The Old Bishop's Palace, Ely, Cambridgeshire

Archaeological monitoring and recording



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Non-Technical Summary

On the 2nd of December 2010 and between the of 1st November 2011 and the 30th of April 2012 a programme of archaeological monitoring and recording was carried out at the Old Bishop's Palace, Ely, a Grade I listed building. The program was focused on monitoring below ground excavations during renovation work however the opportunity was also taken to record features revealed within the standing building. Much of the work did not impact significantly upon below ground archaeological deposits but medieval/early post-medieval walls and rubbish pits were discovered in Courtyard 1.

Introduction

On the 2nd of December 2010 and between the of1st November 2011 and the 30th of April 2012 a programme of archaeological monitoring and recording was carried out at the Old Bishop's Palace in Ely (TL5395 8022). This work was undertaken by Cambridge Archaeological Unit on behalf of The King's School as a condition on Planning Consent (Planning Ref: 11/00512/FUL). The building is Grade 1 listed and the monitoring consisted mainly of observation and recording during ground works.

Location, Topography, and Geology

The Old Bishop's Palace stands close to Ely Cathedral on the southern side of Palace Green see Figure 1. The modern property boundary is a Grade II listed wall that encloses the Old Bishop's Palace, modern attached buildings and a garden. The underlying geology is localised patches of glacial till (boulder clay) on top of Lower Greensand.

Archaeological Background

The archaeology and history of Ely has been extensively written about (Jones 1994, Robinson 1994, Robinson 1993, Mills Whipp 1997). For a summary of recent archaeological discoveries see Cessford and Dickens 2007.

On the Isle of Ely Prehistoric and Roman activity did occur although it is the Saxon, medieval and post medieval evidence that dominate the archaeological record, particularly in the area surrounding the Old Bishop's Palace (Standring and Dickens 2008). This consists primarily of the buildings of the monastic and cathedral complex. A religious house was founded in Ely in 673AD but the present church and buildings were begun under Simeon the first Norman Abbott. The Bishop's Palace was built to the west of the monastic complex across a roadway but connected by a covered bridge. The earliest components of the extant building were built under Bishop Alcock (1486-1500), although earlier building remains have been discovered (Alexander 1997). It has been suggested that these may be the remnants of an earlier Abbots house. Bishop Goodrich (1534-1554) remodelled the building removing much of Alcock's work and adding the long gallery and kitchens beneath and in the C17th it was extended again by Bishop Laney (1667-1675) (Atkinson 1953).

Surrounding the Old Bishop's Palace is a wall that may include medieval elements. It is Grade II listed and is comprised largely of C17th fabric. Previous archaeological discoveries within and close to the Palace grounds include a cemetery to the north (Regan and Alexander 1995), and various substantial foundations for pre existing and contemporary buildings (Alexander 1994, Alexander 1997, Whittaker 1999).

Methodology

Archaeological Monitoring and recording was carried out in accordance with the IfA Codes of Conduct (IfA 2009) and Standard and Guidance for Archaeological Watching Briefs and Excavations (Gurney 2003). It was completed according to the written scheme of investigation (Dickens 2011) during the renovation of the Palace.

All intrusions below the modern day ground level were monitored and any archaeology recorded; this was in five main areas: courtyard 1, courtyard 2, courtyard 3, the garden and the interior of the Old Bishop's Palace (figure 2). The latter three areas were monitored during the excavation of a data cable trench. The specific approaches for each area are discussed in the results however all archaeological features observed were excavated and recorded using standard CAU recording sheets. This uses an amended version of the Museum of London Recording System (Spence 1994). Context numbers are indicated within the text by square brackets (*e.g.* [1000]), and features by the prefix F. (*e.g.* F.01). The photographic archive consists of a series of digital images. All work was carried out with strict adherence to Health and Safety legislation, and within the recommendations of FAME (Allen & Holt 2010). The site code for this project is PAL11, and the CHER event number is ECB3851.

Results (refer to Figure 2)

The results of the archaeological monitoring have been sub-divided by area (see Figure 2), and are presented below in five separate sections (I-V).

I) Courtyard 1

This area lay central within the main modern palace complex, and measured $195.29m^2$ in extent. Several events were monitored within this area: Firstly a levelling strip was carried out. This did not strip the whole of the courtyard uniformly and therefore only partially revealed the deposits towards the central and eastern side of the courtyard. There was a high level of modern truncation from numerous services. Excluding these, the most recent event within the courtyard was a spread of garden soil **[1000]**, full of rubble across a large area (16.5m x 8m). This contained two sherds of English Utilitarian Stoneware which dates from the 19^{th} century and a fragment of human skull. The human remains are residual and may have been originally buried in a near by cemetery. The most likely candidate is that discovered in front of the Palace in 1995 (Regan and Alexander 1995).

This spread [1000] may have continued across the whole of the courtyard but was not exposed. Underneath [1000]) a small area of brick floor -F.17, which measured 1.75m x 110m in size - remained in situ. This was comprised of handmade, unfrogged, yellowy- brown bricks laid in a herringbone pattern [1001]. They were 230mm x 110m x 50mm and were laid directly on top of a compacted construction surface [1002]. This floor was heavily truncated by later drains but may also have been deliberately removed in places. Within the compacted surface were two voids exposing layers that predated the floor [1003] and [1004]). These were similar in composition to [1005], a layer of garden soil. Each void contained a sherd of German Stoneware dating the layer to the $16^{th}/17^{th}$ Century at the earliest.

