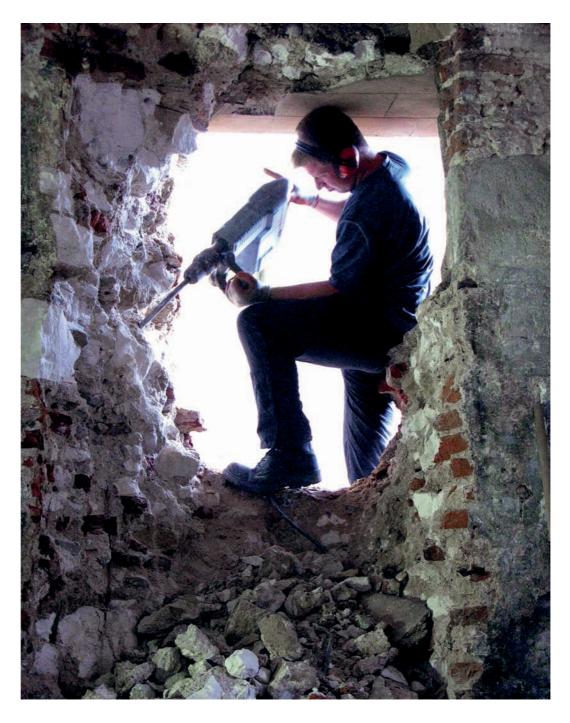
Trinity College Porter's Lodge, Cambridge

An Architectural and Archaeological Investigation



Richard Newman

CAMBRIDGE ARCHAEOLOGICAL UNIT UNIVERSITY OF CAMBRIDGE



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University of Cambridge February 2012 Report No. 1059

Event Number: ECB 3730

Summary

An architectural and archaeological investigation was undertaken in July 2011 within the Porter's Lodge of Trinity College, Cambridge, in advance of its refurbishment. Two categories of evidence were encountered during the course of this work. Architecturally, several elements of the Great Gate's primary, late 15th century fabric were identified. These included two substantial, clunch-built fireplaces along with two internal doorways. In addition, numerous later additions and alterations to the building's fabric were also recorded. Archaeologically, a range of features and deposits were investigated. In the first instance, associated with the initial construction of the Porter's Lodge in c. 1490 was the footing for an internal dividing wall and an extensive make-up/levelling deposit. Beneath the latter, the rubble-built footing of a timber-framed building was also encountered. This represents a vestige of the final phase of pre-collegiate occupation at the site.

Introduction

An architectural and archaeological investigation was undertaken by the Cambridge Archaeological Unit (CAU) within the Porter's Lodge of Trinity College, Cambridge, between the 6th to the 25th of July 2011. The site, which is centred on TL 4479 5865, is located in the historic core of the town, close by the river Cam (see Figure 1). The lodge itself is situated on the ground floor of the northern wing of the College's Great Gate, which comprises a Grade I listed structure (listed on the 26th of April 1950). Prior to the commencement of the investigation, an area of floor measuring 40m² was removed by the principal contractor and the walls were stripped to facilitate recording. The project followed the specification issued by the CAU (Dickens 2011) and was monitored by Jonathan Hurst, Senior Conservation and Design Officer at Cambridge City Council's Historic Environment Team. The work was commissioned by Trinity College, Cambridge, as part of the refurbishment of the Porter's Lodge.

Landscape and Topography

Trinity College's Great Gate is situated on the eastern side of Great Court, the largest of the college's three principal courts, where it forms the main entrance to the college. Geologically, the gateway is situated upon the former northwest floodplain of the river Cam (British Geological Survey 1976). Here the underlying second terrace river gravels slope markedly to the west, dropping from 7.65m OD close to Trinity Street to 4.45m OD nearby the river. Prior to the commencement of the investigation, the floor of the Porter's Lodge lay at 8.62m OD. This is somewhat lower than the present external ground level, which lies at *c*. 9.2m OD close to Trinity Street. As a result, a ramp was formerly provided to facilitate access to the lodge.

Methodology

During the course of the investigation, modern deposits and overburden – including layers of concrete and concrete-covered service ducts – were broken out and removed by the principal contractor. The interior walls were also stripped of fixtures, plaster and render. All archaeological layers and features were then cleaned by hand and recorded using the CAU-modified version of the MoLAS single context recording system (Spence 1994). A limited number of hand-dug slots were also excavated in order to characterise the nature of the deposits. Base plans were drawn at a scale of 1:20, whilst elevations and sections were drawn at a scale of 1:10. The photographic archive for this site consists of a series of digital images. Within the text, context numbers are indicated by square brackets (e.g. [001]) and feature numbers are denoted by the prefix F. (e.g. F.01). All work was carried out with strict adherence to Health and Safety legislation, and within the recommendations of FAME (Allen & Holt 2010). The sitecode for this project is TCG 11.

Historical and Archaeological Background

The historical and archaeological background of the site has been covered in depth in a number of recent reports (e.g. Newman 2011; Newman 2012), whilst the wider background of Cambridge is reviewed in several published sources (e.g. Cam 1959; Lobel 1975; Bryan 1999; Taylor 1999). This information is not therefore reproduced here in full. Nevertheless, it is necessary to briefly outline the background of the area in order to place the site securely within its wider context.

