	176	Fill	Pit	Mid grey silty clay
1268	176	Fill	Pit	Mortary light brownish grey silt
1269	176	Cut	Pit	See Appendix 2
1270	156	Fill	Pit	Mid greyish brown sandy silt
1271	156	Cut	Pit	See Appendix 2
1272	178	Fill	Pit	Mid greyish brown sandy silt
1273	178	Fill	Pit	Mid orange sandy silt
1274	178	Fill	Pit	Mid greyish brown sandy silt
1275	178	Cut	Pit	See Appendix 2
1276	177	Fill	Pit	Mid greyish brown sandy silt
1277	177	Fill	Pit	Mid orangeish brown sandy silt
1278	177	Fill	Pit	Mid greyish brown sandy silt

1279	177	Fill	Pit	Mid orangeish brown sandy silt
1280	177	Cut	Pit	See Appendix 2
1281	155	Fill	Pit	Mid greyish brown sandy silt
1282	155	Fill	Pit	Mid brownish grey sandy silt
1283	155	Fill	Pit	Mid orange silty sand
1284	155	Fill	Pit	Mid brownish grey sandy silt
1285	155	Cut	Pit	See Appendix 2
1286	179	Fill	Pit	Dark greyish brown sandy silt
1287	179	Cut	Pit	See Appendix 2
1288	180	Fill	Pit	Vey dark greyish brown sandy silt
1289	180	Cut	Pit	See Appendix 2
1290	181	Fill	Wall	Compacted mid brownish white silty clunch
1291	181	Fill	Wall	Compacted dark whiteish brown silty clunch
1292	181	Fill	Wall	Compacted light whiteish brown silty clunch
1293	181	Fill	Wall	Compacted light brownish orange silty gravel
1294	181	Fill	Wall	Compacted light brownish white silty clunch
1295	181	Cut	Wall	See Appendix 2
1296	208	Layer	Cellar	Pale grey silty mortar
1297	208	Layer	Cellar	Dark brown clayey silt
1298	208	Layer	Cellar	Pale grey silty mortar
1299	182	Fill	Pit	Light greenish pink mortar
1300	182	Fill	Pit	Dark brown sandy silt
1301	182	Cut	Pit	See Appendix 2
1302	187	Fill	Pit	Mid greyish brown silt
1303	187	Fill	Pit	Tile, mortar and clunch rubble
1304	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1305	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1306	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1307	183	Fill	Pier	Mortared clunch blocks
1308	183	Fill	Pier	Compacted off creamish grey mortar with clunch fragments
1309	183	Fill	Pier	Compacted mid greyish brown clayey silt
1310	183	Fill	Pier	Compacted yellow sandy mortar
1311	183	Fill	Pier	Compacted mid/pale clay and clunch fragments
1312	183	Cut	Pier	See Appendix 2
1313	Void	–	–	–
1314	Void	–	–	–
1315	Void	–	–	–
1316	185	Fill	Pit	Mid orangey brown sandy clayey silt
1317	185	Fill	Pit	Mid/pale brownish orange sandy silt
1318	185	Fill	Pit	Pale yellowish brown silty gravel
1319	185	Cut	Pit	See Appendix 2

1320	395	Layer	Subsoil	Mid/pale orangeish brown sandy silt
1321	186	Masonry	Wall	Mortared limestone blocks
1322	186	Masonry	Wall	Mortared clunch blocks
1323	186	Fill	Wall	Banded compacted pale grey clay and mid/pale yellowish brown sandy mortary gravel
1324	186	Cut	Wall	See Appendix 2
1325	187	Fill	Pit	Dark grey silt
1326	187	Fill	Pit	Mid greyish brown silt
1327	187	Fill	Pit	Tile, mortar and clunch rubble
1328	187	Fill	Pit	Dark brown silt
1329	187	Cut	Pit	See Appendix 2
1330	188	Fill	Wall	Mortared red peg tile
1331	188	Cut	Wall	See Appendix 2
1332	189	Fill	Grave (translation pit)	Pale/mid brownish grey clayey mortary silt
1333	189	Other	Grave (translation pit)	Iron nails
1334	189	Cut	Grave (translation pit)	See Appendix 2
1335	190	Fill	Grave	Pale/mid brownish grey clayey mortary silt
1336	191	Fill	Grave	Pale/mid brownish grey clayey mortary silt
1337	409	Layer	Construction deposits	Mixed brownish grey silt
1338	409	Layer	Construction deposits	Mixed brownish grey silt
1339	193	Fill	Well	Mixed brownish grey silt
1340	193	Cut	Well	See Appendix 2
1341	193	Masonry	Well	Mortared clunch blocks with occasional red bricks
1342	194	Masonry	Footing	Mortared clunch and red bricks
1343	393	Other	Drain or footing	Red peg tiles
1344	193	Cut	Well	See Appendix 2
1345	193	Fill	Well	Mid greyish brown sandy silt
1346	195	Fill	Grave	Mid greyish brown sandy silt
1347	195	Cut	Grave	See Appendix 2
1348	202	Layer	Cellar	Light greyish blue clay
1349	409	Layer	Construction deposits	Mixed brownish grey silt
1350	409	Layer	Construction deposits	Mixed brownish grey silt
1351	196	Fill	Grave	Mid/dark brownish grey clayey silt
1352	196	Fill	Grave	Mid/dark brownish grey clayey silt
1353	196	Skeleton	Grave	Skeleton
1354	196	Cut	Grave	See Appendix 2
1355	195	Skeleton	Grave	Skeleton
1356	202	Layer	Cellar	Unmortared red floor tiles
1357	393	Layer	Drain or footing	Mid/pale orangeish yellowish brown silty sand

1358	Void	–	–	–
1359	197	Fill	Posthole	Pale yellowish brown silty sand
1360	197	Cut	Posthole	See Appendix 2
1361	194	Masonry	Footing	Mortared clunch and red bricks
1362	N/A	Other	Stray finds	Disturbed moulded stone
1363	198	Fill	Grave	Mid brownish grey gravelly silt
1364	198	Skeleton	Grave	Skeleton
1365	198	Cut	Grave	See Appendix 2
1366	199	Fill	Grave	Mid greyish brown sandy silt
1367	199	Skeleton	Grave	Skeleton
1368	199	Cut	Grave	See Appendix 2
1369	409	Layer	Construction deposits	Mixed brownish grey silt
1370	409	Layer	Construction deposits	Mixed brownish grey silt
1371	409	Layer	Construction deposits	Mixed brownish grey silt
1372	201	Fill	Posthole	Mid brownish grey gravelly silt
1373	201	Cut	Posthole	See Appendix 2
1374	409	Layer	Construction deposits	Mixed brownish grey silt
1375	409	Layer	Construction deposits	Mixed brownish grey silt
1376	409	Layer	Construction deposits	Mixed brownish grey silt
1377	409	Layer	Construction deposits	Mixed brownish grey silt
1378	224	Fill	Wall	Compacted gravel and clunch fragments
1379	202	Layer	Cellar	Mid/pale greyish brown silty clay
1380	202	Layer	Cellar	Mortared clunch with occasional red brick and tile
1381	202	Cut	Cellar	See Appendix 2
1382	203	Fill	Cellar	Mid/dark brown clayey silt
1383	203	Masonry	Cellar	Mortared limestone blocks
1384	203	Cut	Cellar	See Appendix 2
1385	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1386	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1387	204	Fill	Pit	Mixed mid/dark brown clayey silt
1388	204	Cut	Pit	See Appendix 2
1389	205	Fill	Pit	Dark greyish brown sandy silt
1390	205	Cut	pit	See Appendix 2
1391	N/A	Other	Stray finds	Disturbed human bone
1392	183	Other	Pier	Human bone incorporated in later pier
1393	206	Fill	Pier	Compacted banded compacted clunch, mid/pale grey clay and mid orangeish brown silty gravels
1394	206	Masonry	Pier	Compacted off-creamish grey sandy mortar with clunch fragments and orangeish brown sandy gravel
1395	206	Cut	Pier	See Appendix 2