In the eastern half of the courtyard only a small window into the archaeological sequence was available through a foundation trench, (Figures 3 and 4). This, although limited in size and truncated by modern foundations and services, revealed several medieval and post medieval features which included two walls (F.01 & F.02) and one grubbed out wall (F.06), at least one cut rubbish pit (F.08) as well as layers of make-

up material. The layers and rubbish pits contained typical domestic waste probably dating from the 15^{th} century to $16^{\text{th}}/17^{\text{th}}$ centuries. The construction of the walls was probably earlier, although they cannot be dated more accurately. They appear to respect the alignment of the Bishop's Palace kitchens and are of a reasonable size but the small area exposed limits their full interpretation.

Wall F.01.

Im of this wall was still standing on a rough east west alignment, albeit below a modern levelling layer. The full extent could not be established but at least 0.5m was visible. It was truncated to the western end and extended out of the excavation to the east. It had a rubble core with brick facing and a lower layer of reused worked stone. These were held together by a pale sandy mortar. There was a construction cut visible [1025], which was filled with [1024], a mixed brown sandy silt with occasional gravel but no finds.

Wall F.02.

Butting up against **F.01** this feature ran on a rough north-south alignment, although not exactly perpendicular to F1. This was a much 'rougher' wall; it was built with rough shaped stone and contained no brick. The mortar was of a similar form to **F.01**, although slightly more orange in colour. Both walls predate **F.07** and **F.08**, which gives them a *terminus post quem* of 16-17th century.

Robbed Wall F.06

This appears to be a grubbed out wall which has been backfilled with small bits of broken brick. It is 0.6m deep and 0.33m wide. It is possible that this wall was a continuation of F.01 but, due to the restrictions of the excavation and modern truncation, the continuation is unclear. No artefacts were encountered to provide a date from the removal of the wall.

Layer F.07

The full extent of this feature is unknown but 2.10m length, 0.80m width and 0.54m depth were excavated. It contained gray clayey silt with frequent charcoal, brick and pot and oyster shell and animal bone inclusions. The ten pot fragments range in date from the 10^{th} to the 15^{th} century. Considering the location of these deposits residual fragments are not unexpected and the feature probably dates from the 15^{th} century or later. The animal bone is typical of kitchen waste. **F.07** stratigraphically abutted walls **F.01**, **F.02** and **F.06**, and is therefore like to be of a later date.

Rubbish pit **F.08**.

The full extent of this feature is unknown but 0.55 length, 0.5m width and 0.8m depth were excavated. It was filled with **[1022]**, a mid-brownish gray clayey silt with frequent gravel inclusions and contained oyster shells, animal bone, brick and pottery. The pottery probably dates the deposit to the $16^{th}/17^{th}$ century and, alongside the animal bone, is indicative of a kitchen rubbish pit. The large quantities of brick fragments however suggest that it was also used for the deposition of more general waste. A human bone rib fragment which was probably derived from one of the nearby cemeteries (*cf.* Regan & Alexander 1995). **F.08** stratigraphically postdates walls **F.01**, **F.02** and **F.06**.

Layer [1015].

This layer covered a large area of the trench and must have been deposited after the construction of the walls. It consisted of dark gray clayey silt containing frequent brick, pot, bone and charcoal inclusions. The three sherds of pottery found within it have been identified as coarsewares dating from the 13^{th} -, due to the relationship with other features this must also at the earliest be 15^{th} century.

The features and artefacts found in Courtyard 1 are evidence of typical domestic activities that date from the 15th century onwards. Speed's map of 1610 appears to show an empty yard behind the frontage of the Bishop's Palace, by 1846 Steward shows that the building has been extended considerably however there is still an open

courtyard in a similar location to Courtyard 1. That there has always been an open area behind the kitchens is not unusual and that it contains layers that are full of domestic rubbish is also typical although during the post medieval period the majority of waste was removed from town centres for disposal elsewhere. The limits of the excavation prevent further understanding as to whether rubbish pit **F.08** is characteristic of the whole courtyard.

The presence of walls **F.01**, **F.02** and **F.06** demonstrates that there have been preexisting buildings in the courtyard. That these relate to the Old Bishops Palace itself, as opposed to predating it, is certain, although their exact function and date cannot be determined. They appear most likely to have been associated with either the first (late 15^{th} century) or second (mid 16^{th} century) phase of the palace's development.

II) Courtyard 2

This area lay towards the western area of the main palace complex, and measured 128.23m³ in extent. It was surrounded by modern buildings.

Here the majority of the area was dug as part of the redevelopment. Some of the excavations reached a depth of 2m but none reached the underlying geology or showed any evidence of archaeological layers. The same uniform soil was present throughout; a dark brown sandy silt that was reminiscent of top soil. There is visible evidence for the levelling of this courtyard when looked at in comparison to the immediate area outside; this garden soil like layer may be a result of that. This layer therefore appears likely to be the result of deliberate ground-raising activity. As no material culture was recovered, the date of this event is unclear.

III) Courtyard 3 (Jonathon Tabor)

Here the work comprised the excavation of a 0.4m by 0.4m by 1.1m deep hole to the north of the main entrance to Old Bishops Palace. Following the removal of the tarmac/hardcore and a thin layer of rubble mixed with garden soil, the remains of a brick wall (F.18) were encountered extending beyond the excavation area to the south, east and west. So as not to impact on this feature the site of the Christmas tree was moved c.0.5m to the north.

Excavation at this slightly modified location revealed a sequence of make-up or levelling layers deposited against the northern face of brick wall F.18, which were recorded to a depth of 1.1m below the ground surface. Three separate layers were recorded, each a mixture of garden soil and rubble comprising fragments of hand-made bricks, stone and lumps of mortar. A range of finds including a fragment of medieval window glass, 13th-16th century tile, 15th-17th century brick and fragments of cow and sheep/goat bone were recovered from these deposits.

The brick wall, the north face of which was exposed within the excavation area, was constructed of hand-made brick - probably dating broadly to the 15th-17th century - bonded by a sandy mortar. Seven courses of brick survived, situated on a wall footing constructed of rubble and mortar.