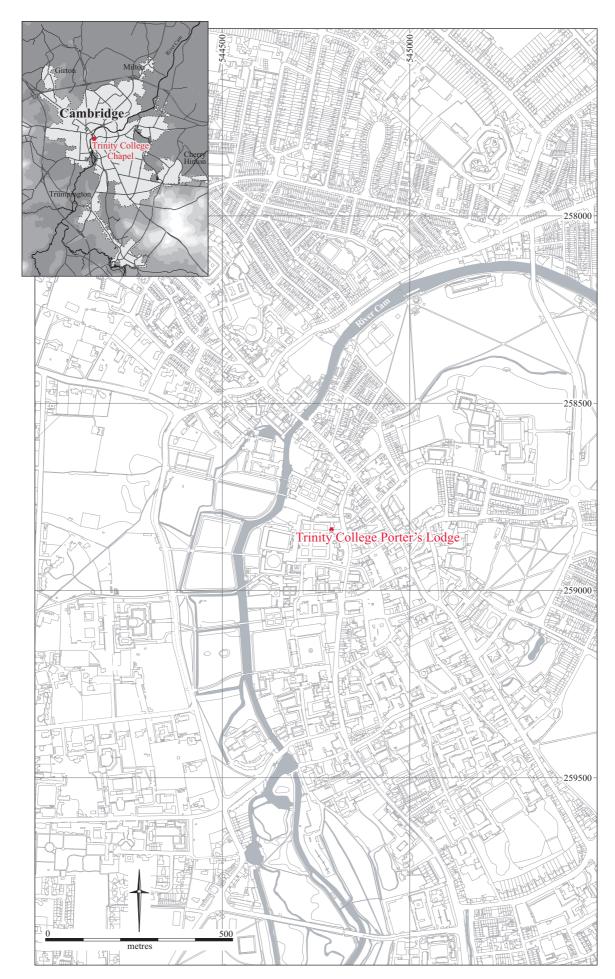


Figure 1. Site location

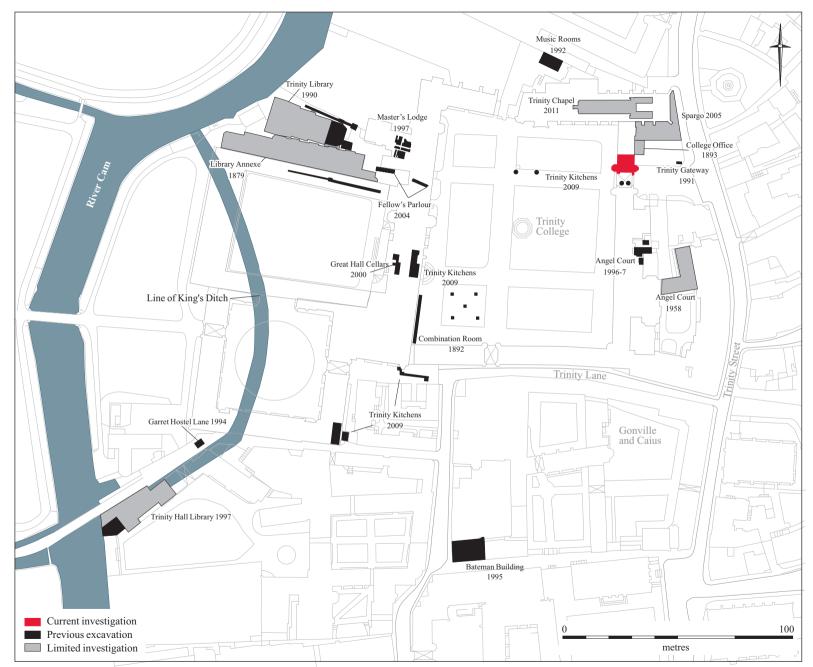


Figure 2. Previous archaeological investigations adjacent to Trinity College's Great Gate

During the Roman period a limited degree of activity is known to have taken place in the vicinity. Perhaps most pertinently, an antiquarian note exists of 'Roman pits' being encountered "beneath Trinity College, close to Garret Hostel Lane" (Evans in Alexander & Pullinger 1999, 259). In addition, further Roman features have been excavated to the north, at the Chapel Court and Master's Garden of St. John's College (Dickens 1996, 4-8), and to the south, at the Bateman Building, Gonville & Caius College (Alexander 1995). During the succeeding Early-Middle Saxon period, however, the area reverted back to being an active floodplain with evidence of regular seasonal inundation. At this time the principal focus of settlement was centred further to the north, in the Castle Hill area (see Cessford with Dickens 2005; Cessford et al. 2007), and very little activity appears to have taken place to the south of the river. Indeed, right up until the mid 10th century, the town remained only a small "economically viable backwater" (Hines 1999, 136). Following this date, however, it emerged as a significant urban centre. By the late 10th century a mint had been established (Lobel 1975, 3) and Cambridge was being linked to a group of important trading centres including Norwich, Thetford and Ipswich (Fairweather 2005), thereby emphasising the central role played by river trade in its rapid economic growth. This prosperity led to a period of rapid expansion, beginning in the 11th century, during which a series of churches were established along the length of what was to become the medieval High Street – now Trinity Street/King's Parade (Cam 1959, 123-32; Addyman & Biddle 1965, 94-6). Work also began on draining the adjoining marshland beside the river, where a series of hythes, barge-pulls and quays were created. Thus, by the beginning of the 13th century, Cambridge had emerged as the leading entrepôt in the county, through which goods and services were disseminated to many of the surrounding regional towns (Cam 1934, 43; Leader 1988, 11).

Within the present area of investigation, documentary sources reveal that by the early 14th century a number of relatively high-status domestic properties had been established. The area of the Porter's Lodge lay at this time within the property of one Edmund de Walsyngham, for example, whilst immediately to the south was situated the large house of Robert de Croyland (Willis & Clark 1886 II, 420-3). In 1336, this latter property was purchased by Edward III in order to provide accommodation for the society of King's Hall – a training school for royal clerks and bureaucrats that had been founded by Edward II in 1317 and was raised to the status of a college in 1337 (RCHM(E) 1959 I, 209; Cobban 1969). In addition, situated a short distance to the southwest of King's Hall was the college of Michaelhouse, which had been founded by Hervey de Stanton in 1324 (Willis & Clark 1886 II, 389-402; see also Stamp 1924; Brand 2004; Loewe 2010). Over time, these two institutions gradually expanded to occupy much of the surrounding area. Significantly, in 1339 the properties lying between King's Hall and the High Street – including the present area of investigation - were purchased by the adjacent college (Willis & Clark 1886 II, 423). Subsequently, in c. 1490, construction began on the site of King's Hall's new gate tower and porter's lodge (RCHME 1959 I, 215-7). This work proceeded episodically until 1535, when the extant Great Gate was completed. Shortly afterwards, however, in 1546, both King's Hall and Michaelhouse were dissolved by King Henry VIII. The majority of the pre-existing buildings at the site were then demolished and Trinity College was founded upon their remains (Willis & Clark 1886 II, 389; RCHM(E) 1959 I, 209-10; see also Trevelyan 1943). The Great Gate itself was retained, having been suitably altered to serve the new institution.

A number of archaeological investigations have previously been undertaken in relatively close proximity to the Porter's Lodge (Figure 2). In the first instance, archaeological material was recovered in 1893 during building works associated with the college office situated between the Great Gate and the chapel. Here "numerous fragments of pottery were unearthed, consisting, for the most part, of handles and other portions of jugs, such as have generally been supposed to date from the thirteenth to the fifteenth century" (White 1894, 297). Nearby, a core sampling survey was also conducted outside the eastern end of the college chapel in 1998. This was undertaken in order to locate Sir Isaac Newton's private laboratory, which is thought to have been situated in this vicinity (Spargo 2005). But, although made-ground was identified to a depth of c. 1.05m+, no further archaeological results were obtained. Within the quire of the chapel itself, an archaeological investigation was conducted in 2011 during the instillation of a new underfloor heating system (Newman 2012). This revealed evidence of the original layout and appearance of the quire, including a minimum of three associated burials, but no deposits predating c. 1560 were encountered. By way of contrast, however, a small trench that was excavated in close proximity to Trinity College's gateway in 1991 revealed evidence of 11th/12th century occupation (Evans 1991). A post-in-trench built structure was initially present in this location, which was abandoned during the 13th century. Finally, additional investigations - situated elsewhere within the college grounds - have also been conducted at Trinity Library Bookstore in 1989-90 (Cessford in prep.), within the College Music Rooms in 1992 (Miller 1992), at Angel Court in 1958, 1996 and 1997 (Addyman & Biddle 1965; Regan 1996; Regan 1997), within the basement of the Master's Lodge in 1997 (Alexander 1998), within the Great Hall Cellars in 2000 (Hall 2000), at the Fellow's Parlour in 2004 (Webb 2004) and within Trinity Kitchen Cellars in 2009 (Newman 2011). Where relevant, the results of these various investigations will be discussed in detail within the main body of the report.

Results

Two principal forms of evidence were encountered during the recent investigations. The first of these was architectural in nature and comprised the recording of several extant elements of the building's original fabric, including internal features such as fireplaces and doorways. The second, in contrast, consisted of the investigation of a series of archaeological features and deposits that were encountered beneath the old floor level during the instillation of additional services. The locations of these various investigations are shown in Figure 3, and the two categories of evidence are considered separately below.

I) Architectural Recording

As part of the refurbishment process, several areas of wall within the Porter's Lodge were stripped of their fixtures, fittings and plaster. During the course of this work, two areas of particular significance were recorded. The first of these comprised the southern wall of the room, where a new doorway was to be inserted. The second consisted of part of the building's eastern wall, located in the northeast corner of the lodge. In both of these locations, a detailed elevation drawing was compiled. In addition, several features of interest were recorded elsewhere within the room. These are also reported upon below. Within the following account, architectural terminology follows Lever & Harris (1993).