1396	207	Fill	Pit	Banded mid/dark brown clayey silt and brownish orange sandy gravel
1397	207	Cut	Pit	See Appendix 2
1398	209	Fill	Pit	Very dark brown/black silt
1399	209	Fill	Pit	Mid grey silt
1400	209	Fill	Pit	Mid brownish orange silt
1401	209	Fill	Pit	Very dark brown silt
1402	185	Fill	Pit	Very dark greyish brown sandy silt
1403	185	Fill	Pit	Dark brown sandy silt
1404	185	Fill	Pit	Mid brownish orange silty sand
1405	210	Fill	Posthole	Very dark greyish brown sandy silt
1406	210	Cut	Posthole	See Appendix 2
1407	Void	–	–	–
1408	Void	–	–	–
1409	Void	–	–	–
1410	212	Fill	Pier	Compacted banded mid grey gravelly mortar, clunch and tile plus brownish orange silty gravels
1411	212	Cut	Pier	See Appendix 2
1412	213	Masonry	Pier	Mortared clunch
1413	213	Cut	Pier	See Appendix 2
1414	214	Masonry	Arch	Mortared clunch
1415	214	Masonry	Arch	Mortared red brick
1416	214	Cut	Arch	See Appendix 2
1417	409	Layer	Construction deposits	Mixed brownish grey silt
1418	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1419	395	Layer	Subsoil	Mid/pale brownish orange sandy clayey silt
1420	212	Masonry	Pier	Mortared clunch blocks
1421	409	Layer	Construction deposits	Mixed brownish grey silt
1422	200	Fill	Posthole	Mid brownish grey sandy silt
1423	200	Cut	Posthole	See Appendix 2
1424	215	Fill	Grave	Dark greyish brown sandy silt
1425	215	Skeleton	Grave	Skeleton
1426	215	Cut	Grave	See Appendix 2
1427	216	Fill	Grave	Mid/dark brownish grey clayey silt
1428	216	Skeleton	Grave	Skeleton
1429	216	Cut	Grave	See Appendix 2
1430	216	Other	Grave	Copper alloy belt buckle
1431	216	Other	Grave	Oyster shell
1432	217	Fill	Grave	Mid brown silt
1433	217	Skeleton	Grave	Skeleton
1434	217	Cut	Grave	See Appendix 2
1435	409	Layer	Construction	Mixed brownish grey silt

			deposits	
1436	218	Fill	Posthole	Mid greyish brown sandy silt
1437	218	Cut	Posthole	See Appendix 2
1438	219	Fill	Posthole	Mid grey sandy silt
1439	219	Cut	Posthole	See Appendix 2
1440	219	Fill	Posthole	Mid brownish orange sandy silt
1441	220	Fill	Posthole	Mid brownish grey sandy silt
1442	220	Cut	Posthole	See Appendix 2
1443	221	Fill	Posthole	Mid orangeish brown silt
1444	221	Cut	Posthole	See Appendix 2
1445	181	Fill	Wall	Compacted light brownish white gravel and clunch
1446	181	Cut	Wall	See Appendix 2
1447	222	Fill	Posthole	Mid whiteish grey silty clunch
1448	222	Fill	Posthole	Mid greyish brown gravelly silt
1449	222	Cut	Posthole	See Appendix 2
1450	223	Fill	Pit	Dark orangeish brown silt
1451	223	Cut	Pit	See Appendix 2
1452	187	Fill	Pit	Dark brown/black ash and charcoal
1453	409	Layer	Construction deposits	Mixed brownish grey silt
1454	409	Layer	Construction deposits	Mixed brownish grey silt
1455	193	Fill	Well	Brownish yellow/orange silty sand
1456	193	Fill	Well	Mid greyish brown sandy silt
1457	409	Layer	Construction deposits	Mixed brownish grey silt
1458	190	Skeleton	Grave	Skeleton
1459	190	Cut	Grave	See Appendix 2
1460	191	Skeleton	Grave	Skeleton
1461	191	Cut	Grave	See Appendix 2
1462	224	Fill	Wall	Mortared clunch blocks
1463	224	Fill	Wall	Banded compacted pale grey clay and mid/pale yellowish brown sandy mortary gravel
1464	224	Cut	Wall	See Appendix 2
1465	191	Other	Grave	Copper alloy belt buckle
1466	225	Fill	Posthole	Light/mid grey silt
1467	225	Cut	Posthole	See Appendix 2
1468	226	Fill	Posthole	Light grey silt
1469	226	Cut	Posthole	See Appendix 2
1470	227	Fill	Posthole	Light grey silt
1471	227	Cut	Posthole	See Appendix 2
1472	228	Fill	Posthole	Dark grey silty sand
1473	228	Cut	Posthole	See Appendix 2

1474	409	Layer	Construction deposits	Mixed brownish grey silt
1475	409	Layer	Construction deposits	Mixed brownish grey silt
1476	409	Layer	Construction deposits	Mixed brownish grey silt
1477	396	Layer	Floor	Off white/light grey clay
1478	396	Layer	Floor	White clay
1479	229	Fill	Posthole	Light brownish grey silty clayey mortar
1480	229	Cut	Posthole	See Appendix 2
1481	230	Fill	Grave	Mid/dark brownish grey silt
1482	230	Skeleton	Grave	Skeleton
1483	230	Cut	Grave	See Appendix 2
1484	231	Masonry	Wall	Mortared clunch blocks
1485	231	Fill	Wall	Compacted pale yellowish brown gravelly sandy mortar
1486	231	Cut	Wall	See Appendix 2
1487	396	Layer	Floor	Dark brown silty clay
1488	409	Layer	Construction deposits	Mixed brownish grey silt
1489	232	Fill	Grave	Mid brownish grey clayey silt
1490	232	Skeleton	Grave	Skeleton
1491	232	Cut	Grave	See Appendix 2
1492	148	Fill	Gully	Very dark greyish brown sandy silt
1493	148	Cut	Gully	See Appendix 2
1494	234	Fill	Pit	Dark grey clay and ash
1495	234	Fill	Pit	White clay and yellow gravelly sand
1496	234	Fill	Pit	Dark greyish brown sandy clay
1497	234	Fill	Pit	Mid greyish brown sandy clay
1498	234	Fill	Pit	White/light grey clay
1499	234	Fill	Pit	Dark grey clay and ash
1500	234	Fill	Pit	greyish brown sand
1501	234	Cut	Pit	See Appendix 2
1502	255	Fill	Pit	Dark greyish brown sandy silt
1503	235	Fill	Posthole	Mid brown sandy silt
1504	235	Fill	Posthole	Dark brown sandy silt
1505	235	Cut	Posthole	See Appendix 2
1506	409	Layer	Construction deposits	Mixed brownish grey silt
1507	230	Other	Grave	Copper-alloy belt buckle
1508	236	Fill	Pit	Mid grey silt
1509	236	Fill	Pit	Yellowish orange gravelly sand
1510	236	Fill	Pit	Clunch fragments
1511	236	Fill	Pit	Dark grey sandy silt
1512	236	Fill	Pit	Dark grey sandy silt