The brick wall (F.18), which may well be contemporary to the upstanding phase of the Old Bishops Palace, constructed in the 15^{th} and 16^{th} centuries, remained

unaffected by the ground works and was preserved *in situ*. The brick wall – although it may easily represent a pier base or other brick-built feature – is difficult to interpret given the extremely limited area exposed. Atkinson's plan of Ely Priory (1933) does, however, show two walls which are no longer extant extending east-south-east to west-north-west in the area of the excavation. The plan indicates that what is now a three sided courtyard at the entrance to the Old Bishops Palace was once a completely enclosed courtyard and the wall exposed in the current excavation may well relate to a no longer extant northern courtyard wall.

IV) The Garden

This area lay to the south of main palace complex, and measured $454.55m^2$ in extent. A trench 333.43m long, for a new data cable, power cables, drainage and electric lighting was dug outside of the buildings but within the garden boundary. The trench was dug from a gate in the southwest corner of the garden, across the lawn and through the undergrowth to enter the building (Figure 2). Where the trench passed under the gateway and out of the property boundary it was possible to view the foundations of the wall.

In the western lawn area the trench width was 0.4m and the depth never exceeded 0.4m. As a result, this was never sufficient to reach below the level of the subsoil. Two features were encountered in the subsoil itself (**F.13** and **F.14**), but were most probably related to a modern gardening/landscaping activity.

Pit F.13

This had a distinctive cut on its southern edge where it truncated a subsoil. On the northern edge it appeared to define the edge of another layer, with a shallow pit underneath. The fill of the pit was mid-pale gray blue slightly silty clay with occasional charcoal and stone inclusions. No artefacts were present, therefore the date is unknown. It was 1.05 cm wide although this may have been an oblique measurement,

Pit **F.14**

This feature had clearly defined straight edges and was full of loose rubble and bricks. These had no uniformity or structure to them and there was a large amount of humic garden soil between them. The feature was 0.45 m wide and contained one pottery shard of Lead Glazed earthenware that dates from the 17th-18th century. This could easily be residual. The presence of free draining hardcore suggests that this feature may have functioned as a planting bed wide, although it could also be an landscaping feature.

As the data cable trench neared the building a slope was encountered. This marks either an area that has been built up, creating a flat surface on which the Bishop's Palace is built, or alternatively a terracing to create a flatter area for the rear gardens. This general layer was similar to **[1063]** and varied a little along the trench from a dark yellowish brown sandy silt with common bricks, gravel, charcoal, occasional tobacco pipe and pot, to a much more gray sandy silt. There were also dumps of brick and tile within these layers.

In the corner of the raised area, which was supported by a brick wall, a large amount of rubble was uncovered that had most probably been deposited during the 19th century. Amongst the numerous brick, flagstones and tile fragments was additional refuse including tobacco pipes and ceramics. Also present was a large piece of moulded limestone, which comprised the central boss section of a heavily damaged quadripartite vault. The scale of this piece meant that it could not be safely recovered

and it was re-buried in the trench. In addition, further pieces of masonry were identified scattered throughout the garden of the Old Bishops Palace (Figure 5), where they were often used as garden furniture (*i.e.* to line pathways). It is assumed that these have come from some of the many of the buildings in the centre of Ely that were related to the cathedral and the Kings School and have since been demolished. Amongst this group, it is possible that the millions/transoms may have originated from the original the Bishop's Palace, although their unstratified context makes this assumption tentative (see further the moulded stone assessment report).

Towards the main building a set of concrete steps was found (Figure 6). These were moulded and built on top of a brick foundation, which in turn was built against madeup ground of probable late 19th to 20th century date. They are probably a twentieth century garden feature providing access up to the main building from the garden. No artefacts were found associated with them. They were subsequently covered over with made-up ground and a tarmac path. This may have happened as late at the 1990s and been a result of the Sue Ryder Foundation making the Bishop's Palace more suitable for disabled access.

V) Internal Works

Within the building only intrusions below modern contexts were recorded.

To either side of the main door into the garden two small pits were dug in order to support the staircase. They were both 0.60m x 0.60m square and 0.5 and 06m deep. They revealed the construction layers for the building although were not very informative. In both pits layers of sand and silts were revealed as well as degraded bricks. The natural geology was not reached but this was not unexpected considering the level of made up ground visible outside of the building.

Inside one of the rooms in the kitchen complex (G31) the exterior wall and floor were dug through to enable drainage. An area 1.2 x 0.85m was observed. This demonstrated that the wall was solid brick and reached a depth of 0.4m below modern floor level. Outside of the building the small trench was cut straight into another modern service trench thereby eliminating any further chance of archaeological discovery. The depths the wall appeared to were shallow considering the height of the wall. It is suspected that foundations were present underneath however not visible in the limited excavation area.

Material Culture

A small assemblage of material culture was recovered during the investigations at the Bishop's Palace site. This group – which includes pottery, clay tobacco pipe, glass, moulded stone, worked stone and ceramic building materials – has been subdivided by material type and is discussed in detail below.

Pottery (Richard Newman)

A small pottery assemblage – consisting of 28 sherds, weighing 958g – was recovered. Within this group, material representing four separate periods was identified (Table 1).

Period	Fabric	Count	Weight (g)	MSW (g)
	St Neots-type Ware	2	24	12
Saxo-Norman	Thetford-type Ware	1	31	31
	Stamford Ware	1	36	36
	Medieval Ely Ware	8	121	15
Medieval	Coarsewares	7	157	22.5
	Glazed Red Earthenware	3	45	15
Post-Medieval	German Stoneware	2	18	9
	Broad Street Fineware	1	5	5
	English Utilitarian Stoneware	2	515	257.5
Modern	Lead-Glazed Earthenware	1	6	6
		28	958	34.2

Table 1: Pottery assemblage by fabric.