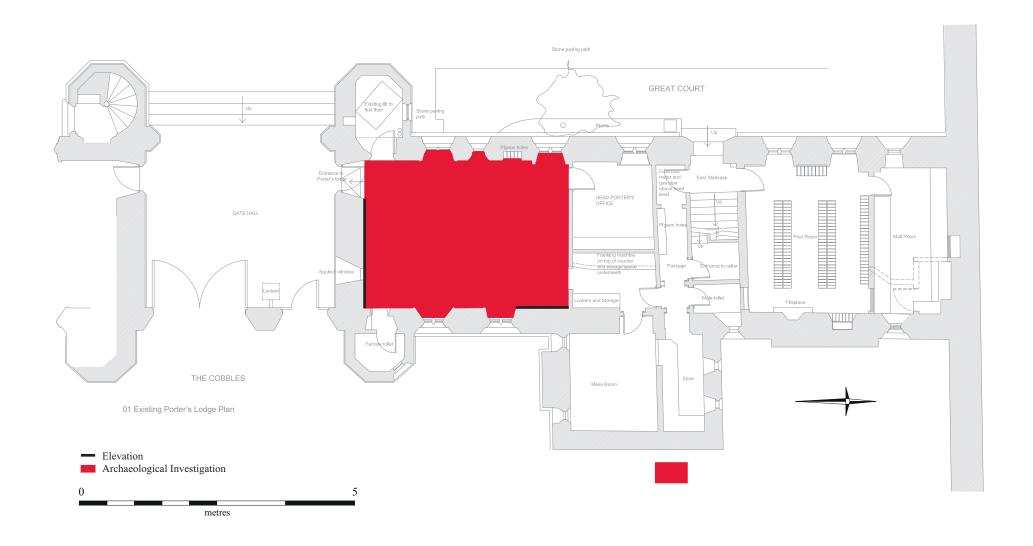


Figure 3. Area of excavtion and location of elevations on the existing Porter's Lodge plan (provided by Donald Insall Associates Limited)

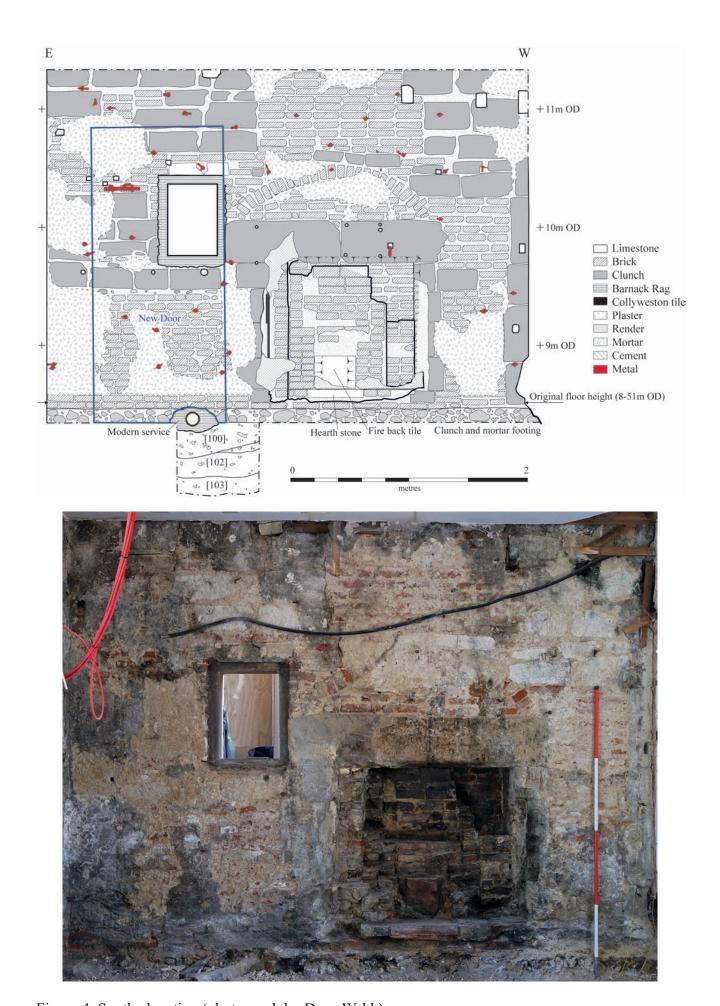


Figure 4. South elevation (photograph by Dave Webb)

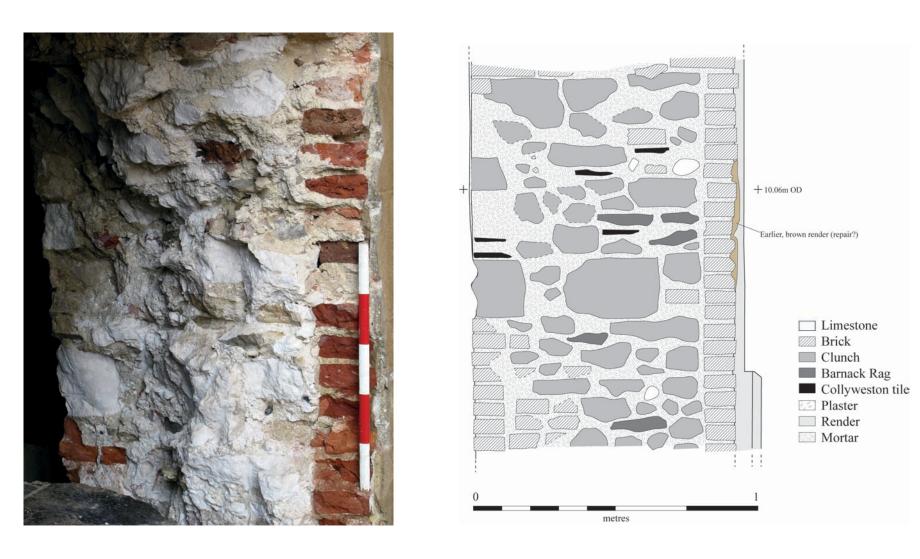


Figure 5. Cross-section of the south wall of the Porter's Lodge

Southern Elevation

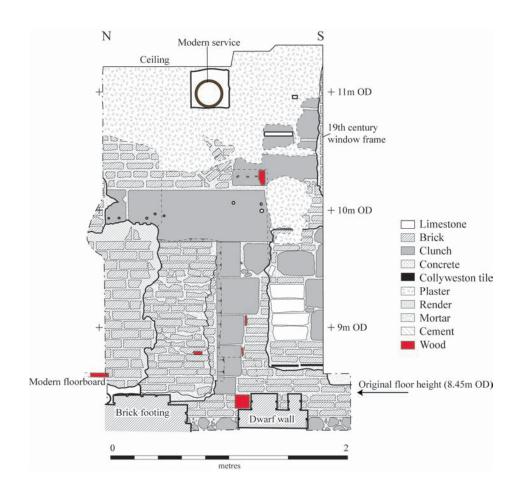
Within the south wall of the Porter's Lodge a large, late 15th century clunch-built fireplace was identified (Figure 4). It had a square lintel, composed of two large grev clunch blocks, and plain stop-chamfered decoration. Although the fireplace's primary fabric – most especially its jambs – had been partially truncated by later structural additions and alterations, its internal dimensions originally measured 1.18m high by 1.22m wide (c. 4 feet square). Its base lay at 8.51m OD, and this appears very likely to represent the room's original floor height. Lying immediately above the fireplace's lintel was a single-skin brick-built relieving arch. This comprised an integral element within a substantial brick-built chimneybreast that was composed of dark brownish red handmade bricks, measuring 220mm by 110mm by 50mm on average, which had been bonded with pale cream lime mortar. The exterior portion of the chimney's flue measured 1.4m wide. This chimney, along with its associated fireplace, appears to have comprised one of the first elements of the building to have been constructed. Flanking it to both east and west, the lowest portions of the south wall – which were constructed upon a mortared clunch rubble foundation that lay at 8.47m OD consisted of fifteen regular courses of whole and half bricks. Above this point, however, irregularly coursed squared clunch blocks had also been employed; these blocks, which were intermixed with patches of brickwork, measured c. 0.4m by 0.2m by 0.2m on average. The majority of this latter material appears to have been laid in a 'best-fit' manner against the more regularly constructed chimneybreast. In addition, demarcating the western edge of the elevation, a series of clunch quoins were present. These represent the eastern limit of the embrasure for the original south doorway, which provided access to the room via the Great Gate.