1513	236	Fill	Pit	Mid grey silt
1514	236	Cut	Pit	See Appendix 2
1515	237	Fill	Grave	Dark brownish grey sandy silt
1516	237	Skeleton	Grave	Skeleton
1517	237	Cut	Grave	See Appendix 2
1518	238	Fill	Pit	Dark brown sandy clay
1519	238	Cut	Pit	See Appendix 2
1520	239	Fill	Posthole	Dark brown sandy clay
1521	239	Fill	Posthole	Dark brown sandy clay
1522	239	Fill	Posthole	Dark brown gravelly sandy clay
1523	239	Cut	Posthole	See Appendix 2
1524	146	Other	Grave	Copper alloy jetton
1525	240	Fill	Posthole	Dark brown sandy silt
1526	240	Cut	Posthole	See Appendix 2
1527	241	Fill	Pit	Dark brown silty clay
1528	241	Fill	Pit	Mid brown silty clay
1529	241	Fill	Pit	Dark brown silty clay
1530	241	Fill	Pit	Mid brown silty clay
1531	241	Fill	Pit	Dark brown silty clay
1532	241	Fill	Pit	Mid brown silty clay
1533	241	Cut	Pit	See Appendix 2
1534	N/A	Other	Stray finds	Disturbed human bone
1535	242	Fill	Posthole	Mid brownish grey silt
1536	242	Cut	Posthole	See Appendix 2
1537	243	Fill	Pit	Yellowish grey sandy silt
1538	243	Fill	Pit	Blueish grey silty clay
1539	243	Cut	Pit	See Appendix 2
1540	244	Fill	Wall	Compacted clunch lumps and silty clay
1541	244	Fill	Wall	Compacted silty brown clayey gravel
1542	244	Fill	Wall	White mortar
1543	244	Fill	Wall	Compacted silty brown clayey gravel
1544	244	Fill	Wall	White mortar
1545	244	Fill	Wall	White mortar
1546	244	Cut	Wall	See Appendix 2
1547	245	Fill	Pit	Pale/mid greyish brown sandy silt
1548	245	Fill	Pit	Dark/mid greyish brown sandy silt
1549	245	Fill	Pit	Dark greyish brown sandy silt
1550	245	Cut	Pit	See Appendix 2
1551	246	Masonry	Wall	Mortared clunch lumps
1552	246	Fill	Wall	Banded compacted mid reddish brown sandy gravel
1553	246	Cut	Wall	See Appendix 2

1554	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
1555	386	Fill	Hedge line	Very dark grey/black silty sand
1556	386	Cut	Hedge line	See Appendix 2
1557	247	Fill	Pit	Mid greyish brown gravelly silt
1558	247	Fill	Pit	Mid/light greyish brown gravelly silt
1559	247	Fill	Pit	Dark brown/black gravelly silt
1560	247	Fill	Pit	Light orangey brown gravelly silt
1561	247	Cut	Pit	See Appendix 2
1562	248	Fill	Pit	Mid greyish brown silt
1563	248	Cut	Pit	See Appendix 2
1564	395	Layer	Subsoil	Mid greyish brown sandy silt
1565	249	Fill	Wall	Mortared clunch lumps
1566	249	Fill	Wall	Banded compacted mid reddish brown sandy gravel
1567	249	Cut	Wall	See Appendix 2
1568	250	Masonry	Wall	Mortared clunch lumps
1569	250	Cut	Wall	See Appendix 2
1570	251	Masonry	Wall	Mortared clunch blocks
1571	251	Fill	Wall	Compacted orange sandy silty gravel
1572	251	Cut	Wall	See Appendix 2
1573	252	Fill	Wall	Mid/dark brown clayey silt
1574	252	Fill	Wall	Compacted mortared clunch lumps
1575	252	Cut	Wall	See Appendix 2
1576	253	Fill	Pit	Dark greyish brown sandy silt
1577	253	Cut	Pit	See Appendix 2
1578	254	Fill	Pit	Mid greyish brown sandy silt
1579	254	Cut	Pit	See Appendix 2
1580	255	Cut	Pit	See Appendix 2
1581	256	Fill	Pit	Light orange sandy silt
1582	256	Cut	Pit	See Appendix 2
1583	257	Masonry	Wall	Mortared clunch blocks
1584	257	Fill	Wall	Compacted pale brownish yellow gravelly sand
1585	257	Cut	Wall	See Appendix 2
1586	258	Masonry	Wall	Mortared clunch blocks
1587	258	Fill	Buttress	Compacted pale brownish yellow gravelly sand
1588	258	Cut	Buttress	See Appendix 2
1589	259	Fill	Pit	Dark grey sandy silt
1590	259	Cut	Pit	See Appendix 2
1591	260	Fill	Grave	Light greyish brown clayey silt
1592	260	Cut	Grave	See Appendix 2
1593	261	Fill	Modern	Light grey sandy silt
1594	261	Cut	Modern	See Appendix 2