In the first instance, four sherds of Saxo-Norman pottery, weighing 91g, were present. All of these sherds were heavily abraded, however, and occurred residually within later features. The fabrics present - which included St Neots-type Ware, Thetford-type Ware and Stamford Ware - are representative of the dominant triumvirate of wares that were in use in the region during the 10th to 12th centuries. Amongst these fragments, the Thetford-type ware in particular appeared to be relatively early in date. It shared many characteristics with Late Saxon Ipswich Ware, an assemblage of which has previously been recovered nearby at the Lady Chapel of Ely cathedral (see Cessford and Dickens 2007). Nevertheless, the most common fabric types at the site were medieval in date. Medieval Ely ware (8 sherds, weighing 121g) is known to have been produced locally between the 12th-15th centuries (see Spoerry 2008). Similarly, the medieval coarsewares – which included both grey and pink fabrics (4 sherds, weighing 73g) - may also have been produced locally. Post-medieval fabrics were represented by Glazed Red Earthenware (3 sherds, weighing 45g) and Broad Street Fineware (1 sherd, weighing 5g), both of which are also known to have been produced locally during the 16th and 17th centuries (see Cessford et al. 2006). In addition, two sherds of German Stoneware (weighing 18g) that were imported from Frechen during the 16^{th} or 17^{th} century were also identified. Finally, a small quantity of modern $18^{\text{th}}/19^{\text{th}}$ century material was also encountered (3 sherds, weighing 521g). Thus, although small, the composition of this assemblage is relatively typical of those that have previously been recovered from other nearby sites (e.g. Hall 2001). None of the material is of particular significance.

Glass (Richard Newman)

A small glass assemblage was recovered, which consisted of nine shards weighing 134g. This group was almost entirely comprised of undiagnostic window glass. The exception to this pattern was a group of three fragments from layer **[1005]**. Here, two body shards and a neck fragment from a green glass wine or utility bottle were recovered. These were 18th or more probably 19th century in date.

Clay Tobacco Pipe (Craig Cessford & Richard Newman)

A single clay tobacco pipe bowl, along with three stem fragments, was recovered. In general, the presence of clay tobacco pipe fragments in a context indicates a date between late 16^{th} to early 20^{th} centuries (*c*. 1580-1910). Only bowls can be more closely dated on typological grounds (Oswald 1975). In this instance, however, the bowl – which was recovered from layer **[1004]** – was partially complete and could therefore only be broadly dated to *c*. 1700+. Nevertheless, it bore two initials on its heel/spur; these were 'SR' in mirror-image, indicating that they should mostly probably be read as 'RS'. This suggests that the pipe is likely to have been manufactured by a member of the Sibley family, several generations of whom are known to have been based in Ely. Robert Sibley I was active from 1733-1774, Robert Sibley II was active from 1829-1839, and Robert Sibley III was active in 1839.

Moulded Stone (Richard Newman)

Four fragments of moulded stone were recovered from stratified contexts in Courtyard 1. Two of these consisted of simple ashlared oolitic limestone blocks (both of which were recovered from wall **[1018]**, **F.1**). Although the blocks were both fragmentary and incomplete, one bore an incised mason's mark in the form of a stylised arrow (composed of a central vertical incision that is bisected by two inverted V's). A smaller, 'brick-sized' fragment of roughly squared micaceous sandstone was also present in wall **[1045]**, **F.14**. This was heavily coated in rough lime mortar. Finally, a fragment of window tracery was recovered from **[1003]**. This was composed of moulded clunch, although it was too heavily truncated to determine the precise number and form of the foils that were originally present. As a result, and in common with the previous fragments, it cannot be closely dated.

In addition to the above, a large assemblage of redeposited moulded stone was encountered within the palace garden during monitoring of the data cable trench. This group comprised a minimum of 26 fragments (see Figure 6), and a significant proportion of this assemblage was associated with fenestration. In the first instance, a minimum of eleven mullion/transom fragments were present. These were of uniform design, with simple cavetto mouldings. They each contained recessed grooves within their reveals, along with sockets for glazing bars, indicating that glazed panels comprised an integral part of their original design (Figure 6A). Also present were two arched fragments that were derived from uncusped lancet windows (Figure 6B). These are of simple Perpendicular form and were probably associated with an overhanging hood mould, thus suggesting that they were derived from a building, which was constructed between c. 1380-1520. In addition, a minimum of three column shaft fragments were present. Two of these were circular in form, and the third was hexagonal. Four door jambs from separate doors were also identified. These were again all relatively simple in form. The most diagnostic (Figure 6C) had a substantial plain roll moulding flanked by a simple plain chamfer. It is medieval in date. Finally, perhaps the most significant fragment in the group comprised the central cross-section of a quadripartite vault (Figure 6D). This had been extensively damaged, and its central boss had been removed. Nevertheless, it remained recognisable and an incised cross design was also apparent upon one of its ribs. This mark was most probably used to determine the prearranged location of the piece during the initial construction of the vault. It is again medieval in date.

Although containing a number of individually important fragments, the original provenance of this assemblage is unclear. On the one hand, much of the fenestral material could potentially have been derived from Alcock's original build of the Bishop's Palace in 1486-1500. The majority of this phase of the building was demolished in 1667 (see Atkinson 1953, 82), although the surviving east tower retains highly comparable two-light stone dressed mullioned windows with arched lights and rectangular hood moulds (Listed Building Entry 1296856). However, the site is also located in close proximity to Ely Cathedral, where a significant number of high-status medieval buildings are known to have been demolished following the dissolution of the monastery in the 1548. Furthermore, the group as a whole appears likely to be composed of material derived from a combination of buildings of differing high and late medieval dates. Given its shallowness, it also appears to have been deposited within the relatively recent past, and could therefore represent a long-term accumulation of material from a variety of sources. As such, therefore, its further potential is limited (see further Morris 2003). The material was not removed, but retained on site.