Significantly, as part of the present refurbishment works a second doorway was inserted into the south wall. Situated towards its eastern end, this new opening was carefully positioned so as to avoid the clunch-built fireplace (Figure 4). In the resultant cross-section (Figure 5), it is apparent that the core of the wall was composed of mortared clunch rubble. To the south, within the interior of the gate-hall, the wall was originally faced with a single-skin of brick. Post-dating the primary build, three distinct episodes of later infilling were identifiable within the fireplace itself. In the first instance, its internal dimensions were partially reduced at some time during the 17th or 18th century via the introduction of brickwork against both its east and west jambs. At this time, a single-skin and a double-skin respectively of lime mortared mid pink and yellow handmade bricks – measuring 220mm by 110mm by 50mm in extent – were inserted. This reduced the fireplace's internal width by almost a third, to 0.84m (c. 2 \(^3\)/4 feet). Subsequently, during the mid to late 19th century, more extensive changes were undertaken. At this time, an angled flue was inserted along with an associated smoke shelf situated at the rear of the fireplace. This was constructed from mid pink and yellow machine-made frogged bricks, measuring 220mm by 110mm by 60mm in extent, which were bonded with coarse yellow sandy mortar. A hearthstone was also introduced, the top of which lay at 8.63m OD. The size of the active fireplace during this period is represented by a precast fireback tile, bearing the impressed legend '15 HIGH – MEDIUM', that measured 0.34m by 0.28m in extent. This represents a dramatic reduction in the fireplace's extent from its previous dimensions. Finally, the entire opening was blocked up, most probably during the mid 20th century. This blocking consisted of modern machine-made frogged pinkish yellow bricks, measuring 230mm by 110mm by 70mm in extent, that were bonded with portland cement. A gas fire was then placed in front of the former fireplace, and this was in turn replaced by a radiator in the late 20^{th} century.

Covering the original fabric of the south wall was a single layer of off-white plaster that contained occasional to frequent horsehair inclusions. This appears to have comprised part of the original interior decoration of the building. Subsequently, however – most probably during the 17th or 18th centuries – a series of timber batons were affixed to the wall. These vertical struts, which were situated between 0.3m to 0.4m apart, were held in place by hand-forged leaf-shaped pins. It is possible that this studwork was originally associated with the introduction of timber panelling to the room. Evidence of extant 18th century fielded panelling is certainly present further to the north, on the ground floor of the east range (RCHM(E) 1959 II, 217). Although no trace of any such panelling remained present within the area of investigation, it is clear that this room had been refurbished on at least one previous occasion. In addition to the timber batons, numerous small localised truncations were also identified (Figure 4). These relate to a palimpsest of fixtures and fittings that had previously been appended to the wall. Perhaps the most readily identifiable of these additions was the evidence for a probable mantelpiece or fire surround that had once been affixed above the clunch-built fireplace. A more substantial, 20th century alteration comprised the introduction of a concrete-lined squint, or observation window. This had been inserted immediately to the east of the fireplace, and was entirely removed by the new doorway (Figure 4). Finally, the cut for a modern service was also identified; this had been inserted through the building's original footing.

Eastern Elevation

In the northeast corner of the Porter's Lodge, a second clunch-built fireplace was identified (Figure 6). Although this had been heavily disturbed by later truncations, it is clear that it was originally almost identical in terms of both its form and constituent materials to its southern counterpart. It also had a square lintel and plain, stopchamfered decoration. In contrast to the previous example, however, it appears that this eastern fireplace was originally somewhat larger. Internally, it measured 1.28m (c. 4 feet) in height – an increase of 0.1m – and c. 1.5m (c. 5 feet) in width – an increase of c. 0.28m. Similarly, whilst it also had a highly comparable brick-built relieving arch above its lintel, in this instance it was of double-skin as opposed to single-skin construction. Unfortunately, fewer details of the original fabric surrounding the fireplace could be discerned in this location. This is attributable to a combination of both the smaller scale of the exposure and the much higher incidence of later modifications and truncations. Nevertheless, it appears that the chimneybreast was again brick-built and that the lower courses of the wall also predominately consisted of brick. These materials were entirely consistent with the brickwork that was previously recorded in association with the southern elevation. Furthermore, a near identical mortared clunch footing was also identified. This lay 0.23m lower here than to the south, however, at 8.24m OD. Similarly, the original floor height also appears to have been somewhat lower, lying at 8.45m OD as opposed to 8.51m OD. This evidence, allied with the presence of the two substantial fireplaces themselves, strongly implies that an internal room division was originally present someway to the south of the eastern elevation. This impression is further reinforced by the absence of later timber studwork in this location. In direct contrast to the southernmost wall of the lodge, a minimum of three successive coats of plaster had been applied in this area.



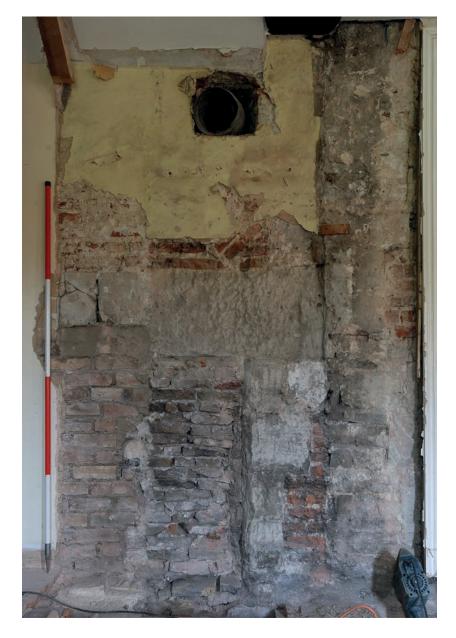


Figure 6. East elevation (photograph by Dave Webb)