1595	262	Fill	Pit	Mid orangeish brown sandy silt
1596	262	Cut	Pit	See Appendix 2
1597	263	Fill	Pit	Mid orangeish brown sandy silty
1598	263	Cut	Pit	See Appendix 2
1599	264	Fill	Pit	Dark brownish grey silty sand
1600	264	Cut	Pit	See Appendix 2
1601	265	Fill	Grave	Mid greyish brown clayey silt
1602	265	Skeleton	Grave	Skeleton
1603	265	Cut	Grave	See Appendix 2
1604	266	Fill	Gully	Dark brown silty sand
1605	266	Cut	Gully	See Appendix 2
1606	267	Fill	Pit	Light/mid brown sandy silt
1607	267	Fill	Pit	Mid/dark greyish brown silty sand
1608	267	Fill	Pit	Charcoal
1609	Void	–	–	–
1610	267	Cut	Pit	See Appendix 2
1611	268	Fill	Pit	Dark greyish brown silt
1612	268	Cut	Pit	See Appendix 2
1613	269	Fill	Gully	Dark greyish brown silt
1614	269	Cut	Gully	See Appendix 2
1615	268	Fill	Pit	Light greyish brown silt
1616	270	Fill	Pit	Dark brown silty clay
1617	270	Fill	Pit	Mid greyish brown silty gravel
1618	270	Fill	Pit	Dark brown silty clay
1619	270	Cut	Pit	See Appendix 2
1620	271	Fill	Pit	Very dark silty clay
1621	271	Fill	Pit	Dark brown silty clay
1622	271	Fill	Pit	Very dark greyish brown silty clay
1623	271	Fill	Pit	Dark brown silty clay
1624	271	Fill	Pit	Very dark greyish brown silty clay
1625	271	Fill	Pit	Very dark greyish brown silty clay
1626	271	Cut	Pit	See Appendix 2
1627	270	Fill	Pit	Dark greyish brown clayey silt
1628	270	Fill	Pit	Dark grey ashy clay
1629	270	Fill	Pit	Dark grey clay and ash
1630	270	Fill	Pit	Articulated animal bone
1631	270	Cut	Pit	See Appendix 2
1632	270	Fill	Pit	Modern intrusion
1633	270	Fill	Pit	White greenish clay
1634	270	Fill	Pit	Dark orange sandy clay
1635	270	Cut	Pit	See Appendix 2

1636	270	Fill	Pit	Dark brown clay
1637	270	Cut	Pit	See Appendix 2
1638	265	Other	Grave	Copper alloy belt buckle
1639	270	Fill	Pit	Dark brown silty clay
1640	270	Cut	Pit	See Appendix 2
1641	276	Fill	Pit	Dark brown silty sand
1642	276	Cut	Pit	See Appendix 2
1643	277	Fill	Pit	Dark brownish grey clayey silt
1644	277	Cut	Pit	See Appendix 2
1645	278	Fill	Pit	Mid/pale greyish brown clayey silt
1646	278	Cut	Pit	See Appendix 2
1647	209	Cut	Pit	See Appendix 2
1648	279	Fill	Pit	Mid orangey brown silt
1649	279	Cut	Pit	See Appendix 2
1650	407	Layer	Slumping	Dark brown silt
1651	407	Layer	Slumping	Gravelly grey silty/yellow sand
1652	407	Layer	Slumping	Yellowish brown gravelly sand
1653	407	Layer	Slumping	Mid grey sandy silt
1654	407	Layer	Slumping	Mid grey gravelly sandy silt
1655	407	Layer	Slumping	Mid orange gravelly sand
1656	407	Layer	Slumping	Mid grey sandy clayey silt
1657	407	Layer	Slumping	Mid brownish grey clayey silt
1658	236	Fill	Pit	Mid brown silt
1659	236	Fill	Pit	Greenish white clay
1660	236	Fill	Pit	Mid grey sandy silt
1661	406	Layer	Soil layer	Dark brownish grey clayey silt
1662	406	Layer	Soil layer	Mid greyish brown clayey silt
1663	395	Layer	Subsoil	Mid greyish orangey brown clayey silt
1664	280	Fill	Pit	Mid/pale greyish brown clayey silt
1665	280	Cut	Pit	See Appendix 2
1666	281	Fill	Pit	Very dark greyish brown sandy silt
1667	281	Fill	Pit	Dark orangeish brown sandy silt
1668	281	Fill	Pit	Mid/dark greyish brown clayey silt
1669	281	Fill	Pit	Mid/pale orangey brown silty sand
1670	281	Cut	Pit	See Appendix 2
1671	308	Fill	Pit	Mid/pale orangeish brown sandy silt
1672	308	Fill	Pit	Dark greyish brown sandy silt
1673	308	Fill	Pit	Dark Greyish brown sandy silt
1674	282	Fill	Posthole	Dark orangeish brown sandy silt
1675	282	Cut	Posthole	See Appendix 2
1676	283	Fill	Pit	Dark orangeish brown sandy silt

1677	283	Cut	Pit	See Appendix 2
1678	284	Fill	Pit	Dark brownish grey clayey silt
1679	284	Cut	Pit	See Appendix 2
1680	285	Fill	Posthole	Dark brownish grey clayey silt
1681	285	Cut	Posthole	See Appendix 2
1682	Void	–	–	–
1683	Void	–	–	–
1684	308	Fill	Pit	Very dark greyish brown sandy silt
1685	308	Fill	Pit	Pale orangeish brown sandy silt
1686	286	Fill	Pit	Mid/light brownish grey silty sand
1687	286	Cut	Pit	See Appendix 2
1688	287	Fill	Pit	Very dark grey/black silty sand
1689	287	Cut	Pit	See Appendix 2
1690	288	Fill	Pit	Mid/light greyish brown sandy silt
1691	288	Fill	Pit	Mid greyish brown sandy silt
1692	288	Cut	Pit	See Appendix 2
1693	289	Fill	Pit	very dark grey/black sandy silt
1694	289	Cut	Pit	See Appendix 2
1695	290	Fill	Pit	Dark brownish grey sandy silt
1696	290	Fill	Pit	Mid greyish brown sandy silt
1697	290	Cut	Pit	See Appendix 2
1698	291	Fill	Posthole	Mid greyish brown sandy silt
1699	291	Cut	Posthole	See Appendix 2
1700	292	Fill	Pit	Mid grey sandy silt
1701	292	Fill	Pit	White clunch and mortar
1702	292	Fill	Pit	Very dark greyish brown sandy silt
1703	292	Fill	Pit	Dark brown sandy silt
1704	292	Fill	Pit	Very dark greyish brown sandy silt
1705	292	Fill	Pit	Dark greyish brown sandy silt
1706	292	Fill	Pit	Orangeish brown silty sand
1707	292	Cut	Pit	See Appendix 2
1708	258	Fill	Buttress	Compacted mid greyish brown sandy silt
1709	258	Cut	Buttress	See Appendix 2
1710	395	Layer	Subsoil	Light brown sandy silt
1711	294	Fill	Pit	Dark brownish grey clayey silt
1712	294	Fill	Pit	Dark brownish grey clayey silt
1713	294	Cut	Pit	See Appendix 2
1714	377	Fill	Pit	Very dark brown silty clay
1715	377	Cut	Pit	See Appendix 2
1716	377	Cut	Pit	See Appendix 2
1717	349	Fill	Pit	Dark brown silty clay