Worked Stone (Richard Newman)

A single worked stone fragment was recovered from [1065] in F.17. This consisted of a finegrained bluish grey vesicular quernstone fragment that is identifiable as Niedermendig Mülstein lava (also known as Rhenish or Mayen lava) from the Eifel region in Germany (Kars 1983). The fragment – which weighs 159g, and had an original diameter of c. 180mm – comprised part of a rotary hand quern. Due to the degree of later abrasion/truncation, it is not clear whether this piece was derived from an upper or lower stone. Although querns such as this were frequently used during the Roman period, and are common finds on Middle and Late Saxon sites, they are much rarer in the medieval period as their use was controlled following the Norman Conquest, when many people were instead compelled to use centrally regulated mills (Watts 2002, 38-42). Therefore, although it occurred residually in a later context, this example is likely to be pre-12th century in origin.

Ceramic Building Materials (Richard Newman)

A total of 19 fragments of ceramic building materials, weighing 18259g, were retained from the Bishop's Palace site. This included 13 brick fragments, weighing 17554g, and 6 fragments of tile, weighing 705g. The latter consisted of pieces of undiagnostic peg-tile, of late medieval and postmedieval date, which were most probably of local manufacture. Similarly, the majority of the brick samples are also likely to have been produced at one of the known manufacturing sites in Ely (see further Lucas 1993). Notably, due to the highly reusable nature of these materials, individual bricks cannot necessarily be relied upon to provide an accurate date for the structure of which they comprised a constituent part. This is most especially the case with partial brick fragments. The most significant items within the brick assemblage comprised:

[1018], F.01, <043>: a complete handmade sand moulded brick, with a dark reddish purple fabric. It has straw impressions on the base, relatively sharp arrises and impressed fingertip impressions on the upper surface. It measures 230mm by 106mm and 67mm thick, and weighs 2520g. It is c. 14th century or later in date.

[1045], F.14, <056>: a partially complete slop moulded brick, with a poorly levigated mid pinkish red fabric. It has relatively rounded arrises and impressed fingertip and thumb impressions on its upper and lower surfaces. It measures 180mm+ by 115mm and 42mm thick, and weighs 1136g. It is *c*. 16^{th} century or later in date.

[1046], **F.15**, **<058**>: a partially complete slop moulded brick, with a mid reddish orange fabric. It has relatively sharp and regular arrises. It measures 1080mm+ by 100mm+ and 55mm thick, and weighs 822g. It is *c*. 16th century or later in date.

[1001], F.17, <027>: a complete slop moulded brick, with a mixed pinkish yellow fabric. It has sharp and regular arrises. It measures 226mm by 108mm and 54mm thick, and weighs 1938g. It is c. 18^{th} century or later in date.

[1068], **<063>**: two partially complete slop moulded bricks. The first has a mid reddish orange fabric, with occasional straw impressions and relatively sharp arrises. The second has a dark purplish red fabric, with occasional black ironstone inclusions and relatively sharp arrises. The former brick measures 140mm+ by 124mm and 50mm thick, and weighs1508g. The latter measures 158mm+ by 124mm and 50mm thick, and weighs 2080g. They are both *c*. 16th century or later in date.

Faunal and Human Remains

In addition to the material culture discussed above, a small assemblage of faunal and human remains was also recovered.

Faunal and Human Remains (Vida Rajkovača)

Excavations at the Bishops Palace, Ely, resulted in the recovery of a small faunal assemblage totalling 50 assessable fragments and weighing 607g. Preservation was overall quite good with minimal surface exfoliation and weathering. Despite the good level of preservation, however, the material was highly fragmented with only a small percentage (34%; Table 2) being assigned to species level. The standard range of domesticates is present, although pig is absent from the assemblage. For the purpose of the assessment, birds were broadly assigned to family. Only one fragment was recorded as gnawed and eroded. Butchery was common, observed on 13 specimens or 26% of the material. All of the ribs recorded from the assemblage, be it sheep or cattle sized, showed signs of being chopped to pot sizes. Large elements were either split axially or chopped mid-shaft for marrow extraction. A few fine knife marks indicative of filleting or meat removal were also noted.

A complete cow metacarpus recovered from rubbish pit **F.08** gave the shoulder height estimation of some 116cm. The same specimen exhibited lesions on the proximal surface consistent with the condition usually referred to as osteochondritis dissecans. These lesions result from the herniation of small portions of joint cartilage through the articular surface of the bone. It is thought that these result from sudden physical stress or trauma to the joint (Dobney *et al.* 1996, 38). Based on the range of domestic species, especially poultry and a high percentage of butchery marks, the material clearly represents typical food waste.

In addition to the faunal remains, two fragments of human skeletal remains were also recorded from the assemblage (weight 37g). A fragment of an adult skull (from layer [1000]) and an adult right rib (from fill [1022] in pit F.08) were positively identified (Natasha Dodwell *pers. comm.*).

Taxon	NISP	%NISP	MNI
Cow	5	29.4	1
Sheep/goat	3	17.6	1
Chicken	6	35.3	1
?Duck	2	11.8	1
?Ow1	1	5.9	1
Sub-total to species/ family	17	100	•
Cattle-sized	7		
Sheep-sized	18		
Rodent-sized	1		
Bird n.f.i.	7		
Total	50		•

Table 2: Number of Identified Specimens and Minimum Number of Individuals for all species

 from all contexts; the abbreviation n.f.i. denotes that the specimen could not be further identified.