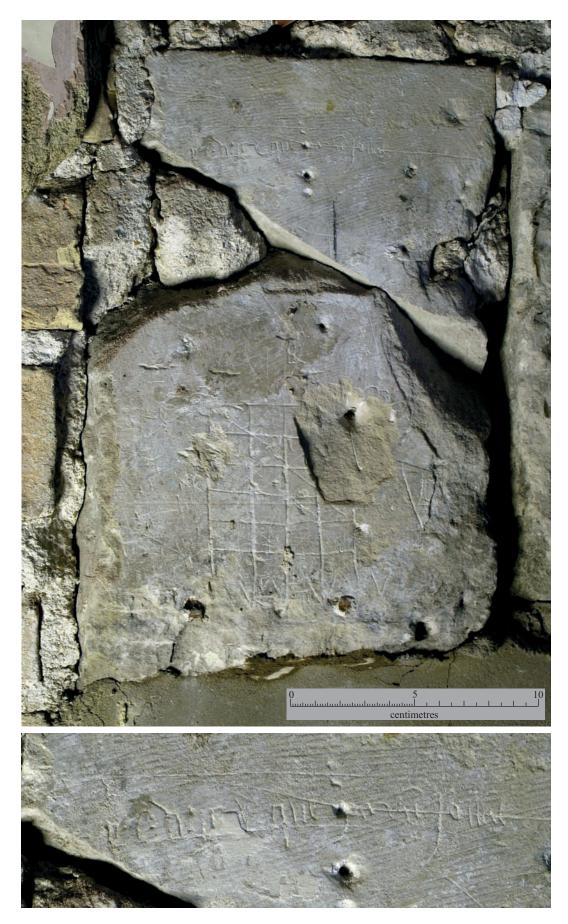


Figure 7. Details of the grafitti on the fireplace lintel

A large number of alterations and modifications to the original fabric were identifiable in this elevation. Two separate phases of blocking were evident within the fireplace, for example. The first of these consisted of lime mortared pale pink and pinkish yellow handmade bricks, measuring 220mm by 110mm by 50mm on average, which had been set at an angle of forty-five degrees. This material appears to have been used to partially infill the hearth, thereby diminishing its area. Subsequently, the opening was blocked-up entirely using almost identical bricks. Based upon the nature of their constituent materials, these events most probably occurred at some time during the 17th to 18th centuries. That the fireplace had previously been in use for some time is attested by the quantity of graffiti that was identified upon the remnant of its northern lintel (Figure 7). Here, a palimpsest of designs was present. Although heavily truncated, a probable gaming board and an (illegible) inscription can be discerned, along with numerous primary claw-chisel tooling marks (Figure 7). No graffiti was evident upon the southern lintel, but this area had been pecked-back relatively recently to allow a rectangular feature to be appended to the wall (Figure 6). Immediately to the south of the fireplace, a relatively early rebuild was identified. Situated beneath the extant – but replaced – double lancet window, a portion of the wall had been reconstructed using an admixture of oolitic limestone, clunch, handmade red brick and Collyweston stone tile. This rebuild most probably occurred during the 16th or 17th centuries, and may have been associated with an alteration to the window embrasure. In addition, immediately above this area a second, mid 19th century rebuild was present. Composed of lime mortared mid yellow machine-made bricks, measuring 220mm by 110mm by 60mm in extent, this latter addition was most probably associated with the widespread refurbishment of the building's eastern façade that is known to have occurred in 1856 (RCHM(E) 1959 II, 217).

Notably, many - if not all - of the windows in the Porter's Lodge appeared to have been reset or replaced at some time in the past. Unfortunately, in most instances their associated wooden frames remained in situ, thereby rendering detailed investigation of their settings impossible. Nevertheless, it is likely that the majority of these alterations took place during one of two documented episodes of large-scale refurbishment; the first of these, previously referred to above, took place in 1856, and the second – which was associated with the building's western facade – in 1935 (RCHM(E) 1959 II, 217). The truncation of the northern half of the eastern clunchbuilt fireplace was most probably associated with the former event. At this time, a small annexe was appended to the range's eastern façade. The southern wall of this annexe, which was again composed of lime mortared mid yellow machine-made bricks measuring 220mm by 110mm by 60mm in extent, appears to have been bonded into the original fabric at this point. Finally, a number of 20th century truncations were also identified. These included openings for two services that had been cut into the earlier fabric, and an extensive rebuild that was situated on the northern side of the elevation (Figure 6). Here, modern machine-made and frogged pinkish yellow bricks, measuring 230mm by 110mm by 70mm in extent, had been bonded with portland cement. This alteration is most likely to have been associated with the aforementioned service works.

Additional Features

In addition to the above elevations, a number of supplementary architectural features were recorded during the course of the investigation. In the first instance, two

doorways were revealed within the Porter's Lodge that comprised part of the building's original, late 15th century fabric. These gave access to the east and west turrets respectively (Figure 8). Previously heavily obscured, and moderately disturbed by later modifications – including the introduction of services through, and the imposition of a later rectangular doorframe to, the eastern doorway – additional details of their original design were uncovered during the refurbishment process. It is now apparent that the doorways were near-identical in form, each having a fourcentred arch and plain, stop-chamfered decoration. Furthermore, both were constructed from moulded clunch and had a brick relieving arch placed above their lintel (this feature was most clearly visible above the eastern doorway, Figure 8A). Thus, in terms of both their design and constituent materials, these doorways are closely comparable to the fireplaces discussed above. Similarly, the original doorway providing access to the Porter's Lodge, although now heavily restored (RCHM(E) 1959 II, 217), also has a four-centred head – albeit with continuous as opposed to stop-chamfered jambs. A number of small disparities were apparent between the two internal doorways themselves, however. The eastern doorway was 0.1m taller than its opposite, for example, measuring 1.9m (c. 6 \(\frac{1}{4} \) feet) internally as opposed to 1.8m (c. 6 feet); although both had a consistent width of 0.79m (c. 2 ½ feet). But perhaps most significantly, the threshold of the eastern doorway lay at 8.79m OD. This is 0.18m higher than that of its western counterpart (which lay at 8.61m OD), and 0.28m above the base of the southern fireplace (which lay at 8.51m OD). As such, it appears likely that a step was originally required to gain access to these two areas.

Almost immediately to the north of the investigated area, a further feature of the original building was identified. This was located within the small annexe that was appended to the range's eastern façade in 1856 (RCHM(E) 1959 II, 217). In order to provide access to this area, a doorway was cut through a pre-existing window (Figure 9). Although now heavily painted over, it is nevertheless apparent that the window had simple moulded jambs and a square head. It was also markedly abraded, indicating that it had been exposed to the elements for many years. This evidence, allied with the fact that its design is consistent with the Late Perpendicular scheme of the remainder of the building, strongly suggests that it comprised part of the original late 15th century fabric. As a result, therefore, it is clear that when the remaining windows of the eastern façade were replaced in 1856 they faithfully reproduced the original mouldings. But this in itself raises an interesting conundrum. Further to the south, between the eastern turret door and the southernmost window in the eastern wall, one final feature was identified. This consisted of an arched opening that had been roughly cut into the original fabric (it is visible in Figure 8A). It measured 1.20m high (c. 4 feet) and its sill lay at 9.80m OD. The exact purpose of this opening is unclear, however. On the one hand, the recess would probably been of sufficient dimensions to allow the instillation of a small, single lancet window. But, conversely, it is situated immediately adjacent to – and is indeed partially obscured by – an extant double lancet window. Although the present example represents a mid 19th century replacement, a near identical window was certainly present in this location by 1688 and this had in all probability comprised part of the original late 15th century design. Furthermore, the recess is also located at the junction of the eastern turret to the main façade. This renders the fabric thicker here than at any other point along the wall's length. As a result of these factors, therefore, the opening appears most likely to have functioned as a small niche or alcove as opposed to a window. Its precise use remains unclear.



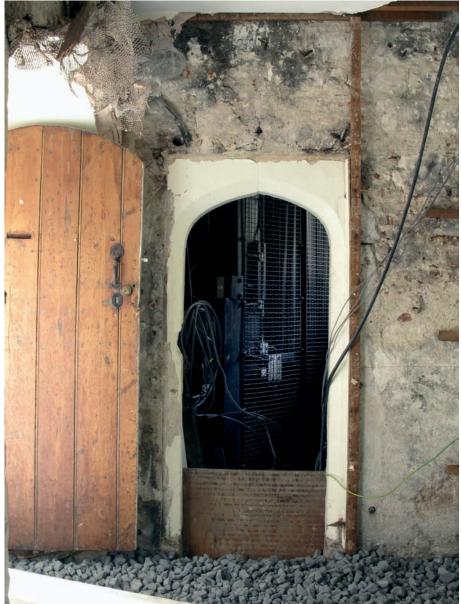


Figure 8. Interior turret doorways on the east (left) and west (right) sides of the Porter's Lodge



Figure 9. Remnant of blocked late 15th century window, facing south

II) Archaeological Investigations

In addition to the architectural recording reported upon above, small-scale archaeological investigations were also undertaken both internally and externally during the refurbishment of the Porter's Lodge (Figure 10). In both of these locations, however, the limited scale of the associated works precluded in-depth archaeological excavation. Instead, the exposed deposits were predominately cleaned and recorded *in situ* prior to being reburied. Internally, an extensive levelling/make-up deposit was identified, along with the remnant of a rubble-built sill wall that comprised part of a pre-collegiate timber-framed building. In addition, the footing of an internal dividing wall – which was most probably associated with the original build of the Great Gate – was also present. Externally, a series of deposits were recorded that relate to a long-lived sequence of garden-related activity.