1718	349	Cut	Pit	See Appendix 2
1719	298	Fill	Pit	Dark greyish brown sandy silt
1720	298	Fill	Pit	Mid orangeish brown sandy silt
1721	298	Cut	Pit	See Appendix 2
1722	299	Fill	Pit	Dark grey sandy silt
1723	299	Fill	Pit	Mid brownish grey sandy silt
1724	299	Cut	Pit	See Appendix 2
1725	266	Fill	Gully	Mid brownish grey sandy silt
1726	266	Cut	Gully	See Appendix 2
1727	290	Fill	Pit	Dark brownish grey sandy silt
1728	290	Cut	Pit	See Appendix 2
1729	300	Fill	Pit	Very dark brown clay
1730	300	Cut	Pit	See Appendix 2
1731	301	Fill	Pit	Mid/pale greyish brown clayey silt
1732	301	Fill	Pit	Mid/pale greyish brown clayey silt
1733	301	Cut	Pit	See Appendix 2
1734	302	Fill	Grave	Mid brownish grey silt
1735	302	Skeleton	Grave	Skeleton
1736	302	Cut	Grave	See Appendix 2
1737	302	Other	Grave	Copper alloy belt buckle
1738	302	Fill	Grave	Disarticulated human bone
1739	303	Fill	Pit	Dark brown sandy silt
1740	303	Fill	Pit	Dark brown sandy silt
1741	303	Fill	Pit	Mid orangeish brown silty sand
1742	303	Cut	Pit	See Appendix 2
1743	304	Fill	Pit	Dark brown sandy silt
1744	304	Fill	Pit	Dark grey brown sandy silt
1745	304	Fill	Pit	Mid greyish brown sandy silt
1746	304	Cut	Pit	See Appendix 2
1747	305	Masonry	Bench	Mortared clunch blocks
1748	305	Fill	Bench	Pale grey sandy mortar
1749	305	Cut	Bench	See Appendix 2
1750	306	Masonry	Bench	Mortared clunch blocks
1751	306	Fill	Bench	Pebbles in pale greyish brown sandy silt
1752	306	Fill	Bench	Pale greyish brown silty clay
1753	306	Fill	Bench	Pale brownish yellow silty sand
1754	306	Cut	Bench	See Appendix 2
1755	236	Fill	Pit	Mid yellow gravelly sand
1756	236	Fill	Pit	Dark reddish brown sandy clay
1757	Void	–	–	–
1758	236	Fill	Pit	Dark grey sandy clay

1759	236	Fill	Pit	Dark grey sandy silt
1760	307	Fill	Pit	Mid grey sandy silt
1761	307	Cut	Pit	See Appendix 2
1762	308	Fill	Pit	Pale orangeish brown silty sand
1763	308	Fill	Pit	Pale yellow gravelly sand
1764	308	Fill	Pit	Pale yellow gravelly sand
1765	309	Fill	Grave	Mid brownish grey sandy silt
1766	309	Fill	Grave	Disarticulated human bone
1767	309	Skeleton	Grave	Skeleton
1768	309	Cut	Grave	See Appendix 2
1769	Void	–	–	–
1770	310	Fill	Grave	Mid/pale greyish brown clayey silt
1771	310	Skeleton	Grave	Skeleton
1772	310	Cut	Grave	See Appendix 2
1773	193	Fill	Well	Mid greyish brown clayey silt
1774	193	Fill	Well	Mid grey silty clay
1775	193	Fill	Well	Mid brownish grey silty clay
1776	193	Other	Well	Red bricks
1777	193	Other	Well	Wooden boards
1778	193	Other	Well	Pale brown sandy mortar
1779	193	Masonry	Well	Mortared clunch blocks
1780	193	Fill	Well	Compacted mid yellowish brown gravel
1781	311	Fill	Grave	Dark brownish grey sandy silt
1782	311	Skeleton	Grave	Skeleton
1783	311	Cut	Grave	See Appendix 2
1784	312	Fill	Grave	Dark greyish brown sandy silt
1785	312	Skeleton	Grave	Skeleton
1786	312	Cut	Grave	See Appendix 2
1787	310	Other	Grave	Copper alloy belt buckle
1788	311	Other	Grave	Iron belt buckle
1789	313	Fill	Pit	Pale yellowish brownish orange sandy gravel
1790	313	Fill	Pit	Pale/mid orangeish brown silty sand
1791	313	Fill	Pit	Pale yellowish orangeish brown silty sand
1792	313	Fill	Pit	Mid/pale orangeish brown silty sand
1793	313	Fill	Pit	Mid greyish brown silty sand
1794	313	Fill	Pit	Very pale grey silty gravel
1795	313	Cut	Pit	See Appendix 2
1796	314	Fill	Grave	Mid grey sandy silt
1797	314	Skeleton	Grave	Skeleton
1798	314	Cut	Grave	See Appendix 2
1799	315	Fill	Grave	Mid brownish grey sandy silt

1800	315	Skeleton	Grave	Skeleton
1801	315	Cut	Grave	See Appendix 2
1802	N/A	Other	Stray finds	Cemetery related stray finds
1803	314	Other	Grave	Ivory belt buckle
1804	316	Fill	Pit	Dark brown sandy silt
1805	316	Cut	Pit	See Appendix 2
1806	268	Fill	Pit	Dark brown silty clay
1807	268	Fill	Pit	Dark brown silty clay
1808	268	Fill	Pit	Dark brown silty clay
1809	268	Fill	Pit	Dark brown silty clay
1810	268	Cut	Pit	See Appendix 2
1811	325	Fill	Pit	Dark grey sandy silt
1812	325	Fill	Pit	Black charcoal
1813	325	Fill	Pit	Light brownish grey silty sand
1814	325	Fill	Pit	Pale orangeish brownish grey silty sand
1815	325	Fill	Pit	Mid grey sandy silt
1816	325	Cut	Pit	See Appendix 2
1817	Void	–	–	–
1818	Void	–	–	–
1819	Void	–	–	–
1820	Void	–	–	–
1821	327	Fill	Wall	Mortared clunch blocks
1822	327	Cut	Wall	See Appendix 2
1823	328	Fill	Grave	Mid brownish grey sandy silt
1824	328	Skeleton	Grave	Skeleton
1825	328	Cut	Grave	See Appendix 2
1826	318	Fill	Pit	Dark greyish brown silty clay
1827	318	Cut	Pit	See Appendix 2
1828	318	Fill	Pit	Very dark greyish brown silty clay
1829	318	Fill	Pit	Charcoal and dark brownish grey clay
1830	318	Fill	Pit	Black charcoal
1831	318	Fill	Pit	Dark greyish brown silty clay
1832	318	Fill	Pit	Dark orangeish brown silty sand
1833	318	Fill	Pit	Dark orangeish brown silty sand
1834	318	Fill	Pit	Very dark brown silty clay
1835	318	Fill	Pit	Dark yellowish orange gravelly sand
1836	318	Fill	Pit	Very dark brown silty clay
1837	318	Fill	Pit	Dark brown silty clay
1838	318	Fill	Pit	Dark orangeish brown silty sand
1839	318	Fill	Pit	Very dark brown clay
1840	318	Cut	Pit	See Appendix 2