Discussion

A great deal of research has been carried out on medieval episcopal residences, including archaeological research (see especially Thompson 1998, Keevil 2000) but it is recognised that there are still gaps within our knowledge. To amend this Keevil (2000 159-62) has defined research objectives but the limited scope of this program of works does little to address any of these.

Only a fraction of Alcock's Palace remains standing and is incorporated into the current standing building. When looking for comparisons attention should be paid to Jesus College, Cambridge. Alcock was also responsible for the conversion of the former Benedictine Nunnery of St Radegund into Jesus College where similar building techniques were employed. Here excavations have also uncovered a number of pits containing 16th century refuse (Newman & Webb 2011). These are comparable to **F.08**, however little more can be said due to the limited context and quantities of both features and material culture excavated at the Old Bishop's Palace.

The many different types of features and material culture discovered at the Old Bishop's Palace all represent the continued use of the Bishop's Palace through its changing owners. They are not spectacular in themselves but this is typical for high status buildings (Kevil 2000) and does not diminish their importance, however their context does.

Conclusion

Much of the renovation work at the Old Bishop's Palace did not impact significantly on the below ground archaeological deposits. Nevertheless the discovery of late medieval/early post-medieval walls and rubbish pits within Courtyard 1, along with a small quantity of *ex situ* human remains tantalisingly demonstrate that this area has potential to reveal more archaeological information about the history of the Old Bishops Palace and perhaps that of Ely. The limited scale of the present monitoring programme, and the small windows created by the redevelopment, preclude a more detailed understanding of the developmental sequence of the site at this time.

Acknowledgments

The project was commissioned by GSS Architecture on behalf of the King's School, and was monitored by Cambridgeshire County Council's Historic Environment Team. It was managed for the CAU by Alison Dickens. The project was directed by Hayley Roberts and was undertaken with the assistance of Matthew Wood Additional recording was also undertaken by Alison Dickens, Adam Slater, Marcus Brittain and Jonathon Tabor. Justin Wiles managed the finds processing, whilst specialists who considered material from the site included Craig Cessford (clay tobacco pipe), Richard Newman (pottery, glass, moulded stone, worked stone and ceramic building materials) and Vida Rajkovača (animal bone). The report graphics were produced by Donald Horne and Jane Matthews.