Internal Remains

Within the interior of the Porter's Lodge, the modern floor surface and its associated make-up deposits were removed by the principal contractor prior to the commencement of the investigation. The area was then cleaned, revealing in the first instance an extensive, homogenous layer. In order to characterise the nature of this deposit, a small test pit – measuring 0.7m by 0.7m in extent and 0.55m in depth – was excavated in close proximity to the south wall (see Figure 10). This revealed a sequence of five successive layers (which are shown in Figure 4). The two uppermost deposits – [100] and [101], whose upper surface lay at 8.35m OD – consisted of make-up/levelling material. These layers appear most likely to have been associated with the initial construction of the Great Gate in the late 15th century. Beneath them, three further deposits – [102], [103] and [104] – were identified. Each of the latter contained moderately large assemblages of animal bone and shell, along with sherds of 15th century pottery. This suggests that they may have been pre-collegiate in origin, and were potentially associated with the earlier domestic sequence in this area.

Layer [100] comprised a relatively loose deposit of mid grey silty clay with occasional to frequent sub-angular gravel inclusions. It measured 0.25m thick, and contained 15th century pottery. Associated with this deposit was layer [101], which comprised a 0.05m thick band of loose yellowish grey sandy mortar. Beneath these deposits, layer [101] comprised a relatively firm deposit of mid brownish grey silty clay with occasional lenses of mottled reddish grey clay. It contained moderately frequent sub-angular gravels, along occasional charcoal fleck, animal bone and oyster shell inclusions, and measured 0.22m thick. This in turn overlay [103], a relatively firm deposit of mid grey silty clay that measured 0.17m thick. It contained occasional mottled patches of orangey brown sandy gravel and frequent whelk, mussel, oyster shell and animal bone inclusions. Finally, excavation was halted at the upper surface of layer [104]. This consisted firm pale creamish grey silty clay that may potentially have comprised a deliberately laid surface.

A short distance to the north, 'L-shaped' foundation remnant **F.101** was identified. This was composed of un-mortared masonry fragments intermixed with rounded cobbles and measured 2.32m+ east-west by 0.96m+ north-south (Figure 10; Figure 11A). It constituted the footing for a timber sill beam, the basal element of a timber-framed building. Unfortunately, the original form and extent of this building is unclear due to the extent of later, college-related truncation. Nevertheless, given its location at some distance from the street frontage, it appears most likely to have been ancillary in nature. The uppermost surviving element of the foundation lay at 8.18m OD.

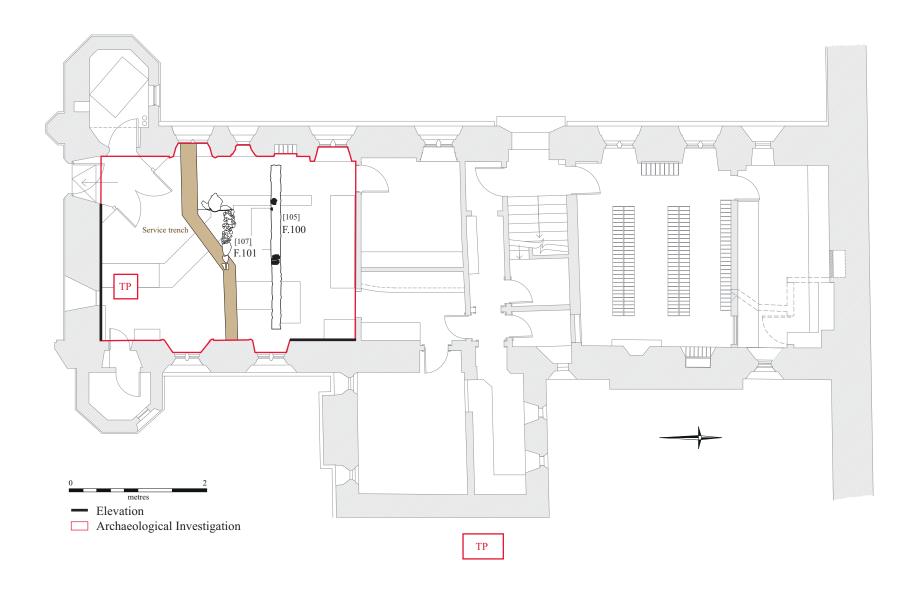


Figure 10. Location of archaeological features on the existing Porter's Lodge plan (provided by Donald Insall Associates Limited)



Figure 11. Views of stone-built foundation F.101 (top left), mortared tile foundation F.100 (top right), and clay sill pad F.102 (bottom)

As part of the refurbishment works, a narrow service trench was excavated through **F.101**. This provided an opportunity to examine the building's composition in greater detail (Figure 11C). Firstly, within its interior, a layer of clay-rich foundation material was present ([108]). This overlay a dump of probable levelling/make-up material – [109] – which in turn sealed an earlier structural phase. Running parallel with, but adjacent to as opposed to directly beneath, later masonry foundation **F.101** was dense clay sill pad **F.102**. This comprised the footing for a preceding phase of timber structure.

Foundation F.101 comprised unmortared footing [107]. This was composed of a single surviving course of large unworked limestone blocks, measuring a maximum of 0.54m by 0.41m in extent, along with rounded cobbles that averaged 0.1m in diameter. A single fragment of dressed limestone ashlar was also present. Internally, foundation layer [108] was associated with this final phase of the building. It consisted of a firm but friable deposit of mid greyish brown clay silt, containing mottles of dense mid brownish grey clay and occasional mortar fleck inclusions, which measured 0.12m thick. Beneath this, levelling/make-up layer [109] was identified. This consisted of a 0.1m thick deposit of friable mid greyish brown sandy clay silt, with occasional to frequent sub-angular gravel inclusions. In contrast, however, foundation F.102 - which represented part of the preceding phase of the building - was contained within east-west aligned linear cut [111]. This had moderately to steeply sloping sides rounding onto a flat base and measured 0.40m wide by 0.13m deep. It contained dense mid blue clay deposit [110], which had very few inclusions. Due to the limited scale of the exposure, no further details of this phase of the building's construction could be identified. Although no datable material culture was recovered, it is likely that one - or indeed both – of the buildings's identified phases were 15th century in date. Nevertheless, it is possible that earlier structural phases may have remained undisturbed by the present works.

The final internal feature to have been identified during the present investigation comprised linear east-west aligned foundation **F.100** (Figure 10; Figure 11B). In contrast to **F.101**, this latter feature was constructed from well-mortared Collyweston stone tile fragments. In addition, it overlay make-up/levelling deposit [100], thereby implying that it was most probably associated with the initial late 15th phase of the Great Gate as opposed to the earlier pre-collegiate sequence of domestic occupation at the site. As a result, **F.100** appears very likely to have comprised the footing for an internal dividing wall. Indeed, its location is entirely consistent with the room division previously postulated above. The wall itself was most probably removed during Great Gate's extensive mid 19th century refurbishment.

Foundation **F.100** comprised mortared footing **[105]**. This measured 4.22m+ by 0.26m in extent, and survived to a maximum height of 0.07m; its uppermost extant element lay at 8.13m OD. Its constituent materials consisted of flat-laid Collyweston stone tiles and unworked limestone fragments that were bonded with dense pale yellow lime mortar (Figure 11B). It most probably functioned as the footing for an internal stud wall partition.