1841	318	Fill	Pit	Mid brownish grey silty clay
1842	318	Cut	Pit	See Appendix 2
1843	318	Fill	Pit	Dark brown silty clay
1844	318	Cut	Pit	See Appendix 2
1845	257	Fill	Wall	Compacted mid/dark grey sandy silt
1846	318	Fill	Pit	Dark brown sandy silty clay
1847	318	Fill	Pit	Dark orange gravelly sandy clay
1848	318	Fill	Pit	Dark orange silty sand
1849	318	Fill	Pit	Yellowish gravelly sand
1850	318	Fill	Pit	Dark brown clay
1851	318	Fill	Pit	Yellowish gravelly sand
1852	318	Cut	Pit	See Appendix 2
1853	318	Fill	Pit	Dark brown clay
1854	318	Fill	Pit	Very dark greyish brown silty clay
1855	318	Fill	Pit	Black charcoal
1856	318	Cut	Pit	See Appendix 2
1857	318	Fill	Pit	Dark brown silty clay
1858	318	Fill	Pit	Yellow sand
1859	318	Fill	Pit	Mid brown silty clay
1860	318	Fill	Pit	Mid brown silty clay
1861	318	Fill	Pit	Dark orange clayey silty sand
1862	318	Cut	Pit	See Appendix 2
1863	260	Skeleton	Grave	Skeleton
1864	260	Other	Grave	Copper alloy belt buckle
1865	Void	–	–	–
1866	106	Skeleton	Grave	Skeleton
1867	106	Cut	Grave	See Appendix 2
1868	330	Fill	Pit	Mid greyish brown clayey silt
1869	330	Fill	Pit	Dark brownish grey clayey silt
1870	330	Fill	Pit	Mid orangeish brown sandy silty clay
1871	330	Cut	Pit	See Appendix 2
1872	331	Fill	Grave	Mid grey sandy silt
1873	331	Skeleton	Grave	Skeleton
1874	331	Cut	Grave	See Appendix 2
1875	241	Fill	Pit	Mid orangeish brown silty sand
1876	241	Fill	Pit	Dark orangeish brown sandy silt
1877	241	Cut	Pit	See Appendix 2
1878	332	Fill	Grave	Mid brownish grey sandy silt
1879	332	Other	Grave	Copper alloy belt buckle
1880	332	Skeleton	Grave	Skeleton
1881	332	Cut	Grave	See Appendix 2

1882	331	Other	Grave	Copper alloy belt buckle
1883	333	Fill	Grave	Mid/pale greyish brown clayey silt
1884	333	Skeleton	Grave	Skeleton
1885	333	Cut	Grave	See Appendix 2
1886	334	Fill	Grave	Mid brownish grey sandy silt
1887	334	Skeleton	Grave	Skeleton
1888	334	Other	Grave	Copper alloy belt buckle
1889	334	Cut	Grave	See Appendix 2
1890	335	Masonry	Wall	Mortared clunch blocks
1891	335	Fill	Wall	Compacted pale orangeish brown sandy gravel
1892	335	Cut	Wall	See Appendix 2
1893	336	Fill	Grave	Dark greyish brown sandy silt
1894	336	Skeleton	Grave	Skeleton
1895	336	Cut	Grave	See Appendix 2
1896	337	Fill	Buttress	Compacted light yellowish brown sandy gravel
1897	337	Cut	Buttress	See Appendix 2
1898	336	Other	Grave	Copper alloy belt buckle
1899	333	Other	Grave	Iron belt buckle
1900	106	Other	Grave	Iron object
1901	106	Other	Grave	Iron object
1902	106	Other	Grave	Iron object
1903	338	Masonry	Wall	Mortared clunch blocks
1904	338	Cut	Wall	See Appendix 2
1905	339	Masonry	Wall	Mortared clunch blocks
1906	339	Cut	Wall	See Appendix 2
1907	340	Masonry	Wall	Mortared clunch blocks
1908	340	Cut	Wall	See Appendix 2
1909	341	Fill	Wall	Compacted mortary gravel
1910	341	Cut	Wall	See Appendix 2
1911	264	Fill	Pit	Mid brownish grey silty clay
1912	342	Fill	Grave	Light brownish grey clayey silt
1913	342	Cut	Grave	See Appendix 2
1914	106	Other	Grave	Disarticulated human bone
1915	106	Other	Grave	Iron object
1916	343	Fill	Grave	Mid brownish grey sandy silt
1917	343	Fill	Grave	Disarticulated human bone
1918	343	Skeleton	Grave	Skeleton
1919	343	Cut	Grave	See Appendix 2
1920	349	Fill	Pit	Dark greyish brown sandy silt
1921	349	Fill	Pit	Dark orangeish brown sandy silt
1922	349	Fill	Pit	Mid/dark orangeish brown sandy silt

1923	349	Fill	Pit	Mid greyish brown sandy silt
1924	349	Fill	Pit	Very dark greyish brown sandy silt
1925	349	Fill	Pit	Mid/pale orangeish brown sandy silt
1926	349	Fill	Pit	Mid/pale brown silty sand
1927	349	Fill	Pit	Mid/pale orangeish brown sandy silt
1928	349	Fill	Pit	Mid greyish brown sandy silt
1929	350	Fill	Pit	Mid/pale orangeish brown sandy silt
1930	350	Fill	Pit	Mid brownish orange sand
1931	344	Fill	Grave	Mid grey sandy silt
1932	344	Skeleton	Grave	Skeleton
1933	344	Other	Grave	Copper alloy belt buckle
1934	344	Cut	Grave	See Appendix 2
1935	346	Skeleton	Grave	Skeleton
1936	350	Fill	Pit	Dark greyish brown sandy silt
1937	350	Fill	Pit	Mid orangeish brown sandy silt
1938	350	Fill	Pit	Pale brownish orange sandy silt
1939	345	Fill	Oven	Scorched orangeish pink clay
1940	345	Fill	Oven	Mid grey and black ash and charcoal
1941	345	Fill	Oven	Scorched orangeish pink clay
1942	345	Cut	Oven	See Appendix 2
1943	347	Fill	Grave	Mid brownish grey sandy silt
1944	347	Other	Grave	Ivory belt buckle
1945	347	Skeleton	Grave	Skeleton
1946	347	Cut	Grave	See Appendix 2
1947	348	Fill	Grave	Mid brownish grey clayey silt
1948	348	Skeleton	Grave	Skeleton
1949	348	Other	Grave	Iron belt buckle
1950	348	Cut	Grave	See Appendix 2
1951	351	Fill	Wall	Compacted banded mid brownish orange sandy gravel
1952	351	Cut	Wall	See Appendix 2
1953	343	Other	Grave	Iron belt buckle
1954	346	Fill	Grave	Mid/dark greyish brown sandy silt
1955	346	Cut	Grave	See Appendix 2
1956	349	Fill	Pit	Dark orangeish brown sandy silt
1957	349	Fill	Pit	Mid orangeish brown sandy gravel
1958	349	Cut	Pit	See Appendix 2
1959	350	Cut	Pit	See Appendix 2
1960	406	Layer	Soil layer	Dark brownish grey sandy silt
1961	353	Fill	Pit	Light greyish brown sandy silt
1962	353	Fill	Pit	Mid brownish grey sandy silt
1963	353	Cut	Pit	See Appendix 2