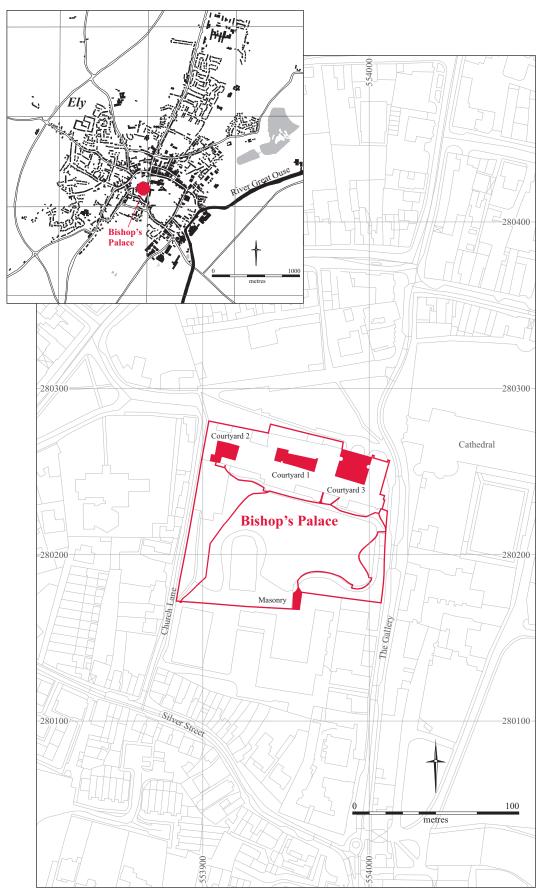


Figure 1. Location map

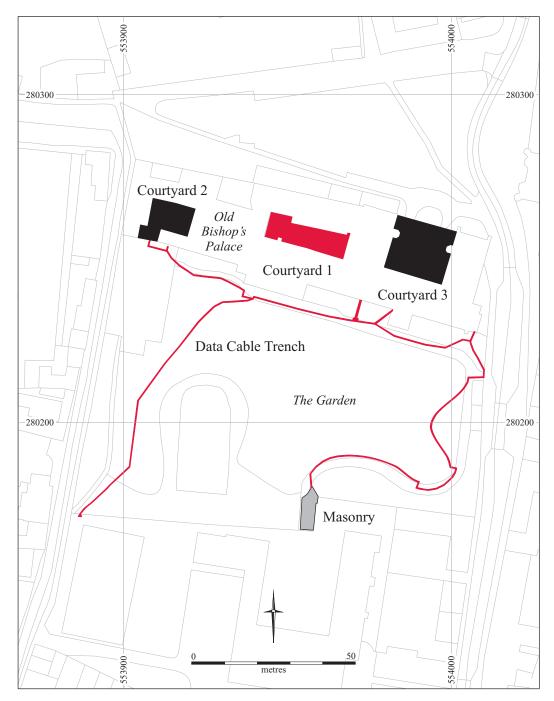


Figure 2. Areas of work

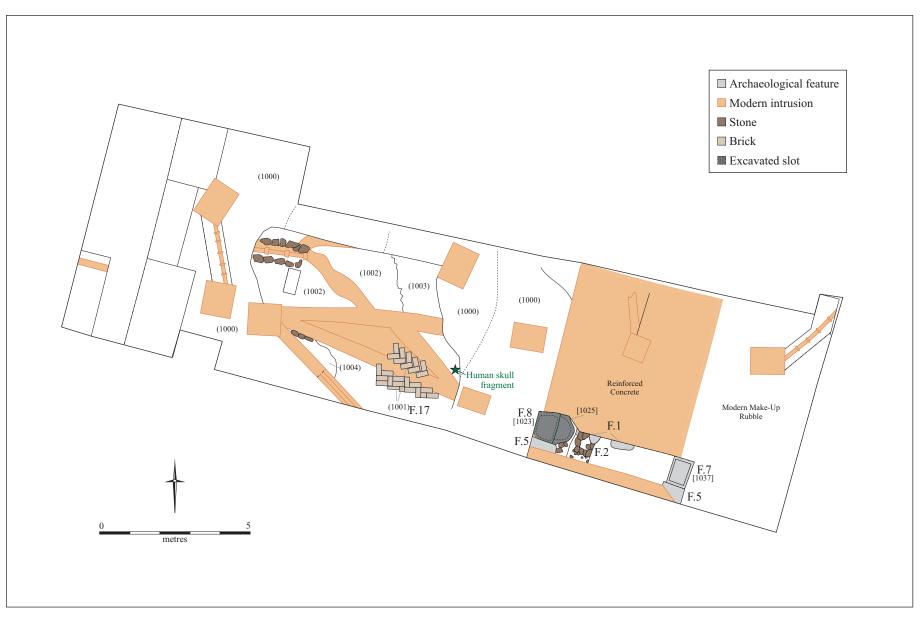


Figure 3. Plan of Courtyard 1



Figure 4. Excavation of Courtyard 1



Figure 5. Masonry found in the Old Bishop's Palace gardens





Figure 6. Concrete steps found in the Old Bishop's Palace

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Appendix 1 Building Detail Photographic Record Alison Dickens MIFA

During the works on the Old Bishop's Palace a request was made by English Heritage that record photographs were made of selected details within the building that were either to be removed or covered up by the intended works. This was carried out on the 13th of December 2011 and 19th of January 2012, and amounted to six locations, five on the first floor of the main Palace building and one in the ground floor kitchen area of the adjoining structure. A brief description follows:

Figure 8: Doorway in ground floor kitchen area

The wooden panelling lining this doorway was to be removed as part of the works. Lighting conditions were challenging, but all visible faces were photographed.

Figure 10: Plaster Cornice

A short length of moulded plaster cornice was exposed in the corner of room 4103. It had been cut off at both ends and "nibbled" along the top and bottom edges. Given the height it was not possible to carry close examination, but it is presumed that the section was *in situ*, relating to a Georgian or later decorative scheme in this part of the Place.

Figure 11: Wall plaster

Also within room 4103 a narrow strip of wall plaster was exposed. Subsequent works had impacted upon this significantly. The plaster appeared to have been applied directly on to the underlying brickwork.

Figure 12: Wallpaper

Removal of a heating duct exposed a remnant of wallpaper, again in room 4103. The most recent pattern was red leaves and foliage on a brown and cream ground, however there were slight traces of an earlier scheme beneath. Both are considered to be Twentieth century in date.

Figure 13: Reeded Ceilings

Two areas of reed ceiling were exposed by the removal of floorboards. The better preserved of these was in room 4122 where a coherent pattern to the reeding was still visible. The smaller example surviving in room 4123, however, had also suffered the greater damage.

Discussion

The opportunity afforded by the refurbishment has demonstrated that there are internal structural and decorative features of different periods surviving within the Old Bishop's Palace. Although of differing states of preservation they serve as a reminder of the long history of the Palace and its buildings.

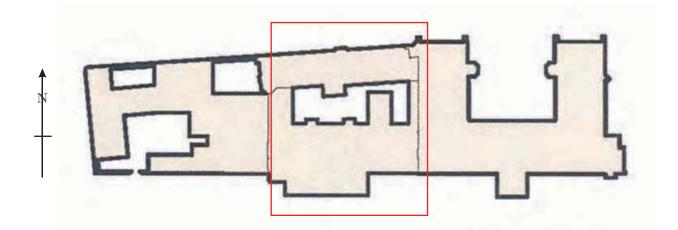




Figure 7. Photograph Locations Ground Floor (8.1-8.5)





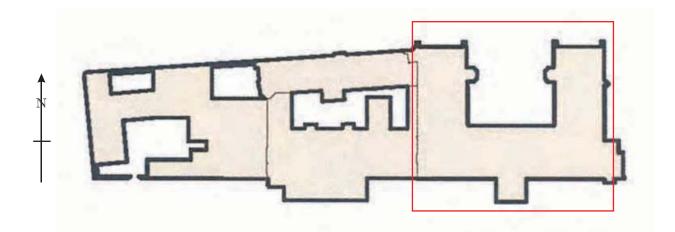












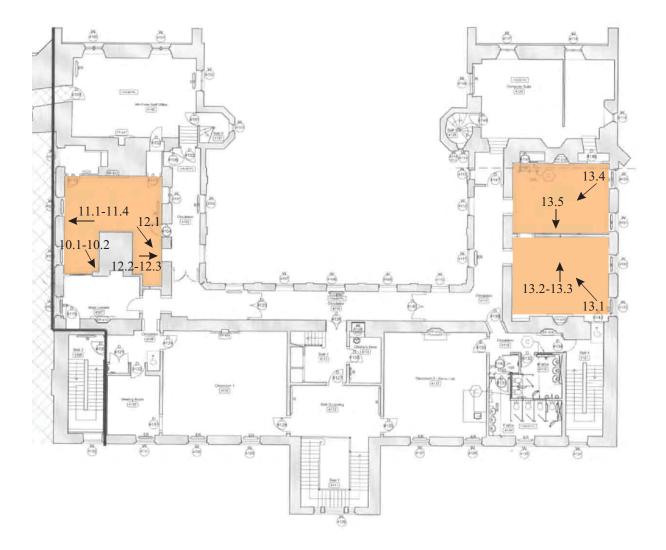


Figure 9. Photograph Locations First Floor (10.1-13.3)