External Remains

A single external test pit was excavated as part of the refurbishment works. This was situated against the east wall of the eastern range's mid 19th century annexe (Figure 10). The test pit – which measured 1.1m by 0.8m in extent, and 1.0m in depth – was inserted in order to ascertain the depth of pre-existing services in this location. As a result, it was predominately excavated through modern backfill deposits, although a series of five *in situ* archaeological layers were identified in section. The majority of these deposits most probably relate to a long-lived sequence of horticultural and garden-related activity.

The uppermost surviving deposit comprised modern topsoil layer [200], which measured 0.18m thick. Beneath this, a late 20^{th} century cut feature – $\mathbf{F.200}$ – was identified. This measured 0.56m

wide by 0.3m deep. Its cut, [202], had steeply sloping sides leading to a relatively flat base and contained dark brown humic silt deposit [201]. This feature had truncated mixed greyish brown clay silt deposit [203], which contained occasional pale brown clay mottles; it measured 0.25m thick. Two sherds of residual medieval pottery, along with a decorated 17th/18th century clay tobacco pipe stem, were recovered from this layer. Underlying the deposit was mottled pale brown silty clay layer [204], which measured 0.22m thick. This contained dense off-white clay patches and rare gravel inclusions. It in turn overlay [205], a 0.26m thick deposit of firm mid to pale brown silty clay with rare gravel and charcoal fleck inclusions. Finally, the lowest layer to be encountered comprised mid to dark reddish brown clay silt deposit [206]. This contained occasional gravel inclusions and measured 0.16m+ thick (as it continued below the limit of excavation). In contrast to the layers which succeeded it – all of which appear to have comprised well-mixed dump/ground-raising deposits – this latter layer potentially represents the uppermost surviving element of the pre-collegiate sequence. It lay at 8.36m OD.

Material Culture

A relatively small assemblage of material culture was recovered during the investigations undertaken at Trinity College Porter's Lodge. The assemblage – which includes ironwork, pottery, clay tobacco pipe and animal bone – has been subdivided by material type and is discussed in detail below. None of the various materials recovered is of particular significance.

Ironwork (Richard Newman)

A moderately-sized ironwork assemblage was recovered during the recent investigations. This group included a near complete 15th century rowel spur and a number of post-medieval panel pins (Figure 12).

[100], <016>: A near complete rowel spur was recovered from the late 15th century levelling deposit associated with the initial construction of the Great Gate (Figure 12A). This measured 154mm by 102mm in extent, and weighed 93g. It had a relatively long shank and a six-pointed rowel.

[100], <015>: In addition to the above spur, a knife blade fragment was also recovered from the same late 15th century levelling deposit. This was triangular in section, and measured 77mm+ by 14mm in extent. It weighs 17g.

[113], <018>: Six iron panel pins were recovered from the south wall of the Porter's Lodge. These were used to affix timber batons onto the earlier fabric, and were extracted during the insertion a second doorway into the room. They are each hand-forged, and have a petal-shaped head that sits at right-angles to their square sectioned shaft (Figure 12B). The pins varied between 106mm and 154mm in length, and between 42g and 98g in weight. These pins are most probably 17th or 18th century in date.

Pottery (Richard Newman with Craig Cessford)

A small assemblage of pottery – comprising 14 sherds, weighing 129g – was recovered during the recent invo estigations. With the exception of two residual medieval sherds, this material was entirely recovered from the small test pit that was excavated close by the lodge's south wall. Although a small quantity glazed red earthenware and plain red coarseware was present within this group, fabrics that had their *flourit* during the 16^{th} and 17^{th} centuries, these sherds were exclusively recovered from made-ground deposit [100] (which most probably dates to c. 1490). In general, therefore, the assemblage is broadly consistent with a 15^{th} century date.

Fabric	Date	Count	Weight (g)	MSW (g)
Medieval Ely ware	13 th to 15 th century	1	27	27
Grimston ware	13 th to 14 th century	1	2	2
Grey coarseware	13 th to 15 th century	4	34	8.5
Essex red ware	14 th to 15 th century	2	11	5.5
Glazed red earthenware	16 th to 19 th century	2	45	22.5
Plain red coarseware	16 th to 19 th century	4	10	2.5
		14	129	9.2

Table 1: Trinity College Porter's Lodge pottery assemblage by type.





Figure 12. Late 15th century rowel spur (top) and 17th/18th century panel pins (bottom)

Clay Tobacco Pipe (Craig Cessford)

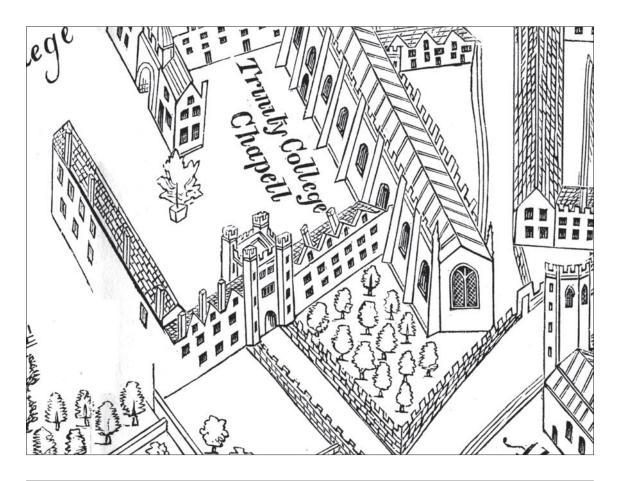
A single clay tobacco pipe stem fragment was recovered during the recent investigations. In general, the presence of clay tobacco pipe fragments in a context indicates a date between the late 16th to early 20th centuries (c. 1580-1910). Stem fragments are often undiagnostic, and cannot be used to refine this date range. In this particular instance, however, evidence of roller-stamped foliate decoration was identified. This indicates that the fragment, which was recovered from [203], is most probably 17th or 18th century in date.

Animal Bone (Richard Newman)

A moderately-sized animal bone assemblage – comprising 365 fragments, weighing 1591g – was recovered during the recent investigations. This was recovered from layers [100], [102] and [103], and is therefore most probably 15^{th} century in date. In general, the material was in a good state of preservation, although some of the pieces were fragmentary. The bone consisted of a range of elements that were derived from all of the major domesticated species. A small quantity of fish bone – comprising 9 fragments, weighing 3g – was also present.

Discussion

Due to the limited scale of the archaeological investigation that was conducted at Trinity College Porter's Lodge, no features definitely predating the 15th century were encountered. The earliest activity to have been identified at the site was represented by foundations F.101 and F.102. These footings comprised part of a timber-framed building that was most probably situated towards the rear of a property fronting onto the medieval High Street. Although this property is known to have come into the possession of King's Hall in 1339 (Willis & Clark 1886 II, 423), it most probably remained in domestic use until c. 1490. The structure itself, given its relatively marginal location, is likely to have been ancillary as opposed to residential in nature. The lower of its two identified structural phases lay at 7.98m OD. Based upon the results of a borehole survey that was conducted within the hall of the Great Gate in 2009 (Newman 2011, 91-3), this suggests that a minimum of 1.0m of deposits remained extant below the limit of excavation. Some indication of the nature of this preceding sequence can be obtained by examining the results of a small trench that was excavated at the Trinity College Gateway site in 1991 (Evans 1991; see Figure 2 for location). Here, at the head of what was probably the same medieval property, the earliest archaeological activity to be identified consisted of an 11th or 12th century timber building. Structurally, this was represented by a large posthole, measuring 0.9m by 0.26m in extent and 0.4m deep, which was situated in the base of a probable foundation trench (ibid., 2-3). The latter feature measured 0.45m wide and was aligned roughly perpendicular to the High Street. Within the interior of the structure successive bands of gravel make-up had been set down, each band being overlain in turn by a dense grey trampled silty clay deposit containing frequent charcoal inclusions (*ibid.*, 2-4). The building therefore appears to have been domestic in nature. Subsequently, during the 13th century, the structure was succeeded by a relatively sterile 'garden soil' type deposit (although this may alternatively a represent make-up or foundation deposit associated with a replacement structure). Several temporary gravel yard surfaces of 13th to 15th century date were then established, prior to the area becoming sealed beneath the bank of a formal college garden in 16th or 17th century (ibid., 3-4).