1964	352	Fill	Grave	Mid brownish grey silty clay
1965	352	Other	Grave	Disarticulated human bone
1966	352	Other	Grave	Disarticulated human bone
1967	352	Other	Grave	Disarticulated human bone
1968	352	Other	Grave	Disarticulated human bone
1969	352	Cut	Grave	See Appendix 2
1970	352	Other	Grave	Copper alloy belt-buckle
1971	354	Fill	Grave	Dark brownish grey sandy silt
1972	354	Skeleton	Grave	Skeleton
1973	354	Cut	Grave	See Appendix 2
1974	355	Fill	Grave	Dark brownish orange sandy silt
1975	355	Skeleton	Grave	Skeleton
1976	355	Cut	Grave	See Appendix 2
1977	356	Fill	Pit	Mid/dark greyish brown sandy silt
1978	356	Fill	Pit	Mid greyish silt
1979	356	Fill	Pit	Mid/pale silty gritty sand
1980	356	Cut	Pit	See Appendix 2
1981	357	Fill	Pit	Mid brownish orange sandy silt
1982	357	Fill	Pit	Mid greyish brown sandy silt
1983	357	Fill	Pit	Pale orangeish brown silty sand
1984	357	Fill	Pit	Mid/pale greyish brown silty sand
1985	357	Cut	Pit	See Appendix 2
1986	358	Fill	Pit	Dark greyish brown sandy silt
1987	358	Fill	Pit	Mid greyish brown sandy silt
1988	358	Cut	Pit	See Appendix 2
1989	359	Fill	Pit	Dark greyish brown sandy silt
1990	359	Cut	Pit	See Appendix 2
1991	360	Fill	Pit	Mid/pale greyish brown clayey silt
1992	360	Cut	Pit	See Appendix 2
1993	361	Fill	Pit	Mid greyish brown sandy silt
1994	361	Cut	Pit	See Appendix 2
1995	362	Fill	Pit	Mid greyish brown sandy silt
1996	362	Cut	Pit	See Appendix 2
1997	357	Fill	Pit	Mid orangeish greyish brown silty sand
1998	357	Fill	Pit	Mid/dark greyish brown sandy silt
1999	357	Fill	Pit	Pale brownish orange silty sandy gravel
2000	363	Fill	Pit	Mid/dark orangey brown sandy silt
2001	363	Cut	Pit	See Appendix 2
2002	364	Fill	Grave	Mid greyish brown sandy silt
2003	364	Cut	Grave	See Appendix 2
2004	365	Fill	Pit	Light brownish grey sandy silt

2005	365	Fill	Pit	Mid/dark brownish grey sandy silt
2006	365	Cut	Pit	See Appendix 2
2007	366	Fill	Pit	Mid brownish grey sandy silt
2008	366	Cut	Pit	See Appendix 2
2009	367	Fill	Grave	Mid brownish grey sandy silt
2010	367	Other	Grave	Copper alloy belt-buckle
2011	367	Skeleton	Grave	Skeleton
2012	367	Cut	Grave	See Appendix 2
2013	239	Fill	Posthole	Mid/dark brownish grey sandy silt
2014	239	Fill	Posthole	Mid orangeish brown silty sand
2015	239	Cut	Posthole	See Appendix 2
2016	369	Fill	Pit	Mid grey sandy silt
2017	369	Cut	Pit	See Appendix 2
2018	370	Fill	Pit	Mid grey sandy silt
2019	370	Cut	Pit	See Appendix 2
2020	377	Fill	Pit	Mid/pale orangeish brown silty sand
2021	377	Fill	Pit	Pale yellowish orange sandy gravel
2022	377	Fill	Pit	Mid/dark greyish brown sandy silt
2023	377	Cut	Pit	See Appendix 2
2024	371	Fill	Pit	Mid brownish grey clayey silt
2025	371	Fill	Pit	Mid greyish brown clayey silt
2026	371	Fill	Pit	Mid/pale greyish brown clayey silt
2027	371	Fill	Pit	Mid orangeish greyish brown clayey silt
2028	371	Cut	Pit	See Appendix 2
2029	372	Fill	Pit	Pale/mid brownish grey sandy silt
2030	372	Cut	Pit	See Appendix 2
2031	373	Fill	Pit	Light brown sandy silt
2032	373	Fill	Pit	Dark greyish brown sandy silt
2033	373	Fill	Pit	Dark greyish brown sandy silt
2034	373	Fill	Pit	Pale orange sandy gravel
2035	373	Fill	Pit	Dark greyish brown sandy silt
2036	373	Fill	Pit	Mid greenish grey sandy silt
2037	373	Fill	Pit	Pale grey silty sand
2038	373	Cut	Pit	See Appendix 2
2039	374	Fill	Pit	Mid greyish brown sandy silt
2040	374	Cut	Pit	See Appendix 2
2041	375	Fill	Pit	Mid greyish brown sandy silt
2042	375	Cut	Pit	See Appendix 2
2043	376	Fill	Pit	Mid brown silt
2044	376	Fill	Pit	Dark greyish brown silt
2045	376	Cut	Pit	See Appendix 2

2046	N/A	Other	Stray finds	Disturbed human bone
2047	378	Fill	Pit	Mid brownish grey sandy silt
2048	378	Cut	Pit	See Appendix 2
2049	379	Fill	Pit	Light/mid brownish grey sandy silt
2050	379	Cut	Pit	See Appendix 2
2051	380	Fill	Pit	Black sandy silt
2052	380	Cut	Pit	See Appendix 2
2053	381	Fill	Pit	Mid brown silt
2054	381	Cut	Pit	See Appendix 2
2055	349	Fill	Pit	Dark greyish brown sandy silt
2056	382	Fill	Pit	Mid brownish grey sandy silt
2057	382	Cut	Pit	See Appendix 2
2058	381	Fill	Pit	Mid orange sandy silty gravel
2059	383	Fill	Pit	Pale brownish grey sandy silt
2060	383	Cut	Pit	See Appendix 2
2061	288	Other	Pit	Disturbed pottery
2062	383	Fill	Pit	Light greyish brown sandy silt
2063	383	Fill	Pit	Mid brownish grey sandy silt
2064	383	Fill	Pit	Mid/dark orangey brown sandy silt
2065	385	Fill	Wall	Compacted banded mid/dark brown silty sandy gravel
2066	385	Cut	Wall	See Appendix 2
2067	387	Fill	Pit	Mid brownish grey sandy silt
2068	387	Cut	Pit	See Appendix 2
2069	381	Fill	Pit	Dark brown sandy silt
2070	381	Fill	Pit	Black sandy silt
2071	381	Fill	Pit	Mid brownish orange sandy silt
2072	381	Fill	Pit	Mid/dark brown sandy silt
2073	381	Fill	Pit	Mid brownish grey sandy silt
2074	381	Fill	Pit	Mid orange sandy silty gravel
2075	381	Fill	Pit	Mid orange sandy silty gravel
2076	388	Fill	Pit	Mid grey sandy silt
2077	388	Fill	Pit	Dark grey sandy silt
2078	388	Fill	Pit	Light greyish yellow gravel
2079	388	Fill	Pit	Mid brownish grey sandy silt
2080	388	Fill	Pit	Mid orange silty sand
2081	388	Fill	Pit	Mid greyish brown sandy silt
2082	388	Fill	Pit	Dark grey sandy silt
2083	388	Cut	Pit	See Appendix 2
2084	N/A	Other	Stray finds	Disturbed moulded stone
2085	389	Fill	Pit	Mid brown silt
2086	389	Cut	Pit	See Appendix 2