10.2

Figure 10. Location and detail of ceiling cornice



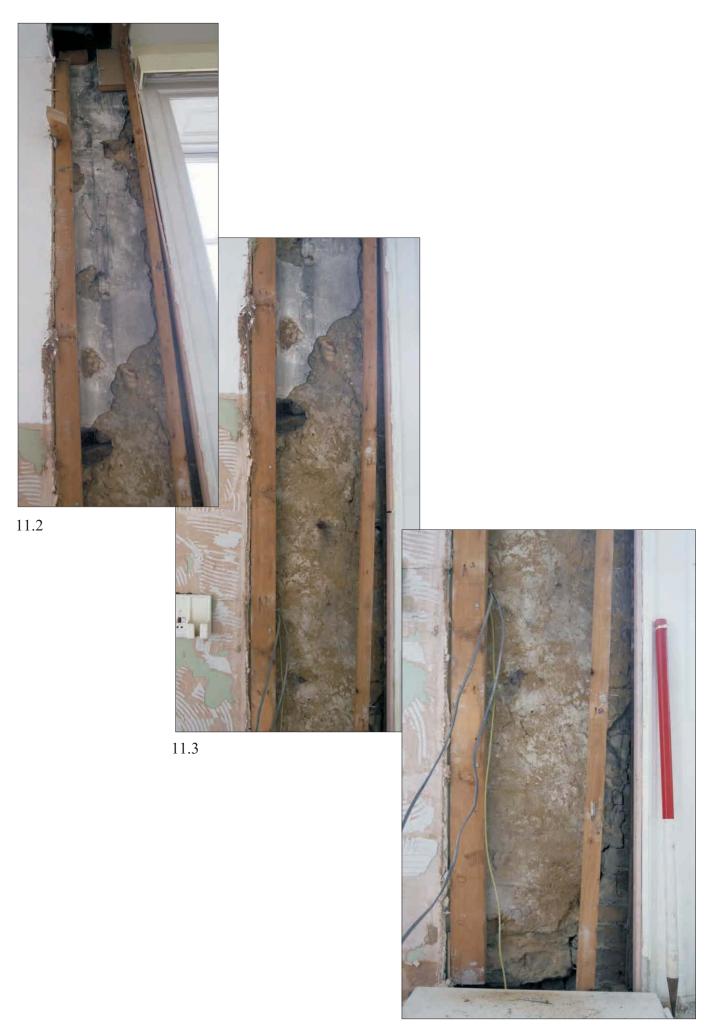










Figure 12. Wallpaper Details





13.2



Figure 13. Reeded Ceiling 1 Location and Details





13.5

Figure 13. Reeded Ceiling 2 Location and Detail

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OASIS ID: cambridg3-130341

Project details

Project name	The Old Bishop's Palace, Ely
Short description of the project	On the 2nd of December 2010 and between the of1st November 2011 and the 30th of April 2012 a programme of archaeological monitoring and recording was carried out at the Old Bishop's Palace, Ely, a Grade I listed building. The program was focused on monitored below ground excavations during renovation work however the opportunity was also taken to record significant features revealed in the standing building. Much of the work did not impact significantly upon below ground archaeological deposits but medieval/early post-medieval walls and rubbish pits were discovered in Courtyard 1.
Project dates	Start: 02-12-2010 End: 30-04-2012
Previous/future work	Yes / Not known
Any associated project reference codes	PAL 11 - Sitecode ECB3851 - HER reference No.
Any associated project reference codes	11/00512/FUL - Planning Application No.
Type of project	Recording project
Site status	Listed Building
Current Land use	Other 2 - In use as a building
Monument type	EPISCOPAL RESIDENCES Medieval
Significant Finds	POT Post Medieval
Significant Finds	BONE Post Medieval
Significant Finds	HUMAN BONE Medieval
Investigation type	"Recorded Observation","Watching Brief"
Prompt	Direction from Local Planning Authority - PPS

Project location

Country	England
Site location	CAMBRIDGESHIRE EAST CAMBRIDGESHIRE ELY Old Bishop's Palace
Postcode	CB7 4EW
Study area	454.00 Square metres
Site coordinates	TL 553980 280255 51 0 51 55 42 N 000 15 37 E Point
Height OD / Depth	Min: 20.00m Max: 20.00m

Project creators

Name of Organisation	Cambridge Archaeological Unit
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Alison Dickens

Project director/manager	Alison Dickens
Project supervisor	Hayley Roberts
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Gss Architecture/The Kings School Ely

Project archives

Physical Archive recipient	Cambridge Archaeological Unit
Physical Archive ID	PAL 11
Physical Contents	"Animal Bones", "Ceramics", "other"
Digital Archive recipient	Cambridge Archaeological Unit
Digital Archive ID	PAL 11
Digital Contents	"other"
Digital Media available	"Images raster / digital photography","Survey","Text"
Paper Archive recipient	Cambridge Archaeological Unit
Paper Archive ID	PAL 11
Paper Contents	"other"
Paper Media available	"Context sheet","Map","Notebook - Excavation',' Research',' General Notes","Plan","Report","Section"

Project bibliography 1

	Grey literature (unpublished document/manuscript)
Publication type	
Title	THE OLD BISHOP'S PALACE, ELY, CAMBRIDGESHIRE Archaeological Monitoring and Recording
Author(s)/Editor(s)	Roberts, H.
Other bibliographic details	CAU Report No. 1103
Date	2012
Issuer or publisher	Cambridge Archaeological Unit
Place of issue or publication	Cambridge
Description	Slim A4 wire bound.
Entered by	Hayley Roberts (hr270@cam.ac.uk)
Entered on	13 July 2012



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