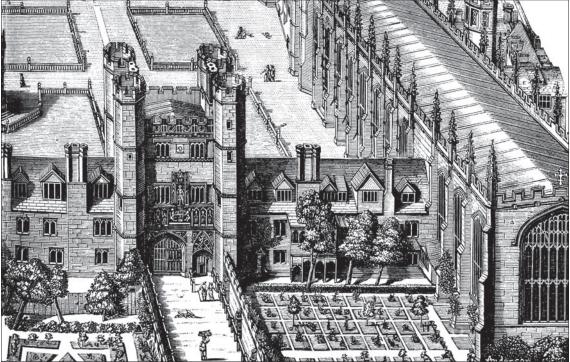


Figure 13. Views of the Great Gate by Hammond in 1592 (top) and Loggan in 1688 (bottom)

Construction of the Great Gate – or Magnam Turrim – most probably began in c. 1490 under the aegis of King's Hall (RCHME 1959 I, 215). At this time, records indicate that the college commenced work upon "a porter's lodge with walls and towers" (Willis & Clark 1886 II, 452). From 1490 to 1492, £158 was spent upon this building and payments for covering that part of the range containing the Porter's Lodge were made at the end of this period. An agreement with a carpenter for roofing was covenanted in 1495 (RCHME 1959 I, 215). By the time that work temporarily ceased in c. 1505, therefore, it is likely that the fireplaces and doorways recorded above were already in situ. The master-mason during this period was one William Swayn, 'lathamus', who was paid for the creation of doors and windows as well as the supply of stone (*ibid*.). Work recommenced on a limited scale in 1518, and in 1523 a carpenter named Buxton was paid £6 13s. 4d. for the instillation of new gates. "The building was now so far finished as to perform its office as a gateway. The tower above, which was to give dignity to the Royal College, was not so immediately required" (Willis & Clark 1886 II, 452). Indeed, work on the gate-tower was not renewed until 1528-29, when its upper storey and turrets were constructed (RCHME 1959 I, 215). The Great Gate was finally completed in 1535. The earliest surviving depiction of the gateway is that of John Hammond in 1592 (Figure 13A). His map shows the Great Gate in relation to Trinity College's newly constructed college chapel, which was completed in 1567, but prior to the creation of Great Court. Subsequently, in c. 1600, the statuary and coats of arms on the east and west fronts were updated to reflect the founders of the new institution (RCHME 1959 I, 216). A much more detailed depiction of the gateway was then compiled by David Loggan in 1688 (Figure 13B). This shows that during the 17th century a wooden *loggia* had been constructed in the area of the later 19th century annexe, and a formal garden laid out to the east. The deposits that were identified within the external test pit most probably relate to this period. A final and most interesting addition was made to the Great Gate in 1710-39, when an astronomical observatory was constructed between the turrets (Willis & Clark 1886 II, 500-01). This was subsequently demolished in 1797.

In sum, the investigations at Trinity College Porter's Lodge were successful in terms of identifying several extant elements of the building's original late 15th century design. Features pertaining to the layout of two separate rooms, including the location of their original sub-division, were recorded. The latter included two substantial but simply decorated clunch-built fireplaces, two simple stop-chamfered four-centre headed doorways and a weathered, square-headed window. This evidence indicates that, although well-constructed, the Porter's Lodge of King's Hall was relatively functional and unornamented. Overall, these results make a valuable contribution to the architectural history of a lost Cambridge college.

Acknowledgments

The project was commissioned by Trinity College, Cambridge, and was monitored by Jonathan Hurst, Senior Conservation and Design Officer at Cambridge City Council's Historic Environment Team. It was managed for the CAU by Alison Dickens. The investigations were directed by Richard Newman and were undertaken in the field with the assistance of Tony Baker and Dave Webb. The principal photography is by Dave Webb, and the graphics for this report were prepared by Vicki Herring.

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Oasis Form

	OASIS ID: cambridg3-120146			
Project Details				
Project name	Trinity College Porter's Lodge, Cambridge			
Short description of the project	An architectural and archaeological investigation was undertaken in July 2011 within the Porter's Lodge of Trinity College, Cambridge, in advance of its refurbishment. Two categories of evidence were encountered during the course of this work. Architecturally, several elements of the Great Gate's primary, late 15th century fabric were identified. These included two substantial, clunch-built fireplaces along with two internal doorways. In addition, numerous later additions and alterations to the building's fabric were also recorded. Archaeologically, a range of features and deposits were investigated. In the first instance, associated with the initial construction of the Porter's Lodge in c. 1490 was the footing for an internal dividing wall and an extensive make-up/levelling deposit. Beneath the latter, the rubble-built footing of a timber-framed building was also encountered. This represents a vestige of the final phase of pre-collegiate occupation at the site.			
Project dates	Start: 06-07-2011 End: 25-07-2011			
Previous/future work	Yes / Not known			
Any associated project reference codes	ECB 3730 - HER event no.			
Any associated project reference codes	TCG 11 - Sitecode			
Type of project	Building Recording			
Site status	Listed Building			
Current Land use	Other 2 - In use as a building			
Monument type	FIREPLACE Medieval			
Monument type	BUILDING FOUNDATION Medieval			
Significant Finds	ROWEL SPUR Medieval			
Methods & techniques	'Measured Survey','Photographic Survey','Survey/Recording Of Fabric/Structure'			
Prompt	Listed Building Consent			
Project Location				
Country	England			
Site location	CAMBRIDGESHIRE CAMBRIDGE CAMBRIDGE Trinity College Porter's Lodge, Cambridge			
Postcode	CB2 1TQ			
Study area	40.00 Square metres			
Site coordinates	TL 4479 5865 52.2066012524 0.119181100915 52 12 23 N 000 07 09 E Point			
Height OD / Depth	Min: 7.50m Max: 7.50m			
Project Creators				
Name of Organisation	Cambridge Archaeological Unit			

Project brief originator	Local Planning Authority (with/without advice from County/District Archaeologist)				
Project design originator	Alison Dickens				
Project director/manager	Alison Dickens				
Project supervisor	Richard Newman				
Type of sponsor/funding body	Developer				
Name of sponsor/funding body	Trinity College, Cambridge				
	Project Archives				
Physical Archive recipient	Cambridge Archaeological Unit				
Physical Archive ID	TCG 11				
Physical Contents	'Animal Bones','Ceramics','Metal'				
Digital Archive recipient	Cambridge Archaeological Unit				
Digital Archive ID	TCG 11				
Digital Contents	'Animal Bones','Ceramics','Metal'				
Digital Media available	'Images raster / digital photography','Text'				
Paper Archive recipient	Cambridge Archaeological Unit				
Paper Archive ID	TCG 11				
Paper Contents	'other'				
Paper Media available	'Context sheet','Photograph','Plan','Section'				
	Project Bibliography				
Publication type	Grey literature (unpublished document/manuscript)				
Title	Trinity College Porter's Lodge, Cambridge: An Architectural and Archaeological Investigation				
Author(s)/Editor(s)	Newman, R.				
Other bibliographic details	Cambridge Archaeological Unit Report Number 1059				
Date	2011				
Issuer or publisher	Cambridge Archaeological Unit				
Place of issue or publication	Cambridge				
Description	An A4 wire-bound document with plastic laminate cover. It is 30 pages long, and has 13 illustrations.				

URL	http://www.oasis.ac.uk
Entered by	Richard Newman (rn276@cam.ac.uk)
Entered on	27 February 2012