2087	390	Fill	Pit	Mid/dark orangeish brown sandy silt
2088	390	Fill	Pit	Mid/dark orangeish brown sandy silt
2089	390	Fill	Pit	Mid/dark orangeish brown sandy silt
2090	390	Fill	Pit	Mid orangeish brown sandy silt
2091	390	Fill	Pit	Mid/pale orangeish brown sandy silt
2092	390	Fill	Pit	Mid orangeish brown sandy silt
2093	390	Fill	Pit	Dark greyish brown sandy silt
2094	390	Fill	Pit	Mid reddish brown silty sand
2095	390	Fill	Pit	Pale greyish orangeish brown silty sand
2096	390	Fill	Pit	Pale yellowish brown clayey silty
2097	390	Cut	Pit	See Appendix 2
2098	391	Fill	Pit	Mid pale orangey brown sandy silt
2099	391	Fill	Pit	Mid pale orangey brown sandy silt
2100	391	Fill	Pit	Mid pale orangey brown sandy silt
2101	391	Fill	Pit	Mid orangeish brown silty sand
2102	391	Fill	Pit	Mid/pale greyish brown silty sand
2103	391	Fill	Pit	Mid/pale greyish brown silty sand
2104	391	Fill	Pit	Pale yellowish brown silty sand
2105	391	Fill	Pit	Pale yellowish brown silty sand
2106	391	Fill	Pit	Pale orangeish brown silty sand
2107	391	Cut	Pit	See Appendix 2
2108	399	Fill	Pit	Dark brownish grey sandy silt
2109	399	Cut	Pit	See Appendix 2
2110	390	Fill	Pit	Mid orangeish brown sandy silt
2111	390	Fill	Pit	Dark grey/black ashy silt
2112	390	Fill	Pit	Mid orangeish brown sandy silt
2113	390	Fill	Pit	Mid orangeish brown silty sand
2114	390	Fill	Pit	Pale greyish orangeish brown silty sand
2115	390	Fill	Pit	Mid orangeish brown silty sand
2116	390	Fill	Pit	Dark greyish brown sandy silt
2117	400	Fill	Pit	Mid orangeish brown sandy silt
2118	400	Fill	Pit	Dark brownish grey sandy silt
2119	400	Fill	Pit	Mid greyish brown sandy silt
2120	400	Fill	Pit	Dark grey sandy silt
2121	400	Cut	Pit	See Appendix 2
2122	380	Fill	Pit	Mid greyish brown sandy silt
2123	401	Masonry	Wall	Mortared red brick
2124	401	Cut	Wall	See Appendix 2
2125	402	Masonry	Wall	Mortared red brick
2126	402	Cut	Wall	See Appendix 2
2127	403	Masonry	Wall	Mortared red brick

2128	403	Cut	Wall	See Appendix 2
2129	404	Masonry	Wall	Mortared red brick
2130	404	Cut	Wall	See Appendix 2
2131	408	Layer	Soil layer	Mid/dark greyish brown sandy silt
2132	160	Cut	Wall	See Appendix 2
2133	410	Layer	Modern	Mixed rubble deposit

APPENDIX 4: OASIS FORM

OASIS ID: cambridg3-298039	
Project details	
Project name	Former Old Examination Hall, North Range Buildings, New Museums Site, Cambridge
Short description of the project	Archaeological excavations by the Cambridge Archaeological Unit revealed significant evidence relating to three phases of activity: domestic occupation of the site from c. 1050 onwards, the Augustinian friary of c. 1275/89-1538 and activity after the Dissolution in 1538. The pre-friary domestic occupation of c. 1050-1275/89 probably related to one or two properties fronting onto Bene't Street/Wheeler Street. There were two phases of activity associated with the friary. The first phase c. 1275/89-1320/40 was concentrated at the northern end of the site, comprising a small portion of a building, probably the southern side of the church, and a cemetery with 32 burials. The second friary phase c. 1320/40-1538 represents a major phase of building with possibly part of the friary church and three buildings from the eastern range of cloisters identified. The best preserved building can be identified as the chapter house and contained six burials. There are a range of pits and other features linked to the Dissolution and later activity.
Project dates	Start: 07-11-2016 End: 16-02-2017
Previous/future work	Yes / Yes
Any associated project reference codes	NRB16 - Sitecode
Any associated project reference codes	ECB4506 - HER event no.
Type of project	Recording project
Site status	Conservation Area
Current Land use	Industry and Commerce 2 - Offices
Monument type	SETTLEMENT Medieval
Monument type	CLOISTER Medieval
Monument type	INHUMATION CEMETERY Medieval
Monument type	SETTLEMENT Post Medieval

Significant Finds	POTTERY Medieval
Significant Finds	WORKED BONE Medieval
Significant Finds	WORKED IVORY Medieval
Significant Finds	WINDOW GLASS Medieval
Significant Finds	CERAMIC BUILDING MATERIAL Medieval
Significant Finds	METALWORK Medieval
Significant Finds	MOULDED STONE Medieval
Significant Finds	ANIMAL BONE Medieval
Significant Finds	HUMAN BONE Medieval
Investigation type	"Full excavation"
Prompt	Direction from Local Planning Authority - PPS
Project location	
Country	England
Site location	CAMBRIDGESHIRE CAMBRIDGE CAMBRIDGE Former Old Examination Hall, North Range Buildings, New Museums Site
Postcode	CB2 3QB
Study area	589 Square metres
Site coordinates	TL 44942 58301 52.203425345222 0.121254762111 52 12 12 N 000 07 16 E Point
Height OD / Depth	Min: 7.6m Max: 7.7m
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	Craig Cessford
Type of sponsor/funding body	Developer
Name of sponsor/funding	University of Cambridge

body	
Project archives	
Physical Archive recipient	Cambridgeshire County Archaeology Store
Physical Contents	"Environmental","Glass","Human Bones","Leather","Metal","Worked bone","Worked stone/lithics","Animal Bones","Ceramics"
Digital Archive recipient	Cambridgeshire County Archaeology Store
Digital Contents	"Animal Bones","Ceramics","Environmental","Glass","Human Bones","Metal","Stratigraphic","Survey"
Digital Media available	"Database","GIS","Spreadsheets","Survey","Text"
Paper Archive recipient	Cambridgeshire County Archaeology Store
Paper Contents	"Animal Bones","Ceramics","Environmental","Glass","Human Bones","Leather","Metal","Stratigraphic","Textiles","Wood","Worked bone","Worked stone/lithics"
Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	Former Old Examination Hall, North Range Buildings, New Museums Site, Cambridge: an archaeological excavation
Author(s)/Editor(s)	Cessford, C.
Other bibliographic details	Cambridge Archaeological Unit Report 1377
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